



Neutral Citation Number: [2010] EWHC 86 (TCC)

Case No: HT-06-311

**IN THE HIGH COURT OF JUSTICE**  
**QUEEN'S BENCH DIVISION**  
**TECHNOLOGY AND CONSTRUCTION COURT**

Royal Courts of Justice  
Strand, London, WC2A 2LL

Date: 26/01/2010

Before :

**THE HON. MR. JUSTICE RAMSEY**

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Between :

(1)BSkyB Limited	<b><u>Claimants</u></b>
(2)Sky Subscribers Services Limited	
- and -	
(1)HP Enterprise Services UK Limited	<b><u>Defendants</u></b>
(formerly Electronic Data Systems Limited)	
(2)Electronic Data systems LLC	
(Formerly Electronic Data Systems Corporation)	

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**Mr Mark Howard QC, Mr Alex Charlton QC, Mr Alec Haydon, Mr Fionn Pilbrow and Mr Matthew Lavy (instructed by Herbert Smith LLP ) for the Claimants**  
**Mr Mark Barnes QC, Mr Alan Gourgey QC, Ms Zoe O’Sullivan and Mr Stephen Tudway (instructed by DLA Piper ) for the Defendants**

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**Approved Judgment**

I direct that pursuant to CPR PD 39A para 6.1 no official shorthand note shall be taken of this Judgment and that copies of this version as handed down may be treated as authentic.

.....  
**THE HON. MR. JUSTICE RAMSEY**

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**The Hon Mr Justice Ramsey :**

**A: GENERAL BACKGROUND AND INTRODUCTION**

**Introduction**

1. The Claimants in these proceedings, British Sky Broadcasting Limited (“BSkyB”) and Sky Subscribers Services Limited (“SSSL”) provide satellite broadcasting and related services. The Defendants, Electronic Data Systems Limited (now HP Enterprise Services UK Limited)(“EDSL”) and Electronic Data Systems Corporation (now Electronic Data Systems LLC) (“EDSC”) provide Information Technology services.
2. There are issues as to the extent to which BSkyB can pursue claims and the extent to which EDSC has liabilities arising from the matters alleged in these proceedings. It is therefore generally convenient to refer to the Claimants in the neutral term “Sky” and the Defendants as “EDS” in this judgment as a general description of one or both of the Claimants or Defendants without entering into that particular debate when rehearsing and dealing with the facts and allegations.
3. This case is concerned with the procurement of a new customer relationship management (“CRM”) system so that Sky could provide improved service to its customers focussed, at least initially, on telephone contact between customers and the Customer Advisors (“CAs” also known as Customer Service Representatives “CSRs”) at Sky call centres.
4. Following a tender process in 2000, Sky selected EDS to design, build, manage, implement and integrate the process and technology for the CRM System. After an initial Letter of Intent, SSSL entered into a contract with EDSL (“the Prime Contract”) to provide the CRM System at Sky’s existing contact centres located at Dunfermline and Livingston.
5. The relationship was not a success. There was a renegotiation in 2001 which led to a Letter of Agreement. Then in 2002 Sky took over the performance of EDS’ role of Systems Integrator and a Memorandum of Understanding was signed. Sky alleges that EDS made fraudulent misrepresentations which led to EDS being selected, to a Letter of Intent and to the Prime Contract. They also allege that EDS made negligent representations prior to the Letter of Agreement.
6. Sky went on to provide a CRM System. Instead of the intended CRM Project going live on 31 July 2001 and being completed by 1 March 2002 at a baseline budget of £47.6m, Sky contend that the functionality for the CRM System was only completed in March 2006 at a cost of about £265m. In the Particulars of Claim as they stood at the commencement of the hearing Sky claimed damages of some £709m.

## **Sky Customer Relationship Management**

7. The main method of contact between Sky and its customers is a telephone call to one of Sky's call centres, which are also referred to as contact centres. In addition to the telephone there are other channels of communication including fax, email, WAP, the internet and, in particular, Sky's digital set-top box.
8. The CRM System is therefore important to Sky's business and forms an essential part of all contact centre dealings with customers, as well as other "self-service" dealings by customers. It facilitates, governs and records all customer related transactions, such as setting up a new account, closing an account, reporting a fault, calling out an engineer or changing a package. It also allows Sky to bill and process payments from their customers.
9. In 2000, Sky perceived an urgent need to replace the existing Digital Customer Management System ("DCMS"). It was an old system built up over the years and there were concerns in its ability to allow Sky to deal with the increasing number of customers and services. It was also recognised that a new CRM system with enhanced functionality would bring business benefits to Sky, including a reduction in the number of customers who "churn" or leave Sky each year, known as the "churn rate". Sky therefore decided to undertake a project, referred to as the Sky CRM Project which included the provision of a new CRM system.
10. At the time, Sky operated a number of legacy systems in addition to DCMS. In summary, the systems consisted of:
  - (1) DCMS – which included billing and payment processing.
  - (2) The Subscriber Card Management System (SCMS): a system by which SSSL provided conditional access services to broadcasters including BSkyB and the management of 'smart' cards distributed to customers.
  - (3) The Management of Information for Digital and Analogue Systems (MIDAS): this was a data warehouse for the storing and retrieval of marketing and financial information.
  - (4) The Field Management System (FMS): a system that provided for all aspects of Sky installations.
11. The SCMS did not form part of the new CRM system but it was a system then integrated with DCMS and the ITT included a detailed interface specification for the interface with the CRM System.
12. The new CRM System included the replacement of the DCMS and FMS systems and the implementation of a new telephony solution. It also needed to include functionality to replace billing and operational finance functionality in DCMS.

### **Brief Chronology**

13. I shall have to deal with the facts in some detail but at this stage it is convenient to set out some of the major dates relating to the Sky CRM Project and this litigation.
14. The Sky CRM Project effectively commenced with Sky's announcement to the City on 9 February 2000 that it was to spend up to £50m in upgrading its customer contact centres with state of the art technology and processes, to be operational within 12 months.
15. To do this, Sky issued an Invitation to Tender (ITT) dated 17 March 2000. It was initially sent to Pricewaterhouse Coopers (PwC), Arthur Andersen (AA) and Andersen Consulting. Ernst & Young were subsequently sent it and then it was also sent to EDS on 22 March 2000. There followed meetings or workshops between Sky and the tenderers. Those between EDS and Sky took place on 10 and 27 April 2000.
16. Tenders or responses to the ITT were received from PwC, AA and EDS. No response was received from Andersen Consulting or Ernst & Young. Each tenderer who prepared a response also made a presentation to Sky.
17. EDS made their presentation to Sky on 1 June 2000 and also delivered their Response to ITT on that day ("the EDS Response").
18. There then followed discussions between EDS and AA. This led to AA withdrawing its tender and to AA and EDS producing a Joint Delivery Teaming document on 29 June 2000 which made a joint bid to Sky. This meant that there were only two tenderers: PwC and EDS/AA. In terms of the main CRM software system, PwC proposed a Siebel package and EDS/AA proposed a Chordiant Framework solution.
19. Sky evaluated the tenders. On 7 July 2000 there was a further round of final presentations from PwC and EDS/AA. The decision to proceed with EDS/AA was made on about 20 July 2000 and communicated to EDS.
20. In the EDS Response and in meetings and documents sent by EDS to Sky, Sky alleges that EDS made fraudulent misrepresentations in relation to resources, cost, time, technology and methodology which led to EDS being selected and being awarded the Letter of Intent.
21. A Letter of Intent was subsequently signed on 9 August 2000 between B Sky B and EDSL, pending the finalisation of the main agreement so that work could start straight away with a view to achieving 'New contact centre live' by April 2001. This was a reference to a new contact centre which was to be built in Irlam, Manchester and be equipped with the CRM system, in addition to the refitting of the two existing contact centres at Dunfermline and Livingston.

22. EDS and AA started work on about 24 July 2000. AA was in charge of the Process Workstream and EDS was in charge of the Technology Workstream. There was a Project Kick-Off meeting on 27 July 2000.
23. As a result of further discussions between EDS and Sky in September and October 2000, it was evident that the costs of the CRM Project had increased. Further discussions on options led to Sky deciding not to proceed with the new contact centre in Manchester.
24. Concerns were expressed in September and October 2000 as to the time within which EDS could implement the CRM Project and various other matters. EDS provided a revised programme showing that they could achieve go-live in July/August 2001. Sky allege that EDS made further fraudulent misrepresentations in this period which Sky relied on in making the decision to enter into an agreement with EDS.
25. On 30 November 2000, a Systems Integration Contract (“the Prime Contract”) was signed by Tony Ball, the CEO of BSkyB for and on behalf of SSSL and by Steve Leonard of EDSC, President of e.Solutions EMEA, for and on behalf of EDSL. It had a “*baseline budget*” of £47,637,000 and included an important milestone of 31 July 2001 for “*eCRM Live in One Hall*”.
26. The performance of the Prime Contract did not go as anticipated. There was poor performance by EDS and on 16 July 2001 Sky and EDS signed a further agreement which amended the terms of the Prime Contract by that Letter of Agreement. Sky say that EDS made various negligent misrepresentations which led to Sky entering into the Letter of Agreement.
27. The performance of the project then again ran into difficulties, with the first major stage of the project, Phase 1, being completed late. After further negotiations, Sky took over from EDS as Systems Integrator from about 6 March 2002 and on 26 March 2002 a Memorandum of Understanding expressed to be “without prejudice and subject to contract” was signed by Sky and EDS. There is an issue as to whether that document was a binding agreement.
28. Under these new arrangements, Sky proceeded with the project on an incremental basis. Instead of Phase 2 going live at the same time, referred to as the “big bang” approach, the project was split into 5 stages, referred to as Increments 2.1 to 2.5.
29. Proceeding on this basis, Increment 2.1 went live on 14 November 2002 and on 21 March 2003 Increment 2.2 went live. Sky decided not to proceed, at least at that stage, with part of Increment 2.3 and also Increments 2.4 and 2.5. Increment 2.3 in its “de-scoped” form went live on 1 September 2005 for new customers and on 31 March 2006 it went live for existing customers. The new system up to and including the de-scoped Increment 2.3 is referred to as the “Actual CRM System”.

30. The disputes which had arisen between Sky and EDS then led to Sky providing EDS with draft Particulars of Claim on 19 December 2003. On 17 August 2004 Sky issued proceedings against EDS in the Commercial Court.
31. Those proceedings were transferred to the Technology and Construction Court and directions were given on 8 November 2006 leading to a trial commencing in October 2007, initially for 20 weeks but later extended to end in July 2008.
32. There were regular case management conferences dealing with applications and other matters which required to be resolved in advance of the hearing. The pleadings have been through a large number of amendments but for convenience I shall refer to them as the Particulars of Claim, Defence, Counterclaim, Reply and Defence to Counterclaim, rather than the title of the multiple re-amended versions.
33. There was a very substantial amount of documentation both in hard and soft copy and the trial bundle consisted of some 400 bundles. Documents which could only conveniently be viewed electronically were also displayed on a screen.
34. The parties provided extensive written opening submissions. The hearing commenced on 15 October 2007 with oral opening submissions. Sky's factual evidence on liability commenced on 31 October 2007 and concluded on 18 December 2007. EDS' factual evidence commenced on 14 January 2008 and concluded on 19 March 2008.
35. The parties provided written openings on the IT issues. Expert evidence from the IT experts was then heard commencing on 7 April 2008. The evidence was dealt with in a number of sessions dealing with particular topics with Sky's experts and EDS' expert giving evidence in each session. The main IT expert evidence was concluded on 24 April 2008.
36. Opening written submissions dealing with Sky's quantum claim for business benefits were then served. Starting on 6 May 2008 Sky called further factual witness evidence relevant to quantum. That concluded on 12 May 2008. On 13 May 2008 the parties commenced evidence from their expert witnesses who dealt with Sky's claims for lost benefits in the form of reduction in the churn rate. On 19 May 2008 evidence commenced from the experts dealing with Sky's claim for lost benefits in the form of call rate reduction. That evidence concluded on 22 May 2008.
37. On 19 and 20 June 2008 after short further quantum evidence, the parties called expert evidence from the IT experts to deal with EDS' case that Sky had failed to mitigate its damages. Sky then called further factual witness evidence dealing with quantum, from 20 June 2008. Expert evidence on the details of quantum was

- then heard from the forensic accountant Quantum experts and this concluded on 2 July 2008.
38. The parties served written closing submissions dealing first with liability issues, then business benefits and finally quantum. There were also reply submissions on liability and business benefits and Sky served a response on quantum during oral closing submissions which commenced on 23 July 2008 and concluded on 30 July 2008 which was Day 109 of the trial.
  39. The parties then provided electronic copies of all documents, including invaluable hyperlinked versions of their closing submissions. By September 2008 the final substantive documentation had been provided although the final agreed transcript corrections were received in December 2008.

### **The Parties**

40. BSKyB is well-known as a provider of pay-television broadcasting services in the United Kingdom and Ireland. It is a wholly owned subsidiary of British Sky Broadcasting Group Plc.
41. SSSL was until 2005 a wholly-owned subsidiary of BSKyB. Since 2005 it has been owned by another subsidiary of the group. SSSL provides ancillary services and other functions supporting the satellite television operations of BSKyB, including the management and operation of customer contact centres.
42. EDSL is an English company which carries out design, development, integration and implementation of information technology solutions to businesses and governments together with the provision of related services.
43. EDSC is a United States corporation and was at all material times the ultimate parent company of EDSL. It is based in Plano, Texas and carries on similar business to EDSL.
44. In the 1990s, EDSC had been structured into Strategic Support Units or business units focused upon particular market sectors. It carried out business in four regions. Two of these were in the United States, the other regions being Asia Pacific and EMEA (Europe, Middle East and Africa). EDSL operated within the EMEA region.
45. In about 2000, following the appointment of a new Chairman and CEO of EDSC, the business was restructured into four new global Lines of Business (LOBs): i.Solutions, e.Solutions, Business Process Management and A. T. Kearney.
46. e.Solutions provided consulting services in the field of process and technology solutions. It was engaged to provide implementation, integration and project management services. e.Solutions was divided into four practice areas, including one known as Digital Value Chain. Within that practice area there were a number

of service lines or practices. The relevant practice in this case was the Customer Relationship Management or CRM Practice.

47. Prior to the reorganisation and the formation of the CRM Practice, the business unit dealing with CRM work had been known as Centrobe. In early 1999 EDSC acquired the delivery and technology team from MCI Systemhouse Ltd (“SHL”), a consultancy group with offices in Canada and the UK. That team had a number of people with experience of CRM systems.

#### **EDS’ Consortium Partners**

48. In preparing its bid EDS involved other participants who were specialists in particular fields. These participants were known as Consortium Partners and were mentioned in the EDS Response. There were four Consortium Partners: Chordiant Software International Inc and Chordiant Software UK Ltd (“Chordiant”), Interdec Working Spaces (“Interdec”), Lucent (“Lucent”) and Sun Microsystems/Forte Software (“Sun”).
49. Chordiant owned and licensed Chordiant CRM software which was a major element of EDS’ proposal. Interdec was a fitting-out contractor for the alterations to the call centres. Lucent owned and licensed the billing package software, Arbor or Arbor BP. The division of Lucent which dealt with Arbor was called Kenan. Lucent also supplied the Computer Telephony Integration (CTI) components and services.
50. In 2000 Sun purchased Forte and became the owners of a development framework called Forte 4GL (referring to Forte 4th Generation Language) and a middleware product, Forte Fusion. However, during the course of the bid and the course of the project, the owners of Forte Fusion and the Forte 4GL framework were referred to as ‘Forte’. Sun also supplied the servers and the Solaris operating system.
51. The main participants for each of the Consortium Partners were as follows:
- (1) Chordiant: Stephen Kelly was the President of Chordiant Software Inc. The organisation's first representatives on the bid were David Hadden and Martin Bridge. They were later joined by Grant Branton who was the Chordiant Bid Project Manager and John Mitchell who was based at Canary Wharf assisting the bid team.
  - (2) Forte Software / Sun Microsystems: Sun Microsystems was represented in the bid principally by Scott Yarnell.
  - (3) Lucent: Pat Coster was the main representative on behalf of Lucent. He was assisted by John Winchester, Dave Gilbert and Tony de Gruttola.

#### **Arthur Andersen**

52. From the 1990s AA had been involved in giving advice to Sky on various aspects of their business.

53. In late 1999 Sky retained AA to conduct a review of its customer management system and to map out best practice for the building of a new call centre and call centre technology. In January 2000 AA produced three documents: a presentation entitled "Creating the Contact Centre of the Future" and two studies called "Building a Contact Centre for the New Economy" and "Setting the Direction for the Contact Centre of the Future".
54. In the last of those documents AA set out what they envisaged for the "Sky Contact Centre of the Future". As to the costs, they set out figures based on broad assumptions and said that *"it may be more reasonable to assume that the cost could be anything between £60m and £90m."* As to timescales they said that a *"best practice new facility could be operational in 9 months, assuming that the building is ready to move into"* and that conversion of the Scottish facilities would be *"complicated by the need to transition people and technology in a real time environment, thus would also probably take 6-9 months and would again need to be developed after the initial new facility is operational."*
55. AA carried out a further exercise between the end of January and early March 2000 and produced a document "BSkyB Contact Centre of the Future – Initial Study". Scott Mackay and Andy Waddell formed part of the team which produced this document. Subsequently parts of this document were included in the ITT.
56. In May 2000 AA put in their own response to the ITT. AA and EDS then produced the Joint Delivery Teaming document on 29 June 2000 which made a joint bid to Sky.
57. Under the Prime Contract with Sky, EDS was to carry out the Process, Technology and Implementation components of the CRM project. EDS then subcontracted with AA for the 'Business Process' workstream, which was managed by Rob Hornby on behalf of AA. In addition, AA contracted directly with Sky in relation to the 'Location' and 'People & Change' workstreams, which were managed by Tim Gardner of AA.



## **B: THE MAIN DOCUMENTS**

### **The ITT**

58. The Invitation to Tender (“ITT”) was dated 17 March 2000. In the title, it described the project as being “The Build and Implementation of a World Class Contact Centre for B SkyB and the further retrospective fitting of environment, culture, process and technology to existing sites.” The intention was to build the new contact centre and then carry out work fitting out the existing call centres in Scotland at Carnegie Campus, Dunfermline and Kirkton Campus, Livingston.
59. At paragraph 2 of the introduction, Sky made it clear that the tender document included work carried out by Sky which set out “envisioned functions, processes, mechanisms and technology”. It said that the documents formed the high level definition of the end product and would require further analysis as the project progressed.
60. At that stage paragraph 3 identified four key areas: “Location” being the internal design and “kit” out of the new contact centre; “Business Process Model” being the detailed definition and introduction of new business processes; “Technology” which had to be sourced, integrated and implemented and “Transition plan” which was the work to “backfill” the existing Livingston and Dunfermline sites with the processes, technology, culture and environment delivered at the new contact centre.
61. At paragraph 2.4 it included a “high level view of the business functions which the new contact centre will need to support”. It stated that it did not represent the future functional design of the new contact centre and was included purely to ensure that all potential suppliers “understand the customer contact overview”.
62. Paragraph 2.5 dealt with the launch of the new contact centre. At paragraph 3.1 under the heading “World Class Customer Experience” it was stated that “at the heart of every aspect of this project is the absolute requirement to provide world class customer management and for B SkyB to be in a recognised leading position in this regard”.
63. At paragraph 3.3 it was stated that the Sky design team had created a high level business process model which was included as Appendix A to the ITT. That had been prepared by Scott Mackay of Sky using a Hyperknowledge tool. The purpose of the model was stated as being to set out the “core business processes” that the new contact centre would need in order to support “key strategic business objectives” of B SkyB. It stated that the model did not preclude any technical or functional solution.
64. Paragraph 3.5.1 set out specific requirements for the technology response.

65. Project Timing was dealt with at Section 4. That stated that for the new contact centre “BSkyB have an organisational desire to conclude the initial delivery of the contact centre within 9 months of project commencement.” In relation to the existing contact centres (four halls at Livingston and two halls at Dunfermline), these were envisaged to be fitted out with the same package as the new contact centre, on a hall by hall basis, once that contact centre had been established. For both the new call centre and the existing centres, Sky requested that the responses should include milestone plans showing “key commitment and decision dates” and also show “detail within each key project phase (i.e. design, build, test, integrate, accept and implement)”.
66. Section 5 referred to Supplier Resources and BSKyB Key Roles and Responsibilities. This included the following requirements:
- (1) At paragraph 5.1.1 the supplier was to appoint an overall Programme Manager “dedicated for the full project life cycle”, who was to report directly to a person appointed by BSKyB.
  - (2) At paragraph 5.1.2 the supplier was to appoint workstream project managers for each workstream.
  - (3) At paragraph 5.1.3 staff were to be competent and qualified to work within the workstream.
  - (4) At paragraph 5.3.1 BSKyB were to appoint a Programme Manager who would have overall responsibility for all work within the scope of the ITT and associated contracts.
  - (5) At paragraph 5.3.2 BSKyB were to appoint two workstream managers; one to have overall responsibility for all business aspects of the project and one with overall responsibility for all technological aspects. These roles were, in the event, performed by Scott Mackay and Andy Waddell.
67. Section 5 also included at paragraph 5.4 various requirements for a project plan. At paragraph 5.4.1 it stated that “Before commencement of the project, a detailed project plan must be agreed with BSKyB and both parties will be responsible for delivering the tasks and milestones agreed.”
68. Section 6 dealt with the detail of the Tender Response. It provided for a two week “discursive period” from 17 March 2000 during which tenderers could ask questions by way of clarification; a two week “incubation period” for the supplier to begin response preparation; a workshop with BSKyB to “test early ideas and ratify approach” and a final two weeks to complete the response. There was then to be a two hour presentation to Sky ending with the delivery of the tender response to Sky.
69. Sky said at paragraph 6.3 that they would evaluate the tender submissions on, amongst other things, cost and ability to provide access to appropriate skilled resource by workstream.

## The EDS Response

70. The response to the ITT submitted by EDS (“the EDS Response”) was stated at the front to be “proprietary to [EDSL], its parent company EDSC and any of that corporation’s subsidiaries.” The copyright was stated to be that of EDSC. Gerard Whelan was the point of contact.
71. At paragraph 1.2 EDS set out the principles of their approach under the following headings: Rapidly identify specific BSkyB customer service failures; use proven leading edge technology; implement best practices as appropriate and deliver a comprehensive programme and change management capability.
72. In paragraph 1.3 under “Why EDS” the participants in EDS and the consortium were identified and it was stated that this meant such things as “Proven delivery experience”, “Global resources” and “Powerful methodologies”. It also stated:
- “Selection of EDS by BSkyB will provide a unique World Class Customer Contact centre on time and on budget.”*
73. At section 4 EDS set out “Our Approach”. They said that they had divided their approach into four workstreams to cover:
- (1) Business Process improvement and implementation
  - (2) Location design, build and implementation
  - (3) Technology design, build and implementation
  - (4) Transition approaches from the new Contact Centres into existing Contact Centres (process, location, technology and people)
74. For the Business Process Workstream the objectives were to identify opportunities to improve current services; to confirm the vision for World Class Customer Service and to align the business processes with the vision and confirm the functional requirements for the New Contact Centre. This was to be done by two parallel “strands”: one “SWAT” was to identify “quick wins”, that is changes to Sky’s business processes which could be identified quickly; the other was “Design”, which was divided into two phases.
75. The purpose of the first phase of the design “strand” was to ensure that EDS and Sky had a “mutual understanding and definition of World Class Customer Service for BSkyB”. To do this it was stated:
- “We will lead a focused four-week workstream to define and agree the Vision for BSkyB for World Class Customer Service. The resources for this work will require 2 BSkyB and 2 EDS staff. The work needs to start on day one...”*
76. The second phase of design was to validate the “To-Be” design of the customer service processes. This was described as being “the validation of the business

processes in order to define and agree the bulk of the functional requirements”. It was stated that the objectives for this sub-team were to:

*“agree the functional requirements of the key processes and [underlying] sub-processes  
develop an indicative view of resourcing levels  
develop the technical functional specification which will include the business class model – including all data items, instances and definitions.”*

77. The deliverables were stated to include:

*“Agreed Use Cases (in the form of a Use Case Catalogue) and auto generated functional and technical requirement specification for the runner processes to input to the technical design for the new Contact Centre and [be] passed to the Technology workstream for coding and development.”*

78. There was then a diagram which indicated that, for the Business Process workstream, the first phase of design would start in Month 1 and lead to the conclusion of the second phase of design at about the end of Month 4.

79. Section 4.3 of the Response dealt with the Technology Workstream. It was stated that :

*“To meet the high demands and ambition of BSkyB’s existing and future business, the technical architecture has been designed with the following requirements in mind:*

- *100% availability*
- *Massive scalability*
- *Open, modular and flexible architecture*
- *Proven technology”*

80. The approach was stated to be as follows: *“that activities will be performed in an iterative and incremental development framework. The workstream phases described below are designed to mark significant deliverables that will provide measurable evidence of progress toward the success of the project. Furthermore, the phases provide a mechanism to limit the commitment required to progress the project and to keep options open to flex the programme to support changes in the business objectives.”*

81. There were three phases to this work which were stated to have the following objectives:

(1) Phase 1 Design

*“The objectives of this phase are to confirm the overall application architecture and to produce code from SELECT SE for use in the Chordiant application building on the work being progressed by the Business Process workstream team.”*

(2) Phase 2 Build and Prototype

*“The objectives of this phase are to develop the new Contact Centre applications and the migration routines.”*

(3) Phase 3 Implement and Verify

*“The objectives of this phase are to: ensure that the new applications are operational in the new Contact Centre, to verify performance, functionality integration and fully test the new applications. This will provide the technical platform on which to deliver World Class Customer Service.”*

82. There was then a diagram which indicated that, for the Technology workstream, Phase 1 – Design would take until about Month 8; Phase 2-Build and Prototype would take until about Month 12 and Phase 3-Implement & Verify would take until about Month 18, all starting from Month 1.

83. Section 5 was headed “Programme Management, Change Management & Communications”. At paragraph 5.1 there was a “transition plan” also referred to as an “Overall Programme Plan”. The Transition workstream was concerned with the implementation of processes, technology and “fit out” into the existing contact centres.

84. By way of explanation of the plan, it was stated that :

*“The transition plan below is based on the information provided in the ITT and our understanding of the current operations and technology. The high level plan below will be refined after further analysis of the current situation and business requirements.”*

85. The plan showed three dates: Contract at the middle to end of the second quarter of 2000; “New contact centre live” in the middle of the first quarter of 2001 and Transition complete at the end of the fourth quarter of 2001. This indicated about 9 months from the contract to the new contact centre being live and about 19 months to transition to the existing sites.

86. In relation to Estimating, EDS stated the following at paragraph 5.4.2:

*“For the purposes of this ITT response EDS have concentrated on estimating the size of the software development. Whilst further analysis of*

*the requirement is needed, with B SkyB and EDS working closely together, we have used an approach which provides a high level of comfort.*

*Our approach has been adopted on many previous developments undertaken by EDS, including major travel reservations systems. Based on these projects it is reasonable to expect an estimating accuracy of between plus and minus 5% following detailed evaluation of the requirements.*

*Resource estimation is conducted from a “top down” and “bottom up” approach. Top down estimation involves function point counting together with a high level view of the project development methodology, and application of historical size and productivity data from similar projects, suitably tailored to the new environment and toolset, to generate an estimate of resource.*

*Bottom up resource estimation involves assessment of low level activities to be undertaken during the development lifecycle. Using in-depth knowledge of team capabilities and team sizes help validate the top down approach.*

*Essential to both of these approaches is a formal size measure of the system to be developed. Our estimating process makes use of Function Points and has been independently assessed by the Guild of Function Point Analysts, who approved of our approach. A Function Point is a unit of measure used as an indication of relative size of a software development in terms of the amount of business functionality delivered to the end user. For each discrete logical functional component of the required system the inputs, outputs and entities are counted and weightings applied to establish a function point count. Totalling the function points across all the identified functions then derives the function point count for the system. Schedule estimation then makes use of the function point count and productivity rate estimates to derive manday estimates.”*

87. At Section 6 under “Choosing the right partner” EDS said this at paragraph 6.1:

*“EDS is a leader in the design, development and implementation of Information Technology solutions and services to business and government, offering customers a complete range of Systems Integration and Implementation services and guaranteed levels of delivery in a wide variety of industries including media and communications.*

*With more than 120,000 staff operating in 47 different countries, EDS offers an unparalleled global IT infrastructure supporting more than 9,000 customers including many of the world’s leading global*

*organisations. In the UK our operation leads the software and services market.”*

88. At paragraph 6.4.1 EDS set out specific consortium examples and qualifications and included this:

*“EDS worked with a large international telecommunications company (who also provided digital and cable television) to design and implement a single Contact Centre framework within which Contact Centre Agents carried out their work providing a consistent level of service regardless of the channel used by the customer. The EDS Consortium (including Chordiant for the CRM Package and Forté for Enterprise Applications Interface Layer) delivered efficiencies while implementing scalable architecture and a flexible configuration for future business growth.”*

89. Section 7 set out the proposed team structure at paragraph 7.1 with Dr John Chan as the Programme Director, Mahmoud Khasawneh dealing with Technology and Stephen Vine dealing with Transition. Paragraph 7.2.1 dealt with Programme Costs. It stated that

*“Our anticipated costs for delivering the program are set out below. As requested by the ITT they are split into 2 cost types-: consultancy and expenditure.*

*Activity/Cost Schedule*

*All activities (excluding consultancy) related to the programme are shown separately as requested, and are also broken out by workstream, or workstream deliverable.*

*These costs are estimated at present, as detailed requirements for hardware, software and location items are yet to be defined.*

*Consultancy Costs*

*The associated consultancy costs for each workstream or workstream deliverable. These are based on EDS daily/hourly rates (see overleaf), and the anticipated resource requirements have been built up to produce the total costs of consultancy for each workstream, or workstream deliverable.*

*The daily/hourly rates are guaranteed not to change until 31/12/2000. The total cost will vary up or down depending on actual usage during the programme.”*

90. At paragraph 7.2.2 it set out the overall budget in these terms:

*“The overall budget combines the consultancy and expenditures for each workstream, and shows a volume based discount offer which is dependent*

*on EDS being awarded all 4 workstreams as part of our contract with BSkyB.*

<i>Location-Activities</i>	<i>£8,490,803</i>
<i>Location consultancy</i>	<i>£1,444,389</i>
<i>Technology Activities</i>	<i>£31,035,896</i>
<i>Business Process consultancy</i>	<i>£775,980</i>
<i>Design Team consultancy</i>	<i>£2,464,000</i>
<i>Program &amp; change consultancy</i>	<i>£2,210,577</i>
<i>Transition consultancy</i>	<i>£1,763,750</i>
<i>Technology consultancy</i>	<i>£6,009,638</i>
<b><i>Total estimated project costs</i></b>	<b><i>£54,195,013</i></b>

### **The Letter of Intent**

91. Sky decided to select EDS on about 20 July 2000. A letter of intent was then prepared and the final version was dated 24 July 2000 (“the Letter of Intent”). The Letter of Intent was addressed to Joe Galloway as Managing Director of EDSL. It was written on SSSL company notepaper. The parties who signed the Letter of Intent did so on behalf of BSkyB and EDSL.
92. The Letter of Intent stated that it confirmed BSkyB’s intention, subject to contract, to appoint EDS as the Prime Contractor for the implementation of the new contact centre and the fitting of the existing contact centres. It provided for EDS to perform services to be agreed between BSkyB and EDS and for EDS to be paid at rates which were subject to a substantial deduction which would be repaid when the contract was concluded.

### **The Prime Contract**

93. The Prime Contract between SSSL and EDSL, who was referred to as “the Contractor”, was entered into on and dated 30 November 2000. It was signed by Tony Ball on behalf of SSSL and Steve Leonard on behalf of EDSL.
94. The recitals set out the position as follows:

*“(A) On 17 March 2000, SSSL issued an Invitation to Tender (“Tender”) for the building and implementation of a new world class contact centre for SSSL and the retrospective fitting of environment, culture, process and technology to SSSL’s existing contact centres located at Dunfermline and Livingstone (the “Contact Centres”).*

*(B) The Contractor issued a document dated 31st May, 2000 to SSSL in response to the Tender.*

*(C) Subsequent to the Tender, SSSL decided not currently to proceed with a new contact centre and to proceed only with the re-fitting of the Contact Centres.*

*(D) SSSL wishes to appoint the Contractor and the Contractor wishes to be appointed by SSSL on the terms set out in this Agreement to design,*



*build, manage, implement and integrate the process and technology for the refitting of the Contact Centres.”*

95. Clause 1.3.1 contained an entire agreement clause to which I refer below.
96. Under Clause 2.1 SSSL agreed to engage EDSL upon the provisions of the Prime Contract to perform the “Services” and EDSL accepted that engagement.
97. In relation to the Services, the following relevant provisions applied:
- (1) The Services were defined in Clause 1.1 to mean “*the services to be provided and the Deliverables to be delivered by [EDSL] in accordance with the terms of [the Prime Contract]*”.
  - (2) The Deliverables were defined as “*the detailed designs, documentation, software, hardware and other products, implementation and other deliverables to be provided by [EDSL] and delivered to SSSL under the Letter of Intent and [the Prime Contract], as the same are set out in section 4 of the Preliminary Specification, and the Bespoke Software Materials together with all other Deliverables agreed pursuant to Clause 17.2.*”
  - (3) At Clause 2.3 it was provided that “Descriptions of the Services to be performed are listed in the Preliminary Specification”. That specification was at Schedule 1 to the Prime Contract.
  - (4) Clause 2.4 then provided that EDSL “shall deliver the component documents of the Full Specification on the dates set out for their delivery in the Project Plan”. Full Specification was defined in Clause 1.1 to mean “the detailed technical specifications for the Services, including the Acceptance Criteria for the Services, as may be agreed by the parties from time to time.” The Project Plan was defined as the plan in Section 3 of the Preliminary Specification.
  - (5) Clause 7.3.3 provided that the Deliverables should comply in all material respects with the Full Specification.
98. In respect of cost, there were the following provisions:
- (1) Clause 3.1 provided that: “*The Contractor shall be responsible for estimating, budgeting, reporting, forecasting and controlling all costs for which the Contractor is responsible incurred in carrying out the Services under this Agreement within the Baseline Budget and shall use all reasonable endeavours to proceed with the Services in a timely manner.*”

- (2) Clause 3.2 provided for a Project Management Committee (consisting of two representatives each from SSSL and EDSL) to meet to review actual and anticipated expenditure under the Letter of Intent and Prime Contract against the Baseline Budget.
  - (3) Clause 3.3 dealt with the situation where either party believed that the cost of performing the works under the Letter of Intent and the Services would exceed the Baseline Budget, other than because of breach by either party. In such case there was a process for the Project Management Committee to recommend authorising EDSL to exceed the Baseline Budget, subject to acceptance by SSSL. There were various provisions to cover default situations.
  - (4) Clause 3.4 then provided that: *“Subject to Clause 10.4, SSSL shall have no obligation to make payment to the Contractor for any costs or other sums ... that are in excess of the Baseline Budget unless those costs have been previously agreed in accordance with Clause 3.3 or otherwise in accordance with this agreement.”*
  - (5) Clause 9 dealt with “Success Criteria” and methods by which success was measured, with “Success Measures” in Schedule 4. In brief if EDSL achieved the required Success Criteria then it was entitled to a percentage of Profit as set out in Schedule 4. The relevant Profit was in Part 2 of Schedule 2.
  - (6) Clause 10 dealt with payment to EDSL of Costs, sub-contractor or third party invoices and the appropriate percentage of Profit. At Clause 10.3 and 10.4 there were provisions relating to payment on completion to SSSL or EDSL depending on the extent to which the amounts paid or payable to EDSL exceeded or were less than the Baseline Budget.
  - (7) Clause 16 dealt with Milestones and the effect of SSSL’s non-Acceptance.
  - (8) Clause 22 dealt with termination, including termination for material breach under Clause 22.2.
99. Clause 7 dealt with warranties and obligations, including at Clause 7.2 the following provision:
- “The Contractor warrants to SSSL that it has the knowledge, ability and expertise to carry out and perform all the obligations, duties and responsibilities of the Contractor set out in this Agreement and acknowledges that SSSL relies on the Contractor’s knowledge, ability and expertise in the performance of its obligations under this Agreement.”*
100. The Preliminary Specification included the following relevant parts:

- (1) Under Section 1, Introduction & Purpose it stated:

*“EDS have been selected by SSSL to act as the systems integrator for the SSSL eCRM Programme (forthwith referred to as the ‘programme’). EDS will manage the design process, build and implementation of the eCRM system and act as systems integrator to ensure that separate technological components of the programme are able to work together as an integrated whole to deliver the required benefits to SSSL.*

*The purpose of this document is to define the scope of EDS responsibilities within the programme. Specifically, EDS responsibilities cover Process, Technology and Implementation components, with SSSL being responsible for the other components, namely Location and People & Change. This document is intended to reflect EDS responsibilities.*

*Systems integration covers, people, process and technology (application, data, infrastructure) components, and EDS will work with SSSL and nominated 3rd Parties across these components to successfully deliver the programme.*

*The overall Sky CRM programme will be managed within a defined methodology agreed by all interested parties. EDS will supply appropriate management resource to make this happen.”*

- (2) Within section 1 there were Terms and Abbreviations which included the following passage, “In Scope” being EDSL responsibility and “Out of Scope” being SSSL responsibility:

*“EDS has been chosen as the Systems Integrator (SI) for the SSSL eCRM project. Business change programmes affect both people and technology. There are 5 key components to any change programme.*

*People and Change, Location - These cover all people related activities including location.*

*Business Processes - These are the business processes to be re-engineered to meet the needs of the new strategic business model.*

*Data - These are the data required to support the new business processes.*

*Applications - These are the applications (software) which are being developed, or will be interfaced to, to support the new business processes, and new data structure.*

*Technical Infrastructure-This includes such things as physical hardware (PC's, servers etc.) and works (Lan, Wan etc) components required to support new and existing applications.*

*The scope and responsibilities of the Systems Integrator are outlined below:*

*In-Scope: Process and technology including Application development, Data, Infrastructure components.*

*Out-of-scope: People and Change and Location (except management of the overall implementation of these workstreams co-ordinated across the Sky CRM programme)."*

- (3) Section 3 dealt with Milestones. It consisted of the following introductory passage followed by a table of Milestones:

*"SSSL and EDS have agreed to 6 major milestones. Part of EDS's payment will be linked to success criteria and will be measured against the successful and timely meeting of these milestones. Each of the major milestones has key supporting milestones that must occur for each of the major milestones to be a success. Each supporting milestone has specific deliverables associated with it. Milestones shall be deemed met only once the relevant element has been "Accepted" by SSSL in accordance with the provisions of the contract."*

- (4) The Table in Section 3 contained Major Milestones such as Milestone 1, 2, 3 and Supporting Milestones such as Milestone 2A, 2B, 2C. In particular there were these Milestones, Descriptions and Dates for Acceptance:

Number	Milestone	Description	Date for Acceptance
2A	Technical Architecture Documents	Detail definition of SSSL eCRM architecture including Infrastructure, Data, Telephony and Application	25/10/00
3A	Full Specifications Complete	All UML Use Cases and all non-Use Case functional specifications have been fully defined and delivered to the development team	09/03/01
4	eCRM Live in One Hall	System supports new customers in one hall through the following	31/07/01

		components...	
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101. Section 4 of the specification dealt with deliverables, including a table and it stated:

*“The table below lists the deliverables known at the date of this preliminary specification, which fall within the scope of EDS’s responsibility to deliver. It is understood that there are many other deliverables required of the programme, however, these will be identified, documented, and managed as part of the IPO mechanism.*

1. *Due dates agree to the consolidated Overall Project Programme, dated 24<sup>th</sup> October 2000.*

*Deliverables shall be deemed delivered only once the relevant element has been “Accepted” by SSSL in accordance with the provisions of the contract delivery.”*

102. Section 5 contained assumptions and Sections 6 and 7 dealt with Process Scope and Technology Scope. At paragraph 6.1 it was stated:

*“This document is intended to define the objectives and high level requirements underpinning the redesign of SSSL’s business processes as part of Sky CRM programme (the “Programme”). As such it will form the definition of scope for the process redesign activity. The redesign activity will refine the definition of processes. The overall scope may require modification or enhancement as a result of this redesign activity to ensure an optimum solution. This will be managed through the Programme Office Change Control Process.*

*This document represents current thinking based on our understanding of available information and views.”*

103. Section 8 dealt with Service Levels and Performance Characteristics and at paragraph 8.3 stated the following in relation to Performance Characteristics, with Key Performance Indicators (KPIs) being included in Appendix A:

*“At this point in time, the technical architecture and functional specifications are not fully defined so that it is not possible to define specific service levels. When the functional specifications and technical architecture are completely designed and approved by the project, EDS and Sky will approve a Service Level Agreement Document that details specific measurable performance characteristics of Sky CRM. EDS understands that there do exist KPI limits, which the current CMS must support. The following target performance characteristics which are*

*currently experienced on existing systems, will be required from the SKYCRM solution, in order to match business expectations:..."*

104. Schedule 2 contained a Rate Card of Costs at Part 1, setting out the rates to be applied for the personnel provided by EDSL. Part 2 dealt with Profit in the sum of £7,440,000.
105. Schedule 5 contained the Baseline Budget being £19,751,000 for Consultancy Cost and £20,442,000 for Technology Cost making a total of £40,194,000. When profit is added the total came to £47,637,000.

### **The Deed of Guarantee**

106. In addition to the Prime Contract, Sky also obtained from EDSC a guarantee of EDSL's contractual obligations and liabilities in the terms set out in a Deed of Guarantee dated 7 December 2000 made by EDSC in favour of SSSL ("the Deed of Guarantee"). It was signed on behalf of EDSC by John McCain, President of EDSC.
107. The Deed of Guarantee provided as follows:
  - (1) In the Recitals, it was expressly recorded that the Deed of Guarantee was *"supplemental to a contract (the "Contract") dated 30 November 2000 between [EDSL] of the one part and [SSSL] of the other part"*.
  - (2) By Clause 1: *"...the Guarantor guarantees unconditionally and irrevocably the punctual, true and faithful performance and observance by the Contractor of all its obligations, undertakings and responsibilities under and in accordance with terms and limitations of the Contract, including for the avoidance of doubt any amendments or additions thereto made in accordance with its terms, and the Guarantor agrees and undertakes that it shall forthwith make good any default thereunder on the part of the Contractor and that it shall pay or be responsible for the payment by the Contractor of all sums, liabilities, awards, losses, damages, costs, charges and expenses that may be or become due and payable under or arising out of the Contract in accordance with its terms or otherwise by reason or in consequence of any such default on the part of the Contractor provided that the Guarantor shall be under no greater obligations or greater liability under this Guarantee than it would have been under the Contract if it had been named as the Contractor in the Contract and that the combined liability of the Contractor and the Guarantor should not exceed the liability of the Contractor under the Contract"*.
  - (3) By Clause 2: *"The obligations of the Guarantor under this Guarantee shall be those of a primary and independent obligor so that any amount*

*which may not be recoverable from the Guarantor on the basis of a guarantee for any reason whatsoever shall nonetheless be recoverable from the Guarantor by way of an indemnity...”.*

- (4) By Clause 4: *“This Guarantee shall be a continuing guarantee and indemnity and shall remain in full force and effect until all obligations to be performed or observed by the Contractor under or arising out of the Contract have been duly and completely performed and observed and the Contractor shall have ceased to be under any actual or contingent liability to SSSL thereunder”.*
108. Sky contend that EDSC are therefore obliged to pay and be responsible for, and have their own liability in relation to, the damages that EDSL are liable to pay SSSL in respect of its breaches of the Prime Contract.

### **The Letter of Agreement**

109. The Letter of Agreement was signed by Richard Freudenstein and Steve Leonard on 16 July 2001. It varied the Prime Contract and effected a settlement of existing contractual liabilities.
110. In summary, the Letter of Agreement provided that:
- (1) The Prime Contract would continue in full force and effect except to the extent amended by the Letter of Agreement (paragraph 2).
  - (2) A new schedule of Milestones was agreed to replace those in section 3 of the Preliminary Specification (paragraph 3). The new major and minor Milestones were set out in Appendix 3 to the Letter of Agreement and the payment criteria and acceptance test procedure in Appendix 4 (paragraph 10).
  - (3) SSSL agreed to pay certain of EDSL’s invoices and EDSL agreed to raise credit notes totalling £1.4 million against such invoices and absorb certain other costs relating to the additional expense of a phased implementation up to a maximum of £2.25 million (paragraphs 4 and 7).
  - (4) Delivery of the functionality contracted for would be in two phases (paragraph 5). Phase 1 comprised certain critical business functionality to be implemented by 19 October 2001. Phase 2 comprised the full functionality contracted for to be implemented by 31 July 2002.
  - (5) EDSL would make the necessary resources available to support the revised project plan (paragraph 6).

- (6) Variations were made to the manner in which any cost overruns were to be shared between SSSL and EDSL (paragraph 8).
- (7) The scope of the project would be reduced by the removal of the obligation to deliver a Strategic CFS (paragraph 16).
- (8) PwC was appointed to perform a quality assurance role and to assist SSSL in determining whether the revised milestones met the agreed acceptance criteria (paragraph 10).
- (9) Additional provisions were agreed for termination in the event that milestones were not met (paragraph 11).
- (10) EDSL agreed that the payment to it of Profit (as defined in Schedule 2 to the Prime Contract) should be *“aligned to the realization of business benefits by SSSL and/or British Sky Broadcasting Limited “BSkyB” upon the Implementation of the Full Functionality”* (paragraph 13). 80% of this Profit was to be *“directly attributable to business benefits that are measured by reference to key performance indicators (“KPIs”) thus enabling EDS to receive its Remaining Profit Balance as SSSL and/or BSKyB realizes business benefits as measured by reference to the KPIs. The categories of the KPIs are set out in Appendix 7. SSSL and EDS shall use all reasonable endeavours to agree within 10 days of the date of this letter the metrics and measures used to calculate the profit allocation to the KPIs, in accordance with the provisions of Appendix 7.”* (paragraph 14).
- (11) The terms agreed were expressed to be *“in full and final settlement of: (a) all known claims which SSSL may have against EDS or which EDS may have against SSSL and/or British Sky Broadcasting Group Plc for any breach of the Prime Contract as of the date of both parties signing this letter; and (b) all unknown claims which SSSL may have against EDS or which EDS may have against SSSL and/or British Sky Broadcasting Group Plc for any breach of the Prime Contract during the period up to and including 17 June 2001.”* (paragraph 17); and
- (12) The Phase 1 functionality was defined in Appendix 1, accompanied by a High Level Integrated Plan (Appendix 2) and a Phase 1 Resource List (Appendix 8).

111. There is an issue between the parties as to the scope of the settlement under paragraph 17 of the Letter of Agreement.

#### **The Memorandum of Understanding**

112. There were discussions between Sky and EDS in early 2002 which led to a document being produced which was marked “without prejudice and subject to



contract.” It set out proposed heads of agreement. On 6 March 2002 there was a telephone conversation between Richard Freudenstein and Steve Leonard which led to Sky taking over the role of Systems Integrator from EDS. Richard Freudenstein and Steve Leonard signed a document referred to as a Memorandum of Understanding on 26 March 2002.

113. That document was headed “without prejudice and subject to contract”. It was signed under a statement: *“We are both happy to have reached this agreement and are looking forward to agreeing further revised terms for our contract.”*

114. The document contains five un-numbered paragraphs above that statement, some with bullet points. The relevant paragraphs are:

*“This note is the offer to EDS with regard to the changing of the CRM program and the relationship between SSSL and EDS on that program.*

*After three meetings with representatives at EDS, both parties agree on the need to renegotiate and redraft the contract between them for SSSL’s call centres. Both parties will strive to renegotiate and agree a new form of contract within the next three months. We both accept that that new agreement will be consistent with the following principles:*

- *EDS will transfer the role of system integrator to SSSL. SSSL will assume that role effective from the time that an agreed memorandum of understanding is created and signed or verbally agreed between SSSL and EDS.*

- *EDS has agreed to give up all future claims to profit sharing under the previous contract. This amounts to the sum of £6.7 m profit share plus £0.75m churn bonus. EDS shall also provide a credit of £300k as detailed below.*

...

*It is clear that some changes would have to be made to the current commercial contract following this agreement.*

*What follows is the agreed way forward for services provided from the date of this memo, and this is based on the discussions that have been on going with EDS and the conditions SSSL is willing to accept:*

- *EDS will continue to work with SSSL on the project leaving a minimum of 190 resources on the project at the current rate card for the remainder of 2002. If the resources are not performing or SSSL wishes to remove them for any reason-then if requested EDS will find a replacement for that resource at the same rate card and will be committed to putting acceptable resources in place.*

...

•The warranties in the existing contract between EDS and SSSL shall only apply to work that has been done until the date of this memo. These warranties will only apply to Phase 1 and work product accepted and in acceptance with SSSL. This means all deliverables accepted so far, including the August, October/November and December milestones that have been accepted and deliverables in these milestones that have been delivered and are currently undergoing acceptance. EDS warrants that appropriately qualified personnel have conducted the services that have been supplied and rendered, prior to the date of this memo, with all due skill and care. The warranty period for these deliverables will be in accordance with the current contract. EDS' only warranties in respect of its performance of work from now on are that it will be performed with all due skill and care and any other warranty normal and usual in a contract for the provision of services on a time and materials basis where the services are provided under the management and control of the customer and where the service provider is not the system integrator. EDS will not be required to give a system warranty in respect of work performed after the date of this memo.

*The principles for further arrangements in the revised contract will be:*

- SSSL will pay EDS an incentive amount of £500,000.00 when increment 2.3 is delivered provided it is delivered on or before March 31<sup>st</sup>, 2003. In this instance, 'delivered' is taken to mean a fully tested application and associated infrastructure ready to go live.
- Any cost reductions which bring the total EDS labour (to include Lucent and Chordiant labour) cost below the agreed amount of the excess costs estimated to date (currently that amount stands at £15m-to be confirmed after detailed planning has taken place) will be split 70:30 SSSL:EDS up to a maximum payment of £1.5 million to EDS.
- Expenses will remain fixed at a maximum of 12% as per the previous contract.
- If requested by SSSL, where existing EDS subcontracts with Lucent and Chordiant allow, or if EDS receives consent from Lucent and/or Chordiant, then EDS will assign these subcontracts to SSSL."

## **C: THE EVIDENCE**

### **Sky's Witnesses of fact**

#### **Witnesses called**

115. Sky's first witness was Tony Ball who was the CEO of BSkyB and a director of both BSkyB and SSSL between June 1999 and November 2003. He was the senior person at Sky involved in the project between June 1999 and about November 2003. He made all the relevant decisions in relation to the Sky CRM Project and EDS' involvement, albeit that he relied on advice from others within Sky.
116. Sky then called Geoff Walters who joined Sky in February 1992 as Director of Engineering and became Chief Technology Officer for BSkyB. He was involved in the CRM Project from the initial stages, including assessment of the bids until after the Letter of Agreement when his involvement ceased with the appointment of Simon Post. At the time of consideration of the EDS bid he had not been in favour of awarding the project to EDS.
117. Sky's third witness was Richard Freudenstein who submitted two witness statements. He was a director of SSSL from September 2000 and a director of BSkyB from March 2001. He had overall responsibility for the CRM project and acted as the project's sponsor. He joined BSkyB as General Manager in August 1999 and became Chief Operating Officer of BSkyB in October 2000. He gave evidence of his involvement in the Sky CRM Project from the ITT to the Memorandum of Understanding. He then kept in contact with the project but was not principally involved in it. He left Sky shortly after go-live in March 2006. Sky then called Martin Stewart who joined BSkyB in 1996 as Head of Commercial Finance and became Chief Financial Officer at BSkyB until 2004 when he left. He was also a director of BSkyB and SSSL. He gave evidence about the initial stages of the project from ITT until the signing of the Prime Contract but then had less involvement in the Letter of Agreement and Memorandum of Understanding.
118. Sky then called Mike Hughes who submitted two witness statements. From April 2000 until June 2002 he was employed by SSSL as Managing Director of Sky Services, an internal division covering SSSL and Sky In-Home Services Limited. At Sky he was responsible for the customer services and related support functions of Sky's business and this included the Sky CRM Project. He joined the Thomas Cook Group in 1977 and was Director of Systems and Operations from 1998 until 2000 and had been involved in a project for a Chordiant based CRM System which had been carried out by a Canada-based consultancy, Systems House Limited ("SHL") which was subsequently acquired by EDS. He met Joe Galloway and Dan Barton when they worked for SHL prior to its acquisition by EDS. They had worked in 1999 on an upgrade to the Chordiant CRM system for Thomas Cook, to upgrade the system from version 1.4 to 1.6.

119. Sky's next witness was Ian Proctor who provided two witness statements. He joined Sky in 1993 and became Finance Director of SSSL in 1999. He gave evidence of the relationship between SSSL and BSkyB and his involvement throughout the project. He also deals with missing invoices for costs claimed by Sky in response to the evidence of EDS' quantum expert, Timothy Hart.
120. Sky's next witness was Ian Haddon who submitted two witness statements. He joined BSkyB in August 1998 and was employed as Customer Operations Projects - Head of Projects. He was the Billing Workstream Stream leader from July 2000 to about September 2001 and gave evidence of Billing and Operational Finance aspects of the CRM Project.
121. Sky then called Rob Hornby who submitted three witness statements. He was employed by AA and became involved in the CRM Project in June 2000 when EDS invited AA to bid together. From July 2000 until about December 2001 he was leader of the Process Workstream for the CRM Project. He joined the project again in March 2002 when Sky took over as Systems Integrator and remained there throughout the implementation of Increments 2.1, 2.2 and 2.3. He became an employee of SSSL from 1 August 2002, taking up roles as Transition Manager, Delivery Manager and then in January 2005 became Programme Director until the project was completed in April 2006. Finally he was appointed as BSkyB's Head of Software Delivery and Support until late June 2007 when he left Sky. He dealt with matters from bid stage to completion, including the preparation of the Functional Specifications.
122. Sky's next witness was Andy Waddell who submitted three witness statements. He joined SSSL in 1992 and held various roles within the IT department. Early in 1999 he became Technical Services Manager for IT Scotland and in mid 2000 became involved in the CRM Project as CRM Infrastructure Architect. He was involved in the project until late 2004 and in particular, when Sky took over as Systems Integrator in March 2002, he became responsible for the delivery of the technical and physical architecture and the resultant infrastructure platform. He gave evidence of his involvement from the ITT until late 2004. Since then he, like Scott Mackay, has been assisting Sky's solicitors with this litigation.
123. Jeff Hughes was the next witness. He submitted two witness statements. He joined Sky in February 2002 on secondment from PwC as Programme Manager for the CRM Project and was then employed by BSkyB as Group Director of IT and Strategy from May 2005. In November 2006 he became Executive Vice President of BSkyB. He dealt with taking over the role of Systems Integrator from EDS and the subsequent performance of the CRM Project.
124. Rob Craig then gave evidence. He had joined EDS as a managing consultant from October 2001 and worked for them on the Sky CRM Project from November 2001 until February 2003 when he left to work for Sky as a Systems Architect, leaving the project in May 2003. He was not involved with the implementation by

- Sky of the CRM system after that date. He dealt with his involvement with the project during the EDS phase.
125. Simon Post submitted three witness statements. He joined BSkyB as a special technology adviser to Tony Ball in December 2001 and sat on the CRM Steering Committee. He became Group IT Director in about April 2002. He left Sky in January/February 2005. He gave evidence of his involvement until 2005, including his role in relation to the Memorandum of Understanding.
  126. Sky then called Scott Mackay who had submitted six witness statements dealing with a variety of matters. He joined SSSL as a Senior Business Analyst in January 1997. In January 2000 he began work on the CRM Project and was asked by Richard Freudenstein to produce the ITT with assistance from AA and was involved in the subsequent evaluation of the responses. He then took up a role as the Sky workstream leader for the process workstream, working with the AA process team and reporting to Mike Hughes. He worked as the Phase 2 Programme/Project Manager from July 2001. He was involved in all stages of the project, being the main contact point within Sky for the CRM Project. He continued to work on the CRM Project until September 2004 and was then engaged full-time in providing Sky's solicitors with assistance with this litigation.
  127. Richard Stobart was the next Sky witness. He submitted two witness statements. He was employed by an IT consultancy organisation and from about June 2001 worked as Chordiant Development Manager for EDS. He then worked in various roles in the Sky CRM Project until September 2005, after the go-live of Plan B of Increment 2.3 of the project. He dealt with the progress of Sky's work as systems integrator and EDS' criticisms of Sky's approach.
  128. Sky's next witness was Simon Montador who submitted three witness statements. He joined SSSL as Head of Finance Projects in October 1999 and in December 2000 became SSSL's Deputy Finance Director. After posts as Commercial Director and Customer Services Director, he became Director of Customer and Technical Services in December 2007. He gave evidence of his involvement in the CRM Project and, in particular, the development and effect of Self Service, Merlin and Case Management functionality.
  129. Norman Macleod was the next witness. He provided four witness statements. He was the SSSL Development Manager responsible for the CRM Project from about March 2002 until about June 2003. He gave evidence relevant to mitigation and causation. He also dealt with information on the source lines of code (SLOC) of the delivered CRM System and on the time reporting system (TRS).
  130. Karen Flanagan was originally employed from June 2001 to March 2002 by PwC and carried out a Quality Assurance role. Then from March 2002 until May 2005 she was seconded to BSkyB by PwC and was appointed Deputy Programme

- Manager in July 2002. She dealt with various aspects of the CRM Project during her involvement.
131. Robert Hughes submitted three witness statements. He joined EDS as a Test Lead in August 2001 and was part of the team responsible for testing the CRM System. He transferred to BSkyB in January 2003 and was CRM Programme Test Manager from April 2003 until go-live in March 2006. He dealt with various issues concerned with testing of the CRM System.
  132. As part of the quantum evidence in this case, I also heard evidence at a later stage of the hearing from a number of Sky witnesses.
  133. First, I heard evidence from Jo Ashcroft who produced two witness statements. She was employed by Sky and had been involved with the CRM Project since July 2000 working in the Process, Solution Architecture and Acceptance Teams. She provided evidence in relation to matters relevant to the churn and call rate experts.
  134. I then heard from John Ramdenee who submitted three witness statements. He joined Sky in September 2004 as Head of CRM. He became Head of Churn and then in April 2006 Director of Customer Solutions. He gave evidence in relation to Merlin, the customer churn “wash out” and Case Management.
  135. Edwina McDowall was the next witness. She had produced two witness statements and was Head of Service and Repair within Supply Chain. In January 2005 she became Technical Services Director. She explained what the CRM System now enabled Sky to do in relation to Technical Enquiry functionality.
  136. I then heard from Mark Anderson who submitted two witness statements. He joined BSkyB in February 2006 and became Sky’s Customer Marketing Director. He gave evidence relating to Sky’s contribution forecasts and the claim for churn benefit. I then heard further evidence from Simon Montador.
  137. After a break and before I heard expert evidence concerning issues of mitigation, Sky called Simon Robson who joined Sky in 1997 and became Head of Business Planning in 2002. He is now Director of Group Reporting and Finance. In his witness statement he dealt with a five year plan produced by Sky in June 2006 and covering the financial years 2007/08 to 2010/11 and also with Sky’s figure for contribution per subscriber.
  138. At the beginning of evidence on quantum, I heard further factual evidence. The first witness was Claire Macintosh (née Banbury) who provided three witness statements. She was employed by SSSL and joined Sky in June 2001 as a Financial Controller. She provided data, particularly data relevant to call rates.

139. I heard next from Patrick Wynne who served four witness statements. He joined Sky in May 2001 as Commercial Manager within the Technology Department and then became B SkyB's Head of IT Procurement until March 2008. He dealt with maintenance and support costs. Interposed during Patrick Wynne's evidence, I heard short further evidence from Norman McLeod. The final factual witness was Richard Bartley. He produced two witness statements. He was B SkyB's Financial Controller of Technology Finance from September 2005, having joined Sky in July 2004. He provided cost information and dealt with the Time Recording System ("TRS").

**Sky witnesses not called**

140. In addition to witnesses who were called I also had witness statements from a number of witnesses who were not called. First, Sky submitted a number of witness statements to deal with evidence which Joe Galloway gave about studying at Concordia College in St John in the US Virgin Islands. Those witnesses were not called. Their evidence proved to be unnecessary in the light of the position taken by EDS. Those witnesses were the Hon Liston Davies, a Senator of the Virgin Islands Legislature and Chairman of the Legislative Committee of Education, Culture and Youth and David Phillips, a solicitor at Herbert Smith who visited the US Virgin Islands and produced two witness statements.
141. Secondly, Sky submitted twelve witness statements in relation to issues concerning their lost benefit claims which were not challenged by EDS. Those witness statements were from:
- (1) James Cotton who joined Sky as a Corporate Finance Analyst with B SkyB in April 2000 and held various posts being latterly Head of Finance Supply from August 2005. He provided information about contribution.
  - (2) Scott Docherty who produced two witness statements. He joined SSSL in March 2003 as Financial Analyst and in October 2004 took up his current role of Financial Controller CRM FA accounting.
  - (3) Neil Duckworth who joined B SkyB in February 2001 as Financial Controller and provided information on Pay Per View revenues.
  - (4) Samuel Fay who joined Sky in October 1996 and had a number of posts in relation to Sky's online business and was latterly Internet Services Manager in Sky.com. He provided information of customer support traffic on Sky.com.
  - (5) Katherine Gorton who joined B SkyB in March 2005 as a Financial Analyst and gave evidence of the average contribution per subscriber.
  - (6) Yvonne McFarlane who joined Sky in 1996 and held various roles becoming Head of Facilities Management from April 2005. She gave evidence about Sky's accommodation in Scotland.
  - (7) Craig McPhee who is employed by Sky in Human Resources. He gave evidence about training of CAs in relation to the CRM System.
  - (8) Mark Somers who is an analysis manager working as an independent contractor for Sky for periods since February 2005 and gave evidence on customers who churn and return within five years of leaving.

- (9) Lucy Thomas who joined B SkyB in February 2000 as a Financial Analyst and became Financial Controller in Marketing Finance after August 2005. She gave details of Sky Magazine costs.
  - (10) Mark Thorne who joined Sky in January 2004 as a Financial Analyst and gave information of the number of Sky subscribers.
  - (11) Graeme Wilson joined Sky in March 2004 as a Financial Controller and gave evidence of Sales Upgrade data.
  - (12) Colin Yule joined B SkyB as a trainee accountant in November 2003 and gave evidence of Sky staff support costs in relation to Customer Service Advisors.
142. Thirdly, Sky submitted a witness statement from Gary Innes who joined Sky in August 1992 as a Customer Adviser and after several roles in that department became Customer Service Development Manager in 2006. He dealt with what the functionality of the CRM System enabled Sky to do. The churn rate experts relied on his evidence but by letter dated 18 April 2008 Sky informed EDS that they did not intend to call him. EDS wish to rely on his evidence and, in the absence of any evidence to the contrary, it should be treated as being true.
143. Fourthly, Sky served statements from Derek Stalley, Ian Williams and Gerrit Van Wyk but, as confirmed in EDS' written closing submissions on business benefits these were withdrawn and not relied on by Sky or EDS.
144. Fifthly, there was evidence from the following Sky witnesses who were not called. First, in relation to the statement of Ruby Vega-Lozano, EDS agreed that this could be put in without cross-examination. She joined SSSL and worked in relation to Sky's IT systems. She was seconded to work at Canary Wharf with EDS' configuration management team for the Sky CRM Project in 2001. She gave evidence about her involvement in relation to configuration management. Secondly, the statement of Caroline Waterer, a solicitor who worked for Sky between 1999 and 2003, was not relied on. Thirdly, Penny Hicks was not called. She joined SSSL as a Senior Management Accountant in October 1996 becoming head of CRM Finance in June 2000 until April 2001 and left Sky in August 2005.
145. There were, in particular, two people who were involved in the CRM Project but did not provide witness statements. First there was Nicola Simpson who was employed by SSSL as Data Architect/Head of Business Solutions and reported to Andy Waddell. She was primarily concerned with the application architecture and was also involved in the bid process. Secondly, there was Deb Chakravarty who was appointed by Sky as Programme Director in or about October 2000 and left in June 2001. He was replaced on 2 July 2001 by Chris Davies, who was himself replaced after less than one month.

## **EDS' Witnesses of fact**

### **Witnesses called**



146. The first EDS witness was Gerard Whelan. He produced four witness statements. He was employed by EDS from September 1999 until January 2001 and initially was EDS' bid manager for the Sky CRM Project. In July 2000 he was promoted to director of consulting within the CRM practice. He left to work with Joe Galloway when the new CRM consultancy, ITIVITI, was set up. He gave evidence about the bid process through to the signing of the Prime Contract. From around April 2000 he moved to a role managing the business analysis team.
147. Joe Galloway was the second EDS witness and provided four witness statements. He had been working in the Contact Centre practice of SHL from October 1998 until EDS bought SHL in 1999. As a result he moved to an EDS subsidiary, Centrobe, responsible for Customer Relation Management and other related areas. In late 1999 there was a reorganisation within EDS and Centrobe ceased to exist. Instead EDS set up a CRM Practice within the e.solutions line of business for the Europe, Middle East and Africa (EMEA) region. Joe Galloway became Managing Director of that CRM Practice, reporting to Barry Yard, the UK head of e.solutions who, in turn reported to Steve Leonard, the head of e.solutions in the EMEA region. He had been involved in an upgrade for the Thomas Cook CRM Project in 1999 whilst at SHL and had come into contact with Mike Hughes. In early 2000 he was contacted by Mike Hughes and this led to EDS being sent the ITT for the Sky CRM Project. Joe Galloway was the mastermind for EDS' Response to the ITT which was presented to Sky on 1 June 2000 and was closely involved in all subsequent developments. He left EDS in December 2000 to form a CRM consultancy, ITIVITI. A number of staff from the EDS CRM Practice also joined ITIVITI. He later was employed by EDSC in the US from 2006 as an IT consultant but was dismissed from that role during the course of this trial in circumstances which are set out below.
148. The next EDS witness was Andrew Sollis who joined EDS in 1988 and became involved in EDS' bid for the Sky CRM Project in March 2000. He transferred to another EDS project in May 2000 but gave evidence about his involvement in the bid process up to that time.
149. EDS then called Chris Moyer who joined EDSC in March 1985. By 2000 he was the Chief Technical Officer for EDS' e.solutions line of business in the EMEA region. Together with Chris Rogers he carried out a Technical Design Review for the bid on 12 May 2000 and they produced a document setting out points which they thought the bid team should consider.
150. The next witness was Peter Rudd who had worked for SHL and joined EDS on the acquisition of SHL by EDS in 1999. He became Director of Development Services within the CRM Practice and was responsible for building up the group in 2000 and had responsibility for developers within the practice. He gave evidence about staff resources for the Sky CRM Project.

151. Joe Galloway then returned to give further evidence before EDS called Gary Hill who had worked for EDS since 1984. In the summer of 2000 he was a CRM Centre of Excellence Manager within EDS and in August 2000 was approached to carry out the "Sky Red Team Review". That review was held on 21 August 2000 and a report was produced by Steve Dowle as the lead reviewer.
152. I then heard from Amanda Cordingley who was employed by EDS from 1993 to 2007 in the Human Resources Department and gave evidence of the EDS Terms and Conditions of Employment. She was not involved in the Sky CRM Project.
153. Gerard Whelan was then recalled to give further evidence and was followed by Steve Fleming who produced two witness statements. He joined EDS in May 1998 and transferred to the CRM Practice and to the Sky CRM Project in about July 2000. He was project manager for the Chordiant development team as part of the Technology workstream on the project. He worked on the project until June 2001 and gave evidence of that involvement.
154. I next heard from Barrie Mockett who joined EDS in 1999. Between March 2000 and January 2001 he performed a human resources role as director of management services within the CRM Practice. He gave evidence of the resourcing of the Sky CRM Project.
155. The next witness was Richard Durling who produced three witness statements. He was recruited by EDS to join the CRM Practice at an open day in July 2000, having previously worked in insurance. He worked on the Sky CRM Project from August 2000 until his role reduced in March 2001 and he left the project in May 2001. He was appointed as the data team leader in September 2000 and was then involved in producing a scope document.
156. EDS then called Dan Barton who provided three witness statements. He joined SHL in April 1995, working on the Thomas Cook Chordiant based project and he then transferred to EDS when it acquired SHL. He became part of the new EDS CRM Practice led by Joe Galloway. He started his involvement in the Sky CRM Project as lead technical architect in about June 2000 and was based in Dunfermline designing the technical architecture. His role as technical architect ended in May 2001 when others from EDS' Telford team took over. He dealt with his involvement in 2000 and 2001.
157. Steve Fleming was then recalled to give further evidence. He was followed by Karl Davies who provided two witness statements. He was working for EDS and joined the CRM Practice led by Joe Galloway. He was asked to join the Sky CRM Project to work as data architect, in charge of producing a data model and did so from 11 September 2000. He gave evidence of his involvement in preparing the Logical Data Model and on other data issues.

158. The next witness was Tony Dean who produced three witness statements. He was employed by EDS between 1993 and 2006 and was appointed to be the Client Executive for the Sky CRM Project in September 2000, managing the relationship between EDS and Sky. He reported to Elwyn Jones. He was replaced by Greg Hyttenrauch in around April 2001 but retained certain responsibilities on the project. He gave evidence of his involvement on the project from September 2000 until he left the project in about August 2002.
159. The next witness was John Chan who provided four witness statements. He was a project manager and he joined EDS in 1991 when his former company was taken over by them. He was designated as the project manager for the Sky CRM Project and took up that role in June 2000. In late October 2000 his role was taken over by Peter Jeffs but he continued to work on the project as Procurement Manager dealing with commercial support matters. He gave evidence of his involvement from 1 June 2000 and his role as project manager until October 2000. He left EDS' employment in 2006.
160. EDS' next witness was Greg Hyttenrauch who was EDS' Vice President of Applications Delivery for EMEA. He joined SHL after serving in the Canadian Army and then joined EDS when SHL was acquired by them. In February 2001 he came to the UK and in March 2001 was asked by Barry Yard to look at issues which had arisen on the Sky CRM Project. This led to the "Red Team" review of April 2001. He was then involved in the negotiations leading up to both the Letter of Agreement and the Memorandum of Understanding. He left EDS' employment in 2006.
161. Steve Fleming then returned for a third time to give further evidence. He was followed by Steve Leonard who submitted three witness statements. He joined EDS in 1984 and in May 2000 became President of e.solutions in the EMEA region. He was therefore the superior to Barry Yard and Joe Galloway. He left EDS in July 2002. He was involved at the ITT and Response stage and in negotiations for the Letter of Agreement and the Memorandum of Understanding.
162. Tony Dean was then recalled to give further evidence. The next witness was Sean Smith who joined EDS in February 1999 and worked in the Corporate Audit Group for the EMEA region in 2001. He carried out a Corporate Audit review of the Sky CRM Project which led to a final report being circulated in February 2002.
163. EDS' next witness was Elwyn Jones who was a Client Delivery Executive ("CDE") for projects carried out by EDS' E.solutions line of business and for the Sky CRM project from December 2000. He was involved in the Discover VRB in April 2000 and was involved again at the time of the Letter of Agreement, the Memorandum of Understanding and subsequently. He reported to Barry Yard. He left EDS' employment in 2006.

164. EDS then called Melanie Haydon who provided three witness statements. She joined EDS when her former employer was acquired by EDS in the 1990s. She worked in 2000 in EDS' E-strategy and Consulting Group and is still employed by EDS in a similar role. In April 2000 she was asked for a recommendation for a project manager for the Sky CRM Project and put forward John Chan for that role. In mid-August 2000 John Chan sought her assistance for a short period in a programme management role setting up project documentation and templates and assisting in planning and resourcing the project. She was involved in the reprogramming exercise in mid-October 2000 and worked on the project until July 2001 but did not work at Dunfermline after May 2001.
165. The next witness was Ed Lewis who provided two witness statements. He was employed by EDS from 1999 and worked on the Sky CRM Project, first as Project Manager from October 2000 and then as Software Delivery Manager from June 2001.
166. EDS then called Martin Jones who submitted two witness statements. He joined EDS in June 1998 and became involved on the Sky CRM Project in mid-December 2000 after a brief period on the project in mid October 2000. He was a Technical Lead in EDS' Telford Development team which took responsibility for some discrete components of the system. From June 2001 he became the Technical Delivery Manager, managing the technical architects, software architects and product consultants. In March 2002 he became a software architect and continued in this role until 22 January 2003 when EDS ceased working on the project.
167. I next heard from Nigel Lines who provided two witness statements. He had worked for EDS since 1996 and joined the Sky CRM Project in January 2001. He became the middleware team leader until April 2002 when Sky decided to replace Forte Fusion with MQ Series.
168. The next witness was Keshava Dhatariya who had provided two witness statements. He joined EDS in September 2000 and became involved in the Sky CRM Project in early January 2001. He was the Project Manager of the Chordiant and Arbor Integration Team ("CAIT") and the Project Manager of the Billing and Operational Finance workstream on the project.
169. Finally, I heard evidence by videoconference from Dan Zadorozny. He was employed by EDSC and became involved in the Sky CRM Project between June and December 2002 after a request from Tony Ball to Dick Brown, Chairman and Chief Executive officer of EDSC. He was involved in commercial discussions with Sky in the latter half of 2002.

**EDS witnesses not called**

170. In addition to the EDS witnesses who were called, witness statements were submitted from Patrick Dolan and Julian Stait who were not called. That evidence

was admitted unchallenged, but with a reservation in relation to the limits of Julian Stait's witness statement. In relation to these witnesses:

- (1) Patrick Dolan has worked for EDS since October 1989 and has been a Senior Quality Assurance Analyst since 1998. He was co-ordinator for internal standards called Management and Control Standards (MACS) prepared by EDS and gave evidence about them. He was not involved in the Sky CRM Project.
  - (2) Julian Stait was a solicitor at DLA Piper and he produced a skills spreadsheet which contained information on the skills of EDS personnel who worked on the Sky CRM Project. His evidence was essentially limited to exhibiting that spreadsheet.
171. In addition, David Page's witness statements were admitted under the Civil Evidence Act. He produced two witness statements. He commenced work for EDS in January 1999 at Telford. He was an application architect on the Sky CRM Project which he joined in December 2000 when EDS wanted to deploy experienced Forte staff on the project. He left the project in early December 2002.
172. There were also witness statements from three witnesses who were not called: Thomas Levine, a solicitor in Allen & Overy who was involved in drafting the Prime Contract in late 2000 and gave evidence about the negotiation of the limitation of liability clause in the Prime Contract; Karen Lightfoot who worked for EDS at Telford and gave evidence in relation to meetings on 28 March and 18 April 2001 and Jerry Chapman who worked for EDSC in the Global Risk Management group in Plano, Texas and gave evidence about the global risk management questionnaire prepared on 9 May 2000 by EDS for the Sky CRM Project but was not involved in the Sky CRM Project.
173. In addition there were three particular people who were involved on the CRM Project who were not called as witnesses. First, there was Steve Vine who was involved in producing two plans at the bid stage and was then subsequently involved in the project. Secondly, there was Peter Jeffs who was the EDS Project Manager from November 2000 until April 2001. He left EDS' employment in 2004. Thirdly, there was Barry Yard who was the UK Head of e.solutions for EDS. He was the person to whom Joe Galloway reported and he, in turn, reported to Steve Leonard.

### **Credibility of Witnesses**

**Joe Galloway**

***The Concordia MBA***

174. In his first witness statement at paragraph 8, Joe Galloway stated that “*I hold an MBA from Concordia College, St. Johns (1995 to 1996)*”. Whilst it is, superficially, correct that Concordia College had granted him an MBA, as set out below it was not a genuine degree and was not obtained by study in 1995 to 1996. However, on being asked questions about that degree Joe Galloway gave evidence to the court over a prolonged period which EDS fully accept, as they have to, was completely false. This led to the termination of his employment by EDSC and to EDS having to accept that their main witness had lied in giving his evidence. He was also the person who, as Managing Director of the relevant part of EDS, directed and was fully involved in EDS’ Response to the ITT and in the various matters which are alleged by Sky to give rise to the misrepresentations in this case.
175. It is necessary for me to set out in more detail the way in which the evidence relating to the Concordia MBA developed.
176. When he first gave evidence, he was asked a series of questions on Day 37. He was shown a website for Concordia College and University which he said he did not recognise. He said that he was in St John in the US Virgin Islands and attended Concordia College for approximately a year which involved attendance at classes. He said that he had a diploma or degree certificate and transcripts of his marks which were, in the end, produced to the Court. He was taken to the website for Concordia College which stated as follows:
- “You may have done past courses and other learning which equals an Associate, Bachelor or Master degree but you accumulated that learning in a variety of contexts with no resulting degree outcome. Meeting your needs, Concordia College’s online prior learning assessment process may conclude with an accredited degree in 24 hours, in the subject of your prior studies. Your transcripts then credibly document all of your learning.”*
177. One of the pages of the website referred to some of the successful Concordia College graduates and by clicking on a tab it showed Joe Galloway as one of those graduates. He maintained that he had not seen the website before.
178. In fact, Concordia College is a website which provides on-line degrees for anyone who makes an application and pays the required fee. This was effectively and amusingly demonstrated by an application which was made on the website for an MBA degree for a dog “Lulu” belonging to Mark Howard QC. Without any difficulty the dog was able to obtain a degree certificate and transcripts which were in identical form to those later produced by Joe Galloway but with marks which, in fact, were better than those given to him. In addition, a recommendation letter was provided to Mr Galloway and the dog by a person who purported to be President and Vice-Chancellor of Concordia College and University in the following terms:

*“As Head of Department at Concordia College & University, I am writing this academic letter of recommendation to you in respect of our alumnus Joseph Michael Galloway.*

*Mr. Galloway is conferred the degree, rank and academic status Master of Business Administration with a major in International Business effective 19 May 1996 upon as a consequence of our widely reputed degree programme, and of our guided academic research into then subjects.*

*During his connection with Concordia College & University, we experienced Mr. Galloway as a conscientious and orderly element who proved the habit of timely and correct study and research to be intrinsic to his person. He successfully completed all requirements of our Board of Examiners within the mutually agreed time limitations. Mr. Galloway demonstrated that he is prepared and fully equipped to add valuable apprenticeship to our institution’s activities by means of talented and profoundly investigated subject treatment.*

*Hence it is our privilege to recommend the academic experience, methodical working and educational assiduity of Joseph Michael Galloway to you since we bear the true conviction that Mr. Galloway shall not cease to expose his capacities as a meaningful acquisition to fitting your purpose.”*

179. Whilst the underlying lie was that Joe Galloway had quite evidently obtained a fake degree from the Concordia Collage website, he then gave evidence both on Day 37 and when he returned on Days 45 to 46 which was palpably dishonest both in answer to questions in cross-examination and also in answer to questions from the Court.
180. In that evidence he maintained that he had not purchased his MBA degree online. Rather he said that he had in fact attended classes at a building used by Concordia College at St John over the period 1994 or 1995 to 1996, studying to obtain the degree. He said that he attended Concordia College whilst he was employed by BSG/Alliance IT working on a project on St John for Coca Cola, which required him to be based for the majority of his time on St John. He said that he travelled to and from St John by plane, flying into and out of the island. He explained that when he attended Concordia College *“there were a number of buildings that I went to. I can remember three distinct buildings that we went to. Block, office block buildings in and around the locations of the commercial area that I was working in for Coca Cola.”*
181. He said he attended between 5 and 10 classes, which were *“across multiple days. Multiple weeks, multiple months”*. He said that they were *“once a week for three hours”* across a term. Later he said in answer to a question from the Court: *“an*

- average programme would be one three-hour class per night per course. So if, for example, in one semester block, I would have three courses, I would have three nights each with one three-hour class per week. So for example, Monday, I might go for three hours, Wednesday I might go for three hours and Thursday, I might go for three hours.”* He said that there were “*exams at the end of each class*” and that some class sizes “*were five people, some class sizes were eight to ten*” but he did not ask anybody their name.
182. He explained that he was working on St John on a project for Coca Cola and said “*it was a long project. We were there a total of 15 months, but I would be there for a time and then go away and then come back. Sometimes the gap would be a week, and sometimes the gap would be up to about three weeks, especially in the holiday period.*” He said that he was living in “*a hotel environment.*” He said that he “*was working with a number of independent Coca Cola Distributors that were in the area*” and that whilst there was no Coca Cola bottling plant or anything of the nature there but there was a Coca Cola office which was clearly described as a Coca Cola facility with “*Coca Cola marketing, advertising materials around.*”
183. In relation to travelling to St John he said: “*As I recall, there was a small commuter flight that went back and forth to St Johns.*” and which went “*From St Thomas which is the largest island to St John.*” He said that it was a “*Four - six seater kind of airplane*”. After he had been told there was no airport on St John and that St Thomas was two kilometres away he was later asked whether he maintained that he flew on to St John and he replied “*As I said before, I don't recall specifically.*”
184. He said that he could provide “*the graduate materials that I worked on, the work books, the books, that sort of thing. I am happy to pass those along to you.*” He said that would be “*somewhere between five and ten textbooks*”, which were “*books that are associated with the class*”. When he did provide a book EDS’ solicitors said that Joe Galloway “*recalls having this for some time but cannot recall whether he used this as part of any of his studies*”. That book was “*The Customer Connection*” by John Guaspari and bore a barcode, stickers and pencil markings which linked it with the library of the St Charles, Missouri campus of Sanford-Brown College near his current home in St Louis, Missouri and evidently was a recent acquisition.
185. In fact, as I have said, Sky produced two witness statements from David Phillips, a solicitor from Herbert Smith LLP who visited the US Virgin Islands during the trial and a witness statement from Senator Liston Davis, a US Virgin Islands senator, a former Superintendent of Schools, Commissioner of Education and member of the Board of Education in the US Virgin Islands and the current Chairman of the US Virgin Islands Legislative Committee on Education, Culture and Youth.



186. This evidence, which was not challenged, showed that there was not and never had been a Concordia College & University on St John; there was not, nor ever had been a Coca Cola office or facility on St John; there was not, nor ever had been an airport on St John and it was not possible to fly onto the island. The closest island, St Thomas, is about two kilometres away.
187. Sky submit that, as a result, Joe Galloway revealed himself in his evidence to be a person with a wholesale disregard for the truth, entirely willing to lie and to make things up in order to suit his needs. They say that he revealed himself as a man who could lie without any palpable change in his disposition or any outward signs of unease and that he repeatedly perjured himself, deliberately and knowingly seeking to mislead the Court. Sky submit that, overall, the Court cannot but come to the conclusion that Joe Galloway's evidence as a whole is a complete lie.
188. EDS accept that Joe Galloway lied to the court in relation to his MBA and he has been dismissed from his employment by EDSC as a result.
189. EDS submit that it does not follow that all his evidence was false. They referred to the decision of Flaux J in Grosvenor Casinos v National Bank of Abu Dhabi [2008] EWHC 511 (Comm) where the claimant relied on other incidents of wrongdoing on the part of the bank's officer as evidence suggesting that he was prepared to tell lies. Flaux J said at [113] and [126] that there was force in a submission that the evidence demonstrated a propensity to act dishonestly "*but I consider the court must guard against merely concluding on the basis of this material that he was also dishonest on 8 February 2000 unless there is other cogent evidence to support that conclusion.*" He said that whilst the other acts of dishonesty are obviously of some relevance in assessing whether he was a rogue banker, "*I do not regard the subsequent dishonesty in relation to the letter and the guarantees as cogent evidence that he made a knowingly false statement on 8 February 2000. There is no material before the Court to suggest that any such false statements were made to assist, let alone at the behest of, the Ruler.*"
190. They also referred me to the decision of Peter Smith J in Masood and others v Mohammad Zahoor and others [2008] EWHC 1034 (Ch) at [130] where he said: "*Where cases turn on the credibility of witnesses it is important to consider the evidence as a whole. As I said in EPI whilst a witness' veracity is challenged successfully by demonstrating that the witness has lied it is important to differentiate between establishing that a witness has lied in respect of a particular point as opposed to whether or not his evidence as a whole is a complete lie ...*"
191. I was also referred to the familiar Lucas direction in criminal cases and what Lord Taylor said in R v Goodway [1993] 4 All ER 894 that a jury "*must be satisfied that there is no innocent motive for the lie and [they] should be reminded that people sometimes lie, for example, in an attempt to bolster up a just cause, or out of shame, or out of a wish to conceal disgraceful behaviour.*"

192. EDS submit that, Joe Galloway's evidence on the relevant issues was credible and he did not try to gloss the facts in favour of EDS.
193. EDS accept, though, that in the light of his evidence concerning his MBA degree, Joe Galloway's evidence on other matters had to be treated with caution. They accept that the court will not be as reluctant as it normally would be to accept that he is wrong or even knowingly wrong in his evidence on other matters. However they submit that his evidence should, nevertheless, be accepted where it is supported by other evidence or appears inherently likely and indeed it should be accepted unless there is an objective reason to reject it. They say that, as in Grosvenor, the Court should guard against merely concluding on the basis of the evidence that Joe Galloway was dishonest in relation to his degree that he was also dishonest in relation to the making of representations to Sky in relation to the bid unless there is other cogent evidence to support that conclusion.
194. This is not a case where there was merely a lie as to the MBA degree. Such a lie might have had a limited effect on credibility and might be explicable on the basis that Joe Galloway wished to bolster his academic qualifications and was embarrassed about the way he did it. However his dishonesty did not stop at that. He then gave perjured evidence about the MBA, including repeatedly giving dishonest answers about the circumstances in which he gained his MBA and worked in St John on a project for Coca Cola. In doing so, he gave his evidence with the same confident manner which he adopted in relation to his other evidence about his involvement in the Sky CRM Project. He therefore demonstrated an astounding ability to be dishonest, making up a whole story about being in St John, working there and studying at Concordia College. EDS properly distance themselves from his evidence and realistically accept that his evidence should be treated with caution.
195. In my judgment, Joe Galloway's credibility was completely destroyed by his perjured evidence over a prolonged period. It is simply not possible to distinguish between evidence which he gave on this aspect and on other aspects of the case. My general approach to his evidence has therefore to be that I cannot rely on the truth of his evidence unless it is supported by other evidence or there is some other reason to accept it, such as it being inherently liable to be true.
196. Having observed him over the period he gave his evidence and heard his answers to questions put in cross-examination and by me, which have been shown to be dishonest, I also consider that this reflects upon his propensity to be dishonest whenever he sees it in his interest, in his business dealings. Whilst, of course, this does not prove that Joe Galloway made dishonest representations, it is a significant factor which I have to take into account in assessing whether he was dishonest in his dealings with Sky.

*The 12 July email*

197. Sky submit that Joe Galloway created a false email which purported to be an email which he sent at 17:06 on 12 July 2000 (“the 12 July email”) to Keith Russell, Gary Gordon and John Chan saying:

*“I apologise for this but the email that I sent this morning verified the wrong spreadsheet. The following sheet gives the correct figures. Sorry for the confusion.”*

198. Sky say that this email was never actually sent on 12 July 2000 but was created by Joe Galloway subsequently so as to cover up an error that he made in relation to the EDS “rate card” which was to apply on the project.
199. EDS submit that Sky's submission that Joe Galloway forged the email was not made good on the evidence.
200. It is necessary to consider the background to the 12 July email.
201. In a letter of 10 July 2000 Joe Galloway wrote to Richard Freudenstein, setting out certain points in relation to the commercial deal which EDS were prepared to offer. That letter explained EDS’ pricing structure as follows:

*“Our pricing structure is based on a cost plus mark-up model. EDS’ average day rate plus a mark-up of 37.5% is the model that has [been] offered and has not changed since our initial response. In addition, because of our confidence in our ability to deliver this project on time and on budget, we are also committed to place 32.5% of margin at risk against agreed milestones.”*

202. Joe Galloway then sent an email at 12:40 on 11 July 2000 which improved that offer by agreeing to reduce the mark-up by 5% from 37.5% to 32.5% with 27.5% being paid against the achievement of milestones.
203. In response at 14:50 on 11 July 2000 Keith Russell of Sky sought “for the avoidance of doubt” confirmation that the 5% discount being offered was effective on the rate card attached. That rate card took the form of an Excel spreadsheet entitled “*EDS Revised Rate Card 11-7-00.xls*”. That rate card took the original rate and made alterations to arrive at what that rate would be if a 32.5% mark-up as opposed to a 37.5% mark-up was used.
204. Joe Galloway was, however, in error when he thought that he had a 37.5% mark-up. Whilst his spreadsheet told him that he had a margin of 38.36% (with profit of £4,515,600 against a total price of £11,771,000), there were errors in it which meant that the actual mark-up was much less.
205. Joe Galloway replied to Keith Russell by email at 10:11 on 12 July 2000, with a copy to, among others, Richard Freudenstein and John Chan. In his email he confirmed that the application of the discount in Sky’s rate card spreadsheet was correct and stated:

*“I should point out that because of our flexible commercial structure, we are taking this 5% off of the mark-up money. This will allow us to keep the*

*same high level of resource on the project. In other management consultancies I have worked for, dropping the rate usually means substituting lower level resources to reduce the average daily rate.”*

206. The 12 July email was timed at 17:06 on 12 July 2000.
207. On 20 July 2000, after Joe Galloway had been informed that EDS had been selected, John Chan sent an email to Barry Yard, copied to Joe Galloway. It attached seven documents and John Chan stated that *‘Joe has requested that I send you the commercial documents relating to Sky’*. One of the attachments was the *“EDS Revised Rate Card 11-7-00.xls”* which had been confirmed as the applicable rate card by Joe Galloway at 10:11 on 12 July 2000. The spreadsheet attached to the 12 July email was not included.
208. On 24 July 2000, EDS received from Sky the draft Letter of Intent which referred at paragraph 3 to the fact that *‘EDS shall be entitled to charge B Sky B for services properly performed hereunder at the rates set out in the schedule to this letter’*. The schedule set out the rates in *“EDS Revised Rate Card 11-7-00.xls”* which had been confirmed as correct by Joe Galloway at 10.11 am on 12 July. At this stage, it became plain to all within EDS what rates Joe Galloway had in fact agreed.
209. On 26 July 2000, John Chan emailed Keith Russell and Gary Gordon of Sky referring to telephone conversations regarding the letter of intent and ending by saying: *‘Schedule – please refer to the attached rate table upon which the costing was arrived at and note Joe’s apology’*. The attached document had the title *“MP Chord Third Pass Revised 12 July”*. The reference to *“Joe’s apology”* was a reference to an email from Joe Galloway to John Chan which said *“John, here was the email I sent to Keith and Gary at 5:06pm on the 12th of July. Try to have a discussion with Keith and/or Gary about this”* and enclosed the relevant email timed at 17:06 on 12 July 2000 which Sky submit is a forgery.
210. *“MP Chord Third Pass Revised 12 July”* is a spreadsheet which was a variation on *“MP Chord Third Pass”* which was the spreadsheet originally produced by Joe Galloway. The metadata shows that the last author was John Chan and that it was last saved at 4.03 pm on 12 July. It properly applied a mark-up of 32.5% to EDS’ actual internal costs, arriving at a series of rates for resources significantly higher than those which were reflected in the Letter of Intent. This document also corrected errors in the spreadsheet, with the result that it accurately recorded the overall price to be £12,296,448.00, the profit as £3,257,808.00 and the margin to be 26.49%. The rates contained in this document, and indeed the overall price derived from it, represented a significant increase from the prices originally quoted by Joe Galloway and which he offered to reduce on 11 July, as opposed to a reduction of them.
211. Keith Russell responded to John Chan’s email at 17:37 on 26 July 2000, stating that he and Gary Gordon had never received the 12 July email. He said: *“Our decision to select EDS as our partner is in part based on this information as confirmed! Please advise me of your intention as any changes to these rates is absolutely unacceptable to us at this stage”*.

212. On 27 July 2000 at 07:58, Joe Galloway sent an email in which he stated that he would accept the rates he had confirmed on the morning of 12 July 2000. He did not say that Sky had been sent the 12 July email merely that he had asked EDS' IT team to search for the delivery notification for that email.
213. Also on 28 July 2000, a financial review meeting took place at Canary Wharf. Steve Tudor-Price produced a New Business Analysis document of the same date which recorded that EDS in fact only had a 12.6% margin.
214. On 2 August 2000, Barry Yard sent an email to Steve Leonard, copied to Joe Galloway, Gerard Whelan, Jonathan Malin, Terry Daniels and Alex Kreymer about the Sky deal. This expressly recorded: *'The LOI has been returned by Joe, and by implication we have accepted rates lower than our standard rates. Need to consider how we can improve this'*.
215. When Joe Galloway returned the Letter of Intent to Sky, he noted in his covering email that *"The only change that we have made is to section 3 where we have added some verbiage around the schedule listed in the letter being valid until the 31st of August or until the contract is signed."* The "verbiage" was a provision designed to ensure that the agreed rates would only last for a short period of time and to provide EDS with an agreed mechanism to revise them upwards.
216. Gary Gordon of Sky responded to this and said: *"The way the clause is now written means the Rate Card we have agreed would be valid until either 31st August 2000 or to the point we agree a full form contract. It would seem that the Rate Card could be re-negotiated. The Rate Card we have agreed is for the duration of the project, the LOI must reflect this point in such a way that there can be no room for misunderstanding. We will therefore keep the wording of the clause as previously written"*.
217. The Letter of Intent was then concluded in the terms of the original draft.
218. Sky submit that the 12 July email was not a genuine email; that it was not ever sent to Sky and that it was fabricated after the event by Joe Galloway in a dishonest attempt to seek to avoid the consequences of his having agreed rates much lower than he should have done.
219. Sky say that the title of the 12 July email: *"Spreadsheet"* is wrong. All the emails that precede and follow it in the chain have titles that flow from the title of the original email: *"EDS Revised Rate Card 11-7-00.xls"* with the addition of the usual automatic *"RE"* or *"FW"* depending on whether the email has been replied to or forwarded. Sky submit that if it had genuinely formed part of the email chain, it would either have had a title that was a variation on *"EDS Revised Rate Card 11-7-00.xls"* or the emails subsequent to it in the chain would have taken their titles from the title *"Spreadsheet"*.
220. Sky say that whilst it is possible that the 12 July email was copied and pasted into the email chain from elsewhere, that is highly unlikely and can be discounted based on all the other evidence.
221. Sky point out that the email does not have any attachment and that genuine attachments can be seen in the chain attached to Gary Gordon's very first email

- and are shown as “<<EDS Revised Rate Card 11-7-00.xls>>” and John Chan’s email of 26 July “<<MP Chord Third Pass Revised 12 July.xls>>” but there is no such attachment to the email.
222. Sky say that if Joe Galloway had genuinely sent the 12 July email, it is unlikely that he would have been so casual in his language. They say that he was correcting an error in relation to a vital potential contract and was revising the overall price upwards, having the day before purported to give a 5% discount and that such a significant change would not have been dealt with so informally.
223. Sky also point out that if the 12 July email had been sent, John Chan would already have had it, and so it would not have been necessary for Joe Galloway to send it to him again at 15:57 on 26 July. Furthermore, Sky say that the language in the email of 15:57 is peculiar: it is unnaturally precise in its identification of the email: “*here was the email I sent to Keith and Gary at 5:06pm on the 12th of July*” if Joe Galloway were really reminding John Chan of a previous email. They also say that, given that Sky had selected EDS on an incorrect basis as to the rates, the request by Joe Galloway for John Chan to “*try to have a discussion with Keith and/or Gary about this*” would be a strange and informal approach rather than contacting Sky directly and instantly to raise the point. Sky say that if the “*MP Chord Third Pass Revised 12 July*” was the operative rate card, then John Chan would have provided it to Barry Yard on 20 July 2000 rather than the email at 10.11am on 12 July 2000 which referred to “*EDS Revised Rate Card 11-7-00*”.
224. If Joe Galloway had genuinely sent the email, Sky say that he would have responded strongly when Sky responded to say that they had not received the email and that whilst he said in his email on 27 July 2000 that he had “*asked our IT team to search for the delivery notification of the email that I sent at 5:06 pm on the 12 of July*”, nothing further was ever heard on the subject. Sky say that if the email had been sent, it would have existed on Sky's computer systems and would have been present in Sky's disclosure but was not.
225. Sky refer to the fact that Joe Galloway said he did not remember any of the problems arising from the rates and they say that this cannot be true as the rates that he agreed had caused significant worry within EDS. Sky also say that Joe Galloway provided no proper reason for needing to re-send the email to John Chan when he is said to have received it already. Sky submit that the explanation that the email may have been accidentally erased or not read by John Chan does not explain why John Chan would have been unaware of “*MP Chord Third Pass Revised 12 July*” which was a document that John Chan had himself prepared.
226. Sky say that Joe Galloway’s evidence that the 5% discount he had given was not a significant matter cannot be true because, as Steve Tudor-Price’s analysis showed, it resulted in a margin for EDS of 12.6%, before overheads, corporate contributions and similar matters were taken into account. Sky refer to John Chan’s evidence that the question of the mark-up became very significant and attracted the attention of ‘*other people much higher than me were involved in that process, Steve Leonard, Barry Yard but not me*’. Sky also refer to John Chan’s evidence that the documents he sent to Barry Yard on 20 July 2000 were the

- commercial documents as they then stood and that the rate card was the rate card of the 11 July.
227. EDS say that Sky's submission that the 12 July email was forged is not made out on the evidence. They say that the accusation is based, first, on the absence of other copies of Joe Galloway's email in the disclosure of the parties. EDS say that Joe Galloway commented that there had been a number of other documents that he recalled and had asked for when writing his witness statement, but he had been told they could not be found. EDS point out that the email chain containing the 12 July email reproduced a total of eight emails and that whilst the authenticity of seven is not disputed, three of these other undisputed emails do not appear elsewhere in the disclosure.
228. EDS refer to the second point relied on by Sky, namely that the subject heading "*Spreadsheet*" was not the same as the subject heading on other emails in the chain. EDS say that Joe Galloway could very well have named his email "*Spreadsheet*".
229. EDS also say that other points on the format of the 12 July email were equally insubstantial. Gary Gordon's name appears as "Gordon, Gary" as opposed to "Gary Gordon" in the first email of the chain as well as the 12 July email and this therefore provides no indication of impropriety on the part of Joe Galloway. The fact that the 12 July email contained no reference to an attachment is irrelevant as it is not always the case that the name of an attachment is recorded in the text of an email. The fact that John Chan sent Barry Yard a copy of the rate card from 11 July 2000 rather than the updated rate card is consistent with the fact that John Chan and the other intended recipients of the 12 July email had not received that email.
230. EDS also point out that the metadata showed that the document "*MP Chord Third Pass Revised 12 July*" attached to the 12 July email was created on 10 May 2000 and was last modified on 12 July 2000 which is consistent with it having been sent by Joe Galloway on that date.
231. The background to the 12 July email is that Joe Galloway made an error in agreeing to the rates set out in the spreadsheet "*EDS Revised Rate Card 11-7-00*" attached to the email sent to him by Keith Russell on 11 July 2000. In such circumstances, it would be expected that he would put the error right as soon as he became aware of it. The metadata for the spreadsheet "*MP Chord Third Pass Revised 12 July*" shows that it was saved by John Chan at 16:03 on 12 July 2000. It is not evident when it was sent to Joe Galloway or when he became aware of the fact that he had made an error.
232. The 12 July email has a number of features which make it unusual. First, it was not received by Keith Russell or Gary Gordon, according to the email of 26 July 2000 and does not appear to have been received by John Chan. Secondly, it lacks any sign that there was an attachment either in the form of an Icon or text "<<*MP Chord Third Pass Revised 12 July.xls*>>". Whilst Joe Galloway was correct to state that the way in which attachments are shown varies, there is usually an

indication on the face of the email that there was an attachment. Equally on 26 July 2000 John Chan had to add in the attachment because it had obviously not come from the email chain from Joe Galloway. Thirdly, whilst the title to the 12 July email of “*Spreadsheet*” would be explicable on the basis that Joe Galloway was copying and pasting an email into the chain the context is strange. It would be expected that Joe Galloway would forward the email sent by him on 12 July at 10:11 and include his apology rather than creating a completely new email with a subject matter “*Spreadsheet*”. That is obviously what he did on 26 July because of the use of “*FW: EDS Revised Rate Card 11-7-00.xls*” as the subject heading. Equally on 26 July when he “forwarded” the 12 July email he adopted the unusual method of copying and pasting the email rather than forwarding the email with a subject heading “*FW: Spreadsheet*”. Fifthly, if the “*MP Chord Third Pass Revised 12 July.xls*” was seen on 20 July 2000 as the relevant commercial rate card then it would have been expected that John Chan, who created it, would have been aware of it and sent it to Barry Yard or that Joe Galloway would have identified that to John Chan as the relevant document or immediately have picked up that John Chan was sending the wrong rate card to Barry Yard when copied into that email.

233. Whilst each one of those unusual features might alone not cast sufficient doubt on the genuineness of the 12 July email, taken together they make it implausible that Joe Galloway created and sent the 12 July 2000 email contemporaneously. Having come to the conclusion that I have about his conduct in relation to the Concordia MBA and the evidence that he gave in court, I have no hesitation in finding that Joe Galloway simply created the 12 July email to cover his error in the hope that he could convince everyone that he had spotted the error at the time and dealt with it.

### ***ITIVITI***

234. When Joe Galloway left EDS in December 2000 he joined ITIVITI to set up a CRM group in another organisation. He was asked a number of questions in cross-examination concerning ITIVITI and Sky submit that his answers to those questions also revealed Joe Galloway’s propensity to act dishonestly and his willingness to lie under oath.
235. EDS submit that the matters concerning ITIVITI raised with Joe Galloway are irrelevant to the issues and that, to the extent that Joe Galloway gave evidence, Sky cannot, in any event, go behind the answers that he gave. They referred me to extracts from Cross and Tapper on Evidence and to Hobbs v Tinling [1929] 2 KB 1 at 18 to 19 where Scrutton LJ stated that, in relation to answers given in cross-examination to credit, the party cross-examining is not allowed to call evidence in chief to contradict the answers. He pointed out that “*To permit this would involve the Court in an interminable series of controversies not directly material to the case on alleged facts of which the witness had no notice when he came into Court, and which he or the party calling him might not be prepared without notice to meet.*”



236. In the light of my findings arising from the evidence given by Joe Galloway in relation to Concordia College, I do not consider that there is any benefit in dealing with the wide and diverse matters which are referred to by Sky in their closing submissions and which go to similar matters of credit. Indeed Sky state that they merely rely on these matters as confirming the picture of Joe Galloway that emerged from the Concordia evidence. The matters relied on by Sky concerned the timing and circumstances in which Joe Galloway became involved with ITIVITI; the extent to which he attempted to poach EDS staff to join ITIVITI; whether Joe Galloway arranged for ITIVITI to be awarded a contract with the Halifax for which EDS was also bidding at the same time and a number of matters relating to ITIVITI's activities and Joe Galloway's conduct when he was with ITIVITI.
237. Whilst the credibility of Joe Galloway is evidently an important matter and there were potential issues in relation to ITIVITI which could have reflected on credibility, I agree with EDS that the question of whether the evidence of Joe Galloway was accurate could not properly be resolved without advance notice and a subsequent proper investigation of these matters. In the absence of such a process, I decline to make findings on these issues which, in the circumstances, are not necessary for me to determine the central issues.
238. The only aspect which might be relevant is the fact that, on any view, in the third quarter of 2000 Joe Galloway was involved in discussions about ITIVITI and he and other EDS staff then left to join ITIVITI. This is obviously relevant and had some impact on the Sky project, although the evidence of both Joe Galloway and Gerard Whelan indicates that the effect on the technical team of the Sky project was small.

***Joe Galloway's Yahoo account and the mail of 5 July 2000***

239. Sky rely on the fact that Joe Galloway used his Yahoo account to send his letter of 5 July 2000 to Richard Freudenstein as having significance. They say that he used that account to conceal the letter and its covering email from EDS, both at the time he wrote it and once the litigation was under way. However, Sky also say that it is not true that, as Joe Galloway claimed, he had not had access to his Yahoo account since late 2000.
240. The email under which the letter of 5 July 2000 was sent was only disclosed late by Sky on 26 October 2007. In his fourth witness statement served on 11 January 2008, shortly before he gave evidence he said that the late disclosure revealed to him that the email had come from his Yahoo account. He said that it was his common practice at the time, when either working from home or travelling, to use his personal Yahoo email account because gaining access to the remote EDS servers was, at that point, laborious and slow, particularly when sending emails with attachments. He then said: "*I have not used my personal Yahoo account*

*since late 2000, but, have recently managed to obtain access to it. I understand that a further copy of my email of 5 July 2000 (together with the attached letter) will be disclosed along with this witness statement...”.*

241. Sky say that the question of whether he had used his Yahoo account was relevant to the issue of whether Joe Galloway had deliberately concealed the email. Sky say this, in turn, raised the question whether it was possible for him to have accessed his Yahoo account if it had not been used at all since late 2000. He confirmed in his evidence on Day 40 that the account was an ordinary free Yahoo account as opposed to some other account. Sky obtained and put to him the statement as to policy in relation to dormant accounts, from the current Yahoo.com website and from an archived version of the website from October 2000. The 2000 document stated: *“dormant accounts are deactivated at the end of four months. A dormant account is one which has not been logged in to over a four-month period, regardless of whether or not email has been received in the account during that time. Once an account has been deactivated, we cannot retrieve any of the information that was formerly stored in it”*. Sky submit that on this basis, given that Joe Galloway did successfully access the account in November 2007 it is impossible for that account to have been accessed last some seven years before because the account would have been long dormant and its contents irrecoverably deleted. Sky say that the email address must have remained in sufficiently regular use by him throughout the period from 2000 to November 2007 for it not to become dormant.
242. When the Yahoo terms were put to him on Day 44 Joe Galloway put forward an explanation which, as I understood it, meant that, as he had other Yahoo profiles and email addresses which were or would have been associated with these profiles, this would cause his email address to remain active. Following his evidence EDS’ solicitors were provided with access to his Yahoo account and wrote on 28 February 2008 and 10 March 2008. They said that *“Mr Galloway explained to us that he had a number of public profiles set up with Yahoo.... He explained that he believed that each of these public profiles had an associated email address...Our own investigations do not support the suggestion that each public profile has an associated email address, at least currently.”* They said: *“We are aware of one personal email account that Mr Galloway has with Yahoo... Mr Galloway explained to us that he had a number of public profiles set up with Yahoo .... Mr Galloway explained that he believed that each of these public profiles had an associated email address but that any mail to/from any of the addresses would be stored in the set of folders to which he gave us access. Our own investigations do not support the suggestion that each public profile has an associated email address, at least currently. We are not therefore currently aware of Mr Galloway having more than one personal Yahoo email account.”*
243. Sky say that this shows that his explanation was not supported by the investigations carried out by EDS’ solicitors and that he must have been lying

- about his access to his Yahoo account to explain away the fact that he had concealed the email.
244. EDS say that there is no evidence before the Court as to how efficiently Yahoo implemented the policy of making accounts dormant nor as to how the policy would apply in respect of accounts with multiple profiles. EDS therefore submit that Sky's conclusion that Joe Galloway had used the email account is a matter of speculation.
245. EDS say that there is no evidence from Joe Galloway's Yahoo account to suggest that his email account had been used at all since late 2000. If his evidence that he had not used the email account since late 2000 were correct, then his error in suggesting to the Court that he had several email accounts rather than profiles is, perhaps, easy to understand. EDS submit that the Court should be very cautious about jumping to a conclusion on this weak basis.
246. I have to say that I did not find his explanation when faced with the material from Yahoo on dormant accounts at all convincing. Further the letters from EDS' solicitors show that their investigations have provided no support for what he was saying. I regret that I simply do not believe his evidence that he had not had access to the email account since 2000. This was another case where he made up what on the face of it was a potential explanation to cover his statement that he had not had access when that explanation on further investigation could not be supported. However, I can deal shortly with Sky's submission that his use of the Yahoo account was somehow intended to conceal from EDS what he was saying to Sky and was done in the knowledge that what he was saying was a lie. I do not accept that submission and agree with EDS that the submission does not stand scrutiny. Joe Galloway had also sent his letter to Richard Freudenstein of 18 June 2000 via his personal Yahoo email account, with a copy to Steve Leonard. The context for the letter of 5 July 2000 was Mike Hughes' request to send a letter to Richard Freudenstein as part of "a final push" and the content of that email did not, on Sky's case, go as far as the statement in Joe Galloway's email of 11 July 2000 which was copied to people at Sky and EDS. Rather I consider it inherently likely that, as many people did in 2000 and still do today, Joe Galloway used his personal email address when either working from home or travelling, because of difficulties in gaining access to his EDS email account on the EDS servers.

### ***The 12 October Meeting***

247. There was an issue in the evidence as to what was said at a meeting on 12 October 2000 when Joe Galloway visited Dunfermline and the programme for the project was shortened, giving rise to allegations concerning representations prior to the Prime Contract. The way in which things were said and done on 12 October 2000 is also relevant to the approach of Joe Galloway to revising the programme on 12 October 2000.

248. In his fourth witness statement, Scott Mackay said at paragraph 41 that when Joe Galloway presented him with the revised plan he said words to the effect of *"This is the plan. You can either agree with it or we will take you out into the car park and kick the f\*\*\* out of you"*. Scott Mackay then says: *"Leaving aside the language, I was absolutely taken aback by this comment. Whilst I appreciated that Joe Galloway had attempted to be funny, I had no doubt about what he was telling me, which was simply that this was EDS' plan, EDS knew how it was going to work and unless I was in agreement, my views were not wanted. I replied to the effect that I would happily fight him in the car park if that was what he wanted. Joe Galloway replied along the lines of being happy to do so, as long as he could bring his girlfriend, or wife - I cannot remember which – who was apparently some sort of martial arts expert."*
249. This led to a denial from Joe Galloway: *"No, I never said that, nor have I ever said anything like that to a customer."* In his fourth witness statement at paragraphs 10 to 12 and in his oral evidence on Day 46 he accepted that he did have a girlfriend who was trained in martial arts but he said that he did not meet her until a Halloween party on or about the 31 October 2000. He said that his relationship with her did not become public knowledge until about a week or so later so that nobody knew about her until sometime in early November 2000. He also said that he did not recall ever meeting Scott Mackay after the 12 October meeting. In his oral evidence he referred to the fact that there were other people in the room such as Dan Barton and John Chan.
250. EDS submit that on the question of this conversation, the evidence of Joe Galloway should be preferred.
251. EDS say that this evidence only appeared in Scott Mackay's fourth witness statement and is quite inconsistent with the account of the same conversation given in his first witness statement where he did not mention this incident but said that Joe Galloway showed him a Microsoft Project Plan which had been drawn up on a single piece of A4 paper and asked him what he thought of the plan to which he replied that he thought that the time period for system testing was too compressed. He then said that Joe Galloway replied that system testing would be done in parallel with development. He commented that *"I certainly didn't consider Joe's behaviour in presenting me with the plan without any explanation of how it had been put together to be brilliant."* EDS say that, by contrast, in his fourth witness statement Scott Mackay, however, gave a materially different version of his conversation with Joe Galloway.
252. EDS say that there is a clear inconsistency and that Scott Mackay's denial in cross-examination on Day 30 was untenable and that if the "car park" conversation had really taken place, it is inconceivable that he would not have mentioned the conversation to Sky's solicitors and it would have been included in his first witness statement. EDS also say that there is no mention of the

- conversation in the contemporaneous correspondence, such as Scott Mackay's email to Mike Hughes of 12 October 2000.
253. EDS also say that Scott Mackay said that the conversation took place in front of others and would have been overheard by John Chan, Richard Durling and Dan Barton, all of whom have denied hearing any such conversation in their subsequent witness statements. EDS say that the oral evidence of John Chan and Richard Durling confirmed this.
  254. EDS also refer to the fact that Scott Mackay's account of the "car park" conversation included reference to Joe Galloway's girlfriend being a martial arts expert and that, on Joe Galloway's evidence of when he met her, this could not have taken place until after 12 October 2000.
  255. EDS say that, despite Scott Mackay's adamant confirmation of his evidence: "*I absolutely, to the day I die, maintain that happened*", his evidence should not be accepted.
  256. Sky evidently maintain that Scott Mackay's evidence should be preferred. They refer to evidence from Melanie Haydon and Penny Hicks of Joe Galloway's threatening behaviour towards members of his own team and his use of foul and inappropriate language towards clients and say that this evidence was consistent with Scott Mackay's evidence of the 12 October meeting.
  257. Whilst the evidence from Scott Mackay of the "car park" conversation does, I accept, not lie completely consistently with his first witness statement and should have been mentioned earlier, it is not so conflicting as to make the later account not credible. In addition, given the breadth of evidence dealt with by Scott Mackay the absence of the evidence from the first witness statement is explicable.
  258. I do not find support, one way or another, in the evidence of Melanie Haydon that Penny Hicks had, on one occasion, complained that Joe Galloway had used inappropriate language in front of her or of Joe Galloway's treatment of Richard Durling on 12 October 2000. Her evidence was not supported by the witness statement of Penny Hicks or by the evidence of Richard Durling. Equally, though, this would not establish that Joe Galloway made the "car park" comment on 12 October 2000.
  259. However for the following reasons I have come to the conclusion that Scott Mackay's evidence is to be preferred. Whilst, as I say, his evidence has to some extent been coloured or influenced by his involvement in the litigation, that is entirely different to making up an elaborate story which, on any view, whilst relevant is not of central importance. Furthermore, in relation to the reference to Joe Galloway's girlfriend and martial arts, that reference is entirely accurate and could have been said. The only issue would be that of timing. Based on Joe Galloway's evidence of timing, he only met the girlfriend later in October 2000.

However, it is clear that after 12 October 2000 he had little involvement with Joe Galloway and it is therefore unlikely that Scott Mackay mistook the conversation for a later one or is recalling matters which he heard about later. That timing aspect is crucial. Whilst in other circumstances mistakes about timing might be attributed to lack of memory of dates, given my view of Joe Galloway I have no difficulty in finding that he has created the timing issue to cover what he said at the time.

### **Gerard Whelan**

260. Gerard Whelan was Bid Project Manager for EDS. He was therefore responsible for producing the Response to the ITT although in doing so he clearly obtained most of the material from others in the bid team. He had worked for EDS from September 1999 until January 2001 when he left to join ITIVITI with Joe Galloway. His recollection of the detail of what happened during the bid process was not good. He referred very often to there being, or possibly being, other documents but I was not persuaded that he had any clear recollection that there were significant documents which were no longer in existence.
261. He was not a forceful character and tended to agree with suggestions put forcefully to him in cross-examination without giving careful consideration to his answer. He therefore gave evidence which was not always reliable. I consider that he was an honest witness in relation to what he recalled. He was evidently someone who could organise a bid submission but on the important aspects relevant to the matters which give rise to the alleged misrepresentations he relied on others and, in particular, Joe Galloway for the accuracy of the information which was being provided to him. He was, as Sky submit, very much the junior partner to Joe Galloway.
262. He gave evidence on two occasions. On the first occasion he clearly was concerned to distance himself from the detail and some of his answers were evasive. He was much more open when he returned to give evidence.

### **John Chan**

263. John Chan was the EDS Project Manager for the Sky CRM Project named in the Response and he held this position until October 2000. He was obviously an experienced project manager but his oral evidence was unsatisfactory and at times incomprehensible. He did not react well to intense questioning and his answers often differed over time. Even making allowances for the fact that English was not his first language, his explanation of entries on the risk register was particularly difficult to understand and was evasive. Having said that he did not strike me as being dishonest but rather as reacting badly to the pressures of giving evidence.

### **Tony Dean**

264. Tony Dean became involved as Client Executive on the project in September 2000 and was the senior person with responsibility for EDS' relationship with Sky. His evidence was often defensive and at times his answers were evasive.

**Steve Leonard**

265. Sky withdrew its claim of dishonesty against Steve Leonard. I found him an honest and straightforward witness.

**Scott Mackay**

266. Scott Mackay was involved in the project throughout. He was then involved in giving instructions to Sky's solicitors for the purpose of this litigation. His evidence, at times, was coloured by this involvement and reflected Sky's case. This affected his perspective and the emphasis which he gave to the facts rather than the honesty of his evidence.

**Andy Waddell**

267. Andy Waddell had similarly been involved in giving instructions to Sky's solicitors in relation to this litigation over a prolonged period of time. He, too, showed a tendency to emphasise matters which benefited Sky's case but, like Scott Mackay, I do not consider that this affected the honesty of his answers.

**Expert Evidence**

268. In this case the issues raised matters which required expert evidence relating to four disciplines: IT, customer churn, call avoidance and quantum.
269. Directions were given at an early stage for the experts to agree on the expert issues which arose from the pleaded case. This led to the production of a document which set out 21 expert issues attached to an order made on 12 June 2006 which provided focus for the expert evidence.

**IT Expert Evidence**

270. Sky instructed PA Consulting Services Limited ("PA") to provide expert evidence and three experts from that organisation gave expert evidence, each dealing with particular aspects. Ian Murray was responsible for PA's opinion evidence in respect of estimating and planning, resources and quantum, except for Function Point Analysis which was the responsibility of Neil Douglas. Mark Britton was responsible for all opinion evidence relating to methodologies and performance. EDS instructed Robert Worden of IT consultancy, Charteris plc. He covered all aspects of IT expert evidence.
271. Ian Murray joined PA in 1985 and became head of PA's Global Systems Integration and Solutions Group which specialises in the implementation of

- software solutions and covers software development, systems integration and package software implementation. His background was in software engineering and he has managed a number of successful system implementation projects and has advised clients extensively on software and systems architectures, delivery strategies and lifecycle methodologies. He has also carried out a number of audit roles for major system development projects in the public and private sectors. Between 1998 and 2004 he was responsible for the development of PA's initiative on Customer Relationship Management (CRM) which involved leading a team dealing with all aspects of CRM, from strategic objectives such as customer value, churn and retention, customer lifecycle to technology options for building CRM solutions. He has also led a number of CRM projects which included the delivery of IT systems to support call centre operations, specifically in the telecommunications and utilities industries.
272. Mark Britton is a Chartered Engineer, Member of the Institution of Engineering and Technology (formerly IEE) and has been employed by PA since October 1992. His background is in systems implementation and he has worked on a number of successful implementation projects. He has experience of working to both Rapid Application Development (RAD) and waterfall development lifecycles, and his roles have ranged from that of developer to being the system architect. He has also conducted project reviews of a number of systems implementation projects of varying complexity, gaining experience of development methodologies, and the causes of project and programme failure.
273. Neil Douglas is a Fellow of the British Computer Science Society, a Chartered IT Professional, Certified Management Consultant and a member of the PA Management Group. He has been employed by PA since November 1993. He specialises in the planning and management of complex IT delivery projects and has led development, testing and implementation teams on a number of major system delivery projects. He is an experienced project manager and a system architect. He has particular expertise and experience in the field of formal estimating techniques and systems integration. In particular he has been involved in the development of Function Point Analysis as a technique and is a member of the Counting Practices Committee of the UK Function Point User Group. He has produced a book, "Sizing and estimating software in practice: Making Mk II Function Points work" which was published by McGraw-Hill in 1995.
274. Robert Worden joined the IT company, Logica, after research in theoretical high energy physics. He designed a relational database management system, RAPPOR. He moved to Logica's research centre at Cambridge and ran a project to build a medical expert system. He managed the research centre from 1986 for four years and during that time built expert systems, neural nets, advanced user interfaces and speech/language interfaces. This involved object orientation and mathematical specification and VLSI. He then left Logica to join Charteris.
275. Sky challenge the reliability of Robert Worden as an expert witness. They submit as follows: "He showed himself to be willing to advance an opinion on anything



- and everything, irrespective of the limits of his expertise, irrespective of the facts and irrespective of the pleaded issues. He advanced opinions that were not thought through and in many instances were wholly unsubstantiated; his approach to calculations was slapdash; he failed to correct his opinions even when he knew them to be wrong. His evidence was the epitome of what expert evidence should not be.” They criticise him for lack of expertise in CRM and function point counting and his failure to correct errors as to Sky’s productivity and the Siebel e-communications suite. They also rely on what His Honour Judge Peter Bowsher QC said about his evidence in Pegler v. Wang [2000] 70 Con. L.R. 68.
276. EDS reject those criticisms. Having read Robert Worden’s reports and heard his evidence and having also read the reports and heard the evidence of Ian Murray, Mark Britton and Neil Douglas over a number of days during the trial, I do not consider that Sky’s wide ranging criticism of Robert Worden’s evidence is justified. Having said that, there were various reasons why, on analysis, the opinions expressed by Robert Worden or by Ian Murray, Mark Britton or Neil Douglas could not be accepted on certain issues. That depends, however, on the particular expert issue, the experience of the expert on that issue and the reasoning used by that expert. Whilst in some cases, particularly ones with limited issues, it might be possible to reject the whole of the evidence of one expert, I do not consider that such an approach is either appropriate or justified in this case.
277. Robert Worden was more in the way of a generalist in the field of IT with some experience of dealing with CRM systems but with good general knowledge of the estimating, systems integration and the types of problem which can arise on projects such as the Sky CRM Project. Each of the experts from PA Consulting had particular fields of expertise and whilst they might have had more experience on some aspects of the project, there was, for instance, a need for Mark Britton to learn about Siebel for the purpose of this litigation.
278. With court decisions and other documents now being available in searchable electronic form it is common for those advising parties in litigation to carry out a search for, amongst other things, the names of witnesses and experts to see whether this opens lines of cross-examination. In this case Richard Durling had previously been involved in Sphere Drake v EIU [2003] EWHC 1636 (Comm) and Robert Worden was an expert in Pegler v Wang [2000] 70 Con LR 68. Whilst that approach is understandable, it frequently raises more issues than it resolves and creates satellite investigations which are of little benefit in assessing matters in the context of the present case. It is clear that Judge Bowsher rejected Robert Worden's views and approach in a number of respects and in robust terms. That was in the context of a case some nine years ago, with different issues. Doubtless any expert would learn from and take heed of what was said or otherwise would find it difficult to continue to act as an expert. Whilst such criticisms are noted the focus must be on the evidence given in this case.
279. I shall deal with the particular expert evidence in the context of each of the issues. Before I do that I can make some general comments. I accept that Robert Worden,

as a generalist, tended to give evidence on the basis of general experience rather than detailed particular knowledge of this particular type of systems integration project. He also tended to be more discursive in his answers which at times was not helpful to a proper understanding of the issue or his evidence. Many of his calculations were formulated from broad estimates and were therefore more difficult to analyse. This also meant that when some assumption or parameter changed, it was not easy to see the consequence. Ian Murray was a person who obviously had more detailed knowledge but, at times, his evidence was less compelling than that of Robert Worden and, as he accepted, he had made errors. His approach to effort estimates and the way in which they changed I found less than convincing. Similarly, in the very specialist field of function point counting, where Neil Douglas is undoubtedly a leading expert, the figures which were derived under his supervision could not be supported and had to be changed. Mark Britton was an impressive witness who evidently had a great deal of experience in systems and system integration. However, as mentioned above, he needed to learn about Siebel for the purpose of the issues in this case.

#### **Customer churn expert evidence**

280. Sky called Professor Merlin Stone and EDS called Dr Helen Jenkins.
281. Professor Merlin Stone is a Director of Nowell Stone Ltd, an organisational development and consulting company specialising in improving businesses' capabilities in key account management, sales management, sales performance, interactive marketing, CRM, e-business, customer service and information technology ("IT"). He works as a consultant, lecturer and trainer for businesses in many sectors, including financial services, utilities, pharmaceutical, telecommunications, travel and transport, retailing, automotive, energy, IT, information services and the public sector.
282. He holds posts as a part-time Professor at Bristol Business School, a Professor Associate at Brunel Business School, and a Visiting Professor at a number of Business Schools. He has expertise in CRM and has worked on CRM projects for 25 years. He specialises in advising companies on how to deploy customer information, CRM systems and customer management processes in order to improve how they acquire, retain and develop customers cost-effectively so as to meet their marketing, sales and service objectives.
283. Dr Helen Jenkins is Managing Director of Oxera Consulting and an experienced professional economist. Her expertise is in the analysis of consumer behaviour and markets from an economic perspective, predominantly in the field of competition policy. She has worked across a wide range of sectors and industries, including the electronic communications sector.
284. She has wide experience of analysing customer choice and has designed, supervised and analysed surveys of consumer choice and in particular switching

- decisions in broadcasting, credit cards, energy supply, mobile and fixed telephony sectors.
285. Within the communications practice, she has advised TV broadcasters and dealt with a wide range of regulatory, strategic and competition issues that required an understanding of the UK pay-TV services sector and customer choice within this sector. She has supervised and analysed consumer surveys on switching behaviour in pay-TV to understand the choices made by customers. She has also analysed pricing practices such as margin squeeze prediction, targeted discounting and excessive prices in wholesale and retail broadcasting and telecoms markets.
286. She has advised the BBC, the European Commission, Comreg (the Irish communications regulator) and OFTA (the Hong Kong telecommunications regulator) on matters relating to broadcasting markets, pricing and customer choice. She has appeared as an expert witness in court and before competition authorities in the UK, Republic of Ireland and other EU Member States, and Hong Kong.
287. Sky submit that Merlin Stone has much more relevant expertise to express a view on the ability of the Sky CRM System to reduce customer churn. EDS submit that Helen Jenkins' has relevant expertise and that her approach to the issue is to be preferred because Merlin Stone, whilst having CRM expertise which Helen Jenkins lacks, did not provide reliable evidence.
288. It is clear that Merlin Stone is a person who has a great deal of relevant experience in this field and could provide a valuable opinion on the effect of the CRM System on Sky's customers. However, I found that his evidence failed to live up to expectations. It seemed that he had little grasp of the detailed facts and had not properly understood some features which were necessary to make churn predictions for Sky. For example, his initial evidence on the relevance of Syscan was, at the very least unclear, and his explanation of the position was not convincing. Equally, he did not seek to do any detailed analysis of the effect of the CRM functionality until very late. He did, though, have some useful insights into effectiveness of that functionality in preventing churn. As he accepted, making churn predictions in the case of Sky raised a number of difficulties and this meant that the court needed to have more justification for his figures than he was able to give.
289. Helen Jenkins had no expertise in considering or analysing the churn reduction effect of a CRM system. She was therefore at a disadvantage in assessing the effect of CRM functionality. Despite that disadvantage, she was able to draw from experience of customer reaction from her competition work. This allowed her to provide reasons for her predictions and carry out more analysis from the available documentation. She gave her evidence impressively and was able to give answers which were based on evidence and reliable.

290. In approaching the expert evidence I have therefore had to balance these factors which distinguish the evidence of Merlin Stone and Helen Jenkins.

**Call avoidance expert evidence**

291. Sky called Mr Simon Roncoroni and EDS called Mr Neil Spencer-Jones.
292. Mr Simon Roncoroni is a Director of Simon Roncoroni Consulting, which he set up in 2000 as a call centre consulting business. He has expertise in the area of call centres, having worked in this sector since 1979. From his experience he has developed an understanding of how the application of technology impacts upon a call centre business. He has observed in detail the operation of CRM systems in call centres, including the use of both Chordiant and Siebel. He is familiar with the user functionality of each of these systems.
293. With others he was responsible for starting the first commercial outsourcing call centre in the United Kingdom in 1979 and later ran the outsourcing call centres for British Telecom. In 1989 he formed his own consulting business called the L&R Group which was involved in the strategy and planning of many direct contact operations such as Norwich Union Direct and First Direct. He was also responsible for running all the consumer care call centres for Unilever. When L&R was sold to Sitel Corporation in 1997, he worked as Head of Consulting in Europe at Sitel. He completed international call centre and customer service studies for organisations such as General Motors and Philips. He has been a non-executive Director of Merchants, the South African call centre business which publishes the Global Call centre Benchmarking Report.
294. Neil Spencer-Jones is an Associate Consultant for NCC Group PLC and works for a number of consultancies. He has specialised in voice and data communication with specific interest in the development of Internet solutions.
295. He started his career in medical laboratories and developed an interest in IT and worked for GEC Plessey Telecommunications as an Analyst Programmer, IT Projects Manager and Business Systems Manager. He then took up the post of IT Manager in hospitals. He has worked for BT Global Industry as an Internet Protocol Sales Manager involving integrated 'multi-channel' solutions including traditional telephony, call centres and web-based solutions. As a consultant he has gained experience of CRM solutions and integrated voice and data solutions and an understanding of communications, call centre and CRM technology. He has been appointed as an Expert Witness in a number of cases.
296. Simon Roncoroni is very experienced in the Call Centre industry, having worked in that area for many years. He also had experience in traffic and resource forecasting in call centres. His evidence developed over time and it was only in the third Joint Memorandum that he set out his reliance on the 22 Elements of functionality as delivering benefits in terms of FTR and Call Avoidance and this

differed from his first report. Also in oral evidence he provided new and important changes to the evidence which he had set out in his report. Whilst I accept that he was not accustomed to giving evidence, these aspects detracted from the weight that could be given to his expert evidence.

297. Neil Spencer-Jones has less experience in the Call Centre industry but is experienced in technology and its functionality. His evidence was helpful but tended to concentrate on ways in which solutions might have been found to creating similar functionality with the DCMS or by interim solutions in advance of the Actual CRM System. This reflected his background which was in finding such technical solutions. His evidence on certain aspects therefore lacked the practical insights on the use of functionality in the context of a CA in a call centre. Despite that, I found much of his analysis useful.

### **Quantum expert evidence**

298. Sky called Mr Richard Boulton and EDS called Mr Timothy Hart.
299. Richard Boulton is a part time Director of LECG Limited. He has 25 years' business experience as an accountant and management consultant and is a Fellow of the Institute of Chartered Accountants in England and Wales and a Fellow of the Academy of Experts. Before joining LECG he was at Arthur Andersen until 2001, becoming a global managing partner and member of the firm's global leadership team. He had acted as Head of Litigation Services for Arthur Andersen for Europe, the Middle East, India and Africa.
300. He has experience of large IT projects from a management point of view and an understanding of the business issues associated with implementing large scale change using technology, focusing principally on strategy, finance and economic consulting. His particular expertise is in complex damages calculations and he has been instructed as an expert in over 100 cases and given expert evidence in Court and before Tribunals. He has also performed fraud and other investigations.
301. Timothy Hart was a Managing Director and leader of Navigant Consulting Inc.'s global Disputes and Investigations practice, and is now of Huron Consulting Group. He is a Certified Public Accountant in the United States and a Certified Fraud Examiner. He has specialised over the past twenty years in forensic accounting. He was previously a partner with Arthur Andersen and worked with them until 2002.
302. He has served as a consultant and acted as an expert witness in a wide range of commercial and investment disputes in courts and arbitrations around the world, dealing with quantum or accounting and finance issues. His practice has included accounting investigations, insolvency work and a variety of transactional advisory assignments. He has led several major investigations on behalf of public company

boards of directors or management, usually in response to inquiries by regulators. He has also assisted clients involved in significant insolvency issues.

303. The quantum experts have managed to make very good progress in agreeing figures. This meant that the issues between them were more limited. Both Richard Boulton and Timothy Hart were impressive witnesses and although their approaches on particular issues differed, this was the result of opinion on such matters as validation of costs. I have therefore been able to see clearly what their views are and decide which view I prefer on particular issues.

## **D: THE LAW OF DECEIT AND NEGLIGENT MISREPRESENTATION**

### **The Law on Deceit**

304. The following basic principles of law are relied upon:

- (1) Fraud is proved when it is shown that a false representation has been made (1) knowingly; or (2) without belief in its truth; or (3) recklessly, careless whether it be true or false: *Derry v. Peek* (1889) 14 App. Cas 337 (HL) per Lord Herschell.
- (2) However negligent a person may be, he cannot be liable for fraud if his belief is honest; mere carelessness or incompetence, is insufficient: *Derry v. Peek*.
- (3) The burden of proof lies with Sky. The more serious the allegation, the higher degree of probability that is required to establish it: *Hornal v. Neuberger Products* [1957] 1 QB 247 at 248; *Re H. (Minors)* [1966] AC 563, at 586-7.
- (4) If the facts are not equally known to both sides, then a statement of opinion by the one who knows the facts best involves very often a statement of a material fact, for he impliedly states that he knows facts which justify his opinion: *Smith v. Land and House Corporation* (1884) 28 Ch D per Bowen LJ at page 7.
- (5) A person who allows a false statement by a third person to the representee to go uncorrected may also make a representation: *Pilmore v. Hood* (1838) 3 App Cas 459, per Lord Cairns at p.465; *North British Insurance Co v. Lloyd* (1854) 10 Ex Ch 523 per Alderson B at p.529; *Bradford Third Equitable Benefit Building Society v. Borders* [1941] 2 All ER 205 (HL) per Viscount Maughan at p.211 and Lord Wright at p.220.
- (6) Where a statement relied on is ambiguous, the person relying on it must first prove that he understood the statement in a sense which is in fact false: *Smith v. Chadwick* (1884) 9 App Cas. 187. If there was a fraud and a statement was intended to mislead, its ambiguity would not be a defence: *Low v. Bouverie* [1891] 3 Ch 82 per Kay LJ at 113.
- (7) A claim in deceit may be made where responsibility and the relevant knowledge is divided among several servants and agents: *Armstrong v Strain* [1952] 1 KB 232 (CA) per Singleton LJ at p.244.
- (8) A representation having been made for the purpose of an intended transaction will normally be regarded as continuing until the transaction is entered into or completed, unless varied or withdrawn in the meantime: *DPP v. Ray* [1974] AC 370 (HL) at pp. 379, 382, 386, 391.

305. In order to establish a cause of action in deceit Sky must show (a) that EDS made a representation; (b) that the representation was false; (c) that EDS knew it to be untrue or was reckless as to whether it was true; (d) that EDS intended that the claimant should act in reliance on the representation; and (e) that Sky relied on the

representation to its detriment: See Clerk & Lindsell on Torts, (19th Edition) at 18-101.

306. When determining the meaning of an express representation or whether a statement is implicit from it, the Court generally applies an objective test. When, however, the court turns to consider (a) whether EDS knew or was reckless as to the truth of the representation or (b) whether Sky relied upon the representation, the Court takes a subjective approach as to the meaning of the representation, namely what EDS believed it was representing or what Sky understood to be the meaning of the representation.
307. Sky must prove the claim in deceit to the civil standard of preponderance of probability and not to the higher criminal standard. However, the court will require more convincing evidence to establish fraud. As Lord Nicholls said in In re H (Minors) [1996] A.C. 563 at page 586:

*“..... the court will have in mind as a factor, to whatever extent is appropriate in the particular case, that the more serious the allegation the less likely it is that the event occurred and, hence, the stronger should be the evidence before the court concludes that the allegation is established on the balance of probability”.*

308. Dealing with each of those matters in turn:

#### ***The making of a representation***

309. The representation must be a representation of a past or existing fact not of opinion. However, a representation as to opinion can amount to a statement of fact to the extent that it is an assertion that the maker does in fact hold the opinion: see Brown v. Raphael [1958] Ch 636 at 641.
310. The statement of opinion may also involve a further implied representation of fact that the person stating the opinion has reasonable grounds for his belief or knows of facts justifying his opinion. In each case whether there is such an implied representation depends on the particular facts. As summarised by the Court of Appeal in Jaffray & Ors v Society of Lloyd's [2002] EWCA Civ 1101:

*"These cases seem to us to show that all depends upon the circumstances. In each case it is necessary to ask the question identified above, namely what would the reasonable person in the position of the representee understand by the words used in the document. In our opinion there is no rule of law that any particular statement carries with it any particular implication. All depends upon the particular statement in its particular context. So, here, as already stated, the question is whether the particular brochure or set of globals relied upon would be reasonably understood by the ordinary applicant for membership of Lloyd's to have the meaning*



*alleged. That meaning might either be explicit in the words used or implicit (and in that sense implied) from the words used".*

311. Where a statement relates to the representor's own intended future action, the statement will often amount to a promise. Such promises are usually actionable by way of breach of contract. But again, a statement of fact might be implied from the promise to the effect that the representor held the particular intention or that the statement of intent was based on reasonable grounds. However, allegations based on such implied statements must be distinguished from allegations that the intention was not carried out. As Elias J said in Hagen & Ors v ICI Chemicals & Polymers Ltd & Ors (2002) IRLR 31 at paragraph 131 dealing with representations relating to future intentions:

*“By definition, the claimant is always complaining in circumstances where the intention has not been carried into effect. It is only because of that fact that the claimant can allege that the representation made was false. The difficulty facing many, if not most, claimants, is that their real complaint is that the intention was not carried out. But absent some contractual undertaking to do so, there never was a representation that it would be. The point is succinctly made in Spencer Bower on Actionable Misrepresentation, 4th. edn para 17:*

*‘What the representee is generally found to complain of is the failure to carry out the intention, which shows that what really induced him to alter his position was his belief that the intention would be carried out. In other words, he relied upon the statement as if it were a promise, not as a representation. His belief that the representor had a present intention to act according to his statement would not have influenced him unless he had also believed that the intention would be carried out.’”*

312. A representation of fact may be made by conduct. As Lord Maugham said in Bradford Third Equitable Benefit Building Society v. Borders [1941] 2 All ER 205 at 211: *“The phrase will include a case where the defendant has manifestly approved and adopted a representation made by some third person. On the other hand, mere silence, however morally wrong, will not support an action of deceit.”* Lord Wright said at 220: that *“any person who, though not a party to the fraudulent original representation, afterwards learns of it and deliberately and knowingly uses the delusion created by the fraud in the injured party’s mind in order to profit by the fraud”* may be guilty of fraud.

***The falsity of the representation***

313. As Rix J. said in Avon Insurance Plc & Ors v Swire Fraser ltd & Anr [2000] Lloyd's Rep IR 535:

*“a representation may be true without being entirely correct, provided it is substantially correct and the difference between what is represented and*

*what is actually correct would not have been likely to induce a reasonable person in the position of the claimants to enter into the contracts.”*

***Knowledge or recklessness as to the truth***

314. To establish an action of deceit, there must be proof of fraud: Derry v Peek (1889) 14 App Cas 337 (HL) at 374 where Lord Herschell defined what must be proved, as follows:

*“Secondly, fraud is proved when it is shewn that a false representation has been made (1) knowingly, (2) without belief in its truth, or (3) recklessly, careless whether it be true or false. Although I have treated the second and third as distinct cases, I think the third is but an instance of the second, for one who makes a statement under such circumstances can have no real belief in the truth of what he states. To prevent a false statement from being fraudulent, there must, I think, always be an honest belief in its truth.”*

315. Mere negligence, even gross negligence, will not suffice: Derry v Peek at page 373.

316. In assessing whether a party knew that the statement was untrue there often is an issue as to what the statement meant. Where a statement is capable of being understood in more senses than one, it must be established that the party making the statement should have intended it to be understood in a sense which is untrue or should have deliberately used the ambiguity for the purpose of deceiving the claimant: see Clerk & Lindsell at 18-023, cited with approval by Tugendhat J in Crystal Palace FC v Iain Dowie [2007] EWHC 1392 (QB) at paragraph 20.

317. In Akerhielm v De Mare [1959] AC 789, 805 the principle was stated as follows:

*“The question is not whether the defendant in any given case honestly believed the representation to be true in the sense assigned to it by the court on an objective consideration of its truth or falsity, but whether he honestly believed the representation to be true in the sense in which he understood it albeit erroneously when it was made.”*

318. To establish deceit, Sky must therefore prove (i) that EDS knew the representation was untrue, or at least had an absence of belief as to the truth of the representation, and (ii) that EDS understood the representation to have the express or implied meaning advanced by Sky.

319. In the case of companies, it is “*directing mind and will*” of the corporation which must be considered to determine whether the corporation had knowledge. As stated by Viscount Haldane LC in Lennards Carrying Co Ltd v Asiatic Petroleum Co. Ltd [1915] AC 705 at 713:

*“... a corporation is an abstraction. It has no mind of its own any more than it has a body of its own; its active and directing will must consequently be sought in the person of somebody who for some purposes may be called an agent, but who is really the directing mind and will of the corporation, the very ego and centre of the personality of the corporation.”*

320. In El Ajou v Dollar Holdings Plc (No.1) [1994] 2 All ER 685 at 696a the approach of the Court of Appeal was reflected in the judgment of Nourse LJ who stated:

*“It is important to emphasise that management and control is not something to be considered generally or in the round. It is necessary to identify the natural person or persons having management and control in relation to the act or omission in point.”*

321. Rose LJ at 699h and Hoffman LJ at 706e took similar approaches. Hoffman LJ explained at 702a that knowledge can be imputed to a corporation through its agent in certain circumstances.

322. In Man Nutzfahrzeuge AG & Ors v Freightliner Ltd [2005] EWHC 2347 (Comm) at paragraph 156 Moore-Bick LJ applied these principles as follows:

*“It is obvious that, because it is a fictitious person, a company can only act through one or more natural persons and therefore, as the decisions in El Ajou v Dollar Land Holdings Plc and the Meridian case show, in order to determine whether the company is liable in respect of any particular act or omission it is necessary to identify the natural person who represented the company for that particular purpose and who [can] therefore can be regarded as embodying for that purpose what is sometimes called its controlling mind and will. When seeking to identify the person who is to count as the company for the purposes of a substantive rule of law it is necessary to consider the nature and policy of that rule. The essence of fraudulent misrepresentation, so far as is relevant for this case, is making a statement that is known to be untrue intending that the person to whom it is made will rely on it. Liability therefore depends on the conjunction of a false statement and a dishonest state of mind. In a case where it is said that a company has made a fraudulent misrepresentation the first step must be to see whether a false statement has been made by someone who is authorised to speak on the company's behalf. Once that has been established the starting point in deciding whether the company acted dishonestly must be to enquire into the state of mind of the person who made the statement. However, if that person was unaware that the statement was false, it may be necessary to enquire into the state of mind of other persons who directed him to make it or who allowed it to be made.”*

323. The court therefore has to determine who made each representation; whether that person was authorised to speak on behalf of the corporation; whether that person had the required state of mind and, if not, whether some other person who directed the representation to be made had the required state of mind. If the person who made the statement or directed it to be made did not have a dishonest state of mind, then the claim for deceit fails: see Armstrong v Strain [1952] 1 KB 232.

***Intention that the other party should act upon the representation***

324. The representor must have made the statement with intent to deceive, that is with intent that it shall be acted upon by the representee: see Bradford Building Society v Borders [1941] 2 All ER 205 at 211.

***Detrimental reliance of representation***

325. The representee, Sky, must show that the representation induced it to act to its detriment: see Downs v Chappell [1997] 1 WLR 426 at 433 per Hobhouse LJ. The representation need not be the sole cause of the claimant acting as he did, provided that it substantially contributed to deceive him: see JEB Fasteners Ltd v Marks Bloom & Co [1983] 1 All ER 583 per Stephenson LJ at 589b and Donaldson LJ at 588c/d.

326. In Avon Insurance Plc Rix J said this at paragraph 18:

*“I derive from that case the distinction between a factor which is observed or considered by a plaintiff, or even supports or encourages his decision, and a factor which is sufficiently important to be called a real and substantial part of what induced him to enter into a transaction.”*

327. Where a claimant alleges that a representation has a particular meaning, the claimant has to establish that his understanding as to the meaning of the representation at the time was the same as now alleged: see Smith v Chadwick (1884) 9 App. Cas. 187.

**The law of negligent misstatement or misrepresentation**

328. The modern foundation for claims for economic loss caused by negligent misstatement is the decision of the House of Lords in Hedley Byrne v Heller [1964] 2 AC 465.

329. In Henderson v Merrett Syndicates Limited [1995] 2 AC 145, Lord Goff identified the principle in Hedley Byrne as being assumption of responsibility by the defendant along with reliance by the claimant. In determining whether there was an assumption of responsibility an objective test is applied; see Lord Goff at 181.

330. In Smith v Eric S Bush [1990] 1 AC 831 at 862 Lord Griffiths said:

*“The phrase 'assumption of responsibility' can only have any real meaning if it is understood as referring to the circumstances in which the law will*

*deem the maker of the statement to have assumed responsibility to the person who acts upon the advice.”*

331. As Lord Oliver said in Caparo Industries Plc v Dickman [1990] 2 AC 605 at 637F:

*“[Voluntary assumption of responsibility] is a convenient phrase but it is clear that it was not intended to be a test for the existence of the duty for, on analysis, it means no more than that [sic] the act of the defendant in making the statement or tendering the advice was voluntary and that the law attributes to it an assumption of responsibility if the statement or advice is inaccurate and is acted upon. It tells us nothing about the circumstances from which such attribution arises.”*

332. The passages in Smith v Eric Bush and Caparo were also cited in HM Customs & Excise v Barclays Bank [2006] UKHL 28 by Lord Bingham at para 5 and Lord Mance at para 88.

333. In Caparo Lord Bridge identified a threefold test at 617:

- (1) That the damage caused must have been foreseeable.
- (2) There should exist between the party owing the duty and the party to whom it is owed a relationship characterised by the law as one of “proximity” or “neighbourhood”.
- (3) The situation should be one in which the court considers it fair, just and reasonable that the court should impose a duty of given scope upon the one party for the benefit of the other.

334. Lord Bridge observed at 618 that the concepts of proximity and fairness are “*not susceptible of any such precise definition as would be necessary to give them utility as practical tests, but amount in effect to little more than convenient labels to attach to the features of different specific situations which, on a detailed examination of all the circumstances, the law recognises pragmatically as giving rise to a duty of care of a given scope*”.

335. He continued by referring to the incremental approach and said:

*“Whilst recognising, of course, the importance of the underlying general principles common to the whole field of negligence, I think the law has now moved in the direction of attaching greater significance to the more traditional categorisation of distinct and recognisable situations as guides to the existence, the scope and the limits of the varied duties of care which the law imposes. We must now, I think, recognise the wisdom of the words*

of Brennan J. in the High Court of Australia in Sutherland Shire Council v. Heyman (1985) 60 A.L.R. 1 , 43-44, where he said:

*“It is preferable, in my view, that the law should develop novel categories of negligence incrementally and by analogy with established categories, rather than by a massive extension of a prima facie duty of care restrained only by indefinable ‘considerations which ought to negative, or to reduce or limit the scope of the duty or the class of person to whom it is owed.’”*

336. In HM Customs & Excise v Barclays Bank [2006] UKHL 28 at para 71 Lord Walker said.

*“The increasingly clear recognition that the three-fold test (first stated by Lord Bridge of Harwich in Caparo Industries plc v Dickman [1990] 2 AC 605 , 617–618) does not provide an easy answer to all our problems, but only a set of fairly blunt tools, is to my mind progress of a sort. I respectfully agree with the observation of Kirby J. in Perre v Apand Pty Ltd (1999) 198 CLR 180 , 284:*

*“As against the approach which I favour, it has been said that the three identified elements are mere ‘labels’. So indeed they are... Labels are commonly used by lawyers. They help steer the mind through the task in hand.”*

337. In addition, Lord Hoffman said at para 36 of the Barclays Bank case:

*“It is equally true to say that a sufficient relationship will be held to exist when it is fair, just and reasonable to do so. Because the question of whether a defendant has assumed responsibility is a legal inference to be drawn from his conduct against the background of all the circumstances of the case, it is by no means a simple question of fact. Questions of fairness and policy will enter into the decision and it may be more useful to try to identify these questions than simply to bandy terms like “assumption of responsibility” and “fair, just and reasonable”*

338. Lord Bingham said this at para 8:

*“..it seems to me that the outcomes (or majority outcomes) of the leading cases cited above are in every or almost every instance sensible and just, irrespective of the test applied to achieve that outcome. This is not to disparage the value of and need for a test of liability in tortious negligence, which any law of tort must propound if it is not to become a morass of single instances. But it does in my opinion concentrate attention on the detailed circumstances of the particular case and the particular*

*relationship between the parties in the context of their legal and factual situation as a whole.”*

339. Lord Bridge observed in Caparo at 627D:

*“...It is never sufficient to ask simply whether A owes B a duty of care. It is always necessary to determine the scope of the duty by reference to the kind of damage from which A must take care to save B harmless. 'The question is always whether the defendant was under a duty to avoid or prevent that damage, but the actual nature of the damage suffered is relevant to the existence and extent of any duty to avoid or prevent it': see Sutherland Shire Council v Heyman.”*

340. This observation was applied by Chadwick LJ in Man Nutzfahrzeuge AG v Freightliner Ltd [2007] EWCA Civ 910 at para 48.

341. EDS submit that, given the high level of abstraction at which the tests for the existence of a duty of care operate, the court must consider the detailed circumstances of the case and the relationship between the parties to determine whether it is sensible and just for a duty of care to be found to exist. That, I consider, is a sufficient summary of the position which the law has reached so far as the general test for the existence of a duty of care. I now turn to consider the impact of the contractual regime on the existence of a duty of care.

342. The starting point for a consideration of the effect of the contract is Henderson v Merrett [1995] 2 AC 145. At 191B to D Lord Goff referred to Central Trust Co. v. Rafuse (1986) 31 D.L.R. (4 th) 481. He said:

*“Le Dain J., delivering the judgment of the Supreme Court of Canada, conducted a comprehensive and most impressive survey of the relevant English and Canadian authorities on the liability of solicitors to their clients for negligence, in contract and in tort, in the course of which he paid a generous tribute to the analysis of Oliver J. in the Midland Bank Trust Co. case. His conclusions are set out in a series of propositions at pp. 521-522; but his general conclusion was to the same effect as that reached by Oliver J. He said, at p. 522:*

*“A concurrent or alternative liability in tort will not be admitted if its effect would be to permit the plaintiff to circumvent or escape a contractual exclusion or limitation of liability for the act or omission that would constitute the tort. Subject to this qualification, where concurrent liability in tort and contract exists the plaintiff has the right to assert the cause of action that appears to be the most advantageous to him in respect of any particular legal consequence.”*

*I respectfully agree.”*

343. In the course of considering liability Lord Goff said this at 193H to 194 B:

*“My own belief is that, in the present context, the common law is not antipathetic to concurrent liability, and that there is no sound basis for a rule which automatically restricts the claimant to either a tortious or a contractual remedy. The result may be untidy; but, given that the tortious duty is imposed by the general law, and the contractual duty is attributable to the will of the parties, I do not find it objectionable that the claimant may be entitled to take advantage of the remedy which is most advantageous to him, subject only to ascertaining whether the tortious duty is so inconsistent with the applicable contract that, in accordance with ordinary principle, the parties must be taken to have agreed that the tortious remedy is to be limited or excluded.”*

344. At 194D he concluded:

*“But, for present purposes more important, in the instant case liability can, and in my opinion should, be founded squarely on the principle established in [Hedley Byrne](#) itself, from which it follows that an assumption of responsibility coupled with the concomitant reliance may give rise to a tortious duty of care irrespective of whether there is a contractual relationship between the parties, and in consequence, unless his contract precludes him from doing so, the plaintiff, who has available to him concurrent remedies in contract and tort, may choose that remedy which appears to him to be the most advantageous.”*

345. At 195G to 196C he said this:

*“I wish however to add that I strongly suspect that the situation which arises in the present case is most unusual; and that in many cases in which a contractual chain comparable to that in the present case is constructed it may well prove to be inconsistent with an assumption of responsibility which has the effect of, so to speak, short circuiting the contractual structure so put in place by the parties. It cannot therefore be inferred from the present case that other sub-agents will be held directly liable to the agent's principal in tort. Let me take the analogy of the common case of an ordinary building contract, under which main contractors contract with the building owner for the construction of the relevant building, and the main contractor sub-contracts with sub-contractors or suppliers (often nominated by the building owner) for the performance of work or the supply of materials in accordance with standards and subject to terms established in the sub-contract. I put on one side cases in which the sub-contractor causes physical damage to property of the building owner, where the claim does not depend on an assumption of responsibility by the sub-contractor to the building owner; though the sub-contractor may be*



*protected from liability by a contractual exemption clause authorised by the building owner. But if the sub-contracted work or materials do not in the result conform to the required standard, it will not ordinarily be open to the building owner to sue the sub-contractor or supplier direct under the Hedley Byrne principle, claiming damages from him on the basis that he has been negligent in relation to the performance of his functions. For there is generally no assumption of responsibility by the sub-contractor or supplier direct to the building owner, the parties having so structured their relationship that it is inconsistent with any such assumption of responsibility. This was the conclusion of the Court of Appeal in Simaan General Contracting Co. v. Pilkington Glass Ltd. (No. 2) [1988] Q.B. 758. As Bingham L.J. put it, at p. 781:*

*"I do not, however, see any basis on which [the nominated suppliers] could be said to have assumed a direct responsibility for the quality of the goods to [the building owners]: such a responsibility is, I think, inconsistent with the structure of the contract the parties have chosen to make."*

...

*Here however I can see no inconsistency between the assumption of responsibility by the managing agents to the indirect Names, and that which arises under the sub-agency agreement between the managing agents and the members' agents, whether viewed in isolation or as part of the contractual chain stretching back to and so including the indirect Names. For these reasons, I can see no reason why the indirect Names should not be free to pursue their remedy against the managing agents in tort under the Hedley Byrne principle."*

346. The earlier decision of the Court of Appeal in Pacific Associates v Baxter [1990] 1 QB 993 illustrates the way in which a contract between two parties may affect the existence of a duty of care between one of those parties and a third party. In that case the contractor sought to bring a claim in tort against a firm of engineers who acted as the Engineer under the contract between the contractor and the employer. That contract contained a clause disclaiming any liability of the engineer.

347. At 1010 F to H Purchas LJ said this:

*"...where the parties have come together against a contractual structure which provides for compensation in the event of a failure of one of the parties involved the court will be slow to superimpose an added duty of care beyond that which was in the contemplation of the parties at the time that they came together. I acknowledge at once the distinction, namely, where obligations are founded in contract they depend on the agreement made and the objective intention demonstrated by that agreement whereas*

*the existence of a duty in tort may not have such a definitive datum point. However, I believe that in order to determine whether a duty arises in tort it is necessary to consider the circumstances in which the parties came together in the initial stages at which time it should be considered what obligations, if any, were assumed by the one in favour of the other and what reliance was placed by the other on the first. The obligations do not, however, remain fixed subject only to specific variations as in the case of contract. I would not exclude a change in the relationship affecting the existence or nature of a duty of care in tort.”*

348. At 1011 F to G he said:

*“The central question which arises here is: against the contractual structure of the contract into which the contractor was prepared to enter with the employer, can it be said that it looked to the engineer by way of reliance for the proper execution of the latter's duties under the contract in extension of the rights which would accrue to it under the contract against the employer? In other words, although the parties were brought into close proximity in relation to the contract, was it envisaged that a failure to carry out his duties under the contract by the engineer would foreseeably cause any loss to the contractor which was not properly recoverable by the contractor under its rights against the employer under the contract?”*

349. Ralph Gibson LJ said at 1032 D to E:

*“Nevertheless, in agreement with Purchas L.J., it seems to me to be neither just nor reasonable in the circumstances of the contractual terms existing between the contractor and the employer (absent the disclaimer clause) to impose a duty of care on the engineer to the contractor in respect of the matters alleged in the statement of claim, namely, the alleged failure to certify and final rejection of the contractor's claims. So to do would be to impose, in my judgment, a duty which would cut across and be inconsistent with the structure of relationships created by the contracts, into which the parties had entered, including in particular the machinery for settling disputes.”*

350. Russell LJ expressed the question in these terms at 1037 G:

*“In my opinion the following question is worthy of being posed. Given the contractual structure between the contractor and the employer, can it be fairly said that it was ever within the contemplation of the contractor that, outside the contract, it could pursue a remedy against the engineer?”*

351. In addition at 1022C to 1023A Purchas LJ considered what had been said about the existence of an exclusion clause in a relevant contract:

*“Before leaving the question of disclaimer I should refer to the speech of Lord Brandon of Oakbrook in Leigh and Silavan Ltd. v. Aliakmon Shipping Co. Ltd. [1986] A.C. 785 , 817. Lord Brandon was commenting on the speech of Lord Roskill in Junior Books Ltd. v. Veitchi Ltd. [1983] 1 A.C. 520 in which Lord Roskill was considering whether an exclusion clause in the main contract might affect the position as between one party to that contract and a third party. Lord Roskill said, at p. 546:*

*“My Lords, that question does not arise for decision in the instant appeal, but in principle I would venture the view that such a claim according to the manner in which it was worded might in some circumstances limit the duty of care just as in the Hedley Byrne case the plaintiffs were ultimately defeated by the defendants’ disclaimer of responsibility.”*

*With reference to this passage Lord Brandon in the Leigh and Silavan Ltd. case said, at p. 817:*

*“As is apparent this observation was no more than an obiter dictum. Moreover, with great respect to Lord Roskill there is no analogy between the disclaimer in Hedley Byrne & Co. Ltd. v. Heller & Partners Ltd. [1964] A.C. 465 , which operated directly between the plaintiffs and the defendants, and an exclusion of liability clause in a contract to which the plaintiff is a party but the defendant is not. I do not therefore find in the observation of Lord Roskill relied on any convincing legal basis for qualifying a duty of care owed by A to B by reference to a contract to which A is, but B is not, a party.”*

*There can be no doubt of the force of Lord Brandon's comment as it stands. However, with great respect to Lord Brandon the absence of a direct contractual nexus between A and B does not necessarily exclude the recognition of a clause limiting liability to be imposed on A in a contract between B and C, when the existence of that contract is the basis of the creation of a duty of care asserted to be owed by A to B. The presence of such an exclusion clause whilst not being directly binding between the parties, cannot be excluded from a general consideration of the contractual structure against which the contractor demonstrates reliance on, and the engineer accepts responsibility for, a duty in tort, if any, arising out of the proximity established between them by the existence of that very contract.”*

352. As an illustration of a recent consideration of the effect of the contractual structure I was referred to the decision of Gloster J in JP Morgan Chase Bank and others v Springwell Navigation Corp [2008] EWHC 1186 (Comm) in which the existence of a duty of care between various entities in Chase and Springwell, an investment vehicle, was in issue. At [475] and [498], after referring to Henderson v Merrett she dealt with the relevance of the contract upon the existence of a duty of care between Springwell and other Chase entities. She said:

475. In my judgment the various terms of the principal contractual documents upon which Chase relies (i.e. the Relevant Provisions), and which I have set out above 104, clearly show that Springwell and Chase were dealing with each other on a stipulated and accepted basis that, whatever advice or recommendations may have been given by Chase in the course of their trading relationship (i.e. the sale by CIBL/CMIL to Springwell of emerging markets securities, and the financing by CMB of various of Springwell's purchases), no obligations to give appropriate investment advice, or duties of care as an investment advisor, were being assumed by either the Private Bank, CMB, or the Investment Bank, as the entity actually selling Springwell the relevant securities, (i.e. CIBL or CMIL), whether in relation to Springwell's emerging markets portfolio or, more generally, as to what Springwell should do, given the existence of that portfolio. Thus I accept the submissions made on behalf of Chase that the contractual documentation, whether taken at a straightforward contractual level, or looked at more widely, as an indication as to whether any common law duties of care arose, showed that the parties specifically contracted upon the basis of a trading and banking relationship which negated any possibility of a general or specific advisory duty coming into existence.

...

497. Springwell contends that the MFA was entered into between CIBL and Springwell and that it related solely to the forward sale contracts to be entered into between Springwell and CIBL; thus its terms could only avail CIBL, and only in respect of transactions between CIBL and Springwell;<sup>124</sup> that it did not seek to address unleveraged transactions (of which there continued to be a number between Springwell and CIBL and, after April 1996, between Springwell and CMIL); that CIBL was the only Chase entity party to the MFA and that, accordingly, its provisions cannot affect the claims against CMB, CMIL or CMSCI; further, since the MFA ceased to be used after 3 October 1997, and, from that date, leverage was provided pursuant to the GMRA, of all the assets in respect of which Springwell claims, only 8 transactions out of 67 were pursuant to the MFA.

498. As a matter of contract, the MFA, and the various confirms, govern each purchase of an instrument made under the MFA, and all and any claims made in respect thereof. However my primary conclusion, as already set out above, is that the MFA and the MFA confirms (like the other contractual documentation) reflect the broader relationship between the parties, and thus their evidential relevance is not just to the particular contracts entered into thereunder. Rather they support the position that none of the Chase entities were assuming any investment advisory responsibility."

353. EDS referred me to McCullagh v Lane Fox & Partners Ltd [1996] 1 EGLR 35 where there was a disclaimer of responsibility in an estate agent's particulars that repeated a (mis)representation that had previously been made orally by the estate agent. Hobhouse LJ held that the disclaimer was effective in that it made it wholly unreasonable for the purchaser to rely on the earlier oral representation. Hobhouse LJ referred to Hedley Byrne and the speeches of Lord Reid at 492, Lord Morris at 504 and Lord Devlin at 533 on the relevance of the disclaimer and summarised the position as:

*“Thus the relevance of the disclaimer is to negative one of the essential elements for the existence of the duty of care. It negatives the assumption of responsibility for the statement. It implicitly tells the recipient of the representation that if he chooses to rely upon it he must realise that the maker is not accepting responsibility for the accuracy of the representation. The disclaimer is part of the factual situation which the court has to take into account in deciding whether or not the defendants owed a duty of care to the plaintiff. Put another way, the question is whether the plaintiff was entitled to treat the representation as one for which the defendants were accepting responsibility.”*

He also drew a distinction between a disclaimer and an exclusion clause when he said:

*“The judge avoided this conclusion by approaching the disclaimer as if it were a contractual exclusion. On such an approach it would need to be strictly construed and the argument was available that it did not as such cover an oral statement. But that is not, in my judgment, the right approach. It is not an exclusion to be construed. The right approach, as is made clear in Hedley Byrne, is to treat the existence of the disclaimer as one of the facts relevant to answering the question whether there had been an assumption of responsibility by the defendants for the relevant statement.”*

354. I was referred by Sky to the Court of Appeal decision in Coupland v Arabian Gulf [1983] 1 WLR 1136 in which Robert Goff LJ said at 1153: *“what impact does the existence of the contract have on the claim in tort? In my judgment, on ordinary principles the contract is only relevant to the claim in tort in so far as it does, on its true construction in accordance with the proper law of the contract, have the effect of excluding or restricting the tortious claim.”* I do not consider that case of relevance as it was considering the impact of a contract on a claim by an employee for personal injury based on Donoghue v Stevenson principles and not whether a duty of care existed on Hedley Byrne v Heller principles.

355. From what I have said it follows that I accept Sky's submission that the correct approach is first to consider whether, absent the Prime Contract, a duty of care would arise as between the relevant parties, and, if the answer to this question is positive, then to consider whether the existence of and the terms of the Prime Contract have the effect of excluding or restricting the duty of care.
356. In my judgment, in considering whether a contractual provision affects the existence or the scope or extent of a duty of care, the test is whether the parties having so structured their relationship that it is inconsistent with any such assumption of responsibility or with it being fair, just and reasonable to impose liability. In particular, a duty of care should not be permitted to circumvent or escape a contractual exclusion or limitation of liability for the act or omission that would constitute the tort.
357. I shall consider the question of whether there is a duty of care when I have dealt with a number of points of construction of documents.

## **E: ISSUES OF CONSTRUCTION OF DOCUMENTS**

### **Introduction**

358. It is convenient at this stage to deal with a number of issues of construction which arise. First, there are issues concerning the terms of the Prime Contract and, in particular, the Entire Agreement clause at Clause 1.3, the Warranty provision at Clause 7.2 and the Limitation and Exclusion provisions in Clause 20. Secondly there is a question of the scope of the settlement of claims within the Letter of Understanding. Thirdly there is an issue as to the enforceability and effect of the Memorandum of Understanding.

### **The Entire Agreement clause**

359. Clause 1.3.1 of the Prime Contract under the heading "Entire Agreement" provides as follows:

*“Subject to Clause 1.3.2, this Agreement and the Schedules shall together represent the entire understanding and constitute the whole agreement between the parties in relation to its subject matter and supersede any previous discussions, correspondence, representations or agreement between the parties with respect thereto notwithstanding the existence of any provision of any such prior agreement that any rights or provisions of such prior agreement shall survive its termination. The term **"this Agreement"** shall be construed accordingly. This clause does not exclude liability of either party for fraudulent misrepresentation.”*

### **EDS' submission**

360. EDS contend that the Entire Agreement clause has the following effect upon the claims by SSSL against EDSL:

- (1) No duty of care was owed by EDSL to SSSL in respect of pre-Prime Contract representations and/or it was not reasonable for SSSL to have relied on such representations when entering into the Prime Contract.
- (2) No claim for non-fraudulent misrepresentation can be advanced in respect of pre-Prime Contract representations because the Entire Agreement clause treats such representations as overridden and/or withdrawn and/or of no continuing effect.
- (3) Liability to SSSL for non-fraudulent misrepresentation by EDSL is excluded by the Entire Agreement clause.

361. EDS submit that Clause 1.3.1 goes further than fulfilling the purpose of a basic entire agreement clause and contend that:

- (1) If Clause 1.3.1 were only intended to limit the contractual terms to those contained in the Prime Contract, the clause would not need to provide, as it does, that all prior representations are superseded;
  - (2) If the clause were limited to depriving all pre-contractual discussions, negotiations and statements of having contractual force, the clause would not need to provide that liability for fraudulent misrepresentation was not excluded. That statement strongly suggests that non-fraudulent misrepresentation was being excluded.
362. EDS say that the Entire Agreement clause has the effect of being an agreement that any representation is withdrawn or overridden or of no legal effect. They refer to the principle that a representor can modify or withdraw a prior representation at any time before the agreement is concluded and refer to the speech of Lord Tucker in Briess v Woolley [1954] AC 333, at p.354. They say that there is no reason why he could not do so by suitable wording in the agreement itself and rely on the decision of Moore-Bick LJ in Man Nutzfahrzeuge AG & Ors v Freightliner Ltd & Ors [2005] EWHC 2347 at [125] to [128] as illustrating this. They also rely on the decision of Moore-Bick LJ in Peekay Intermark and Harish Pawani v Australia and New Zealand Banking Group [2006] EWCA Civ 386, CA at paragraph 56 which was cited by Gloster J in JP Morgan Chase v. Springwell at paragraphs 547 to 556.
363. EDS also submit that, in any event, the effect of the Entire Agreement clause is to exclude EDSL from liability for non-fraudulent misrepresentation in respect of prior representations and rely on the decision of Rix J and the Court of Appeal in Deepak Fertilisers and Petrochemicals Corporation v. ICI Chemicals & Polymers Ltd. & Ors [1998] 2 Lloyd's Rep 139 and at [1999] 1 Lloyd's Rep 387 at paragraph 34.
364. For these reasons, EDS submit that the Entire Agreement clause does more than simply provide certainty as to the terms of the contract between the parties but has the further effect set out above.
- Sky's submission**
365. Sky's case is that the effect of the clause is simply to provide that pre-contractual representations do not form part of the Prime Contract. They contend that EDS' submission is in error both on the language of the clause itself and on the basis of the authorities.
366. Sky submit that there is consistent case law which demonstrates that entire agreement clauses operate to defeat any suggestion of a collateral warranty or contract or other such side agreement, but they are not effective, without more, to exclude liability for misrepresentation. Sky refer to the decision of the Court of Appeal in Deepak Fertilisers and Petrochemicals Corporation v ICI Chemicals &



- Polymers Ltd and Ors [1998] 1 Lloyds Rep 387, in particular at [39] and also to Inntrepreneur Pub Co v East Crown Ltd [2000] 2 Lloyds Rep 611 at [7] to [8].
367. Whilst Sky accept that every clause is to be construed on its own terms, they submit, in light of the authorities and the terms of Clause 1.3.1, that the first sentence is not effective to exclude liability for misrepresentation, fraudulent, negligent or innocent. Rather Sky submit that the clause does not deal with exclusion of liability for misrepresentation.
368. In relation to EDS' submission that the exclusion of liability for non-negligent misrepresentation arises by inference from the wording of the last sentence of Clause 1.3.1, Sky submit that, whilst that inference is, in theory possible, the natural and logical inference is that the final sentence has been included out of a mistaken abundance of caution because the first sentence does not exclude liability for misrepresentation.
369. Whilst Sky accept that since Photo Production Ltd v Securicor Ltd [1980] AC 827, the law has moved away from adopting unnecessarily strained constructions of exemption clauses, they say that exemption clauses are construed strictly giving "*due allowance [to] the presumption in favour of the implied primary and secondary obligation*", per Lord Diplock at 851.
370. Sky also rely on the fact that any ambiguity in an exemption clause is to be resolved *contra proferentem* and refers to Lewison, The Interpretation of Contracts (2nd. edn) at para 12.05. They also draw support from Lord Morton's speech in Canada Steamship Lines Ltd v R [1952] AC 192 that an exemption clause will not relieve a party from liability for negligence unless it does so expressly or by necessary implication.
371. Sky submit therefore that the Entire Agreement clause is not effective to exclude EDSL's liability to SSSL for misrepresentation of any sort. Even if it were effective to exclude EDSL's liability for pre-contractual misrepresentations, Sky submit that it cannot, on any view, extend to the representation made in Clause 7.2 of the Prime Contract itself.
- Analysis**
372. The issue in this case is whether Clause 1.3.1 of the Prime Contract excludes liability for misrepresentation. Whilst the effect of that clause depends on the particular wording, it is of assistance to review the principles that the courts have applied in construing similar provisions.
373. In Inntrepreneur Pub Co v East Crown Ltd [2000] 2 Lloyd's Rep 611 Lightman J held that an entire agreement prevented a claim based upon a collateral warranty. The clause in question differs greatly from the one in this case. In coming to his conclusion Lightman J said at [7]:

*“The purpose of an entire agreement clause is to preclude a party to a written agreement from threshing through the undergrowth and finding in the course of negotiations some (chance) remark or statement (often long-forgotten or difficult to recall or explain) on which to found a claim such as the present to the existence of a collateral warranty. The entire agreement clause obviates the occasion for any such search and the peril to the contracting parties posed by the need that may arise in its absence to conduct such a search. For such a clause constitutes a binding agreement between the parties that the full contractual terms are to be found in the document containing the clause and not elsewhere, and that accordingly any promises or assurances made in the course of the negotiations (which in the absence of such a clause might have effect as a collateral warranty) shall have no contractual force, save in so far as they are reflected and given effect in that document.”*

374. He also observed at [8] that *“An entire agreement provision does not preclude a claim in misrepresentation, for the denial of contractual force to a statement cannot affect the status of the statement as a misrepresentation.”* He referred to the leading case of Deepak v. Imperial Chemical Industries plc [1998] 2 Lloyd’s Rep. 139, affirmed [1999] 1 Lloyd’s Rep. 387 in which the relevant clause, clause 10.16, read as follows:

*“This CONTRACT comprises the entire agreement between the PARTIES, as detailed in the various Articles and Annexures and there are not any agreements, understandings, promises or conditions, oral or written, expressed or implied, concerning the subject matter which are not merged into this CONTRACT and superseded hereby. This CONTRACT may be amended in the future only in writing executed by the PARTIES.”*

375. The Court of Appeal held that this provision was not sufficient to exclude representations. Stuart-Smith LJ giving the judgment of the court said *“But we do not think the opening words themselves exclude misrepresentations and they cannot be brought within the specific words. In our judgment the Judge was right on his construction of art. 10.16.”*

376. At first instance Rix J had said this about clause 10.16 at 167:

*“Deepak submit that this article excludes liability for neither misrepresentation nor collateral warranties, and that in any event any such exclusion would be limited by the phrase “concerning the subject matter”. Davy submit that it excludes liability for all pleaded misrepresentations and collateral warranties. It is common ground that it does not cover tortious liability in negligence. I agree with Deepak's submission so far as concerns misrepresentation. Thus the clause's language – “agreements, understandings, promises or conditions” - is not apt, expressly or impliedly, to include representations.*

*This was the view of Mr. Justice Browne-Wilkinson in Alman and Benson v. Associated Newspapers Group Ltd., June 20, 1980, (unreported, Lexis transcript at p. 30):*

*“Clause 11(1) provides that the written contract constitutes “the entire agreement and understanding between the parties with respect to all matters therein referred to”. It is to be noted that it does not in terms refer to representations. The defendants, however, submit that the word “understanding” covers the representation alleged in this case. I cannot accept this submission. Although it is true that, in one sense, the common assumption by all parties that the plaintiffs were to be in charge of the day-to-day running could be called “an understanding” between them, the plaintiffs are not suing on that bilateral “understanding”, but on the representation of intention implicit in it. Clause 11(1) plainly excludes any contractual claim based on a bilateral understanding, but it does not go further. In my judgment the word “understanding” is directed to excluding any claims arising from warranties collateral to the main agreement. If it were designed to exclude liability for misrepresentation it would, I think, have to [be] couched in different terms, for example, a clause acknowledging that the parties had not relied on any representations in entering into the contract. I therefore hold that the word “understanding” in this contract is not apt to cover representations, and accordingly does not exclude the plaintiffs’ claim.”*

*The addition of the words “promises or conditions” in this case seems to me to take the matter no further: neither of those expressions refers to a representation as distinct from some undertaking. In Thomas Witter Ltd. v. TBP Industries Ltd., (1994) 12 Tr. L. 145 at pp. 167-170 Mr. Justice Jacob held that even a clause which goes on to provide for an acknowledgement that a party has not been induced to enter into a contract by any other than scheduled representations does not exclude liability in misrepresentation arising out of some other representation, if that party can succeed evidentially in proving, despite that acknowledgment, that he was induced by it. He said (at p. 168C):*

*“Unless it is manifestly made clear that a purchaser has agreed only to have a remedy for breach of warranty I am not disposed to think that a contractual term said to have this effect by a roundabout route does indeed do so. In other words, if a clause is to have the effect of excluding or reducing remedies for damaging untrue statements then the party seeking that protection cannot be mealy-mouthed in his clause. He must bring it home that he is limiting liability for falsehoods he may have told.”*

377. In Man Nutzfahrzeuge AG & Ors v Freightliner Ltd & Ors [2005] EWHC 2347 Moore-Bick LJ considered a provision at Section 14.10 of a contract which provided as follows:

*“This Agreement together with the Ancillary Agreements constitutes the entire agreement between the Parties and supersedes all prior agreements, understandings, negotiations and discussions, whether oral or written, of the Parties. There are no representations, warranties, covenants, conditions or other agreements, express or implied, collateral, statutory or otherwise, between the Parties in connection with the subject matter of this Agreement except as specifically set forth herein and none of the Parties has relied or is relying on any other information, discussion or understanding in entering into and completing the transactions contemplated in this Agreement and the Ancillary Agreements ... Nothing in this Section 14.10 shall affect any Party's liability for fraud or fraudulent misrepresentation.”*

378. He then said at [127] to [128]:

*“ While recognising that this clause specifically excludes fraud from the scope of its operation, Mr. Vos submitted that it clearly was intended to prevent the purchaser from seeking relief of any kind based on innocent or negligent misrepresentations. He argued that either MN relied on representations or it did not. It made no sense to say that MN did not rely on representations if they were made innocently or negligently, but did rely on representations if they were made fraudulently.*

*I can see the logic of that submission, but in my view it fails to have sufficient regard to the parties' intentions in including this provision in the agreement. The first two sentences are in my view intended to make it clear that the agreement contains the definitive statement of the parties' rights and liabilities arising out of the negotiations. Although the second sentence is worded in terms of an absence of any representations etc. outside the agreement itself, it does in fact operate as a contractual renunciation of the right to rely on anything said or done in the course of the negotiations as giving rise to a ground of complaint, or indeed for any other purpose. To that extent the clause does alter the parties' positions, but it is subject to the exception in the final sentence which makes it clear that they did not intend to give up the right to hold each other liable for fraud or fraudulent misrepresentations made before entering into the agreement. For these reasons I am satisfied that Section 14.10 does not prevent MN from holding Freightliner liable for the fraud of Mr. Ellis.”*

379. I now turn to consider whether the Entire Agreement clause in this case has the effect of modifying or withdrawing the representations which were alleged to have been made pre-Prime Contract.

380. I accept the principle that, as stated by Lord Tucker in Briess v Woolley [1954] AC 333, at p.354 that a representor can modify or withdraw a prior representation at any time before it is relied on. It is obviously right that if a representor wrongly represents something then he must be able to modify or withdraw it before it is relied upon. Does the Entire Agreement clause have that effect?
381. The relevant words of Clause 1.3.1 are “...*this Agreement and the Schedules shall together represent the entire understanding and constitute the whole agreement between the parties in relation to its subject matter and supersede any previous discussions, correspondence, representations or agreement between the parties with respect thereto...*”.
382. Those words do not, in my judgment, amount to an agreement that representations are withdrawn, overridden or of no legal effect so far as any liability for misrepresentation may be concerned. The provision is concerned with the terms of the Agreement. It provides that the Agreement represents the entire understanding and constitutes the whole agreement. It is in that context that the Agreement supersedes any previous representations. That is, representations are superseded and do not become terms of the Agreement unless they are included in the Agreement. If it had intended to withdraw representations for all purposes then the language would, in my judgment, have had to go further.
383. In Man Nutzfahrzeuge v Freightliner Ltd the clause went wider and stated that: “*There are no representations, warranties, covenants, conditions or other agreements, express or implied, collateral, statutory or otherwise, between the Parties in connection with the subject matter of this Agreement except as specifically set forth herein and none of the Parties has relied or is relying on any other information, discussion or understanding in entering into and completing the transactions contemplated in this Agreement and the Ancillary Agreements ...*”. That expressly referred to the fact that the parties were not relying on any other information or discussion in entering into and completing the transactions. In his judgment Moore-Bick LJ said in relation to this second sentence: “*Although the second sentence is worded in terms of an absence of any representations etc. outside the agreement itself, it does in fact operate as a contractual renunciation of the right to rely on anything said or done in the course of the negotiations as giving rise to a ground of complaint, or indeed for any other purpose.*” It is therefore the “*contractual renunciation of the right to rely*” which makes the difference in that case. That is absent here.
384. Whilst I accept that there can be a contractual estoppel, I do not consider that EDS’ reliance on Peekay Intermark and Harish Pawani v Australia and New Zealand Banking Group Ltd [2006] EWCA Civ 386, CA takes the matters further. The principle was summarised by Moore-Bick LJ at paragraph 56 in these terms:

“There is no reason in principle why parties to a contract should not agree that a certain state of affairs should form the basis for the transaction, whether it be the case or not.”

385. In this case the statement that the Agreement superseded any previous discussions, correspondence, representations or agreement between the parties with respect to the subject matter of the agreement prevented other terms of the agreement or collateral contracts from having contractual effect. It did not supersede those matters so far as there might be any liability for misrepresentation based on them.
386. Does the clause have the effect of excluding a duty of care between EDSL and SSSL in relation to representations? There is no doubt that the clause does refer expressly to representations unlike Deepak v. Imperial Chemical Industries and Alman and Benson v. Associated Newspapers Group Ltd but like Thomas Witter Ltd. v. TBP Industries Ltd and Man Nutzfahrzeuge v Freightliner. Also, like Man Nutzfahrzeuge v Freightliner it concludes with a statement that it does not exclude liability for fraudulent misrepresentation. It therefore falls somewhere in between the decided cases. However I have come to the conclusion that it does not have the effect of excluding liability for non-fraudulent misrepresentation. First, I do not consider for the reasons set out above that it covers liability for misrepresentation rather than contractual liability for representations.
387. Secondly, while there is reference to representations, there is nothing in the clause that indicates that it is intended to take away a right to rely on misrepresentations. As Browne-Wilkinson J said in Alman and Benson v. Associated Newspapers Group Ltd: “*If it were designed to exclude liability for misrepresentation it would, I think, have to [be] couched in different terms, for example, a clause acknowledging that the parties had not relied on any representations in entering into the contract.*” Equally, as Jacob J stated in Thomas Witter Ltd. v. TBP Industries Ltd, “*In other words, if a clause is to have the effect of excluding or reducing remedies for damaging untrue statements then the party seeking that protection cannot be mealy-mouthed in his clause. He must bring it home that he is limiting liability for falsehoods he may have told.*” I consider that clear words are needed to exclude a liability for negligent misrepresentation and that this clause does not include any such wording. As Sky submit exclusion clauses are construed strictly and clear expression is needed to exclude liability for negligence: see Photo Production Ltd v Securicor Ltd [1980] AC 827 at 851 per Lord Diplock and Lord Morton’s well-known test in Canada Steamship Lines Ltd v R [1952] AC 192.
388. Thirdly, the reference in the final sentence to “*This clause does not exclude liability of either party for fraudulent mis-representation*” is obviously an indication that the previous words of the clause would otherwise have that effect. However, in the absence of words which do have that effect, I do not consider that such a statement can create an exclusion which it then negatives. Put another way,

on my construction of the clause it does not exclude liability for fraudulent misrepresentation. It would be strange if the addition of the last sentence then had the effect of imposing liability for non-fraudulent misrepresentation when what it says is correct. The clause does not exclude liability of either party for fraudulent misrepresentation.

389. As a result, for the reasons set out above, I do not consider that the Entire Agreement clause precludes SSSL from advancing a claim for negligent misrepresentation or misstatement against EDSL.

### **Clause 7.2 of the Prime Contract**

390. Clause 7.2 provides:

*“The Contractor warrants to SSSL that it has the knowledge, ability and expertise to carry out and perform all obligations, duties and responsibilities of the Contractor set out in this Agreement and acknowledges that SSSL relies on the Contractor’s knowledge, ability and expertise in the performance of its obligations under this Agreement.”*

391. EDS rely on this clause to show that the parties incorporated into the Prime Contract as warranties any representations which they considered to be of importance. For the reasons given above I consider that this provision is an example of a matter which is incorporated as a term of the Prime Contract and therefore supersedes any prior representations for the purpose of forming a term of the contract or a collateral contract but not in relation to any claim for misrepresentation.
392. Sky rely on Clause 7.2 for a different purpose. Sky submit that, as between EDSL and SSSL, Clause 7.2 of the Prime Contract gives rise to an estoppel. This estoppel argument formed one of the amendments to paragraph 51 of the Particulars of Claim for which permission was given on 7 September 2007, but that EDS’ responsive Defence at paragraph 154 does not contain any response to this amendment.
393. Sky say that by the terms of Clause 7.2, EDSL made a clear and unequivocal statement that it *“has the knowledge, ability and expertise to carry out and perform all obligations, duties and responsibilities of the Contractor set out in this Agreement”*. In addition EDSL *“acknowledges that SSSL relies on the Contractor’s knowledge, ability and expertise in the performance of its obligations under this Agreement”*.
394. Sky say that the first part of the statement amounts to a representation of fact that EDS possessed certain knowledge, ability and expertise. In my judgment that provides for a contractual remedy by way of breach of warranty but cannot, in itself, give rise to any independent claim by way of misrepresentation.

395. In relation to the second part EDS contend that it does not contain an acknowledgment of reliance at the point of entering into the Prime Contract, but rather contains merely an acknowledgment that SSSL would rely in the future on EDS' knowledge, ability and expertise. Sky submit that this is equivalent to saying that SSSL "*will rely*" rather than that SSSL "*relies*" on EDSL's knowledge, ability and expertise which is not what the clause says.
396. Sky contend that the statement was a representation of fact that SSSL were there and then in fact relying on that knowledge, ability and expertise. Sky also say that it is clear from the words that the representation was of a nature to induce SSSL, was made with an intention to induce SSSL and did in fact induce SSSL to alter its position to its detriment, by entering into the Prime Contract with EDSL.
397. I consider that the reference to an acknowledgement by EDSL that SSSL "*relies*" is, as Sky submit, an acknowledgment that Sky was relying on EDSL's knowledge, ability and expertise at the time of the Prime Contract. I also consider that, to the extent that EDSL deny that SSSL so relied at the time of the Prime Contract, that would contradict this statement and EDSL would be estopped from asserting that SSSL did not rely on EDSL's knowledge, ability and expertise.

**Limitation and exclusion of liability: Clause 20 of the Prime Contract**

398. Clause 20 contains two provisions which are relied on by EDS. First, Clause 20.2 which provides that:
- “Save as provided in Clause 20.1, neither party shall have any liability to the other party in respect of (i) any consequential or indirect loss or (ii) loss of profits, revenue, business, goodwill and/or anticipated savings.”
399. Secondly, Clause 20.5.1 which provides as follows:
- “Subject to Clauses 20.1, 20.2, 20.3, 20.4 and 20.6, the total aggregate liability of each party at the time of the relevant claim (other than SSSL's obligations under Clause 10) and its officers, employees and agents to the other party arising out of any act, omission, event or circumstances relating to this Agreement or with respect to the matters contemplated herein shall in no circumstances exceed:
- (a) in respect of the Contractor, the sum of all amounts paid to the Contractor under Clause 10 at the time of the relevant claim (the "Liability Cap"); and...”
400. Clause 20.5.2 provides in following terms the practical effect of which is that the Liability Cap shall be not greater than £30 million:



“Subject to Clauses 20.5.3, 20.6 and 20.7, the Liability Cap for the Term shall not at any time be less than £6 million (six million pounds), nor greater than £30 million (thirty million pounds).”

401. Clause 20.8 defines “liability” to mean “any liability, whether under statute or in tort (including negligence), contract or otherwise...”

**Clause 20.2**

402. EDS submit that Clause 20.2 affects the claims which are brought by SSSL against EDSL in this case.
403. EDS say that the losses claimed by Sky, for example at paragraph 108.1 of the Particulars of Claim, fall into three categories: development costs of implementing the CRM system, operating costs and loss of profits and other business benefits.
404. EDS contend that, absent deceit, SSSL's claims against EDSL for lost profits and business benefits in respect of reduced Call Handling Costs are excluded by Clause 20.2.
405. Sky contend that all losses are “direct losses” and are therefore outside Clause 20.2.
406. EDS submit that Sky's argument, which depends on a distinction between direct and indirect losses, should be rejected. They say that Clause 20.2 does not limit the exclusion to indirect losses. It specifically excludes “loss of profits, revenue, business, goodwill and/or anticipated savings”, which does not depend on whether such losses are categorised as direct or indirect.
407. EDS say that SSSL's claim in respect of Call Rate Reduction benefit is one for the loss of savings in the form of reduced staff costs which Sky say would have been made had the CRM System been in place earlier. EDS submit that this is a claim for loss of “anticipated savings” which falls within Clause 20.2(ii).
408. Sky submit that the losses arise within the first limb of Hadley v Baxendale (1854) 9 Exch 341 and are therefore direct losses. They say that they are therefore not “consequential” or “indirect” which phrases refer to losses within the second limb of Hadley v Baxendale. They refer to the decision in Croudace Construction Ltd v Cawoods Concrete Products Ltd (1978) 8 BLR 20 and to subsequent Court of Appeal authorities which, they submit, have consistently upheld this view.
409. I accept that the reference to “consequential” losses in Clause 20.2(i) is a reference to “indirect” losses within the second limb of Hadley v Baxendale, as consistently held in the Court of Appeal starting from Millar's Machinery Co v David Way (1935) 40 Com. Cas 204 and Croudace v Cawoods and the recent cases cited in McGregor on Damages (Seventeenth Edition) at para 1-037.

410. However, Clause 20.2(ii) excludes liability for “loss of profits, revenue, business, goodwill and/or anticipated savings” and, as EDS submit, that part of Clause 20.2 is a separate exclusion and does not depend on such losses also being “consequential” or “indirect” under Clause 20.2(i).
411. EDS submit that SSSL's claim in respect of Call Rate Reduction benefit falls within the exclusion in Clause 20.2(ii). That claim is based on the premise that the Sky CRM System reduces inbound subscriber calls to the call centres, thereby enabling Sky to reduce the number of CAs required to answer calls. Sky also claim that the reduction in calls will enable it to reduce the number of “CTI Support” and “Sales Support” staff who manage the CAs. I accept EDS’ submission that Clause 20.2(ii) would exclude liability for this loss on the basis that it is loss of “anticipated savings”. Thus, except for claims in deceit, Clause 20.2(ii) has the effect of excluding EDSL’s liability to SSSL for Call Rate Reduction benefits.

#### **Clause 20.5**

412. Sky plead as follows in relation to the Cap:

“On a true construction of the Contract, clause 20 is effective to limit to £30 million EDSL's liability to SSSL in respect of breach of contract and negligent misrepresentation, but is not effective to limit: (i) EDSL's liability to SSSL for deceit; (ii) any liability of EDSC; or (iii) any liability to BSKyB Ltd.”

413. In opening oral submissions Sky said that a claim based on negligent misrepresentation, under the Misrepresentation Act 1967 or at common law, or a claim for breach of contract would be subject to the cap of £30 million.
414. It is evident that Sky accept that the Cap applies to the following claims against EDSL:
- (1) SSSL’s claim for negligent misrepresentation or under the Misrepresentation Act 1967 pre-Prime Contract.
  - (2) SSSL’s claim for negligent misrepresentation pre-Letter of Agreement and for breach of contract prior to July 2001.
  - (3) SSSL’s claim for damages for repudiatory or non-repudiatory breach of the Prime Contract as varied by the Letter of Agreement.
415. It is common ground that the Cap does not apply to any claim by SSSL or BSKyB against EDSL or EDSC for fraudulent misrepresentation pre-Prime Contract.

416. On their pleaded case Sky also contend that the Cap does not apply to a claim by B SkyB against EDSL or EDSC for negligent misrepresentation pre-Prime Contract or negligent misrepresentation pre-Letter of Agreement. They also contend that the Cap does not apply to claims for breach of the warranties in the Memorandum of Understanding.
417. As a matter of privity of contract, Sky are evidently correct that a term in the Prime Contract cannot affect liability in relation to a claim for negligent misrepresentation against EDSC or by B SkyB who are not parties to the Prime Contract. Whether there is such liability is an issue I deal with below.
418. In relation to the warranties under the Memorandum of Understanding, as I have found that there are no such claims, the point does not arise. In fact, it reinforces the view that the application of the Cap to any claim under the Memorandum of Understanding is precisely the type of matter which would have been dealt with in the agreement which the parties were seeking to negotiate.

### **Scope of Settlement in the Letter of Agreement**

#### **Introduction**

419. There is an issue between the parties concerning the terms of the settlement provisions in paragraph 17 of the Letter of Agreement.
420. Sky submit that paragraph 17 means that all known and unknown claims which SSSL had or may have had against EDSL for any breach of the Prime Contract were compromised.

#### **EDS' submissions**

421. EDS submit that paragraph 17 settled (1) All known claims by SSSL against EDSL for breach of contract; (2) All unknown claims by SSSL against EDSL up to 17 June 2001 for breach of contract; and (3) All known claims and all unknown claims (in the latter case up to 17 June 2001) which SSSL could advance against EDSL on the basis of breach of contract.
422. EDS say that as a matter of construction or by way of an implied term the reference to "*claims ... for any breach of the Prime Contract*" in paragraph 17 is a reference to all complaints which could be advanced on the basis of breach of contract. EDS therefore contend that not only have breach of contract claims brought by SSSL been compromised but so have the claims for deceit and/or negligent misrepresentation, since the matters relied upon as founding such claims would, if proved, constitute a breach of the warranties and obligations contained in Clauses 7.2, 7.3.8, 7.9 and 15.1 of the Prime Contract.
423. EDS say that the phrasing "all claims....for any breach of the Prime Contract" is consistent with the settlement covering not only claims in contract, but also claims in tort where the matters complained of constitute a breach of the Prime Contract.

They submit that SSSL should not be entitled to circumvent the settlement provisions of the Letter of Agreement by choosing to frame its claim in tort rather than contract and rely on the decision of the Court of Appeal in Bottin (International) Investments Ltd v Venson Group Plc [2004] EWCA Civ 1368.

### **Sky's submissions**

424. Sky say that the Clause is clear and unambiguous and there is no basis on which to write words into the Clause, as EDS seek to do. Sky also say that if the intention had been to compromise all claims arising under contract and tort, it would be unusual to do so by saying that the claims being compromised were all claims for breach of contract and claims '*which could be advanced on the basis of breach of contract*'. Sky refer to the decision of the House of Lords in BCCI SA v Ali [2001] 2 WLR 735 which, they say, supports their submission.

### **Analysis**

425. Paragraph 17 of the Letter of Agreement provides:

*“The terms set out in this letter have been agreed between us, subject to the approval of our respective managements, in full and final settlement of:*

- (a) all known claims which SSSL may have against EDS or which EDS may have against SSSL and/or British Sky Broadcasting Group Plc for any breach of the Prime Contract as of the date of both parties signing this letter; and*  
*(b) all unknown claims which SSSL may have against EDS or which EDS may have against SSSL and/or British Sky Broadcasting Group Plc for any breach of the Prime Contract during the period up to and including 17 June 2001.”*

426. On its face therefore the settlement under this paragraph was expressed to be settlement of claims for any breach of the Prime Contract.
427. In construing the document, I bear in mind the principles of construction which have been set out by Lord Hoffman in Investors Compensation Scheme v West Bromwich Building Society [1998] 1 WLR 896 at 912H and BCCI v Ali at [39]. EDS submit that, given that the terms of the Letter of Agreement made provision for substantial sums by way of credit or payment by EDSL to SSSL then the intention of the agreement was to wipe the “slate clean”.
428. However, Sky say that this is not what the parties agreed. They refer to the decision in BCCI v Ali where the House of Lords had to consider the words of a release which was: “*in full and final settlement of all or any claims whether under statute, common law or in equity of whatsoever nature that exist or may exist*” and decide whether this included damages for claims for misrepresentation and stigma damages.

429. The House of Lords was faced with a situation which Lord Nicholls expressed in this way at [23]:

*“The circumstances in which this general release was given are typical. General releases are often entered into when parties are settling a dispute which has arisen between them, or when a relationship between them, such as employment or partnership, has come to an end. They want to wipe the slate clean. Likewise, the problem which has arisen in this case is typical. The problem concerns a claim which subsequently came to light but whose existence was not known or suspected by either party at the time the release was given.”*

430. The House of Lords held, Lord Hoffmann dissenting, that the question to be determined was what the objective intention of the parties was in the context of the circumstances in which the agreement had been entered into and that neither party could realistically have supposed that the claim for damages for disadvantage on the labour market was a possibility and could not have intended the provision to apply to such claims.

431. Lord Bingham said at [19]:

*“on a fair construction of this document I cannot conclude that the parties intended to provide for the release of rights and the surrender of claims which they could never have had in contemplation at all. If the parties had sought to achieve so extravagant a result they should in my opinion have used language which left no room for doubt and which might at least have alerted [the Applicant] to the true effect of what (on that hypothesis) he was agreeing.”*

432. EDS rely on the decision of the Court of Appeal in Bottin (International) Investments Ltd v Venson Group Plc [2004] EWCA Civ 1368 in which there was a claim for breach of warranties in a share sale agreement including one at clause 3(a) under which warranties were given and it was acknowledged that the other party was entering into the agreement in reliance on the warranties and they may be treated as representations inducing the party to enter into the agreement. The agreement contained provisions requiring, as a pre-condition for the bringing of a claim for breach of warranty, notice of the claim to be given within a particular time period.

433. One of the issues in that case was whether the claimant could avoid the application of the notice provision by bringing the claim in tort for misrepresentation rather than in contract for breach of warranty. In giving a judgment with which the other members of the court agreed, holding that the claimant could not do so, Peter Gibson LJ said at [65]:

*“To my mind it makes no commercial sense for the Agreement to impose conditions as to the giving of notice of a breach of warranty and as to the commencement of proceedings for such breach and limiting the maximum liability if Bottin was intended to be left free of those conditions and those time limits and the limits on liability by treating the same warranties as representations. Mr. Glick was, in my judgment, plainly right to submit that the obvious commercial purpose in the conditions and limits was to enable the Warrantors to know that they would not be sued on the warranties if no notice was served in time and proceedings were not brought in time and that, if they were sued, there was a quantified limit to their liability. That purpose would be frustrated if the claim for breach of warranty could be regarded as a claim in misrepresentation. The final words of cl. 3(a) would permit a claim for rescission of the Agreement. That gives sufficient effect to those words, without having to give them the meaning contended for by Mr. Wardell which flouts commercial good sense.”*

434. Considering the terms of the Letter of Agreement objectively, the parties were intending to amend the terms of the Prime Contract in terms of the Milestones and payment provisions. The parties were therefore looking at the terms of the Prime Contract and making a compromise of claims for breach of the Prime Contract. There was no mention of any other claims and no wording that came close to the wording of the clause in BCCI v Ali. The words on their ordinary meaning and construed against the matters known to both parties at the date of the agreement would not be apt to cover a claim for misrepresentation. For parties to intend to exclude claims in negligence requires clear words showing that intention: see Canada Steamships v R [1952] AC 192 at 28 (PC). In addition, there is no wording which could justify exclusion of a claim in deceit. Indeed a clause which purports to exclude claims for deceit is generally ineffective at common law: see HIH Casualty and General Insurance Ltd v Chase Manhattan Bank [2003] 2 Lloyd’s Rep 61 at [16] per Lord Bingham, [76] per Lord Hoffmann and [122] per Lord Scott.

435. On a true construction of the terms of paragraph 17 that provision is not sufficient to exclude claims for negligent or fraudulent misrepresentation. Nor do I consider that an exclusion clause to that effect can be implied into paragraph 17. The test for an implied term may now be summarised as follows, from the principles as to the circumstances in which a court will imply a term which were set out by Lord Simon in BP Refinery (Westernport) Pty Ltd v President, Councillors and Ratepayers of Shire of Hastings (1978) 52 ALJR 20:

*“...for a term to be implied, the following conditions (which may overlap) must be satisfied:*

*(1) it must be reasonable and equitable;*

*(2) it must be necessary to give business efficacy to the contract, so that no term will be implied if the contract is effective without it;*

- (3) *it must be so obvious that "it goes without saying";*
- (4) *it must be capable of clear expression;*
- (5) *it must not contradict any express term of the contract."*

436. I do not accept that requirements (2) or (3), which are alternatives (see: Bradmount Investments Ltd v Williams De Broe plc [2005] EWHC 2449), are satisfied. The purpose of the settlement was to wipe the slate clean in respect of claims for breach of the Prime Contract. If the parties wished to, they could have incorporated words to include wider claims such as claims which could be advanced by way of breach of contract. They did not do so. It is not for the court to rewrite their bargain. Whether Sky can bring a claim to circumvent paragraph 17 depends on the wording of paragraph 17 and the nature of the claim. If the court re-wrote an exclusion of contractual claims to exclude all claims which could be framed in that way, that would be to change the bargain which the parties had made. There is nothing necessary or obvious in such a term.
437. I therefore find that paragraph 17 of the Letter of Agreement is an exclusion clause for claims for breach of the Prime Contract between EDSL and SSSL as expressly set out in that clause but is not an exclusion of "All known claim and all unknown claims (in the latter case up to 17 June 2001) which SSSL could advance against EDSL on the basis of breach of contract", as EDS contend.

## **The Memorandum of Understanding**

### **Introduction**

438. Following a CRM Executive Steering Group Meeting on 20 December 2001 Sky decided to undertake a review of the project involving EDS, Chordiant, Lucent and Arthur Andersen, to consider how best to take the project forward. That process culminated in a "*CRM Programme Review*" on 18 February 2002. There was a series of meetings between Sky and EDS on 15, 22 and 26 February 2002. The process ended with Sky taking over as Systems Integrator on 6 March 2002 and to Richard Freudenstein and Steve Leonard signing a Memorandum of Understanding on 26 March 2002.
439. EDS contends that in relation to the Memorandum of Understanding:
- (1) There was no termination by Sky of the Prime Contract, but rather that the Memorandum of Understanding represented a consensual variation by the parties of the Prime Contract, which continued in force save to the extent it was inconsistent with the Memorandum of Understanding;
  - (2) That the Memorandum of Understanding was or became a binding agreement and effected a compromise as between EDSL and SSSL so that "EDSL was discharged from liability for breach of contract in respect of past performance save for claims for breach of warranty" under the

continuing warranties contained in the Memorandum of Understanding;  
and

- (3) That the Memorandum of Understanding preserved certain limited warranties in relation to certain work that EDS had carried out prior to the Memorandum of Understanding.

440. Sky's position is set out in the Reply and is:

- (1) The Memorandum of Understanding was a non-binding statement of the 'agreement in principle' which the parties hoped in the course of further negotiations to translate into a binding agreement which focused solely on the future, being concerned only with the nature of the parties' relationship following the removal of EDS as Systems Integrator.
- (2) From the face of the Memorandum of Understanding itself and from its history and context and from the discussions that took place between the parties at the time, the Memorandum of Understanding does not have the effect of and was never intended or understood by the parties to have the effect of compromising any claims that Sky had or might have had against EDS.

441. In summary the issues in relation to the Memorandum of Understanding are as follows:

- (1) Did the Memorandum of Understanding constitute a binding agreement on 6 and/or 26 March 2002 or by the conduct of the parties in accepting the terms of the Memorandum of Understanding? Is EDS estopped from contending this?
- (2) Did the Memorandum of Understanding amount to a compromise of any rights or liabilities, and if so of what rights or liabilities?
- (3) What is the nature and effect of the ongoing warranties which were provided by EDS in the Memorandum of Understanding?

442. It is common ground that the Memorandum of Understanding does not affect Sky's deceit claims or Sky's claims for negligent misrepresentation. It is only relevant to the claim advanced by SSSL for breach of contract following the Letter of Agreement.

**Did the Memorandum of Understanding constitute a binding agreement?**

443. The Memorandum of Understanding was signed on 26 March 2002 by Richard Freudenstein and Steve Leonard and stated at the head of the front page that it was "*without prejudice and subject to contract*".



444. Sky submit that it is a long established principle of English law, as summarised in Lewison, *The Interpretation of Contracts* (3<sup>rd</sup> Edn) at para 15.03 that “*save in exceptional circumstances, an arrangement made subject to contract means that the exchange of a formal written contract is a condition precedent to any legal liability*”. Sky say that there are no exceptional circumstances in this case to cause a departure from the ordinary rule but rather, it is plain that the parties understood and intended that a formal written contract would be exchanged and that the Memorandum of Understanding would be an “*agreement in principle*” only.

445. Sky also refer to the second paragraph of the Memorandum of Understanding which records:

*“After three meetings with representatives at EDS, both parties agree on the need to renegotiate and redraft the contract between them for SSSL's call centres. Both parties will strive to renegotiate and agree a new form of contract within the next three months. We both accept that that new agreement will be consistent with the following principles:”*

446. Sky submit that the Memorandum of Understanding could not have become binding on signature, as EDS suggest, since such a conclusion is inconsistent with it being “without prejudice and subject to contract”.

447. Sky also submit that EDS are estopped from contending to the contrary, since the Memorandum of Understanding was signed on the basis of the representation made by David Walter, the in-house lawyer for EDS in his email of 25 March 2002 to Caroline Waterer, the in-house lawyer for Sky. Sky say that it signed the Memorandum of Understanding in reliance on that representation and that in all the circumstances, it would be inequitable for EDS to resile from that representation.

448. EDS submit that a binding agreement on the terms of the Memorandum of Understanding, as it then stood, was reached on 6 March 2002 when Steve Leonard and Richard Freudenstein had their telephone conversation, as a result of which Sky immediately took over the Systems Integrator role from EDS.

449. Alternatively, they submit that the Memorandum of Understanding became binding on the terms signed on 26 March 2002 and that, if there was a binding agreement on 6 March 2002, then the signed version represented a minor variation to that agreement. EDS refer to a change to the first section of the Memorandum of Understanding which, following that change, provided:

*“After three meetings with representatives at EDS, both parties agree on the need to renegotiate and redraft the contract between them for SSSL's call centres. Both parties will strive to renegotiate and agree a new form*

*of contract within the next three months. We both accept that that new agreement will be consistent with the following principles:....”*

450. EDS say that this change reflected the proposal by Sky, accepted by EDS, that there needed to be a new long form contract incorporating the relevant provisions of the Prime Contract and the Letter of Agreement with the amendments agreed in the Memorandum of Understanding.
451. EDS submit that the presence of the words "subject to contract" at the head of the Memorandum of Understanding reflected the parties' intention as expressed in the first section of the Memorandum of Understanding that there would need to be an agreement making changes to the Prime Contract as varied in line with the principles which were set out in five bullet points.
452. However, EDS submit that the second section of the Memorandum of Understanding became binding, notwithstanding that the new long form contract had not been signed. EDS say that this section did not contemplate the need for any further agreement but stated: “What follows is the agreed way forward for services provided from the date of this memo, and this is based on the discussions that have been on going with EDS and the conditions SSSL is willing to accept...”
453. EDS say that the terms of the second section were intended to have immediate effect and the parties acted upon those terms. EDS refer to the third section of the Memorandum of Understanding and say that it returned to the principles for further arrangements in the proposed revised contract.
454. EDS refer to the concluding words of the signed Memorandum of Understanding which stated that: “We are both happy to have reached this agreement and are looking forward to agreeing further revised terms for our contract.” EDS say that this final sentence reflected the fact that the Memorandum of Understanding contained terms that the parties agreed should have immediate effect as set out in the second section and terms, set out in the first and third sections, which would form the basis for further negotiations culminating in a redraft of the Prime Contract.
455. On this basis EDS say that the parties reached a binding agreement for the provision of services from the date of the signed Memorandum of Understanding in the terms set out.

#### **Background to the Memorandum of Understanding**

456. In February 2002 there was a series of 3 meetings between EDS and Sky which ultimately led to the Memorandum of Understanding. These meetings took place on 15, 22 and 26 February 2002 (DCC/203). The background to those meetings was as follows.

457. At the CRM Executive Steering Group meeting on 20 December 2001, EDS had reported an 8 week slippage in the implementation of Phase 2 and was proposing a change in the approach to one of Joint Application Development (JAD). Sky in response questioned the appropriateness of the “Big Bang” approach in which all the Phase 2 CRM functionality was delivered at the same time. There followed a review which culminated in presentation of a CRM Programme Review dated 18 February 2002 by Simon Post and Jeff Hughes to Tony Ball and Richard Freudenstein. The Review made recommendations which included a change in implementation approach from a “big bang” to an incremental approach and also that Sky should take a more active role in the project which it was said meant that *“commercial and legal changes maybe required”*. The review set out the two possibilities as being the Big Bang approach with EDS as the Systems Integrator and an incremental approach with EDS not being the Systems Integrator.
458. Meetings took place between Sky and EDS commencing on 15 February 2002 at which these changes were discussed. Greg Hyttenrauch summarised the conclusion of that first meeting as an agreement in principle that Sky would assume the role of Systems Integrator and the risk of overruns or warranty claims and that EDS would give up its claim to a profit share. On 18 February 2002, Jeff Hughes sent Greg Hyttenrauch a note setting out in more detail Sky's understanding of the discussions at the meeting which was broadly as set out above. The note stated that EDS would not be the Systems Integrator but would continue to work closely with Sky as a supplier of resources and close partner in the success of the program and that EDS' profit sharing would be “on the table” to compensate for the warranties and the System Integrator risk sharing which Sky was giving up.
459. Further meetings which took place on 22 and 26 February 2002 were essentially concerned with the level of payment which EDS was to make to Sky in return for EDS giving up their role as Systems Integrator but continuing as a supplier of resources to the project. On 27 February 2002 Greg Hyttenrauch sent Mike Hughes an email attaching two options, including an option of transferring the Systems Integrator role to Sky on terms. Greg Hyttenrauch said that he wanted to know whether there was agreement in principle to one of the options so that he could discuss the position with Steve Leonard and start work on a Memorandum of Understanding.
460. On 28 February 2002, Simon Post sent Greg Hyttenrauch a draft term sheet setting out an offer to EDS which was headed "without prejudice and subject to contract". It was the genesis of the Memorandum of Understanding and followed Greg Hyttenrauch's first option. Versions of the term sheet then passed back and forth between the parties.
461. On 6 March 2002, there was a telephone conversation between Richard Freudenstein and Steve Leonard.

462. Richard Freudenstein says in his witness statement at paragraph 142 that he understood that the Memorandum of Understanding which was being put in place would record the basis upon which Sky would take over the role of Systems Integrator whilst a legally-binding agreement was finalised. Richard Freudenstein made a note of what was said at the meeting in a notebook at 11:35am on 6 March 2002. He recorded Steve Leonard as saying "*fully working new approach as of now*". He said he thought that on this basis EDS were accepting that Sky would take over as Systems Integrator from that time. In an internal Sky email on 6 March Richard Freudenstein said: "*we agreed that EDS would behave from today as though the new deal was signed and he would communicate that to Greg H*". He said in evidence on Day 11 that EDS were agreeing that they would stop being Systems Integrator and that the commercial terms would then be sorted out.
463. Steve Leonard says in his witness statement that the telephone conversation lasted two minutes or so and was to give his and Richard Freudenstein's blessing to what had been agreed by their people. He recalled that Richard Freudenstein had the latest draft of the Memorandum of Understanding document in front of him. Steve Leonard says that he asked whether Richard Freudenstein was happy to go ahead and after saying that he felt that he had been let down by EDS he confirmed that he was going ahead and would sign the Memorandum of Understanding within 30 days. In oral evidence on Day 64 he said that the purpose of the telephone call on 6 March 2002 was to reach the agreement which triggered the cascade of changes in responsibility of what EDS and Sky were doing. He said that the conversation was to the effect that he confirmed that Richard Freudenstein had the document and was ready to sign it.
464. After 6 March 2002 EDS took steps to transfer the System Integrator role to Sky and the services provided by EDS to Sky were now under the terms identified in the draft Memorandum of Understanding, operating retrospectively with effect from January 2002.
465. Simon Post sent an email to Caroline Waterer dated 6 March 2002 stating that the Memorandum of Understanding needed to be converted by the lawyers into a "fully functioning MOU". On the same day, Caroline Waterer responded by email to Richard Freudenstein and advised that, having gone through the agreements, she did not think either side could safely sign a short Memorandum of Understanding. She proposed that the cleanest solution would be to terminate the existing contract and replace it with a new contract which repeated all the relevant provisions of the Prime Contract and the Letter of Agreement and appointed EDS as a service provider under Sky's control as Systems Integrator. She then proceeded to draft a new long form contract which she emailed to David Walter of EDS on 18 March 2002 who, in his response on 25 March 2002, said that an attempt was being made to reach agreement in principle by the end of the month and that this would give "a little more time to settle the terms of the full form agreement." On 26 March 2002, Caroline Waterer responded saying that Sky was

- happy to finalise the Memorandum of Understanding on a subject to contract basis.
466. Following some minor amendments, the draft Memorandum of Understanding was signed by Steve Leonard and Richard Freudenstein on 26 March 2002.
467. Richard Freudenstein says that his understanding of the position was that Sky and EDS would enter into the Memorandum of Understanding whilst the new contract was being drafted and that the Memorandum of Understanding would be subject to contract, recording the agreement “in principle” but not constituting a legally binding document. He says that he never considered that the Memorandum of Understanding was to be in full and final settlement. In his oral evidence he said that he thought that Sky would continue to pay EDS and he accepted that EDS had been paid on the basis of the rates in the Memorandum of Understanding, including a 33% increase referred to in that document. He said that he thought he had agreed commercial terms with EDS as of 6<sup>th</sup> March under which they stopped being Systems Integrator and under which Sky would continue paying EDS going forward. He said though that the document which he signed subject to contract was not a legally binding document.
468. Steve Leonard says in his witness statement that his understanding was that anything in the existing contract, the Prime Contract as amended by the Letter of Agreement, which clashed with the Memorandum of Understanding was no longer effective. He says that he thought that the terms of the Memorandum of Understanding were binding and although it did not replace the existing contract in its entirety, it “set the stage” for the modified contract to be put together. The new contract, not the Memorandum of Understanding, would then govern the relationship between Sky and EDS. He says that, like the Letter of Agreement, the Memorandum of Understanding involved a waiver of claims by Sky and that was the intention of the parties, although it has no express clause to that effect. In his oral evidence he said that the purpose of the Memorandum of Understanding was to “freeze that agreement until such time as the lawyers could memorialise it” which he thought could take some months. In essence, he saw the signature on 26 March as being to give effect to what he had said on 6 March 2002.

#### **The 6 March 2002 phone call**

469. The telephone conversation between Steve Leonard and Richard Freudenstein on 6 March 2002 was evidently the culmination of the process which had started at the end of 2001 and led to the review and the subsequent meetings between the parties. The result was a decision that Sky would take over the role of Systems Integrator from EDS and would do so on the basis that EDS would continue to supply staff. The detailed commercial terms on which that change was made had first to be agreed in principle and the parties evidently agreed that there then had to be a new contract which reflected the terms of the existing Prime Contract, as amended by the Letter of Agreement, as then modified by the terms agreed in the Memorandum of Understanding.

470. The phone conversation was necessary so that the senior personnel in Sky and EDS could confirm that the commercial terms which their teams had negotiated at the meetings were terms which were acceptable to both parties so that the parties could go forward. During the telephone conversation both Richard Freudenstein and Steve Leonard either had a copy of the latest draft Memorandum of Agreement in front of them or were well aware of the terms of that document, including the reference to it being “without prejudice and subject to contract”.
471. The agreement that the terms were acceptable to both parties then opened the door to the process by which, first, the formal Memorandum of Understanding was to be signed, within it was thought 30 days, and subsequently a new contract drawn up and signed. In those circumstances, the parties deliberately used the phrase “subject to contract” because they did not then intend to be bound by the terms of the current draft Memorandum of Understanding.
472. The draft Memorandum of Understanding stated at the beginning that “*This note is the offer to EDS with regard to the changing of the CRM program and the relationship between BSkyB and EDS on that program.*” The document continued by saying that “*After three meetings with representatives at EDS, both parties agree in principal with the following statements:*” There then followed five bullet points and then it stated: “*It is clear that some changes would have to be made to the current commercial contract following this agreement. What follows is the proposed way forward based on the discussions that have been on going with EDS and the conditions BSkyB is willing to accept:...*”. This then had a number of bullet points listed. That reflected the “subject to contract” nature of the agreement.
473. However, because they had reached an agreement on that basis, they also decided that EDS should cease to be Systems Integrator and Sky should take over with immediate effect and that payment would be made on those terms. That was all done in contemplation that a legally binding agreement would be entered into which would reflect those changed obligations.
474. In my judgment, there was no separate binding agreement made by Richard Freudenstein and Steve Leonard on 6 March 2002 other than the agreement in principle to proceed on the terms of the draft Memorandum of Understanding pending the finalisation or “memorialisation” of the overall agreement.

#### **The signing of the Memorandum of Understanding on 26 March 2002**

475. The first stage of the process was to have a document which recorded the terms on which Sky would take over as Systems Integrator from EDS. The document which was signed by Richard Freudenstein and Steve Leonard on 26 March 2002 again bore the notation at the top of “without prejudice and subject to contract”. The signing of the agreement was evidently the formalisation of the agreement in principle which had been made in the telephone call on 6 March 2002. There were

- some changes between the document signed and the version which Steve Leonard and Richard Freudenstein had before them on 6 March 2002 but the signed version obviously set out the agreement in principle which was still subject to the terms of the formal agreement which was contemplated.
476. The opening paragraph of the document was changed to say: *“After three meetings with representatives of EDS, both parties agree on the need to renegotiate and redraft the contract between them for SSSL’s call centres. Both parties will strive to renegotiate and agree a new form of contract within the next three months. We both accept that that new agreement will be consistent with the following principles: ...”* The second part of the agreement stated *“What follows is the agreed way forward for services provided from the date of this memo, and this is based on the discussions that have been on going with EDS and the conditions SSSL is willing to accept.”* There was then a further introduction to the final bullet paragraphs which stated: *“The principles for further arrangements in the revised contract will be: ...”*.
477. EDS accept that the first and third sections of the signed Memorandum of Agreement contemplated that a new long form of contract was needed but submit that the second section became binding notwithstanding the fact that the new long form contract had not been signed. EDS submit that the second section is in different terms to the first section and does not contemplate the need for further agreement for it to take effect. They refer to the following words at the end of the signed Memorandum of Agreement just above the signatures of Richard Freudenstein and Steve Leonard: *“We are both happy to have reached this agreement and are looking forward to agreeing further revised terms for our contract.”* They say that this final sentence reflected the fact that the Memorandum of Understanding contained terms that the parties agreed should have immediate effect (set out in the second section) and terms (set out in the first and third sections) which would form the basis for further negotiations culminating in a redraft of the Prime Contract.
478. Given the blanket “subject to contract” statement at the head of the Memorandum of Understanding, I do not consider that EDS are correct to divide the document up and try to distinguish between the terms of one section and the others. The fact that EDS accept that the first and third sections are consistent with the “subject to contract” rubric is, in my judgment, strong support for the general applicability of that principle to the whole document. Indeed the terms of the second section clearly depend on the main points in the first paragraph being agreed and follow on from that position. I do not consider that there is or could be a distinction between the sections.
479. On this basis, I consider that the whole of the signed Memorandum of Understanding was not a legally binding agreement when it was signed. It clearly was and was intended to be “subject to contract” and it is clear that both parties envisaged a later contact which would govern the changed relationship between

Sky and EDS dealing with the matters in the first, second and third sections of the document.

480. By 26 March 2002 the parties were implementing the necessary changes to the role of EDS. This seems to have taken the pressure off the need for the new overall agreement and none was ever entered into.

**Subsequent conduct**

481. EDS submit that, if the Memorandum of Understanding did not become binding on the parties upon signature, then the parties accepted its terms by their conduct both prior to and in anticipation of agreeing the terms of the Memorandum of Understanding and subsequent to execution of the document. EDS say that the parties did not wait for a new long form contract to be entered into, as contemplated by the first section of the Memorandum of Understanding, and no new contract was ever agreed.
482. EDS rely upon conduct by the parties as giving rise to acceptance. In particular they say that the transfer of the Systems Integrator role and the announcement of the transfer to the teams by Jeff Hughes on 11 March 2002 in which he said: “*The BSkyB executive management and EDS senior management have agreed on a way forward that gives this programme the most support and the highest chance for success...*” are conduct showing that the parties accepted the terms. EDS also rely on the fact that they provided services to Sky at the rates set out in the 2002 rate card and that invoices were issued monthly containing reference to the Memorandum of Understanding and a number of those invoices for April to October 2002 were paid by Sky. EDS also refer to the fact that they issued Sky with a credit note for £221,000 and gave Sky a credit the amount of £2m against labour invoices for January and February 2002. All of this, they say, was consistent with performance on the terms of the Memorandum of Agreement.
483. EDS also rely on an internal Sky email dated 17 April 2002 sent to Andrew Carney and Richard Freudenstein by Simon Post in which he referred to the right under the Memorandum of Understanding for Sky to request the removal of all or part of EDS’ personnel. EDS also rely on an email dated 23 April 2002 from Jeff Hughes in which he referred to replacement of personnel under the Memorandum of Understanding terms. EDS refer to another email from Ian Proctor dated 8 June 2002 to Simon Post and others in which he referred to the Memorandum of Understanding allowing “for a 33% increase in EDS rates from 01/01/03...”. EDS also refer to later references to the procedure in relation to EDS personnel.
484. EDS submit that the conduct of the parties pursuant to the terms of the Memorandum of Understanding gave rise to an implied binding contract on the terms of the Memorandum of Understanding and they rely on the first instance decision of Field J in Rugby Group Ltd v ProForce Recruit Ltd [2005] EWHC 70 at [16] which was not reversed on this point in the Court of Appeal. EDS therefore submit that the terms set out in the section of the Memorandum of



Understanding signed on 26 March 2002 were accepted by the parties by their conduct as being binding upon them.

485. Sky submit that EDS is incorrect in its submission that the parties, by their conduct both before and after the Memorandum of Understanding, accepted its terms so that the terms of the Memorandum of Understanding became binding upon them. Sky submit that conduct prior to 26 March 2002 cannot be said to evidence the conclusion of an agreement on that date and that so far as conduct after 26 March 2002 is concerned, that conduct was simply consistent with what the parties had expressly contemplated would take place in the non-binding agreement in principle which they had signed. Sky say that the performance of what was contemplated in an agreement cannot change the basis of the agreement.
486. Instead Sky submit that there are two possible conclusions. First, that there was no contractual relationship in place between the parties at all, and accordingly that the parties simply operated 'at risk', in the expectation that contractual terms would be agreed between them. Secondly, that the parties operated under some form of ad hoc contractual relationship, containing only such terms as were necessary for that ad hoc relationship to operate.
487. It is undoubtedly true that after the telephone conversation on 6 March 2002 and the signing of the Memorandum of Understanding on 26 March 2002, Sky and EDS conducted themselves on the basis of the terms of the Memorandum of Understanding in terms of performing the CRM Project and dealing with payment. However, does that conduct show that the parties were accepting the terms as being agreed as binding or were the parties performing on the basis that they contemplated the signing of a contract which would set out their obligations in relation to such performance?
488. In Fraser Williams v Prudential Holborn (1993) 64 BLR 5 CA similar questions arose. There was a 'subject to contract' proposal dated 3 March 1989 which was sent by one party to the other and a response of 10 March 1989 and a reply of 5 April 1989. Work had begun on 13 March 1989. No formal contract was ever entered into. There was an assertion that there was a binding agreement. The Court of Appeal (Dillon LJ dissenting) rejected that argument. Kennedy LJ said at page 10:

*“In my judgment, when experienced business men use the words “subject to contract” in a proposal, they mean more - and must be taken to mean more - than that the acceptance must be in writing. At the lowest, they are guarding themselves against being contractually bound without further action on their part.”*

489. At page 13 he held that the:

*“activity on both sides is easily explained on the basis that they both expected that in due course a formal contract would be agreed which would be ... in general terms in accordance with Fraser Williams’ proposals. Accordingly, although I, like the judge, recognise the risks to both sides of starting a substantial undertaking without a formal contract being in place, I do not reject as commercially improbable the notion that these parties did so.”*

490. Kennedy LJ said that in relation to the letter sent by Fraser Williams on 5 April 1989 that it *“came into existence and was treated as it was because both sides considered that the time had come to put in place the contract to which the proposal of 3 March was expressly stated to have been subject.”* He also referred to this being consistent with an invoice being submitted by Fraser Williams and paid by Prudential. He said at page 14:

*“In the end I am unable to share the judge’s conclusion that neither party could contend that, as he put it, the “subject to contract” provision in the proposal was still operative at the time of termination on 5 May 1989.”*

491. Sir Roger Parker said at pages 16 to 17 that there was no draft agreement to which subsequent conduct could be referable and that one party was *“about to have a first cut at an agreement”* He concludes at page 17: *“there were important matters left to be discussed and, therefore, there was no basis upon which the subsequent conduct of the parties could be considered as being referable unequivocally.”*
492. Dillon LJ held that no agreement had been concluded before Fraser Williams commenced work on 13 March 1989. He concluded at page 18 that the finding of the judge that the “subject to contract” provision in the proposal was not still operative because of the conduct of the parties up to the time of termination in May 1989 was not a perverse conclusion and was a finding of fact by an official referee on which leave to appeal had been refused.
493. In the present case I consider that the “subject to contract” rubric clearly applied to the Memorandum of Understanding. It was contemplated by both parties that a new contract would be entered into which would replace the Prime Contract, as amended by the Letter of Agreement, and would contain terms including those which had been agreed in principle in the Memorandum of Agreement. That was the position initially from 6 March 2002 and also subsequently from 26 March 2002.
494. The general rule is that a party may accept an offer by conduct and thereby give rise to a contract. However, conduct will only amount to an acceptance if it is clear that the party did the act in question with the intention of accepting the offer. In my judgment it is evident that both parties conducted themselves on the basis of the terms of the Memorandum of Understanding but did so in the contemplation that those terms would subsequently form the basis of the new

contract. Once the conduct of the parties started out on that basis then there would need to be some change in position to show that conduct which initially was on that basis was transformed into conduct by which one party intended there to be a new offer made and the other party intended to accept that offer. What happened in this case is that the parties proceeded on the basis that there would be a new contract but that process failed to come to fruition, partly because the immediate need for a new contract faded because Sky took over EDS' role as Systems Integrator.

495. It is clear that the negotiation of a new contract would take some time and not be an easy task. David Walter at EDS decided to instruct Allen & Overy and Caroline Waterer clearly thought that the process would take some time. Although Caroline Waterer produced a first draft on 18 March 2002 there were clearly questions about how far the terms of the original Prime Contract would continue and what would be the rights and liabilities of the parties. Indeed, as can be seen from the current dispute, the question of whether there was a full and final settlement or how past liabilities were to be dealt with would have to have been dealt with, indicating the need for the "subject to contract" rubric. Indeed the process of reaching agreement on the new contract seems to have foundered when EDS sought, through their lawyers, to introduce the concept of settlement.
496. On that basis I do not consider that it is possible to spell any contractual relationship founded on conduct from the position after 6 or 26 March 2002. I consider that the parties proceeded on the basis that a new contract would be entered into but they failed to do so. It follows that the Memorandum of Understanding does not give rise to any full and final settlement nor does it give rise to new warranty provisions.

## **F: CLAIMS FOR NEGLIGENT MISSTATEMENT OR MISREPRESENTATION**

### **Introduction**

497. Both SSSL and BSKyB make claims for damages at common law for negligent misrepresentation/misstatement. Such claims are made, first, against both EDSL and EDSC in the alternative to the claims for deceit for representations pre-Prime Contract. The matters said to give rise to that duty are those pleaded in relation to the claim in deceit. Secondly, SSSL and BSKyB make claims for representations pre-Letter of Agreement against only EDSL.

### **EDS' submissions**

498. In relation to the pre-Prime Contract representations, EDS submit that where the parties have structured their obligations so as to provide for contractual liability for certain non-fraudulent representations made by one of the contracting parties and so as to treat as of no effect other pre-contract representations, then these are relevant factors in determining whether a duty of care exists. They refer to the decisions in Pacific Associates and JP Morgan Chase, referred to above.

499. EDS submit that there were extensive negotiations of both the limitation and exclusion of liability clauses in the Prime Contract assisted by in-house and external lawyers. They say that Sky and EDS had worked out which company within their respective groups should be the contracting party and intended that, whichever it was, should be subject to the cap, the exclusion of liability and the Entire Agreement clause in the Prime Contract.

500. On that basis EDS submit that no duty of care should be found to be owed by EDSL to SSSL as the existence of such a duty would be inconsistent with or circumvent the structure put in place by the parties and would not be sensible or fair, just and reasonable. They say that under clause 7, EDSL gave a series of warranties, breach of which would give SSSL a right to claim damages and that the warranty at clause 7.2 as to EDSL's knowledge, ability and expertise is also pleaded as being a pre-contractual representation. EDS submit that the parties have given contractual effect to certain pre-contract representations and provided a remedy for breach of such representations by way of damages for breach of contract.

501. In relation to representations other than those forming warranties, EDS say that any duty of care as between EDSL and SSSL is excluded by operation of the Entire Agreement clause or that this clause excludes liability for non-fraudulent misrepresentation.

502. In relation to each of the pre-Letter of Agreement representations EDS admit that EDSL owed a duty of care to SSSL but deny that they owed any duty of care to BSKyB because any pre-Letter of Agreement representations were made to SSSL and not BSKyB and that such representations related to services being provided under the Prime Contract, to which BSKyB was not a party.

503. EDS contend that any duty of care owed by EDSL to SSSL was excluded by the terms of the Prime Contract and that EDSL owed no duty of care to BSKyB. EDS say that the parties arranged the contractual scheme so that EDSL owed no contractual obligations to BSKyB.
504. In relation to EDSC, EDS say that the parties so arranged the contractual scheme that, save as guarantor, EDSC owed no contractual obligations to SSSL or to BSKyB. On this basis EDS submit that EDSC owed no duty of care to either SSSL or BSKyB.
505. EDS submit that if the Court were to find that a duty of care was owed by EDSL to BSKyB or by EDSC to BSKyB or SSSL, this would, on Sky's pleaded case, avoid the intended effect of such arrangement. EDS say that not only would, for example, EDSL have a liability to BSKyB, but the liability would be unlimited. Further, they say that the whole of the losses that BSKyB claim are losses that, if suffered by SSSL, would be excluded by clause 20.2 of the Prime Contract. But if EDSL owed a duty of care to BSKyB, that would leave EDSL owing a greater liability to a non-contracting party than to a contracting party, despite BSKyB being involved in the negotiations and the decision that the contracting party should be SSSL and not BSKyB or BSKyB and SSSL jointly. Equally, EDS submit that it would also leave EDSC having a greater liability to SSSL than the prime contractor, EDSL.
506. EDS submit that if a duty of care in tort is not established where the duty is concurrent with a limited liability duty in contract, then where the parties have structured their relationship to ensure that there is no contractual duty owed, for instance between EDSL and BSKyB, then the justification for refusing to recognise a duty of care in tort is even stronger.
507. EDS submit that such a result would not be sensible or just or "fair, just and reasonable" and that, in the circumstances set out above, no duty of care should be found to be owed by EDSL or EDSC to BSKyB or by EDSC to SSSL.

**Sky's submissions**

508. Sky submit that EDS' contention that EDSL owed no duty of care to SSSL is unsupported and is founded on a misinterpretation of the Entire Agreement clause in the Prime Contract and overlooks EDSL's liability under section 2 of the Misrepresentation Act 1967 in relation to which the question of a duty of care does not arise.
509. Sky say that SSSL has a claim under section 2(1) of the Misrepresentation Act 1967 against EDSL and that to defeat this claim EDSL must prove that they "*had reasonable ground to believe and did believe up to the time the contract was made the facts represented were true*". However, Sky accept that, as between

- EDSL and SSSL, clause 20 of the Prime Contract caps EDSL's non-fraudulent liability at £30 million and any claim would be capped to that figure.
510. Sky also submit that EDS' contention that EDSL owed no duty of care to BSKyB and that EDSC owed no duty of care to either SSSL or BSKyB Ltd also rests on a misinterpretation of the Entire Agreement clause and is not supported, as EDS contend, by the existence of the Prime Contract between EDSL and SSSL and the inclusion of a limitation of liability in the Prime Contract.
511. Sky say that EDS have not and could not contend that, in the absence of the Prime Contract, duties of care would not arise. Sky say that the representations were made on behalf of both EDSC and EDSL with the intention that those representations were to be relied on by both BSKyB and SSSL in the course of the bid process and subsequent negotiations. Furthermore, the representations were all statements of fact that related to matters peculiarly within the knowledge and expertise of EDS. As such, Sky contend that the only question is whether the existence or terms of the Prime Contract are effective to exclude or restrict these tortious duties of care.
512. Sky submit that to the extent that representations were made to BSKyB and were relied on in selecting EDS and awarding them the Letter of Intent, the terms of any contract excluding or limiting a duty of care do not arise at that stage. The same, Sky submit applies so far as EDSC's liability to both BSKyB and SSSL is concerned.
513. In relation to representations made prior to the selection of EDS and the award of the Letter of Intent, Sky submit that the representations were made to BSKyB and were relied on in selecting EDS and awarding them the Letter of Intent. At this stage, Sky say that their cause of action was complete and there can be no question of the existence of terms of any contract excluding or limiting a duty of care that otherwise would arise. The same, Sky submit applies so far as EDSC's liability to both BSKyB and SSSL is concerned.
514. In relation to representations relied on in the conclusion of the Prime Contract, Sky accept that the situation is less straightforward. Sky submit that as far as liability to BSKyB is concerned, nothing changed after the Letter of Intent so as to oust that duty when discussions and negotiations continued after the Letter of Intent and up to the conclusion of the Prime Contract. Sky submit that, in considering the question posed by Lord Goff in Henderson v Merrett Syndicates Limited [1995] 2 AC 145 at 194 of whether the '*tortious duty is so inconsistent with the applicable contract that, in accordance with ordinary principle, the parties must be taken to have agreed that the tortious remedy is to be limited or excluded*', there is no inconsistency from the Prime Contract itself, which is silent as to any liabilities owed to BSKyB.

515. So far as the question of the liability of EDSC is concerned, Sky submit that the relevant question again is whether the terms or existence of the Prime Contract are sufficiently inconsistent with the duties which would arise so as to exclude or limit them. Sky say that the Prime Contract does not, on its own terms, purport to oust the liability of EDSC; it has nothing to say on the subject. Sky say that there is nothing unusual or abhorrent in EDSC being liable for the consequences of any negligent misrepresentations on which BskyB and SSSL relied, notwithstanding the limitation of liability in the Prime Contract between EDSL and SSSL. Sky say that no attempts were made to limit EDSC's liability and that EDSC should be liable for its negligent misstatements in the usual way.
516. In relation to pre-Letter of Agreement misrepresentations, Sky contend that representations were made to and duties of care were owed by EDSL to both SSSL and BskyB in the course of the negotiations leading to the Letter of Agreement. Sky say that these duties are not ousted or limited by the Prime Contract and it is not alleged that the duties were ousted by the terms of existence of the Letter of Agreement.

### **Analysis**

517. I first deal with the question of whether EDSL owed SSSL a duty of care or whether such a duty was excluded or limited by the terms of the Prime Contract. As Lord Goff said in Henderson v Merrett at 191 where the parties are in contract, a concurrent or alternative liability in tort will not permit a party to circumvent or escape a contractual exclusion or limitation of liability for the act or omission that would constitute the tort. However, subject to that qualification, where concurrent liability in tort and contract exists the plaintiff has the right to assert the cause of action that appears to be the most advantageous to him in respect of any particular legal consequence.
518. In principle, subject to the limitation set out above, I can see no reason why a common law duty of care should not be owed by EDSL to SSSL in relation to any pre-contract representations. There is evidently a sufficient relationship between the parties in the period leading up to the Prime Contract and, in circumstances where SSSL might suffer damage as a result of such representations, I consider that it is sensible and just for a duty of care to be found to exist.
519. What then is the effect of the terms of the Prime Contract on that duty of care. Sky submit that the terms of the Prime Contract only came into effect at a later stage and therefore cannot affect the existence of a duty of care at the time when EDS was selected and entered into the Letter of Intent. That submission has some attraction but I consider that it ignores the fact that the question for consideration is whether it is sensible or just for a duty of care to exist in the light of all the circumstances. Those circumstances include the fact that the representations were made in the context of the ITT and the Response which were part of the process by which EDS was seeking to be awarded a contract to carry out the Sky CRM Project. The contract which was entered into therefore cannot be ignored. If that

were not so then because pre-contract representations are, of necessity, made before the contract, parties could never effectively regulate their obligations in respect of such representations. The terms of the Prime Contract cannot therefore be ignored where they are relevant.

520. There are three terms of the Prime Contract which are relevant: the Entire Agreement Clause in Clause 1.3, the warranties given in Clause 7.2 and the limitation of liability clause in Clause 20. Those clauses have to be considered to see whether they affect the duty of care which I have held would otherwise exist. In particular, the duty of care will have to take account of any exclusion or limitation clauses in the Prime Contract so as not to permit SSSL to circumvent or escape the consequences of those terms. In the light of my findings as to the scope and effect of Clauses 1.3.1, 7.2 and 20 of the Prime Contract, it is necessary to consider whether there are duties of care owed by EDSC or owed to BSKyB so as to give rise to claims for negligent misrepresentation at common law by BSKyB and SSSL against EDSC and by BSKyB against EDSL and EDSC which would avoid the effect of the limitations in the Prime Contract.
521. First, though, it is necessary to consider something of the background to the way in which the parties arranged their relationship.

#### **The Contractual framework**

522. The first stage of the process was the preparation of the ITT which was sent to the potential bidders. It was sent to other bidders on 17 March 2000 and then later it was sent to Joe Galloway at the request of Mike Hughes.
523. The ITT was produced by Scott Mackay. That document had the Sky logo and was an Invitation to Tender for the build and implementation of a World class contact centre for “BSkyB”. The ITT refers to “BSkyB” and to “Sky Services”. Although the references are not entirely consistent, “BSkyB” is evidently a reference to the first claimant, BSKyB and “Sky Services” is a reference to the division within which the second claimant, SSSL, sat. The ITT refers to BSKyB objectives and is generally phrased in terms of BSKyB’s requirements. There is also reference to the involvement of BSKyB and BSKyB staff.
524. At para 3.5.2 of the ITT there is particular reference to SSSL being licenced to provide conditional access services to broadcasters of which BSKyB is one. There is also reference to “Sky Services” having the two call centres at Dunfermline and Livingston.
525. In the Response, the EDS logo is used and it is generally written as being the Response of “EDS” and refers to “BSkyB”. Under the Statement of Confidentiality on page 2 of the Response it is stated that “This document is proprietary to Electronic Data Systems Limited, its parent company Electronic Data Systems Corporation and any of the corporation’s subsidiaries.” It is also stated that “EDS and the EDS logo are registered marks of Electronic Data Systems Corporation” and it is stated “Copyright © 2004 Electronic Data Systems



- Corporation”. It is said to be a “written response from EDS, to B SkyB’s ‘Invitation to Tender’”.
526. The Letter of Intent was written on SSSL notepaper but was signed for and on behalf of “British Sky Broadcasting Limited”, that is B SkyB. It was addressed to Joe Galloway as Managing Director of Electronic Data Systems Limited, that is EDSL, and was countersigned for and on behalf of EDSL. It referred to B SkyB and “B SkyB’s existing contact centres”. The letter referred to the parties as “EDS” and “B SkyB”.
527. The first draft of the Prime Contract dated 19 September 2000 from Herbert Smith provided for the contracting parties to be SSSL and EDSC and recorded that the ITT had been issued by SSSL and that “Contractor”, in that draft EDSC, had issued the Response. That draft contained a limit of liability of the higher of £10m or the total amount paid to EDSC and also excluded indirect or consequential loss.
528. When, on 2 October 2000, Laurence Anderson of EDSL supplied to Keith Russell of Sky comments on the draft contract he noted, under the heading “Parties”, that “the contract will be entered into by Electronic Data Systems Limited, the EDS UK company not the EDS Corporation which is a US based company.”
529. The drafts which were produced from 2 November 2000 and the Prime Contract itself recorded the parties as being SSSL and EDSL.
530. Allen & Overy produced a draft on 6 November 2000 which proposed a cap limited to amounts paid less various sums. That and earlier drafts also contained an extended form of exclusion clause. There was then negotiation of the terms of the limitation of liability and exclusion clause culminating in the versions in the Prime Contract.
531. The Prime Contract was dated 30 November 2000 and stated that SSSL issued the Invitation to Tender and that it was for, among other things, “the retrospective fitting of environment, culture, process and technology to SSSL’s existing contact centres located at Dunfermline and Livingston”. The Response was said to have been issued by the “Contractor”, EDSL. There is a reference to notices for SSSL being sent to B SkyB with a copy to the Managing Director of Sky Services.
532. By Clause 1.3.2 of the Prime Contract there was a term which effectively provided that the Letter of Intent would cease to have effect on or shortly after the execution of the Prime Contract.
533. On 7 December 2000, EDSC entered into a deed of guarantee with SSSL which was expressed to be supplemental to the Prime Contract. By Clause 1, EDSC guaranteed the performance by EDSL of its obligations under the Prime Contract.
534. The question which has to be answered is whether duties were owed by the EDS parties to the Sky parties in relation to statements or representations which were made negligently by an EDS party to a Sky party.
535. I have found that the Entire Agreement provision in Clause 1.3.1 of the Prime Contract does not, on its terms, prevent EDSL being liable in negligence for misrepresentations made to SSSL in advance of the Prime Contract. However, the

- effect of Clause 20.2 and Clause 20.5 is to limit EDSL's liability for such negligent misrepresentation to £30 million and exclude certain heads of loss.
536. The background to the Prime Contract shows that the EDS and Sky parties decided that the contracting parties would be EDSL and SSSL. On the basis of the ITT and the Response I consider the position was open and could have led to the contract being between EDSL and/or EDSC on the one part and BSKyB and/or SSSL on the other part. The Letter of Intent was between EDSL and BSKyB but on SSSL notepaper indicating that some but not a great deal of thought, had been given to the position for the interim arrangement. When the matter came to be considered in more detail the parties were chosen as EDSL and SSSL and not EDSC and BSKyB. The parties chose to use EDSC as a guarantor of EDSL's liability and to choose not BSKyB as in the Letter of Intent but SSSL as the contracting party. The parties also chose to limit liability and exclude heads of loss.
537. If as alleged by Sky, representations were made negligently by EDSC to BSKyB or SSSL or by EDSL to BSKyB which caused loss arising out of the arrangements under which the Sky CRM System was provided under contractual arrangements between EDSL and SSSL and this loss was suffered by SSSL or BSKyB then for there to be a duty imposed between those other parties which enabled them to recover unlimited damages would circumvent the detailed provisions that the EDS parties and the Sky parties had put in place.
538. As Sky point out the parties did not include any provision within the Prime Contract which expressly referred to liability of EDSC or to BSKyB when they could have done so. Evidently if they had done so that would have avoided the situation. However, as is made clear in the authorities, the tests imposed to determine whether there is a duty of care and the scope and extent of any duty do not depend on whether there is an exclusion clause. They are based on questions of fairness, justice and reasonableness taking account of all the relevant circumstances.
539. I bear in mind that the position here is somewhat different from those situations which more often arise. This is not a case where the duty being considered is a parallel duty of care to a duty in contract. Nor is it a case of a contractual chain where the duty is said to arise between two parties separated by one or more parties in the chain. Rather it is a case where parties in a group have chosen the parties between whom to have a contract and it is sought to rely on a duty of care so that another member of the group can pursue a claim which circumvents the contractual arrangements. This is more a case which has similarities to Pacific Associates and JP Morgan Chase v Springwell.
540. To paraphrase the test approved by Lord Goff in Henderson v Merrett at 191: An alternative liability in tort will not be admitted if its effect would be to permit the plaintiff to circumvent or escape a contractual exclusion or limitation of liability for the act or omission that would constitute the tort.
541. As Ralph Gibson LJ said in Pacific Associates even absent the express disclaimer in favour of the engineer, to impose a duty would cut across and be inconsistent

with the structure of relationships created by the contract. Or, using the test of Purchas LJ, to determine whether a duty arises in tort it is necessary to consider the circumstances in which the parties came together to see what obligations, if any, were assumed by the one in favour of the other and what reliance was placed by the other on the first. Russell LJ put it differently but to the same effect: “Given the contractual structure between the contractor and the employer, can it be fairly said that it was ever within the contemplation of the contractor that, outside the contract, it could pursue a remedy against the engineer?”

542. Applying the test used by Gloster J in JP Morgan Chase v Springwell the contractual documentation, whether taken at a straightforward contractual level, or looked at more widely, as an indication as to whether any common law duties of care arose, showed that the parties specifically contracted upon the basis of a relationship which negated any possibility of a duty by or to other parties coming into existence.
543. Applying those tests, I have come to the conclusion that a duty of care should not be imposed upon EDSC in favour of BSKyB or SSSL or upon EDSL in favour of BSKyB which would circumvent or escape the contractual exclusion or limitation of liability which the parties put in place. That contractual structure, in my judgment, negatives any possibility that such a duty of care should arise in these circumstances.

#### **Claims under the Misrepresentation Act 1967**

544. Sky make claims under this Act in respect of representations which they contend induced the Letter of Intent, the Prime Contract and the Letter of Agreement.
545. Section 2(1) of the Act provides as follows:

*“Where a person has entered into a contract after a misrepresentation has been made to him by another party thereto and as a result thereof he has suffered loss, then, if the person making the misrepresentation would be liable to damages in respect thereof had the misrepresentation been made fraudulently, that person shall be so liable notwithstanding that the misrepresentation was not made fraudulently, unless he proves that he had reasonable ground to believe and did believe up to the time the contract was made the facts represented were true.”*

546. On the pleadings the claims made by Sky may be summarised as follows:
- (1) In relation to the Letter of Agreement, it is pleaded that “The Claimants (Richard Freudenstein, Andrew Carney and Tony Ball) relied on the representations set out above with the result that SSSL entered into the Letter of Agreement with EDS Ltd, as it was intended by EDS Ltd that it should.” Sky rely on section 2(1) of the Misrepresentation Act. The claims for damages in respect of pre-Letter of Agreement representations are advanced by both Claimants against EDSL only.

- (2) In relation to the Letter of Intent and the Prime Contract, it is pleaded that the claim for damages is advanced by both Claimants against both Defendants.
547. EDS refer to the fact that a claim for damages under s.2(1) of the Misrepresentation Act 1967 is only available as between the contracting parties. EDS therefore submit, and I accept, that no claim can be made under the 1967 Act against EDSC and that:
- (1) No claim under the Act in respect of representations leading to the Letter of Intent can be made by SSSL.
  - (2) No claim under the Act in respect of representations leading to the Prime Contract can be made by BSKyB.
  - (3) No claim under the Act in respect of representations leading to the Letter of Agreement can be made by BSKyB.
548. EDS submit that while the burden is on EDSL to establish the necessary reasonable grounds of belief and belief in the representation, the defence relates closely to the allegations of negligence made by the Claimants against EDSL at common law and if the Claimants fail to establish that the representations were made without due care, then the claim under section 2(1) of the Act should also fail.
549. EDS also accept that on the basis of Royscot Trust Ltd v Rogerson [1991] 2 QB 297, a decision binding on this court, the measure of damages under s.2(1) of the 1967 Act is the measure of damages for fraud. EDS reserve the right to argue in a higher court that the correct measure of damages is that ordinarily applicable to claims in negligence. The difference is that under the measure for fraud both foreseeable and unforeseeable damages are recoverable, whilst under the measure for negligence only reasonably foreseeable damage within the scope of the duty of care is recoverable.

## **G:THE CASE ON MISREPRESENTATIONS**

### **Introduction**

550. Sky allege that EDS made a number of representations at different times. There are a number of representations which are alleged to have been made prior to EDS being selected, receiving the Letter of Intent or entering into the Prime Contract, which I shall refer to as the “Initial Representations”. There are then further representations which are alleged to have been made prior to the Letter of Agreement which I shall refer to as the “Further Representations”.
551. In the case of the Initial Representations, it is convenient to deal with the three representations as to resources, time and cost together because much of the evidence is common to all three. I shall then deal with the representations as to technology and methodology separately.

### **Initial Representations**

#### **Resources, time and cost**

552. In cross-examination of the EDS witnesses and in their closing submissions Sky developed a theme which went to the underlying basis for the alleged representations on resources, time and cost.
553. In a section of their closing submissions in which Sky dealt with “What EDS needed to do in order to bid”, Sky referred to the evidence of Gerard Whelan, Barrie Mockett, Peter Rudd, John Chan, Tony Dean, Steve Leonard and Joe Galloway in cross-examination as to the steps necessary to be able to submit a bid. At paragraph 86 of their closing submissions Sky summarised the position as follows:

*“It is obviously correct, as a matter of common sense, that in order to honestly and properly respond to an ITT, and in particular one which indicates certain desired timescales, it is necessary to: ascertain what work is required to arrive at the client's intended destination; prepare a plan so as to be able to assess whether it is feasible to perform that amount of work in the timescales desired by the client; prepare a resource plan identifying what resources will be required (both in terms of numbers and skill sets) and when, in order to achieve that amount of work in the desired timescale; assess in the light of that resource plan the extent to which one possesses such resources and, if one does, whether suitable resources will be available when required in order to complete the planned work in the planned timescale; and, to the extent that one does not possess the requisite resources, secure commitments from third parties to provide resources, by informing them of your requirement for resources in what type (in terms of skill sets, experience and so on) and when.”*

554. This submission formed the basis for Sky's contention that, on the basis of what they had in fact done, EDS had not carried out those necessary steps in relation to work/cost, time or resources.
555. It is therefore convenient at this stage to consider this submission about the underlying basis of the bid because it is central to Sky's case on misrepresentation as to cost, time and resources.
556. The documents before the court which demonstrated the basis for the work and cost considered by EDS in their bid were the Costings Spreadsheets. In addition there were two plans, referred to as the Vine Plans, prepared by Steve Vine who was involved in the bid.
557. Joe Galloway gave detailed evidence of the way in which the work element in the Costings Spreadsheet was prepared and this was also dealt with by Gerard Whelan and Andy Sollis who were involved at the time. In summary, the evidence is that representatives of EDS and the consortium partners assessed the workscope and this led to estimates of effort in terms of days for particular teams. This information on effort, together with daily rates for the team members, was gathered by Joe Galloway and his spreadsheet was then handed over to Tim Webb who carried out the necessary calculations. Sky make a number of criticisms about the evidence and this process which led, in the end, to a spreadsheet which contained the figure which EDS set out in the EDS Response of £54,195,013.
558. In relation to time, the position is less clear. The Vine Plans were produced in April 2000 at an early stage of the preparation of the Response and pre-date all the costing spreadsheets. Those plans did not form part of the EDS Response and were based on a waterfall method of working where each stage is carried out before the next, rather than a RAD project where steps are carried out together and in parallel. If anything it seems that a waterfall programme would show a longer duration than a RAD programme. It seems that questions of time were left to Steve Vine and Mahmoud Khasawneh, neither of whom were witnesses. Joe Galloway said that he gave "no credence" to the Vine Plans. Gerard Whelan referred to the Vine Plans as being the output of the estimating process. He also referred to discussions with Steve Vine but was not aware of any more detailed plan being produced by Steve Vine. Andy Sollis was involved for a short time in April 2000 in relation to data warehousing. His evidence was that he spoke to Steve Vine to understand when other activities would be carried out on which data warehousing depended and to consider the duration for his work. He left at about the end of April 2000 and therefore could not say anything further on this aspect.
559. In his evidence Joe Galloway referred to discussions with members of the consortium, in particular Chordiant, on the question "do we believe that we can deliver something in nine months... that would give Sky sufficient activity to represent a new contact centre environment live in one hall". Gerard Whelan also referred to the fact that the "result of our estimating was a belief that we could

complete the work requested in Sky's ITT and its Appendices within the nine months specified." He appears to have gained confidence from the fact that other Chordiant projects had been completed in nine months.

560. In relation to resources, Joe Galloway made it clear that there had been no detailed resource planning. He said that detailed resource planning, in terms of precise numbers or specific individuals, is not carried out at the stage of a bid. He said that he had discussions about resourcing at a very general or "macro level" and did not descend to specific numbers or skills or broad timeframes. The one exception was that five people had been agreed and secured from Chordiant as set out in Joe Galloway's email of 15 June 2000. That there were discussions within EDS based on broad requirements was confirmed by Barrie Mockett and Peter Rudd. Gerard Whelan's evidence was broadly consistent with that of Joe Galloway. He said that there was a degree of comfort that the CRM Practice either had sufficient resources or would be able to obtain sufficient resources to deliver the project.
561. On that basis I now turn to consider the particular alleged representations.

#### **Resources**

562. Sky have made a number of amendments to their case on the resources misrepresentation. The original pleading in paragraph 29 of the Particulars of Claim set out the following overall representation:

*"EDS Ltd and EDS Corp represented that the personnel required for the project with the necessary skills and experience in the technology and methodologies to be used, were available and had been reserved for the project. The representation implied and was to the effect that such resources would be available when required in order to conclude the project in the timescale that had been promised".*

563. Sky say that these representations arise out of individual statements and representations made at EDS' bid presentation on 1 June 2000, in passages from the Response, in the 29 June 2000 joint delivery teaming document, in Joe Galloway's letter of 5 July 2000 to Richard Freudenstein, at EDS' presentation to Sky on 7 July 2000 and in Joe Galloway's email to Mike Hughes and others on 11 July 2000. Sky also say that representations were made by Steve Leonard to Richard Freudenstein on 13 October 2000 and by clause 7.2 of the Prime Contract.
564. By an amendment, Sky added two further representations which, they alleged, arose out of the letter of 5 July and the email of 11 July 2000 which, as set out above, are also relied on for the overall representation. Those two representations are pleaded as follows at paragraphs 29A and 29B of the Particulars of Claim:

- (1) *EDS Ltd and EDS Corp expressly represented, by way of a letter from Joe Galloway to Richard Freudenstein dated 5 July 2000 that: 'We have the resources and ability to deliver the systems and services you require and to meet the financial and budgetary targets that you have set'.*
  - (2) *EDS Ltd and EDS Corp expressly represented by way of an e-mail dated 11 July 2000 from Joe Galloway to Mike Hughes and Keith Russell (copied to Richard Freudenstein, Martin Stewart, Jonathan Malin, Steve Leonard and John Chan), that they were: 'ready to start this project as of Monday, 17 July. We have the resources reserved for this project; in fact, we have picked up some additional high level resources that you have worked with previously. These folks come with great experience of these types and size of project'.*
565. In relation to the overall representations pleaded in paragraph 29 of the Particulars of Claim, EDS admitted in paragraphs 20(1) and 20(2) of their Defence that EDSL had represented in the Response, *"that personnel with experience gained from comparable projects identified in the Response could be made available to be used on the project, as and when they and their particular skills might be required"* and *"that it was ready to start work on the project as of July 2000, utilising such personnel as might be required for that initial stage."* EDS also admitted in paragraph 20(3) of the Defence that, as at the date of the Prime Contract, 30 November 2000, EDSL *"warranted that it had the knowledge, ability and expertise to carry out and perform all the obligations, duties and responsibilities of the Contractor set out in the agreement."*
566. In relation to the two further representations alleged by Sky to arise out of the letter of 5 July 2000 and the email of 11 July 2000, EDS deny that the letter of 5 July 2000 was or was intended or understood to be anything more than a repetition of the representation admitted in paragraph 20(1) of the Defence. They also deny that the email of 11 July 2000 represented or was intended or understood to represent that all the resources required for the project had been reserved. EDS say that it meant, was intended and understood to mean that EDS was ready to start immediately and that it had reserved the resources required for such a start.
567. In closing Sky has accepted that, leaving aside the letter of 5 July 2000 and the email of 11 July 2000, the representations made by EDS would have amounted to the two representations which are admitted by EDS. They contend that the overall representation pleaded in paragraph 29 of the Particulars of Claim only arises from the letter of 5 July and the email of 11 July 2000 when those documents are read against and understood in the light of the Response and the other formal bid documents. Sky have referred to the overall representation as the "Greater Resources Representation" in their closing submissions. They have referred to the representations admitted by EDS as the "Lesser Resources Representation" and the "Ready to Start Representation". I shall adopt those definitions.



568. Sky also submit in closing that the Greater Resources Representation was intended to be understood and was in fact understood in terms that EDS “had actually worked out what work needed to be done; had planned the performance of that work in the timescale indicated; had worked out what resources would be required in order to deliver that work in that timescale (with what skills, in what numbers, at what times and for what periods); and had in light of that resource plan reviewed the sources of resources which were open to them and satisfied themselves that they actually had the resources required, and that those resources were available and were reserved for when they were required in order to complete that work in that timescale.” EDS say that this is unpleaded and no attention should be paid to it.
569. In summary, therefore, the position is this:
- (1) Sky contend that EDS made the Greater Resources Representation by which they represented that the personnel required for the project with the necessary skills and experience in the technology and methodologies to be used, were available and had been reserved for the project.
  - (2) EDS accept that they made the Lesser Resources Representation by which they represented that personnel with experience gained from comparable projects identified in the Response could be made available to be used on the project, as and when they and their particular skills might be required;
  - (3) EDS also accept that they made the Ready to Start Representation by which they represented that they were ready to start work on the project as of July 2000, utilising such personnel as might be required for that initial stage.
570. Whilst Sky rely upon the Greater Resources Representation in closing they also contend that, in any event, both the Lesser Resources Representation and the Ready to Start Representation were false and known to be false. As a result Sky submit that EDS made a fraudulent misrepresentation as to resources in the terms of the Greater Resources Representation but, in any event, in the terms of the Lesser Resources Representation and Ready to Start Representation.
571. EDS say that Sky’s closing submissions and their reliance on the representations admitted by EDS is wholly inconsistent with the case pleaded by Sky based squarely on the Greater Resources Representation. EDS contend that it is not sufficient, least of all in a case of fraud, to conjure out of the air in closing submissions an alternative and lesser charge but that any alternative case should have been pleaded properly. However EDS say that they do not object to this yet further change of case but to the manner of the change.

572. EDS also deny that, as alleged by Sky, it is inherent in the Lesser Resources Representation that EDS had actually worked out what resources were required and when, in order to be able to express the belief that they could be made available as and when they were required.
573. With that introduction it is convenient to consider first whether EDS made the Greater Resources Representation.

#### **The Greater Resources Representation**

574. In the light of the position adopted by Sky, it is evident that the letter of 5 July and the email of 11 July 2000 are central to this representation. It is necessary to concentrate on the terms of those documents but considering them against the background of the other documents.
575. By the beginning of July 2000, it had been about a month since EDS' bid presentation and there had been commercial discussions following on from that. There was also the letter of 18 June 2000 which Joe Galloway wrote directly to Richard Freudenstein to "*clarify the EDS position*".
576. Joe Galloway sent the letter of 5 July 2000 to Richard Freudenstein from his personal Yahoo email account. He said this:

*"I know that you are drawing to the close of a very trying experience with the bid on the new and replacement systems for your organisations' customer care facilities. I wanted to write to you today to re-emphasise EDS's commitment to making your team extremely successful in this endeavor. EDS has worked with over 10,000 organisations in its nearly 45 years of service to insure that every business can achieve its goal and surpass their wildest expectations for success.*

*As you have probably noticed, EDS has not tried to dabble too much in the political games that have been played by the some of the other organisations that have been involved in this process. We stand by our professional reputation and by the consistency of our solution, both from a financial standpoint and the technical requirements. **We have the resources and ability to deliver the systems and services you require and to meet the financial and budgetary targets that you have set.** In addition, we recognised that our "non-IT" solution did not meet your specification; so we have teamed very successfully over the last couple of weeks to bring a new consortium member to our bid, that being Arthur Andersen. Together, our groups have proven that a joining of our forces makes sense and gives you the assurance of a highly motivated team that can solve any business problem and deliver the desired solution. If there are any concerns over our joint proposition, perhaps there might be an opportunity for our combined teams to come back together with you to present our consolidated proposal. Our team is excited and enthusiastic*

*about the prospect of working with BSkyB to move your organisation into a new league of customer care. I do not understand why any consulting or software-providing organisation would attempt to alienate any member of your team to win the business. Surely they must realise that even if they win the business in this manner, working together begins to be a nearly impossible position for your team.*

*In closing, let me reiterate, that EDS and its consortium parties want to win the business at BSkyB. We committed to developing with your team a world-beating customer care environment, while, enabling your organisation to change and grow knowing that your IT systems and solutions will not be an inhibiting factor. Steve Leonard and I are both personally committed to making this project successful. If you find that there is anything further that I can do, please do not hesitate to contact me directly.*

577. On 10 July 2000 Joe Galloway wrote again to Richard Freudenstein giving further pricing information to support the selection of EDS.

578. The email of 11 July 2000 said this:

*“I wanted to forward some additional to you. We have reviewed the commercials and are prepared to reduce our mark-up percentage from 37.5% to 32.5%. Additionally, we are willing to put 77% of our overall mark-up at risk using the previously agreed milestone schedule. ... This new model replaces that which is included in the documents enclosed.*

*Mike, **EDS is ready to start this project as of Monday, July 17. We have the resources reserved for this project;** in fact, we have picked up some additional high level resources that you have worked with previously. These folks come with great experience of these types and size of projects. Please let me know if you need anything further.”*

579. The issue is what was meant and understood by the phrases which I have emphasised in those documents.

580. Joe Galloway was the author of both documents and, in relation to the letter of 5 July 2000 he alone at EDS saw that letter. The email of 11 July 2000 was copied to, amongst others, Steve Leonard and John Chan at EDS. Richard Freudenstein received the letter of 5 July 2000 and he, together with Martin Stewart, was copied with the email of 11 July 2000 addressed to Mike Hughes and Keith Russell.

***Letter of 5 July 2000***

581. It was only in his fourth witness statement that Joe Galloway referred to the letter of 5 July 2000. He says at para 15 that he did not specifically refer to this letter in

his earlier witness statements because he did not have anything to say in relation to it that he had not already said in the context of the other correspondence which he had addressed in his first witness statement. He then adds:

*“I now recall that Mike Hughes requested that I contact Sky in order to urge the decision process along in the light of the letters being written to Sky by Siebel and the internal politics within Sky. It was in those circumstances that I sent my letter to Richard Freudenstein on 5 July 2000.”*

582. He did not in his witness statement say what he meant by that letter. He was asked questions about it on Days 40 and 44.
583. In cross-examination on Day 40 he said that the letter was intended to *“portray EDS as an organisation that has the resources and the ability as an organisation to deliver what is required by Sky”*. He also said that he intended to inform Sky *“we had the resources to begin the project, we had the resources that were sitting waiting to be deployed on the Sky project, that all we were waiting for was the announcement that we had won and we put those people in place. That core team that would have started the project would have been the core team that would have gone in and understood the requirements over some period of time, and would have put out the more detailed plan which would allow us to go and capture those resources as appropriate in the numbers we needed at the time”*. He accepted in cross-examination that the letter did not say anything about having the resources to start the project.
584. He said that he meant that “we”, that is EDS and the consortium partners, had the resources and the ability to deliver the systems that Sky needed. He elaborated by saying that EDS was a company of 110,000 to 120,000 people; that Lucent Technologies was at least, as far as he knew a company of 50,000-odd people; Chordiant had a few hundred and that Sun was a mammoth organisation. On this basis he said that *“if one looks at it from the perspective of the overarching capability to deliver systems, one would have to conclude that those entities are capable of delivering the systems that were required for Sky”*.
585. On Day 44 he accepted that the letter was intended to persuade Richard Freudenstein, to whom he addressed the letter at the request of Mike Hughes. He said that this was a continuation of the sales process, it was an important letter to a key decision-maker, who was second only to Tony Ball in the Sky decision process. He said that he wanted him to understand that EDS was prepared to start immediately and would put people on the ground to begin that process, although he again accepted that the letter did not say that. He said that the “we” referred to EDS, the Corporation, the company-wide EDS and its consortium partners and also included Salmon and Henley who were outside agencies or organisations who supply staff. He said that he wanted Richard Freudenstein to understand that

“we, the group, EDS and its partners, had the resources within our groups to deliver this particular endeavour”.

586. It was put to him that the obvious meaning of the letter and what he intended was “*that you actually had available the staff required to deliver the project, and that you had actually worked out what staff you needed, and you had taken steps to ensure that they were available.*” He said that was not his understanding but that the letter was communicating the fact that the organisation, “[*t*]he grouping that had undertaken and endeavoured to respond to the ITT believe they have the resources and capability to deliver the systems that they desire.” He accepted that the letter did not refer to resources to begin and that in referring to “*the resources to deliver the systems and services that you require*” it was referring to the “*whole thing*”.

587. Richard Freudenstein dealt with the letter at paragraph 52 of his first witness statement where he said:

*“Joe Galloway referred to EDS’ previous experience of working with over 10,000 organisations. He reiterated that they had the resources and the ability to deliver the system and services we required and to meet the financial and budgetary targets that we had set. I understood this to mean that EDS had confidence in their revised budget and that they had undertaken a proper exercise to identify the resources required and costs involved in carrying out the project (which were reflected in their Response).”*

588. In cross-examination it was put to him that the letter of 5 July 2000 said nothing about identifying resources to which he responded that it said “we have the resources”. He accepted that he did not understand from that letter that EDS had put a name to a particular resource. He said that understanding came from the letter of 11 July 2000.

589. It was put to him that he had not understood Joe Galloway to have identified all the names that would be required on the project. He replied that he was “*clearly given the impression... across this period when the tender was going on - that there was a process going on within EDS to identify resources.*” He said he assumed they had some system there to say, “*We need these resources, these are the resources, here are the projects they are on, as soon as they roll off it we grab them.*” He said that he was led to believe this by EDS throughout this period and that he thought that it was from a combination of the information he was being given. He said he was “*under the impression that they were - they had a plan for the ones that were going to start, and as the project - as they needed more people, they were identifying them and earmarking them as they rolled off other projects*”. He thought this was derived from a combination of all the things EDS were saying to him in the letters of 18 June, 5 July, 11 July 2000.

590. Mike Hughes at paragraph 51 of his first witness statement says he cannot recall precisely but he believes that Richard Freudenstein would have shown the letter of 5 July 2000 to him when they discussed the bids. Otherwise, no other Sky witness refers to this letter.

***Email of 11 July 2000***

591. Joe Galloway in his first witness statement only dealt with the email of 11 July 2000. His evidence at paragraph 402 was that, when he said “*we have the resources reserved for this project*”, he meant that EDS had staff standing by who would be required for an immediate start and could immediately deploy people who were appropriately qualified to begin the project. He added that Mike Hughes, with his understanding of projects of this nature, would not have understood him to have claimed that every resource for the whole project was reserved at that point.

592. He gave evidence about the email on Day 44. He confirmed that it was a continuation of the selling process. He said that the references to “*EDS is ready to start this project*” and “*We have the resources reserved for this project*” were one continuous thought and not separate and distinct matters. He said he intended this to mean the resources reserved were those to start the project. He did not accept that he intended Richard Freudenstein to understand that EDS had actually reserved the resources for the project. He said that this would be a ridiculous statement.

593. He said that his “mindset” was that EDS were prepared to put the people on the ground to start the project and that EDS had those individuals to start the project. He added that EDS’ expectation was that during the initial six to eight week period for detailed analysis which EDS had asked for prior to the ITT, EDS would have expected to put “*programme managers, project managers, technical people, some technical people at the architecture level and administrators*” on the project. He said that those people would have worked alongside the business analysis team to determine the scope of the project and then determine a more detailed plan of “*who needed to be on the programme, when they needed to be there, how many people we needed*”. He accepted that the phrase “*we have the resources reserved for the project*” was capable of meaning resources for the whole project but said that he did not realise this at the time.

594. Mike Hughes to whom the email was addressed dealt with it in his witness statements. At paragraph 55 of his first witness statement he deals with the presentation on 7 July and says:

*“I recall that Joe Galloway stressed in that presentation the immediate availability of resources to start working on the project. I believe that this would have strengthened my view that EDS had the capability to successfully implement the project.”*

595. He then continues at para 56 by saying that Joe Galloway reinforced this message when he sent an email to him and Keith Russell on 11 July 2000, *“in which he stated that EDS were ready to start the project immediately and that they had the resources reserved for that purpose.”* He concludes: *“My clear understanding from him was that EDS had the people ready to start immediately”*.
596. At para 21 and 22 of his second witness statement Mike Hughes says something different. He says that when Joe Galloway said in the email that EDS were ready to start the project as of Monday, 17 July and had the resources reserved for the project, he took that at face value. He says that as EDS had said that they could deliver what was required within the timescales that Sky wanted he understood the email in that context: *“that EDS had the resources reserved to deliver the project in the timescales that they had represented to us. I did not expect the whole team for the entire project to turn up on the first day. That would be absurd and I did not read the email in that way.”* He says that he was aware that the project team would need to ramp up and that particular resources would be deployed over the life of the project at various times for the activities needed to deliver the new system. On the basis that EDS had informed Sky that they would be using a RAD approach, he says that the team needed to be in place quickly in order to develop the solution.
597. He says that he understood from what he was being told that EDS had worked out what resources they needed over the lifetime of the project and that they had reserved those resources for when they were needed. He adds that the development timescales were short and that this was why it was important that EDS had a team that was available immediately and could hit the ground running.
598. He was asked questions about this on Day 13. He said that as a result of the presentation of 7 July he would have understood that Joe Galloway had people ready to go who would be required for an immediate start but that, as this *“was a RAD project, so he would have needed to have identified all of the key resources to start the RAD process, systems architects and various other people that would be required.”*
599. In relation to the email of 11 July he said that he understood it to mean more than having resources to start. He said that *“This was the height of the dotcom technology boom. It was critical that he had resources available for a project that had a very sort of tight RAD based timeline to... to cover development, cover systems architecture, to cover testing various other elements program management, to cover various other elements of the piece, and some of those would be named resources and others would be reserved from EDS's resource pool and their partners in the consortium and various other sources.”*
600. He said that his support of the EDS consortium's bid was based on his confidence that Joe Galloway, other key resources, the EDS organisation and the Consortium to whom they were subcontracting would be able to deliver a working solution. In

relation to the email he said that *“I was being lobbied very, very hard by him and by others and I suggested he made those commitments to Richard as well which he did.”*

601. Richard Freudenstein deals with the letter of 11 July 2000 at para. 61 of his first witness statement where he says that Joe Galloway *“stated in terms that EDS were ready to start and had resources reserved for the project. He even stated that additional high level resources had become available. All of this contributed to my increasing confidence in EDS’ ability to carry out the project.”*
602. He was asked questions about it on Days 10 and 11. He said that his understanding on resources was that *“there were some that were ready to start immediately, and they had a very, a comprehensive process internally to EDS to identify resources as they rolled off other projects, and he marked their card to say the ones that were coming to this project.”* He also said that his impression *“was that they were identifying resources as they rolled off other projects, to be put on this project”* and that *“they not only had resources ready to start, but they were identifying resources. I assumed they had some complicated process internally that - they knew how many, for example, Chordiant resources they had and they knew where they were working, and they were identifying them and reserving them as they rolled off the other projects.”*
603. He said that he was *“not saying that they had identified every single person that would be on this project. I am saying that I clearly had the impression that they had resources that were ready to go immediately and that they had identified a number of resources to be rolled on this project at the appropriate time.”*
604. In re-examination he said that he understood it to communicate that *“they worked out what resources they needed for the project as a whole, and they had reserved them.”*
605. Martin Stewart refers to the fact that this email was copied to him at para 29 of his witness statement. He evidently has little recollection because he says that these statements *“would have”* given him additional confidence that EDS had sufficient resources available to undertake the project.

### ***Analysis***

606. In terms of the representation, there are essentially two issues:
- (1) Was it represented that personnel *“were available”* or was it only that they *“could be made available”*?
  - (2) Was the representation that personnel had *“been reserved”* a reference to all the personnel for the project or only those required for the start or initial stage?



607. In approaching these issues, I must consider what was intended by Joe Galloway and what was understood by the relevant people at Sky by the letter of 5 July 2000 and the email of 11 July 2000. The test is objective as to the meaning of the representation: What would the reasonable person in the position of the representee understand by the words used. Subjective matters are relevant to knowledge and reliance.
608. It is clear that, as Sky submit, the letter and email have to be read in the context of what was happening at the time. The passages of the Response relied on by Sky show that EDS were saying that they had the ability to “leverage” or use global resources. At the presentation on 1 June 2000 EDS repeated its statements about global resources and proven experience and expertise and stated that it was ready to start the project. At the presentation on 7 July 2000 EDS stated that they were ready to start with the “right skills”.
609. When read in context, what would a person in Sky’s position understand by the phrase in the letter of 5 July 2000 “*We have the resources and ability to deliver the systems and services you require and to meet the financial and budgetary targets that you have set*” and the phrase in the email of 1 July 2000 “*EDS is ready to start this project as of Monday, July 17. We have the resources reserved for this project*”?
610. In my judgment, the phrase that EDS “*have the resources*” can only mean that EDS had the resources in the sense that it had global resources available from EDS, the consortium members and other organisations which it could use to deliver the Sky CRM Project. First, that is consistent with what had been said in the Response and at the presentations. It was a general statement similar to the phrase in Section 1.3 where they stated that that they had the “*ability to leverage the global resources.*” That availability of global resources was evidently referred to by EDS to give Sky the confidence that EDS could and would have the necessary resources available when they were required to carry out the project.
611. Secondly it is consistent with what is said in the letter of 5 July. The reference to “resources and ability” is clearly a general statement and the letter contains a number of references to the general capabilities of EDS and the consortium partners and others. The reference in that letter to EDS working with 10,000 organisations, clearly a reference to EDSC and to the consortium, now including AA, emphasises that EDS was making a general representation about the organisations having resources which could be made available for the project.
612. To suggest that it would mean, as Sky submit, that EDS had worked out what resources were required, with what skills, in what numbers and at what time and actually possessed those resources so that they were satisfied that they were or would be available at the relevant time, for the whole project is to give the phrase an unreasonable meaning and one which is not consistent with the context at the

- time. Given the uncertainty as to the scope of the project until the requirements had been fully defined, a fact known to Sky at the time, it would have been unreasonable for Sky to have concluded that EDS had done the sort of calculation which they now refer to and therefore that EDS had those resources available for the whole of the project.
613. In relation to the phrase that EDS *“have the resources reserved for this project”* when read literally and out of context that could be a reference to all the resources being reserved for the whole project. I do not consider that this would be a reasonable interpretation of what was being said in the Response to the ITT on a complex IT project where what EDS had set out in the Response showed that there was a need to add definition to the requirements by the SWAT, Design and Design Validate stages illustrated on page 38 of the EDS Response and dealt with in the previous pages. It is evident that Sky understood that all the resources could not be reserved at the stage of the Response.
614. I did not find the evidence of Richard Freudenstein or Mike Hughes consistent as to what they understood EDS to have done in terms of whether the resources were those to start, with a system to obtain further resources or whether EDS had worked out what resources they needed for the project as a whole, and they had reserved them.
615. The email of 11 July 2000 stated that *“EDS is ready to start this project as of Monday, July 17. We have the resources reserved for this project”*. The issue is whether Joe Galloway was saying that EDS had reserved the resources for the start or the initial stages of the project or whether he was saying that it had reserved the resources to perform and complete the project.
616. The nature of estimating for IT projects was dealt with in expert evidence. That evidence showed that the task is to convert a set of wishes expressed by the client into a software solution which will perform the client’s requirements. The definition of the work and therefore the effort is something that develops throughout the course of the project. This has been expressed by McConnell in his book *Software Estimation* in terms of a cone of uncertainty, with the effort or cost becoming more certain as the project progresses through Initial Concept, Approved Product Definition, Requirements Complete, User Interface Design Complete, Detailed Design Complete to the final stage of Software Complete. This necessarily means that on large and complex IT projects there is no ability to have resources available or reserved for the whole of that project.
617. When read in context, I do not consider that any reasonable person in Sky would understand that EDS had reserved all the resources to perform and complete the project. In my judgment, when read with the first sentence the phrase must mean that Sky had reserved “resources” for the project so that they could make a start on 17 July rather than “all the resources” for the project.

618. Obviously there had to be some process to reserve resources needed to start. However, for a project that was at tender stage and where EDS had not been selected, where further work was needed to define the scope of the work and where the project was to last some 18 months, it would not be reasonable to take EDS as stating that they had reserved all the resources for the whole project.
619. Accordingly I do not find that the letter of 5 July 2000 and the email of 11 July 2000 when read in context gave rise to a representation by EDS that the personnel required for the project with the necessary skills and experience in the technology and methodologies to be used, were available and had been reserved for the project.
620. I therefore find that the Greater Resources Representation was not made by EDS. I now turn to consider the Lesser Resources Representation.

### **The Lesser Resources Representation**

621. Sky say in relation to the Lesser Resources Representation:
- (1) That it is inherent within the representation “*that appropriate resources could be made available to be used on the project as and when they and their particular skills might be required*” that EDS had actually worked out what resources were required and when, in order to be able to express the belief that they could be made available as and when they were required.
  - (2) That it is a lesser version of the representation for which Sky contend, in the sense that it is contained wholly within that which Sky submit EDS represented. Sky say that they accept that EDS made the representation for which EDS contend, but Sky say EDS in fact went further than that: they did not only say that resources could be available, they said that they in fact had them, they were in fact available and were in fact reserved.
622. This admitted representation was in terms that personnel with experience gained from comparable projects identified in the Response, which have been referred to as “appropriate resources”, could be made available to be used on the project as and when they and their particular skills might be required.
623. As set out above, Sky say that it was inherent within this representation that EDS had actually worked out what resources were required and when, in order to be able to express the belief that they could be made available as and when they were required. EDS deny this.
624. However in paragraph 304 of their closing submissions EDS accepted that the Lesser Resources Representation would carry with it an implied representation that there were reasonable grounds for such an opinion. EDS contend that the

- representation was not false but that there were resources available from within EDS itself, consortium partners and outside agencies. They say that Sky's reliance on expert evidence that compared EDS' plans with the number of personnel supplied fails to take into account the fact that EDS' plans were not achieved because of the delay in producing functional requirements. EDS submit that resources are always a risk on IT projects and that no serious problems were anticipated before the bid and there were no serious problems afterwards.
625. Sky submit that the Lesser Resources Representation was false as appropriate resources could not be made available as required as EDS did not know how many of what resources were needed and when and, in addition, knew that they did not have available resources. They say that Joe Galloway, Gerard Whelan and John Chan knew that they could not honestly make that representation because they knew that steps had not been taken to assess the resource requirement and resource availability. They also say that it was EDS' intention to recruit to staff the project and they had very few personnel with experience gained from comparable projects.
626. Essentially, the question is what EDS needed to do to have reasonable grounds for representing that appropriate resources could be made available to be used on the project as and when they and their particular skills might be required. EDS submit that what was done by EDS amounted to what was necessary for EDS to have reasonable grounds. Sky submit that EDS did not carry out what was necessary because EDS did not undertake a proper exercise to establish what resources they required, at what times, for what periods, in what numbers and with what skills.
627. The experts considered the appropriate way of assessing resources so as to make the alleged representations. EDS refer to Ian Murray's evidence of the appropriate approach in relation to resources. In relation to resource availability at the bid stage Ian Murray says at paragraph B116 of PA's first report that a reasonable Systems Integrator would ensure that the envisaged resource requirements can be met prior to submitting a bid and that, in a large project, this would typically involve contacting the relevant resource managers to ensure that appropriate levels of skilled resources can be made available.
628. Ian Murray then deals with the position at the project execution stage and refers to "mission critical" resources. He says this at paragraph B118 of PA's first report:

*"Given the level of detail in the eCRM ITT a reasonable Systems Integrator would have:*

*i Reserved (or had specific plans for making available at the time of the LoI) key leadership resources and technical and business subject matter experts before the Letter of Intent was signed - the "mission critical" resources to which I earlier refer. At this time EDS knew the technologies that would be involved, knew the business context of the programme*

*(CRM), and should have anticipated the programme management demands of the programme and therefore should have been able to anticipate how many resources were required for the first few months of the project.*

*ii At the LoI, had a detailed resource plan for at least the first month of the project and had identified and secured the resources required for that period, and for the following 3 months identified the resource types required (skills and experience) together with an understanding of where those resources would be found.”*

629. In Section 11 of his first report, Robert Worden refers to the evidence given by Barrie Mockett and Peter Rudd as to EDS’ resourcing approach which was essentially that there had been informal discussions between them and members of the bid team. This had identified sources of systems integration skills within EDS, the consortium partners and elsewhere. It had identified the need for Chordiant skills which would be met both from those in the CRM Practice from the former SHL who had those skills and also from the particular resources that were to be obtained from Chordiant. In addition, seven key members of the team had been identified in Section 7 of the EDS Response. Robert Worden says that the approach described by Barrie Mockett and Peter Rudd was adequate in relation to general systems integration skills, that the most important specific skill of Chordiant experience was dealt with and the proposed delivery team in Section 7 of the EDS Response was appropriate.
630. That evidence shows that neither expert expected EDS at the stage of the EDS Response to have actually worked out what resources were required and when for the project in terms set out by Sky in closing, that is “*prepare a resource plan identifying what resources will be required (both in terms of numbers and skill sets) and when, in order to achieve that amount of work in the desired timescale; assess in the light of that resource plan the extent to which one possesses such resources and, if one does, whether suitable resources will be available when required in order to complete the planned work in the planned timescale; and, to the extent that one does not possess the requisite resources, secure commitments from third parties to provide resources, by informing them of your requirement for resources in what type (in terms of skill sets, experience and so on) and when.*”
631. It is evident that the process of resource planning at bid stage relied on by Sky is one which goes far beyond what is needed to satisfy the test of having reasonable grounds to support the representation that appropriate resources could be made available to be used on the project as and when they and their particular skills might be required.
632. It is necessary to consider what steps EDS had in fact taken to resource the CRM project at the time of the EDS Response.

633. As EDS fairly accept, the evidence of what precisely Joe Galloway and others in the bid team did in relation to resources is not entirely clear. Joe Galloway said that he thought that it was not possible to produce a meaningful resource profile and that any attempt to produce one, even in August 2000, was futile because of the lack of sufficient requirements. He said that his confidence in the availability of sufficient resources was based on the combined experience of EDS and its consortium partners. He said that his assumption all along was that EDS *“would be able to draw on EDS personnel and our consortium partner, i.e. Chordiant, for this particular element, and that we would be able to go to the contractor market. I did not believe at any time there would be a restraint on the resources that we would have to get.”*
634. Joe Galloway stated in cross-examination on Day 40 that it was his belief that EDS would use the majority of resources from EDS and that he could call on other resources from consortium partners or contractors to fill any provision that was needed. He pointed out that *“EDS was a company of 110,000 to 120,000 people. Lucent Technologies was at least as far as I knew a company of 50,000-odd people. Chordiant had a few hundred, Sun, obviously a mammoth organisation. So if one looks at it from the perspective of the overarching capability to deliver systems, one would have to conclude that those entities are capable of delivering the systems that were required for Sky”*.
635. Joe Galloway confirmed that as far as he was concerned, other than the nine personnel on the Costing Spreadsheet who were to be obtained from sub-contractors, he intended to provide everybody else from EDS. EDS made arrangements for the five Chordiant resources. Otherwise Joe Galloway referred to conversations about resources *“absolutely at a macro-level”* and that apart from EDS resources, he intended to *“seek out those areas where I knew I would need particular assistance and to ascertain whether they had sufficient numbers to draw upon”*.
636. Gerard Whelan’s evidence as to what had actually been done in relation to resourcing was broadly consistent with Joe Galloway’s evidence. He referred to the commitment of the consortium partners. He said that he and the team were confident that they could obtain the balance of the resources from either EDS or the consortium partners or the wider public. He said that *“The buzz around at the time whilst I wasn’t sitting in on technical workstream meetings or whatever, I was frequently hearing the outcome or people discussions particular points or people discussing resources with the like of Barrie Mockett and Peter Rudd”*. The evidence of Barrie Mockett and Peter Rudd shows that they did not have any detailed involvement in resourcing the project or specific discussions about resourcing the project, during the bid stage. Rather there appear to have been only informal discussions.
637. Apart from the five Chordiant resources in respect of whom a specific agreement had been reached, there was no commitment but there was informal discussion

- about the provision of Forte developers and other resources from Telford, Arbor resources by Lucent, specialist resources from EDS' global resource pool, resources by Forte Software, resources from other EDS projects where people were coming free and resources from external agencies. However, none of the potential sources of resources were told anything about the likely numbers or timing.
638. There were also the seven personnel listed in Section 7 of the EDS Response. Sky say that, in the event only two of them worked on the project, the relevant people being John Chan, named as Programme Director and Steve Vine, named as the Transition Workstream Manager. Mahmoud Khasawneh had been named as Technology Workstream Manager but shortly after the EDS Response was put in he left EDS to work in Jordan and was replaced by Dan Barton who became free from the GM Onstar project in June 2000. Because of changes after submission of the EDS Response, the other four named personnel were no longer relevant. Three were A T Kearney personnel but AA replaced AT Kearney and one related to the Location Workstream which was taken out of EDS' workscope.
639. In considering whether EDS had reasonable grounds for making the representation, it is necessary to consider whether there were any particular problems envisaged. The period in 2000 was during the "dot-com boom" and therefore there was a risk of resource shortages.
640. Much was made by Sky of a memorandum from David Courtley of 14 January 2000 ("the Courtley Memo") relating to a recruitment freeze; a recruitment campaign in EDS from July 2000 and views expressed as to the likely shortages if EDS were to be awarded the Sky project.
641. The Courtley Memo was, it appears, based principally on concerns that people outside EDS should not be recruited if there were appropriate resources within EDS. Not surprisingly when the Essential Hire Justification forms were submitted in March and April 2000 to obtain outside resources for the CRM Practice, they were couched in terms of there being a "*dire need*" for programmers and developers on particular projects. As Robert Worden observes, the premise for a recruitment freeze would be that there were already sufficient resources.
642. The recruitment campaign may have initially started out as a general recruitment campaign for the EDS CRM Practice in the UK but it was with a view to that practice being able to undertake more work and the Sky CRM Project was obviously seen from about March 2000 as a key project for EDS to be awarded. The recruitment campaign then was seen as being able to provide resources related to the Sky project, either by providing people to undertake that work or by "backfilling" positions within the CRM Practice where the previous holders of those positions had moved to the Sky CRM Project. I do not accept Joe Galloway's evidence that the campaign was not related to or seen within EDS as being related to the Sky CRM Project.

643. There was also the view expressed by Barry Yard on 18 July 2000 that “*Related to BSkyB, we have a serious resourcing shortage if the project is won,*”. That comment was supported by Barrie Mockett who considered that if EDS were awarded the Sky CRM Project “*You would need to open up all the taps to bring resources in.*” The Sky project was a large endeavour and it is evident that EDS could not supply the personnel to resource it from the CRM Practice. There would be a serious shortage within the CRM Practice but the taps would have to be opened to bring in other EDS resources, together with resources from the consortium partners and outside agencies.
644. There will always be risks in resourcing IT projects but I do not consider that these matters would affect what EDS should have done to have reasonable grounds for making the representation about resources.
645. I broadly accept Joe Galloway’s evidence of what was done in relation to resourcing prior to the EDS Response. This is a case where Joe Galloway’s evidence is supported by Gerard Whelan and there is some support from Barrie Mockett and Peter Rudd. There is also the evidence of the five Chordiant resources and of the named personnel in Section 7 of the EDS Response.
646. As Ian Murray says, a reasonable Systems Integrator would ensure that the envisaged resource requirements can be met prior to submitting a bid and that, in a large project, this would typically involve contacting the relevant resource managers to ensure that appropriate levels of skilled resources can be made available. In relation to general integration resources, I consider that EDS had reasonable grounds for considering that these resources could be made available from the CRM Practice, from elsewhere in EDS, from consortium partners or outside contractors. For the key Chordiant resources, EDS did make arrangements with Chordiant and the evidence from Chordiant’s communications with Sky was that they were clearly willing to provide assistance. This supports EDS’ confidence that they could obtain the necessary Chordiant resources. There were also general discussions with the other consortium members such as the one which I accept took place with Scott Yarnell of Forte, as referred to by Gerard Whelan. EDS had also named seven individuals who were intended to perform key roles on the Sky CRM Project, as envisaged at the time.
647. In my judgment, what EDS did was sufficient for them to have reasonable grounds for the representation that personnel with experience gained from comparable projects could be made available to be used on the project as and when they and their particular skills might be required.
648. As a result, there was no misrepresentation in terms of the Lesser Resources Representation.

### **The Ready to Start Representation**



649. Sky also say, in relation to the Ready to Start Representation, that for EDS to make the representations that EDS “*were ready to start work on the project as of July 2000, utilising such personnel as might be required for that initial stage*” it is inherent that EDS in fact had such resources, they were in fact available and they were in fact reserved.
650. This admitted representation was in terms that EDS were ready to start work on the project as of July 2000, utilising such personnel as might be required for that initial stage.
651. Sky say that, as the actual resource situation in the first six to eight weeks of the project demonstrated, EDS did not in fact have suitable and appropriate resources in the numbers and with the skills required to start work on the project at the end of July 2000.
652. However, I consider that what happened after 20 July 2000 has to be viewed in the context of discussions which were happening at that time which affected what was going to happen and when. In the EDS Response, EDS proposed that a business process workstream led by A T Kearney was to proceed by two parallel paths: one a “SWAT” team was to identify current customer service failures and “quick wins” over a period of 8 weeks; the other team was to define the vision for Sky's world-class customer service in 4 weeks and then over 8 to 10 weeks to validate the design, defining the use cases for certain processes and producing a use case catalogue together with a functional and technical specification for those processes. However by the end of June AA had replaced A T Kearney with a revised approach to both the process workstream and change management, as set out in the Joint Delivery document of 20 June 2000. Part of that revised approach was a 6 to 8 week “Define” phase to set “the scope of the work and identify priorities within it”.
653. The evidence shows that EDS, supported by the consortium partners, did start work immediately. There was a kick-off meeting in Dunfermline on 27 July 2000 attended by representatives from EDS, AA and Sky. A presentation had been produced by EDS which referred to “month one deliverables”. It set out the detail of what work would be carried out in the initial start-up phase of each workstream. As Scott Mackay observed in his witness statement he believed that from this document EDS were ready to “hit the ground running” and that work began in earnest on Monday 31 July 2000.
654. EDS deployed a team of some 32 people who billed about 100 man-days in the first week after project kick-off, as shown on the resource list produced by Sky. When asked in cross-examination to give an approximate number of people Joe Galloway says that he intended to start with business analysts, some architects, project managers and administrators. The general approach of starting the project

- with a few high-level resources is supported by Robert Worden as a project initiation strategy.
655. During the initial period there are two particular documents where EDS dealt with resources. First there was the August Risk List which shows that on 1 August 2000 John Chan raised risks about inadequate resources. One risk he identified was an “inability to provide project managers required within technology & implementation workstream” which had an impact from 24 July 2000 and was to be dealt with by active recruitment by Tom Lamb. He raised a second risk that an inexperienced development team would have an impact on the project from 1 September 2000 and this was to be dealt with by using contracting staff and training EDS staff.
  656. The second document, the Red Team Report of 21 August 2000 also identified the availability of staff both in terms of quantity and skills as the “*no. 2 concern*”. What was needed was to “*Develop detailed resource profiles as soon as possible*” and “*commence internal/external recruitment.*”
  657. I consider that the reference to resources for the development team and the need for detailed resource profiles related to concerns not about the initial work which was to be carried out by EDS but about the resources necessary for the further stage of the work after the initial stage. The reference to managers for the technology and implementation workstream seems, though, to be a more immediate need. As part of EDS’ presentation for the kick-off meeting on 27 July 2000 there was a chart which showed Peter Chleboun as the leader of the technology workstream and Martin Wood as the leader of the implementation workstream. John Chan’s reference to managers for the technology and implementation workstreams may have related either to other people required for the teams or to the fact that, as it seems, neither Peter Chleboun nor Martin Wood remained on the project for long.
  658. PA criticise the resources provided by EDS during the initial period. They identify a number of resources who they say were unsuitable. However, the documents show that EDS did provide a substantial number of resources in July and August 2000 and whilst some of them may have lacked experience or had weaknesses in particular areas, I cannot conclude that there was any material breach in a representation that EDS were ready to start work on the project as of July 2000, utilising such personnel as might be required for that initial stage.
  659. On that basis, Sky has not established that EDS made a misrepresentation in relation to the Ready to Start Representation.

### **Misrepresentation as to Time**

660. Sky allege at paragraph 41 of the Particulars of Claim that EDS represented “*that they had carried out a proper analysis of the amount of elapsed time needed to*

*complete the initial delivery and go live of the contact centre and that they held the opinion that, and had reasonable grounds for holding the opinion that, they could and would deliver the project within the timescales referred to in the Response, and, subsequently, the Contract.”*

661. Sky contends, first, that the initial representation in relation to the EDS Response was made in writing in two documents prior to Sky’s selection of EDS: the EDS Response and Joe Galloway’s letter to Richard Freudenstein of 5 July 2000.
662. In addition to the statements in early 2000, Sky also rely on statements made later in 2000 in relation to the timescales in the Prime Contract. They rely on statements made in a high level project plan produced on 11 October 2000, made orally by Steve Leonard at the meeting with Richard Freudenstein on 13 October 2000, made in the 24 October 2000 project plan, made in the effort estimates produced by EDS in October 2000 and made in the Milestones set out in the Preliminary Specification dated 22 November 2000.
663. In dealing with the matters in late 2000, Sky state that their primary case is that the cause of action was complete once they relied on the representations made in the Response and in the letter of 5 July 2000 in selecting EDS and awarding EDS the Letter of Intent. Sky also say that the representations continued and that the further statements made in late 2000 became part of the representations as to time.
664. EDS deny that it made the alleged representation. At paragraph 113(1) of the Defence they say that the reliance by Sky on the Response fails to take into account the qualifications in the Response such as that the *“high level plan will be refined after further analysis of the current situation and business requirements”* and that *“Milestone plans showing key commitment, decision dates and detail within each key project phase will be developed before work begins.”*. EDS admit at paragraph 113(4) of the Defence that by the EDS Response EDSL did represent that it believed that, based on the information contained in the ITT, completion of phase 2 was achievable within 9 months of project commencement.
665. In relation to the representations alleged in later 2000, EDS deny that the project plan constituted a representation; they deny the representations alleged to have been made at the meeting on 13 October 2000; they deny that they made any representation in the project plan which they say was *“one step in an on-going process of project planning”*; they state that the baseline budget was EDS’ best estimate of effort based on information at the time and do not admit that EDS represented that *“it had carried out a proper estimate of the amount of effort required”*. They also deny that, in producing the Milestone Schedule which was to form part of the Prime Contract, they made any representation to Sky.
666. In closing Sky submit that the oral evidence established that EDS had made the representation in respect of delivering the project. EDS maintain that the representations were not made.

667. EDS say that all the plans in the EDS Response were only indicative and could not give rise to the alleged representations. In any event, EDS say that any representations as to time were overtaken by events before the Prime Contract. EDS say that the events of October 2000 rendered the previous estimates immaterial well before the Prime Contract. They rely on the joint planning as showing that all parties were well aware that the proper analysis carried out by the joint teams in October 2000, and again in November 2000, had led to a much later date than July 2001. Instead, EDS state that they had committed to the earlier July 2001 date in the expectation that it would be possible to produce a proper plan to fit it, but before any such plan had been produced. In doing so, EDS say that they took considerable commercial risk but made no representations.
668. It is convenient also to consider the similar representation which Sky allege was made in relation to cost.

### **Misrepresentation as to Cost**

669. Sky allege at paragraph 45 of the Particulars of Claim that EDS represented “*that they had carried out a proper estimate of the cost of completing the project and that they held the opinion that, and had reasonable grounds for holding the opinion that, they could and would deliver the project within that budget*”.
670. Sky say that the representation comprises or arises out of the following statements and responses:
- (1) The EDS Response at section 1.3, where EDS stated that if they were selected EDS would provide Sky with a unique World Class Customer Contact Centre ‘*on time and on budget*’;
  - (2) Joe Galloway’s letter to Richard Freudenstein of 5 July 2000, where Joe Galloway stated that EDS had the resources and ability to deliver the system and services required ‘*to meet the financial and budgetary targets that you have set*’; and
  - (3) The cost estimates at section 7.2.1 of the EDS Response.
671. Sky also say that the representation comprises or arises out of the further cost estimates that led up to and came to form the Baseline Budget at Schedule 5 to the Prime Contract. At paragraph 46 of the Particulars of Claim Sky allege that EDS represented that the £19,751,000 in the Baseline Budget for consultancy was a proper estimate.
672. EDS admit in paragraph 142 of the Defence that they made the representation at section 1.3 of the EDS Response. At paragraph 143 of the Defence they also admit the content of Joe Galloway’s letter of 5 July 2000 but deny that he thereby

represented that EDS had reasonable grounds for believing that Sky's financial and budgetary targets could be met.

673. At paragraph 144 of the Defence EDS admit that the costs included at section 7.2.1 of the EDS Response gave details of anticipated costs for the project and that Schedule 5 to the Prime Contract included a Baseline Budget for EDS' costs. EDS say, though, that the Baseline Budget was a proper estimate on the basis of their knowledge at the time.
674. In closing submissions, Sky adopt a similar position on cost as they do on time: that the representation in relation to delivering the project within budget is made out on the oral evidence. In dealing with the representation in Schedule 5 of the Prime Contract, Sky state that their primary case is that the cause of action was complete once they relied on the representations made in the EDS Response and in the letter of 5 July 2000 in selecting EDS and awarding EDS the Letter of Intent. Sky also say that the representation continued and that the further representation in Schedule 5 of the Prime Contract became part of the representations as to cost.
675. EDS in their closing submissions state that, like time, any estimates of costs could only be indicative. In any event, again like time, EDS state that the position changed in the light of events before the Prime Contract. They say that Sky's attempt to elide the costs estimate in the Response and the costs in the Baseline Budget at schedule 5 to the Prime Contract ignore the fact that the estimate had in the intervening period risen to some £94m and the programme had been wholly reorganised. EDS say that, by the time of the Prime Contract, the estimates in the Response were wholly irrelevant.
676. It can be seen that both the representation as to time and that as to cost are conveniently dealt with together and in two stages: first, the position in July 2000, then the later period in 2000.

#### **Time and Cost: Representations in the Response and letter of 5 July 2000**

677. Sky rely on the evidence of EDS witnesses. It is therefore necessary to see what they said about the pleaded representations.
678. First, there was the evidence from Joe Galloway. In cross-examination on Days 38, 39, 40 and 44 he was asked questions, on a number of occasions, about what he intended Sky to understand from the EDS Response. In summary he accepted that he had intended Sky to understand that EDS had made "a reasonable assessment" and undertaken a "professional approach" in estimating and planning the project as set out in the EDS Response, based on the information in the ITT. He also said that he wanted Sky to understand that on that basis EDS was reasonably confident and believed that they could achieve go-live in 9 months

with overall transition in 18 months and could carry out the work for some £54 million and that EDS had reasonable grounds for that belief.

679. Secondly there was the evidence of Gerard Whelan on Days 35 and 48 which was to similar effect referring to the pleaded parts of the EDS Response. There was also similar evidence from John Chan on Days 59 and 60 and from Tony Dean but those individuals were not involved in producing the EDS Response at the time.
680. This evidence confirms what Joe Galloway and Gerard Whelan intended to communicate. I consider that, as set out below, this is consistent with what was said in certain passages of the EDS Response.
681. In relation to time, Sky rely on the following passages of the EDS Response:
- (1) Section 5.2.1 where, in response to section 4.2.3 of the ITT, EDS referred to Milestone plans showing key commitment and decision dates at the end of each Workstream and Change Management section and for the Technology Workstream EDS showed the three phases of development which included completion of the build and prototype of the CRM system within 9 months.
  - (2) Section 5.1 where, under the heading "*Programme Management and Governance*", EDS showed the go-live date for the new contact centre as 1st Quarter of 2001, which Sky say was approximately 9 months from a notional contract date of June 2000.
  - (3) Section 1.3 where, under the heading "*Why EDS* ", EDS stated that: "*Selection of EDS by B SkyB will provide a unique World Class Customer Contact centre on time and on budget.*" It is to be noted that paragraph 4.1.1 of the ITT stated that "*B SkyB have an organisational desire to conclude the initial delivery of the contact centre within 9 Months of project commencement.*"
  - (4) Section 3.5 where, under the heading "*Getting to the "Customer Journey of the Future"*", EDS referred to their "*unsurpassed delivery capability and expertise in systems integration*" and then stated that they had: "*proven expertise in Systems Integration and capability to deliver the solution within the required timescales*".
  - (5) Section 7.2 where, under the heading "*Costs*" and dealing with resource requirements, Sky say that EDS stated that the Business Process and Technology workstreams would last for 9 months.
  - (6) Section 5.4.2 where, under the heading "*Estimating*", it was stated that:

*“For the purpose of this ITT response EDS have concentrated on estimating the size of the software development. Whilst further analysis of the requirement is needed, with BSKyB and EDS working closely together, we have used an approach which provides a high level of comfort.*

*Our approach has been adopted on many previous developments undertaken by EDS, including major travel reservations systems. Based on these projects it is reasonable to expect an estimating accuracy of between plus and minus 5% following detailed evaluation of requirements.*

*Resource estimation is conducted from a "top down" and "bottom up" approach. Top down estimation involves function point counting together with a high level view of the project development methodology, and application of historical size and productivity data from similar projects, suitably tailored to the new environment and toolset, to generate an estimate of resource.*

*Bottom up resource estimation involves assessment of low-level activities to be undertaken during the development lifecycle. Using in-depth knowledge of team capabilities and team sizes help to validate the top down approach.*

*Essential to both these approaches is a formal size measure of the system to be developed. Our estimating process makes use of Function Points and has been independently assessed by the Guild of Function Point Analysts, who approved of our approach. ...*

*Schedule estimation then makes use of the function point count and productivity rate estimates to derive manday estimates.”*

- (7) Section 5.4.3 where, under the heading *“Planning Approach and Progress Monitoring”*, EDS stated that: *“Based on the estimates derived from the function point count a set of schedules defining key activities and elapsed times illustrating how the solution is to be delivered will be developed. Typically three sets of schedules are produced.”* The three typical schedules were then described.
- (8) Section 5.4.3 where in the final paragraph, EDS stated: *“Our Solution Centre already has the infrastructure and tool-sets in place to support this approach and they will be applied to the BSKyB CRM project.”*
682. Those references in the EDS Response to EDS providing the contact centre *“on time”* and *“within the required timescales”*, confirm the 9 month timescale for go-live. This is consistent with the diagrams at pages 43, 52 and 63 of the EDS Response and the evidence of Joe Galloway and Gerard Whelan who prepared the EDS Response.

683. Indeed, EDS accept that in the EDS Response they represented that they believed that, based on the information contained in the ITT, completion of phase 2 was achievable within 9 months of project commencement. That is a reference to the diagram at page 52 of the EDS Response. When read in the context of the ITT and the other parts of the EDS Response, I have no doubt that EDS represented that they held the opinion that they could and would deliver the project within the timescales referred to in the EDS Response, which included go-live in 9 months.
684. In relation to cost, Sky rely on the passage in the EDS Response at section 1.3 where EDS said they would provide Sky with a unique World Class Customer Contact Centre “*on time and on budget*” and Joe Galloway’s letter of 5 July 2000 where he said that EDS had the resources and ability to deliver the system and services required ‘*to meet the financial and budgetary targets that you have set*’, together with the estimate at paragraph 7.2.2 of the EDS Response which gave the sum of £54,195,013.
685. Again, I consider that on the basis of those statements, as confirmed by the evidence of Joe Galloway and Gerard Whelan who prepared the EDS Response, EDS represented that they held the opinion that they could and would deliver the project within that budget of £54,195,013.
686. Did EDS represent that they had carried out a proper estimate of the amount of elapsed time needed to complete the initial delivery and go-live of the contact centre and of the cost of completing the project and that they had reasonable grounds for holding the opinion on time and cost? Whether such representations were made depends on the particular statements in the particular context in which they were made. As was pointed out in Society of Lloyd’s v Jaffray & Ors [2002] EWCA Civ 1101 the test is what the reasonable person in the position of the representee would understand by the words used.
687. This is a case where Sky made it clear in the ITT at paragraph 4.1 that they had the 9 month requirement and at paragraph 6.3 that BSkyB would evaluate the tender submissions on the basis of cost. EDS were therefore providing an estimate of price or time so that Sky could consider whether or not to select EDS as the party to carry out the Sky CRM Project. In making that selection the time and cost of the project were evidently important matters and EDS were aware of that in providing those estimates. Looking at the position objectively, in those circumstances, I consider that it was implicit in the estimates of time and cost that EDS had carried out proper estimates and had reasonable grounds for their opinions on time and cost. This was also accepted to be the position by Joe Galloway and Gerard Whelan in their evidence.
688. In my judgment, for the reasons set out above, Sky is correct in their submission that prior to the Letter of Intent EDS represented:



- (1) that they had carried out a proper analysis of the amount of elapsed time needed to complete the initial delivery and go-live of the contact centre and that they held the opinion that, and had reasonable grounds for holding the opinion that they could and would deliver the project within the timescales referred to in the Response.
- (2) that they had carried out a proper estimate of the cost of completing the project and that they held the opinion that, and had reasonable grounds for holding the opinion that, they could and would deliver the project within that budget in the Response.

689. I now turn to consider whether those representations were false.

### **Falsity of the Representations prior to the Letter of Intent**

690. Sky submit that the fact that the representations were false emerges from the summary of what EDS had and had not done.

691. In relation to the representation as to cost prior to the Letter of Intent, Sky say that it was false because:

- (1) EDS had not carried out a proper estimate of the cost of completing the project. Since Joe Galloway, Gerard Whelan and John Chan knew EDS did not know what their actual resource requirement was, whether they would in fact be able to secure such resources, and if so how much it would cost to secure the resources necessary to complete the project in the timescales indicated, Joe Galloway, Gerard Whelan and John Chan knew that they had not properly estimated the cost of the project. Indeed, since the staffing of the project was, as they knew, critically dependent on successful recruitment in the open market, and given the inherent vagaries of that process, they knew that they did not know what the project would in fact cost.
- (2) In addition to this, Joe Galloway knew that he had artificially manipulated the Costings Spreadsheets which underlay the bid price, reducing the DTW (days to work or man-days) and the numbers and chopping the Interdec price in a wholly illegitimate manner. Gerard Whelan and John Chan were aware or came to be aware that he had done this.
- (3) As such, Sky submit that not only did Joe Galloway, Gerard Whelan and John Chan know that they had not done a proper estimate, but they knew that they did not have reasonable grounds for holding the opinion (to the extent that they actually did) that EDS could and would deliver the project for about £54 million.

- (4) Sky submit that Joe Galloway simply and cynically told Sky what he knew they wanted to hear, well aware that that was not true and/or not caring whether it was true or not. It is again likely that Gerard Whelan and John Chan also did not hold, or came not to hold, this opinion either.
692. Sky submit that the Costing Spreadsheets failed to provide any information about when and in what numbers resources would be required. Sky say that the Costing Spreadsheets do not assist in working out what work is required to arrive at go-live after nine months with full transition and completion within eighteen; they do not assist with planning of the requisite work and they do not amount to a resource plan identifying what resources with what skills will be required at what time, for what periods and in what numbers.
693. In relation to cost, EDS say that prior to and in preparation for the EDS Response, EDS had carried out an analysis of the effort that might be required to deliver the CRM system. EDS say that they carried out a reasonable exercise of estimating costs for the EDS Response and that the criticisms by Sky are not valid.
694. In relation to the representation as to time prior to the Letter of Intent, Sky submit that:
- (1) EDS had not carried out a proper analysis of the amount of elapsed time needed to complete the initial delivery and go-live of the contact centre. EDS had not taken the necessary steps in the analysis in that EDS had not properly worked out what work was required; how that work was to be delivered in accordance with their proposed approach; and the resource requirements of that work and the implications of such resource requirements. EDS therefore did not carry out a proper analysis of how long the work would take.
  - (2) Even if Joe Galloway, Gerard Whelan and John Chan did hold the opinion that EDS could and would deliver go-live within 9 months and completion within 18 months, they had no reasonable basis for holding such an opinion.
  - (3) Furthermore, Sky say that since Joe Galloway, Gerard Whelan and John Chan knew that EDS did not actually have the resources required and that no steps had been taken to ascertain whether they would in fact be able to secure anything more than a small number of resources from elsewhere, they did not have any reasonable grounds for such an opinion.
  - (4) In any event, Sky say that it is unlikely, at least in the case of Joe Galloway, that he did ever genuinely hold such an opinion. He simply told Sky what they wanted to hear because he knew that that was what they wanted to hear, either knowing it not to be true or, at the very least,

without caring whether it was true or not. In the case of Gerard Whelan and John Chan, if they ever did hold such an opinion, it is likely that they no longer held it by the time the Letter of Intent was agreed.

695. Sky refer to the Vine Plans as being the only planning documents produced by EDS at the time of preparing the bid. They say that EDS did not undertake a proper exercise to assess what work was required in order to deliver go-live in nine months and the whole project in eighteen months; they did not undertake a proper exercise of planning and sequencing to establish that go-live could be delivered in nine months and the project as a whole in eighteen and if so how; and they did not undertake a proper exercise to establish what resources they required, at what times, for what periods, in what numbers and with what skills.
696. In relation to time, EDS accept in their closing submissions that, on the basis of Robert Worden's evidence, any representation of "proper analysis" or "reasonable grounds" would be false.

### **The Process of Estimating for the Response**

697. The way in which EDS carried out its estimate for the purpose of the Response forms the underlying basis for the complaint by Sky. It is therefore necessary to review what was done by EDS to prepare their estimate of effort, cost and time for the purpose of the Response.
698. Sky emphasised in evidence the need for there to be a number of stages in the process of estimating cost and time for an IT project. I accept that there are essentially four stages. First, it is necessary to estimate what work has to be done. Secondly, there has to be a calculation of the resources which are needed to perform that work. Thirdly, it is necessary to work out what number of resources are required to carry out the work within the period. Fourthly, it is necessary to work out whether those resources are available.
699. In a case with much documentation, there is surprisingly little documentation relating to the process by which EDS prepared its Response. What documents there are, combined with the witness evidence of Joe Galloway, Gerard Whelan and Andrew Sollis, forms the basis on which I have to proceed. The main documents which survive and which form the basis for the cost and time analysis are essentially the costing spreadsheets and two programmes produced by Steve Vine.
700. I deal first with the estimate of cost.

#### **The cost estimate**

701. In his first witness statement, Joe Galloway explains the process by which the cost estimate was produced. He says that estimating was carried out in meetings of the bid team and that he recalls at least two half-day sessions which he attended "*in*

- order to consider and capture the team's conclusions in a useable form*". He says that people would spend time outside the group sessions looking at the ITT and forming their own views, but when the bid team came together they tried to reach "*consensual judgements*".
702. Joe Galloway says that at the same time as the bid team were looking at this "*bottom up*" estimate from expected functionality, they were also looking at a "*top down*" estimate to provide a measure of verification. This "*top down*" estimate involved an analysis of broad areas of project activity and an estimate of how long would be required for that activity based upon past experience. He says that the bid team were constantly measuring their estimate against the top down predictions and that the estimates brought to the group discussions had been verified in this way.
703. He identifies the following people as being involved in the process and attending the sessions in which he was involved: Mahmoud Khasawneh (the bid architect), John Mitchell (the Chordiant Software consultant), Gerard Whelan, Simon Cayless and Zubair Ahmed. He says that Gerard Whelan, Simon Cayless and Zubair Ahmed were all on the business process side and that this bias was appropriate because the main imponderable was the scope and complexity of the business requirement.
704. The analysis process he explains as follows. The team considered the processes in the ITT "*at the level at which we anticipated use cases would be produced in the exercise of requirements definition*". For example, he says that the team were looking at functionality in terms of "identify customer" or "capture customer profile" and considered the effort that would be involved both in analysing the business requirements in each area and then implementing the requirements which they expected to be produced.
705. In terms of business analysis, he says that the team considered how far each process was likely to be new and how far they would be relying on an existing and familiar process. Based on the ITT and their contact with Sky, he says that the bid team tried to predict the amount of customisation which would be necessary in respect of existing processes. Where processes appeared to be wholly new it was a question of applying their experience.
706. In terms of development effort he says that the team tried to form a view as to how far the functionality required by the ITT corresponded with the "out of the box" functionality in Chordiant and the functionality they had to implement on other projects. From this and from their general development experience, the bid team then made a judgement as to potential reuse and also the effort required for the development of novel functionality. He says that "consistent metrics" were applied across all the notional use cases attributing to each a low, medium or high complexity and a corresponding estimate of effort adjusted where considered necessary. These estimates, he says, were not directly based on any standard

- metrics from Chordiant but were developed by the team and that John Mitchell was involved in the process. He says that the team came to the conclusion that a very large percentage of what Sky wanted from the CRM package was closely analogous to what the team had done before or could be taken “out of the box” from Chordiant.
707. He says that this analysis of development effort was carried out for all of the functionality at use case level and this level of detail was applied to many small components. He adds that the team had also to include broad provision for functionality which could not be thought of in terms of use cases, including architectural design, interfaces (that is, the system requirements of the middleware component) and project management. He says that the amount of effort required for an architectural design connecting a given number of legacy systems had to be estimated on the basis of past experience. He refers to the outcome of this exercise being an estimate of effort in terms of numbers of people, divided by broad skill-sets and the time periods for which these numbers would be required.
708. Joe Galloway says that these conclusions were then recorded by him at meetings using a spreadsheet on his laptop. He says that the spreadsheet was based on an SHL standard estimating template consisting of a number of tabs used in estimating and producing a cost. He says that during the estimating meetings he recorded conclusions in a separate tab which he created as a “scratch-pad”. He says he transferred the conclusions into the formal tabs of the spreadsheet and then deleted the “scratch-pad” tab. Initially, he says, only he had access to the estimating sheet and he updated it with the numbers of people in the different skill areas and the number of days’ effort that had been estimated. He says that he kept the spreadsheet entirely to himself as he did not want members of the team to see the rates at which they would be charged to the client. Only when the estimating spreadsheet was complete did he then pass it on to Tim Webb for the purpose of costing.
709. He refers to an example of the estimating spreadsheet dated 24 May 2000. This was created on 4 May 2000 but the version is one produced after it had been handed to Tim Webb. In the “EDS” tab are the various categories of resources expected to be required from EDS, showing the overall numbers and the man-days of work expected of them. He says that it can be seen that a team of about 100 people (deployed at various times over the lifespan of the project) was predicted. He says that the spreadsheet contained a classification of rates in the “Staff Model” sheet, with contract staff being in a separate column. He says that the practice during the estimating exercise was to identify a role as being filled by a contractor only where it was particularly desirable to do so, or it was inevitable that a contractor (which included a resource from another consortium member) would have to be used. He says that it was expected that some of the roles in the EDS column would eventually be filled by a contractor, notwithstanding the contrary indication in the spreadsheet.

710. Joe Galloway says that the role descriptions in the spreadsheet were appropriate and captured all of the roles that would be expected at some point during any project, although the roles might vary in terms of number and duration depending on the nature of the particular project. The roles provided a generic description. For example, under the heading “GUI”, the spreadsheet referred to one technical lead, two system engineers and nine programmers. This would cover both Chordiant Forte and Chordiant Java development on the Sky project, as well as Forte middleware.
711. In terms of the “cost to complete”, he says that this is a function of time to complete individual tasks, multiplied by the number of people associated with the task, multiplied by appropriate hourly rates. He says that the professional judgement lies in the identification of the tasks themselves, the amount of time required for each task and the number of people required to complete it within a notional timescale. These, he says, were all outputs of the estimating exercise; the cost is then an arithmetical process.
712. He says that Tim Webb managed the costing exercise. He says that the “EDS” tab in the spreadsheet was derived from the estimating exercise and spreadsheet. The other tabs contained things like hardware costs and software licences. There is also a specific tab contributed by Interdec in respect of the location component and one from A. T. Kearney which set out their consultancy charges for the business process activity. He says that apart from the copy of the spreadsheet distributed to Tim Webb, the estimating spreadsheet existed only on the “C:drive” of his laptop. And he left this on his desk at Canary Wharf on the day of his departure.
713. He says that Tim Webb was responsible for collating, organising and presenting the information, but he drew upon the other members of the bid team, including the consortium partners in order to do so. He says that Gerard Whelan supervised the process, as with all aspects of the bid team’s work, and he reviewed the information, although not in much detail.
714. Gerard Whelan also provided a description of the process in his first witness statement. He says that the starting point in preparing the estimates for the Response was an estimate of development effort, in terms of numbers of people working particular numbers of man-days in particular skill areas. From this estimate of effort, he says that EDS’ professional consultancy costs were calculated by multiplying numbers of man-days by the appropriate day-rates and there was also a *“planning process of satisfying ourselves that the estimated effort could be organised so as to fit within the overall timescale”*.
715. In broad terms, Gerard Whelan confirms Joe Galloway’s description of the type of process used to estimate effort, being a group exercise, spread across a number of meetings. He says that for some parts, for example A. T. Kearney’s analysis of ‘quick wins’ in business process redesign it was only possible to provide a “top-

- down” estimate of X consultants for Y length of time on the basis of professional experience. For other parts, such as Chordiant contact centre development, it was possible to divide into many small tasks and estimate these individually by a “bottom-up” process. He confirms that this part of the exercise was assisted very substantially by John Mitchell and the other Chordiant Software consultants who worked on the bid.
716. He says that the leaders in particular areas took primary responsibility for developing those areas and that the work was done through discussions around a whiteboard and brought into larger meetings. He identifies the following people being involved, to the best of his recollection: Business Process Re-Engineering (A.T. Kearney): P.J. DiGiammarino; Telephony and infrastructure: Pat Coster and Parashuram Kaneri; Chordiant: Mahmoud Khasawneh and John Mitchell; Middleware and interfacing: Mahmoud Khasawneh; Data warehouse: Andy Sollis; Data migration and data architecture: Mahmoud Khasawneh and John Mitchell; Transition: Steve Vine. He says that he was involved in Business Analysis and, together with Interdec, in Location.
717. He confirms that Joe Galloway attended a number of the group meetings when the team aimed to reach conclusions in terms of man-days in particular skill areas, which Joe Galloway would record on a pro-forma spreadsheet from his time at SHL. He says that he had a look at this spreadsheet a few times during the bid process of estimating, before and after it went off for costing. He says that the spreadsheet was not the only document used, but it was the only one which was retained as people tended to bring handwritten notes and calculations to meetings which were discarded once a decision had been reached and the conclusion incorporated into the spreadsheet.
718. He also confirms that the spreadsheet was handed over to Tim Webb to provide an overall cost model, incorporating the EDS consultancy effort with other costs such as the cost of hardware and software licences. He says that Tim Webb worked full-time on costings during April and May 2000.
719. Gerard Whelan says that he, himself, was responsible for coordinating the estimates received from these various sources and that he checked that the costs included were reasonably comprehensive and accurate by canvassing the views of others with relevant experience. He says that the fit-out of the Sky locations was in the event one of the largest constituent parts of the estimate and these costings were provided to EDS by Interdec.
720. The only other witness called by EDS who was able to describe the bid process was Andy Sollis. Although he left the Sky Project around April 2000, he was able to confirm that the bid team met informally to discuss any issues or questions in relation to the Response. He said that there were no agendas for these meetings and any discussions were recorded on whiteboards rather than on paper or on computer. He says that estimating information was fed to Joe Galloway in the

- course of informal meetings and then the spreadsheet in which he maintained this information was passed on to Tim Webb, who managed the costing. He says that his own estimations of effort and rough workings were recorded in his day book, which he has not kept but he says he passed on the information, to the extent that it was required, to Joe Galloway and Steve Vine. He says that the estimating work was undertaken fairly early on in the bid process and completed by late April 2000 and that he played a fairly extensive role in researching and contributing the information about hardware and software costs which appears in this spreadsheet.
721. From the evidence set out above, it is evident that a substantial number of people were involved in the process of preparing the cost estimate. Apart from the description of the process by Joe Galloway, Gerard Whelan and Andy Sollis there is nothing that survives to show the detail of the process except for the Costing Spreadsheets.
722. There is however supporting documentation for the general process which EDS followed. There is the agenda for the Kick-off Meeting on 7 April 2000, the 5 Week Plan involving EDS, Chordiant, Forte and Lucent and a number of documents produced before and after the visit to Sky on 10 April 2000, the notes of the Internal Workshop of 12 April 2000, the Discover VRB on 13 April 2000, Gerard Whelan's email to Scott Mackay of 21 April 2000 concerning further information, the EDS/Sky workshop on 27 April 2000, the de-briefing meeting on 28 April 2000, the draft Response dated 12 May 2000, the meeting or red team review with Youd Andrews on 12 May 2000 and the schedule produced as output, comments on the draft Response by Chris Rogers and Chris Moyer on 12 May 2000, the Technical Review on 18 May 2000 and the final Define VRB completed on 25 May 2000. These documents also demonstrate that some degree of the process was carried out but I accept Robert Worden's comments on the limited scope and extent of those reviews.
723. Generally Joe Galloway's evidence on the process by which the costing spreadsheets were produced is supported both by the evidence of Gerard Whelan and Andy Sollis and by the costing spreadsheets and other documentation. I am satisfied that there were meetings within EDS and between EDS, Chordiant, Forte and Lucent at which the scope of the necessary work was defined in the light of the information contained in the ITT and the further information obtained from Sky. I accept the evidence of Andy Sollis and Gerard Whelan that these were informal sessions and that they resulted in matters being recorded on whiteboards and by other temporary means which evidently would not survive or did not survive.
724. I am also satisfied that the Costing Spreadsheets had resource numbers which were originally produced by Joe Galloway on the basis of information obtained at those informal meetings and that they recorded the views of people at these meetings on the scope of the work and the necessary resources.



725. In his witness statement Joe Galloway referred to the use of a “scratch-pad”. Sky accept that some form of estimation of development effort must have been used to arrive at the contents of the Costing Spreadsheets, but say that the way in which Joe Galloway explained that an analysis had been carried out for all of the functionality at use case level was embellishment. In particular, Joe Galloway in his evidence said that a spreadsheet similar to that later produced by Steve Fleming, setting out use cases and functionality had been used. No such document exists and neither Gerard Whelan nor Andy Sollis refer to one. Whilst I accept that a form of “scratch-pad” was most likely used, I consider that Sky are justified in their criticism of Joe Galloway. He changed and gave inconsistent evidence on the relationship between the analysis spreadsheet which he said he had used and the one produced later by Steve Fleming. In the informal meetings I consider that a much broader brush approach was taken to estimating development effort by using a “scratch-pad” or rough working tab on the spreadsheet which was later deleted. Doubtless some information was produced by considering certain use cases but other information on development effort was likely to have been derived from the experience of EDS and the consortium members. All of these estimates were evidently entered onto a scratchpad and transferred to the costing spreadsheet.
726. The Costing Spreadsheets were produced by Tim Webb, starting on about 4 May 2000. The first version was produced on 16 May 2000 in US dollars. It indicated an EDS price, before adding any margin or profit, of some \$54.6 million, including about \$11.8 million of EDS consultancy. The EDS “Sell Price” was some \$82.5 million
727. The next version of the Costing Spreadsheet was dated 24 May 2000. It had a total EDS Price of £48.25 million, including £8.3 million of Consultancy cost. The EDS Sell Price was £66.7 million. There then followed a version dated 25 May 2000 in which the total EDS Price was £51.0 million with £9.2 million of consultancy and the EDS Sell Price was £70 million. On a 26 May 2000 version the EDS Price was £42.9 million with £8.9 million of consultancy, giving an EDS Sell Price of £59.2 million. That remained the figure on the version produced on 29 May 2000 and the two versions, “ITT Costings IV” and “BSkyB ITT Costings v6”, both produced on 30 May 2000.
728. On 30 May 2000 a further version of the EDS consultancy costs was produced as “MP Chord Third Pass”. In that document, the 19,422 DTW for EDS consultancy was reduced to 15,212.3 DTW. The Staff costs which were previously £7.4 million came down to £7.25 million.
729. On 31 May 2000 “ITT Costings V” was produced which had an EDS Price of £39.4 million including consultancy of £8.7 million (which incorporated the EDS consultancy of £7.25 million). The total EDS “Sell Price” was £54,195,013 which represented an overall margin of 27% over the EDS Price of £39.4 million. The figure of £54,195,013 was the same as that incorporated into the Response.

Although the metadata indicates that this may have had changes made in August 2000, I consider it likely that, as Sky suggest and Joe Galloway and Gerard Whelan accepted, this was only accessed in August 2000 and that it was the final version produced on 31 May 2000.

730. I now turn to consider the contentions in relation to cost and time.

### **Sky's case on cost prior to the Letter of Intent**

731. Sky say that what happened was not a proper process and they make two further criticisms of the way in which EDS put together that cost. First, there was criticism of the way in which there was a last minute change in the EDS consultancy Days to Work ("DTW") and the rates applied in arriving at the cost. Secondly there was a criticism of the change in the sum included for Interdec between the 24 May 2000 Costing Spreadsheet "ITT Costings v2" and the 31 May 2000 version, "ITT Costings V". The figure changed from an EDS Price of £18,843,335 to £5,491,316.

732. It has to be remembered that the ITT contained a "high level" or broad specification of Sky's requirements. That was expanded by the information provided by Sky during the bid process, particularly at the workshops or meetings held for that purpose. EDS' role was to produce an estimate of the work, effort and time to convert those requirements to an integrated software package which would provide the functionality to satisfy those requirements. Like any estimating process it had to be a combination of experience and calculation. There had to be a proper process so that EDS would have reasonable grounds for the estimate which they provided to Sky.

733. So far as the general method of estimating effort and cost which was followed by EDS, and which I have found was carried out as described above, I do not consider that Sky have established that it was not a proper process.

734. Robert Worden identifies one aspect in which he says the process was inadequate in terms of cost. He says that the profile of staff numbers over time, with a build-up to 96 staff for a nine month duration was not realistic and this causes him to have reservations about the realism of the staff costs. Otherwise, he considers that the approach used by EDS was adequate. I consider that Robert Worden's criticism does not detract from there being a proper process but is a criticism of the approach taken within that process on a particular element.

735. Ian Murray concludes that the estimates of costs and resources were not conducted using any recognised process or industry standard method. However, he explains that Top-Down and Bottom-Up estimating processes are accepted methods of estimating and that without a list of functions or use cases from functional specifications, it would be impossible to carry out a proper function point count method of estimating. Robert Worden does not consider that function

point counting was appropriate for the stage of the EDS Response because the requirements were not at that time expressed in the detailed form that would support function point counting. I accept that view.

736. Given the overall status of the requirements at the stage of the ITT and the EDS Response, I do not consider that the type of information necessary for a function point counting technique could reasonably have been used. Absent the use of that technique the Top-Down and Bottom-Up estimating processes described in the evidence were, in my judgment, proper processes to be used. I now turn to consider the two particular criticisms that are made by Sky.

***The Interdec Price***

737. EDS chose Interdec as subcontractors for the location work. Interdec provided a quotation for the work in two parts: £5,349,723.60 in respect of the proposed new site and £13,493,611.25 in respect of the work to be done upgrading the existing sites in Livingstone and Dunfermline.
738. Joe Galloway confirmed that this part of the work was dealt with by Gerard Whelan. Both he and Gerard Whelan essentially said that Interdec provided the quotation on the basis of what they, Interdec, thought was required and EDS adopted that price.
739. The Interdec price changed as follows:
- (1) On the Costings Spreadsheet of 25 May 2000 it was shown as an EDS Price of £18,843,335 and an EDS Sell Price of £22,168,229.
  - (2) On 26 May 2000, the price changed to an EDS Price of £8,492,189 and an EDS Sell Price of £9,990,810.  
From the tabs on the two spreadsheets it can be seen that the price changed because large elements of the work had been removed entirely. In respect of both the new site and the existing sites, the following work was removed: stripping out & demolitions; builders & enabling works; alterations of external claddings, windows and doors, raised access floor, ceiling works, mechanical/HVAC alterations & installations; provisional costs for high-level walkways; IT cabling & communications; and AV systems.
  - (3) In "ITT Costings V" Costing Spreadsheet on 31 May 2000 the Interdec element changed resulting in an EDS Price of £5,491,316 and an EDS Sell Price of £6,460,372.  
A number of lines had £0 inserted for both the new site and the existing sites. This applied to: partitioning; doors, frames & ironmongery; joinery items; flooring; signage; and decorative features/banners.

740. Sky submit that there was no objective or rational justification for these two changes. Joe Galloway said in evidence that Mike Hughes was fully informed about the situation and instructed EDS to remove the elements that were removed from the Interdec quotation. In cross-examination on Day 40 Joe Galloway said:

*“Through our conversations with Mr Hughes, we had indicated that the build-out and construction components that Interdec was composing was a high proportion of the bid that we had in place, some £22m, and Mr Hughes said, 'We should remove those from our area because he would be taking those forward himself.' Now, the reason that they are left complete in the Interdec tab is because we believe this is the appropriate work that needed to be done, and Mr Hughes was going to find, according to Mr Hughes, quote unquote, 'another bucket of money,' that this was going to come from and that we should only consider items we felt absolutely vital to keep in the systems that were appropriate to getting the existing contact centre up and running. Now, this is phase 1 of that discussion with Mr Hughes. Through another phase of discussion with Mr Hughes, this number comes down again, and I don't remember the exact figure, but it is somewhere around £6.7m or £6.8m, as the point that we believe absolutely necessary for us, EDS, to manage through our process.”*

741. Gerard Whelan said that he could not explain the reductions. He suggested that there might have been documents which would explain the situation which have not survived or that there might have been a revised bid of some sort from Interdec and that EDS were simply reflecting that. He did not mention instructions from Mike Hughes. He recalled that in the last few weeks prior to submission of the EDS Response, the bid prices changed on a frequent basis, with costs being added and taken away.
742. Sky say that the explanations of both Joe Galloway and Gerard Whelan are false. First, they say that the EDS Response contains no suggestion that EDS were going to do anything other than "design, build and implement a new contact centre for Sky and ... refit the existing contact centres" which was consistent with the "fly-thru" shown as part of the EDS multi-media presentation on 1 June 2000. Secondly, as to Joe Galloway's suggestion that Mike Hughes had specifically instructed EDS to act as they did, Sky say that this was not mentioned in any of his witness statements. It would have represented a significant change to the price and been significant. In addition Sky say that it would be expected that the same instruction would have been given to the other bidders but none of the others proceeded on this basis. Any such instruction was not recalled by Gerard Whelan.
743. Thirdly, Sky say that the "Youd Andrews checklist" as circulated on 24 May 2000 contained an entry 'Interdec price to be ratified' which was allotted to Gerard Whelan and was due to be completed by 17 May 2000. On 24 May 2000 that item was ticked to show that it had been completed. As such, it seems likely that the Interdec quotation that appeared properly for the first time in the Interdec tab of

- the Costings Spreadsheet on 24 May 2000 reflects precisely that "ratified" price. Further, Sky say that if there had really been any change to the Interdec quotation after 24 May 2000 any such change would have left some documentary reference. Sky say that the "chopping" or "slashing" of the Interdec price was done to ensure that the bid put forward by EDS was within a suitable touching distance of £50 million, and that Joe Galloway was responsible for this manipulation of the Costings Spreadsheets.
744. EDS say that the suggestion made to Gerard Whelan and Joe Galloway that the Interdec element of the costs had been cut on no other basis than to reach the £54m figure was not a pleaded element of falsity and was not something that anyone had dealt with before those witnesses were asked questions. EDS refer to Sky's written opening where paragraph 4.2 stated that "*Interdec do not play a significant role in this litigation and can be ignored*". EDS say that on the basis that no document had apparently been found to explain the reduction, Sky launched an unannounced accusation of fraud on this issue.
745. EDS say that Gerard Whelan had no real recollection of how and in what circumstances the Interdec costs were reduced. He said on Day 35 that, so far as he was aware it was not the result of a decision on the 31 May 2000 "to slash costs in some way".
746. EDS refer to the evidence of Joe Galloway that the reduction in Interdec costs was at Mike Hughes' request and to the suggestion that this was not in his witness statement and was made up. EDS rely on documents showing Sky's understanding of the position, including a costing comparison prepared by Sky on 8 June 2000. This showed that under the EDS bid there were location costs of £5.016m but "possible upgrade of building" and "additional location considerations" of £4m and £14.984m. The total potential location costs of £24m as understood by Sky were, therefore, as Joe Galloway noted in re-examination, closer to the original £22m figure.
747. EDS also refer to the location costs sheet referred to in the cost comparison of 8 June 2000 under "see location costs sheet". This is a reference to a spreadsheet which indicates that the £5.016m cost element in EDS' bid was understood to relate to basic fit out of the contact centres, with a number of other items, such as dismantling and removal, attributable to the additional costs. Joe Galloway considered that this was consistent with Mike Hughes' instruction that the bid should include only the basics.
748. EDS also refer to a further cost comparison prepared on 18 July 2000 in which Sky had included £20m for location costs in each bid and at Note 3 stated that "Location Costs: A fixed charge of £20m has been included for this as an estimate to fit out and kit out all three sites".

749. EDS submit that Joe Galloway's response in cross-examination, without the benefit of documents, to the unpleaded and unannounced criticism of EDS in relation to the reduction of the Interdec costs is supported by Sky's own documents.
750. The criticism of the change to Interdec's price as a foundation for the representation being false was, on any view, a matter which Sky only relied on in cross-examination of EDS' witnesses when all of Sky's factual witness evidence was complete. Sky's opening submissions clearly indicated that the hearing would not be concerned with Interdec.
751. In those circumstances, where witnesses had been concentrating for a considerable period of time on the pleaded allegations, it is not surprising that the recollection of witnesses such as Gerard Whelan was not good. There was no documentary evidence for the change. The only explanation came from Joe Galloway whose evidence, as I have said, I can only accept if there is credible supporting factual or documentary evidence or if a strong inference as to the correctness of his evidence can be drawn.
752. His explanation was that he had had conversations with Mike Hughes in which he had said that location costs were a high proportion of the bid and Mike Hughes had said that EDS should remove those costs because he would be taking those forward himself. He said that there were two phases to his discussion and that in the second phase of discussion with Mike Hughes the number comes down again. There was no evidence from Mike Hughes on this aspect and no opportunity for this to be put to him because this aspect of the case only developed long after Sky's witnesses had concluded their evidence.
753. The EDS Response made it clear that they had only allowed for about £5 million for location costs for the existing and new spaces (para 7.2.1) and about £1.5 million for consultancy (para 7.2.2) giving a figure close to the £6,460,372 in the Costing Spreadsheet. The comments from Sky in the cost comparison sheets showed that Sky was aware that costs for such items as "possible upgrade of building" and "additional location considerations" of £4m and £14.984m would have to be added to EDS' total. The cost comparison sheets strongly suggest that Sky was treating location costs relating to possible upgrade of the building and other costs over the base case such as "dismantling, removal and clearance" as additional costs. This led to the £20 million figure being placed in the figures for both PwC and AA/EDS in the cost comparison of 18 July 2000. This is consistent with Sky not being concerned with having the full costs of the location within the bid. Given that Mike Hughes was evidently in contact with Joe Galloway and wanted him to succeed in the bid, I believe it likely that Mike Hughes would have communicated Sky's approach to Joe Galloway.
754. In the circumstances in which the Interdec allegation arose and in the absence of any evidence from Mike Hughes to rebut what was said, I accept Joe Galloway's

evidence on this aspect as it is consistent with other evidence and with Mike Hughes' general approach towards EDS. Also EDS made it quite clear what sum they had included for the location work and Sky were evidently aware of the situation.

755. I therefore do not consider that there is anything in the Interdec quotation to negative the representation on cost. There was originally a proper analysis of the sum for this work and I am satisfied that it was reduced in line with conversations with Mike Hughes and therefore was still a proper estimate on that basis.

*Changes in Days to Work (DTW) and Number of Staff*

756. Sky say that, as is apparent and was dealt with in cross-examination, there were errors in the figures in the EDS tab of the Costings Spreadsheets, at least until ITT Costings V on 31 May 2000. Sky refer, in particular, to an error in failing to account properly for multiple staff. By way of an example, the Testing Team in the EDS tab of ITT Costings IV calls for 3 EDS staff for that team, each working for 180 days. The internal day rate for such a staff member is £399 but when working out the total cost of the EDS staff on the testing team, EDS multiplied 3 x £399 instead of 3 x 180 x £399.
757. In ITT Costings V, somebody made corrections to remove these errors manually rather than using the formula facility on the spreadsheet. The correction, in itself, had the effect of significantly increasing EDS' consultancy costs. However, the total EDS consultancy cost only rose, between ITT Costings IV and ITT Costings V by £533,209 as opposed to the increase of £5,966,205 that would have flowed from the correcting the errors.
758. This, Sky submit, was in part because EDS had changed the external charging rates by reducing the EDS margin from 50% to 25%, whilst the internal rates remained much the same. Sky say that a significant element of this reduction was achieved by a reduction in the DTW for many of the categories and by the reduction in numbers of staff required. The changes included reducing DTW from 320 to 280 for such resources as the programme manager, project office admin, project management, mainframe technician and programme technical architects. Other similar changes were made. As a result of these changes, the total effort was reduced.
759. Sky say that there was no objective or rational explanation for these reductions and they were made because Joe Galloway was determined to put in a bid in the region of £50 million.
760. Sky refer to Joe Galloway's evidence. He provided the general explanation on Day 40 that:

*“as one puts together a Response to ITT, over time one refines that effort, one takes words out, puts words in, takes - makes an assessment of where one has gotten to from an estimate standpoint, refines that estimate, based on information one expects to have, based on information one gets in ... continuing in effort ... all the way up to, I would say, 5 or 6 pm on the day ...the ITT was due, to further refine our Responses as they went out to the client.”*

761. He suggested that he had received advice from Mike Hughes to the effect: *“don't worry about the as-is processes, we will get you those as soon as you are awarded the business”*, which allowed him and the team to *“hone down ... the amount of effort required ... to cut down the man-days of effort required by the use case to prepare overall a figure for delivery, and in doing so, it would cut down the gross number, as I mentioned before, and the man-days of effort required for each one of these.”*
762. Sky submit that this evidence was false. First, this evidence was not included in Joe Galloway's witness statement and would have been an important explanation of how EDS prepared its estimate of cost. Secondly, his specific explanation would not explain the cuts that were in fact made at the eleventh hour to numbers and DTW. They say that any provision of as-is processes would result in a reduction of effort in the process workstream not in the other workstreams where changes were made.
763. Joe Galloway also gave evidence that:
- “I can say that there was a refinement process that was continuing as we moved closer to delivering the activities that people were thoughtfully processing the information that we had put forward, that on the day of the 30th, when we were preparing the final pieces, the team that put the estimate together was gathered again and asked if they had any revision, thought there was any appropriate changes. That team, on the 30th, said they thought there were appropriate changes to make, those changes were made, and we placed those into our final estimate.”*
764. Sky refer to Gerard Whelan's evidence and say that he accepted that he could offer no explanation for either the reduction in the DTW or the reduction in the number of programmers and others and could point to no documentation that recorded or explained these reductions. He said that he did not remember the errors or any correction and did not recall making changes or being aware of last-minute changes to the EDS consultancy costs. Notably, Sky say, he did not refer to any gathering together of the team to revise effort estimates or to this being on the basis of information provided by Mike Hughes.
765. Sky rely on Joe Galloway's evidence of his involvement in these changes. In addition it points to the metadata of “MP Chord Third Pass” which indicates that



- it was Joe Galloway who made the changes on 30 May 2000. Sky submit that the overall inference is that Joe Galloway manipulated the Costings Spreadsheets in order to reduce the EDS consultancy costs to enable EDS to put forward a bid in the region of £50 million, thereby knowingly putting forward a bid to Sky that did not reflect EDS' true opinion and was not based on any reasonable grounds.
766. EDS accept that there were errors and that these were corrected and at the same time changes were made to other figures. In relation to the coincidence of timing of the corrections which increased the price and the reductions and the inference that the reductions were made to off-set the corrections, EDS say that it is a fair point to make but EDS rely on Joe Galloway's explanation in cross-examination on Day 40.
767. It is evident that the Consultancy costs within the costing spreadsheet had a number of arithmetical errors. If corrected, the figures would have increased the consultancy figures. Sky say that the effect on the EDS Sell Price would have been nearly £6 million.
768. There were two changes that occurred at the same time. First EDS reduced the margin on its staff costs from 50% to 25%. The rates adjusted to reflect the 25% margin set out in the "ITT Costings V" Costing Spreadsheet are consistent with the table at para 7.2.1 of the Response. On that basis, EDS were reducing their rates and, as those rates were to be applied on the project, that did not affect the fact that the figure was a genuine estimate.
769. The second change involved an adjustment in the DTW which were originally in the Costing Spreadsheet. The figure of 380 for the Project Manager and Project Office Admin for the Transition Team became 240. That was consistent with the hours for the Co-ordinator, Business Planning and Staff Scheduling resource which was already 240. Similarly Data Warehouse Resources of 363 and 396 were reduced to 240. A large number of resources with DTW of 320 were changed to 280. Was this, as Joe Galloway said, a late change to the figures or was it, as Sky state, Joe Galloway manipulating the DTW figures so as to correct the errors and retain a figure of near £50 million for the project?
770. There is a strong and inescapable inference that the amendments to the DTW and the rates in the Costing Spreadsheet were made to overcome the errors which had been discovered and were dealt with at the same time. That, however, does not mean that the alterations made to the rates and DTW did not occur because of a proper estimating process. If an error is found then it necessarily leads to a review of other calculations to see whether they are accurate or not. Joe Galloway's evidence that the figures were changed as a result of a continuing process of review with some input from Mike Hughes may well be correct. Again this particular aspect was not dealt with in evidence. If there had been an intention to put in false figures not supported by the underlying estimating process, why would it have been necessary to reduce the margin to 25% from 50%? That would

only be done, in my judgment, if the DTW could not properly be adjusted to cover the whole of the correction necessary. In addition, there is some logic in reducing the figures for the Transition Team to 240 so as to be consistent. Nor do I consider that a 10% adjustment to an estimate of DTW can be said to be outside the type of adjustments that are made when estimates are reconsidered leading up to a bid.

771. I am not satisfied that the reduction in the DTW figure and the rates leading up to the final figure in the EDS Response can be said to make the estimate one which was not produced by a proper process.
772. In all the circumstances I conclude that, in putting in an estimate of some £54m in the EDS Response, EDS had carried out a proper estimate of the cost of completing the project. On that basis EDS had reasonable grounds for holding the opinion that, they could and would deliver the project within that budget in the Response.

### **The estimate of time**

773. There are two plans which set out sequencing and time. They were prepared by Steve Vine and are referred to as the Vine Plans. The evidence of the Vine Plans and of their relevance to the EDS Response is neither clear nor consistent. The basis on which EDS arrived at their estimate of time is dealt with in the witness evidence. There is also criticism of EDS' estimation of time both from Robert Worden and from Ian Murray.
774. There is also some other evidence as to EDS' approach to the estimate of time which also needs to be reviewed in this context. There are references to professional judgment and to reliance on Chordiant and the other members of the consortium.

### ***The Vine Plans***

775. These plans consist of two Microsoft Project plans which were prepared by Steve Vine in late April 2000. The first Vine Plan has a "create date" of 13 April 2000 and a "last modified" date of 24 April 2000 and has the title "Sky Proposal". It is the more detailed plan, running to 274 lines. The second Vine Plan has a "create date" of 25 April 2000 and a "last modified" date of 26 April 2000, and is entitled "Sky Milestones". This is a milestone plan, running to some 49 lines and is less detailed. Both Vine Plans show a development that takes nine months to get to go-live and a further nine months to be fully completed, following an initial period for contracting, due diligence, design and analysis.
776. Sky contrast this with the plan in the EDS Response which it says showed go-live in nine months and completion in eighteen months with contracting, due diligence and design and analysis included within the overall timescale. Further Sky say that, to achieve go-live in nine months, the more detailed plan sets a very

- compressed timetable which under “Applications” at lines 124-145 allows just 80 days for the key development work.
777. Sky summarise this evidence as showing that, at no time prior to their selection by Sky, did EDS ever know whether or not they would be able to deliver the Sky project in the timescales.
778. EDS accept at paragraph 779 of their closing submissions that, on the basis of Robert Worden’s evidence, if there was a representation that EDS had carried out a “proper analysis” in relation to time or had “reasonable grounds” for an opinion that they could and would deliver the project within the timescales referred to in the EDS Response, that representation was false. I have found that there was such a representation and it follows that EDS accepts that there was no proper analysis or reasonable grounds for the timescales in the EDS Response, in particular the nine month period for go-live.
779. It is convenient at this stage to review the factual and expert evidence on the Vine Plans.
780. Joe Galloway said in cross-examination on Day 39 that all that Steve Vine had done was to produce a sequenced version of the work required to fit into the nine and eighteen month periods. He said in relation to the Vine Plans that it had no resourcing in it and was not “a resource levelling plan”. He accepted that he made no attempt to take the Vine Plans and the Costing Spreadsheet and to see what were the resourcing implications of the plan. He said that “*we, the team, depended on Mr Vine to take the view of whether his plans that he has created here would nominally fit the nine-month plan that we put together from the resourcing standpoint.*” This might seem to suggest that some resourcing was done but he confirmed what he said at paragraph 252 of his first witness statement that the planning by Steve Vine was not resourced. Joe Galloway confirmed at Day 40 that he had not sought to work out what work was to be done in the first nine months.
781. He also confirmed, particularly by reference to the resources for the Graphical User Interface (“GUI”), that he did not take the Vine Plans and consider the resource implication of deploying the effort within the time periods. He said that EDS did not have enough detail to make a determination of when this would need to be deployed. He stated that the overriding information that EDS used was the Costing Spreadsheet. When it was pointed out to him that the costing spreadsheet allowed for 18 people to work for 320 days on GUI work but that if this was going to be carried out in the 80 days allowed in the Vine Plan to achieve go-live in nine months, the work was going to be compressed, he said that “*I did not give credence to this plan...as it related to effort that was going to be required.*”
782. Joe Galloway’s response on Day 39 to the question of how he could be assured that nine months was a realistic estimate was to say that “*what we did is our*

- beginning premise was that we had 18 months to complete the entire task, nine months to deliver something in the go-live environment*". That again indicates that there was no analysis but only an assumption. He said that he had "a very reasonable professional expectation" based on the consortium's collective professional experience. He also accepted that he could recall no specific discussions with the consortium members that considered how the overall effort estimate would be carried out in the nine month period.
783. Joe Galloway also agreed that he had never assessed what numbers of resources were in fact likely to be required in any particular timescales or for any particular time periods other than in the Costing Spreadsheets. He confirmed that he did not and, as far as he was aware, nobody sought to determine at that stage what work was required to be done in the first nine months in order to achieve go-live within that period.
784. Joe Galloway said that one of the reasons that he did not give credence to the Vine Plans was that he did not consider the timescales to be sufficient but he said that he did not seek to work out any alternative plan. However he said that EDS used the Vine Plans "*as a basis for putting in our Response to ITT, the diagrammatic representations that are in place*".
785. On the basis of this evidence, no exercise was undertaken to establish what work was required to be done in order to achieve go-live, no attempt was made to do any credible planning or sequencing to establish that go-live could be achieved in nine months and no effort was made to establish what number of resources would be required for that purpose.
786. Gerard Whelan also gave evidence about the Vine Plans. He confirmed that as set out in his witness statements and as pleaded by EDS that "*towards the end of the estimating process in late April 2000, Steve Vine set out our perception of how the tasks would fall together in a set of Microsoft Project Plans. Outline plans at a high level were also set out in the Response to Sky's ITT. These plans were an output of the estimating process to which I have referred above. They attempted to lay out, in the fairly broad way to which we were limited by the information then available, how the tasks we had identified and estimated would be sequenced into an overall timescale*".
787. Gerard Whelan accepted that the more detailed Vine Plan was a classic Waterfall plan and not an iterative RAD plan but he said that there may have been other documents, extant at the time but no longer surviving. He accepted though that if there were other plans, then he was not aware of them. He was not aware of any RAD plans and was not aware of a reason why the plans were produced as Waterfall rather than RAD.
788. He disagreed with Joe Galloway's statement that the Vine Plans were things to which no credence should be given or was given at the time. He said that they

represented “a genuine estimating exercise of how one would go about implementing this project” and that he had not heard the view expressed that they were not credible at the time. He said that he himself gave credence to the Vine Plans, as did everyone else involved. He accepted that the Vine Plans were the basis upon which EDS was communicating to Sky that it believed it had the ability to do the project in the time and at the cost indicated. He said that had he been aware of Joe Galloway’s view that no credence should have been given to the Vine Plans, then he would have not been able to put forward the EDS Response until he had a plan to which credence could be given. Andy Sollis said that the Vine Plans were intended to show “whether one could do this in nine months” and were “an important part of the planning and estimating exercise”. Andy Sollis also said that the Vine Plans were intended “*to validate that one could do this in nine months*”.

789. Gerard Whelan suggested that Steve Vine had carried out a resourcing exercise either in a format that did not leave any documentary mark at all, or purely in his head. He accepted that he was not aware of any documentation which evidenced Steve Vine preparing any resource plan and he had not asked Steve Vine to produce any such plan and was not aware of anyone else doing so either.
790. The evidence of what was done by Steve Vine and what the Vine Plans represented is neither clear nor consistent. Steve Vine was not called as a witness. If, as Joe Galloway says, he gave no credence to the Vine Plans and thought that the timescales were insufficient then, as Gerard Whelan said, EDS could not put forward the EDS Response on the basis of the Vine Plans which is what Gerard Whelan and Andy Sollis say they did. If however the Vine Plans were the basis for the EDS Response then Robert Worden makes criticisms that I consider to be valid.
791. Robert Worden points out that the Vine Plans were not resourced. He says that the plans do not give confidence that the growth of resources from a small design and requirements team, up to a full implementation and testing team, has been sensibly modelled, or that a sensible profile of resources over time could have emerged from the planning exercise. He also says that because the resources had not been fitted to the activities the planned durations would not be reliable and their sum would be unreliable.
792. He concludes by stating at paragraph 1420 of his first report: “*Therefore, in my opinion, the expected duration was not based on a proper planning process – in that unanticipated resourcing constraints might have made task durations longer than expected. To the extent that such tasks were on the critical path for the project, this would have impacted the overall timescale.*”
793. Robert Worden says that, in his opinion, the most serious problem with the duration estimate was that it is known empirically that if the team size had been as large as EDS planned, inevitably there would have been interactions between

different workstreams which would cause delays. Robert Worden considers empirical data in the form of the Constructive Cost Model (CoCoMo) data which relates total effort to elapsed time. He says that for a project with a headcount of 96 EDS staff and an effort of 19,000 man-days, the CoCoMo nominal schedule for a project of this sort would be about 24 months rather than the 9 months planned. This would have called for some justification for the short timescale and he has found no evidence of this.

794. He concludes at paragraphs 1464 and 1466 of his first report by stating that “*EDS’ approach to the plans which formed the basis of their estimates of elapsed time in their ITT Response, was inadequate for making the representation as alleged by Sky*” and that those inadequacies “*were more than minimal, so that in my opinion, the planning approach used by EDS was not adequate for the purposes of making the representations alleged about elapsed time.*”

#### ***Other evidence of planning***

795. In his first witness statement Joe Galloway said this at paragraph 251:

*“I was not directly involved in this final planning task. It was undertaken by the bid team using the results of the estimating exercise (as reflected in the estimating spreadsheet). The team reported that it was satisfied that the effort predicted could be sensibly scheduled into a nine month window of time. No one on the bid team was either significantly more or less optimistic about this timeframe. At the time of submitting the Response to Sky’s ITT, our perception was that everything which the ITT appeared to require could be achieved within the 9 months specified”.*

796. As referred to above, he said that EDS had started from the assumption that EDS had to deliver within a nine month timescale and that he had given no credence to the Vine Plans. He was asked on Day 39 how he could be assured that nine months was a realistic estimate. He replied:

*“what we did is our beginning premise was that we had 18 months to complete the entire task, nine months to deliver something in the go-live environment. We had our previous experience of delivering applications and we had our previous experience of Thomas Cook and we had previous work that we were carrying on at Cable & Wireless. We had Chordiant Software who had a number of implementations under development already. So we had professional experience telling us what we could and could not do in the timeframe. It was our opinion as we went through that process with our partners and professional expertise that we could deliver a solution in nine months that would represent a go-live in one hall.”*

797. In terms of planning, Gerard Whelan says that throughout the estimating process, thought was given to the way in which the tasks in question would fall into place

- within the overall timescale. He says that the *“result of our estimating was a belief that we could complete the work requested in Sky's ITT and its Appendices within the nine months specified”*.
798. In his first witness statement Gerard Whelan also refers to the involvement of Chordiant Software and their representatives, in particular, John Mitchell who assisted the bid team in preparing those aspects of the Response that related to Chordiant. He says that Chordiant approved the content and plans contained in the bid, in particular, the relevant technical aspects of the solution. He also says that Chordiant and Forte attended a meeting on 18 May 2000 to review the bid document. He also refers to the fact that representatives from Chordiant, Forte and Lucent, including Chordiant Software's Chief Technical Officer, Joe Tumminaro, attended the presentation to Sky on 1 June 2000.
799. He says at paragraph 102 of his first witness statement that this confidence was shared by EDS' consortium partners who had participated in the estimating process. In particular, he says that the central Chordiant contact centre solution had been estimated with the assistance of Chordiant Software, who asserted in their own marketing and training materials that such projects could be achieved within eight to ten months. He also says at paragraph 103 of his first witness statement that previous projects gave them confidence that their estimates were realistic. He refers to having *“recently got a Chordiant system up-and-running using out of the box functionality for Cable & Wireless in approximately 9 months”* and to having *“implemented a Chordiant system for Bank One International/Halifax Bank within, to the best of my recollection, approximately 9 months”*. He says that *“comparing Sky's ITT with other projects, it looked like a project which could (as our more detailed estimating suggested) be completed within 9 months (excluding the transition activities set out in the Response to Sky's ITT for months 10 to 18).”*
800. Andy Sollis also gave evidence in relation to planning information. He said that individually and in concert with Steve Vine, EDS had satisfied themselves that the project, as they anticipated it, could be carried out in the nine month period (excluding data migration). In cross-examination on Day 41 he said that in relation to the period of nine months, you could *“refer to your experience of how long particular projects take and feel from experience what is achievable. You can then also do a more detailed planning exercise to confirm that.”*
801. It is evident both from Robert Worden's evidence based on the witness statements and documents and also from the evidence given by Joe Galloway, whether or not he gave credence to the Vine Plans, and from Gerard Whelan that EDS did not carry out a proper assessment of the time which the project would take and, in particular, whether go-live could be achieved in nine months. The Costing Spreadsheets produced by Joe Galloway provided the overall Days to Work but did not attempt to assess what work or effort was needed over what period to achieve go-live in nine months. It is therefore unsurprising that there was no

- attempt by EDS to consider the resources necessary to carry out the work in the necessary period.
802. Gerard Whelan tried valiantly to suggest that Steve Vine did carry out or might have carried out further planning or resourcing exercises but there was no substance in this and I reject it as being speculation. In my judgment Gerard Whelan's evidence amounted to an acceptance that, looking back at the matter now, he himself could not believe that EDS had put in a bid without a proper exercise to confirm that the necessary work could be carried out within the nine month period to go-live.
803. Joe Galloway sought at first to explain how the Vine Plans fitted in with the estimating process. When he realised that they were inadequate he said that he gave no credence to them as to the resources needed or the time taken. Indeed he said that he thought the periods were too short. He then shifted his ground to rely on "professional judgment" and the views of the consortium members. His evidence was inconsistent and exposed the inadequacy of the estimating process which had been followed in relation to time. I simply do not accept that he was telling the truth. Rather, I conclude that much of Joe Galloway's evidence in relation to planning at the bid stage was false and was created to cover up the inadequacies of this aspect of the bidding process in which he took the central role.
804. EDS accept that the representation that I have found EDS made was false. This is inescapable on the evidence and I accept Sky's submission that EDS did not undertake a proper exercise to work out what work was required in order to deliver go-live in nine months and the whole project in eighteen months; they did not undertake a proper exercise of planning, sequencing and resourcing to establish that go-live could be delivered in nine months and the project as a whole in eighteen.

**Knowledge and Intent: Misrepresentation as to time prior to Letter of Intent**

805. Having found that the representation as to time made by EDS prior to the Letter of Intent was false, it is now necessary to consider whether that misrepresentation was made fraudulently, negligently or innocently.
806. Sky submit, in summary, that the representation as to time was known by Joe Galloway and Gerard Whelan, and by John Chan when he became involved, to be false. Sky say that EDS had not taken steps which Joe Galloway, Gerard Whelan and John Chan all accepted in evidence to be essential to estimate the time necessary to deliver the CRM project. Sky say that, even if they did hold the opinion that EDS could and would deliver go-live within 9 months and completion within 18 months, Joe Galloway, Gerard Whelan and John Chan knew that they had no reasonable basis for holding such an opinion.



807. Sky say that, at least in the case of Joe Galloway, that it is unlikely he did ever genuinely hold the opinion that EDS could and would deliver go-live within 9 months and completion within 18 months. He simply told Sky what they wanted to hear, either knowing it not to be true or, at the very least, without caring whether it was true or not. In the case of Gerard Whelan and John Chan, Sky say that, if they ever did hold such an opinion, it is likely that they no longer held it by the time the Letter of Intent was agreed.
808. EDS say that the estimate of time could only be a rough estimate in the Response and reject the allegation that the time estimate was made deliberately, knowing that it was false or recklessly, not caring whether it was true or false.
809. EDS submit that there can be no doubt that the bid team did believe that the nine month target was achievable. EDS accept that doubts arose later, partly because of uncertainty as to scope, and these are reflected in the August 2000 Red Team Report and other documents referred to by Sky. However, EDS say there is nothing to contradict the evidence of EDS witnesses that, at the time of the bid, the bid team as a whole, including consortium partners, genuinely believed that they could deliver a new contact centre in nine months.
810. EDS point out that on the basis of the same information, PwC and AA provided similar estimates. PwC promised a Fast-Track Contact Centre within five months of the start of the project and a World-Class Contact Centre within nine months of the start of the project and AA promised a total solution within a year. EDS also refer to communications between Ian Anstey of Chordiant and people at Sky in late June 2000 in which he gave them confidence about being able to complete in the timescale.
811. In relation to the criticisms made by Robert Worden as to the reality of the timescale, given estimated effort, EDS say that this does not imply knowledge or recklessness. Rather, EDS say, the same criticisms could be made of the plans proposed by PwC and AA, and the plans later made by Sky itself after it took over in March 2002. They also say that the comparison of the effort with the CoCoMo schedule was not something that Ian Murray considered when he reviewed matters.

### **Analysis**

812. It is necessary to consider the knowledge and intent of Joe Galloway, Gerard Whelan and John Chan. Were they dishonest, negligent or innocent in the parts they played?
813. In assessing the honesty of these three people I obviously take account of the fact that I have seen them give evidence and have been able to assess them. I have made my views on Joe Galloway clear. He was a dishonest witness and his evidence lacked credibility. I must obviously be careful not to assume that such dishonesty, in itself, establishes deceit. However, where, as I have found, he

- dishonestly covered up a fake degree, he forged an email to cover up a mistake in key rates provided to Sky and lied to cover up the unsatisfactory process by which the timescales in the EDS Response were assessed, I am obviously less reluctant to find that he was dishonest in his approach to EDS' Response. By comparison, although there were elements of the evidence of both Gerard Whelan and John Chan which were not satisfactory, I do not doubt that they were generally honest in their evidence.
814. I must also take account of the various matters referred to in submissions which might reflect on the position.
815. I accept that EDS relied on the involvement of and information from the consortium partners. It is said by EDS that from that involvement in the bid process it is to be implied that they thought that the bid was a reasonable one and certainly honest. However, the overall programme for EDS had to take account of the work which EDS was to carry out. Although, the central framework software was Chordiant, the method of working and the interaction of the workstreams, including other contractors was a matter for EDS. Further, there is no evidence of direct detailed Chordiant involvement in making the time estimate and general involvement is not sufficient. Nor is there any evidence from any of the other consortium partners on their involvement at the bid stage. The overall time, it seems to me, was a matter for EDS and, in the absence of relevant evidence from Chordiant or the consortium partners, EDS cannot draw support for their time estimate from the involvement of the consortium members in taking part in discussions or in reading and approving the draft Response.
816. EDS also refer to the view expressed by Ian Anstey of Chordiant to Andy Waddell, Scott Mackay and Graeme Hardie on 22 June 2000, when the following was said:
- “I believe that one of the key concerns of your team is the ability to deliver within the timeframes allotted, rather than the technology. I would point to 2 recent UK projects that Chordiant has successfully delivered on time and to budget. Our project at Bank One International (in conjunction with EDS) was implemented in 12 weeks and went live exactly on the day specified. Directline, with whom we are currently working on a project, awarded Chordiant the contract in March of this year and will go live in early July. This should give you confidence in our ability to deliver and should you wish to speak with Directline, as our most recent customer, about us I am sure we can arrange for someone to speak with their Group IT Director.”*
817. There is also a document of 26 June 2000 from Ian Anstey to Mike Hughes in which he said:

*“There seems to be a view held that, because of the differences in approach, Siebel offers a lower risk solution in terms of implementation time.*

*If BSkyB’s implementation timescales were a few weeks and no customisation of the Siebel applications were required (not likely to be the case) then this view may have some validity. In the case of BSkyB however we are talking about the first phase implementation of 6 months. An implementation timeframe that EDS and Chordiant, as part of the delivery team, are more than comfortable with based on past experience.*

- *Thomas Cook: 4 months*
- *Bank One International: 3 months*
- *Direct Line: 4 months – will go live early July”*

818. EDS submit that this supports the honesty of Joe Galloway and Gerard Whelan in putting forward the timescale and in saying that it was also the view of Chordiant. The fact that on other projects Chordiant have been able to complete those projects in 12 weeks or four months (March to early July 2000) shows that they have been able to complete those projects in those periods. It is not said that Chordiant made any detailed assessment of the time in this case. Gerard Whelan’s evidence is that it was from Chordiant publicity and other EDS projects that he derived support for the nine month period. Joe Galloway’s evidence relies more on general involvement which I have dealt with above.
819. EDS also refer to the other bids put in by PwC and AA. It says that they put in similar estimates of time. In PwC’s Proposal they stated that they would: *“Deliver Fast-Track Contact Centre within five months of the start of the project; Deliver a World-Class Contact Centre within nine months of the start of the project; Migrate the existing call centres within fifteen months of the start of the project.”* In AA’s Proposal it was suggested that AA would deliver a go-live in one contact centre by the end of January 2001, with the whole project completed by end May 2001, giving a period of about 8 to 12 months.
820. I have looked in more detail at the PwC Proposal below. It was based on Siebel and not Chordiant and the timescales for a CRM System using a Chordiant framework would be longer than a Siebel package implementation. I understand that the AA Proposal was on a similar basis. I do not consider that the time estimates made by other people for the implementation of other packages provides assistance in determining the question of honesty in this case.
821. EDS point out that Robert Worden has commented that Sky itself seem to have failed to take account of CoCoMo and, in the context of the expert evidence, PA did not refer to CoCoMo or apply CoCoMo correctly. The question of the use of CoCoMo would be relevant if, for instance, EDS had carried out a proper process but had made an error which might have been picked up by a cross-check against CoCoMo. That would be a case of negligence in which case Ian Murray’s

admitted error in failing to carry out a CoCoMo cross-check would have been relevant. Robert Worden relies on the period which can be derived from the CoCoMo schedule to demonstrate that the Days to Work estimate is not compatible with a nine month time period. Whether Sky's own estimates were correctly made does not, I consider, reflect on the question I have to consider.

822. Sky refer to documents which were produced after 24 July 2000 and to matters of which EDS became aware after 24 July 2000 which they say bear on the question of knowledge. They are essentially a Risk List prepared by John Chan dated 14 August 2000 ("the August Risk List"), the review carried out internally by EDS in August 2000 ("the Red Team Review") and some views expressed internally by people in EDS in September 2000. I shall review those matters before setting out my conclusions as to knowledge.

***The August Risk List***

823. This was an Internal EDS Risk List produced by John Chan dated 14 August 2000 but which, as John Chan said, contained conclusions which he had reached well into June and certainly well before 24 July 2000.
824. Such risk lists or risk registers are now a commonly used management tool. Their purpose is generally to identify risks on a project so that they can be avoided or reduced before they impact or can be dealt with more effectively or mitigated if and when the risk occurs. Risks may arise from known events or from predictions of future events from general experience. In this case, the matters germane to the issues which I have to consider generally concern known events and these are relied on by Sky to establish knowledge of those events. Much was made by John Chan of the fact that the list identified risks which it was said may or may not happen. That, as a general principle, will be true of risks which have not yet impacted. In this case some of the risks had already impacted. For others, a known event gave rise to the risk of an impact at a future date, demonstrating the importance of that known event.
825. The August Risk List contained a number of relevant risks identified by John Chan concerned with timing: "Unrealistic expectations being set with the client" with an impact date of 24 July 2000 and "Proposed milestones not achievable" with an impact date of 3, 4, 7, 9 and 18 months. The action to be taken was to "*Agree milestone definition, [Critical Success Factors] and project scope by 18/8/00*" and "*Agree new set of milestones and assumptions for each*".
826. In my judgment, this risk list showed that John Chan thought that unrealistic expectations, as to what would be achieved when, had been set by EDS with Sky and that the proposed milestones were unachievable.
827. I consider that these risks reflect the fact that EDS had not properly analysed the timing of the project. These risks had become apparent to John Chan and, as a competent project manager, he brought them to the attention of EDS management.

The risk list provides support for the findings I have made as to the basis of the time estimate and as to the knowledge that Joe Galloway must have had at the time but does not suggest that John Chan was acting dishonestly in any way.

***The Red Team Review***

828. The Red Team Review was conducted by Steve Dowle and Gary Hill of EDS on 21 August 2000. They were given a large amount of information relating to the project including the August Risk List, John Chan's resource plan dated 20 August 2000, a project plan dated 18 August 2000 and a draft milestones document, together with the EDS Response.
829. In addition, during the course of their day long review, they interviewed and had discussions with: John Chan, Dan Barton, Gerard Whelan and Steve Vine. Steve Dowle, who led the review, had been involved with the VRB process, the Youd Andrews session and commercial matters for the Sky project. He was a senior person within EDS and Elwyn Jones' superior. Although Joe Galloway criticised him as a "naysayer", the evidence from Elwyn Jones was that he was competent and knowledgeable. In addition Gary Hill gave evidence before me and I found his oral evidence to be fair and balanced.
830. John Chan accepted that the Red Team Report reflected the concerns of the team at the time. The report was distributed to Joe Galloway, as well as to Steve Leonard, Barry Yard, Elwyn Jones and Jonathan Malin. In addition, it was later provided to Laurence Anderson, who in turn provided it to Steve Mayhew. John Chan referred to the report at the meeting on 24 August 2000 and at paragraph 73 of his first witness statement said that he had provided Scott Mackay with "the Red Team action document" and believed he had handed the document out at the meeting on 24 August 2000. It seems very likely that Dr Chan made reference to the "actions arising" sheet from the Red Team Review because the bulleted paragraphs in the "Briefing on Red Team Review" section of the minutes of the meeting on 24 August 2000 follow those actions closely. Certainly there is no reaction from the Sky personnel at the meeting and if a copy of the Red Team Review itself had been made available it is extremely unlikely that Sky would not have raised concerns at its contents.
831. The Red Team Report dealt with a number of matters. The key issue was identified as control of scope. The "no 2 concern" was "availability of staff - quantity and skill sets" The conclusion was that the Red Team was impressed with the progress made by John Chan and the project team. However, they said:

*"...overall the Project must be regarded as High Risk at this time. The major reasons for the assessment are:*

- Status of contract negotiations*
- Lack of precise definition of scope*
- Shortage of staff - quantity and skill sets*
- Imposed business critical time scale*

- *Vulnerability due to over dependence on single individual within client organisation*
- *Aspects of technical solution (new/untried software, legacy system interfaces, data migration)*

*Given the relatively immature state of the overall programme plan and the significant risks that have been identified it is recommended that a further review be carried out prior to signing any contract for this work with B Sky B."*

832. The Red Team Report also dealt with scope and timescale. Under the heading of "Scope" within the "Issues" section, it was noted:

*"The project is required to deliver to pre-determined and business critical time scales. However, the scope, both in business and content terms is not yet well defined. The consequence of this is that it is not yet possible to determine whether the project is deliverable in the required timescale. What is clear is that none of the team interviewed believe that a solution can be delivered in Manchester by 1 April 2001 that is likely to meet the totality of the anticipated client requirement.*

*Action: EDS must take a proactive approach to defining the scope, concentrating on making maximum use of "out of the box" functionality, phasing delivery to provide minimum business critical solution by 1 April 2000 and managing client expectations to achieve this. It is essential that EDS ensure that scope is something that we can confidently deliver in the timescale, and the longer it takes to arrive at this agreed scope the less we shall be able to achieve in the time remaining."*

833. The conclusions of the Red Team show two things relevant to this aspect of the case. First, by 21 August 2000 EDS did not believe that they could deliver the scope to Sky in the timescales set out in the Response. Secondly, there was a real and immediate concern as to the availability of resources in the quantity and with the skills required.

834. The unachievability of dates in the Red Team Review was pursued further in emails in September:

- (1) In an email of 11 September 2000 sent to Joe Galloway, Gerard Whelan, John Chan, Barry Yard, Steve Mayhew, Jonathan Malin and Terry Daniels, Laurence Anderson recorded as follows:

*"I believe the key issue is not budget but timescale. Mile [Mike] Hughes has stated that timescales are critical, but our team has stated that the programme timescales (April delivery) are unachievable - as acknowledged to the red team three weeks ago. My suggested way forward is to identify with the customer a "minimum business critical solution" which is affordable,*

*achievable in the timescale, and can be reliably costed prior to contract signature. All the rest can be addressed as options. This was the red team recommendation. Does such a “minimal solution” exist? If you don't succeed in de-scoping the initial contract, the TCV will be such that we have to go to Finance Committee for sign-off, and on present form they would chuck us out.”*

- (2) In an email of 16 September 2000 addressed to Joe Galloway, Steve Leonard, Steve Mayhew, Chris Jenkins, Laurence Anderson and Jonathan Malin, Barry Yard wrote:

*“Joe - At the Red team review your team admitted that the April delivery date could not be met. Since the client does not want to move the deadline the challenge was to descope to a level where we are satisfied that delivery can be achieved.”*

835. Joe Galloway's evidence was that his view at the time was wholly different to that expressed by those working on the project. I do not think that is true. Rather, he did not wish to accept what was being said as it reflected the fact that the timescales in the EDS Response had not been properly calculated, as he knew.
836. Gerard Whelan, who participated in the Red Team Review, suggested that the conclusions of the Red Team did not accord with his recollection but said that, by this stage, he had moved from the delivery side of the project and was not in a position to contradict the views of the delivery team as recorded in the Red Team Report. He accepted, though, that the August Risk List and the Red Team Review, together with the Laurence Anderson email referred to above, reflected a consistent message that the team considered that the programme timescales were unachievable. He said that it was his recollection that this appreciation came only in the beginning of August 2000. I consider that this is likely to be correct.
837. John Chan evidently had become aware of the problems with an unachievable timescale prior to 24 July 2000. As a project manager he clearly raised the issue in the risk list and, as it was his role to manage the project, he looked for ways in which the problem could be overcome. That seems also to have been the approach of the Red Team Review and of Laurence Anderson and Barry Yard. It was a problem which had to be dealt with by finding a solution. That, I consider, is the usual reaction of those involved on a project. It seems that there was no review of what had been done at bid stage to reach the conclusion that the timescale was achievable at the time of the EDS Response. Without that and without finding out that there was no proper basis for the time estimate at that stage, I do not consider that the way in which others at EDS dealt with the situation can be criticised.

*Joe Galloway*

838. Joe Galloway, with the title of managing director of the relevant part of EDS was evidently the main person at EDS who was involved in the estimating process to provide that information to go into the EDS Response. He compiled the Costing Spreadsheets which contained the detail of the effort, the overall resources and then the cost of the project. It is clear that he took responsibility for the overall contents of the EDS Response and was involved in and well aware of what was happening in relation to estimating the duration, including the work of Steve Vine.
839. Having seen the way in which Joe Galloway gave his explanation, I am far from impressed by the assertion that he had discussions with the consortium partners and that this enabled him or the bid team to take a view that the nine month period was achievable. I am very doubtful that any relevant discussions took place and Joe Galloway's evidence seemed to develop as it became obvious that the Vine Plans would be a woefully inadequate basis for a bidder to represent that they can achieve go-live in nine months and complete delivery in 18 months.
840. I consider that Joe Galloway approached the whole question of the time to achieve go-live in a cavalier fashion. As the person with the title of managing director, he was the main person involved in the estimating process. His evidence as to what had been done in relation to the time estimate shows that he was aware that no proper attempt had been made to assess whether go-live could be achieved in 9 months and complete delivery in 18 months. His approach was to ignore the need for analysis. I am driven to the conclusion that he proffered timescales which he thought were those which Sky desired, without having a reasonable basis for doing so and knowing that to be the position. He knew that no proper analysis of time had been carried out and he knew that he had no basis for saying that go-live could be achieved in nine months and complete delivery in 18 months. Indeed, he said that he did not consider the timescales to be sufficient. I consider that his reaction to the Red Team Report provides support for this finding. In my judgment his conduct went beyond carelessness or gross carelessness and was dishonest. I consider that he acted deliberately in putting forward the timescales knowing that he had no proper basis for those timescales. At the very least he was reckless, not caring whether what he said was right or wrong.
841. Although it is not necessary to establish motive, motive provides support. Joe Galloway was quite clearly anxious to further his career. He was ambitious and to achieve a successful bid with Sky for the CRM Project would provide him with an opportunity to demonstrate his abilities to those in EDS. It was that motive which led him to say that he could achieve the Sky CRM Project in the required timescale when he knew that he had no proper basis for doing so. EDS say that there can be no motive in obtaining a project on the basis of times which cannot be met. I do not think he took that type of long term view. His wish was to be awarded the CRM Project and use that for advancement.

*Gerard Whelan*



842. I view Gerard Whelan's position differently. Whilst he was the bid manager and in that role was responsible for producing the EDS Response, he was very much a second string to Joe Galloway. The role he performed was more that of an administrative bid manager, co-ordinating matters, but not himself being involved in deciding what had to be done by whom for the purpose of estimating and putting in the bid. He received information from other people who had carried out the work and incorporated it into the EDS Response. He was also the conduit for communications between EDS and Sky. He appeared to be unable to believe that someone, probably Steve Vine, had not done the necessary analysis to establish that go-live could be achieved in nine months. He sought to look for support for a nine month period in Chordiant publicity and in other projects. I consider that he simply failed to spot that an essential part of the bidding process which he thought had been carried out had not in fact been done. He did not have the knowledge of Joe Galloway in relation to what was being done for the overall estimating process.
843. He was not a person who showed dishonesty or who, I consider, would be likely to be dishonest. He says in his witness statement that it had been intended that he would move onto other things if the Sky CRM Project was awarded to EDS and that he received no bonus or reward for achieving such an award. In my judgment, he did not know that a proper process had not been carried out. Given his role, I do not think he could be described as negligent in relation to the misrepresentation.
844. Subsequent to the submission of the EDS Response it is evident that Gerard Whelan became aware that the view was that the timescales were unachievable. By then he had moved from the delivery side of the project and does not seem to have been involved in management decisions. That may explain why he did not seek to investigate what had happened in making the estimate of time for the EDS Response. In any event, other people were then becoming involved in finding a solution. I do not consider that, what he came to learn in August 2000 provided knowledge which imposed liability for his actions when there was no liability prior to putting in the EDS Response.

***John Chan***

845. John Chan similarly is in a different position to Joe Galloway. He was introduced into the EDS Response as the Project Manager and was approached for this role at the last minute. He had no involvement in putting together the EDS Response and at the presentation on 1 June 2000 his evidence was that he sat outside and was not involved. He soon became involved and, like many project managers, had the difficult task of taking over the management of the project without having been involved in the bid stage.
846. His knowledge of the project was gained over the next two months. He started to prepare the necessary documents to manage the project, particularly after EDS knew, on 20 July 2000, that they had been awarded the Sky CRM Project and

from August 2000 when the Letter of Intent was signed, with effect from 24 July 2000.

847. He became aware that the nine month timescale was not achievable prior to the selection of EDS and the Letter of Intent. As I have said above he made his view of the position apparent and it can be seen that this is reflected in the Red Team Review and the communications from Laurence Anderson and Barry Yard. He cannot be criticised for that. Nor do I consider that he can be criticised for proposing a solution which was a similar approach to that of Steve Dowle and Gary Hill in the Red Team Review and Laurence Anderson and Barry Yard. There is no suggestion that he knew that there had not been any proper basis for the timescale in the EDS Response and he did not seek to cover up the position when he found out. I do not consider that the way in which he dealt with the situation can be criticised.
848. There is also a further aspect which is that he was not involved at the time the representation was made in the EDS Response or in making any other representation to Sky. Liability can arise where a person has “manifestly approved and adopted” a statement, with the necessary knowledge and intent. I have found that John Chan did not have the necessary knowledge or intent. But, in any event, I do not consider that any conduct on his part manifestly approved and adopted the false representation that a proper process had been followed to arrive at the time estimate. His conduct in acting as Project Manager did not demonstrate that he approved and adopted that representation. I therefore do not see any basis on which John Chan could have been made liable for the original representation.
849. For the reasons set out above I consider that EDS did make a misrepresentation that a proper process had been followed in arriving at the timescales in the EDS Response and that misrepresentation was known to be false by Joe Galloway.

#### **Inducement and Reliance**

850. It is evident that one of the aims of Sky was to achieve go-live within the nine month time period. It is clear from the evidence of Joe Galloway and Gerard Whelan that they wanted Sky to understand that they had made a proper estimate of the time within which EDS could achieve go-live. As it formed part of the EDS Response and was referred to in the email of 5 July 2000, the timescale and the fact that EDS had assessed it on a proper basis was intended by EDS to be relied on by Sky in deciding whether or not to select EDS for the Sky CRM Project. That is clear from the process and also the evidence of Joe Galloway and Gerard Whelan.
851. In coming to the decision to select EDS one of the factors which Sky took into account was timescale and the fact that EDS had reached their estimate of time on a proper basis. That is evident from the underlying aims stated within the ITT, from the discussions which took place before Sky selected EDS and from the evidence of those in Sky who were involved.

852. Accordingly, in making the misrepresentation EDS intended Sky to rely on it and to select EDS for the Sky CRM Project and Sky did so.

**Time and Cost: Representations in late 2000**

853. Although Sky submit that, in the case of deceit, the critical point at which the representations were made was the time of selection of EDS and entering into the Letter of Intent, they also rely on representations made later in 2000, prior to entering into the Prime Contract. It is therefore necessary to consider what representations were made at that stage.

854. In relation to time, as pleaded in paragraphs 42.9 to 42.12 of the Particulars of Claim Sky rely on the following statements:

- (1) The high level plan produced on 11 October 2000 after the planning exercise conducted by EDS where “New technology live in 1 hall” was shown as 6 August 2001.
- (2) The statement at a meeting on 13 October 2000 when Steve Leonard told Richard Freudenstein that EDS would deliver by the end of July 2001 and that EDS would use their global resources in the US to work around the clock in order to ensure that the system would go-live in one hall by the end of July 2001 or earlier.  
Sky say that such statements implied that suitably skilled and experienced resources were available to work on the project and that Steve Leonard had reasonable grounds for making such statement and that EDS held the opinion that EDS would deliver by the end of July and had reasonable grounds for expressing such an opinion.
- (3) The programme plan headed “Overall Project Programme As at: 24 October 2000” produced by EDS as a result of the planning exercise in which “eCRM ready for go-live” was represented by EDSL as 15 August 2001.
- (4) An estimate of the number of man-days of effort required for the project produced by EDS in or about October 2000 which came to form part of the baseline budget at Schedule 5 to the Contract. The estimate of effort for technology consultancy was 14,325 man-days and the estimate for programme management was 1,776 man-days.  
Sky say that EDS thereby represented that it had carried out a proper analysis of the amount of effort required.
- (5) Section 3 of the Preliminary Specification produced by EDS on 22 November 2000 which set out the following Milestones by which work was to be completed:
  - (a) Milestone 2, “New Business Design Complete”, which comprised “All Processes and Technology required to build SSSL eCRM have been defined and signed off”, with a Date for Acceptance of 15 January 2001.

- (b) Milestone 3, “Working Prototype Complete” which comprised “ECRM has completed development and integration testing. Ready for System Test Phase”, with a Date for Acceptance of 30 April 2001.
- (c) Milestone 4, “eCRM Live in One Hall” which comprised "System supports new customers in one hall through the following components" with a Date for Acceptance of 31 July 2001.

Sky say that EDS thereby represented that the Milestone dates in Section 3 of the Preliminary Specification were feasible and that they had reasonable grounds for believing that the Milestones could be achieved.

855. EDS say that any representations that may have been made in the period prior to the Letter of Intent were overtaken by events which occurred up to the signing of the Prime Contract on 30 November 2000. In particular, EDS rely on the fact that in October 2000 the project was changed in the following ways: the new contact centre in Manchester was abandoned; Sky decided that location and change management would not form part of EDS’ scope but that Sky would contract directly with AA for those aspects; EDS’ scope was limited to technology, process (which EDS sub-contracted to AA) and systems build (integration). Further EDS say that an overall budget of £65m was effectively imposed by Sky. EDS say that these events rendered the previous estimates of cost as well as time immaterial well before the Prime Contract.
856. EDS deny that it made representations in the period up to the Prime Contract. They place reliance on the joint planning session in October 2000 to negative Sky’s contention that there was any representation as to time in the period up to the Prime Contract. EDS say that as a result of the joint planning exercise, all parties were well aware that the “proper analysis” carried out jointly by EDS and Sky in October and November 2000 had led to a much later date and that EDS had committed itself to the earlier date in the expectation that it would be possible to produce a proper plan to fit it, but before any such plan had been produced. EDS say that, in doing that, EDS took considerable commercial risk but made no representations at all.
857. In order to deal with the alleged representations in late 2000, it is necessary to consider the background to the position in October 2000 leading to the joint planning session on 11 October 2000 and the dates put forward by EDS at that time.

#### **Background to the planning session on 11 October 2000**

858. The Letter of Intent envisaged a contract being entered into by 31 August 2000. Following the Letter of Intent EDS carried out further work including work by AA in the Process Workstream. The main task was to carry out further work on the scope and cost of the project. By 12 September 2000 Barry Yard was reporting internally that the “size of the deal now that scoping is close to

- completion looks more like £100m for all activities.... This also requires us to manage client expectation since the bid price was much less. We may also have to get the client to agree to a reduced scoping for timeline delivery purposes as well as budgetary constraints.”
859. At about this time Sky became aware of this. On 13 September 2000 Richard Freudenstein in an email to Steve Leonard referred to costs provided to him by Mike Hughes in draft form. He commented: “The numbers are stupid!!! If they do not become realistic, this project will not go ahead. I am at a loss to understand how EDS could quote a number around £50million and then have numbers close to double that now appear.”
860. There followed a meeting between Richard Freudenstein, Mike Hughes, Joe Galloway and Steve Leonard on 18 September 2000 at which the suggestion of producing a number of different options of scope and cost was discussed. Meetings then took place between Sky and EDS which led to Joe Galloway providing Scott Mackay with eight options on 21 September 2000 which were forwarded to Mike Hughes. Those options showed a cost ranging from £60.81m (Option 6) to £113.66m (Option 1).
861. After further refinement of the options, the Sky Board decided on 4 October 2000 to choose one of those new options, Option 5, which meant that the new contact centre at Manchester would not go ahead and that the project would be limited to refurbishment of Livingston and Dunfermline. Mike Hughes was allocated a budget of £65m.
862. Matters could then proceed to the signing of a contract and EDS were looking to the contract being signed by 13 October 2000. The perception of the situation as set out by Chris Jenkins of EDS on 4 October 2000 was “*Please make no mistake, this is a mess and we are fighting to come out with our shirts!*” In preparation for the envisaged contract signing, Chris Jenkins said that he wanted to give Steve Leonard “*a fair degree of comfort about what he may sign*” and asked to be provided with information. Barry Yard was to brief Steve Leonard on 11 October 2000 and on 9 October 2000 he emailed Joe Galloway to say “*I must have from you your personal assessment of our ability to deliver what we have on the table.*”
863. Once the option had been chosen and the budget had been set, there was a need to consider what the timescale would be for the new option. A re-planning exercise was planned which Tim Gardner of AA described in an email of 28 September 2000. This exercise started with a Re-Planning Kick off Workshop on 6 October 2000 and led to a critical path workshop on Wednesday 11 October 2000.
864. In an email of 9 October 2000 Tim Gardner set out the purpose of the Critical Path Workshop which was going to take place from 1:00pm to 5:00pm on 11 October. The purpose was:

- *to agree the critical path for all milestones*
- *to compare this critical path with the Exec Committee expectations*
- *to think out of the box to identify additional opportunities to reduce the expected timeline*

865. The Executive Committee expectations were, it seems, noted down by Andy Waddell and appeared to include the delivery of the CRM platform in 9 months by 1 May 2001. This, it seems, means 9 months from the end of July 2000.

### **The planning session on 11 October 2000**

866. The critical path workshop took place on Wednesday 11 October 2000, although some witnesses incorrectly referred to it as taking place on 10 October. The meeting was attended by representatives of Sky, EDS and AA and took place at Sky's offices in Dunfermline. It was referred to as a brown paper exercise as it appears that the participants drew out the programme on brown paper sheets and they used post-it notes to put information onto it. It is common ground that the outcome of the meeting was that the go-live date would now be November 2001.

867. It seems that this came to the attention of Mike Hughes who had been keeping in touch with the planning process. He had a meeting on 11 October 2000 with Scott Mackay, Dan Barton and Tony Dean and posed some questions to, it seems, Dan Barton so that he could understand the difference between the Thomas Cook CRM project and the Sky CRM Project. Tony Dean says that Mike Hughes had to defend himself with senior Sky management over promises he had made over dates. Tony Dean adds at paragraph 51 of his first witness statement that Mike Hughes *“was fighting to stick to the August 2001 date to ensure the project was delivered prior to the pre-Christmas rush. At the meeting, Mike emphasised that this was an absolute requirement for Sky. He was not giving way on this.”*

868. Mike Hughes also had a conversation with Joe Galloway in which he said that he had been told that delivery was going to take 12 months, that is until November 2001 rather than the nine months. The November 2001 date was later than Mike Hughes wanted and this led to Joe Galloway going up to Dunfermline on 12 October 2000 to “sort it out”.

### **Joe Galloway's visit on 12 October 2000**

869. There are a number of discrepancies in the evidence about the detail of what happened when Joe Galloway was in Dunfermline on Thursday 12 October 2000 and I have already dealt with the “car park” conversation in relation to what was said to Scott Mackay when he met Joe Galloway later that day. There is no doubt as to the outcome of Joe Galloway's visit. A programme was produced which had a number of dates on it, including “New Technology Live in 1 Hall” by 6 August 2001. There was therefore a reduction of some 3 months from the date derived at

- the critical path workshop on 11 October 2000. This programme forms the first statement relied on by Sky as giving rise to the representation.
870. What was the process by which the dates, including the 6 August 2001 go-live date, were produced on 12 October 2000?
871. In his witness statement, Joe Galloway refers to a conversation with Mike Hughes on about 10 October 2000 in which Mike Hughes was concerned that delivery of go-live was going to take 12 months and *“said that this was not what we had agreed and that he needed something in the six to nine month range”* and *“that I needed to ‘do something’ to sort this out.”* This led to Joe Galloway going up to Dunfermline on 12 October 2000 to sort the position out. This appears to be common ground with Mike Hughes’ evidence.
872. Joe Galloway said that what he was doing in producing the 12 October 2000 plan was as follows:
- “what I was looking at is the scope of what they had put up in the programme and how much contingency is built into that and had a discussion with them about removing the significant amounts, and I do mean significant amounts of contingencies that I saw in the programme”.*
873. He said that he asked the team to plan for no more than 5% contingency instead of somewhere around 15-20% contingency which he thought was included. He said that the exercise he was doing was a perfectly proper one, in which he removed contingency and increased the degree of parallelism, and that he proceeded on the basis that resources and resourcing would not be an issue.
874. His explanation of the events of 12 October 2000 was as follows:
- “When I went to Sky on the 12th I looked at the plan that was in place; I talked to my people, told them that they needed to remove the contingency, that we needed to plan for parallel activity, that I was directed by Mr Hughes and his direction for Sky to deliver something in the late July/early August time frame. I’ve since, when I was putting my witness statement together, noted that Mr Hughes says almost identically the same thing, and that the team needed to act on that the rationale that we had a time boxed delivery of late July/early August to deliver something and that is very straightforward, that is the accurate view of whatever and it was done at the behest of my client, Mike Hughes.”*
875. Gerard Whelan had flown to Scotland with Joe Galloway that day, but said that he was not directly involved in the plan or any of the events surrounding it. He was aware of disquiet about the cutting back of the plan but was clearly taken aback when, in evidence, he realised what had been said by Melanie Haydon in the amendments to the risk register. John Chan addressed this episode in his first

- witness statement. He says that Joe Galloway was forthright and said that he had worked on similar projects before and from this experience he believed he knew how long such a project took to complete. John Chan also says that Joe Galloway explained that, based on his own experience and knowledge, it would be possible to work to a July 2001 date and EDS had now committed to a July 2001 date. John Chan's view was that November 2001 would have been a challenge. He adds *"However none of us were able to persuade Joe. I recall that Dan Barton did discuss the date with Joe but unsuccessfully. Joe was firm about the date and reiterated that he had done it before and he could do it on this project."*
876. Richard Durling's evidence on the events of 12 October 2000 in his witness statement was that later in the morning he had a meeting with Joe Galloway in Mike Hughes' office with Dan Barton present. There was a short discussion about the plan, which Dan Barton had on his laptop. Joe Galloway told him that the November 2001 date was not acceptable and that Sky needed the system to be delivered by July 2001. He understood that the July 2001 date was the date Mike Hughes insisted on. He says that the meeting with Joe Galloway developed into a heated discussion, because he refused to sign up to a go-live date of anything less than November 2001. He says that Joe Galloway said that Mike Hughes had told his board that the project would be delivered in July and that he had told Mike that EDS would deliver to that date. Richard Durling said that EDS would not do so.
877. In cross-examination Richard Durling explained that he was called in by Joe Galloway and *"was effectively told that I didn't know what I was talking about and that he knew better and the date was going to be July and I would do well to listen"*. He said it was *"very much of a raised voices meeting"*. He described it additionally as a *"heated exchange"* and a *"fairly rancorous meeting"*. He accepted that Joe Galloway was *"riding roughshod"* over his views as leader of the technology team. He said that he had *"been yelled at, effectively by my boss"* and had *"yelled back"*. He was evidently shaken by the experience and said that he did not do anything much for the rest of the day. He said in relation to the plan produced on 11 October 2000 which gave a November 2001 date that: *"We knew that that plan for November had some risks, every plan does and there was a degree of parallelism within that plan already established to arbitrarily bring it back to July. We failed to understand how that could be done."* When asked why Joe Galloway was doing this he said that *"He didn't want to tell Mike Hughes that it wasn't going to be July"*.
878. Melanie Haydon had amended a risk list which John Chan had circulated on 9 October 2000 asking for comments. The version made on 12 October 2000 containing Melanie Haydon's comments, ("the October Risk List") was explored in cross-examination with a number of EDS witnesses. She added to it: *"The Plan and resources will be artificially manipulated to commit to deliver within the budget"* with immediate impact. This obviously referred to what had happened when Joe Galloway arbitrarily chose the date of 6 August 2001.



879. In her witness statement Melanie Haydon said: *“the response of the group to Tony Dean was that we had planned the project for November 2001 and a July 2001 go-live date was not achievable”*. Her oral evidence in relation to the events of 12 October 2000 was unsatisfactory and, at first, she did not even accept what she had stated in her witness statement. Whilst, generally, she was a fair and honest witness, she was reluctant to accept in oral evidence the meaning and effect of what she had written at the time. I consider that having written what she did and realising the obvious impact of that evidence on EDS, she tried to characterise it in a different way and one which was patently unsupportable. She was evidently furious at the actions of Joe Galloway in October 2000. She was, after all, a very experienced programme and project manager who had worked for EDS on a number of major assignments. She was brought into the re-planning process in October 2000 reviewing the plan which gave a go-live date of November 2001.

880. Her email of 15 October 2000 to Blair Eldridge included this passage:

*“I managed to speak to Tony Dean on Friday about the state of play and told him that I was singularly unimpressed with the way the plan had been chopped for presentation to the client. His line was that it was a marketing/sales ploy for the client, that's all very well but clients latch onto the timescales.*

*I expressed the view that the plan was now high risk as there was no contingency time and that I was not comfortable with Joe's behaviour on Thursday. I told him that I had made you aware of events.”*

881. From these comments it was quite clear that she regarded the plan as unachievable. By the use of the phrase “artificial manipulation” I consider that she was expressing both a feeling of what had happened and also a fear as to what would have to happen because of the conduct of Joe Galloway. In other words, she thought that the way in which the plan had been “chopped for presentation to the client” was not based on any sound analysis and the phrase “artificial manipulation” summed up her view.

882. Steve Fleming accepted that "chopping" the plan was going to and did make life impossible. Dan Barton in his witness statement stated that he disagreed with Joe Galloway's process, that he recognised that he was being ordered as to what to do. Karl Davies gave evidence to similar effect. Tony Dean was much more evasive in what he would accept about the events at the time.

883. The programme was sent by Scott Mackay to Mike Hughes by email on the afternoon of 12 October 2000 together with the response from Dan Barton to “Mike's Questions”. Scott Mackay said:

*“1. milestone version of the plan. You will note that this is a revised version from that which we talked about yesterday evening in your office. I*

*have not been involved in the discussion to drag the dates back in so I do not fully understand the rationale. Joe, however, is happy with this timeline.”*

884. Mike Hughes’ evidence of the events of 12 October 2000 was that he received Joe Galloway’s revised project plan by email from Scott Mackay. He says that his recollection was that Joe Galloway was quite confident about it and that he had removed contingency and come up with a more realistic date.
885. In putting forward that date to Sky in those circumstances, I consider that Joe Galloway was impliedly representing that EDS had carried out a proper analysis and held the opinion on reasonable grounds that they could deliver the CRM Project in that timescale.

#### **Events subsequent to the 12 October 2000 plan produced by Joe Galloway**

886. The next major step was to be the meeting between Richard Freudenstein and Steve Leonard at Sky’s offices in Osterley on Friday 13 October 2000. In preparation for that meeting Briefing Notes had been prepared by Steve Mayhew of EDS for Steve Leonard. They had been sent to Sky and were amended by Keith Russell of Sky on 12 October 2000. In addition there had been the meeting on 11 October 2000 for Barry Yard to brief Steve Leonard on the basis of Joe Galloway’s personal assessment of EDS’ ability to deliver.
887. The evidence from Richard Freudenstein of what happened at the meeting on 13 October 2000 is contained in his witness statement where he says that he cannot directly recall the meeting but adds that he has seen the briefing note and “*this matches my own recollection of what he was telling me at that stage*”. In cross-examination on Day 10 he said that Steve Leonard “talked about the commitment of delivering the timeline” and that “He was giving me a commitment to hit the 31st July timetable”. He said that it was not a contractual commitment he wanted but a commitment from Steve Leonard to deliver by 31 July 2001 and the contract would then reflect that as much as it could. He was aware that there was some debate about scope and that this would affect the budget figure. He said he was working on the basis that there was a plan, an estimate and timeline based on that plan.
888. Steve Leonard deals with the meeting of 13 October 2000 in his second and third witness statements. In his third witness statement he says that he does not have a recollection of the meeting but would not have said that he would use global resources to meet any date. On Day 64 he was cross-examined but evidently had no recollection about what was said at the meeting. He said that the briefing note consisted of points to consider. He said he did not recall the specifics when the statement about July 2001 was put to him. When he was shown the contract which stated under Milestone 4 “eCRM live in 1 Hall” on 31 July 2001 and was asked to infer that he was talking about July 2001 in the meeting on 13 October 2000 he

said he would not have “been across the detail” but could see what the information was showing. He agreed that what he was communicating to Richard Freudenstein was what he was intending to be in the contract.

889. Richard Freudenstein and Steve Leonard tried their best to recollect what was said at the meeting on 13 October 2000. Neither was able to recall precise details of the discussion. It was clear that Richard Freudenstein was relying heavily on the EDS briefing note and Steve Leonard was not able to recall what was actually said. The note referred to “*We will deliver by July*”. It is overwhelmingly likely that Steve Leonard gave Richard Freudenstein the July 2001 date at the meeting although the precise date of 31 July 2001 may be based not on Richard Freudenstein’s recollection of what happened at that meeting but on subsequent events leading up to the Prime Contract. There is no doubt that the July 2001 date came from Joe Galloway and he accepted as much.
890. Work on the Preliminary Specification had been started by EDS in September 2000 and had then been discussed with Sky. The first draft Preliminary Specification had the title “Contractual Scope” and was produced on about 1 November 2000. The authors were Richard Durling and Heather Winter of EDS. A further draft was produced on 6 November 2000. At that stage, whilst Section 3 of the document had a description of Milestones, there were no dates for the Milestones, apart from Contract Complete, with a date of 8 November 2000.
891. A further draft, referred to as a Release Draft, was produced on 14 November 2000. It added members of Sky as authors. It referred to an update being produced following a Sky/EDS review on 7 November 2000 and to the current version being a further update “following incomplete review” on 8 November 2000. That document included the following Milestones:

Milestone 2	New Business Design Complete	15/01/01
Milestone 3	Working Prototype Complete	30/04/01
Milestone 4	eCRM Live in One Hall	31/07/01
Milestone 5	BSkyB eCRM Integrated Technology Solution	30/11/01
Milestone 6	Operational Handover	01/02/02

892. On 14 November 2000, Scott Mackay distributed that Release Draft to a number of people at Sky, EDS and AA. He referred to it as being “*the contractual scope for the EDS elements of the Sky CRM programme*”. He stated that there had been wide authorship and that a final review session had been held involving Sky and EDS that morning to tie up loose ends. He added that “*this is the currently agreed version*” and that it was the master version for legal review.
893. The next version of the Preliminary Specification was that incorporated into the Prime Contract which is relied on as being a further statement giving rise to the representation.

894. In addition to the Preliminary Specification, a number of programming exercises were produced, including one of 24 October 2000 which is relied on as giving rise to the representation. That is described as “*CRM Project Overall Project Programme As At: 24 October 2000*”. It shows at line 65 a Milestone of eCRM ready for go-live of 15 August 2001. From the emails exchanged at the time it can be seen that this was a draft for comment. Indeed the copy of the document has manuscript comments on it some of which formed the basis for an email from Sky’s Nicola Simpson of 25 October 2000 in which she set out her initial thoughts on the plan.
895. Equally, there were further plans produced. Another plan also dated 24 October 2000 provides “New E-CRM live” on 1 August 2001. Other plans in November 2000 show later dates in November 2001. I do not consider that the programme of 24 October 2000 can properly be said to be a statement giving rise to a representation. They were sent as drafts in the further planning process and not as documents which contained or could have been understood to contain representations.
896. The way in which the planning process culminated was in a planning workshop on 29 November 2000. On 24 November 2000, Deb Chakravarty (the Sky Programme Director) sent an email to the AA, EDS and Sky managers and workstream leaders in relation to an “Integrated Programme Plan Review”. He referred to the fact that “The Exec Steering Committee have certain expectations regarding the programme milestones dates”. In particular he referred to the following Milestones:

Milestone	Date
1. Contract Complete	Now
2. New Business Design Complete	15th January 2001
3. Working Prototype (e-CRM Development and Integration Testing complete and ready for system test)	30th April 2001
4. e-CRM operationally ready for one hall (New customer only)	31st July 2001
5. e-CRM fully live in all halls with all customers (New & Old)	30th November 2001
6. Operational Handover	1st March [2002]

897. He then referred to the next stage of the process. He said that “*As a team we must work together to ensure that these expectations are reflected in the integrated programme plan*”. The process was to be:

- (1) Refine Integrated Programme Plan Detail: Individual workstream leaders were to continue to work with Diane Cheyne of EDS to refine the existing

integrated programme plan and on Monday 27 November 2000 she would forward a copy of the integrated plan to all workstream leaders/owners.

- (2) Integrated Programme Plan Analysis: During Tuesday 28 November 2000 individual workstream leaders were to analyse the integrated programme plan. They were to identify “*potential areas of conflict within the plan and possible solutions to resolve[them]*” and “*key plan issues and risks*”.
- (3) A workshop was organised for Wednesday 29 November “*with the objective of reviewing the integrated programme plan to understand what actions are required in order to align the plan to the Executive milestone dates.*”

898. This process was carried out and a planning workshop was held on 29 November 2000 at which Sky, EDS and AA were represented. Later that day Tim Gardner of AA, who had been at the workshop, circulated to Sky, EDS and AA a document setting out “*CRM Programme Milestones as identified in the Planning meeting today.*” That document set out the following milestones:

1) Contract signed		
2) New business design complete		15/01/01
3) Telephony <i>available for implementation</i>		01/02/01
4) Refit first hall <i>new furniture new hardware populated</i>	<del>01/04/01</del>	06/05/01
5) Delivery of working prototype <i>ready for system test end to end customer solution</i>		30/04/01
6) Refit second hall	<del>01/05/01</del>	18/06/01
7) System live in first hall <i>new customers only new technology people trained hall fitted</i>		(tba)
8) All halls refitted		15/11/01
9) Operation hand-over <i>all halls new system</i>		(tba)

899. According to Scott Mackay the planning meeting took place over two days. It involved about 25 people in the boardroom from all workstreams and all organisations. On 1 December 2000 Tim Gardner of AA again circulated a similar document by email to Sky, EDS and AA setting out proposed milestones as discussed in the planning meeting on 30 November 2000. That left the same dates as the previous one but changed “System live in first hall” to 16/11/01 and

“Operation hand-over” to “19/02/02 (to be confirmed)”, with “All halls refitted” as “25/10/01(to be confirmed)”. In the email Tim Gardner said “*Deb [Chakravarty] has asked that these dates are not to be widely circulated.*”

900. On 30 November 2000 in the middle of the day the Prime Contract was signed. That included dates for the following relevant milestones set out in Section 3 of the Preliminary Specification dated 22 November 2000:

Milestone 2	New Business Design Complete	15/01/01
Milestone 3	Working Prototype Complete	30/04/01
Milestone 4	eCRM Live in One Hall	31/07/01
Milestone 5	SSSL eCRM Integrated Technology Solution	30/11/01
Milestone 6	Operational Handover	01/03/02

### **Falsity of the representation as to time prior to the Prime Contract**

901. Sky submit that the representation in relation to the 31 July 2001 date in the Prime Contract was false.
902. In closing submissions EDS accept that, given that the joint planning exercise had produced significantly later dates, and work was still underway to fit the plan to milestone dates, it follows that, if EDS made any representation that the milestone dates were the product of a proper analysis or were reasonably based, then such representation was false. However EDS say that it must have been clear to all concerned that Joe Galloway’s new dates produced on 12 October 2000 were not the result of any coherent planning process.
903. In the light of that EDS do not seriously challenge the falsity of the representation which I have found they made. Rather they say that Sky did not rely on that representation.
904. On the evidence, I consider that Joe Galloway’s exercise in bringing back the date for go-live to 6 August 2001 was not based on any proper analysis and there were no reasonable grounds for holding the opinion that the project could be completed in accordance with the programme produced on 12 October 2000. It is also clear that this date led to Joe Galloway providing Steve Leonard with the July 2001 date which was set out in the briefing note for the meeting with Richard Freudenstein on 13 October 2000 and was communicated to him at that meeting.
905. It was also on that basis that the Milestone date for eCRM Live in One Hall of 31 July 2001 came to be in Section 3 of the Preliminary Specification which was incorporated into the Prime Contract.

### **Knowledge and Intent**

906. Sky submit that Joe Galloway “chopped” the plan on 12 October 2000 in a manner which he knew to be wholly improper and with the result that he produced a plan which he knew, given the views expressed to him by those members of the project team to whom he spoke, was unachievable. Sky say that he did so dishonestly and with intent to deceive because he wanted to meet Sky's expressed desire to achieve such dates, even though he knew that the only honest course of action was to present a plan in which he and EDS had an honest and genuine belief.
907. Sky submit that he did not have an honest and genuine belief in the 12 October 2000 plan, and yet he put it forward to Sky on the basis that it was a plan that EDS believed, on reasonable grounds, was achievable. Sky also refer to the fact that Joe Galloway accepted that he was responsible for Steve Leonard saying ‘we will deliver by July’ to Richard Freudenstein and they say that he intended Steve Leonard to make this statement and he knew and intended for it to be understood to be a statement of EDS’ opinion that carried with it an implied statement of possession of reasonable grounds for that opinion.
908. Further, Sky submit that Tony Dean and John Chan knew that the plan was being put forward to Sky on a false basis, and they manifestly approved and adopted this statement. As a result Sky say that Joe Galloway made a deceitful statement to Sky, which John Chan and Tony Dean adopted and approved.
909. EDS say that Joe Galloway’s instructions to Dan Barton and to Richard Durling were to produce such a plan that matched the dates but that is not to say that he did not believe these dates. EDS say that he believed that the July/August 2001 date was possible, and that the objections raised were misguided.

***Joe Galloway***

910. I see no basis on which Joe Galloway can have genuinely believed that the 6 August 2001 date obtained as a result of the 12 October 2000 planning session was the subject of a proper process. Nor do I think that Joe Galloway had reasonable grounds for believing that the timescales, particularly for go-live and overall completion could be achieved. The evidence of those involved in the process confirms this. Whilst Richard Durling says in his witness statement that Joe Galloway “*believed that the July 2001 date was possible and was not going to be convinced otherwise*”, in his oral evidence he said that the basis on which the dates were changed was that Joe Galloway did not want to tell Mike Hughes that go-live was not going to be July 2001. Given the background to Joe Galloway’s visit and the way in which the dates were changed, I do not accept that Joe Galloway can have had any genuine belief in the dates. He was merely arranging the dates so as to achieve the end date. Melanie Haydon’s statement of “artificial manipulation” provides confirmation that Joe Galloway carried out no proper analysis and had no reasonable grounds for putting forward the date of 6 August 2001.

911. Joe Galloway's instruction to Dan Barton and Richard Durling to produce a programme to match the dates is of no assistance to EDS' case. It confirms that he proceeded in a manner which he could have no genuine belief in by starting from the conclusion and making the programme fit, a process which the other people involved made it plain could and should not be done. Melanie Haydon was clearly right when she characterised what Joe Galloway had done in her email to Blair Eldridge as follows: "*the plan had been chopped for presentation to the client.*" She was also correct in reporting that Tony Dean had said it was and Joe Galloway knew that it was "*a marketing/sales ploy for the client*".
912. He was prepared to act in this way, deliberately providing a date to Sky which he knew had not been the subject of any proper planning process merely to provide the date that the client wanted to hear. He was also prepared to act in this way despite the evident strong disagreement with his approach and even the clear distress which such an approach caused for those who worked for him.
913. As a result, I conclude that Joe Galloway knew that the July/August 2001 was not based on any proper analysis and had no reasonable grounds for believing that go-live could be achieved by that date but despite that deliberately made the false representation. He had no genuine belief in what had been done and can have had no reasonable grounds for belief.
914. Joe Galloway's approach on 12 October 2000 also reflects on his general attitude to estimating time. He did not proceed by way of a proper process but was prepared to give a date which the client was seeking to achieve without having any proper basis for doing so. That, in my judgment, also supports the findings I have made as to his approach and attitude in relation to the time estimate within the EDS Response.

***Gerard Whelan***

915. Sky also say that Gerard Whelan was aware of the misrepresentations and manifestly approved and adopted them.
916. By October 2000 Gerard Whelan's role on the Sky CRM Project seems to have diminished. He did travel up to Dunfermline with Joe Galloway on 12 October 2000 but said, and I accept, that he was not directly involved in the relevant events that day. He was aware of disquiet within EDS at the cutting back of the plan but does not seem to have been aware of the way in which it was done. Certainly, by his reaction to Melanie Haydon's entries on the October Risk List, which I do not think he read or considered at the time, he is unlikely to have been aware of the position at the time.
917. In any case, it is not clear that there is any possible conduct by which he could have manifestly approved and adopted any representation.



***Tony Dean***

918. It is also alleged by Sky that Tony Dean knew that Joe Galloway's 12 October 2000 plan was being put forward to Sky on a false basis, and manifestly approved and adopted this statement.
919. He was involved in the Sky CRM Project as the Client Executive from mid-September 2000 but only seems to have become directly involved with Sky from 4 October 2000 when he went to Dunfermline and had a meeting with Scott Mackay. He was present at the meeting with Mike Hughes on 11 October 2000 when Mike Hughes raised concerns as to the time for go-live.
920. His evidence was, as I have said, evasive and he obviously did not want to accept his evident involvement in or knowledge of the events of 12 October 2000. In her email to Blair Eldridge, Melanie Haydon had referred to Tony Dean saying that the 12 October 2000 plan was "*a marketing/sales ploy for the client*". I consider that she was accurate in this and this shows that Tony Dean was aware that the 12 October 2000 plan was being put forward on a false basis. In a number of communications he showed that he was careful to guard EDS' interests and not disclose matters to Sky. I do not consider that this is evidence of dishonesty but was derived from a wish to protect the commercial interest of EDS. It is clear that he had further direct involvement in matters leading up to the Prime Contract but I do not consider that there is anything which changed his knowledge.
921. The question is whether he "manifestly approved and adopted" the representation by his conduct. Sky say that this derives not from any particular conduct but from Tony Dean's position as a senior EDS employee and the person with responsibility for their client relationship with Sky. They say at paragraph 458 of their closing submissions that given his involvement with relevant matters and his position on the CRM Project "his conduct communicated to Sky an endorsement of the representations made". I do not accept that general conduct not referable to the representation can be sufficient to convert Tony Dean's conduct into conduct which imposes liability for the false representation made by Joe Galloway.

***John Chan***

922. John Chan was involved in the discussions with Joe Galloway on 12 October 2000 and was aware from this and from the changes that Melanie Haydon made that there was no proper basis for Joe Galloway to put forward the dates in July/August 2001.
923. Again, though there is no conduct which, in my judgment amounts to a manifest approval and adoption of any representations.

**Inducement and Reliance**

924. An important aspect of the project was the time to achieve go-live in one hall and from the reaction of Mike Hughes to the November 2001 go-live date it can be seen that the date which Sky wanted was an earlier date, particularly for go-live in one hall. The whole purpose of Joe Galloway's visit to Dunfermline of 12 October 2000 was to see whether EDS could bring forward the dates which had been derived at the planning meeting on 11 October 2000, including bringing forward the date for go-live in one hall from November 2001.
925. As I have set out above I have no doubt that by making the misrepresentation Joe Galloway was intending to provide Sky with a date which would allow discussions between Steve Leonard and Richard Freudenstein to proceed to the signing of the Prime Contract. He therefore intended to provide Mike Hughes with the date on 12 October 2000 and Steve Leonard with the date for his meeting on 13 October 2000 to induce Sky to enter into the Prime Contract.
926. EDS say that Mike Hughes was aware that the amount of functionality at go-live was not defined but rather that the July 2001 date was fixed or "time-boxed" and that there were difficulties in matching the work to the "time-box". They refer to an email from Mike Hughes to Richard Freudenstein on 14 December 2000 after the Executive Steering Committee Meeting. He said that: "*...I know from your comments and body language that you are uncomfortable with elements of the plan and the timeline overall, as frankly am I....*". He then made some comments and said on Timescales: "*The time box we are attempting to fit the entirety of the program into is up to the start of peak (Xmas sales) 2001. As yet we have not been able to find the right formula to do this, since we built the detailed "integrated plan", some of the challenges we face are: ...*". He then referred to the need for time for testing and migration, the complexity of the project and importance of better documentation in the form of Gantt Charts.
927. EDS say that this comment makes it clear that Sky knew perfectly well that EDS had committed to the contractual dates before the joint teams had been able to find a way to fit those dates into a coherent plan. I do not agree. It seems to me that, first, it highlights that Richard Freudenstein was uncomfortable at hearing the new dates at the meeting, indicating that he was not aware that the date could not be met. Secondly, it mentions particular challenges in terms of testing and migration but not that EDS could not achieve functionality for go-live in one hall by the date Joe Galloway represented they could.
928. EDS say that it must have been perfectly clear to all concerned at Sky that Joe Galloway's new dates were not the result of any coherent planning process.
929. First EDS rely on what Graeme Hardie and Geoff Walters said. They rely on emails from Graeme Hardie on 12 and 16 October 2000 but these indicate that he was not aware of what had happened. He was aware that the joint planning session had arrived at the November 2001 date. He then said on 12 October 2000: "*I am concerned that you may now be given a plan from this session which has*

*not had full input from, nor review by, the original planners. Clearly if our staff have not seen this plan they will not be in a position to comment on its validity.”* In his email of 16 October 2000 he said: *“The dates you mentioned today are significantly changed from the last dates indicated to me by both my team and by Dan Barton. (Although, Dan indicated on Friday that dates had come in a little in a session to which neither Andy Waddell nor Scott Mackay were invited - I don't know why!) I'd like to understand what has changed to allow such a change in delivery dates.”* Both of these show that he wanted to understand the plan not that he understood that it had not been derived from any proper process. It is not evident that he later understood the plan.

930. His superior was Geoff Walters. In his evidence Geoff Walters said that he was not party to the discussion about pulling it back from November 2001 to July 2001 and could not recall his reaction when he heard about the date of November 2001. He expressed the view that it is heading for a disaster if *“commercial people take an arbitrary approach to pulling the timing.”* He accepted that this is what he understood had happened but it was not clear when he gained this understanding, at the time or more recently or how he had gained it. I do not derive support for Sky knowing prior to the Prime Contract that there was no proper process.
931. Mike Hughes said on Day 14 that his view of what Joe Galloway had done on 12 October 2000 was that he had looked again at the work plan, he had looked again at the resourcing and he had looked again at the approach. In paragraph 75 of his first witness statement he mentioned there being a “time box” with the time being fixed and the scope prioritised to meet that date. He also referred to his understanding that the RAD process was to be used. This indicates that Mike Hughes understood that Joe Galloway had followed a proper process in arriving at the 6 August 2001 date on 12 October 2000.
932. Secondly, EDS rely on the planning process which took place after 12 October 2000, leading up to the signing of the Prime Contract on 30 November. Plans which were produced on 24 October 2000 gave dates of 1 August 2001 and 14 August 2001. These were part of the planning process and subsequent plans produced in November 2000 gave dates in November 2001.
933. Deb Chakravarty, Sky’s programme manager emailed AA, EDS and Sky managers and workstream leaders on 24 November 2000 pointing out that the Executive Steering Committee wanted CRM operationally ready in one hall by 31 July 2001 and saying that a workshop was being organised for 29 November 2000 *“with the objective of reviewing the integrated programme plan to understand what actions are required in order to align the plan to the Executive milestone dates”*. On 30 November 2000 after that meeting the milestones circulated still showed that System live in one hall was 16 November 2001. Deb Chakravarty did not want those dates widely circulated. It is evident that the combined team of

- planners from EDS, AA and Sky had not been able to achieve a plan which gave a 31 July 2001 date.
934. What effect does this knowledge by members of Sky have upon the position? They knew that they had not yet been able to produce a detailed programme which showed a go-live date of 31 July 2001. The planning process was obviously continuing to see what could be done to align the go-live date with that date and by 29 November 2000 they had not been able to do so.
935. First, there is no evidence that the Sky representative carrying out the re-planning were aware of the fact that Joe Galloway had not carried out a proper process on 12 October 2000. They were aware that their process led to the initial plans of 24 October 2000 gave dates in August 2001 but that subsequent plans gave dates in November 2001. That did not mean that they were aware that no proper process had been followed by Joe Galloway to arrive at the 31 July 2001. Indeed the planning effort which was still continuing was trying to meet that date but had not yet been able to do so. Equally there might be other possibilities for why the planning effort could not achieve the same date as Joe Galloway. Joe Galloway might have made an error or made different assumptions and these would have explained why they could not meet the date.
936. Secondly, there is no evidence that Mike Hughes or Richard Freudenstein was aware that Joe Galloway had not carried out a proper process to arrive at the date of 6 August 2001. Nor do I accept that they were aware of the results of the planning effort, despite EDS' assertion to the contrary in paragraph 775(3) of their closing submissions.
937. Thirdly, EDS cannot escape liability on the ground of imputed knowledge. Whilst Sky would not be deceived if they actually knew the truth, it is no answer to an action in deceit that Sky might have discovered the falsity by the exercise of reasonable care: "it does not lie in the mouth of a liar to argue that the claimant was foolish to take him at his word": see Clerk and Lindsell on Torts (19<sup>th</sup> Edition) at para 18-34. Equally, I accept Sky's submission that there was no duty on those people in Sky to whom the misrepresentation had been made to carry out investigations with Sky personnel to see whether they might have concerns as to the basis on which Joe Galloway had made the representation.
938. EDS also say that Sky did not rely on the 31 July 2001 date as a representation but relied on it as a promise in the form of a contractual obligation under the Prime Contract. Whilst the date was a date included within the Prime Contract, it is clear both from the Executive Steering Group's requirements and from the approach of Mike Hughes that a central requirement was to have go-live in one hall in July/August 2001, if not earlier and certainly in advance of November 2001 and the busy Christmas period. The meeting on 13 October 2000 also reinforced this. Sky needed to know when go-live would take place not only as a matter of contractual commitment but also because that was a fundamental part of their

business strategy. As a result, it was the representation made by Joe Galloway, reinforced by Steve Leonard and ultimately included in the contract which was relied on by the relevant Sky personnel.

939. As a result, it is evident that EDS through Joe Galloway on 12 October 2000 and through Steve Leonard, based on information from Joe Galloway, on 13 October 2000 intended Sky to rely on the representation and enter into the Prime Contract. Sky did rely on the representation in entering into the Prime Contract and I reject the submissions of EDS to the contrary.

### **Representation as to cost prior to the Prime Contract**

940. In relation to cost, Sky rely at paragraph 46.3 of the Particulars of Claim on the following in the period in late 2000: *“During the course of the discussions leading up to signature of the Contract, further cost estimates were made which eventually came to form the baseline budget dated 21 November 2000 at Schedule 5 of the Contract. The representation made in the baseline budget was that a proper estimate of the costs to be incurred had been made and that such costs amounted to £19,751,000 for consultancy, before profit was added.”*
941. In relation to costs, Schedule 5 to the Prime Contract contained an important statement by EDS as to their estimate of EDS’ consultancy costs of the CRM project. As the document itself shows, EDS represented it to Sky as the budget which had been estimated by EDS for those consultancy costs as at 21 November 2000.
942. At this time the Preliminary Specification was being negotiated to define scope for the purpose of being included in the Prime Contract. An estimate of the number of man-days of effort required for the project produced by EDS in or about October 2000 came to form part of the baseline budget at Schedule 5 to the Contract. The estimate of effort for technology consultancy was 14,325 man-days and the estimate for programme management was 1,776 man-days. Sky say that EDS thereby represented that it had carried out a proper analysis of the amount of effort required.
943. The way in which that document was produced was not clear from the evidence. In closing oral submissions, Sky stated that this figure came from EDS and I was referred to a Sky email of 25 October 2000 from Penny Hicks to Laurence Anderson at Sky and Gerard Whelan and Steve Mayhew at EDS attaching a baseline budget of £63.872m. I was also referred to the project plan dated 24 October 2000. Sky submitted that the baseline budget could be traced back to Joe Galloway’s resource sheets but did not elaborate on this. In fact the document appears to be a comparison between a budget of 16 October 2000 of £60.418m and the “latest budget” of 25 October 2000. I do not gain assistance from these documents in showing how the baseline budget was traced back to an estimate by EDS.

944. EDS say that the Baseline Budget contained no express representation as to its effect and none can be implied. They submit that the budget simply provides the baseline for the operation of the risk sharing provisions of the contract which assume that the budget will vary. Whilst the underlying assumption for a reasonable person in the position of Sky would be that the Baseline Budget was a proper estimate of the consultancy cost of completing the project, I agree with EDS' submission that the way in which the Baseline Budget was incorporated into the Prime Contract on the terms set out, including Clauses 3 and 10, indicates strongly that they were not representing that they could and would deliver the project within that budget. Rather it was a budget which might be more or less than the actual cost of the CRM Project.
945. I therefore consider that, whilst it would be implied that the budget had been prepared on a proper basis, I do not consider that it would be implied that EDS held the opinion or had reasonable grounds for an opinion that they could and would deliver the project within that budget. For the reasons set out above I am not persuaded that Sky have established that the budget was not prepared on a proper basis.

#### **Summary as to Representations on Time and Cost**

946. It follows that in the time leading up to the selection of EDS and the Letter of Intent, EDS misrepresented that they had carried out a proper analysis of the amount of elapsed time needed to complete the initial delivery and go-live of the contact centre and that they held the opinion that, and had reasonable grounds for holding the opinion that they could and would deliver the project within the timescales referred to in the Response.
947. In relation to the time between the Letter of Intent and the Prime Contract, EDS misrepresented that they had carried out a proper analysis of the amount of elapsed time needed to complete the initial delivery and go-live of the contact centre and that they held the opinion that, and had reasonable grounds for holding the opinion that they could and would deliver the project within the timescales referred to in the Contract.
948. Those representations were made by EDS based on deceit by Joe Galloway who dishonestly made those misrepresentations knowing them not to be true. The representations were made both before the selection of EDS and the Letter of Intent and also in October 2000 prior to the signing of the Prime Contract. They were intended to be relied on by Sky to induce them to select EDS and enter into the Letter of Intent and then subsequently to induce Sky to enter into the Prime Contract. Sky did rely on those misrepresentations and was induced to select EDS, enter into the Letter of Intent and the Prime Contract. EDS is accordingly liable to Sky in deceit for fraudulent misrepresentation.

## **Liability in respect of Representations: Liability of EDSC and Liability to BSKYB**

949. Whilst EDS accepts that EDSL would be liable to SSSL for any representations that it made, it does not accept either that EDSC would be liable or that there was any liability to BSKYB Ltd. I turn to those issues.

### **Liability of EDSC**

950. EDS contend that EDSC cannot be liable for deceit based on any misrepresentation which they say would have been made by EDSL.

951. Sky contend that EDSC is liable in deceit because of EDSC's involvement in the following ways. Sky say that the question of the contracting party is not relevant and rely on Langridge v Levy (1837) 2 M & W 519; affd. 4 M & W 337. They say that the relevant question is: were the representations made to Sky made by or on behalf of EDSC?

952. Sky say that the Response, together with the Appendix Document and the Technology Document, were produced and issued on behalf of both EDSC and EDSL. They rely on evidence produced by EDS which shows that EDSC organised itself, promoted itself, marketed itself and presented itself to third parties as a single global organisation, comprising, at the time, four Lines of Business. They say that the policy of EDSC, which all its subsidiaries, including EDSL, were required to follow was that the whole organisation was known as "EDS" in order to persuade prospective customers that such global resources, experience and expertise would be made available to them should they contract with "EDS". Sky say that it was the intention and effect of this policy that third parties would understand that they were dealing with EDSC so that EDSC's subsidiaries and their employees were held out by EDSC as being authorised and were in fact authorised, to act as EDSC's agent, and to present themselves as acting on behalf of EDSC.

953. As a result, Sky submit that the individuals responsible for the representations made both within the Response, Appendix and Technology Document acted on behalf of, and were authorised or held out as being authorised to act on behalf of, both EDSC and EDSL in making representations so that both EDSC and EDSL are liable for their fraudulent misrepresentations.

954. Sky also rely on the fact that specific representations were made by Steve Leonard to Richard Freudenstein in October 2000 and that Steve Leonard was acting on behalf of EDSC to finalise the terms of the agreement to be entered into between SSSL and EDSL. Steve Leonard met and spoke directly to Richard Freudenstein to provide him with assurances and comfort on the part of EDSC and they say that this makes EDSC liable for deceit in respect of those particular representations.

955. EDS contend, in summary, that the Response and accompanying documents were produced on behalf of EDSL only; that EDSL was the company tendering for the

- contract, and Sky was at all times aware of this; that those responsible for the production of the Response were employees of EDSL so that EDSC is not responsible for their statements and cannot have their knowledge imputed to it and that EDSC did not make the representations alleged, which were made by EDSL in materials produced in pursuit of a contract for which EDSL was tendering and Sky could never have understood to the contrary.
956. The Response was produced by a team led by Joe Galloway and with Gerard Whelan as the bid manager and named as the point of contact.
957. Whilst Gerard Whelan and the other EDS personnel were employed by EDSL, Joe Galloway had the title of “Managing Director” of the CRM Practice for the EMEA region, within the e.solutions line of business. He says that he was employed by EDSL. He reported to Barry Yard who was the head of e.solutions in the UK who, in turn, reported to Steve Leonard who was employed by EDSC.
958. The question is whether Joe Galloway and Gerard Whelan in putting forward the EDS Response and other documents were acting on behalf of EDSC as well as EDSL. Equally, when Steve Leonard became involved the question is whether he was acting on behalf of EDSC as well as EDSL. He signed the Prime Contract and Letter of Agreement for and on behalf of EDSL.
959. As Sky point out the EDS Response, in line with EDSC policy, was expressed in terms of EDS and not EDSL or EDSC or any other company. It is now quite common for multi-national companies to decide that from a branding point of view all companies within a group should use the same logo and refer to themselves by a name which is neutral as to the particular company but demonstrates an affiliation with a large group consisting of a group company and subsidiaries. I do not consider that this means that when an employee uses the EDS logo or refers to himself as acting on behalf of EDS, he is acting on behalf of not only the company which employs him but also on behalf of EDSC any more than the employee would be acting for all other companies in the group. I do not consider that the corporate policy on branding gives rise to authority for the employee of a company to act other than on behalf of that company. It may make for uncertainty but that does not create actual or apparent authority to act on behalf of any party who might be authorised to use the logo and the name EDS.
960. Joe Galloway had a regional role in Europe, the Middle East and Africa which was wider than his role in respect of EDSL. He doubtless had authority to act on behalf of other EDS subsidiary companies in the region. His authority to act within the region would either come from those companies or from EDSC. The fact that such authority may have come from EDSC would not mean that he was given authority to act generally on behalf of EDSC. EDSC may, for instance, authorise someone to act on behalf of EDSL but that does not mean that the person is then acting on behalf of EDSC. Equally, the fact there was a reporting line from EDSL to EDSC in one direction does not mean that there is authority



- passing down the other way from EDSC authorising EDSL to act on behalf of EDSC.
961. In the EDS Response, it is clear that reliance was placed on work carried out by the EDS group and resources of the EDS group to give confidence in the ability of EDS to carry out the Sky CRM Project. This is most clear from Section 6 of the EDS Response. In doing that the employees of EDSL who produced the Response were not putting in the EDS Response on behalf of EDSC or any other company within the EDS group. They were relying on the ability of the EDS group to show that EDSL had the ability. They were not representing that they were acting on behalf of every company in the EDS group.
962. Clearly, the fact that a party enters into a contract after a representation does not mean that that party is the only party who may have made a representation. In this case when the parties put their mind to who should be the contracting party as a result of the EDS Response, both in the Letter of Intent and in the Prime Contract they decided that the contracting party should be EDSL. In addition in the recitals to the Prime Contract they referred to the EDS Response being issued by the Contractor, that is EDSL. The absence of mention of EDSC in that context and the fact that there is no mention of EDSC being involved in the EDS Response in the recitals to the Deed of Guarantee between EDSC and SSSL provides some support for EDS' submission that EDSC did not make representations in the Response.
963. The fact that Steve Leonard of EDSC was involved in the major stages of signing the Prime Contract and Letter of Agreement raises the question of whether he was acting on behalf of EDSC in that role. It is clear that when he signed he was acting on behalf of EDSL. There is nothing to show that he was acting on behalf of EDSC as well. The fact that he had a role within EDSC does not mean that, without more, he was making representations on behalf of EDSC. I do not consider that what he said to Richard Freudenstein on 13 October 2000 was said by him on behalf of EDSC. It was said on behalf of the contracting party, EDSL.
964. As a result, the representations which were made prior to the selection of EDS and the Letter of Intent and also prior to the Prime Contract were, in my judgment, only made on behalf of EDSL and not on behalf of EDSC.

**Liability to B Sky B**

965. EDS accept that representations were made to SSSL but submit that no representations were made to B Sky B, so that B Sky B has no claim against EDS.
966. Sky say that the ITT was, as is apparent from its face, issued by "B Sky B" which is the first Claimant, B Sky B. Whilst Sky accept that the ITT also referred to "Sky Services", the internal division within which SSSL sat, they say that the ITT described the requirements of B Sky B. Sky say that the EDS Response was directed at B Sky B and refer to the Letter of Agreement where it was expressly

- stated in paragraph 13 that the business benefits that were expected to flow from the CRM system would be enjoyed by ‘SSSL and/or British Sky Broadcasting Limited’. Sky also say that, throughout their dealings with Sky, it is apparent that EDS understood they were dealing with BSKyB, which was generally referred to as ‘Sky’ or ‘BSkyB’, rather than considering that they were dealing with a subsidiary, SSSL, alone.
967. Sky also rely on the fact that the Letter of Intent was entered into by EDS with BSKyB and not with SSSL and that it was at a comparatively late stage that SSSL was identified as the appropriate contracting party. It was therefore BSKyB who entered into the Letter of Intent with EDSL and the representations would found liability to BSKyB in deceit.
968. EDS submit that whilst SSSL was a representee, the question is whether BSKyB was also a representee. They point out that the ITT was put together by Scott Mackay and employees of SSSL. They also say that whilst BSKyB was a party to the Letter of Intent, the more significant point is that when the parties came to consider who should be a party to the Prime Contract, it was SSSL who was chosen. They therefore submit that BSKyB was not a representee.
969. The question of which party is a representee depends on whether EDS intended to make the fraudulent misrepresentation to BSKyB, whether individually or by reference to a class of person to whom BSKyB belongs. It is a question of fact whether EDS intended BSKyB to rely on the false statement and, in practice the test is often whether it was in EDS’ interest that BSKyB should rely on the statement: see Clerk and Lindsell on Torts (19<sup>th</sup> edition) at 18-30 to 18-31.
970. In the present case the ITT was generally written by reference to the requirements of “BSkyB” without defining which party that was. There was reference to Sky Services which includes SSSL and Sky Home Services Limited. The EDS Response was phrased by reference to BSKyB. There was no definition of which companies within the Sky group which were defined as “BSkyB”. Those involved in the ITT, in receiving the EDS Response, in discussions with EDS and in dealing with the Letter of Intent were both employees of SSSL and BSKyB, with a good deal of overlap between those two companies. The same is true of the lead up to the signing of the Prime Contract. In principle that would mean that parties with the Sky group were, as a class, intended to rely on the representations. I consider that the Letter of Intent signed on behalf of BSKyB indicates that EDS intended one of the companies to be BSKyB. Equally, by signing the Prime Contract with SSSL, I consider that EDS intended another of the companies to be SSSL. The aim of EDS was to be selected initially, then to have a Letter of Intent and then enter into the Prime Contract. In those steps the two parties who EDS intended to rely on anything they said, including the representations, were both BSKyB and SSSL.

971. On that basis, EDS intended both BSkyB and SSSL to rely on the misrepresentations.
972. Accordingly the misrepresentations which I have found were made, were made by EDSL alone but were made to both BSkyB and SSSL.

### **Representations as to Proven Technology and Risk**

973. Sky allege at paragraph 33 of the Particulars of Claim that EDS made representations as to the use of proven technology (“the Proven Technology Representation”) in these terms:

*“EDS Ltd and EDS Corp represented that the Chordiant, Arbor BP and Forte Fusion technology they intended to deploy as the solution to the requirements set out in the ITT was proven technology (in the sense that there was nothing novel or untried about it i.e. EDS Ltd/EDS Corp had used such products together before successfully on similar projects or alternatively that the three products had been successfully integrated together at least once by someone somewhere).”*

974. Originally Sky alleged that EDS “also represented that Forte Fusion was the best product for the job and that they had reasonable grounds for so stating” but, as set out in paragraph 172 of Sky’s supplemental closing submissions, this contention is not pursued by Sky.

975. Sky also allege at paragraph 34A of the Particulars of Claim that EDS represented that:

- “(i) They had the technical experience, knowledge and expertise to integrate and implement the proposed technical solution that they had recommended and that such experience, knowledge and expertise would be available and applied to the project; and*
- (ii) It was their opinion, for which they had reasonable grounds, that the implementation and integration of the proposed technical solution would not expose the Claimants to significant risk in terms of cost or delay.”*

976. The representation in paragraph 34A(i) is part of the resources representation. The representation in paragraph 34(ii) which concerns risk is considered below as “the Significant Risk Representation”.

### **The Proven Technology Representation**

977. Sky allege that EDS represented that “Chordiant, Arbor BP and Forte Fusion... was proven technology.” Sky define “proven technology” as there being “nothing novel or untried about it”. They further say that what this means is that EDS “had

*used such products together before successfully on similar projects or alternatively that the three products had been successfully integrated together at least once by someone somewhere.”*

978. EDS contend that the particulars given by Sky of the representation do not give rise to the representation alleged. They say that when they were stating that “*Chordiant, Arbor and Forte Fusion technology were proven technology*” they were merely expressing an opinion that *each* component was proven and that no representation was made as to any experience of combining all three products within a single solution. EDS also say that Sky understood that such an integration had not previously been carried out.
979. So far as falsity is concerned, it is accepted by EDS in their closing submissions at paragraph 674 that, if EDS represented that EDS had used Chordiant, Arbor BP and Forte Fusion together, that was false as EDS had not done so. It is also common ground that if EDS represented that they knew or had proof that Chordiant, Arbor BP and Forte Fusion had been integrated together before by someone somewhere, that is false as EDS had no such knowledge or proof.
980. The main issue is therefore whether the Proven Technology Representation was made.
981. Sky rely on statements derived from the EDS Response, from the CD handed over and the presentation made by EDS on 1 June 2000 and from the letter of the 18 June 2000 from Joe Galloway to Richard Freudenstein. Many of those statements include a reference to “proven technology” being used in the solution which EDS were proposing in the EDS Response. For instance at section 1.2 of the EDS Response it is stated that EDS’ approach was based on principles which included “*Use proven leading edge technology that will support full integration of process, people and information*”.
982. Sky rely on the reference to “proven technology” as being a reference to a “proven solution” and they say that this is supported in Gerard Whelan’s witness statement at paragraph 75.2 where he states that one of Sky’s high-level business drivers was the “*desire for the solution to be ‘proven’*”. However, in his witness statement Gerard Whelan then noted that there was a contradiction between Sky’s desire for a “leading edge” solution and its desire for a solution that had to be proven. He says that EDS interpreted “*proven solution*” to mean that EDS needed to offer a solution which could be supported by reference to previous experience of this type of project. He refers to the fact that this led to the choice of Chordiant. This does not mean, though, that the whole solution had to be proven in the sense that Chordiant, Arbor BP and Forte Fusion had previously been used or integrated together. Rather it meant that the solution had to be based on proven technology.
983. In cross-examination when Gerard Whelan was taken through the statements relied on by Sky to found the representation he was asked whether looking at

those statements and what he had understood Sky wanted and what he said about Cable & Wireless, did he agree that the message being given was: “that the solution itself is proven”? He said that it was not the intention to communicate that all these components had been put together in that form.

984. I do not consider that the statements relied on by Sky as pleaded in paragraphs 34.1 to 34.12 of the Particulars of Claim reasonably bear the meaning that there was to be a proven solution in the sense that all the components had to have been integrated by EDS or someone else before.

985. This is supported by my reading of the ITT which, it must be recalled, was produced by Sky to set out its requirements. There is nothing in the ITT which suggests that a proven solution was required. At paragraph 3.5.1 of the ITT Sky said that they had the following specific requirements:

(1) At 3.5.1.7: *“Critical to the response is a listing of all products considered to deliver the solution. Specifically, for each product (application or hardware) proposed a list of their proven functionality and details of reference sites where the proposed features are currently in use must be presented.”*

(2) At 3.5.1.9: *“The complete solution will come from more than one supplier in all probability. The response must indicate the ability of the successful partner organisation to manage these disparate technologies into a single solution that creates a seamless customer experience. Clear demonstration that all proposed products within the architecture can and will coexist in the context of BSkyB is necessary as is commentary on how data will be reconciled and managed within the solution.”*

986. It must also be remembered that the “solution” included not only Chordiant, Arbor BP and Forte Fusion but also the Sky legacy systems. Nobody suggests or could suggest that a proven overall solution which includes these legacy systems could possibly have been envisaged.

987. In summary, I do not consider that what was being said in the statements can properly be read as meaning either that the overall solution, including the legacy systems, or even a solution limited to Chordiant, Arbor BP and Forte Fusion, had previously been used or integrated together. There is certainly no suggestion that EDS said that they had done so or that they knew or had evidence that others had done so.

988. If, however, I am wrong and the statements could be interpreted as meaning that Chordiant, Arbor BP and Forte Fusion had previously been used or integrated together, was that what EDS intended it to mean and what Sky understood it to mean? In the alternative, did EDS phrase it ambiguously so that it could reasonably be understood to mean what Sky understood it to mean?

989. Gerard Whelan's evidence in paragraph 79 of his witness statement and as confirmed in his oral evidence is clear. He says "*We did not however suggest that the combination of products contained in our proposal were together proven, but rather that the individual constituent products were proven and suitable for integration*". He made it clear that it had not been the intention to communicate that all the components had been put together in that form before. Joe Galloway's evidence was to similar effect.
990. On that basis and from my own reading of the statements, I am satisfied that EDS did not intend those statements to mean that Chordiant, Arbor BP and Forte Fusion had previously been used or integrated together. Did EDS, though, phrase the response ambiguously so that it could reasonably be understood to mean that? For the reasons given above, I do not think so. Even if the phrase were to be ambiguous, I do not see that the references to proven technology or the other wording can be said to have been written so as to be ambiguous. Rather it seems to me that EDS were addressing the particular matters which were set out in the ITT and there is nothing in the ITT which required a proven solution in the way in which Sky interpret it.
991. In any event, I am not persuaded that Sky understood the statements in the way in which they contend they did. Sky in its written closing submissions rely on the evidence of Andy Waddell and Richard Freudenstein to demonstrate that Sky understood the representation to mean that Chordiant, Arbor BP and Forte Fusion had previously been used or integrated.
992. First, Andy Waddell in his first witness statement at paragraph 23 explained that he wrote section 3.5 of the ITT and says that the issues in relation to proven software and proven interoperability were rehearsed in section 3.5.1, '*Specific Requirements*', specifically at paragraphs 7, 8 and 9. He says at paragraph 22 of that witness statement that whilst Sky wanted the "vision" he describes and that a leading technology solution would be required to achieve it, Sky were also concerned that what they were buying was proven and not "*bleeding edge*". He added that, by definition, a best of breed package would be proven software. However, he was also concerned that the interoperability of the software was proven.
993. In cross-examination he explained that he was not a software developer or a middleware expert but by reference to the EDS Response it was his understanding that in respect of Chordiant, Arbor BP and Forte Fusion, EDS was saying that they had done it before and it was proven. He said that he thought that the EDS Response contained "*fairly positive statements of proven, integrated, best of breed products that are typically recommended. To me, that says we have done it before.*"

994. I consider that Andy Waddell's understanding that EDS "had done it before" cannot be extended to an understanding that this meant that they or others had previously integrated Chordiant, Arbor BP and Forte Fusion together. He drafted section 3.5 of the ITT which, as I have said, did not make a previously proven solution one of Sky's requirements. If he had intended that the solution or parts of it had to have been used and integrated together previously then the ITT should have stated that. It appeared that he was making a leap, as was suggested to him in cross-examination, in assuming that the only way a bidder could be confident that the components of the solution could be integrated would be if they had done it before.

995. Secondly, Richard Freudenstein said in paragraphs 23, 31 and 33 of his first witness statement that Sky wanted a solution "*based on proven technology*"; that the presentation on 1 June 2000 referred to "*proven leading edge technology in relation to the technical architecture*" and that in the EDS Response EDS were "*proposing a solution based on proven technology*". He then added at paragraph 39:

*"On the basis of what EDS said at the presentation on 1 June 2000 and in the Response, it appeared to me that the solution which they proposed (i.e. Chordiant, Forte Fusion and Arbor) was based on proven technology, in the sense that it was not new or untried from their viewpoint either in terms of the individual products or the overall architecture."*

996. In cross-examination, until it was pointed out to him that there were legacy systems as part of the solution, he said he thought that EDS had been asked whether the whole solution had been tried before. He then said that he did not recall anyone saying specifically to him that Chordiant, Arbor BP and Forte Fusion had all been integrated together before. He said that it was his "*understanding of the process that we went through, that they had given that assurance*". I did not find Richard Freudenstein's evidence on this aspect convincing. It was not clear whether he thought EDS had said that the components had been integrated before, which is not supported by other evidence, or whether he understood it from what had been said in the EDS Response and at the presentation on 1 June 2000. As I have said, neither the ITT nor the EDS Response would lead to an understanding that there was a "*proven solution*" rather than individual "*proven technology*". Nor would what was said at the presentation on 1 June 2000, as pleaded at paragraph 34.10 of the Particulars of Claim lead to that conclusion.

997. The matter was also dealt with by other Sky witnesses. Martin Stewart who was BSKyB's Chief Financial Officer put the matter more tentatively when he said at paragraph 19 of his witness statement that:

*"The Executive Summary in EDS' Response, which I believe that I would have read, refers to using proven leading edge technology, which I would*

*have taken to mean that the technology proposed by EDS was proven both in the sense that EDS had used the technology before and that the overall solution was not previously untried.”*

998. In cross-examination, he said that he believed he “would have read” the executive summary because that is what he generally did. He then said that his *“clear understanding at the time is that EDS was proposing a technology solution that was proven in the round. They knew that all the different component parts worked together. That was the understanding I had quite clearly from the presentations and the executive summary and conversations and briefings I received from Sky staff at the time.... And as a result of the EDS presentation, the second one which I did attend.”*
999. Martin Stewart then said that what Sky were looking for was a solution that worked in its entirety. He added *“There was little point looking for individual components which may or may not work together irrespective of their own individual capabilities. So it was quite clear that what we were looking for was something which would function efficiently together and that was what we were asking EDS and that is what we believe that they told us they were proposing.”*
1000. He then went further and said that *“they actually told us that they knew these different component parts of the system, of which I can only remember a fraction of the different bits, did work together....The briefing to me was that different parts of this project, the different technical parts did work together.”* When pressed as to whether he was told they would work together or had been tried before he said *“I can't recall precisely which one; if you're going to force me to pick one, I can't recall.”*
1001. Martin Stewart’s evidence on this aspect I found to be unsatisfactory and it was clear that he did not understand the technical issues. I can only conclude that he had no clear understanding at the time in relation to the extent to which Chordiant, Arbor BP and Forte Fusion had been integrated or used together before.
1002. Fourthly, Mike Hughes in his first witness statement says that he recalls telling Joe Galloway *“that any proposal would need to be proven, in the sense that the overall technology solution should not have been untried.”* He also said at paragraph 27 that he *“impressed on EDS the need to make sure that any solution that they proposed was proven.”* He then says at paragraph 32 of this witness statement that what he said to EDS reflected his *“concern at the time which was to achieve a solution which was leading edge but which was nevertheless proven in view of the risks involved in implementing a previously untried solution.”*
1003. In cross-examination, his evidence of what he had told Joe Galloway was less clear. Whilst no criticism can be made of Mike Hughes not remembering the time or place of any conversation which took place eight years previously, his evidence differed from what he had said in his statement. When asked if he recalled telling



Joe Galloway he said variously, “I believe I did”, “I think I must have done” and “I firmly believe I did”. Evidently he did not have a clear recollection.

1004. Also, in cross-examination on Day 13 he said this about the requirement for a proven solution:

*“We wanted new technology but we didn’t want to be the first corporation to be trialling an individual component or set of components that had not previously been looked at. This was a business project. It wasn’t an R&D exercise”.*

1005. That does not amount to a proven solution. A proven component or set of components may both be examples of cases where the components have individually been proven. I am therefore left with the clear view that Mike Hughes was not correct in saying that he had said to Joe Galloway that he wanted a proven solution in the sense that Sky now allege. I note that this view also accords with Joe Galloway’s evidence.

1006. Fifthly, Scott Mackay said in paragraph 55 of his first witness statement that he had understood from EDS’ use of the word “proven technology” that *“the solution EDS was proposing was not new or untried – in other words that Sky wouldn’t be the guinea pig for a system where the components had never been developed before, with all the associated cost and time risks that that would bring.”* He said that he had also read the reference to Forte in section 6.4.1 to be a reference to Forte Fusion which would indicate that Chordiant and Forte Fusion had been used together before.

1007. In cross-examination, when he was asked about his witness statement he said this: *“No-one had ever took the time to say that these products have not been integrated before, so I left the bid process, and as I have said here, I did not go back to this in the same detail as I had in the main document as the technology workstream was not really my area of expertise. But my understanding was these guys had done this before.”*

1008. From his evidence, it is evident that Scott Mackay had no clear understanding of what “proven technology” meant or what it was that EDS had done before in relation to the products.

1009. Lastly, there was evidence that contradicted that understanding. Andy Waddell had produced or been involved in producing a series of questions and answers in Sky’s Information Technology Services (“ITS”) department’s evaluation of the bids. This included this observation in respect of EDS: *“How will components (existing and new) integrate? Most interfaces will be bespoke”*. Equally on the next page of the document it is stated under EDS that *“All interfaces are new bespoke development with the exception of PeopleSoft and Lucent. New interfaces include Chordiant to Kenan billing and Sky FMS.”* These comments in

- relation to the EDS Response indicate that the components had not been integrated before but would need bespoke interfaces, particularly when this is read with the comments made in relation to the other bidders.
1010. In addition, when Ian Haddon produced a presentation document for Richard Freudenstein in July 2000 concerning the appropriate billing software, he set out at page 20 of the presentation that Kenan's Arbor "*has never been integrated with Chordiant*" and that nor had Geneva been integrated with Chordiant before. Ian Haddon says in a witness statement at paragraph 10 that, in a meeting in early May 2000 he had been told by Barry Yard and a person from EDS' German office that EDS were in the process of implementing a Chordiant/Arbor system in Germany. In relation to the presentation he says that the presentation reflected a conversation with Mr Rainger of Kenan on 14 June 2000 in which Mr Rainger indicated that he was not aware of any such integration. He says that at the time of writing the presentation document, he did not know whether EDS had completed the integration of Chordiant and Arbor at the site in Germany.
1011. In cross-examination on Day 16 he accepted that if he had come away with a clear understanding that EDS had not just been in the process of integrating, but had successfully integrated Arbor and Chordiant then that should have been listed in the presentation as a strength of Arbor, rather than a weakness. Ian Haddon was unable to explain the contradiction. He said that his recollection was vague and that he suspected he was told at the second EDS meeting that there was not a completed integration. In the end he said that he could not definitively recall the position.
1012. Having reviewed the evidence from Sky witnesses and the documents in some detail, I am far from being satisfied that Sky understood EDS to be saying that Chordiant, Arbor BP and Forte Fusion had been used or integrated together before. The evidence in cross-examination exposed weaknesses in what had been said in the witness statements.
1013. As a result, I do not consider that EDS represented that there was a proven solution in the sense that Chordiant, Arbor BP and Forte Fusion had been used or integrated together before. That was not a meaning that the statements could bear. It was not what EDS intended and was not what Sky understood by those statements. Accordingly, I find that Sky's case based on the Proven Technology Representation fails.

### **The Significant Risk Representation**

1014. Sky allege at paragraph 34A of the Particulars of Claim that EDS represented that "*It was their opinion, for which they had reasonable grounds, that the implementation and integration of the proposed technical solution would not expose the Claimants to significant risk in terms of cost or delay.*"

1015. EDS deny in paragraph 87A of the Defence that there is any basis for this implied representation as to risk.
1016. This appears to be alleged to be an implied representation derived from the Proven Solution Representation to the effect that, as Sky put in paragraph 507 of their written closing submissions, *“the solution was not an unusually or notably risky one”*.
1017. The statements relied on by Sky to establish this representation are, again, those which they relied on to establish the Proven Technology Representation. It is evident that, in those statements, EDS stated that they were proposing a technical solution which would use proven technology. Nothing is expressly said in those passages about risks in terms of cost or delay and from the passages which have been relied on by Sky I do not see that, without more, such a representation would arise either expressly or by implication from the pleaded case.
1018. Sky say that, in relation to this representation, Gerard Whelan accepted that the representation had been made and that EDS had no reasonable basis for making it. They also say that Joe Galloway accepted that the representation had been made. This is not accepted to be the position by EDS. I now turn to consider the passages in the evidence of both Gerard Whelan and Joe Galloway relied on by Sky.
1019. Gerard Whelan was asked on Day 49 first whether he was intending to represent to Sky that the implementation and integration of the proposed technical solution would not expose Sky to significant risk in terms of cost or delay. He did not answer that directly but said that there *“is always risk. There are the technical risks which can be controlled by testing. We believed the solution could be delivered in the time and for the budget.”* It was then put to him that he would have wanted Sky to understand that EDS had reasonable grounds for believing that these products could be put together without putting at risk the nine months. He replied *“That’s correct”*. When his evidence is read together he was saying that there is always a technical risk but that he would have wanted Sky to understand that go-live could be achieved in nine months. It is not an acceptance of the “Significant Risk Representation” and the questioning was not based on the premise that the representation was made or to be inferred from the pleaded statements.
1020. It was then put to Gerard Whelan: *“As I have already said to you, I suggest that you did not in fact and you knew you did not in fact have any reasonable basis for making that representation, bearing in mind no proper evaluation had been done”*. His answer was *“Yes, the only evaluation or the evaluation that I recall was within the technical work stream”*. I do not consider that Gerard Whelan was agreeing to what had been put but was acknowledging that this was what had already and was again being put to him to which his former and current answer was that the only evaluation he could recall was within the technical workstream.

1021. Just before this line of questioning he had been asked whether he could point to anything which showed a proper evaluation of whether the products could integrate. He said he could not point to a proper evaluation by way of proof of concept or documentation but could recall the fact that the solution was discussed by the technical workstream. It was then suggested to him that he was *“fully aware as was Mr Galloway that putting together these products created a risk which you were not in a position to measure and so you were not in a position, honestly to say, we can implement this solution in nine months?”* He replied *“I certainly...did not feel we had a risk here. I was comfortable that the technical team were confident to make appropriate decisions and trust them accordingly.”* This shows that he was not accepting the proposition being put to him and was not accepting that the technical team had not carried out a proper evaluation. When viewed in context I do not consider that Sky’s reliance on Gerard Whelan’s evidence is well-placed.
1022. There is even less force in the submission that Joe Galloway made any concession. In cross-examination on Day 46 it was suggested to him that he *“must have wanted Sky to understand that you were satisfied that they could be integrated together”*. His response was *“Absolutely we could”*. The suggestion continued *“And that could be done without risk to the project?”* He replied *“Yes that is absolutely the case and that was absolutely a fervent belief.”*
1023. Joe Galloway later said this: *“We wanted them to understand that the technology that they were asking for was used on a very regular basis, that we used it on a regular basis, that we had consortium partners in the programme that believed that there was no issue with either the technical ideas or the integration of those technologies, so we wanted them to understand that the technology we were putting forward would work and it would work together.”*
1024. Those extracts go no further than stating a belief that the solution would work and that EDS wanted Sky to understand that. That is not equivalent to making a representation in the terms of the Significant Risk Representation.
1025. I do not consider that Sky can rely on this evidence to establish a representation. The statements relied upon say nothing about risk and whether there was no risk or no significant or other risk representation that time and cost would be exceeded. I am not satisfied that EDS made any representation in the form of the Significant Risk Representation. In any event, the pleaded basis for the representation being false is that the solution had not been proven in the sense that Chordiant, Arbor BP and Forte Fusion had been used or integrated together before. However, the expert evidence does not support that. Mark Britton at paragraph A211 of PA’s first report considered that the technologies were capable of integration but it was a matter of the amount of effort, the level of support from the vendors and the particular requirements of Sky. Robert Worden is of the same

- view as he considers that the ability to integrate was not a significant risk at the time of the EDS Response. I accept that.
1026. So far as Sky's evidence is concerned, it is not clear that Sky understood that EDS were making the representation or, as EDS submit, that Sky relied on it.
1027. For these reasons I am not persuaded that the Significant Risk Representation was made, based on the pleaded statements or that it would have been false. I have, of course, dealt above with two representations which relate to the question of cost and delay and do not consider that this adds anything to that.
1028. Accordingly, I find that Sky's case based on the Significant Risk Representation fails.

### **Representations as to Methodologies**

1029. The term "methodology" is used to describe a method or set of procedures for carrying out the necessary tasks on IT projects. In the context of the CRM project, there were two relevant sets of procedures, one for project and programme management and one to help manage the "lifecycle" of the IT project.
1030. For project and programme management there need to be procedures for managing the various workstreams and ensuring that they produce the necessary outputs or "deliverables" on time and to the requisite standards. This can be assisted by defining processes, having standard documents ("templates") for particular steps in the process and by planning or scheduling the necessary activities.
1031. Procedures to manage the lifecycle of an IT project are referred to as lifecycle methodologies or Software (sometimes System) Development Life Cycle ("SDLC") methodologies. The first stage is the definition of the IT requirements for the business. This is typically done by business analysts working with the business staff to produce specifications of functional and non-functional requirements. This then leads to the second stage when IT design and development is carried out where the requirements are translated into the necessary IT architectural and detailed design. That IT design is then transferred into programme coding to implement the design within the software. When that is complete it is necessary to carry out testing prior to implementation. Testing relates both to the individual units or parts of the software and also to the individual parts in combination and together.
1032. In principle, the lifecycle methodology can follow two paths. First, the lifecycle can follow a sequence in which each stage is completed before the next stage begins, often referred to as a "waterfall" methodology. The second type of lifecycle is one where there is parallel working and where there is more interaction between the IT staff and the business staff so that development takes

place in increments with feedback at each stage. One such methodology is called Rapid Application Development (“RAD”). RAD allows for the requirements to be produced jointly by the IT and business staff often using software tools that permit the rapid construction of prototypes of major parts of the system which can then be reviewed to ensure they meet the requirements of the business.

### **Representation**

1033. Sky contend in paragraph 37 of the Particulars of Claim that EDS’ bid team made a number of statements and representations concerning methodology and, in particular that EDS represented that they *“had developed powerful project management and SDLC methodologies suitable for this type of systems integration project which they intended to use to ensure that the project was completed on time and on budget. They also represented that the personnel to be used on the project were experienced in using such methodologies.”*
1034. In paragraphs 38.1 to 38.12 of the Particulars of Claim Sky set out the statements which they say give rise to the representation. These are derived from the EDS Response, the CD used at the presentation on 1 June 2000, a letter dated 18 June 2000 from Joe Galloway to Richard Freudenstein, the presentation on 7 July 2000 and Clause 7.2 of the Prime Contract. In the EDS Response, EDS set out statements about the way in which they intended to perform the project if they were selected. This included reference to methodologies.
1035. EDS accept in paragraph 98 of the Defence that representations were made in the documents set out in paragraphs 38.1 to 38.12 of the Particulars of Claim but deny that it made the representations alleged by Sky. Rather EDS accept that EDSL represented that:

*“.. it had powerful methodologies to support programme management, business transformation and change management. It also represented that such methodologies supported the “Customer Centric” approach to business transformation and provided a framework for delivering results. In relation to SDLC, EDS proposed an “iterative and incremental” approach...and its “initial thoughts” were that this would be “within a framework of EDS’ formal Transform methodology”. ... From and after the partnership with AA, and as noted at paragraph 38.11, EDS expressed the intention to use AA methodologies as well. The representations made by EDS Ltd in respect of methodologies were limited to the matters expressed in the documents quoted in paragraphs 38.1 to 38.12.”*

1036. Sky in their closing submissions refer, in particular, to the EDS Response at section 12 of the Technology Document, which contained a description of EDS’ *‘Development Approach’*. This explained:

*“Choosing the best development methodology is vital to the delivery of the project within allowed time and cost constraints. Whilst it is anticipated*

*that this selection will take place following discussions with BskyB's CRM Project Team, our initial thoughts lead us to recommend a rapid application software development process. This will operate through iterations within a framework of EDS' formal Transform methodology. A complementary project management approach, PM 2™ would also be utilised - see section 5.4 of the main document for details. Bringing these tried and trusted approaches to the project will ensure the enterprise can gather rapid momentum following project approval, ensuring timely delivery.”*

1037. Sky then refer to the description of “Transform” which is set out over the following three pages of the Technology Document, identifying its six different phases, and then explaining how “*rapid application development fundamentals*” fitted “*Within the overall systems development life cycle*”. Sky refer to a draft of the EDS Response and say that this is a description of the SLC3 methodology which had been developed by EDS and that the methodology differed from the Transform methodology which was a methodology which had been developed by SHL. Sky also contend that Transform was a methodology which EDS had inherited from SHL and which, by 2000, was no longer supported by EDS.
1038. Sky say in their closing submissions that the central representation communicated to Sky was that of an intention to use an SDLC methodology which they say was made deceitfully. They also originally relied on a representation as to project management methodologies which they say was made negligently. As confirmed in the oral closing submissions on Day 108, that allegation is no longer pursued.
1039. EDS say in their written closing submissions that the only material representation that was made was that EDS had various suitable methodologies that could be deployed on this project. They accept that there was a representation of intent to use one or more of those methodologies, subject to discussion with Sky and/or adaptation for Sky, but say that this representation of intent was immaterial, save perhaps as regards RAD as to which there is no allegation of falsity.
1040. Sky say that the representation involved the following elements: (i) that EDS possessed methodologies; (ii) that the methodologies had been developed by EDS; (iii) that the methodologies were suitable for this type of project; and (iv) EDS intended to use those methodologies.
1041. EDS accept that they represented that they had SDLC methodologies that were suitable for this type of systems integration project so it accepts that it made representations equivalent to elements (i) and (iii). It is therefore necessary to consider the other two elements.

### **Methodologies developed by EDS**

1042. Sky did not develop this contention in its closing submissions although correspondence between solicitors in November 2007 indicated that Sky still relied on this aspect. To the extent that it is still relied on EDS submit, correctly in my view, that the statements relied on in paragraph 38 of the Particulars of Claim are to the effect not that it had developed some methodologies but that it had various methodologies, not all necessarily developed in-house. The two particular methodologies which are referred to in the statements relied on by Sky are Transform and PM2. Whilst in relation to these two methodologies there are references to “EDS’ formal Transform methodology” (Technology Document Section 12) and to PM2 as an EDS corporate methodology (Response 4.3.4), it is only in the CD for the presentation on 1 June 2000 that it is stated that EDS has developed powerful delivery methodologies, apparently in the context of Transform. Otherwise references are to EDS having used or possessing those methodologies rather than EDS having developed them. In my judgment, the representation does not go as far as to say that EDS had developed all the methodologies which they possessed.

#### **Intention to use methodologies**

1043. The allegation is not that EDS intended to use a particular methodology in the form of PM2 for project management or Transform as a SDLC methodology. That is perhaps not surprising in the light of what EDS said in Section 12 of the EDS Technology Document: *“Whilst it is anticipated that this selection will take place following discussions with B Sky B’s CRM Project Team, our initial thoughts lead us to recommend a rapid application software development process. This will operate through iterations within a framework of EDS’ formal Transform methodology. A complementary project management approach, PM 2™ would also be utilised.”* This passage makes it clear that there was no firm intention to use particular methodologies but that it was anticipated that the selection would take place after discussions with Sky. It was therefore only EDS’ *“initial thoughts”* that Transform and PM2 would be used.

1044. In written closing submissions at paragraph 174.5 Sky put the matter, as follows: *“Joe Galloway and Gerard Whelan represented (and John Chan approved and adopted such a representation) that EDS intended to use an SDLC methodology (which was identified as Transform), when in truth, as at the date of selection/Letter of Intent, they did not in fact have such an intention.”*

1045. The statements relied on in paragraph 38 of the Particulars of Claim show that EDS intended to use both project management and SDLC methodologies but that EDS had not by that stage finally selected those methodologies. I do not read anything as saying that a single methodology would have to be used either for project management or for SDLC. Rather there is an indication, in particular in paragraph 4.3.4 of the EDS Response that several methodologies might be used and that these would be tailored to the needs of Sky. Further, it is clear from the



statements relied on in paragraphs 38.10 and 38.11 of the Particulars of Claim that methodologies used by Chordiant and Arthur Andersen would be used.

1046. I therefore consider that EDS made a representation that they had SDLC methodologies that were suitable for this type of systems integration project. Whilst there was a representation that they intended to use methodologies, there was no intention to use particular methodologies.

### **Falsity**

1047. Sky set out its case on falsity in paragraph 39 of the Particulars of Claim. In its written closing submissions at paragraph 553.6 they have narrowed the scope of their contentions and concentrated on a lack of intention to use methodologies. It is said that prior to the Letter of Intent “*EDS did not in fact intend to use Transform as the SDLC for the project, and it did not in fact have an intention to use an SDLC to govern and control the technical work to be undertaken on the project.*”
1048. In the light of the fact that there was no relevant representation that EDS intended to use Transform, Sky’s case is limited to a lack of intention to use an SDLC methodology.
1049. EDS set out in detail in paragraphs 715 to 721 of their written closing submissions their contention that they possessed methodologies which were suitable for the CRM project. Sky’s case on this is to a large extent based on the fact that EDS did not use a SDLC methodology and therefore it is to be inferred that they did not possess suitable methodologies.
1050. There are therefore three relevant questions related to falsity: did EDS have SDLC methodologies; did EDS have methodologies that were suitable for this type of integration project; and did EDS intend to use methodologies?

### **Availability of methodologies**

1051. The factual evidence, particularly that of Chris Moyer, shows that EDS had internal methodologies including PM2 for project management and SLC2 and SLC3 for lifecycle development. Transform, which was a methodology originating from SHL which covered both programme/project management and lifecycle development, was being evaluated and whilst no longer supported, it was still available for use. I am satisfied that, at the relevant time in 2000, EDS possessed methodologies.

### **Suitability of methodologies**

1052. There are some differences between the experts on the question of whether PM2 was in itself suitable for programme management but Mark Britton accepts that it could have been adapted to fit. Mark Britton is however of the view, as set out in paragraphs A217 and C168 of PA’s first report and his evidence on Day 74 that EDS’ Lifecycle methodologies would have been suitable. Robert Worden

considers that, particularly with the project and programme management capabilities of Transform, EDS' methodologies were suitable both for project and programme management and also for lifecycle development. There is no significant difference between the experts and I am satisfied that EDS possessed methodologies which were suitable for the CRM project.

**Intention to use methodologies**

1053. In relation to SDLC methodology, Sky rely on the inference to be drawn from the fact that EDS did not use an SDLC methodology during the project. It also relies on matters which it contends show that EDS did not intend to use Transform or SLC3 and did not have a suitable SDLC methodology.
1054. EDS' case is summarised in paragraph 712(3) of their closing submissions where they say that they did indeed have suitable methodologies for this sort of project (and it intended to use one or more of them).
1055. The allegation made by Sky is that EDS did not have the intention to use an SDLC methodology. The evidence from EDS' witnesses on this aspect was from Joe Galloway and Gerard Whelan. On its face it provides good and cogent reasons why EDS included the reference in the Response to methodologies and that they intended to use methodologies.
1056. The focus of Sky's challenge on the question of intention was twofold. First, they challenged EDS' intention to use Transform on the basis that the description of the Transform methodology in Section 12 of the Technology Document was in fact a description of EDS' SLC3 methodology. This, Sky say, shows an intention not to use Transform, a methodology which was produced by SHL and which, after SHL's move to EDS was not supported by EDS. Equally, Sky say there was no apparent intention to use SLC3 at any time. Secondly, they challenged any continuing intention to use Transform after John Chan became involved in the project. John Chan's name first became linked with the project on 11 May 2000. He was then approached to be Project Manager on 28 May 2000 and attended the presentation to Sky on 1 June 2000, albeit in a non-participating role. It is clear from the evidence of Gerard Whelan and John Chan that John Chan did not favour Transform. He focused more on the need for a project and programme management methodology and intended to use PM2 and not the parts of Transform which were applicable to those functions. He was not going to impose any SDLC methodology on the workstreams but was to leave it to them to select methodologies.
1057. The representation which is alleged to be false is a representation that EDS intended to use "*project management and SDLC methodologies*". I consider the evidence demonstrates that at the time of the EDS Response EDS intended to use project management and SDLC methodologies. Whether the SDLC methodology was Transform, SLC3 or some other methodology to be chosen by the workstreams, I am satisfied that EDS had an intention to use one or more SDLC

- methodologies. The proposal in the response, subject to further discussion with Sky, was to use Transform and PM2 methodologies as part of a rapid, iterative development application. John Chan intended to use PM2 and leave the choice of the methodology to the workstreams. He did not intend to impose Transform but clearly intended a SDLC methodology or methodologies to be used.
1058. Sky's challenge does not, I consider, go to the truth of the alleged representation. The description in Section 12 of the Technology Document of Transform is inaccurate because it has used the description of SLC3. All this shows, in my judgment, is that EDS intended to use some form of SDLC methodology rather than no methodology. Equally, the evidence that John Chan did not intend to impose any SDLC methodology but to leave it to the workstreams shows an intention to use an SDLC methodology or methodologies.
1059. The cross-examination of Gerard Whelan and John Chan was aimed at establishing that EDS did not have a continuing intention to use Transform but that is not the pleaded allegation or a representation which could be supported on the facts. In closing Sky tried to change the emphasis of its case to a representation that there would be "a single overarching methodology". They pointed out that the reference to "*project management and SDLC methodologies*" would encompass a case of a project management methodology and an SDLC methodology. However for Sky to proceed in closing on this basis would go against the way in which the case had been conducted. Further, Sky made comparatively late amendments to the pleaded representation and, if they had wanted to plead an allegation of "single overarching methodology" they should have made that clear. That case would have had difficulties in terms of the case pleaded in paragraph 38 of the Particulars of Claim as it is clear that Chordiant and AA methodologies would have to be taken into account. What the change of tack does show is that Sky's case on an intention to use "*project management and SDLC methodologies*" could not, as I have found be sustained.
1060. There was also an allegation by Sky that EDS' statement in section 1.2 of the EDS Response that "*Based on our experience, we expect that 80% of the implementation can be based on best practice templates we have developed*" was false because best practice templates for 80% of the implementation were never deployed and there was no proper basis for this statement. In Sky's closing submissions at paragraphs 556 to 561 it is relied on as being relevant to EDS' general attitude. This is not relevant to the alleged representation or to the question of falsity. In any event, the evidence from Gerard Whelan, Joe Galloway and Dan Barton indicates that this would be taken to mean that 80% of the software development would be based on Chordiant's out of the box functionality and materials from previous projects. Mark Britton accepts that 80% could be calculated on that basis but says that it would not be normal to refer to that in this way. I am not satisfied that this was a false statement or that it has any impact on the issues related to representations

1061. In the circumstances, I find that there was no misrepresentation as to methodology as pleaded in paragraphs 38 and 39 of the Particulars of Claim and Sky's case on this allegation fails.

**Summary: Misrepresentation prior to the Letter of Intent and the Prime Contract**

1062. For the reasons set out I find that EDS made fraudulent representations as to time both prior to the Letter of Intent and prior to the Prime Contract. I reject Sky's other allegations of misrepresentations.

**Further Representations before the Letter of Agreement**

1063. Sky rely on four negligent representations which they say were made prior to the Letter of Agreement. The representations relate to:

- (1) EDS' resources for the re-planned project;
- (2) EDS' under-estimate of the work completed and progress made;
- (3) The programme plan that EDS produced; and
- (4) EDS' analysis of the cost to complete.

1064. Sky say that in meetings between Sky and EDS in April, May and June 2001 EDS sought to persuade Sky that senior individuals were now working on and engaging in the project, that EDS understood why they had failed to date and that as a result they understood how to, and were equipped to, make the project a success going forward.

1065. In the course of those meetings, Sky allege that to induce them to continue the CRM Project with EDS, EDS made a number of misrepresentations negligently and in breach of a duty of care owed to B SkyB and SSSL. EDS admit that a duty of care was owed to SSSL and I have held that no duty of care was owed to B SkyB. EDS deny the content and meaning of the representations made and in any event, deny acting negligently.

1066. Sky say that, in reliance on these misrepresentations, together and individually, Richard Freudenstein took the decision in the second week of June 2001 that EDS should remain as Systems Integrator and that accordingly he made that recommendation to Tony Ball, which Tony Ball accepted. In light of that decision, commercial negotiations took place between Sky and EDS as to the terms on which EDS would remain in place as Systems Integrator and this led to the Letter of Agreement, which was ultimately signed by Richard Freudenstein and Steve Leonard on 16 July 2001.

1067. Sky allegations are set out in paragraph 68 of the Particulars of Claim. They plead that EDS falsely represented as follows:

- (1) As to **Resources**: that they possessed or had available to them the resources they needed to ensure that the project would be completed successfully in accordance with the revised programme plan and the revised budget;
  - (2) As to **Complexity and Completion** that the cause of the problems had been the bid team's under-estimation of the complexity of the project and that a significant amount of work had been completed which was of value to the project and would provide the basis for project completion;
  - (3) As to **Planning**: that they had a programme plan that was achievable and the product of proper analysis and re-planning; and
  - (4) As to **Cost**: that they had carried out a proper analysis of the cost of completing the project and that the estimated overrun against the budget baseline was £14.564 million.
1068. Sky contend that, but for those misrepresentations, they would have removed EDS as Systems Integrator at this stage in 2001, instead of waiting until March 2002 and would have replaced EDS with an alternative Systems Integrator ("ASI") to continue and complete the CRM Project.

1069. I shall deal with the four representations in turn.

### **Resources**

1070. Sky allege that over a period of four months between April and July 2001, EDS negligently made false misrepresentation as to resources. Sky rely specifically on statements made on six occasions:
- (1) at a presentation given by EDS at Sky's Osterley offices on 16 April 2001;
  - (2) in a letter written by Barry Yard to Mike Hughes dated 18 April 2001;
  - (3) at the presentation of the Phase 2 plan at the Marriott Hotel on 18 May 2001;
  - (4) by assurances given by Steve Leonard to Richard Freudenstein on or about 4 June 2001;
  - (5) in an email sent by Greg Hyttenrauch to Mike Hughes dated 7 June 2001; and
  - (6) at the Executive Steering Group meeting on 13 July 2001.
1071. EDS say, in broad terms, that, to the extent it made any representations, as opposed to promises, it represented only that certain requirements had been identified, some positions had been filled and that EDS reasonably expected to be able to fill any remaining positions and to meet any remaining resource requirements and that all of this was true.

1072. EDS say that there was a process of negotiation from April 2001 until the Letter of Agreement, in which various options were considered and the programme was replanned by Sky and EDS. EDS say that Sky seek to pick individual letters and presentation slides from that process to construct representations relating to proposals differing from those ultimately negotiated. Whilst EDS say that they conveyed to Sky a commitment to the project and determination to deliver, they say that this does not amount to the representation pleaded.
1073. EDS state that they supplied SSSL on a monthly basis with spreadsheets identifying the resources being employed on the project and accordingly, SSSL was well aware at the date of the Letter of Agreement of the number of resources then being employed.
1074. I now turn to consider the six individual statements which are alleged to amount to the representation.

***The Meeting at Osterley***

1075. Sky allege that on 16 April 2001 at the Claimant's premises in Osterley, Steve Leonard, Barry Yard and Greg Hyttenrauch represented to Mike Hughes, Scott Mackay and Andy Waddell that EDS would provide the right people to ensure that the programme was completed successfully. In fact from the email which was sent after the meeting, it seems that Steve Leonard and Barry Yard were not at the meeting or were not there for the meeting referred to in the email and that Peter Jeffs and Tony Dean were.
1076. EDS admit that they made the statement but say that it was a statement as to the future and at most a promise not a representation, and that even as a promise, it cannot have meant that the programme would be "successfully completed" in accordance with the revised project plan or budget, since, at that stage, neither had been drawn up. EDS also say it could not refer to the existing project plan or budget, because, as stated in the email of 16 April 2001, both parties recognised that these would have to be replanned.
1077. Sky say that, despite EDS' previous failure to source appropriately skilled resources for the project, the assurances made by Greg Hyttenrauch and senior EDS executives were taken at face value. At paragraph 175 of his first witness statement Scott Mackay says that he "*thought at the time that EDS certainly seemed to be bringing their big hitters from the senior levels of EDS management onto the project, and that they would be making available whatever resources were needed to get the project back on track*".
1078. Whilst, as admitted by EDS, they made a statement that they would provide the right people to ensure that the programme was completed successfully, I accept EDS' submission that this was a statement of future intent or, at most a promise, and this could not, of itself, amount to a representation. From the emails sent after the meeting it is evident that Sky expressed concern about the capability of some

EDS resources on the project and it was proposed that Mike Hughes, Tony Dean and Greg Hyttenrauch were going to meet to discuss this, later that week. I do not consider that this statement can found a case in misrepresentation.

***Barry Yard's Letter***

1079. The second representation relied on by Sky is contained in a letter sent by Barry Yard to Mike Hughes on 18 April 2001, two days after the Osterley meeting. In the letter, Barry Yard stated that *'Greg Hyttenrauch has been assigned to provide the necessary delivery oversight to bring the programme to a successful conclusion, together with an experienced team of people that will bring additional focus to the tasks at hand'*. Sky say that the representation implied that EDS had the right people available and that those people had been assigned to the project.
1080. EDS admit the content of the letter but deny that it gives rise to the implied representation contended for by Sky. They say that the letter represented only that Greg Hyttenrauch had been assigned to the project and that *"other experienced personnel had been or would be assigned to provide additional focus"*.
1081. EDS say that the implication contended for by Sky is presumably so as to allege that EDS represented that they had available the people who would be needed to complete the revised programme successfully and that such resources had already been assigned to the project. EDS say that this is not what the letter says and is inconsistent with the main point of the letter which was that the programme was to be replanned, the issues were being addressed and various options were to be considered. Moreover, EDS say that it would be inconsistent with other statements relied upon, such as those at the Marriott Hotel on 18 May 2001, which made clear that more resources were needed.
1082. Sky say that Barry Yard's words cannot bear the gloss that EDS seek to place on them: the phrase *"has been assigned"* referred both to Greg Hyttenrauch and the *"experienced team"* and the reference was to *"has"* which does not mean *"has or will be"*. They submit that the purpose of Barry Yard's letter was to re-assure the management of Sky that EDS was wholly committed to addressing the issues that existed and that Barry Yard gave that reassurance by representing that suitably qualified resources had been identified and earmarked.
1083. Sky also say that Barry Yard's letter had its desired effect because, as stated in paragraph 103 of his first witness statement, Mike Hughes on reading it believed that EDS were finally addressing the previous lack of high-quality resources and were putting better resources in place. Sky say that this effect would not have been achieved by a representation short of the one in fact made, namely that resources had been found and were on their way.
1084. Sky contend that, even if the representation had only the limited meaning contended for it by EDS, such representation was false and was made negligently as EDS did not have the resources needed for the project going forward and had

no reasonable basis to suppose that the “*experienced personnel*” referred to by Barry Yard could be identified or made available to the project at any stage.

1085. The wording of the letter does not and could not, in my judgment, bear the meaning contended for by Sky. It was clear that Greg Hyttenrauch had been assigned but the phrase “*to bring the programme to a successful completion, together with an experienced team of people*” did not mean that the experienced team had been assigned. Rather I consider that it was Greg Hyttenrauch who had been assigned to bring the programme to a successful completion, “together with” in the sense of “using” an experienced team of people. The statement does not give rise to the implied representation relied on by Sky.
1086. In addition, these are particulars of the representation pleaded in paragraph 74 of the Particulars of Claim and at that stage EDS did not have a “*revised programme plan*” and a “*revised budget*”.

***The Marriott Presentation***

1087. On 18 May 2001, EDS presented a review of their proposed plan for Phase 2 going forward at a Marriott Hotel in London. Cathy Leleux, Dave Page, Ed Lewis, Dan Sparkes, Ian Parker, Julian Clifford and Greg Hyttenrauch attended on behalf of EDS. Sky say that it was an important presentation, described in paragraph 215 of Greg Hyttenrauch’s statement as a ‘*make or break*’ opportunity to persuade Geoff Walters of Sky that EDS could deliver.
1088. Sky plead that EDS represented “*that it had identified the resources required to complete the project successfully and that it had reasonable grounds for believing that such skilled and experienced resources were available to EDS Ltd for the project*”.
1089. Sky rely on several of the slides in the presentation which referred to details of the resources that would be needed to implement Phase 2, which included a technical team of 90 personnel. The fourth slide was headed ‘5 Success Factors Phase 2’. The last of the 5 factors listed was “*Identified and fulfilling need for more quality resources*”. By including this factor in the list, Sky say that EDS were representing that they had identified a need for more quality resources and that they were fulfilling that need. Sky say that this is the plain and unambiguous meaning of the words that EDS used.
1090. EDS say that the effect of the statements was that they had identified the need and were “*taking steps to secure such resources*”. EDS say that the allegation that EDS represented that “*it had identified the resources required to complete the project successfully*” appears to allege a warranty that these were all that would be required but EDS say that it was an estimate which was a careful one.
1091. As to the allegation that EDS represented that “*it had reasonable grounds for believing that such skilled and experienced resources were available to EDS Ltd*”



*for the project*", EDS say they had found some and expected to find the rest, but there was no representation as to its expectation in the slides. In any event, the planning process was still continuing.

1092. Sky say that the distinction between the meaning of the representation as alleged by Sky and as admitted by EDS is an important one as EDS stated that they were "*fulfilling*" the need for resources. This meant not merely "*taking steps*" to secure them but succeeding in doing so. Sky contend that the words cannot sensibly bear the limited meaning contended for it by EDS and that, given EDS' historical failure to resource the project, a representation with such limited meaning would not have given Sky the reassurance that it needed. Sky say that EDS' statement that they were "*fulfilling*" the need had an implicit assertion that the need could be fulfilled on the basis that EDS had reasonable grounds for believing the necessary resources to be available. Sky say that this is obviously how EDS intended Sky to understand their representation and, as set out in their witness statements, it is how Scott Mackay and Andy Waddell understood it.
1093. The presentation had the title "*Review of Phase 2 Plan*". The slide which set out the success factors referred to the results of "*intensive analysis and re-planning over last 3 weeks*" and evidently set out what was planned for Phase 2. I consider that EDS was saying that it had identified the need for more quality resources and that it was fulfilling that need. Whether that would be successful or not would depend on the process for fulfilling the need for such resources. In the circumstances in which the slide was presented I do not see how it could bear an implied representation that EDS had reasonable grounds for believing the necessary resources to be available. Nor do I see how either Scott Mackay or Andy Waddell could have understood not only that EDS had identified the resources required but also that they could fulfil those requirements based on the pleaded allegations.

***The 1 June Meeting***

1094. On 1 June 2001 Richard Freudenstein met with Steve Leonard and Sky say that he asked him to provide his personal assurance that the development and testing teams that EDS intended to deploy had the right skills, experience and quality.
1095. Sky say that the request and its rationale were recorded by Steve Leonard in an email of 1 June 2001 sent to Greg Hyttenrauch, Laurence Anderson and Barry Yard:

*"I have to give Richard my personal assurance that the development team and the testing team have the right skills, experience and quality. Richard has received feedback from his team that although we now have the right leadership we do not still have the quality to execute. Please supply me with the answers to Richard's questions ASAP today as I will be speaking with him again on Monday morning."*

1096. Sky rely on this email to show that Steve Leonard was asking for the answer to questions raised by Richard Freudenstein and they say that Greg Hyttenrauch gave the answer by email dated 3 June 2001 in which he said:

*“I have also attached information on potential resources for the development team. Two of these have started and the remainder of the list are being pursued provided we have a way forward on the Programme. In the case of testing, we have had two new resources join at the beginning of May. Both have between 4-5 years experience in Mercury test tools (ie WinRunner and Test Director) and one is also experienced in LoadRunner (Stress test tool). They have also been trainers in the Mercury test tools having taught numerous classes on them. We are continuing to pursue additional, more experienced testers, for the test plan development work that would start in July.”*

1097. Sky say that Steve Leonard gave Richard Freudenstein the reassurance sought and stated not only that the development and testing teams had the right skills, experience and quality but also that the resources would be available when required in sufficient numbers. Sky contend that such representation implied that proper enquiries as to the availability of the needed resources had been made. Sky say that Steve Leonard’s assurances were crucial because, if he had not given the assurances sought, then as Richard Freudenstein says in paragraph 111 of his first witness statement, he would not have entered into the Letter of Agreement with EDS.
1098. EDS admit that Steve Leonard gave an assurance to Richard Freudenstein to the effect that resources ‘*already identified for deployment*’ were of appropriate skill, experience and quality and that EDS ‘*intended that those it subsequently identified for deployment would also be appropriate*’. Otherwise, EDS deny Sky’s contentions.
1099. EDS say that there is no record of the assurance given in the documents referred to, but that as set out by Richard Freudenstein in paragraph 111 of his first witness statement, he recalls Steve Leonard giving him an assurance “*that the development team and testing team would have the right skills, experience and quality for the job*”. EDS say that this is a promise not a representation.
1100. Sky say that Steve Leonard himself admits that he gave Richard Freudenstein assurances as set out in his email to Greg Hyttenrauch, Laurence Anderson and Barry Yard cited above. EDS accept Steve Leonard himself goes a little further in paragraphs 13 and 14 of his second witness statement where he recalls saying that the development and testing team EDS had deployed had the right skills, experience and quality for the job. He also says that it is likely he expressed his confidence that the same would be true of any future members of the team. He also said:

*“I did not tell Richard Freudenstein that a complete development and testing team had already been identified. My comments related to those who had already been identified and to our intentions for the future. I do not believe that Sky can have thought that we had already identified the full team. I have been shown emails from Greg Hyttenrauch to Mike Hughes dated 7 and 8 June 2001 which made clear that development and testing resources were still in the process of being identified.”*

1101. EDS say that neither account supports the pleaded representation. EDS refer to what Richard Freudenstein said in cross-examination on Day 10 when it was put to him that Steve Leonard did not tell him that a complete development and testing team had already been identified and that Steve Leonard’s comments related to those who already had been identified and EDS’ intentions for the future. Richard Freudenstein responded that he could not recall Steve Leonard telling him that he had identified all the people and that what was being put to him seemed right. He said *“He definitely assured me they would get the right people.”*

1102. EDS say that Steve Leonard put across clearly in cross-examination on Day 64 the assurance which he provided to Richard Freudenstein. He said that he did not recall *“going back to Richard and saying in some generic statement “don't worry, we have all of the right resources,” given that we were in the midst of some ongoing re-plan. But I certainly said to Richard (a) we are very focused on filling gaps as they exist and (b) I am pleased that you like the leadership team, I know we need to continue to strengthen it.”* Later he said that he wanted to give Richard Freudenstein specific feedback that, *“We had confidence that those people we had already deployed were of the right substance and that, as we continued to add resources, we would clearly work to ensure that they had the right substance.”*

1103. It was suggested to him that his statement would include, within it, that EDS had worked out what resources were needed. He responded:

*“That, for me, would not have been a step that I would have contemplated, in view of the fact that scope was still evolving through this whole re-planning exercise. What I could have said, and believe I am offering to the Court that I would have said, is, “Those people we have, although you may have heard from your teams some concerns, we have looked into it, we are standing by those people. We believe we still have to add people and we want to ensure they are of the right quality.” The concept of, “We know exactly how many and when and what locations,” would have been a step further than I would have offered to Richard.”*

1104. Sky say that the context in which Richard Freudenstein sought the assurances was that the project had failed spectacularly, and a root cause of this failure, as identified by Peter Jeffs, who had been the EDS Project Manager, and by the EDS Red Team Review and by PwC was EDS’ inability to staff the project with a sufficient number of suitably skilled resources. Sky refer to the fact that Richard

Freudenstein had spoken to David Courtley, an ex-EDS employee, in an attempt to establish the quality of EDS' senior staff and that David Courtley had told him that "*EDS had some very good people but it was important to get access to the right ones*".

1105. In this context, Sky say that Richard Freudenstein needed assurance that the debacle that had come to light in around April 2001 would not be repeated and that he would not have gained such assurance from the representation that EDS admit. Sky say that the important question was whether suitable resources would be available and that was the assurance sought by Richard Freudenstein and given by Steve Leonard.
1106. Sky refer to Steve Leonard's second witness statement where he states that the team that EDS 'had deployed had the right skills, experience and quality for the job' and 'was confident that resources added to the project later would have the same characteristics'. Sky say that EDS' gloss on the representation given to Richard Freudenstein is not consistent with this evidence as being "confident" is much more of an assurance than an intention.
1107. EDS specifically deny making a representation to the effect that all resources required for the future progress of the project had been identified and reserved and rely on several documents as showing that Sky could not have believed otherwise. Sky say that they do not allege that any such representation was made but that Steve Leonard represented that EDS had taken steps to determine what resources were needed for successful completion of the project and had determined that such, suitably qualified, resources would be available when required.
1108. Sky further allege that it was implicit in Steve Leonard's representation that proper enquiries as to the availability of the necessary resources had been made. Sky say that EDS accept a representation that proper enquiries had been made to support the statement that the team EDS intended to deploy had the right skills, experience and quality because they say that they did make proper enquiries. The distinction between the implication alleged by Sky and that which Sky say is admitted by EDS is, Sky say, dependent on the express representation made. Whatever assurances Steve Leonard gave to Richard Freudenstein, they carried the implied representation that he had made enquiries sufficient to enable him to give them.
1109. There is no written record of what was said by Steve Leonard to Richard Freudenstein in reply to the enquiry which Richard Freudenstein had made and which Steve Leonard set out in his email of 1 June 2001. Steve Leonard said that he had to give Richard Freudenstein an assurance that "*the development team and the testing team have the right skills, experience and quality.*" He asked Greg Hyttenrauch for information which Greg produced in the documents attached to his email of 3 June 2001. At that time the development and testing teams were not fully staffed. Therefore, Greg Hyttenrauch enclosed information on new and

potential resources for the development team. Equally he provided information on new resources for the testing team. As Greg Hyttenrauch said in his evidence on Day 62, on the basis of this information, Steve Leonard could say “this is what we have and what we can access”. He said that if Steve Leonard had said that EDS had the people then that would not have been accurate.

1110. Sky say that Steve Leonard stated to Richard Freudenstein not only that the development and testing teams had the right skills, experience and quality but also that the resources would be available when required in sufficient numbers and that this implied that proper enquiries as to the availability of the needed resources had been made. I do not accept that Steve Leonard would have said anything further than he said in evidence. He was a straightforward and honest witness and he said in evidence his recollection is that he would have said words to the effect: “*Those people we have, although you may have heard from your teams some concerns, we have looked into it, we are standing by those people. We believe we still have to add people and we want to ensure they are of the right quality.*” As he said in his second witness statement, he recalls saying that the development and testing team EDS had deployed had the right skills, experience and quality for the job. However, as he points out these comments related to those who had already been identified and to EDS’ intentions for the future. He did not believe that Sky could have thought that EDS had already identified the full team. Richard Freudenstein gave similar evidence and said that he could not recall Steve Leonard telling him that he had identified all the people, just that he had assured him that EDS would get the right people.
1111. In those circumstances, I accept EDS’ submission and find that Steve Leonard gave an assurance to Richard Freudenstein to the effect that resources already identified for deployment were of appropriate skill, experience and quality and that EDS “intended that those it subsequently identified for deployment would also be appropriate”. I do not consider that Steve Leonard gave Richard Freudenstein the assurance alleged by Sky, that is, that such resources were or would be available when required in sufficient numbers which implied that proper enquiries had been made as to the availability of the resources required.

***Greg Hyttenrauch’s Email***

1112. On 7 June 2001, Greg Hyttenrauch sent an email to Mike Hughes which was subsequently forwarded to Richard Freudenstein and Andrew Carney. The relevant part of the email relied on by Sky is:

*“In terms of staffing and strengthening the development team, I have attached a document that outlines resources that have joined the Chordiant team in May and additional resources that have been identified that can support both Phase 1 and 2 work ... I cannot secure any of these additional resources without an agreement to proceed.”*

1113. Sky say EDS thereby represented that they had identified resources that could support Phase 1 and Phase 2 work and that such resources would be available when Sky agreed to proceed with the Letter of Agreement.

1114. Attached to the email was a document entitled ‘Development Resources’ which named two ‘*expert*’ Chordiant resources which were stated to have joined the project ‘*in the last month*’, five that ‘*have been identified that can support both Phase 1 and Phase 2 work*’ and four additional ‘*potential*’ Chordiant resources. Sky say that the clear representation made by EDS and understood by Sky was that, as Mike Hughes says in paragraph 116 of his first witness statement, EDS were finally “*addressing the resourcing issue*”.
1115. EDS say that the statement in the email does not support the representation pleaded but makes it clear that EDS had not yet secured the resources identified, let alone any further resources that might be needed. They refer to Mike Hughes’ evidence on Day 14 where he agreed that the email said that additional resources had not been secured and could not be secured without an agreement to proceed.
1116. EDS refer to a meeting between Greg Hyttenrauch and Richard Freudenstein and others on 7 June 2001 and to an email which Greg Hyttenrauch sent to Richard Freudenstein on 8 June 2001. EDS say that this email shows that EDS clearly had not identified or reserved all the resources who would be needed, and that it so informed Sky. EDS also say that this was accepted by Richard Freudenstein on Day 10. In the email Greg Hyttenrauch said:

*“I understand from our discussions that BSkyB is still expressing concern over EDS’ ability to deliver. I do not feel that further meetings, documents or discussions will do anything further to change that view in the short term. The way to build back confidence is to start to deliver the solution. I feel that the commercial position that we have presented enables us to start delivering the solution with little to no risk on the part of BSkyB. The way it is structured means that BSkyB is not paying for the EDS labour unless we actually do deliver. If EDS is unable to deliver, then BSkyB does not pay. ...*

*I hope that the information that I have provided on the development and testing resources has been helpful in showing how we have been, and will continue to, strengthen the team. I am pursuing other resources within EDS, but to obtain some of these resources I need to take them from their current engagements. In order to do that, I need an agreement from BSkyB that the programme will continue. Also, it will take a period of time to transition these resources off the work they are currently performing and onto the BSkyB programme. This makes an agreement even more important. In terms of team structure, I have assigned responsibility for all the elements of the programme to my current team.*

*As the programme moves through its life cycle, additional resources will be brought on to support periods of heavier workload or more complex management activities. Responsibilities will also shift amongst the team as the programme progresses to ensure that at all times, the right people are doing the right job. EDS has assumed considerable delivery risk in the*

*way in which our future payments have been structured. This places the onus clearly on EDS to have the best and most capable people to deliver this programme of work. If we do not, we will not get paid.”*

1117. This email enclosed the same development team list as Greg Hyttenrauch had sent to Steve Leonard on 3 June 2001 but elaborated on the development team resources. In doing so, he said he had set out resources which had joined the Chordiant team in May as well as additional resources that had been identified that could support both Phase 1 and 2 work. He also said that he could not secure any of the additional resources without an agreement to proceed. In terms of the representation alleged by Sky, it seems that EDS thereby stated that they had identified some resources that could support Phase 1 and Phase 2 work and that they could only secure those resources when Sky agreed to proceed with the Letter of Agreement.
1118. What Greg Hyttenrauch said did not go as far as Sky allege. EDS represented that they had identified resources that could support Phase 1 and Phase 2 work but I do not consider that they represented that such resources would be available when Sky agreed to proceed with the Letter of Agreement. They could only secure them after the signing of the Letter of Agreement but did not represent that they would then be available.

***Executive Steering Group Meeting***

1119. The minutes of the Executive Steering Group on 13 July 2001 record the following statement by Greg Hyttenrauch:

*“With the introduction of two phases, two teams will be mobilised, managed by Cathy Leleux.  
Phase 1 led by Jason Campbell – Chordiant, consists of an ‘A’ team with more senior, experienced staff than previously, focussed 100% on the delivery of phase 1, and  
Phase 2, new manager with a team equipped with the depth and experience required to fully develop and build the complete system.  
Both teams have sourced the best available individuals worldwide, internally and externally when required. Phase 1 is fully staffed while phase 2 is building as required. Following the resignation of Paul Adelman, the new Billing person will be joining from America w/c 16/7/01.”*

1120. Sky allege that it was implicit in Greg Hyttenrauch’s statement that the ‘best available individuals’ had been identified and that such individuals would be good enough to satisfy the resource requirements for the project.
1121. EDS admit the express representation but deny the implication, saying that nothing more was implied than that the ‘individuals who had been sourced were believed to be the best available at that time’. EDS say that if Sky allege that this

- was intended to mean that the individuals already sourced were enough to satisfy the resource requirements then that cannot have been intended as it is inconsistent with the statement that “*phase 2 is building as required*”. EDS say that, if Sky allege that it refers to the quality or sufficiency of future resources, then it is a promise.
1122. Sky say that the representation went further than EDS accept and that the Phase 1 resources were described as an “*A team*” and the Phase 2 resources as “*equipped with the depth and experience required to fully develop and build the complete system*” and were being portrayed as the best available. Sky say that Greg Hyttenrauch was stating that the resources he had found were capable of delivering the project and that if Sky entered into the Letter of Agreement, EDS could deliver.
1123. In using the phrase “*Both teams have sourced the best available individuals worldwide*” I do not consider that EDS was saying anything other than that EDS had used what they believed to be the best available resources worldwide for the Phase 1 and Phase 2 teams. It was not implicit in what EDS said that they had identified the “*best available individuals*” and that such individuals would be sufficient to satisfy the resource requirements for the project. The statement by Greg Hyttenrauch went no further than saying that the teams had “sourced” the best available individuals. It was not implicit that the “*best available individuals*” would be good enough to satisfy the resources required for the project and had been identified.

#### **Summary on resources**

1124. Having considered the statements on which Sky rely to establish the representation, I find that none of those statements bears the meaning or could reasonably have been taken to bear the meaning that Sky attach to them. The statements were made in the context of negotiations which took place from April 2001 until the Letter of Agreement. In those negotiations various options were considered and the programme was replanned by Sky and EDS.
1125. I accept that, as EDS submit, in putting forward their case Sky have sought to pick individual letters and presentation slides from that process to construct representations relating to proposals differing from those ultimately negotiated. It is evident that EDS wanted to convey to Sky their commitment to the project and their determination to deliver. In that context, I consider that EDS is correct in saying that they represented that certain requirements had been identified; that some positions had been filled and that they reasonably expected to be able to fill any remaining positions and to meet any remaining resource requirements.
1126. However, I do not consider that the statements relied on by Sky can be said individually or together to give rise to the pleaded representation that EDS possessed or had available the resources needed to ensure that the project would



be completed successfully in accordance with the revised programme plan and the revised budget.

### **Complexity and Completion**

1127. Sky plead at paragraph 78 of the Particulars of Claim that EDS represented:

*“that it was their opinion, for which they had reasonable ground, that the primary cause of the problem had been the bid team's under-estimation of the complexity of the project, and that a significant amount of work had been completed which was of value to the project and would provide the basis for project completion.”*

1128. Sky allege that by saying this EDS represented two things: first, that the primary cause of project problems was the original bid team's under-estimation of the complexity of the task and secondly that EDS represented that a significant amount of work had been completed which would be of value to the project going forward. Sky say that those representations were false.

1129. Sky contend that the principal reason why the project could not be completed within the timeframe of the contractual milestones was EDS' lack of resources, experience and expertise and that, by asserting the bid team's under-estimate as the primary cause of failure, EDS masked the true position.

1130. In addition Sky contend that, prior to the Letter of Agreement being signed, no real progress had been made beyond the Process Workstream; that the work that had been done in respect of Data Architecture, Data Warehouse, Data Migration and the Graphical User Interfaces was of no value and had to be jettisoned. Further Sky contend that, contrary to Greg Hyttenrauch's representation at the Executive Group Meeting on 13 July 2001, the knowledge bases were not complete and had not been populated.

1131. EDS admit representing that under-estimation of the complexity of the project was *“one of the problems which the project had encountered”* but deny representing that it was the 'only' cause. They say that the bid team's under-estimate of the size and complexity of the project was one of only two *“primary causes of the need for more time”*, the other being a lack of adequate requirements specification. Otherwise EDS deny Sky's allegations.

1132. Sky rely on representations made by EDS on four occasions:

- (1) at the meeting on 8 April 2001;
- (2) in the 'BSkyB Solution Options' document dated 24 April 2001;
- (3) at the Phase 2 planning session held on 10 May 2001; and
- (4) at the Executive Group meeting on 13 July 2001.

1133. I now turn to consider those statements.

***Meeting on 8 April 2001***

1134. Sky say that, in the light of the matters discovered when Scott Mackay and Andy Waddell visited EDS' Canary Wharf offices on 3 April 2001 and the contents of the draft PwC report received by Richard Freudenstein, also on 3 April 2001, Sky began to appreciate in early April 2001 that the project was in crisis.
1135. As a result, Mike Hughes arranged an urgent meeting with Tony Dean and Peter Jeffs for 8 April 2001 at Canary Wharf in an attempt to establish the project's true status. The meeting was attended by Mike Hughes, Scott Mackay, Tony Dean and Peter Jeffs. Sky rely on the note of the meeting which Mike Hughes subsequently sent to Richard Freudenstein.
1136. The purpose of the meeting, as stated in that note, was "*to ascertain the true status of the Technology Stream and understand the implications on our timescales and budget*". Sky say that a principal topic of discussion during the meeting was the reason for project delays and that Tony Dean and Peter Jeffs made a number of statements at the meeting to the effect that the primary cause of the problems facing the project in terms of delay was that EDS' bid team had under-estimated the complexity of Sky's requirements. In particular, Sky rely on the following statements made by Peter Jeffs and Tony Dean, summarised in Mike Hughes' note as "*key messages*":
- (1) that "*The size and complexity of the overall "enterprise-wide solution (system)" had been severely under-estimated by the bid team*" particularly around the interfaces and operational finance requirements;
  - (2) that "*some retrospective systems design activity needs to take place*";
  - (3) that more time than anticipated would be required for testing and that "*The combination of re-work, additional configuration/build in Chordiant for Operational Finance and/or building an Operational Finance system, integration development and a different architectural design on eCRM, together with testing, was driving a re-plan, which added 11 months to the timescale*".
1137. Sky rely on the evidence of Mike Hughes at paragraph 96 of his first witness statement and of Scott Mackay at paragraph 169 of his first witness statement where they say that they left the meeting with a clear understanding that the bid team had under-estimated project complexity and that this was the principal cause of the problems with which the project had to contend. They say that Mike Hughes' note is entirely consistent with this. Sky say that in the note, the only one reason given for delay is the under-estimate of project complexity and that none of the true reasons for project failure such as EDS' chronic resource shortages, lack of methodology or unworkable plans are mentioned.

1138. EDS say that Sky has ‘*selectively quoted*’ from Mike Hughes’ note of the meeting. Whilst EDS accept that Peter Jeffs expressed the views recorded in the note and relied on by Sky, they say that this view was expressed by him alone.
1139. EDS also refer to the note that “*The biggest issue by far, was around the complexity of the overall combination of the individual elements and multiple interfaces required to deliver the functionality Sky required*” and that “*EDS Senior Management, SL and Barry Yard, (Managing Director) UK, EDS eSolutions, were not accepting any of the above and remained of the opinion that a more appropriate way forward could be found. Currently they seem alone in this view, although neither SM or I had the opportunity to meet Swot Team Members.*” The Swot team was a reference to Greg Hyttenrauch and his Red team which, as stated in the note, had been formed to audit work to date and to “*validate the Programme Teams’ assumptions on recovery and revised way forward, including looking at alternate options which deliver a solution to B SkyB within our timescales.*”
1140. Whilst Peter Jeffs expressed the view recorded in the note, there were other difficulties mentioned and it is clear that his view was not shared by Steve Leonard and Barry Yard. In these circumstances I find it difficult to see how EDS could be making any representation when Peter Jeffs’ views were not accepted by EDS’ senior management.

***BSkyB Solution Options document***

1141. Sky rely on a letter sent on 23 April 2001 from Barry Yard to Mike Hughes enclosing a “*BSkyB Solution Options*” paper. The paper had been produced by Greg Hyttenrauch and Mike Fitzgerald and, as explained in the covering letter, its purpose was to propose two alternative options “*to address the schedule issues that are currently facing the eCRM programme*”. Sky say that the aim of the document was to persuade Sky that the EDS team that had then been introduced could turn the project around; that EDS had undertaken a proper analysis of the state of the project and that they could now deliver to a new plan.
1142. Sky refer to the following text in the Options Paper under the heading “*Background and Introduction*”:
- “The major constraint facing the programme is not enough time to achieve all the goals of the programme by the key date. This has led to the need to list and address all key constraints, associated limitations and hence create a new set of programme assumptions moving forward.”*
1143. Sky say that the message being given was clear: that the problems facing the project had not been caused by an incompetent, under-resourced delivery team but that the original bid team had under-estimated project size and complexity, with the result that no delivery team, however competent, could have succeeded in the

timeframe available. Sky say that EDS were stating that, armed with a realistic plan and scope, EDS' management and technical team would be able to deliver.

1144. EDS refer to the Management Summary section of the Options Paper which states: *“The combination of programme issues, high complexity and significant other technical, organisational, operational, business process and change management issues has led to a slippage on previously agreed key dates”*. EDS also refer to the key constraints and limitations which are listed below the passage relied on by Sky and include the following management and technical issues:

*“Management*

- *Overall Programme Management incomplete and implemented late.*
- *Lack of information sharing and consistent approach has led to confusion, mixed direction and unnecessary management friction.*
- *Key partners in the programme are not ‘in synch’ or being actively managed as a team*
- *Reporting and roles and responsibilities are unclear.*
- *Lack of integration of total team has hampered the programme and smart thinking.*

*Technical*

- *The billing system and linkage with operational finance has proved more problematic than first envisaged leading to delays.*
- *SDLC assumptions have inappropriate.*
- *Requirements are not locked down.*
- *The environment will require extensive levels of testing-the most appropriate testing strategy and associated timelines are not yet agreed.”*

1145. I accept EDS' submission and, in my judgment, there is nothing in the letter of 23 April 2001 or the Options Paper which can support the pleaded allegation that there was a representation in those documents that *“the primary cause of the problem had been the bid team's under-estimation of the complexity of the project.”*

***Phase 2 planning session: 10 May 2001***

1146. Sky rely on a presentation on project progress given at a Phase 2 Planning Session held at EDS' offices in Stockley Park on 10 May 2001, which included a set of Powerpoint slides providing a *“status update”*. Those slides showed percentage completion of work in respect of Data Architecture, Data Warehouse, Data Migration and Graphical User Interfaces. Sky say that the slides represented that a significant amount of work in those areas had been completed or was substantially complete.
1147. EDS admit the representation. They say that slides 5 to 7 of the presentation related to the completeness of functional specifications/use cases and that slides 8 to 11 were necessarily dependent on the completeness of the functional

- specification. EDS say that the actual figures were disputed by Sky. They refer to the evidence at paragraph 198 of Andy Waddell's first witness statement which shows that Scott Mackay stated that *more* use cases had been completed than was suggested in the slides and Ian Haddon pointed out that the data architecture figures did not include billing and operational finance.
1148. EDS refer to the fact that the meeting was stopped early and eventually rescheduled for 18 May 2001. They also refer to Greg Hyttenrauch's evidence on Day 62 when he explained what happened at the meeting. He said that at the meeting on 10 May 2001 there was a disagreement between the EDS team and Sky over the extent of completion and that issue needed to be resolved before things could move forward. He said that:
- "there was a discussion around the extent of the completion of the operational, the IPA requirements to do with billing and I recall that discussion. That went around and around in the meeting room. And then coming out of that, one of the actions was we needed to get clarity on the state of some of these items so that the next time we got together we could be focusing on the plan, not on whether Sky or EDS believed the state of development was in one position or the other."*
1149. He was referred to the slides showing percentage of completion and asked whether EDS was proceeding on the basis that what was set out in it was an accurate representation of useable work. He said:
- "I can't go item by item, line by line and tell you which ones were wrong. What I can tell you is there was concern about this status between ourselves and Sky, that was rectified with a common understanding of the state of that status that was used for the May 18th planning session."*
1150. I accept Greg Hyttenrauch's evidence. Whilst evidently EDS did represent that the state of the work was as set out in the slides at the presentation, it is clear from his evidence that it had no effect on Sky who had their own knowledge and views as to the state of completion and disagreed with the information contained in the slides. By the end of the meeting the stated degree of completion was no longer considered to be valid and Sky were not relying on it.
- Executive Group meeting: 13 July 2001***
1151. Sky refer to the Executive Group Meeting held on 13 July 2001, three days before the signing of the Letter of Agreement and which they say effectively marked the re-launch of the project. Sky allege that at that meeting, Greg Hyttenrauch made a number of representations as to the progress of Phase 1. In particular, Sky say that he represented that all three Knowledge bases had been built and populated. Sky also allege other representations but do not appear to have pursued those even in their pleadings.

1152. Sky say that the representation upon which they rely is recorded in the meeting minutes which state as follows:

*“Phase One (GH):*

*Progressing well, requirements and scope completed, Architecture implementation infrastructure data paper will be completed 23/7/01. Work on code and screen scraping has started and proofs of concept that Chordiant does work with Legacy have also been completed. All 3 Knowledge bases (Technical, Billing and Sales) have been built and populated. Training for CSR's on the new system will be completed before the go-live date of 19/10/01”.*

1153. Sky say that, contrary to Greg Hyttenrauch’s representation, the knowledge bases were not complete and had not been populated.
1154. EDS admit having represented that the knowledge bases had been built and populated which was accurate. EDS say that Sky’s allegation misunderstands the knowledge databases as it was for Sky to supply the content and EDS’ role was to design and develop the databases themselves. EDS say that as explained by Greg Hyttenrauch at paragraph 230 of his witness statement, as at 13 July 2001 the knowledge databases were substantially complete in that they had been populated with tables, structure and links either to documents, where SSSL had produced those or to “placeholders” where SSSL had not done so. EDS refer to a joint technical workshop meeting on 11 July 2001 and say that Sky was well aware that work still had to be done on the knowledge databases. EDS say that almost all the remaining work was part of Phase 1 under the Letter of Agreement, which was delivered in October 2001.
1155. EDS also say that this representation is not dealt with in Sky's witness statements, and was not raised in the cross-examination of Greg Hyttenrauch.
1156. The only aspect which appears to be relied upon by Sky in paragraphs 79.4 and 80.4 of the Particulars of Claim relates to the knowledge databases. On this Greg Hyttenrauch says that, based on information from Laurence Smith, EDS had done what they were required to do in terms of building the databases and populating them with placeholders whilst awaiting documents from Sky. This evidence was not challenged and I accept it. As a result I consider that the statement that all three knowledge databases (Technical, Billing and Sales) had been built and populated was correct so far as the scope of work for EDS was concerned. Sky cannot therefore base any claim on any misrepresentation arising from the executive group meeting on 13 July 2001.
1157. It follows that, on the statements relied on by Sky, I do not consider that they have established a claim in respect of the alleged misrepresentation that the primary cause of the problem in 2001 had been the bid team's under-estimation of the complexity of the project or that a significant amount of work had been completed which was of value to the project and would provide the basis for project completion.

1158. In any event, I consider that one of the causes of the problem was the underestimation of the complexity and that this led, as Greg Hyttenrauch said, to EDS employing insufficient skilled resources because of the underestimation of the size and complexity. Further, I am not persuaded that the work completed and later found to be of less or little value would necessarily have been a view which should have been formed in the period up to the Letter of Agreement. For instance, at paragraph 80.3 of the Particulars of Claim Sky allege that the work done on the Data Architecture, the Data Warehouse, Data Migration and the GUI was of no value, was ultimately jettisoned and had to be redone. This obviously relates to what happened after the Letter of Agreement.
1159. But, in any case, there is evidence, for example, from Karl Davies at paragraphs 190 to 196 of his witness statement, Dan Barton at paragraph 128 of his first witness statement and from Robert Worden in paragraph 1620 of his first report which provides cogent evidence that work was re-used and may have needed to be re-done but was not jettisoned. There were reasons why work ultimately proved to be of limited value to the project, because the project changed rather than because that work was inherently of little value. For instance, the functional specifications were changed from Baseline 1 to Baseline 3/4 and the project moved to an incremental basis which would mean that some of the existing data migration work would be redundant.

## **Planning**

1160. Sky allege in paragraph 82 of the Particulars of Claim that at the planning presentation on 18 May 2001 and thereafter, EDS represented that they “had a programme plan that was achievable and the product of proper analysis and re-planning”. Sky say that those representations were false because the plan that EDS presented on 18 May 2001 and which, ultimately and in a revised form, became Appendix 2 to the Letter of Agreement was flawed, was not achievable and had been produced negligently, not being the product of a proper analysis or planning exercise.
1161. Sky say that the programme was over-parallelised, under-resourced and not based on a proper assessment of the work required to complete the project and that it prescribed an inappropriate and unworkable development approach. In particular, Sky contend in paragraph 84 of the Particulars of Claim that EDS failed to allow adequate time for the System Definition phase; that contrary to Greg Hyttenrauch’s representation on 13 July 2001 the programme was heavily paralleled; that EDS had not undertaken a proper assessment of the work required to implement the solution and that the thread-based development approach enshrined in the plans was inappropriate for the project.
1162. Sky rely on representations made on three occasions:
- (1) At the planning presentation given at the Marriott Hotel on 18 May 2001;

- (2) At a meeting on 21 May 2001 at Sky's offices in Osterley; and
  - (3) At the Executive Steering Group Meeting on 13 July 2001.
1163. In addition, Sky rely on the plan itself, in the form presented on 18 May 2001 and as annexed to the Letter of Agreement, as a misrepresentation.
1164. In paragraphs 188 and 189 of the Defence EDS admit that they made each of the individual representations relied on by Sky but neither admit nor deny the over-arching representation alleged but deny the falsity of any representations.
1165. It is necessary, first, to consider the statements relied on by Sky to establish the representations.

***Marriott Hotel presentation: 18 May 2001***

1166. Sky rely on a presentation at the Marriott Hotel on 18 May 2001 at which EDS stated that it had completed an *'intensive analysis and re-planning over the last 3 weeks'* and that one of the results of the analysis and re-planning for Phase 2 was identification of a number of "Success Factors". One success factor was an *"incremental development approach"* and the *"Increments comprised of functional threads organised according to business needs"*. Sky say that EDS thereby represented that the thread-based incremental approach that had been identified as a success factor had been properly analysed and planned.
1167. EDS admit this representation and say that extensive planning had been carried out in which Sky had been involved, as referred to in Sky's note of 14 May 2001 in which they stated that *"work over the last few weeks, with significant input from BSkyB staff in conjunction with EDS, Chordiant and AA, resulted in delivery on Friday of a more detailed Phase 1 delivery plan which on first review appears credible."* EDS accept that the presentation also referred to incremental development comprised of "functional threads" but say that this adds nothing to the pleaded over-arching representation.
1168. It is evident that EDS did represent that there had been *"intensive analysis and re-planning over the last 3 weeks"*.

***Meeting at Sky: 21 May 2001***

1169. Sky rely on a meeting on 21 May 2001 at Osterley, during which Greg Hyttenrauch and Steve Leonard told Richard Freudenstein that EDS had a detailed plan coupled with specific cost numbers to bring the project to a successful conclusion.
1170. EDS admit this but point out that the reference to the plan was a reference to the plan presented to Sky on 18 May 2001 and takes the matter no further. This is consistent with what Richard Freudenstein says in his witness statement at paragraph 105.



***Executive Steering Group: 13 July 2001***

1171. Sky rely on an Executive Steering Group meeting that took place on 13 July 2001 at which they say that Greg Hyttenrauch represented that:

*"The Programme Structure, which relied on heavily paralleled activities, has changed to a slightly paralleled structure with much more structure and management. Replanning effort has heavily involved both Sky and Andersens to ensure all are happy with approach and issues for the plan going forward, this has also led to much improved working relationships and a more integrated team"*

1172. EDS admit this.

***High Level Plan: May 2001***

1173. Sky rely on a high level plan produced by EDS in May 2001 and which became Appendix 2 to the Letter of Agreement. It showed go-live of Phase 2 of the Project on 31 July 2002. Sky say that EDS thereby represented that such a date, and the milestones that the plan contained, were achievable and the product of a proper planning exercise.
1174. EDS admit that they produced a high level plan mentioned in the 18 May 2001 presentation but say that the presentation did not itself introduce the go-live date of 31 July 2002, which was the result of subsequent revisions and appeared in the version sent by Greg Hyttenrauch to Mike Hughes on 12 July 2001. EDS say that the plan attached to the Letter of Agreement, like the Letter of Agreement itself, provided for "Project approach, requirements, analysis and architecture (system design)" to be completed by 31 August 2001, with Phase 2 go-live on 31 July 2002.
1175. EDS do not accept that this gave rise to the representation alleged.
1176. EDS say that the re-programming carried out from mid-March 2001 led to the High Level Plan for Option 1 presented to Sky on 26 April 2001. That option gave completion dates for Phase 1 (Chordiant front end on existing functionality: 30 October 2001), Phase 2 (most of remaining functionality, billing, workflow and web channel: 29 April 2002) and Phase 3 (remaining channels: 28 June 2002) at £8.9m additional cost, mostly labour.
1177. EDS refer to the Option 1 plan which in the Management Summary section stated as follows:

*"Given the timeframe available to conduct this planning, EDS recognizes that there are a number of assumptions and risks that need to be taken. These risks and assumptions need to be reviewed in concert with schedule and as part of any discussion between B Sky B and EDS on the approach*

*to be taken for programme. These risks and assumptions are identified in Section 5 of the document.”*

1178. Section 5 then set out 'System Integration Definition Assumptions' which EDS say were mainly concerned with the completeness and timeliness of the definition of requirements and associated risks, and listed 'Incremental Design and Construction Assumptions'. EDS say that the first three of these reflected the uncertainty over requirements and the required interfaces, while others set out the assumptions made, and the metrics applied, in the calculation of the development effort required. The first of these assumptions read:

*“Plan to re-plan once system definition is complete to granularise estimates further.*

*It is recognised that as analysis and system definition phases complete, more detailed information will be available to plan the content of each increment, including identification of threads, revised effort estimates and elapsed time.”*

1179. System Definition for Phase 2 referred to as “Requirement Refinement and Support” was planned for completion at the end of August 2001.

1180. EDS refer to Greg Hyttenrauch’s evidence at paragraph 190 of his witness statement where he says that it was made clear to Sky that until EDS had completed the System Definition phase and the requirements had been completed, which was provided for in the August 2001 milestone, EDS were still running a large risk because they did not know how big the project actually was. He says that, in order to deal with this risk, EDS included a cost sharing provision in the Letter of Agreement.

1181. EDS also refer to the fact that the planning process was not being carried out by EDS alone but, as Richard Freudenstein wrote to Tony Ball on 30 April 2001, many planning meetings were going on facilitated by PwC and they would eventually sign off on any plan (as would Sky). Richard Freudenstein accepted in his evidence on Day 10 that he wanted everybody to sign off on the plan.

1182. EDS therefore say that:

- (1) The plans were and were said to be the subject of extensive planning, but the nature of that planning and the metrics were disclosed to Sky and Sky contributed to the process.
- (2) The plans were expressed to be subject to assumptions and risks, notably as regards the adequacy, stability and timely delivery of the requirements, which would not be known until after the Letter of Agreement.

- (3) The plans were compressed, with the associated risks of such compression, to satisfy Sky's desire to reach go-live as soon as possible, with a long stop date of 31 July 2002.
1183. EDS say that the particulars of the representation do not support or refer to the dates that were ultimately incorporated in the plan and that there was no representation other than that EDS had carried out extensive re-planning and that, in their opinion, the dates specified in the Letter of Agreement were achievable, subject to the assumptions and risks stated.
1184. I consider that the statements made by EDS did amount to a representation that they had developed an achievable plan, which had been the product of proper analysis and re-planning. Every plan is subject to risks and assumptions but that does not prevent the plan being the product of proper analysis and re-planning and being achievable, subject to those risks and assumptions.
1185. EDS say that Sky imposed a requirement to have delivery of the system on 31 July 2002 and rely on the evidence of Greg Hyttenrauch. In his witness statement at paragraph 166 he says that “*Sky latched on to July 2002 as an end date*” and that Scott Mackay and Mike Hughes “*fixed on July 2002 as a backstop that could not be moved*”. He states that this fettered the re-planning process to an extent and that, “*left to our own devices we might have planned to take slightly longer by a couple of months, but nevertheless the plan was a sensible one.*”
1186. This is not accepted by Sky. Scott Mackay says that it was Sky’s desire to have the new system delivered as early as possible and it is therefore probable that he would have impressed upon Greg Hyttenrauch the need to have the system in as soon as possible. He does not recall ever insisting on July 2002 as an immovable go-live date and it was not his position to do so. Mike Hughes says that he has no recollection of insisting on the backstop date and does not believe that he did. He says that from an early stage in the 2001 re-planning exercise EDS were suggesting operational handover of the new CRM system would occur on 30 June 2002 and that he was simply looking to EDS to provide an honest assessment of what they needed in order to successfully implement the CRM programme and that the onus was on EDS to provide Sky with an accurate revised timetable. He says that, whilst Sky were keen for delivery to take place as soon as possible, the main priority was to have Phase 1 in place before the pre-Christmas period in 2001, with final delivery in good time to allow it to be up and running for the pre-Christmas period in 2002.
1187. I do not accept that Sky imposed a requirement to have delivery of the system on 31 July 2002, as Greg Hyttenrauch seeks to suggest in his evidence. It is clear that Sky wanted the earliest possible delivery date but I consider that the timeframe had to and did come from EDS. It may be that the pressure from Sky for early completion led EDS to adhere to the July 2002 date but I consider that EDS are wrong to suggest that the date was somehow forced onto them by Sky. Indeed, if

- that were the perception of EDS, it hardly indicates a firm basis for the programme produced at the time.
1188. EDS say that the programme plan was the subject of extensive analysis and planning, and EDS believed it was achievable, albeit tight. In relation to the analysis carried out and the achievability of the programme, EDS refer to Robert Worden's view, at paragraphs 1659 to 1665 and 1687 to 1695 of his first report, that the process was "fairly professional" and that the estimates of effort were realistic, but that the end date of 31 July 2002 to which the plan was fitted required a degree of compression and parallel development of the increments that was not viable, in that there was a high probability that issues raised in one parallel increment would have implications for another, so that they could not proceed independently and delays would occur. Robert Worden's conclusion is that EDS' approach to planning the amount of work and elapsed time required was not adequate. On this basis, EDS accept that any representation that the 31 July 2002 date was reasonably achievable, in the sense that the analysis gave adequate grounds for thinking the date was achievable was false, to the extent noted by Robert Worden and EDS accepts that it follows that the representation would have been made negligently.
1189. Robert Worden's evidence is clear and demonstrates that EDS did not, even in 2001, carry out a proper analysis and re-planning exercise to produce a programme which, even absent the risks and based on the assumptions, would have been achievable. The representation was false and, as EDS accepts, was negligently made.
1190. In those circumstances, EDS challenge Sky's assertion that it relied on the representation. EDS say that Sky did not rely on the representations in the sense of being induced by them to agree the terms of the Letter of Agreement or that they were material. Rather, EDS say that Sky relied on the terms of the Letter of Agreement: the cost-sharing provisions as regards cost and the termination provisions as regards time.
1191. EDS say that after the discussions and planning sessions between Sky and EDS the personnel at Sky most closely connected with the project, such as Geoff Walters, Andy Waddell and Nicola Simpson were not convinced EDS could deliver. They rely on Sky's internal emails at the time. Despite their views, EDS say that Richard Freudenstein went ahead saying that he was relying on the assurances given by Greg Hyttenrauch, Steve Leonard and the commercial team. EDS rely on Richard Freudenstein's evidence on Day 10 that he relied on "*the assurances and the commercial terms both, because the commercial terms gave me confidence in the assurances they were making and also because they were good commercial terms*".
1192. EDS say that the only relevant representations are those which arise out of the assurances given to Richard Freudenstein, some of which were assurances for the

future. EDS refer to paragraph 105 of his witness statement where he said that Steve Leonard had assured him that EDS “*had formulated a recovery plan which meant that they were confident of delivering both phase 1 and phase 2 within the agreed time frames*”.

1193. EDS refer to the evidence of the basis of Richard Freudenstein’s recommendation to Tony Ball for Sky to continue with EDS as Systems Integrator on the terms set out in the Letter of Agreement. EDS rely on Richard Freudenstein's statement at paragraph 122 of his witness statement which reflects what he said in making his recommendation to Tony Ball to proceed with EDS in an email dated 12 June 2001. The email stated:

*“My recommendation to continue with EDS for phase 1 and phase 2 (subject to performance criteria) is purely based on a commercial position. ie it will be the cheapest and there is currently no clear alternative. It is not based on complete confidence in their ability to deliver, only on a gut instinct that with £14 million at risk and their european ecrm strategy at risk, they will be motivated to deliver. (they don't get paid if they don't deliver)*

*No one is disputing Geoff's technical assessment. ie based on what we have seen to date, he is correct to doubt EDS ability to deliver. All I am saying is that based on that technical assessment, I still think EDS is the best option because we have set up the commercial deal to minimise our risk of this eventuality and I can't give you a clear alternative (and neither can Geoff).”.*

1194. However, as EDS state, Richard Freudenstein also says at paragraph 123 of his witness statement that “*even despite the lack of a clear commercial alternative, there is no way in which I would have recommended that Sky continue with EDS if I had personally felt that they were unable to implement the project. ... The assurances which I had received from Steve Leonard, to which I refer above, meant that, in my mind, EDS would be able to achieve the phased implementation of the solution. The fact that we managed to negotiate an attractive commercial deal whereby EDS were willing to link their profits to future performance of the system only served to increase my confidence in them.*”
1195. EDS say that it is clear that, when Richard Freudenstein signed the Letter of Agreement he was influenced by the attractive commercial terms and, at most, the assurances as to the future that he had received from Steve Leonard. EDS say that he signed despite reservations concerning EDS’ ability to deliver and in fact neither he nor those he consulted placed any reliance on the alleged representations.
1196. Sky submit that, in the context in which the representations were made, Sky was positively looking for statements of what was involved in continuing the project with EDS for the purposes of making that very decision. Sky say that Richard

- Freudenstein's evidence on Day 11 bears this out and Sky did rely on the representations that EDS made.
1197. Sky say that whilst the commercial deal and the financial safeguards were part of the picture, they follow on from the need for assurance that EDS have the resources to deliver, that EDS have a viable plan to deliver and as to the costs to complete.
1198. Sky refer to Richard Freudenstein's evidence on Day 11 that "*the structure in the deal eliminated risk but also the structure in the deal gave me confidence that they wouldn't do that deal unless they knew they could deliver*". Sky say that whilst there were people in Sky who had doubts on EDS' ability to deliver and whilst EDS was seen as the best option because of the commercial deal to minimise the risk of this eventuality, Richard Freudenstein also said that "*EDS were the best option because, while the empirical evidence was that we could not be confident they could deliver, the assurances I had been given, and the commercial deal, meant that they were our best option*". He also stated that "*if I had thought they would not deliver because they did not have the ability to deliver it, I wouldn't have made the recommendation. I was working from the basis because of what Leonard and Hyttenrauch had been saying, that they could deliver, even though I absolutely acknowledge that there was doubt amongst the team about that; having started from the position that I thought that they could deliver because they had so much at stake, and because of what they were telling me, I was making a commercial judgment that this was the best option.*"
1199. Sky therefore say that whilst the commercial terms were obviously part of the decision, so too were the assurances, that is the representations.
1200. Richard Freudenstein was clearly in a difficult position in deciding whether to recommend that Sky should continue with EDS on the basis of the terms in the Letter of Agreement. There were obviously a number of factors which he had to take into account. Whilst the commercial terms reduced the risks of proceeding with EDS and were important, from that point of view, it is clear that Sky was interested in being assured as to the time to reach go-live. The process of re-planning in 2001 was evidently carried out to give Sky assurance that EDS had carried out proper planning and had an achievable plan to complete within the timescale. The assurances given to Sky and, in particular to Richard Freudenstein, by EDS were necessary to counter the clear view of people within Sky that EDS could not deliver. In my view, Sky had alternatives but obviously if EDS could perform that would be the better option.
1201. Whilst the commercial terms offered by EDS were a very important factor in Sky's decision to continue with EDS, I consider that, in the light of the obvious scepticism as to EDS' ability to deliver by people within Sky, the assurances given to Richard Freudenstein were relied on by him and were material to him

- making the recommendation to Tony Ball to continue with EDS on the terms of the Letter of Agreement.
1202. For those reasons, I consider that EDS' negligent misrepresentation that they had developed an achievable plan, which had been the product of proper analysis and re-planning was a material misrepresentation which EDS intended Sky to rely upon and which Sky did rely upon in entering into the Letter of Agreement.
1203. Sky accepts that the representation was made by EDSL only. For similar reasons to those set out in relation to the representations made prior to the selection of EDS and the Letter of Intent, I consider that, in principle, any representation was made to both SSSL and B Sky B. However, given my findings on the existence of a duty of care owed by EDSL to B Sky B, EDSL has no liability to B Sky B for negligent misstatement.
1204. On the basis that EDSL made the misrepresentation to SSSL, I consider that EDSL is also liable to SSSL under the Misrepresentation Act 1967. This is a case where SSSL entered into the Letter of Agreement after a misrepresentation had been made to them by EDSL, the other party to that agreement. On the basis of my finding that EDSL were negligent in making the representation, I do not consider that EDSL has established that they had reasonable grounds to believe up to the time the agreement was made the facts represented were true. EDSL would have no liability under the Misrepresentation Act 1967 to B Sky B because they did not enter into an agreement with B Sky B.

### **Cost**

1205. Sky rely on what was said at a presentation made by EDS on 7 June 2001. Sky allege in paragraph 87.1 of the Particulars of Claim that, at that presentation, EDS represented to Andrew Carney and other Sky executives that EDS had assessed the cost of completing the project in terms of the Technology Workstream and that the estimated overrun against the budget baseline was £14.564 million. EDS admit in paragraph 191 of the Defence that this representation was made.
1206. Sky also allege in paragraph 86 of the Particulates of Claim that the representation was to the effect that EDS had carried out a proper analysis of the cost to complete in order to arrive at their overrun figure of £14.564 million. This is not admitted by EDS.
1207. Sky contend that the representation was false because EDS did not carry out a proper analysis, nor indeed could they do so reliably until such time as the System Definition phase had been completed. In addition Sky say that the representation was based on two invalid assumptions: first, that the work that EDS had completed to date was of value and, secondly, that EDS would have the skilled and experienced resources needed for the project.

1208. Sky say that the representations were also made negligently in that EDS failed to disclose that their estimates would be intrinsically unreliable owing to the incomplete state of the System Definition phase; that EDS failed adequately to assess the degree of progress that had been made to date and that EDS failed to take into account their lack of resources or the lack of realism in their plan.
1209. EDS deny the falsity of the representations and assert at paragraph 193 of the Defence that they carried out a proper analysis; that it was valid to plan, as they did, on the basis of the work to date being of value. EDS also deny negligence. They say at paragraph 194 of the Defence that sensible estimating was possible notwithstanding the incomplete System Definition phase; that they did carry out a proper assessment of the project; that they did have, or expected to have, suitable resources and that the programme plan was not unrealistically short.
1210. Sky refer to the evidence of Steve Leonard who was asked about the estimate of cost to finish the project which EDS presented to Sky on 7 June 2001 and showed an increased cost of £14.5m. He said in evidence on Day 64 that it was his expectation that the costing was something which EDS intended Sky to understand had been evaluated carefully and after proper research.
1211. Sky also refer to Greg Hyttenrauch's evidence on Day 62 where he accepted that in the presentations that led to the Letter of Agreement the message that was being given to Sky was that the estimated overrun, against the budget baseline, was £14.564m and that this estimate had been arrived at after carrying out a proper analysis of the cost of completing the project. He also accepted that EDS wanted and expected Sky to rely on EDS' statements to that effect. In addition he also agreed that whether that was a reliable analysis would be dependent upon the adequacy of EDS' planning and the value of the work that had been done and was going to be reused.
1212. Sky say that in the light of that evidence EDS cannot argue that there was no representation or that EDS did not intend Sky to rely on the representation. Sky say that the representation was false as no proper analysis of cost to complete had been carried out.
1213. EDS refer to the presentation made on 21 May 2001 where EDS had put forward a variance or overrun of about £10m and to Greg Hyttenrauch's evidence in paragraph 226 of his witness statement that estimation was a continuous process and costs moved throughout. They say that at the meeting on 7 June 2001 EDS put forward an estimate of a £14.564m overrun which was and was known to be subject to the same risks as the planning. EDS also rely on the same presentation which refers to the possibility of further overruns and proposed to deal with them by sharing them 25/75 according to the risk sharing provisions of the Prime Contract.



1214. EDS say that, in the event, the Letter of Agreement did not include any budgetary figure, but instead, after allowing for various credits, provided for costs to be shared in the same ratio as under the Prime Contract (25%/75%) for the first £7.2m of overrun; for EDS to absorb 100% of the next £3.725m and, thereafter to pay a heightened 30% share of any overrun.
1215. EDS submit that the representation on 7 June 2001 was simply that £14.564m was EDS' estimate, subject to the assumptions and risks and that no further representation was made at that stage. In any event, EDS say that even if they made some representation as to costs, it was true and they rely on Robert Worden's view at paragraphs 1696 to 1697 of his first report that EDS' approach to estimating costs was adequate.
1216. Further, EDS say that any such representation was not made to induce SSSL to enter into the Letter of Agreement as the Letter of Agreement did not refer to the figure of £14.564m, but acknowledged the possibility of overrun, and dealt with it differently.
1217. It is evident that EDS put forward the figure of £14.564m as the overrun figure so as to inform Sky of the estimated overrun cost of the project. In doing so they represented, as they admit, that they had assessed the cost of completing the project in terms of the Technology Workstream and that the estimated overrun against the budget baseline was £14.564 million.
1218. In putting forward that figure I consider that EDS also represented that they had carried out a proper analysis of the cost to complete in order to arrive at that overrun figure of £14.564 million. It was an estimate and was subject to risks and assumptions as any estimate is but, as Steve Leonard and Greg Hyttenrauch both accepted and had to accept, it was put forward on the basis that EDS wanted Sky to understand it had been evaluated carefully and after proper analysis. Indeed, it is difficult to think of any alternative basis on which it could have been put forward. That was also the way in which Richard Freudenstein understood the estimate.
1219. Was it the subject of a proper analysis? Robert Worden has considered EDS' approach to estimating effort and says at paragraph 1656 of his first report that it was commensurate with the information available to EDS at the time. On that basis, he says that considering only the manpower costs but not hardware and software costs, based on his view of the effort estimates he considers that EDS' estimates of costs were adequate. PA say that the estimating process was inadequate because they were derived from resource requirements which were not arrived at through a proper process. They do not appear to have considered the evidence which Robert Worden cites and which, in my judgment, does show that there was a proper process. There had to be assumptions including assumptions about the value of work already carried out. The fact that the estimate of time was wrong would not, in my judgment, of itself, mean that the estimate of overall

resources was not itself based on a proper process but would have been based on an estimate of time which would have been assumed to be correct.

1220. I am therefore not persuaded, on the evidence, that EDS failed to carry out a proper analysis of the estimated overrun cost as of June 2001. It follows that there is no sustainable case on misrepresentation from this point of view.

**Summary**

1221. Accordingly, I find that EDS negligently misrepresented that they had developed an achievable plan, which had been the product of proper analysis and re-planning and that this gives rise to liability for negligent misrepresentation prior to the Letter of Intent. Otherwise I am not satisfied that EDS were otherwise liable.

## **H: BREACH OF CONTRACT**

### **Breach of Contract: Prior to Letter of Agreement**

1222. By March 2001, Sky contend that the project was failing and that EDS were in excess of 5 months behind schedule and had failed to meet almost every milestone.

1223. Sky allege at paragraph 58 of the Particulars of Claim that EDS' failure amounted to, and was caused by, the following breaches of the Prime Contract on the part of EDS:

- (1) that EDS failed to provide the skilled, experienced and qualified personnel that the project required, in breach of clauses 7.2, 7.3.8, 15.1.1 and 15.1.4 of the Prime Contract.
- (2) that EDS failed to deliver the Services, Project Documentation, the component documents of the Full Specification or the Deliverables set out at section 4 of the Preliminary Specification in accordance with the project plan (as revised), the terms of the Contract, or at all, in breach of clauses 2.1, 2.4, 7.1, 7.2 and 7.3 of the Prime Contract.
- (3) that EDS failed to exercise reasonable skill and care or conform to Good Industry Practice in breach of clauses 2.1, 7.1 and 7.2 of the Prime Contract.

1224. The relevance of breach of contract prior to the Letter of Agreement is not directly to claim damages for the breach. As set out above, under Clause 17 of the Letter of Agreement there was a provision settling all claims for breach of contract and Sky therefore make no claim for such breach. Rather the allegation of breach prior to the Letter of Agreement gives rise to a head of damages. Because, as I have found, Sky was induced to enter into the Letter of Agreement by the negligent misrepresentations made prior to the Letter of Agreement, Sky claims that, but for the negligent misrepresentation, it would have been able to recover as damages for breach of contract and therefore the damages are claimed as a head of damages for negligent misrepresentation.

1225. On the pleadings, there were limited admissions of breach of contract by EDS, in this period. In opening and closing submissions EDS have accepted further breaches of contract and the extent to which I need to investigate the particular breaches has now been reduced by the approach taken by the parties.

1226. EDS accept that it was in breach of contract, as follows:

- (1) That, in breach of Clause 2.4 of the Prime Contract some of the deliverables were late. EDS say that the most important deliverables were

the functional specifications to be delivered by EDS' sub-contractor, AA. EDS say that once these were late, or otherwise incapable of supporting timely delivery, all the downstream deliverables were inevitably late as well.

- (2) That the functional specifications were inadequate. EDS refer to the expert evidence of both Robert Worden and PA who agree that, both at 31 March 2001 and 16 July 2001, the functional specifications were incomplete and unsatisfactory. EDS say that, although it is difficult to tie this inadequacy to a particular term of the Prime Contract, they accept that the inadequacy of this deliverable was a breach of the Prime Contract.
  - (3) That, in breach of Clause 2.4 or 7.3.12 of the Prime Contract, EDS failed to capture the Non-Functional Requirements. EDS say that, although these were not specifically mentioned as a deliverable under milestone 3 or otherwise, it is common ground that they should have been captured and EDS accept that they should have been captured in the Business Process Workshops and delivered with the functional specifications.
  - (4) That EDS failed to exercise due skill and care in the management of the problems which arose on the project. Although EDS say that overall management was with Sky, they accept Robert Worden's view that EDS as part of the management team ought to have recognised and raised the problem before they did in March/April 2001.
1227. In these circumstances, EDS say that it is unnecessary to examine the breaches alleged by Sky in great detail because the resulting loss, claimed as part of the misrepresentation case, does not depend on it. EDS say that the breaches are admitted to the extent indicated above, and otherwise denied.
1228. Sky also say that, for all practical purposes, the question of whether such limited breaches as EDS have admitted are the extent of their failings prior to the Letter of Agreement or whether there are further breaches is of no consequence. Whilst Sky then deal with certain breaches, in the light of the position adopted by Sky it is unnecessary for me to make detailed findings. However, the background and the breaches are important in assessing whether there has been a repudiation.

### **Breach of Contract: Post Letter of Agreement**

1229. Under the Letter of Agreement delivery was split into two major phases, Phase 1 and Phase 2. New milestones were set and PwC were appointed by Sky to perform an assurance role.
1230. Phase 1 was an interim solution consisting of a Windows-based Chordiant 'wrapper' around the existing DCMS so that DCMS was made to look like a Chordiant system. It allowed Sky's call-centre operatives to move from the old

‘green screens’ to a Windows-based interface and to become familiar with the Chordiant desktop.

1231. Phase 2 was intended to encompass the entire solution as originally envisaged by the Prime Contract, with some scope reduction. EDS decided to design and develop Phase 2 in increments but to deliver it in one phase. The approach was to take ‘threads’ of functionality which followed transactions through from beginning to end rather than a ‘domain’ based approach which centred on functions or groups of functions.

### **Phase 1 failures**

1232. In relation to Phase 1, Sky allege:

- (1) At paragraph 92 of the Particulars of Claim that, although Phase 1 was delivered on time on 19 October 2001, it was not fit for purpose;
- (2) At paragraph 98 of the Particulars of Claim that EDSL were thereby in breach of contract as the Phase 1 software was defective; and
- (3) At paragraph 97.1 of the Particulars of Claim that EDSL were further in breach in that they failed to deliver the functionality contracted for as set out in Appendix 1 to the Letter of Agreement in accordance with the High Level Integrated Plan set out at Appendix 2 to the Letter of Agreement and they failed to exercise reasonable skill and care in the production of the Phase 1 software.

1233. Sky say that despite renewed efforts, EDS failed to deliver Phase 1. On 19 October 2001, EDS delivered Phase 1 in accordance with the revised milestones, and the roll out exercise began. However Sky say that soon after rollout began it became apparent that the software EDS had built suffered from performance problems: it did not integrate properly with the telephony components and it threatened the stability of Sky’s existing systems. Sky say that it was not until February 2002 that the software was in a useable state so that a successful roll out could be achieved.

1234. EDS say that Phase 1 was completed on time and was fit for purpose. Whilst they accept that there were issues with Computer Telephony Integration and performance, they say that these issues were not outside the normal incidents of software development and integration and did not affect the stability or integrity of existing systems.

### **Phase 1 defects**

#### **Sky’s case**

1235. In his third witness statement at paragraphs 71 to 76, Andy Waddell explains that there were two problems on Phase 1. The first related to a “double log-on”, used to connect the system to the legacy DCMS in the Phase 1 implementation, coupled with a bug in Solaris, the operating system on which DCMS operated (“the DCMS System Problem”). The second problem was with Computer Telephony Integration and appeared to have arisen from a bug in the Lucent Avaya switch (“the Telephony Problem”). Sky also rely on the scope and extent of the Trouble Tickets issued in relation to Phase 1.

***DCMS System Problem***

1236. Andy Waddell says in his first witness statement at paragraph 230 that this was the result of the Chordiant log-on method which EDS had adopted. He says that this was the underlying reason for the stability problems experienced by the legacy systems, which meant that Phase 1 had to be taken in and out of the live environment several times over the following months. He also says that the “double log-on” problem was caused by and inherent to the way that EDS had chosen to approach the implementation of Phase 1 and occurred as a result of the CA logging onto Chordiant. He says that Chordiant would then do a double log-on to the DCMS and although EDS explained that the idea was to increase the CA's productivity by speeding up the screen navigation, the step doubled the number of users logged onto the system.
1237. He says at paragraphs 72 and 73 of his third witness statement that the DCMS ran under the Solaris 2.6 operating system which had a bug related to the Telnet terminal communication function. This function allowed users to logon to the system but when the number of concurrent users became too high, as was the case after EDS had effectively doubled the number of user logins, the bug manifested itself by slowing the system down until it eventually "hung" and users were not able to either log-on or log-off. He says that recovering the system then required a lengthy re-boot which effectively rendered the call centres without a system for around an hour. The problem was eventually dealt with by a patch but it was known on the programme that the double log on should have been picked up in EDS' Full Relief Environment Test, rather than Phase 1 being allowed to go-live by EDS.

***Telephony Problem***

1238. In addition, Sky say that the Phase 1 system failed to integrate properly with the Avaya telephony solution that Sky had installed and they rely on the evidence of Andy Waddell at paragraphs 75 to 76 of his third witness statement. He says that in computer/telephony integration the ability to direct a call to an available agent and "screen pop" the customer's information to the available CA is crucial. He states that one of the most serious and enduring problems with Phase 1 was Avaya's Java telephony application programme interface (“JTAPI”) which was used to interface Chordiant to the Definity Solution. Andy Waddell says that there was a bug in the Avaya JTAPI code which resulted in failure of the basic transaction of delivering calls and screen popping customer information to agents.

He says that if EDS had undertaken a Technical Proof of Concept at the outset then this could have been identified and dealt with either by relying on the earlier version of the software or asking Avaya to provide a fix for this particular problem.

### ***Trouble Tickets***

1239. Sky rely on the evidence of Mark Britton who observes that according to the Phase 1 Trouble Ticket system, the Phase 1 system was delivered with 718 defects categorised as severity 1 which, according to EDS' own classification set out in the Testing and QA Strategy, meant '*System will shut down and cease operating, or critical data may be corrupted. Usually must be corrected immediately, and system cannot be released until it has been corrected*'. Thus, Sky say that, in delivering Phase 1 on 19 October 2001 EDS failed according to the standards they themselves had set for the delivery to be counted as a success.
1240. In relation to performance issues, Sky rely on the document "Sky CRM Phase 1 Launch Executive Summary" of 4 January 2002. They say that this document reveals that in the two months after the system was launched it underwent four code releases, three system changes and two architecture changes. They rely on the evidence of Mark Britton at paragraph A417 of the first PA report where he says that it is not common to make architectural changes in the production environment to address issues and that it is an indication of a flawed architectural design and/or capacity planning. He says that a failure to identify and resolve such issues in testing represents either insufficient test coverage or improper handling of discovered issues. In particular he says that performance problems were the major driver of the architecture changes, which points to failings in the Stress and Load Testing phases.
1241. Sky say that there were stability problems and unplanned outages and that whilst EDS delivered Phase 1 on or around 19 October 2001 and it began to be rolled-out immediately thereafter, many telephony related issues arose and the DCMS suffered system problems which required significant systems outages to re-boot the server. Sky also say that the performance problems meant that on 14 November 2001 the Phase 1 rollout ceased altogether pending resolution of those problems.
1242. Sky rely on the evidence of Mark Britton at paragraph A403 of his first report where he says that the problems with the Phase 1 rollout could and should have been identified and corrected prior to delivery of the system. He says that they arose because EDS failed to conform to good industry practice or to undertake the development with reasonable skill and care because they failed to validate and test the Phase 1 system sufficiently early. Sky say that, although Full Relief Environment Tests were carried out, they did not include load testing of the legacy applications, which is where the core performance problems lay. Further Mark Britton notes in relation to Full Relief Environment Testing at paragraph E927 of the first PA report that no integration testing appears to have been carried

out at all. He says that it appears that EDS never even intended to carry out such testing because the Phase 1 Architecture Overview records an assumption that *'no integration test will be required'*. He says at paragraph E931 that integration testing was required and had it been carried out, it is unlikely that the telephony integration problems would have occurred.

1243. Mark Britton notes that Stress Testing was not complete when the roll out commenced on 19 October 2001 as the Phase 1 Remedial Plan dated 19 October 2001 stated that *"Load and Stress testing is not complete. In particular the '7 million customer' and '65 million customer' tests have not been completed"*. He says that Stress Testing was inhibited by the failure of the testing tool, LoadRunner, to fulfil its purpose and that it was not until 14 December 2001 that the Chordiant Stress Test Report, describing the results of the *"7 million customer"* test, was released and concluded that the testing had been completed successfully. Similarly he says that the Phase 1 65M Chordiant Stress Test Report was released on 28 January 2002, three months after Phase 1 roll out commenced, and showed similar conclusions in relation to that test. His view is that had the performance tests actually completed prior to roll out then some of the issues found in the operational environment may have been identified earlier.
1244. His opinion is also that the problems with Computer Telephony Integration would also have been found before the system was deployed if proper integration testing had been carried out with a test instance of the Telephony system. The team lacked such an environment, and in the event carried out limited testing with the live environment. The limited opportunity to test in the absence of a test environment was probably why the problems were not found.

#### **EDS' case**

1245. EDS accept that there were performance issues, although differing explanations have been given for their nature and origin, but they contend that the problems experienced were in line with what was to be expected. EDS rely on Andy Waddell's confirmation in his evidence at paragraph 76 of his third witness statement and on Day 23 that both problems were eventually fixed.
1246. EDS refer to Robert Worden's view at paragraph 1247 of his first report that the overall performance of the Phase 1 solution is comparable with that encountered in most projects involving the integration of new packages into legacy environments. He says that the level of issues as provided in the disclosed Trouble Tickets does not appear unduly high as would be expected if EDS had failed to demonstrate reasonable skill and care. In practice, he says that the faults appear to be have been split between systems that Sky were responsible for and those new systems for which EDS was responsible for providing the initial support. He says that he has found no evidence in the disclosure that the deployed Phase 1 solution threatened the stability or integrity of the legacy systems.



1247. EDS also rely on Robert Worden's conclusion at paragraph 400 of his third report which he derived from Sky's subsequent use of the Phase 1 system as the basis of Increment 2.1. He says that, in his opinion, this would not have been the case unless it had been regarded, after several months of use, as a satisfactory platform for further development and use.
1248. In relation to the allegation that EDS failed to deliver the functionality contracted for as set out in Appendix 1 to the Letter of Agreement in accordance with the High Level Integrated Plan set out at Appendix 2 to the Letter of Agreement, EDS say that Phase 1 was delivered on time on 19 October 2001, as required by Appendix 2 to the Letter of Agreement and there is no suggestion that any functionality was missing.
1249. In relation to the allegation that EDS failed to use reasonable skill and care in the production of the Phase 1 software, EDS refer to a document dated 17 October 2001 which set out the results of the Phase 1 Full Release Environmental and System Testing ("the FRET and System Test Report") and which reported on the results of the testing of four formal test areas for Phase 1. It summarised the test results at Section 6 in particular in relation to Computer Telephony Integration and KANA Software's knowledge management application performance test issues. EDS say that these were not outside the normal incidents of software development and integration and did not affect stability or integrity of existing system.
1250. EDS rely on the opinion of Robert Worden in paragraphs 397 to 399 of his third report where he refers to PA's opinion that, based on testing of the Phase 1 system '*Phase 1 was not fit for purpose when initially delivered because it could not be scaled to support the required number of users and had unreliable CTI*'. He says that it is correct that the Computer Telephony Integration (CTI) was initially unreliable and that the system initially did not scale to support large numbers of users. He says that, in his opinion, this was not the sole responsibility of EDS, but arose from decisions in which Sky were involved. He refers to a number of matters which he says shows the involvement of Sky. He points out that the delivery of Phase 1 was under detailed scrutiny by both the Sky Programme Manager and by PwC in the assurance and programme support roles so that he considers that it is unreasonable to suggest that all the faults or planning omissions alleged by PA are solely the responsibility of EDS.
1251. In relation to the Trouble Tickets, EDS rely on Robert Worden's analysis at paragraph 1244 of his first report which concludes that of the 221 Trouble Tickets disclosed, just over half (52%) appear to relate to the actual roll-out process for Phase 1. He says that this is not surprising as Personal Computers were being rebuilt and user login profiles amended and that this was bound to lead to short-term issues given the way that IT operations departments work and is typical of many package implementations. He says that this appears to be an area of shared responsibility between EDS and Sky, the former responsible for advising on

Personal Computer and user configurations and the latter responsible for updating the system with these new configurations.

1252. Robert Worden says that the next largest category of problems relates to the new call handling package (Avaya), comprising 16% of the Trouble Tickets. He says that the Support Agreement indicates that Sky were responsible for telephony and the daily rollout minutes show that this problem was managed by Gary Innes of Sky.
1253. The next category of issues was, in Robert Worden's opinion, typical 'business as usual' support issues, accounting for 14% of the Trouble Tickets. This covered system re-boots and other similar support issues. Of the remaining Trouble Tickets in Robert Worden's analysis, 12% related to duplicate tickets or tickets where no further action was taken and 8% related to actual Chordiant issues. The Chordiant issues included application problems, system slow running and screen pop issues.

#### **Analysis**

1254. Although the roll-out of Phase 1 started on 19 October 2001 it is evident that the Phase 1 system was not in a state where it could be described as being fit for purpose both because of the DCMS System Problems and the Telephony Problems. Those problems would have been identified and resolved had the necessary stress and integration testing been carried out before the commencement of the roll-out. As it was, problems with the performance of the system and the telephony meant that the Phase 1 roll-out had to be suspended whilst those problems were resolved. The stress testing was then performed and this led to the satisfactory performance of the system demonstrating that this was a matter of further work which was required rather than a fundamental problem with the Phase 1 such as missing functionality.
1255. Whilst with all new systems it can be expected that there will be Trouble Tickets and that defects will need to be resolved, I am of the firm view that the DCMS System Problems and Telephony Problems were serious problems which showed that EDS had failed to use reasonable skill and care in the production of the Phase 1 software and had not performed the required testing before roll-out. Whilst Robert Worden correctly points out that Sky were involved in various decisions at the time, there is nothing in the matters which he mentions which shows that Sky were responsible for the underlying problems or for the fact that testing was not carried out before the Phase 1 roll-out.
1256. Accordingly, to that extent, I find that in relation to Phase 1, although EDS complied with the time for delivery of 19 October 2001, the Phase 1 system was not fit for purpose because it was defective in relation to the DCMS System Problems and the Telephony Problems and had not been properly validated and tested. EDS did not therefore, to that extent, deliver the properly operating functionality contracted in the Letter of Agreement and I accept that by failing to

carry out required testing before Phase 1 roll-out they failed to exercise reasonable skill and care in the production of the Phase 1 software.

## **Phase 2**

1257. Sky say that Phase 2 was a failure. They say that EDS' performance after the Letter of Agreement parallels their earlier performance. They allege that EDS failed to provide personnel, failed to meet the milestones and generally failed to perform. As a result, they say that when they took over as Systems Integrator in March 2002, the CRM Project was in a poor state with no significant progress having been made in many areas.
1258. Sky allege in paragraphs 97.1 to 97.3 of the Particulars of Claim that EDS were in breach of contract, in particular:
- (1) In breach of clauses 7.2, 7.3.8, 15.1.1 and 15.1.4 of the Prime Contract and paragraph 6 of the Letter of Agreement, EDS failed to provide the skilled, experienced and qualified personnel that the project required.
  - (2) In breach of clauses 2.1, 2.4, 7.1, 7.2 and 7.3 of the Prime Contract, as varied by paragraphs 3 and 5 of the Letter of Agreement failed to deliver the Services, Project Documents and Deliverables set out Appendix 3 to the Letter of Agreement in accordance with the High Level Integrated Plan at Appendix 2.
  - (3) In breach of clauses 2.1, 2.2 and 2.4 of the Prime Contract EDS failed to exercise reasonable skill and care or conform to good industry practice.
1259. When Sky took over from EDS as System Integrator in March 2002 they say in paragraph 104 of the Particulars of Claim that they discovered that, having paid EDS over £58 million, the project was in a very poor state, with much of EDS' deliverables and work-in-progress of no value.
1260. In paragraph 220 of the Defence, EDS deny that the state of the project in March 2002 was poor or that in many areas no significant progress had been made.
1261. I shall consider the position in relation to each of the complaints made by Sky.

## ***Resources***

1262. It is evident that Greg Hyttenrauch did his best to bring the right resources to the project and there is no doubt that, as Tony Ball observed in his report to the board on 7 February 2002, EDS' resources were improving in terms of the quality of the people involved. Equally, Andy Waddell commented in his evidence on the quality of resources which Greg Hyttenrauch brought from Telford.
1263. There is no doubt that, as Andy Waddell also says, Greg Hyttenrauch did his best to get good quality resources on the project in the time available. But as Greg Hyttenrauch accepted both in his witness statement and in oral evidence, when he came to consider the position again later in 2001 he realised that some of the wrong people were put in management positions and they did not have the

- seniority or experience to deal with a client like Sky. Whilst Sky was obviously a demanding client it was for EDS to provide people with the knowledge and experience. Robert Worden too accepts that EDS' project management and technical leadership was the subject of justifiable criticism.
1264. Whilst Robert Worden's analysis concludes that there were sufficient numbers overall, with certain deficiencies, Ian Murray considers that in this period EDS continued to deploy an under strength team of under experienced resources of mixed but generally low quality, many of whom were unsuited to their roles. He considers that the teams consisted of too many novices and only a few highly experienced people.
1265. Sky rely on the contents of EDS' internal Corporate Audit Report, dated 2 February 2002. This report was produced by Sean Smith after a series of interviews which were carried out in October 2001. In the version of that report of 19 February 2002 there were two particular comments:
- (1) *EDS has not been able to staff the programme with skilled and experienced individuals in order to achieve the project plan (particularly Chordiant and Forte Fusion skills).*
  - (2) *Lack of skilled resources in the implementation workstream has introduced a significant threat to the EDS project plan. It is only recently, and several months behind schedule, that staffing has reached a critical mass on this workstream.*
1266. EDS say that in the light of Sean Smith's evidence the contents of the report should be treated with caution. Whilst Sean Smith tried to explain that there were deficiencies in the report, I consider that the report contains an accurate reflection of the views expressed to him, although there were some inaccuracies in the contents. However, in relation to these two aspects, I have no reason to doubt that the report accurately reflected the position on resources and that position is confirmed by the analysis carried out by Ian Murray.
1267. I therefore find that, although there were improvements in the quality and numbers of resources after the Letter of Agreement there were still areas where EDS lacked both the number of resources needed and also resources with the appropriate qualities to carry out the project. There were particular difficulties in relation to EDS' project management and technical leadership staff.

### ***Delay***

1268. EDS accept that they were late in delivering Phase 2 deliverables. Under Clause 2.4 of the Prime Contract there was an absolute obligation upon EDS to deliver the first milestone on 28 August 2001. In fact, it was not signed off until 25 October 2001 and, as EDS fairly accept, any criticism of Sky for delaying sign-off does not affect the fact that the delivery was delayed into October.
1269. It is common ground between Robert Worden and Mark Britton that many of the Phase 2 project deliverables due before March 2002 were late and of poor quality.

This, in my view, is hardly surprising given Robert Worden's view that EDS' project plan after the Letter of Agreement was inadequate and that it was "generally over-compressed" and "the risks were high of interactions between one increment and another, which would extend timescales...".

1270. In summary the position is set out by Mark Britton in paragraphs A423 to A427 of the first PA report. The only major milestone of the five due to be completed prior to March 2002 was the first, August Milestone due on 31 August 2001 but only completed on 25 October 2001, some six weeks late and this was subject to remedial actions before sign-off. The August Milestone required the project approach, requirements, analysis and architecture (system design) to be completed. There were 11 minor milestones for the August Milestone and by March 2002 there were still 9 remedial plans open. The August Milestone obviously was of importance because the approach and requirements formed the basis for the continued progress of Phase 2.
1271. In relation to progress, EDS say that progress did not cease. They refer to progress in relation to functional specifications as a result of the Business Service Validation workshops, in the application architecture and in the logical data model. However, EDS say that because of the poor state of the requirements, any further progress required the requirements to be on a firmer basis. Therefore, EDS accept that design and development work was suspended because of this while Joint Application Development (JAD) sessions were held to attempt to clarify requirements.
1272. I accept that some progress was made but progress in carrying out the necessary design and development for the project was delayed whilst EDS carried out these JAD sessions. It is evident that EDS failed to deliver the services, project documents and deliverables in accordance with the Prime Contract as amended by the Letter of Agreement.

### ***Performance***

1273. In relation to the allegation that EDS failed to exercise reasonable skill and care or conform to good industry practice, Sky rely on a number of particulars in paragraphs 101 and 104 of the Particulars of Claim.
1274. In paragraph 101 of the Particulars of Claim Sky make a number of allegations of breach of reasonable skill and care and failure to comply with Good Industry Practice. Those matters have been dealt with above in relation to resources and progress or do not now arise.
1275. At paragraph 104 of the Particulars of Claim they also rely on a number of particular matters arising from the status of the project in March 2002 as demonstrating that EDS was in breach of the obligation to perform with reasonable skill and care and in compliance with Good Industry Practice. Those matters relate to the Requirements Specifications, Architectural Design, Detailed Design, Testing Strategy, Implementation Strategy, Other Project Documents,

Engineering Process and Methodology, Developed Software, Business Rules and Workflow, Logical Data Model, Forte Fusion and Batch Interfaces.

1276. These breaches go essentially to the question of whether there is a repudiatory breach in March 2002. Sky say that this question is of academic interest in the light of the cap on EDSL's liability for breach of the Prime Contract, as amended. I can therefore deal with these issues comparatively briefly.

***Requirements Specification***

1277. Sky contend that the Functional Requirements produced by EDS by March 2002 contained an accurate representation of Sky's business requirements but were unfit for purpose because they could not be used as a basis for the design, build and testing of the system.
1278. Mark Britton says that EDS relied on Arthur Andersen, as a sub-contractor within the Process Stream, as the major source of definition of the system requirements. He says that EDS applied an inadequate approach to requirements definition which did not take into account the scale and complexity of the programme and failed to have effective involvement from the technical team in the production of the Functional Specifications. He also says that EDS failed to impose a coherent process for capturing the data requirement and that this duplicated effort and produced two competing views of the requirement.
1279. He says that no attempt was made to gather Non-Functional Requirements until July 2001, which was far too late to influence the initial architecture of the system which should have been based on them. He says that by March 2002 the Non-Functional Requirement documents were at or nearing the point where EDS were ready to submit them for sign-off by Sky. However, he adds that this did not imply that they were complete and remedial plans were put in place following the review meetings with Sky and some of the actions were substantial. In the event he says that the remedial work had still not been completed by 10 June 2002, over three months later, when 900 issues were still reportedly outstanding.
1280. He says that by 6 March 2002 the main Functional Specifications had been signed off, but contained significant inconsistencies and some omissions that would have made them impossible for the development team to work from as their sole source of information. He also says that the Joint Application Development workshops that had been started had devalued the Functional Specifications further by making changes to the process being implemented that were not being reflected in the specifications.
1281. EDS admit that the Functional Specifications were defective and say that they failed even to capture Sky's business requirements adequately. They say that Arthur Andersen and Sky were responsible for the defects: Arthur Andersen because they produced the defective specifications; Sky because they exerted managerial control over the requirements capturing process and approved the

- documents that Arthur Andersen produced. EDS say that when Sky took over as Systems Integrator, requirements were sufficiently defined to support development work because of the Joint Application Development sessions held in January 2002.
1282. Robert Worden says that the most important problem faced by the project in March 2002 was that requirements were still poorly defined and unstable. This meant that all other deliverables which depended on requirements were very likely to require rework. He says that the shortcomings of the requirements concerned the business requirements, not just issues of technology or implementability. He says that the Non-Functional Requirements had not been adequately recorded because there had not been a top-down, business-led process to define these requirements.
1283. In my judgment, the state of requirements capture was a major cause of EDS' poor performance in Phase 2. Whilst EDS may seek to blame Arthur Andersen for the failure to capture the requirements in a proper and timely manner, Arthur Andersen were a sub-contractor to EDS and EDS were responsible for any lack of performance by Arthur Andersen. In addition, there was clearly an obligation on EDS to have sufficient involvement in the process to ensure that the necessary Functional and Non-Functional Requirements were obtained. I do not consider that Sky can be held responsible for the failure to obtain the necessary requirements. Whilst it was their requirements which were being captured, it was for EDS and Arthur Andersen to involve Sky and to ensure that the requirements necessary to the design process were captured.

***Architectural Design***

1284. Sky contends that the Architectural Design produced by EDS was incomplete in March 2002 and suffered from serious quality problems. Mark Britton says that the architectural documentation at 6 March 2002 did not define many of the design patterns that would have been necessary to start design or construction work on the Contact Management or the Integration components of the system, without risk of significant rework. His view is that the validity of the architectural documentation was further compromised by being based on requirements that had not by that stage been captured and agreed, in particular, the Non-Functional Requirements and there was inadequate basis for believing the architecture would deliver the requirement. He says that a large amount of work remained before the architecture should have been judged mature enough to start detailed design.
1285. He says that the architectural information that existed was fragmented across many documents and it would have been difficult for the large development team spread across multiple locations to understand the current state of the design and what information existed that was relevant to their work. He says that, in order to be able to demonstrate that architecture documents are consistent with each other, it is important that they are based on a common model of the system, they use the same terminology for different parts of the system and they show how the components in one architectural view map on to the components in another so

- that, for example, it should be possible to trace through the documents to determine which application components reside on which pieces of hardware. He says that such traceability was absent from EDS' set of documents.
1286. EDS admit the incompleteness, but say that there were issues between the parties as to what needed to be in the documents at that stage and as to the quality of the work that EDS produced. EDS say that although the Technical and Physical Architecture was incomplete, this should not have precluded them from issuing it.
1287. Robert Worden's view is that Sky is correct in saying that the Architectural Design was incomplete and inadequate in that there was no Data Architecture, the Application Architecture had no function model and had gaps and the physical architecture was issued before transaction volumes were known. He says that this occurred as a consequence of poor and late requirements, and that, given the incompleteness and instability of the requirements, the resulting problems in the architecture documents were inevitable.
1288. Whilst I accept that a major underlying cause of the incompleteness in the Architecture documents was the result of the inadequate and delayed process of capturing the requirements, I consider that the Architecture documents produced did suffer from serious quality problems which were independent of the underlying cause of the problem. In any event both deficiencies are matters for which EDS were responsible

#### ***Detailed Design***

1289. Sky allege that by March 2002 no Detailed Designs had been created or documented save for some designs that resided in the SELECT tool relating to aspects of Chordiant. EDS deny this. Sky also says that the Detailed Designs that EDS did create were not produced with reasonable skill and care and suffered from quality problems.
1290. Mark Britton says that EDS had completed detailed designs for the Contact Management component of Increments 1 and 2. He says he has inspected the design for increment 1 and that it seemed to be a relatively complete piece of work. He says that he has not had the opportunity to examine the Increment 2 design. He says that there were detailed designs for two of the Data Warehouse interfaces, corresponding to the capture of data for two of the Use Cases out of about 60 and that there was also a detailed design for the Chordiant XML PDM adapter, carried out by Chordiant on behalf of EDS. He says that he is not aware of any detailed design documents for the work that had been carried out in respect of the Arbor Customisations apart from the original IPA, which was high-level and by then acknowledged to be out-of-date.
1291. He says that the main issue with the detailed design was that it was not based on an architecture, or high-level design that could be considered anywhere near complete. He says that the design would not have taken into account Sky's overall



- functional and Non-Functional Requirements so that the code developed based on the detailed designs would not be able to be integrated, maintained and enhanced as required. He points out that incorporation of architecture and high-level design at a later stage would have meant substantial rework of detailed designs.
1292. Robert Worden says that because of the shortcomings in the requirements, which were particularly lacking where they concerned systems other than Chordiant, detailed design had only been done for Increment 1 which was centred on Chordiant.
1293. I accept Robert Worden's evidence that the shortcomings in the capture of requirements impacted on the detailed design. As Mark Britton says, the detailed design was not based on an architecture, or high-level design, that could be considered anywhere near complete and this meant that substantial re-work would be necessary. As I have stated above, there were also defects in the Architecture documents which meant that the design suffered from quality problems. All these matters were EDS' responsibility.

#### *Testing Strategy*

1294. Sky's main complaint in relation to EDS' Testing Strategy is that by March 2002 it remained incomplete and unimplemented. EDS admit that the strategy was incomplete but allege that it was sufficiently complete given the stage the project had reached at that time.
1295. Mark Britton says that the Testing Strategy was incomplete because the Overall Test Strategy referred to many aspects such as testing automation, channel testing, data warehouse and data migration which were postponed to other documents or future work. He says that it was also based on the old approach of a single delivery and domain based increments, whereas the approach had changed to one of incremental delivery with thread based increments and that this would affect the way in which the test stages from system test onwards would have to be carried out. He also says that it had not been updated to include testing of the Operational Data Store.
1296. He concludes that, as a result, it would have been impossible to plan the testing effort accurately and without a complete test strategy it would have been impossible to know if the plan for testing within the programme plan was achievable.
1297. It is common ground that the testing strategy was jointly authored by Sky and EDS. Mark Britton says that whilst Sky had been involved in the production of the Overall Test Strategy since Summer 2001 because Sky would be responsible for carrying out User Acceptance Testing (UAT), there was no reason for Sky to be responsible for delivery of anything apart from the UAT parts of the test specification, which EDS admit they had already provided.

1298. Sky also allege that EDS recommended the purchase of a string of test tools without ever apparently finally determining what was required. EDS say that their first choice, Mercury, was appropriate in principle but turned out to be unusable owing to a bug, hence the switch to Segue Silk which was used for Phase 1. Rock Solid was adopted after Sky took over as System Integrator.
1299. Mark Britton says that the specific difficulties that EDS encountered with the Mercury product would not have been foreseeable, and so its actions were reasonable, but they are an example of the type of delay that a Systems Integrator who brings little experience of working with the products can encounter and which a Systems Integrator with good experience of the technologies can avoid.
1300. Robert Worden says that the testing strategy while being at a high level was appropriate for the state of the project. He says that the requirements were still fluid and that the details of the implementation which had to be tested were unknown. The testing strategy did not therefore refer to the application architecture. He says that EDS' procurement of test tools was adequate.
1301. It is evident that EDS' testing strategy was incomplete and had not taken account of changes in the planned approach. Again, until the requirements had been completely and properly captured any Testing Strategy would necessarily be incomplete as the implementation to be tested would still not be fully known. In essence the fact that the testing strategy was incomplete reflected EDS' delay to the project.

#### ***Implementation Strategy***

1302. Sky allege that the Implementation Strategy was incomplete as at March 2002 and of no value to Sky owing to the incremental implementation strategy adopted thereafter. EDS admit both that the strategy was incomplete and that much of it was rendered redundant by incremental implementation. They say that a complete strategy was not needed by March 2002 and that Sky hampered its development by failing to provide appropriate input. They also deny that the fact that it was inappropriate for incremental implementation indicates any shortcoming on the part of EDS.
1303. Mark Britton says that the only document he can find relating to the overall implementation strategy is a document with the title "Phase II Implementation Strategy" which was generic in nature, contained little detail that was specific to the CRM Project and missed out many of the streams of work that would be necessary to perform an implementation. He says that there was so little specific detail that the switch to an incremental delivery would probably not have invalidated much of the little content.
1304. He also says that a reasonably complete Data Migration Strategy document existed in March 2002, but this had not been signed-off by Sky. The switch to an incremental delivery would not necessarily have invalidated this part of the

implementation strategy, because the bulk of the Migration would have occurred for a single increment, Increment 2.3. He says that a Data Warehouse migration strategy had been produced by 16 January 2002, but it stated that the content was just a proposal and “*does not yet examine the options in the light of real world constraints*”. He says that it would not have been possible to do any more in the light of an evolving implementation strategy for the system as a whole.

1305. Mark Britton concludes that, as with the test strategy, the absence of a complete implementation strategy would have made it impossible to plan accurately how long or how much effort an implementation would take.
1306. Robert Worden says that the implementation strategy was at a high level and incomplete, but could have formed the basis for a suitable strategy when complete. He says that it could only be completed after the system boundary, the set of applications which were to be built or modified and the requirements for systems other than Chordiant had been better defined than they were in late 2001.
1307. There were evidently deficiencies in the implementation strategy, not least because the strategy was incomplete. The Implementation strategy was still at a high level and EDS had not properly considered the strategy for the particular detail of the CRM Project. Whilst the requirements would have had some impact on this, in my judgment, that impact would not have been great. The underlying implementation strategy should have been in a more complete state than it was by March 2002 but this reflects the general delay on the project.

#### ***Other Project Documents***

1308. It is common ground that when Sky took over as Systems Integrator, a full and up to date set of project documents should have been in place to deal with programme management, quality, standards and control processes. Sky allege that they were not whilst EDS say that they were in place to the standard and extent appropriate for the stage the project had reached.
1309. Robert Worden says that EDS were applying some project management processes, with some shortcomings but that the impact of those shortcomings was slight compared to the other issues threatening the project. He says that EDS were not involved in the programme management team, so had little influence on the quality of CRM programme management documentation. In relation to the Phase 1 and Phase 2 projects managed by EDS, he says that he has seen some documents dealing with management, quality, standards and control processes, but cannot conclude that they were full and up to date at March 2002.
1310. The extent to which project documents were in place to deal with programme management, quality, standards and control processes is not clear on the evidence. There were evidently many documents produced as part of the project management process and, whilst there may have been deficiencies in individual

documents or classes of document, I am not in a position to go further on the evidence.

***Engineering Process or Methodology***

1311. Sky say that EDS consistently failed to deploy any appropriate methodology or engineering process. EDS say that they employed appropriate methodologies and engineering processes.
1312. Mark Britton says that, although the “BSkyB CRM Engineering process” was nominally in place by the 6 March 2002, it was not being followed and requirements analysis, architecture, design and coding activities were overlapping in a way that was not part of the Engineering Process. He also points out that the functional requirement had started to be re-written through the Joint Application Development sessions, which were not a feature of the Engineering Process. As a consequence he says that there were inconsistencies between requirements, architecture, the Logical Class Model and the design.
1313. He says that the Engineering Process only covered development of the Contact Management and Integration components of the system and that Billing, Data Warehouse, Field and Inventory Management and Knowledge Management components were not covered. However he says that for these EDS did adopt approaches which were more suited to the nature of the component, with varying levels of success and that there is no reason why this should not occur within the context of an overarching engineering and integration process with which these other approaches work.
1314. He says, though, that the Engineering Process did not address how to integrate these other components, and therefore there was no approach defined at the critical level of defining and managing the scope and interfaces between each of the major components of the system. He observes that the lack of this had been felt throughout the project, resulting in ad hoc, reactive measures such as Chordiant-Arbor Integration Team and Field Management System replacement studies.
1315. Robert Worden says that the Telford Engineering process, adapted for the CRM Programme, was being applied and the project had defined an approach to high-level design and detailed design which was consistent with it. He says that detailed design and development procedures were common across the Increment 1 development, which was the only place where they had been used. He says that the Telford Engineering Process was adequate as was its application on the project, except for the lack of use of the logical data model in Increment 1.
1316. EDS applied the Telford Engineering process to parts of the work and other methodologies to other parts of the work. Whilst there was no overarching methodology which was applied consistently by EDS on the project, EDS did adopt approaches which were more suited to the nature of components, with

varying levels of success and I accept Mark Britton's view that there is no reason why this should not occur within the context of an overarching engineering and integration process with which these other approaches work.

***Developed Software***

1317. Sky make three allegations with respect to the state of developed software as at March 2002: that it was developed prior to the Architectural and Detailed Design being completed, documented or (in some cases) started; that there was no proper mechanism for code reviews; and that there was no adequate Configuration, Release and/or Defect Management system in place.
1318. Mark Britton says that his analysis has shown that that code was developed before sufficient architectural design occurred in respect of the Phase 1, Phase 2 Increment 1 and Phase 2 Increment 2 code for the Contact Management component. He says that starting on deliverable code before the architectural design has been completed is only recommended on an exceptional basis, where there are good reasons for believing that the architecture gives sufficient guidance or the risk of rework can be managed and allowed for later in the project. He says that in this case many of the high-level design decisions had not been taken before software was written. He also says that the code was started before the delivery of the fully attributed Logical Class Model on which it was to be based. He says that he has found little evidence concerning the quality of code reviews although a number appear to have occurred.
1319. EDS admit that they developed the code prior to completion of the Architectural and Detailed Design, and that some code was developed prior even to commencement of such design. They contend that no deliverable software was developed prior to substantial work being done on Architectural and Detailed Design, which they say is appropriate and in accordance with good practice. EDS deny Sky's allegations in relation to code reviews and configuration, release and defect management. As for Defect Management, EDS allege that the PVCS Tracker tool was used for the purpose
1320. Robert Worden says that in Increment 1, some software was written before architectural design. He says that there were detailed design reviews but he has not seen evidence of code reviews. He says that configuration management had been delayed by problems with procurement of the PVCS Tracker tool, but was planned and was not yet a major issue at that stage of the project, because development had only been done on one increment. In relation to release management and defect management, he says that the PwC major milestone assessment indicated that these were adequate for Increment 1.
1321. It is evident that EDS developed some software prior to the Architectural and Detailed Design being completed, documented or started. However, I am not in a position to say to what extent this happened or how this software development related to the timing of the process of the relevant design. I consider that it is

highly likely that this is another example of where the lack of progress on the project meant that the impact of proceeding in this way had not yet had any real effect.

### ***Workflow and Business Rules Engine***

1322. Sky allege that despite recommending the purchase of the iLog Rules Engine at a cost of £600,000, EDS failed to use either it or the Chordiant Workflow engine properly or at all, even though both were required for the project. EDS admit that the Chordiant Workflow engine was required but deny that they failed to use it. In respect of iLog, EDS say that they recommended the purchase and that it was necessary to fulfil the requirements of the ITT and they say that it would have been extremely difficult to meet Sky's expected requirements without it. EDS also admit that iLog was not used to any significant extent, a situation that they say was caused by its late delivery.
1323. Mark Britton says that EDS made no sensible use of either Rules or Workflow engines with the consequence being that a great deal of the flexibility of the system promised to adapt to support new processes and products was removed.
1324. He concludes, based on the absence of any design specification and given the pressure that the development team was under to deliver, that it is highly unlikely that EDS would have been in a position to make use of the Rules Engine. He says that one of the pieces of functionality that would be an obvious candidate for the use of the rules engine, that of Products and Offers, had been de-scoped from Increment 2, so the Rules Engine could therefore still in principle have been used to significant benefit in Increment 3 and beyond.
1325. In relation to EDS' contention that the workflow engine was used because it is integral to the Chordiant product and there is no way of implementing a Chordiant solution without using it, he says that this is true, but to use the workflow engine in such a trivial manner without designing the rest of the activities would not allow Sky to tailor their processes using the workflow engine. This, he says, would remove even more of the promised flexibility.
1326. Robert Worden says that there had not yet been occasion to use the iLog rules engine. He says that business rules were only poorly defined in the requirements up to Baseline 2, compared with their later state in Baseline 3 and therefore the lack of use of a rules engine was not yet a significant issue for the project.
1327. It is common ground that the iLog rules engine was not used and the workflow engine was used only to a small extent. I think that one of the reasons why these were not used was the poor definition of the requirements. Again that and the delay to the project are the mostly likely causes of the failure to use the rules or workflow engines effectively by March 2002.

### ***Logical Data Model***

1328. The purpose of a Logical Data Model is to provide an over-arching representation of the data to be held within a system, so that the data representations of individual sub-systems, that is the physical data model, can be mapped onto it.
1329. Sky say that the Logical Data Model was of no value, principally because it arrived too late to support the creation of the Physical Data Model and it failed to take account of constraints within Chordiant and Arbor. Sky state that the model was unusable and thus not used after March 2002 for completion of the project. EDS denies this.
1330. Mark Britton refers to the fact that by 6 March 2002, the Logical Data Model had been superseded by the logical Class Model and he considers that the reference should be to the Logical Class Model. He says that by 6 March 2002, the Logical Class Model was incomplete as the attributes had only been defined for Increments 1 and 2. He says that, apart from this, the model appeared to be a reasonable representation of Sky's idealised requirement.
1331. He says that the model had not taken into account the data models of Chordiant and Arbor and therefore would have caused an unnecessary amount of customisation work, had it been used as a basis for inter-system communications as intended.
1332. Robert Worden says that the logical data was developed without regard to the data models in Chordiant or Arbor, because it was correct to do so. He says that the Logical Data Model was late, because the plans had been over-compressed given the state of the requirements.
1333. The Logical Data Model was late and incomplete but, as Mark Britton says, apart from this the model appeared to be a reasonable representation of Sky's idealised requirement for Increments 1 and 2. Again this is a case where there was delay and, in my judgment, that accounts for the problems with the incompleteness on this aspect.

***Forte Fusion***

1334. Sky allege that notwithstanding that, by March 2002, EDS had charged Sky for in excess of 2,100 man-days of work in relation to Forte Fusion middleware development, no significant progress had been made. EDS deny the lack of progress and, in the alternative, say that any lack of progress was caused by the failure on the part of Sky to produce adequate requirements and to make available documentation relating to the legacy systems.
1335. Mark Britton says that little of use had been produced by the middleware team by 6 March 2002. He points out that the middleware content of Increments 1 and 2 had been de-scoped to the point where the only code developed amounted to a partial proof-of-concept. He says that none of the adapters had been completed and significant progress had only been made on the Chordiant adapter. He adds

that the XML schema for the messaging which was a fundamental part of the design was still only being designed during the second half of February 2002.

1336. He points out that the design on which the work had been done omitted to take into account error handling and transaction management, two essential aspects of the requirement, because the Non-Functional Requirements had not been completed and this, he says, would have entailed rework to the designs and code that had been produced.
1337. He concludes that the original basis for proposing Forte Fusion was reasonable, but there was at the time an insufficient basis for believing that it would deliver the reliability and performance required. He says that the results of the proof of concept appear not to have been heeded, meaning that the approach of using Forte Fusion with XML was proceeding without adequate foundation.
1338. Robert Worden accepts that little progress had been made with Forte Fusion but says that this was partly due to the immature state of requirements for non-Chordiant systems. He says, though, that there was little progress compared to the effort expended, for which EDS are responsible.
1339. Whilst by March 2002 little progress had been made with the development of the Forte Fusion middleware, EDS had expended a large number of hours. It is clear that EDS had not come to grips with the middleware and that there was much wasted effort without any real progress.

#### ***Batch Interfaces***

1340. The CRM system needed to communicate with a number of third-party and legacy systems. While some of these systems were connected via middleware, others were to be 'batch' interfaces, that is to say loosely coupled interfaces in which data is extracted periodically from one system and fed into another. A large number of batch interfaces was needed on the Sky project, several of which formed part of the business critical processes.
1341. Sky contend that by March 2002 no significant progress had been made in relation to the design or development of the batch interfaces. EDS deny this but in the alternative say that Sky was to blame for any lack of progress.
1342. Mark Britton says that by 6 March 2002 a "batch gap analysis" had been completed but this only identified where batch processes or a substitute were required. He says that it would still have been necessary to specify and then to design and build the batch interfaces and no design or construction work on the batch interfaces had taken place.
1343. Robert Worden says that some progress had been made with batch interfaces but lack of progress was due to the scale of the problem, the lack of clarity in requirements and the difficulty in getting the required information from Sky.



1344. There was evidently a lack of progress by EDS in respect of the design and development of the batch interfaces. Whilst there may have been some lack of clarity in the requirements and further information may have been required from Sky, I do not consider that these explain the lack of progress for which EDS was responsible.

### **Summary**

1345. For the reasons set out above, I find that:

- (1) EDS failed properly to resource the project after the Letter of Agreement;
- (2) EDS were seriously in delay in carrying out the work and achieving the Milestones and delivering the Deliverables;
- (3) EDS had carried out little work in the period mainly because they had failed to capture the requirements or manage that process or merely because of the general lack of progress.

1346. Those failures amply demonstrate that EDS failed to exercise reasonable skill and care or conform to good industry practice because there was no effective programme management, the design and development of the solution was not properly documented and EDS did not provide sufficient technical or managerial resources. This led to the delay and the consequent deficiencies stated above.

## **I: REPUDIATION**

### **Introduction**

#### **Sky's case**

1347. Sky allege that by March 2002 EDS was in repudiatory breach of the Prime Contract as varied by the Letter of Agreement. Sky rely on EDS' repeated failure to meet the Phase 2 Major and Minor Milestones, its loss of control of the budget baseline and its breaches of contract and say that EDS evinced an intention not to be bound by the terms of the Prime Contract, as varied and a refusal or incapability to carry out the work contracted for.
1348. Sky say that from or about 6 March 2002, Sky took over from EDS as Systems Integrator and in doing so thereby terminated the Contract and that such termination amounted to an acceptance of EDS' repudiation of the Contract.
1349. Sky say that the severity and wide-ranging nature of the breaches of the Prime Contract were such as to go to the root of the contractual bargain and that, on the evidence of EDS' witnesses, by March 2002 EDS were incapable of delivering the contractual solution either within a reasonable time or at all.
1350. In relation to the communication of acceptance of the breach so as to terminate the Prime Contract, Sky submit that on the balance of probabilities, an acceptance of repudiatory breach was communicated. They say that EDS knew that they were in breach of contract and refer to the evidence of Elwyn Jones on Day 66 in relation to the meeting on 15 February 2002 where he said that: "... *it wasn't a friendly meeting I don't think. We were clearly in trouble and looking to solve what was potentially another breach of contract*". Sky say that they took the view that EDS were incapable of performing their contractual obligations.
1351. Against that background Sky say that taking over as System Integrator was one of the options being discussed on 15 February 2002 and that by 6 March 2002 Sky's attitude had hardened and they were not prepared to continue with EDS as Systems Integrator. Sky say they made it plain to EDS that their role as Systems Integrator was over and, as is common ground, EDS knew that they were no longer Systems Integrator and that their role in that regard ended on 6 March 2002. Sky say that Richard Freudenstein's evidence on Day 11 leaves no doubt that his primary concern was to get EDS out.
1352. Sky say that there were two parts to the process. First, there was the removal of EDS as Systems Integrator and secondly, there was the agreement of commercial terms in a binding agreement, which never materialised. The communication on 6 March 2002 was, Sky submit, to the effect that EDS would cease to be Systems Integrator from 6 March 2002 and Sky would take over that role from that date.

1353. Sky refer to EDS' submission that there was an agreement to make the change and the process was therefore consensual and could not amount to an acceptance of any repudiation. They say that there was no legally binding agreement, only the hope and expectation that one would be reached in due course and that, without a legally binding agreement, there was no effective contractual variation. Sky say that discussions which took place thereafter on the basis that the Prime Contract was still continuing stemmed from a mistaken analysis as to what had occurred.

**EDS' case**

1354. EDS admit a breach of contract in the 2 month delay in delivering the August milestone, with consequential delays in delivery of other milestones and in failing to act more promptly, by means such as the JAD workshops, to address the problems underlying the delay. Otherwise, EDS say that there was no breach and, in any event, no repudiatory breach.

1355. EDS say that the claims of repudiatory breach are inconsistent with what senior officers of Sky were saying or thinking at the time. In particular, EDS rely on the views of Tony Ball reported to the Board of British Sky Broadcasting Group Plc on 7 February 2002; the views of PwC and the evidence of Martin Stewart on Day 12 about the minutes of the Audit Committee dated 13 February 2003. EDS said that those views showed that Sky thought that Phase 1 was complete, Phase 2 was late but showed no real concern about EDS' performance in terms of time and cost.

1356. EDS say that, in any event, the allegations of repudiatory breach have to be considered with due regard to the contractual provisions for termination in the event of breach and, in particular, Clause 22.2 which provides for termination for material breach and Clause 11(a) of the Letter of Agreement which provides for termination if a Major Milestone has not been accepted on the due date for that milestone. EDS say that these provisions operate for the benefit of both parties to the Prime Contract and that, where such express termination provisions exist, it is not open to the "innocent" party to terminate forthwith on grounds of repudiatory breach unless the breach complained of falls outside those breaches for which express rights of termination exist.

1357. EDS rely on the Court of Appeal decision in Lockland Builders v. Rickwood (1995) 46 Con LR 92 (CA) and the decision of Langley J in Amoco v. BAOL (Unreported, 16 November 2001) in support of their submission that Sky had no right to terminate immediately for repudiatory breach unless the breaches complained of go beyond those breaches for which express rights of termination are given under the Prime Contract. Accordingly, EDS submit that whilst Sky was not precluded from terminating immediately in circumstances where EDS had evinced an intention not to be bound by the Prime Contract, it was not open to Sky to terminate summarily where the breach complained of was a failure to meet a Major Milestone, or a material breach within the meaning of clause 22.2 of the Prime Contract.

1358. EDS also submit that there was no acceptance of repudiatory breach. They say that the transfer of the role of System Integrator was not a unilateral act on the part of Sky by way of termination of the Prime Contract for repudiatory breach but a consensual transfer which was subsequently provided for in the Memorandum of Understanding. EDS say that discussion between EDS and Sky concerning the transfer of the role of Systems Integrator took place within the framework of discussions for the variation of the Prime Contract and EDS refer to Sky's note of the meeting on 15 February 2002, the draft Term Sheet dated 28 February 2002 and an email dated 1 March 2002 to Tony Ball as showing that Sky regarded the transfer of the Systems Integrator role as part of the agreement reached with EDS to be encapsulated in the Memorandum of Understanding.
1359. EDS refer to the telephone conversation between Richard Freudenstein and Steve Leonard on 6 March 2002 when Sky allege that they accepted EDS' repudiatory breach and brought the Prime Contract to an end. EDS say that it was a short conversation, the salient point being that it was agreed that "*EDS would behave from today as though the new deal was signed*". EDS say that Sky's case that the effect of this was that Sky removed EDSL as Systems Integrator and that this amounted to an acceptance of EDSL's repudiatory breaches of contract is at odds with the evidence. EDS submit that, even if there had been a repudiatory breach of contract, there was no act of acceptance on the part of Sky, let alone one that would have clearly and unequivocally conveyed to EDS that Sky was treating the Prime Contract as at an end.
1360. I now turn to consider those submissions.

### **Analysis**

1361. By March 2002 the CRM Project was in delay by at least 2 months. The January 2002 Joint Application Development sessions had been aimed at capturing the requirements and EDS was making slow progress and lacked some key resources. There is no doubt that EDS' performance was poor and by then they were not going to achieve go-live by July 2002 as set out in the Letter of Agreement. There is also no doubt that, as I have found, EDS was in breach of a number of the provisions of the Prime Contract, as varied by the Letter of Agreement. Did that conduct amount to repudiatory conduct?
1362. The test for repudiation is commonly expressed in terms of whether the breach goes to the root of the contract or whether a party evinces an intention no longer to be bound by the terms of the contract. As Lord Simon said in Heyman v Darwins [1942] AC 356 at 361 it is where "*one party so acts or so expresses himself, as to show that he does not mean to accept and discharge the obligations of a contract any further.*" Evidently, poor performance does not, of itself, amount to repudiatory conduct. Whilst the conduct must be viewed objectively, it is instructive to see how the parties treated the conduct at the time.

1363. Equally, I accept that the contractual provisions may give guidance on whether a particular breach is to be treated as repudiatory. In Lockland Builders v. Rickwood (1995) 46 Con LR 92 (CA) there was a clause of a building contract which gave the owner a right to terminate for delay or poor materials if he served a notice of breach and complied with the procedure set out in the contract. The owner did not follow this procedure but sought to terminate for repudiatory breach. The Court held that there was no repudiation. Russell LJ said at 98:

*“My own view -- returning to the facts of the instant case -- is that cl 2 and the common law right to accept a repudiatory breach can exist side by side, but only in circumstances where the contractor displays a clear intention not to be bound by his contract, for example, by walking off the site long before completion (as suggested during the course of argument by Hirst LJ) or, by way of further illustration, failing to comply with plans in a very fundamental way, for example, by not building a third storey when contractually bound to do so. But such cases are far removed from the instant one.*

*On the facts of this case, I, for my part, would be prepared to hold that cl 2 created the only effective way in which Mr Rickwood could determine this agreement. It is difficult to understand why the clause should be there at all if that were not the true position.”*

1364. Hirst LJ said at 102:

*“In my judgment, this cl 2 did impliedly preclude Mr Rickwood from terminating the contract on the facts of the present case otherwise than by the exercise of his rights under cl 2 since the complaints made fell squarely within the scope of cl 2, ie complaints as to the quality of materials and workmanship. However, cl 2 would not have done so in relation to breaches outside the ambit of cl 2, eg. by Mr Ryan walking off the site when the works were still substantially incomplete.”*

1365. In Amoco v BAOL (Unreported, 16 November 2001), Langley J held:

*“The Contract itself contained its own scheme for compensating Amoco for reduced efficiency or performance by reduction in the operating rate for the period of the reduction in efficiency or performance (Appendix 10) and by a breakdown rate reduced to a nil rate after 48 hours. It also contained in Clause 28.1 its own provisions for termination which were effective after a breakdown of sufficient gravity to cause BAO to be unable to perform its obligations under the contract lasting 30 days or a major fault causing a suspension of operations for more than 30 days. Those provisions themselves must in my judgment form part of an appreciation of the benefit the parties were intended to derive from the contract. Thus circumstances otherwise within the scope of the termination provisions but falling short of the precise terms would in my judgment not give rise to the right to terminate at common law for the very reason that the parties*

*agreed when and how such circumstances should have that consequence: see Lockland Builders Ltd v. Rickwood (1995) 46 Con LR 92 (CA). The provisions are ones for the benefit of both parties not just for the benefit of Amoco involving as they do time and notice constraints. For present purposes loosely expressed what I think that comes to is that to justify termination at common law something "worse" or not addressed by those provisions would be required."*

1366. I do not read those decisions as laying down any hard and fast rules. Rather, in deciding whether by its conduct a party evinces an intention not to be bound by the terms of the contract, the way in which parties agreed to treat breaches within the terms of their contract must be a factor to take into account. In particular, if a breach of a term had to reach a degree of seriousness before a contractual termination clause could be applied, it is unlikely that a breach which was less serious would, by itself, amount to a repudiatory breach. Equally, the fact that for a particular breach the contract provided that there should be a period of notice to remedy the breach would indicate that the breach without the notice would not, in itself, amount to a repudiatory breach.

1367. In this case, the fact that there was a failure to meet a Major Milestone must be viewed in the light of Clause 16.2 which provides:

*"Notwithstanding Clause 16.1, if a Milestone (with the exception of the first and last Milestones) is not Accepted under Clause 8.2 on the relevant date. the parties have agreed that the Contractor shall not be deemed to be in material breach of the Agreement until three months after the relevant date and the provisions of Clause 11 or Clause 22.2 shall not apply to such delay prior to that date."*

1368. The effect of this is that until three months after the relevant milestone date there is not a material breach of the Prime Contract. In the light of that provision, I consider that there could be no question of a repudiatory breach in relation to acceptance of a Milestone until that period of three months had elapsed. In terms of material breach, then clause 22.2 of the Prime Contract provides:

***"Termination for Material Breach***

*In the event of any material breach of this Agreement by either party, the other party may give to the party in breach notice specifying the same, requiring its remedy and stating that this Agreement may be terminated if the material breach in question is not remedied in accordance with this Clause 22.2. If the party in receipt of such notice fails to remedy the breach within 30 days of receipt of the notice the party who served the notice may by further notice, forthwith terminate this Agreement, whereupon the provisions of Clauses 22.3 and 22.4 shall apply."*

1369. That merely deals with a case where there has been a material breach and would cover breaches which could have a whole range of seriousness. I do not consider

- that this means that before any breach can be treated as being repudiatory it must be the subject of a notice requiring the breach to be remedied and cannot lead to termination unless there has been a failure to remedy the breach within 30 days. Take, for instance, a case where a party says that it will no longer perform the contract or acts in such a way. I do not consider that in such a case the innocent party must give notice and wait 30 days before it can terminate the contract at common law based on a repudiatory breach. In the case of less serious breaches, the failure to give any notice may well mean that the breach in itself cannot be treated as repudiatory but a failure to comply with a notice to remedy the breach may be.
1370. In the present case, the conduct has to be viewed in relation to the Prime Contract and the Letter of Agreement. It must be remembered that the Letter of Agreement was entered into because EDS was in breach of its obligations under the Prime Contract. The provision of resources, completion on time and proper performance were all matters which were of importance in relation to the Letter of Agreement.
1371. However, I have come to the conclusion that viewed objectively neither the breaches alone nor the combination of breaches amounted to a repudiatory breach of the Prime Contract, as varied. The contemporaneous correspondence is inconsistent with that view and the delay to the milestones had not reached a stage where I consider that it amounted to a repudiatory breach. As I have said most of the failures on the behalf of EDS reflected delay in performance.
1372. In any event, I have come to the conclusion that there has been no acceptance of any repudiatory breach. An innocent party, faced with a repudiatory breach, has a choice. It can either elect to treat the contract as continuing or it can bring the contract to an end by acceptance of the repudiation. Unless and until a repudiation is accepted, the contract continues in existence and, as Asquith LJ said in Howard v. Pickford Tool Co [1950] 1 KB 417 at 421, an unaccepted repudiation is “*a thing writ in water*”.
1373. Provided that the innocent party clearly and unequivocally conveys to the repudiating party that it is treating the contract as at an end, no particular form of acceptance is required and acceptance can be inferred from conduct or even inactivity: see Vitol v. Norelf [1996] AC 800 at 811 to 812.
1374. In this case, the background to the discussion on 6 March 2002 was that there had been a review of the CRM Project by Sky, EDS, Chordiant, Arthur Andersen and Lucent as a result of EDS reporting in December 2001 that there was a delay of 8 to 10 weeks in the delivery of Increments 1 and 2 of Phase 2. This meant that the delivery window prior to November 2002 had, in all probability, been missed and Sky together with EDS and the other consortium members were considering options. The Review took place between 7 January 2002 and 8 February 2002. It led to the “universal recommendation” to, among other things, “*Change the*

- delivery approach to one which delivers the Sky CRM vision in stages... Revise the Systems Integration contract currently in force between BSkyB and EDS.”*
1375. There was then a discussion between Elwyn Jones and Greg Hyttenrauch of EDS and Simon Post, Andrew Carney, Mike Hughes and Jeff Hughes of Sky on 15 February 2002 at which Sky recorded that *“it is clear that some changes would have to be made to the current commercial contract following this agreement”*.
1376. The view was that the “commercials” might take longer to resolve and that the change in approach to the CRM Project might start before they had been resolved. There was then a negotiation of the commercial terms for the new arrangement between Sky and EDS, including a meeting on 22 February 2002. Internally Sky were saying that if there were *“an acrimonious parting then EDS could sue for loss of revenue on the programme as a whole”*. On 28 February 2002, Simon Post sent Greg Hyttenrauch a document marked “without prejudice and subject to contract” which was subsequently to form the basis of the Memorandum of Agreement. It stated that *“This note is the offer to EDS with regard to the changing of the CRM program and the relationship between [Sky] and EDS on that program.”* It also stated: *“It is clear that some changes would have to be made to the current commercial contract following this agreement.”*
1377. Internal exchanges within Sky prior to the meeting on 6 March 2002 make it clear that there were two matters to be decided: the changed commercial arrangement between Sky and EDS and the changed approach to the project.
1378. This background makes it clear that the genesis of the Memorandum of Understanding and the conversation on 6 March 2002 was the Review carried out in January and February 2002 and subsequent discussions which were aimed at EDS ceasing to be Systems Integrator but continuing to be involved as a supplier of resources. This, it was recognised, would require changes to the Prime Contract, as varied. There was no suggestion in the documents or discussions that the Prime Contract was being terminated or that there were grounds for termination because of EDS’ breach.
1379. There is nothing in the evidence of either Richard Freudenstein or Steve Leonard to suggest that, during their telephone conversation, Sky was seeking to bring the Prime Contract to an end. The evidence is that it was agreed that *“EDS would behave from today as though the new deal was signed”*.
1380. In my judgment that does not come anywhere near an acceptance of repudiatory conduct. Rather, in my view, it is wholly consistent with the parties wishing to agree to a change in the contractual relationship between them and to proceed as if the “new deal” was signed. That was evidently what the parties were intending.



## **J: CAUSATION**

### **Introduction**

1381. I have found in summary that:

- (1) EDS is liable in deceit to Sky for the misrepresentations which were made both at the time of the ITT and at the time of the conclusion of the Prime Contract as to elapsed time and that these were relied on by Sky in EDS being selected as Systems Integrator, being engaged under the Letter of Intent and being awarded the Prime Contract.
- (2) EDS is liable for negligent misstatement and/or misrepresentation under the Misrepresentation Act 1967 in respect of misrepresentations in 2001 that they had developed an achievable plan, which had been the product of proper analysis and re-planning.
- (3) EDS were in breach of the Prime Contract both prior to and after the signing of the Letter of Agreement and were in breach of the Prime Contract, as amended by the Letter of Agreement, in March 2002 when Sky took over as Systems Integrator.

1382. Otherwise I have found that there were no other misrepresentations and that EDS was not in repudiatory breach of the Prime Contract, as amended by the Letter of Agreement in March 2002 and that, in any event, there was no acceptance of any repudiatory breach, even if a repudiatory breach had been established.

1383. On the basis of these findings it now falls for me to consider what loss was caused to Sky. That raises a number of questions: First, in respect of the fraudulent misrepresentations, what would Sky have done but for EDS' deceit? Secondly, in respect of the misrepresentation in 2001 prior to the Letter of Agreement, what would Sky have done but for the negligent misrepresentation? What remedy is Sky entitled to for EDS' non-repudiatory breaches of contract?

1384. Sky submit that, but for EDS' deceit, PwC would have been selected as Systems Integrators. They refer to this as Scenario B1. The quantum of Sky's claim, therefore, is based on the effort and timescale that PwC would have required to implement Sky's CRM system.

1385. Sky submit that, but for EDS' negligent misstatement, Sky would have terminated the relationship with EDS in 2001 because EDS would inevitably have been unable to say when they could deliver and Sky would not have continued with EDS. In those circumstances, Sky say that they would have engaged PwC or an Alternative Systems Integrator. They refer to this as the Scenario B2 or the ASI Scenario. The quantum of Sky's claim is based on the effort and timescale that an Alternative Systems Integrator would have needed to complete the project from the time of the Letter of Agreement.

1386. In the case of the claims for non-repudiatory breach of contract, Sky submit that they took over as Systems Integrator as a result of EDS' failures. Sky claim the cost incurred after 6 March 2002 in reaching the stage of development that EDS

would have reached for the effort that they expended if they had performed their obligations in accordance with their contractual obligations. Sky refer to this as Scenario B3. Sky say that, in the light of the contractual liability cap, there is no practical difference on Sky's quantum calculations between those damages and the damages arising from a repudiatory breach.

1387. EDS submit as follows in relation to the three claims:

- (1) In relation to the fraudulent misrepresentation claim, EDS accept that PwC was the only alternative to EDS in July 2000 and that, if Sky had not considered that EDS was ready, willing and able to carry out the job, it is likely to have engaged PwC. However EDS say that, for various reasons, Sky would have been very reluctant to choose PwC. Whether, when and under what circumstances Sky would have done so depends on the facts found as to any misrepresentation. EDS submit that Sky's claim for damages depends on a finding, not only that there was such a misrepresentation, but that it was decisive in the sense that Sky would, but for the misrepresentation, have chosen PwC.
- (2) In relation to the negligent misrepresentation, EDS say that there was no ASI available in July 2001 and that the decision to enter into the Letter of Agreement was not the result of any supposed misrepresentation but a commercial one, induced by the terms that EDS was offering.
- (3) In relation to the breach of contract claim, EDS say at paragraph 1144 of their written closing submissions that the way in which the parties have approached this issue makes it unnecessary to determine the details of the breach, beyond deciding whether or not it was repudiatory.

1388. It is therefore necessary to decide what Sky would have done in the event that EDS had not made the fraudulent or negligent misrepresentations.

### **The position at the bid stage in 2000**

1389. Sky submit that on the basis that the pleaded misrepresentations had not been made, Sky would have proceeded with PwC's bid rather than EDS' bid.

1390. EDS submit that the suggestion by Sky that, having rejected EDS, they would simply have turned to PwC is superficially attractive because for Geoff Walters and those in Sky's IT Services, PwC was the preferred choice from the start. EDS accept that if all of Sky's case on the alleged misrepresentations is made out, then it is probable that PwC would have been the next choice. However EDS say that it does not follow that Sky would simply have accepted the PwC bid as it stood in June 2000 or that the bid would have stood still. EDS submit that there are very strong indications that Sky would have been reluctant to proceed with PwC as Systems Integrator on the basis of its bid. EDS also submit that if some, but not all, of Sky's case is accepted, the Court will need to consider whether, if EDS had not made the misrepresentations found, Sky would have appointed PwC instead.

1391. It is therefore necessary to consider two issues. First, whether in the light of the findings I have made as to the misrepresentations, Sky would, on the balance of probabilities, have appointed PwC instead. Secondly, whether if PwC's bid were

- to have been accepted, the bid would have been the same as that in June 2000 and whether it would then have stood still.
1392. My finding is that EDS fraudulently represented that they would achieve go-live within 9 months and completion of the project within 18 months. If they had not made that representation then they would have been bound to tell Sky, amongst other things, that they had not carried out a proper analysis of the time required to achieve go-live and were unable to say when go-live would be achieved.
1393. I consider that for Sky one of the major factors in choosing a Systems Integrator was the need to achieve go-live within the timescale which had been announced to the City in February 2000. If EDS had not been in a position to say that they could achieve that timescale and could not have given any timescale then, in my judgment, this would have dramatically affected Sky's perception of EDS' bid and EDS' competence in carrying out the project.
1394. EDS submit that the chain of command at Sky for making the decision on who was to be the Systems Integrator was that Tony Ball relied on Richard Freudenstein and Martin Stewart but that it was Richard Freudenstein whose impressions counted and these were influenced by Mike Hughes who had a preference for Chordiant. In those circumstances EDS say that Sky would have found it hard to accept Siebel and the evidence shows that there were attempts to persuade PwC to use Chordiant.
1395. EDS say that the evidence, particularly from Richard Freudenstein, shows that the factors which affected the decision were the products, cost and time. EDS say that Sky considered that EDS' technology solution was judged to be the best fit with Sky's business plan. In terms of cost, EDS say that by 12 July 2000 there was little difference between the bids, with EDS having lower day rates than PwC. As to time, the delivery dates for go-live for PwC and EDS were comparable. EDS accept that it is clear that time was important in the sense that, if EDS had proposed a longer timetable, that would have counted against it.
1396. In my view, had EDS not misrepresented the position, Sky would have had very strong grounds for moving to PwC who were offering go-live within the nine month period. The issue of costs would not, I consider, have been decisive. Indeed the costs fluctuated during the bid period and this does not seem to have been a major factor in deciding between EDS and PwC. The major factor would have been whether Sky would have proceeded with PwC and Siebel when there was a clear preference for Chordiant. The evidence shows that PwC were not prepared to offer Chordiant. PwC had a business relationship with Siebel and given the aggressive way in which Siebel was promoting itself, I do not consider that PwC would have offered a solution using Chordiant. Stephen Kelly, Senior Vice-President of Chordiant, approached PwC with a view to partnering them in the Sky bid and he reported to Mike Hughes that he had encountered "significant hostility". Mike Hughes tried to persuade PwC to combine with EDS and Chordiant but this came to nothing, in all probability because Chordiant was not approved by PwC. Richard Freudenstein gave evidence to similar effect. In my judgment, there was no realistic prospect of PwC using Chordiant.

1397. I consider that the time factor would have been so important that if EDS disclosed the true position as to timescale then Sky would have moved to favour PwC much more strongly. The position would not just have depended on Sky's view of the uncertain time but EDS' position on time would, in my view, have eroded Sky's confidence generally. With costs being effectively a neutral factor, given a choice of EDS with Chordiant with an uncertain time frame and PwC with Siebel and go-live in nine months, in my judgment the preference would have moved to PwC. I have no doubt that Sky and particularly Mike Hughes would have again tried to push PwC to accept Chordiant but that PwC would again have resisted that, as EDS accept in paragraph 1199(1) of their written closing submissions. Given the choice between PwC with Siebel or no alternative to EDS, I consider it very likely that Sky would have chosen PwC.
1398. In terms of causation, I have found that Sky relied on EDS' misrepresentation as to time and that as a result Sky selected EDS and entered into the Letter of Intent with EDS. That, of course, was in July and August 2000. There were then several months before Sky entered into the Prime Contract on 30 November 2000. What impact did that have between the initial misrepresentation and the act of entering into the Prime Contract which forms the basis on which Sky assess their damages?
1399. Sky submit that in the tort of deceit, the position is that Sky is entitled to compensation for all actual damage directly flowing from the fraudulent inducement and they rely on the decision of the House of Lords in Smith New Court Securities Ltd v Scrimgeour Vickers [1997] AC 254. They say that if Sky had not been deceived by EDS, Sky would not have selected EDS but would have selected PwC. They say that, as a matter of causation, what flowed from the selection was the exclusion of PwC, the Letter of Intent and subsequently the Prime Contract. They submit that all these flowed from the initial selection process. In relation to a break in the chain of causation, Sky say that this would only happen if there was a fresh selection process such as a decision by Sky to continue to deal with EDS once it was known that there had been deceit.
1400. EDS say that if the representation continued up to the date of the Prime Contract then Sky might in principle be able to recover for loss in entering into the Prime Contract. However, they submit that because of the changes in the scope of the CRM Project and the consequent changes in the time and cost, any representation as to time did not continue up to the Prime Contract, there was no continued reliance upon it and it did not cause any loss by entering into the Prime Contract.
1401. There would be two possible ways in which Sky could recover damages caused by entering into the Prime Contract. First, it would be possible for the representation to continue and to induce not just the selection of EDS and the Letter of Intent but also the Prime Contract. Secondly, as Sky submit if the representation induced the selection of EDS and the Letter of Intent, then the chain of causation from the representation and those events might lead to Sky entering into the Prime Contract.

1402. The initial misrepresentation as to time did, as I have found, induce Sky to select EDS rather than PwC and to enter into the Letter of Intent. The cause of action was then complete and provided that nothing after that breaks the chain of causation then that would be sufficient for Sky to be able to recover damages caused by entering into the Prime Contract as damages for the tort of deceit. As was stated by Lord Browne-Wilkinson in Smith New Court v Scrimgeour Vickers [1977] AC 254 at 264, the following points in Doyle v. Olby (Ironmongers) Ltd. [1969] 2 QB 158 were rightly decided:

*“First, that the measure of damages where a contract has been induced by fraudulent misrepresentation is reparation for all the actual damage directly flowing from (i.e. caused by) entering into the transaction. ... Third, damages for deceit are not limited to those which were reasonably foreseeable. Fourth, the damages recoverable can include consequential loss suffered by reason of having acquired the asset.”*

1403. In this case there was nothing, in my judgment, which caused a break in the chain of causation. After selection and the Letter of Intent, the process commenced which was to lead to the signing of the Prime Contract. The scope changed and the estimates of time and cost changed. That did not however nullify the representation that in the EDS Response EDS had carried out a proper analysis of the amount of elapsed time needed to complete the initial delivery and go-live of the contact centre and that they held the opinion that, and had reasonable grounds for holding the opinion that they could and would deliver the project within the timescales referred to in the Response. Nor did that lead to the discovery of deceit. Rather the process continued with EDS making new time and cost estimates. Even without the further misrepresentation which was made prior to the Prime Contract, in my judgment, the chain of causation leading up to the signing of the Prime Contract was established and not broken. That is sufficient to permit Sky to recover the losses caused by entering into the Prime Contract. They were caused, as required by the tort of deceit, by the misrepresentation.

1404. In this case, the position is reinforced by the misrepresentation which I have found was made by EDS and induced Sky to enter into the Prime Contract. First, this gives an independent cause of action which would give Sky the ability to recover damages caused by entering into the Prime Contract. Secondly, there was a continuing misrepresentation in the sense that EDS were representing both prior to selection and the Letter of Intent and then prior to the Prime Contract that they had carried out a proper analysis of the amount of elapsed time needed to complete the initial delivery and go-live of the contact centre and that they held the opinion that, and had reasonable grounds for holding the opinion that they could and would deliver the project within the timescales referred to in the Response. Thirdly, quite apart from EDS being able to assert that there was a break in the chain of causation, the misrepresentation prior to the Prime Contract maintained the chain of causation.

1405. Accordingly, if EDS had not made the misrepresentations to Sky prior to the selection of EDS and the Letter of Intent, I find that Sky would not have continued with EDS but would have engaged PwC to implement the PwC CRM

System using Siebel. In the light of my findings, I also find that Sky are entitled to recover losses caused by entering into the Prime Contract on the basis of either the misrepresentations made prior to selection and the Letter of Intent or prior to the Prime Contract.

### **The position at the Letter of Agreement in 2001**

1406. Sky submit that if EDS had not made the negligent misrepresentations in 2001 then Sky would not have entered into the Letter of Agreement but would have terminated the Prime Contract and obtained the services of PwC or an Alternative Systems Integrator in place of EDS.
1407. Sky reject the suggestion that they had no alternative but to continue with EDS. They accept that the evidence of what Sky would have done is less concrete than at the original bid stage. They say, in my view with justification, that at the bid stage Sky had a choice between two alternative bidders, each of which had set out their bid in some detail but that prior to the Letter of Agreement, the fact that the representations were made and relied upon meant that Sky spent less time in seeking alternatives. Thus there is less evidence of alternatives and indeed the evidence that there is suggests that there was uncertainty. Sky submit that an analysis of what would have happened raises two questions: first, what would have happened had the representations not been made and, secondly, how would Sky then have proceeded with the project.
1408. Sky say that the answer to the first question is that Sky would have terminated the relationship with EDS. They submit that if EDS had put together a proper programme plan and had they carried out a proper analysis they would have concluded that they were unable to say when they could deliver. Sky say that they would not have agreed to continue the relationship with EDS nonetheless.
1409. In relation to the second question, if Sky had terminated the Prime Contract they say that they would have looked elsewhere and that an Alternative Systems Integrator would have been found, such as PwC. Sky say that it cannot realistically be contended that there was no one in the world prepared to take the contract on.
1410. EDS point to Sky's previously pleaded case that, but for EDS' alleged misrepresentations prior to the Letter of Agreement, it would have removed EDS as Systems Integrator and interposed PwC but it now pleads that it would be an Alternative Systems Integrator, EDS say, because PwC did not put themselves forward.
1411. EDS say that it was Tony Ball who approved the decision to enter into the Letter of Agreement on the basis of Richard Freudenstein's recommendation and that, in his email of 12 June 2001 Richard Freudenstein set out four commercial options:

*“1. Continue with EDS for phase 1 and phase 2 ...*

*2. Continue with EDS for phase 1 and use A A, Chordiant and Sky resources for phase 2 ...*

*3. Continue with EDS for phase 1, use AA to do technical architecture for phase 2 and then do mini tender for work ...*

*4. Dump EDS now.”*

1412. In relation to the fourth option, EDS point out that Richard Freudenstein commented that *“We can deliver phase 1 in same timeframe, but only if Chordiant and AA are free of the EDS contractual arrangements, so this is a risky outcome. Phase 2 position is same as 2. and 3. above”*.

1413. EDS say that it was assumed throughout by Sky that EDS would be retained for Phase 1. Richard Freudenstein confirmed in his evidence on Day 10 that in all or most of the options there was no thought of not continuing with EDS for Phase 1. EDS say that therefore Sky’s case that the Alternative Systems Integrator would take over the entire project cannot be correct. EDS also say that there is a question as to how attractive only Phase 2 would have been to other potential bidders. EDS also refer to paragraph 123 of Richard Freudenstein’s first witness statement where he says that, despite the lack of a clear commercial alternative, he would not have recommended that Sky continue with EDS if he had personally felt that they were unable to implement the project. As EDS point out, he does not say what Sky would, in fact, have done or who they would have looked to as an Alternative Systems Integrator.

1414. EDS also refer to Richard Freudenstein’s recommendation to Tony Ball which was in the following terms:

*“My recommendation to continue with EDS for phase 1 and phase 2 (subject to performance criteria) is purely based on a commercial position. ie it will be the cheapest and there is currently no clear alternative. It is not based on complete confidence in their ability to deliver, only on a gut instinct that with £14 million at risk and their european ecrm strategy at risk, they will be motivated to deliver. (they don't get paid if they don't deliver)*

*No one is disputing Geoff's technical assessment. ie based on what we have seen to date, he is correct to doubt EDS ability to deliver. All I am saying is that based on that technical assessment, I still think EDS is the best option because we have set up the commercial deal to minimise our risk of this eventuality and I can't give you a clear alternative (and neither can Geoff).”*

1415. EDS refer to what Richard Freudenstein said in cross-examination on Day 11: that the assurances he had been given and the commercial deal meant that EDS were Sky’s best option; that there was no alternative that could deliver in the same timeframe for the same price; that an available option was for Sky to take over as Systems Integrator; that an alternative was Arthur Andersen or to stop the project and start from scratch.

1416. EDS also refer to the fact that in late April/early May 2001, Sky looked at alternative delivery approaches, both with and without EDS’ involvement. EDS refer to Sky’s views as captured in a document “Programme Status - Executive

- Summary” which compared an option of continuing with the existing EDS consortium and one of a proposed new consortium led by Arthur Andersen and placing emphasis on Chordiant. They also refer to a meeting on 7 June 2001 when PwC facilitated a discussion of available options with the Sky team and where, as Richard Freudenstein explains, there were three options: continuing with EDS; appointing someone else as Systems Integrator; or Sky taking on the role themselves.
1417. EDS say that although the possibility of using Arthur Andersen was considered, the views of Sky as recorded in the note were that Sky was “*not yet convinced that Andersen has the necessary large scale Chordiant CRM delivery experience*” and that Richard Freudenstein said in his evidence on Day 11 that the possibility of using Arthur Andersen as an Alternative Systems Integrator was positively rejected. Equally EDS say that the majority view at the meeting was that Sky should not continue with EDS.
1418. In summary EDS submit that:
- (1) The case originally pleaded, that Sky would have appointed PwC if willing to replace EDS, was not a likely option.
  - (2) The case now pleaded is that Sky would have appointed an Alternative Systems Integrator to complete the work which EDS had started.
  - (3) The group considering the options had rejected the only available Alternative Systems Integrator, Arthur Andersen.
  - (4) Nobody at Sky was convinced by whatever EDS had said and that Richard Freudenstein's recommendation was based on gut instinct that EDS would be sufficiently motivated to succeed, on the fact that there was “no clear alternative” and on commercial grounds.
1419. In the circumstances, EDS state that it is highly improbable that Sky would have appointed an Alternative Systems Integrator at all, let alone one to replace EDS in Phase 1 as well as Phase 2. They say that Richard Freudenstein’s evidence leaves it unclear what Sky saw as their alternatives and there is no realistic basis to suggest that alternatives were meaningfully considered and assessed. EDS submit that Sky’s contention that if the misrepresentations had not been made, Sky would have terminated the Prime Contract and looked elsewhere is not supported by Sky’s evidence.
1420. Sky say that Richard Freudenstein’s evidence, when read with Geoff Walters’ view against continuing with EDS, clearly establishes that Sky would not have continued with EDS but for the misrepresentations. If that occurred then Sky say that an Alternative Systems Integrator would have been found because Sky’s need for the new CRM system was undiminished.
1421. The main evidence is that of Richard Freudenstein. In his first witness statement he says that he would not have recommended that Sky continue with EDS if he had personally felt that they were unable to implement the project. He reiterated this view in his evidence on Day 11. It is necessary to consider that view in the context of what was said and done at the time.



1422. On 24 May 2001 Sky produced a document which provided “an executive status and preferred approach to the way forward for the Sky CRM programme”. This followed the meeting between Sky and EDS on 8 April 2001 where there was “*a clear understanding that the programme cannot deliver to the anticipated time scale (28 September 2001) within the agreed budget*”. In that document Sky compared a number of ways in which Phases 1 and 2 of the CRM Project could be implemented. These were considered “*in the context of continuing with EDS, inviting AA to prime a new consortium or B SkyB taking the systems integration responsibility*”. They conducted a SWOT (Strengths, Weaknesses, Opportunities, Threats) analysis to compare the options of continuing with EDS or proceeding with AA. That analysis shows that the strengths of continuing with EDS were that EDS’ senior management was committed to delivering and that the EDS team was confident that delivery of Phase 1 would be possible within the timeframes. There were substantial weaknesses identified in the option of continuing with EDS. Strengths were identified in proceeding with AA. The weaknesses and threats of this option were mainly related to time and cost.
1423. On 7 June 2001 PwC facilitated a discussion of the available options with the Sky team. In the summary of what had been discussed the first objective was identified as “*discuss and review the commercial decision whether or not to continue with EDS as the Phase 2 integrator*”. The three options were for EDS to continue as SI, for AA to replace EDS as SI, for Sky to assume SI responsibility or to stop Phase 2, which involved terminating the contract with EDS and possibly appointing another SI. It was stated that the option of continuing Phase 2 with another SI (ie not EDS or AA) was not considered because “*the lead time to appoint another SI would push Phase 2 delivery out too far*” and “*the cost would probably be significantly higher than the current EDS estimate*”. It was added that such an appointment could be considered as part of the “Stop Phase 2” option after due consideration. The consideration of the options identified major concerns with EDS’ ability to deliver and some concerns about AA’s ability to deliver. Price, risk and legal ramifications were seen to be lower with the option of continuing with EDS. In the conclusions, the option of continuing with EDS was said to be untenable because of Sky’s lack of confidence in EDS’ ability to deliver. There were concerns that AA did not have the necessary large scale Chordiant CRM delivery experience. The recommendation was for Sky to assume SI responsibility, depending on Sky’s willingness to accept certain points. It was also said that it was believed that the eventual CRM Programme cost would be significantly higher than that quoted by EDS.
1424. As subsequent documents show the balance for Sky was between the negative view of EDS’ ability to deliver and the positive view of the commercial aspects. Richard Freudenstein’s email to Tony Ball on 12 June 2001 set out the commercial options. It then set out his recommendation to continue with EDS and said that this was “*purely based on a commercial position ie it will be the cheapest and there is currently no clear alternative*”. He said that it was “*not based on complete confidence in their ability to deliver, only on a gut instinct that with £14 million at risk and their european ecrm strategy at risk, they will be motivated to deliver.*” He referred to Geoff Walters’ technical assessment which

- raised doubt as to EDS' ability to deliver. He said that the commercial deal had been set up to minimise the risk and that he could not give a clear alternative and nor could Geoff Walters.
1425. Similarly in an email of 17 June 2001 Richard Freudenstein said that "*for commercial reasons (ie very attractive deal) we have decided to continue with EDS.*"
1426. In his oral evidence on Day 11, Richard Freudenstein said that EDS were the best option because, while on the empirical evidence Sky could not be confident EDS could deliver, the assurances he had been given and the commercial deal meant that they were the best option. He said that having started from the position that he thought they could deliver because so much was at stake and because of what they were telling him, he was making a commercial judgment that continuing with EDS was the best option. If he had thought they could not deliver he would not have taken that option.
1427. In relation to the practical options if Sky did not continue with EDS he accepted that the alternatives would have meant a slower delivery time and probably more cost. Those options were for Sky or AA to take over or to stop the project and start again.
1428. It seems to me that when Sky came to consider its options in 2001 the evident failure of EDS to be able to achieve the time and cost targets was foremost in everyone's minds. Sky considered three options: to continue with EDS, to continue with AA or to take over themselves. There was also a fourth option which was to consider other third parties. In deciding on which option to take it is clear that there were two competing factors in the case of the option of continuing with EDS. First there was the concern with EDS' ability to deliver which was a negative factor. Secondly there was the positive factor in the form of the commercial package which EDS was offering. In that balancing exercise the question was whether the commercial factors outweighed the concern that EDS would not be able to deliver.
1429. At the time, EDS were spending a great deal of time and effort convincing Sky that they were able to deliver. This found recognition in the SWOT analysis which mentioned that EDS senior management were committed to delivering and that the EDS team were confident that delivery of Phase 1 would be possible within the timeframes. EDS' representations that they had developed an achievable plan, which had been the product of proper analysis and re-planning was evidently part of this.
1430. Whilst the decision to proceed with EDS was clearly an important factor, I consider that Richard Freudenstein would not have made that recommendation if he had not thought that the balance in favour of the commercial side outweighed concerns about EDS' ability to deliver. In coming to the overall conclusion it is difficult to doubt him when he says that he was relying on what EDS was telling him, which included the relevant representations. In my judgment, the commercial factors alone were insufficient to overcome the real concerns which Sky had about EDS' ability to perform. It seems to me that if EDS had not represented that

they had an achievable plan which had been the product of proper analysis and re-planning, the concerns over EDS' ability to deliver would have caused Sky to look at one of the other alternatives.

1431. Whilst there would have been time and cost consequences of proceeding with an Alternative Systems Integrator, I consider that Richard Freudenstein would not have recommended that Sky should continue with EDS and that Sky would then have chosen an Alternative Systems Integrator, which was clearly an option which was favoured by a number of people within Sky. There is, in my view, no question that Sky would simply have abandoned the project given what had been said and what sums had already been spent.
1432. Accordingly, if EDS had not made the misrepresentations to Sky prior to the Letter of Agreement, I find that Sky would not have continued with EDS but would have engaged an Alternative Systems Integrator to continue with the CRM project.

## **K: LOSS AND DAMAGE**

### **Introduction**

1433. On the basis of those findings, I now turn to consider the financial consequences. Sky put their case on damages under a number of different alternatives:

- (1) Damages for misrepresentation prior to the Prime Contract;
- (2) Damages for misrepresentation prior to the Letter of Agreement and breach of the Prime Contract prior to July 2001;
- (3) Breach of the Prime Contract as varied by the Letter of Agreement on the basis of repudiatory breach or non-repudiatory breach;
- (4) Breach of warranties in the Memorandum of Understanding.

1434. On the basis of my findings I evidently should consider damages under (1). It is also convenient to deal with the alternative claim for damages under (2) which includes a claim for damages for breach of the Prime Contract prior to July 2001.

1435. In relation to the alternative claim for damages for breach of the Prime Contract as varied by the Letter of Agreement, on the basis of my findings I do not need to consider damages on the basis that there had been an accepted repudiatory breach leading to termination of the Prime Contract, which has been referred to as “Scenario B3”.

1436. Although I have found that there were claims for misrepresentation, for the sake of completeness, I shall deal with the alternative claim for damages on the basis of my findings that there was either no repudiatory breach or any repudiatory breach had not been accepted, so that the Prime Contract had not been terminated.

1437. Sky also put forward a further alternative claim if the claim for damages for breach of contract were to fail because the Memorandum of Understanding is binding. On that basis Sky claim damages for breach of the warranties contained in the Memorandum of Understanding. For the reasons set out above I have held that the Memorandum of Understanding was not binding and therefore this alternative claim for breach of the warranties in the Memorandum of Understanding does not arise.

1438. I shall therefore limit my consideration to three claims: damages for misrepresentation prior to the Prime Contract; damages for misrepresentation prior to the Letter of Agreement and breach of the Prime Contract prior to July 2001 and damages for breach of the Prime Contract as varied by the Letter of Agreement on the basis of non-repudiatory breach.

### **Damages for misrepresentation prior to the Prime Contract**

1439. Sky’s claim under this heading is for damages for deceit on the basis that, as I have found, if EDS had not misled them into appointing EDS as Systems Integrator, they would have appointed PwC as Systems Integrator. Sky say that PwC would have completed the “PwC CRM System” more quickly and cheaply

than the Actual CRM System. Sky also say that, as a result, they would have been able to obtain benefits from the earlier date of go-live of the PwC CRM System than they did from the go-live of the Actual CRM System. As a result, Sky claims both Increased Cost Damages and Lost Benefit Damages.

1440. Sky calculate the Increased Cost Damages as the difference between the costs actually incurred by Sky in building the Actual CRM System and the costs that would have been incurred if Sky had appointed PwC as Systems Integrator from the outset for the PwC CRM System which has been referred to as “Scenario B1”. This requires consideration of three heads of cost:
- (1) The payments made to EDS for carrying out the Actual CRM System up to March 2002;
  - (2) The costs incurred by Sky in completing the Actual CRM System up to March 2006, there being no claim for the cost of the “Further Developments” after March 2006;
  - (3) The costs which would have been incurred for the “PwC CRM System”.
1441. The Lost Benefit Damages are calculated as the difference between the benefits which would have been generated from an earlier implementation of the PwC CRM System and the benefits that have been and will be generated by the Actual CRM System. The benefits claimed are those generated by reduced churn and by reduced calls to the call centre making allowance by deducting the operating costs of the CRM system necessary to generate those benefits.

**Damages for misrepresentation prior to the Letter of Agreement and breach of the Prime Contract prior to July 2001**

1442. In the alternative to the above claim, Sky claim damages for negligent misrepresentation on the basis that, as I have found, if EDS had not misled Sky into allowing EDS to continue as Systems Integrator under the terms of the Letter of Agreement, Sky would have appointed an Alternative System Integrator from July 2001. This has been referred to as “Scenario B2”. Sky say that the ASI would have completed the “ASI CRM System” more quickly and cheaply than the Actual CRM System. As a result, Sky claims both Increased Cost Damages and Lost Benefit Damages, on a similar basis to the claim for the PwC CRM System.
1443. Sky calculate the Increased Cost Damages as the difference between the costs actually incurred by Sky in building the Actual CRM System and the costs that would have been incurred if Sky had appointed an ASI as Systems Integrator in July 2001 for the ASI CRM System. Similarly to the PwC CRM System, this requires consideration of three heads of cost:
- (1) The payments made to EDS for carrying out the Actual CRM System up to July 2001;
  - (2) The costs incurred by Sky in completing the Actual CRM System up to March 2006, there being no claim for the cost of the “Further Developments” after March 2006;
  - (3) The costs which would have been incurred for the “ASI CRM System”.

1444. The Lost Benefit Damages are calculated as the difference between the benefits which would have been generated from an earlier implementation of the ASI CRM System and the benefits that have been and will be generated by the Actual CRM System. As before, the benefits claimed are those generated by reduced churn and reduced calls to the call centre making allowance by deducting the operating costs of the CRM system necessary to generate those benefits.
1445. In addition, Sky claims damages for breach of the Prime Contract prior to July 2001 which it waived under the terms of the Letter of Agreement but obviously would not have done so had it not entered into the Letter of Agreement. The damages claimed by Sky are based on the Project Development Costs of the Actual CRM System up to the Letter of Agreement less the value of the useful work.
1446. It is agreed in the revised Third Joint Memorandum of the Quantum Experts that 1,413 man-months (based on 162.5 hours/month) were expended by EDS up to the date of the Letter of Agreement. The difference between the parties relates to the question of what useful work was produced as a result of that effort.

**Damages for breach of the Prime Contract as varied by the Letter of Agreement**

1447. On the basis of a non-repudiatory breach, Sky claim damages for breach of the Prime Contract as varied by the Letter of Agreement. Sky claim that damages should be measured by reference to the costs incurred after 6 March 2002 in reaching the stage of development that EDS would have reached if they had expended the effort they had charged for in performing their obligations in accordance with their obligations under the Prime Contract as amended. Sky's calculation of damages is based on the cost of reaching the stage in the CoCoMo lifecycle that EDS should have reached by 6 March 2002.
1448. In paragraph 238JJ4 of the Defence EDS accept this as a possible alternative formulation of the measure of damages that Sky is entitled to claim. EDS contend, however, that the appropriate measure is the costs wasted prior to 6 March 2002.
1449. Sky say that they did not rectify the work done by EDS directly but submit that they are entitled to damages representing their loss of bargain. They say that while they could have claimed wasted costs instead, they have not done so.
1450. I have therefore to decide whether damages should be calculated by reference to wasted costs or the cost to Sky of reaching the stage in the CoCoMo lifecycle that EDS should have reached by 6 March 2002. It is also necessary to decide whether Sky's damages should be based on the effort Sky in fact expended in reaching that stage or whether, as EDS submit, they should be based on the effort that a Competent Systems Integrator would have required to reach that stage.

**Misrepresentation Damages: Increased Cost Damages**

1451. This head of damages starts with the Project Development Costs made up of the payments made to EDS for carrying out the Actual CRM System up to March 2002 and the costs incurred by Sky in completing the Actual CRM System up to March 2006. This sum has been agreed at £265,195,000.

1452. From this are then deducted the costs which would have been incurred for the PwC CRM System in Scenario B1 or the costs which would have been incurred for the ASI CRM System in Scenario B2.
1453. The necessary inputs to calculate the costs which would have been incurred in those two scenarios are the effort which PwC or an ASI would have expended in producing their CRM Systems and the date on which those systems would have been implemented.

#### **Misrepresentation Damages: Lost Benefit Damages**

1454. The damages recoverable by Sky for lost benefits depend on the assessment of benefits generated by reduced churn and reduced calls to the call centre and also the assessment of the operating costs of the CRM system necessary to generate those benefits.
1455. One of the major inputs needed to calculate the lost benefit is the date on which PwC or an ASI would have implemented the relevant CRM System.

#### **The effort and time to implement the CRM System**

1456. It can be seen that one of the major issues is the effort that would have been expended and the time which would have been taken in achieving either the PwC CRM System starting from July 2000 or the ASI CRM System starting from July 2001.
1457. This is a matter which has been addressed in detail and at length by the IT Experts. They deal with both the PwC CRM System based on Siebel and the ASI CRM System based on Chordiant. The basis on which Robert Worden has approached these issues is by considering the position if a competent Systems Integrator (CSI) had implemented the CRM System after March 2002.
1458. In relation to Scenario B1, the PwC CRM System, PA have estimated that PwC would have expended 1,429 man-months of effort, completing the implementation in 19 months, giving a go-live date of 1 March 2002. Robert Worden, on the other hand has concluded that PwC would have expended 14,552 man-months of effort and completed the implementation after 59.5 months, giving a go-live date of July 2005.
1459. In relation to Scenario B2, the ASI CRM System, PA have estimated that an ASI commencing from the Letter of Agreement in July 2001 would have expended 2,319 man-months of effort, completing the implementation in 34 months, giving a go-live date of 15 May 2004. Robert Worden has concluded that the ASI would have expended 12,906 man-months of effort and completed the implementation after 49.5 months, giving a go-live date of September 2005.
1460. In relation to the time which would have been taken by a CSI to implement the system after March 2002, PA have estimated that a CSI would have expended 1,772 man-months of effort, completing the implementation in 31 months, giving a go-live date of 28 September 2004. Robert Worden has concluded that a CSI would have expended 11,178 man-months of effort and completed the implementation after 46 months, giving a go-live date of February 2006. If the

three enhancements had been included, this would have added 200 man-months of effort but left the completion date unchanged.

1461. The methods used by the experts have differed for each of the scenarios and it is convenient to summarise the approaches adopted before considering the criticisms that each party makes of the other party's approach and the expert evidence that underlies that approach.

**PwC from July 2000: Scenario B1**

*PA's approach*

1352. PA took as their starting point the estimates made by PwC in PwC's Response to the ITT.
1462. In their first report, PA took PwC's effort estimate of 21,850 man-days from PwC's Response to the ITT and added various percentage contingencies of between 5 and 20% to give a figure of 25,586 man-days. Similarly, PA took PwC's estimate of 66 weeks (16.5 months) and added a contingency to arrive at a period of 18 months.
1463. PA revised this estimate in their third report to take account of Neil Douglas' Function Point count based on the March 2002 Baseline 2 specifications, the data migration and some functionality which fell outside the scope of the ITT. This led to an estimate based on technology effort of 15,941 man-days (compared to 16,012 man-days allowed by PwC), no addition for data migration and 125 man-days for additional functionality. When added to PwC allowances for Programme Management (1441 man-days); People (1660 man-days) and Process (2737 man-days), together with 4000 man-days for "Additional Bespoke Development" and 2815 man-days from a "Cross-check to Function Points", this gives a revised figure of 28,719 man-days or 1436 man-months based on a 20 day month.
1464. To arrive at the period, PA took the PwC estimate of 16.5 months based on a period of 66 weeks in PwC's Response and added on the time it would take for the total 6815 man-days from "Additional Bespoke Development" and "Cross-check to Function Points". PA then used the CoCoMo I method to obtain the time taken for this additional effort and this gave a figure of 2.5 months, leading to an overall period of 19 months.
1465. PA then again revised the estimate in their fifth report (as later further amended) to take account of Neil Douglas' Amended Function Point count including the Data Warehouse. This led again to technology effort of 15,941 man-days, 125 man-days for data migration, PwC allowances for Programme Management (1441 man-days); People (1660 man-days) and Process (2737 man-days), together with 2000 man-days for "Additional Bespoke Development" and 3238 man-days from a "Cross-check to Function Points", to give a revised figure of 27,142 man-days or 1429 man-months based on a 19 day month.
1466. To arrive at the period, PA took the PwC estimate of 16.5 months and added on the time it would take for the total 5,238 man-days from "Additional Bespoke Development" and "Cross-check to Function Points". PA then used the CoCoMo



II method to obtain the time taken for this additional effort and this gave a figure of 2.2 months, leading to an overall period of 18.7 months.

1467. PA gave a range of 27,142 man-days, plus or minus 8,900 (33%) and 19 months, plus or minus 6 months (32%) for their estimate of the effort and time it would have taken PwC to achieve go-live of the PwC CRM System. The figure of 27,142 man-days is equivalent to 1,429 man-months.

***Dr Worden's approach***

1468. Robert Worden did not use the PwC estimates of effort and time as his starting point. Rather he took account of estimates produced by two different methods. First, he considered the effort which PwC would have required for each component, compared to that actually taken by Sky. This is referred to as the "avoidable costs" method. Secondly, he made an estimate for individual components based on CoCoMo II and the input of the relevant number of Source Lines of Code (SLOC) for each component.
1469. To estimate the effort which PwC would require for the most substantial component, the Siebel CRM system plus Integration, Robert Worden used an estimate based on the CoCoMo II formula and a SLOC count.
1470. In order to use the CoCoMo II model in relation to a Siebel development Robert Worden had to consider two further matters. First, whether it was necessary to adjust the number of Chordiant SLOC for the Chordiant component in order to obtain the equivalent number of Siebel SLOC. On the basis that much of the development would have needed to be carried out in Java to construct a non-Siebel component to accommodate the inability of the Siebel database to represent much of Sky's business information, Robert Worden assumed that 717,000 SLOC, the number of SLOC required for the Siebel based functionality, integration and non-functional test, would have been the same as that required for the Chordiant component of the actual system which was developed in Java. Subsequently, the experts agreed a reduced SLOC count in their Third Joint Memorandum of 31 March 2008. This reduced the number of hand-written SLOC to 577,377 and this then formed the basis of revised estimates by Robert Worden.
1471. Secondly, as set out in paragraphs 1173 and 1174 of his fourth report Robert Worden considered that the values of the scale factors and cost drivers chosen for the CoCoMo II model would differ in a number of respects for a Siebel based project compared to a Chordiant based project. As a result, he adjusted the scale factor "RESL" and the cost drivers "PLEX" and "TOOL" to allow for the greater difficulty of developing in Siebel VB rather than in Java and for the difficulties presented by the split of the application between a Siebel based component and a non-Siebel component.
1472. He considered that, in many areas, the effort which PwC would have expended was similar to that which a CSI would have expended because it was not dependent on the functionality offered by Siebel. This was therefore his approach to estimating effort in the case of Arbor Billing, the Data Warehouse, Data Migration and other smaller areas. He considered that in some areas, for instance

- Channels and Correspondence, using Siebel would have saved effort because of the pre-built functionality which it offered and he took this into account.
1473. Robert Worden then combined these two approaches to estimate the effort that PwC would have required to produce the components of Increment 2.3. The area where there was the biggest difference was in the CRM application itself, where a CSI would have expended 3,200 man-months on a Chordiant based system but where he considered that PwC would have expended 4,270 man-months on a Siebel based equivalent.
1474. Robert Worden's overall estimate for the effort which PwC would have required to deliver the full CRM system, including Increments 2.4 and 2.5 and the de-scoped part of Increment 2.3, was 14,552 man-months. There was a large range of uncertainty in this figure.
1475. The estimate for elapsed time for PwC was again based on the CoCoMo II elapsed time formula, assuming a schedule compression of 85% compared to the nominal schedule. In Robert Worden's fourth report this produced an estimate of 53.5 months for the development. To this, he added a further 7 months to allow for requirements analysis, and for the probability that, as had proved to be the case for EDS, PwC would not have agreed a contract with Sky and completed programme mobilisation until the end of November 2000. In revisions to his figures made on 15 April 2008, he added a further three months to allow for Increments 2.4 and 2.5, and the CoCoMo II elapsed time estimate was reduced to 49.5 months to reflect revised SLOC figures and hence reduced effort. The resulting estimate was that PwC would have required 59.5 months elapsed time to deliver the CRM system. On this view, PwC would have delivered the system in July 2005, some eight months before Sky actually delivered it.

### **ASI from July 2001: Scenario B2**

#### ***PA's approach***

1476. PA's calculation of the effort required for an ASI to deliver the system after July 2001 was based on Neil Douglas' function point count of the CRM System as at March 2002. In order to understand what the Functional Requirements were at March 2002, PA undertook an analysis of the 51 v2.0 Functional Specifications dated 15 October 2001.
1477. PA's first report calculated the effort which would have been required by an ASI taking over in July 2001 by taking Neil Douglas' function point estimate of the system as at March 2002 with the addition of a 10% contingency to increase confidence in the estimated size and multiplying it by the productivity figure of 16 hours per function point. This produced a figure of 36,817 man-days, to which Ian Murray added 1000 man-days to account for data migration (which was not captured by the function point count) and an 8 week assessment phase which would have been required by the incoming Systems Integrator. The total figure given in paragraph F205 of PA's first report was 38,297 man-days.
1478. Ian Murray calculated duration using CoCoMo 1981 (CoCoMo I) and assuming a schedule compression of 80%. He estimated the elapsed time at 31.5 months,

- resulting in a go-live date of 2 February 2004 after allowing 4 weeks for final data migration activities and after delaying the go-live date until after Sky's peak business period.
1479. In PA's third report at paragraph 1063 Ian Murray's estimate for the ASI increased to 40,272 man-days. The principal reason for the difference was an increased allowance of 2850 man-days for data migration because it was more complex than had been allowed for in PA's first report. The go-live date did not change as it was still determined by the end of the peak business period on 2 February 2004.
1480. In PA's fifth report at paragraph 156 and table 14 Ian Murray increased his estimate to 44,059 man-days to take account of a number of factors. First, he used Neil Douglas' amended function point estimate for Baseline 2, which has increased from 16,735 function points to 22,996 function points but no longer had a contingency of 10%. Secondly, Ian Murray allowed for an additional 28.5% increase in effort derived from the compression of the schedule to 80% of the CoCoMo II nominal schedule. Thirdly, he reduced the productivity factor from 16 hours per function point to 8.818 hours per function point as calculated in PA's fifth report at page 238, table 69.
1481. Ian Murray also revised his duration estimates for the ASI from July 2001 by using the CoCoMo II model instead of CoCoMo I, with a revised duration of 34 months instead of 31.5 and an end date of 15 May 2004, as set out in paragraph 156, table 14 and paragraph 142, table 10 of PA's fifth report.

***Dr Worden's approach***

1482. Robert Worden assumed that had an Alternative Systems Integrator taken over the project in July 2001, the course of the project would have been very similar to that which it would have taken by Sky after March 2002 if Sky had acted as a CSI. However, the ASI would not have had the estimated benefit of approximately 150 man-months' work of value by EDS after July 2001 and so this was added to their estimated effort. It was also assumed that they would have delivered Phase 1 in February 2002, adding another 150 man-months of effort.
1483. Robert Worden made revisions to his CSI estimates of effort in his fourth report and this led to revisions to his estimates for an ASI from July 2001. He also made a further adjustment to his CSI estimates because his calculations in relation to the CSI proceeded on the basis that the CSI would have delivered the CRM system as actually delivered plus the Three Enhancements whereas an ASI would have delivered the scope of Baseline 2.
1484. The revised estimate was 12,906 man-months for the complete system including Increments 2.4 and 2.5, Increment 2.3 in full and Phase 1, as set out at paragraph 614 of Robert Worden's fourth report as revised on 15 April 2008.
1485. To arrive at an estimate of the time the ASI would have taken, Robert Worden combined an estimate of 54.1 months using the CoCoMo II formula and an estimate of 45 months from an alternative plan to give 49.5 months, as he

confirmed in evidence on Day 85. This duration of 49.5 months led to a go-live date of September 2005.

### **Issues arising from the different approaches**

1486. Because the IT experts have used different approaches and have applied approaches differently, it is necessary to consider those differences and come to a conclusion on them in order to be able to reach a view on the rival contentions as to effort and time.
1487. Given my findings, the primary issue I must consider is the effort which would have been expended and the time which would have been taken had PwC been appointed as the Systems Integrator in July 2000. This aspect raises a number of issues on approach which are also relevant to the ASI CRM System. I also consider issues which only apply to the ASI CRM System.
1488. The issues which arise from the different approaches are as follows:

#### ***PA's approach***

- (1) Can PwC's estimate of time and effort contained within the PwC Response be relied upon? PA relies on the time and effort estimates within the PwC Response. EDS say that it is not an appropriate starting point.
- (2) Would a Siebel application have largely made use of the package application or would it have required substantial bespoke development? There is a major difference between the experts as to the extent to which the Siebel package could have provided functionality without further significant development. Sky say that Siebel would largely have provided the functionality without significant development. EDS say that there would have been a need for substantial bespoke development.
- (3) Is the PA function point count a reliable way of estimating effort? Sky say that it is. EDS say that it is not. This also raises issues as to the accuracy of the Function Point Count.
- (4) Is the PA conversion from function points to effort appropriate? Sky say that PA's conversion is appropriate. EDS say that it is not.

#### ***Dr Worden's Approach***

- (5) Is Robert Worden's assessment based on the effort expended by Sky after March 2002 appropriate? EDS say that Robert Worden's avoidable costs analysis is an appropriate assessment. Sky say that it is not.
- (6) Is Robert Worden's use of SLOC and CoCoMo II appropriate? EDS rely on Robert Worden's use of a count of SLOC and the CoCoMo II formula. Sky say that it is not appropriate.

1489. I shall deal with each of those issues in reviewing the two approaches.

### **PA's Approach**

#### **PwC's Estimate**

1490. The issue between the experts is whether PwC's estimate of time and effort contained within the PwC Response can be relied upon.

*Sky's Case*

1491. Sky submit that PwC are a reputable organisation who would be expected to take reasonable care in producing bid documents and that the order of magnitude difference between the 15 month timescale of the PwC Response and the 59 months of Robert Worden's estimate needs to be explained by EDS. Sky say that this cannot be explained by the alleged lack of Siebel fit nor can Robert Worden's explanation that PwC were labouring under a misapprehension as to the nature of the project for which they were bidding, be correct. Sky say that the suggestion that PwC were labouring under an illusion that Sky's requirements were limited to core CRM rather than core system replacement is not borne out by section 4.4, Annex C and the Technology Annex of the PwC Response. They point out that Robert Worden accepted in his evidence on Day 85 that whilst his view was that the PwC bid conveyed an impression that the bulk of the work was expected to be in the Core CRM, there was quite a lot to indicate that there was work that PwC were bidding for beyond the core CRM.
1492. In relation to EDS' contention that PwC gave no commitment to either timescales or prices for the delivery of the project beyond the initial eight week definition phase, Sky say that, whilst PwC's bid did make provision for an eight-week scoping study, it does not follow that they did not have confidence in their estimates or that they had not adequately understood what Sky needed. Sky rely on Ian Murray's evidence on Day 77 that this was merely good commercial practice. Sky also refer to Robert Worden's evidence on Day 85 where he said that as a result of the scoping study it would only be expected that PwC would make revisions based on significant changes in information. Sky submit that, on this basis, the scoping study did not render the costs and timescales set out in the bid meaningless and that PwC would only have been expected to revise their estimates after the scoping study if something came to light which they could not have reasonably foreseen at the time of the bid.
1493. Sky submit that, on proper analysis, the eight-week scoping study does not undermine the PwC Response but confirms that PwC were responsible, competent Systems Integrators.

*EDS' Case*

1494. EDS say that the PwC Response, like that of EDS, was prepared in a relatively short time and responded to the ITT which was of a high-level nature. They say that PwC recognised that it was not a document upon which a firm estimate could be based as they put forward a firm price only for the first 8 weeks definition phase, at the end of which they said that they would quote a fixed fee up to the "fast-track" contact centre but only with target prices for the project as a whole.
1495. EDS say that this reflects the uncertainty of the scope of the CRM project in June 2000 and that PwC cannot have anticipated all the requirements that would eventually emerge in the delivered system. EDS say that Sky's contention that

- PwC would have delivered the CRM system as delivered, with increments 2.4 to 2.5 as well and at the price that they had tentatively suggested in June 2000, is unreal.
1496. EDS rely on the reservations that Sky had expressed in their analysis of PwC's Response to the ITT. At the time Sky said that PwC had only had limited time to understand Sky's requirements and that *"detailed analysis may reveal areas not addressed by PwC and they may have underestimated the work involved. Their estimate for having the 'core' contact centre in place within 5 months is extremely aggressive"*.
1497. EDS rely on the fact that PwC's estimate fluctuated. They say that on 2 June 2000 it was £113m; it then dropped to £98m on 4 June 2000; it was £128m on 8 June 2000 and on 18 July 2000 it was £76m. EDS also point to differences in PwC's effort estimates. They say that one estimate of 12 July 2000 showed 21,850 man-days whilst another dated 18 July 2000 showed 18,867 man-days. In addition they say that PA took PwC's time estimate as 66 weeks (15 months) when Sky had pleaded that the estimate in the final bid was 18 months and that 15 months was pleaded as the estimate, as revised by Sky to reflect the removal from scope of the functionality comprised in increments 2.4 and 2.5. EDS refer to the fact that Ian Murray in his evidence on Day 84 was unable to explain why he had chosen one estimate rather than another. As a result, EDS say that reliance cannot be placed the effort, cost or time estimates in the PwC Response.

### *Analysis*

1498. It seems to me that the time and cost estimates given by PwC in the PwC Response provide a reasonable starting point for the time and cost which PwC expected for their Siebel package implementation. They obviously did not want to commit to those figures without an 8 week scoping study but I do not see that this deprives the estimates of their main purpose which was to provide an estimate based on the information they had at the time. What is clear is that there was a degree of uncertainty in PwC's estimate because of the need for the scoping study which might change the estimates as a result of further information. This is reflected both by the need for the 8 week scoping study and by the fluctuations in the price to which EDS refer. Whilst I do not consider that the estimates in the PwC Response could be relied on as being equivalent to final estimates, they represented a significant piece of evidence which could be used as a starting point for an estimate of the time and cost for the PwC CRM System.
1499. Reference was made by both parties to the "cone of uncertainty" which applies to estimates made at an early stage of a project. In his book "Software Estimation: Demystifying the Black Art" Steve McConnell provides a view on the uncertainties of software estimation and refers to a diagram showing a "Cone of Uncertainty". He states:

*"Software development consists of making literally thousands of decisions about all the feature-related issues described in the previous section. Uncertainty in a software estimate results from uncertainty in how the decisions will be resolved. As you make a greater percentage of those*

*decisions, you reduce the estimation uncertainty. As a result of this process of resolving decisions, researchers have found that project estimates are subject to predictable amounts of uncertainty at various stages. The Cone of Uncertainty in Figure 4-1 shows how estimates become more accurate as a project progresses.”*

1500. The diagram shows that at the base of the cone, represented by “Initial Concept” there is a range of uncertainty of 4 to 0.25 times the estimate whilst at the apex of the cone there is zero uncertainty when the software is complete. In the intermediate stages, at “Approved Product Definition” the range is 2 to 0.5; at “Requirements Complete” the range is 1.5 to 0.67 and at “User Interface Design Complete” the range is 1.25 to 0.8.
1501. There is no doubt that the cone of uncertainty reflects the fact that software estimates made at an early stage have inherent uncertainties. The PwC estimate was clearly made at an early stage and therefore cannot be taken as being what it would have cost or how long it would have taken for PwC to complete the PwC CRM System. However, I consider that it provides a reasonable foundation or starting point for estimating the time and cost for the Siebel package implementation. In using that estimate, the Cone of Uncertainty demonstrates that a degree of caution should be applied as to the accuracy of any estimate made at such an early stage when compared to the ultimate outcome.
1502. In my view, PwC’s estimate of time and effort contained within the PwC Response can be relied upon as a starting point for an assessment of the time and effort for the PwC CRM System but must take account of the uncertainty in that starting figure given the early stage at which the estimate was made. This is reflected both in the need for a scoping study and also by the need to define the requirements, particularly in the context of the use of a Siebel package which would, I consider, have taken time and added to the element of uncertainty in the estimate in PwC’s Response.

### **The Siebel Package**

1503. The issue of whether Sky’s requirements would have been met relatively easily by Siebel’s package application, with a modest degree of bespoke development or whether they would have required substantial bespoke development, was a major issue which divided the IT Experts. It is common ground that it would have been possible to use Siebel as the core CRM product for the Sky CRM project but the question is how much effort and therefore how much time and cost would have been involved in doing so.
1504. The central issue to be addressed is therefore the degree of fit between Sky’s requirements and the Siebel package.
1505. As a general point Sky say that Siebel is a world leading CRM system, designed to work in large enterprises across multiple business sectors and, in particular, it has been applied in the telecommunications sector. They also say that PwC are known for their Siebel expertise and were not alone in suggesting Siebel, as

- Arthur Andersen also bid on the basis of a Siebel solution. Sky say that this gives confidence that Siebel could have met Sky's requirements.
1506. EDS point to a number of documents which indicate that Siebel was not adapted to the telecommunications sector or as easy to configure, adapt, integrate or maintain as Sky contend. I do not gain much insight into the ability of Siebel to match Sky's requirements from the general material put before me. It is clear that Siebel is used in the telecommunications sector and that some problems have arisen but the documents dealing with those problems explain the situation comparatively superficially and, in any event, it is difficult to compare Sky's requirements with the requirements of that sector. In any case, it is always necessary to treat with caution information which is produced as publicity for a company. In this case there are Oracle Case Studies which set out achievements for Slovak Telecom and Manitoba Telecom. Equally the same caution has to be exercised when industry publications give information about problems on particular projects.
1507. In this context, it is to be noted that PwC responded to the ITT on the basis that they would use Siebel 99 but it is common ground between the experts that they would in fact have used Siebel 6, also known as Siebel 2000. However Sky rely on the fact that PwC would in fact also have made use of Siebel's e-Communications package. EDS contend that PwC may not have used this further development in Siebel and refer to the fact that there was no mention of this package in PwC's bid documentation. It seems to me that when a Systems Integrator specifies a package in its bid, the choice of that particular package is not cast in stone. If a further version or a particular development of that package or some other associated package were to become available, a competent Systems Integrator will review the advantages and disadvantages of using that further development. In this case I think it is likely that PwC would have made use of the Siebel eCommunications package. That was essentially accepted by Robert Worden in cross-examination on Day 79. The eCommunications package provided functionality particularly in the area of sales which would have made PwC's task of implementing the CRM system for Sky easier and, on that basis, I consider that PwC would have been likely to have used it just as they would have used any available developed software which would have assisted them. Therefore the basis on which the fit should be assessed is Siebel 6 with eCommunications.
1508. However, I accept that any major component upgrades would have been unlikely to have been used if they were released when substantial work had been carried out developing the previous version, in particular the closer the date when the upgrade became available came to the date when PwC would have delivered the system. I consider that the risk of problems in a major upgrade would have made such an approach inadvisable. On the basis that Siebel 7 was released in or after October 2001, I do not consider that this would have been adopted as part of the Siebel solution, on any view. Further, there is mention by PA of the use of a data warehouse component for Siebel, eAnalytics. On the evidence before me I am not



persuaded that this would have been available at the relevant time or, in any event, that it would have been advisable to use it.

### **Sky's requirements and Siebel**

1509. In Robert Worden's first report he raised concerns in respect of Siebel fit. PA investigated this and their approach was to see whether Siebel and the other packages proposed by PwC could successfully deliver the functionality, initially that within the ITT and subsequently that developed in the Baseline 2 requirements. Before reviewing the approach of the experts it is useful to see what the view was in 2000 when Sky were considering whether PwC's Siebel solution should be adopted.
1510. In relation to the fit of Siebel to Sky's requirements, Sky's IT services department carried out an extensive analysis and comparison of the Responses to the ITT at the time of the bids. Part of that analysis related to the suitability of Siebel. It seems that the view of that department was that either Siebel or Chordiant could be used. It is clear, though, that the Sky business users wanted to have the flexibility of the Chordiant framework implementation which gave them more ability to tailor their own processes. They saw the Siebel package as being less attractive in that it would tend to dictate the business processes so that the "out of the box" functionality provided by that package could be used without significant development.
1511. The evidence available when Sky's IT services department made that analysis of the Responses included a document produced by Donna Fluss, a practitioner in the Gartner Group experienced in implementing both Chordiant and Siebel. In that document she set out her view on the choice between the two products. Whilst she indicated that a strength of Siebel was that it had more than 80% of the required functionality "out of the box", I accept EDS' submission that this was a general indication and was not specific to Sky. Obviously it depended on the extent to which Sky's requirements could be met by such functionality and also whether Sky were prepared to alter their business processes to use the "out of the box" functionality. Andy Waddell recalls in his evidence that Sky's view was that about 70% of their functionality might be met "out of the box", leaving about 30% to be developed.
1512. In the Gartner document Donna Fluss also dealt with the question of developing Siebel to provide the additional functionality. She said that: "*Integration and development is difficult with Siebel and is the frequent complaint with integrators. Siebel have recognised this with the release of new integration technology, which was an unknown quantity*".
1513. Also she stated that: "*Siebel as both a product and a company can be difficult and this could represent a threat to desired functionality, timescales and cost*"; that "*Some parts of Siebel cannot be modified and this could represent an integration or scalability issue*" and that "*Siebel want their products and processes contained therein, to be recognised as best practice, but this has not been successful with large financial organisations who do not want their own well-defined processes to be changed.*"

1514. Sky also took up references from Norwich Union, who had used Siebel 99 with PwC as Systems Integrator. Essentially the information from Norwich Union adds support to the views expressed by Donna Fluss, albeit that the product was Siebel 99.
1515. In considering the position now, the experts have approached the question of lack of fit of Siebel from different perspectives. In essence there are two parts to the question of lack of fit. First, there is a question of the extent to which Siebel's "out of the box" functionality would have met Sky's requirements, taking account of the changes Sky might have made to their business to use that functionality. Secondly, there is the question of the amount of effort which would have been required to provide the remaining functionality.
1516. Robert Worden starts from the premise that the purpose of the CRM system is to store and process data and that, if Siebel could not easily meet Sky's requirements in terms of data, as evidenced by the data structures in the Actual CRM Project, then those requirements could only be implemented by bespoke development, either inside or outside the Siebel application. He therefore carried out a data mapping exercise by which he sought to determine the extent to which Siebel could meet Sky's requirements by comparing the detail of Siebel's data model with the Enterprise Class Model that Sky built for the Actual CRM System ('the Rose model'). Robert Worden's view was that if Siebel's data model did not contain entities that matched Sky's Enterprise Class Model, it could not hold the data that Sky needed for its business and, if Siebel could not hold Sky's business data, then he considered that it would follow that Siebel could not meet Sky's requirements.
1517. PA, on the other hand, conducted a mapping exercise between Sky's Baseline 2 requirements and Siebel and the other packages proposed by PwC to investigate whether the relevant areas of Sky's requirements would be met. They also carried out a more detailed investigation of one specific area by building a Siebel demonstrator ("the Demonstrator"). The Demonstrator was a configuration of Siebel 6, the version current in 2000, which implemented part of Sky's requirements relating to "Order Creation". This was an aspect of the requirements which Robert Worden said was particularly complex and a poor match to the Siebel data model.
1518. Both PA and Robert Worden criticise the approach of the other to assessing whether Siebel would be a good fit to Sky's requirements and it is therefore necessary to review these approaches.

#### ***Data Model***

1519. First, I consider Robert Worden's data model. He provided a detailed analysis of the fit of Siebel in relation to Order Creation, being the function by which a customer orders a product or service from Sky. On this basis his view was that less than 10% of the data that Sky required, as evidenced in the Rose model, fitted the standard Siebel data model.

1520. PA rejected the notion of carrying out such a “gap analysis” on the basis of data models. Sky say that Robert Worden does not actually look at Siebel’s functionality or Sky’s business requirements and that it is inappropriate to determine the degree of functional fit through the data models. They say that whilst the data structures of the Rose model are capable of supporting Sky’s requirements within the context of the Chordiant based development, it does not follow that they are the only data structures capable of supporting Sky’s requirements or that Sky needed the features in the Rose model which might contain flexibility beyond that required for Sky’s business. Sky also say that the Rose model extends to the entirety of Sky’s business requirements and not just that part provided by Siebel. In addition, they say that the Rose model was designed as part of a bespoke Chordiant development specifically to represent Sky’s data structures whereas the Siebel data model was designed to support the operation of the Siebel package and so Robert Worden does not compare like with like.
1521. Whilst PA do not accept the premise that the data model can be used to indicate the fit of Siebel, they have carried out two exercises mapping the Rose model to the Siebel data model. Ian Murray carried out one exercise and concluded that, as set out in paragraph 380(ii) of PA’s second report, the degree of fit was 262 classes out of the 434 classes in the Rose model, or approximately 60%. A second mapping exercise was carried out by Mark Britton and is summarised in paragraph 268 of PA’s fifth report. He produced a match of 324 classes out of 434 which is about a 75% match. He concludes at paragraph 270 that, whilst he has found that a high degree of the entities and relationships required by Sky are available “out of the box” in Siebel, that does not guarantee that the functionality required by Sky is present as the proportion of functionality out of the box is likely to be much lower. However he says that it gives confidence that the product is aimed at solving a similar business problem.
1522. EDS say that PA accept that the proportion of functionality “out of the box” is likely to be much lower and that PA’s method was a high-level one to give confidence that the product was aimed at solving a similar business problem. EDS say that little assistance is gained from PA’s figures and that whilst Robert Worden has stated that there is no meaningful fit beyond 10%, PA have effectively only said that up to 75% of the data model *may* constitute a match.
1523. Sky say that Mark Britton, rather than starting with the Siebel data model and attempting to find matches, looked at Siebel’s functionality and then ascertained data fit by looking behind that functionality. Sky say that this approach is logical, is a proper scientific endeavour and is transparent and reproducible. Sky say that Mark Britton’s 75% match between Siebel and the Rose model should be accepted and that many of the classes for which Mark Britton has not found a match would not, in any case, need to be housed within Siebel.
1524. Sky say that, in any event, Robert Worden’s exercise fails to take account of the different ways in which the Rose model and the Siebel data model work. For example, the Rose model has a ‘country’ entity the use of which can be seen by examining its associations but the Siebel model has a more generic mechanism for

storing reference data and the functionality that it supports can only be understood by examining the Siebel manuals and the software. I was referred to generic database tables S\_LST\_OF\_VAL and S\_EMPLOYEE which stored data and do not appear to have been taken into account in Robert Worden's analysis.

### ***Analysis***

1525. I consider that Robert Worden's premise that the purpose of the CRM system is to store and process data is correct and that therefore, in principle, a data mapping exercise is a valid approach in order to compare the match of the Siebel package to Sky's requirements, as reflected in the Rose model. There are, though, limitations to Robert Worden's analysis which have been properly identified by PA. First, the Rose model reflected the data structure for a Chordiant framework application which would not be the same as the data structure for a Siebel package application. Secondly, some data would be located either in the generic database tables in Siebel or elsewhere within or outside the Siebel package.
1526. I do not therefore accept that Robert Worden's figure of 10% (or even 20%) can be said properly to reflect the degree of data fit between Sky's requirements and the Siebel package. I consider that the analysis of Ian Murray and Mark Britton is more likely to reflect the data fit, taking account of the degree to which data requirements might be dealt with in different ways in a Siebel package. My conclusion is that, subject to the inherent limitations of a data mapping exercise, a working figure of 60 to 75% provides a reasonable estimate of the data fit between Sky's requirements and the Siebel package. However, as Mark Britton pointed out, the proportion of functionality "out of the box" is likely to be much lower.

### **The Demonstrator**

1527. As I have said, PA developed the Demonstrator as a limited working demonstration of Siebel to implement a subset of Sky's requirements, "Order Creation" which Robert Worden had identified as particularly complex and having a poor match to the Siebel data model.
1528. The Demonstrator was built by Mark Britton and his colleagues to demonstrate the extent to which the Siebel Package does provide the functionality that Sky required and also to show that the Siebel tools can be used to develop aspects of functionality which Robert Worden says would take extensive bespoke coding in Siebel. As part of the evidence I saw Sky's "Portfolio" entity modelled on the Demonstrator, in court.
1529. Sky rely on the evidence of Mark Britton to counter EDS' criticism that the way in which the "Portfolio" was implemented was an example of poor design, because different types of entities, such as products, product bundles and offers, are all modelled as a single set of database tables. Mark Britton disagreed with EDS' criticism and considered that there was a very high degree of parallelism between the concepts of all the different products. In any event, Sky submit that the Demonstrator shows that Siebel does work.

1530. I also saw the operation of the business rule that made availability of a particular product conditional on the customer's country of residence (Product valid for location) and was told in evidence by Mark Britton on Day 76 that the development took about 20 minutes work. A second rule was demonstrated which related to the enforcement of minimum term contracts. It was as an example of rule implementation by procedural coding where scripting as part of the Siebel toolset was used to configure functionality. Again, I was told that this rule took 20 minutes work to implement. In addition I was shown functionality in relation to taking payments and raising trouble tickets.
1531. Sky rely on this evidence from the Demonstrator and submit, based on Mark Britton's evidence on Day 76, that the Siebel package was functionally rich, offering a vast array of options and screens on which PwC could have drawn in implementing a solution for Sky. As a general principle, this was evident from the demonstration provided in court.
1532. Robert Worden says that the Demonstrator is not complete, that it addresses no more than 2% of Sky's requirements overall and approximately 34% of those within the "Order Creation" briefing pack. Sky accept that only a fraction of Sky's requirements are met in the Demonstrator but say that this is hardly surprising given that Mark Britton and his team spent not much more than one man-month implementing the Demonstrator. Sky say that, contrary to what Robert Worden says, Mark Britton has not just tackled those requirements in the briefing pack which he is most easily able to meet with the tools.
1533. Robert Worden's main criticism of the Demonstrator was that Mark Britton has been forced by the inadequacies of Siebel to adopt solutions that fall far short of industry good practice in software design. Sky rely on Mark Britton's evidence on Day 78 to the effect that there were no constraints of Siebel.
1534. In short, Sky say that the Demonstrator is production strength software and whilst it cannot prove that Siebel would have met with ease every aspect of Sky's requirements it provides confidence that Mark Britton's view of Siebel is to be preferred to Robert Worden's view.
1535. EDS in closing do not seek to challenge the fact that PA have been able to implement the functionality which I saw demonstrated but they say that merely demonstrating that such functionality can be implemented is nothing to the point; the question is whether Sky's requirements were available "out of the box" and, where they were not, what effort would have been involved in providing them. They also do not challenge the statement in paragraph 409 of PA's fifth report that PA have succeeded in implementing the Demonstrator using less than 200 active source lines of code (SLOC). However, they say that the low SLOC count is not a reliable indicator of the effort needed to achieve a full-scale system implementation and that the low SLOC count has been achieved by adopting strategies which are ill-advised or likely to cause problems in a full-scale system. They say that delivering functionality with low levels of procedural code proves the point only if it can be achieved in a way that is scalable and consistent with the construction of a very large and complex system.

1536. EDS say that PA's approach in putting together the Demonstrator was to prove that certain functionality could be provided in a reasonable time with a minimum of bespoke development or scripting but that unless the work has been carried out in the same way and to the same standard as it would on a large complex project for a client such as Sky, the exercise must be treated with caution. It did not establish the essential features of a major system such as robustness, scalability, future extensibility or ease of maintenance and upgrade.
1537. In particular, EDS say that the Demonstrator involved heavily loading some tables in the database, putting unrelated classes into extension tables and using business objects for purposes for which they were not primarily designed. EDS say that good design avoids large and unwieldy tables containing fields that are redundant. Mark Britton accepted in his evidence on Day 78 that these features would be avoided for a bespoke system but said that he did not think it was unacceptable when extending a package, as shown by the fact that Siebel itself did that. EDS submit that good database design is not the exclusive domain of bespoke systems and that even within a package environment the data structures have to be specifically modelled for the client's business and will be affected by poor design practice. They point to the evidence of Mark Britton on Day 78 where he accepted that, as a general principle, it is possible to get away with bad design on a small scale but bad design on a large scale soon overwhelms the system.
1538. EDS also say that a large IT project requires a panoply of discovery and analysis, architectural and other high level design and data modelling and that caution is required in assuming that a project several times the functional size of the Demonstrator would have required only an equivalent number of times the effort to implement.
1539. EDS point out that some of the techniques used by PA in developing the Demonstrator were the subject of specific warnings in the Siebel documentation, such as extending the Siebel database in the ways they did. EDS refer to warnings by Siebel in their manuals as to extension problems and "foreign keys" and say that a competent Systems Integrator would not take an approach which required use of techniques which had such warnings. EDS say that the problem with PA's approach is that it pays insufficient regard to potential problems, which may manifest themselves when the system is scaled, developed or upgraded. They rely on what Mark Britton said on Day 78 as to the wisdom, when building a system, to involve Siebel Expert Services to explain the caution, make recommendations and potentially change the Siebel product, if needed. They also point to his evidence that there might be no problems with the Demonstrator but there could be major problems when the system is scaled up.

### *Analysis*

1540. I consider that the Demonstrator provides a useful practical demonstration of the way in which Siebel can be configured with a limited amount of scripting to provide functionality which matches Sky's requirements. However, the main problem is to know to what extent the Demonstrator relating to part of 2% of the required functionality is scalable to the whole of the complex CRM System. In

particular, as Mark Britton effectively accepted, input would be needed from the Siebel organisation to be confident of being able to move from the Demonstrator to the whole system. I consider that there are certain features of the Demonstrator about which caution is indicated in the Siebel manuals and which are likely to cause problems when scaled up. This would, to that extent, undermine the conclusions to be derived from the Demonstrator. I therefore consider that the conclusions from the Demonstrator, whilst useful in showing what can be done and indicating that the package has rich “out of the box” functionality, cannot, without more, be taken to reflect the potential fit of Siebel to the whole of the Sky’s requirements for the CRM project.

1541. The evidence does however provide a useful qualitative analysis of the amount of development effort which would have been required with a Siebel application. It certainly allows me to conclude that a Siebel application for the Sky CRM System would have been able to provide a more significant degree of “out of the box” functionality and functionality with little additional development than Robert Worden’s analysis would suggest. However, equally, I must treat with caution the degree to which the Demonstrator establishes the degree to which the overall Siebel package implementation could have been done with minimal scripting or procedural coding.
1542. In summary, I consider that the Demonstrator establishes that the Siebel package functionality will eliminate significant areas of bespoke development which might have been necessary with the Chordiant framework. This supports PA’s overall conclusion. But, I have to be cautious in applying this conclusion to the overall solution because the Demonstrator could not establish necessary features such as robustness, scalability, future extensibility or ease of maintenance and upgrade.

#### **Conclusion on Siebel Fit**

1543. The above evidence enables me to come to an assessment of the extent to which the Siebel package would fit Sky’s requirements and would do so without bespoke development. First, I am persuaded that PwC would have been able to use the Siebel package to provide many of Sky’s requirements and could have done so with significantly less effort than would have been needed for a Chordiant framework based solution.
1544. Secondly, I consider that there would still have been a substantial element of bespoke development to match Sky’s expectations and to provide a system which allowed Sky some flexibility going forward. Sky’s business requirements would, in my judgment, have required substantial areas in which Siebel would not have been able to provide a solution “out of the box” or one that would only have required a minimal level of development. Part of this would have been due to the fact that the requirements were too complex to be catered for without bespoke development. In addition, even if a solution were available “out of the box” or with little development, I am far from persuaded that those responsible for Sky’s business would have been satisfied with a “vanilla” solution but, consistent with the “blue sky” or “clear blue water” philosophy of Mike Hughes, they would have

wanted something which had greater flexibility and functionality than would have been easily available from the Siebel package.

1545. The results of the data modelling would indicate that a working figure of 60% to 75% provides a reasonable estimate of the data fit between Sky's requirements and the Siebel package but I bear in mind that the proportion of functionality out of the box would be likely to be much lower. The PA analysis which mapped the Siebel functionality to Sky's requirements provides an insight into that aspect and also provides confidence that many of the requirements could be derived from "out of the box" functionality without further significant work. The Demonstrator also shows the richness of the "out of the box" functionality.
1546. The evidence from the time of the bids when Sky were considering the Siebel solution indicates that about 70% of the functionality might have been obtained from Siebel "out of the box". My view is that the actual figure would have been lower but that the amount of development work would have been low for significant amounts of functionality so that, as a reasonable estimate, some 30% would therefore need to be dealt with by bespoke development.

#### **Estimating effort from PA's function point count**

1547. Neil Douglas of PA carried out an exercise of estimating the effort which PwC would have required to build the Sky CRM System. To do this he performed a "function point" count using the Mk II function point counting technique of the Actual CRM System. From this PA have derived an estimate of the effort that would have been required by PwC for the requirements set out in the Baseline 2 functional specification.
1548. Function point counting techniques depend on attributing points to elements of the functional requirements by identifying components of the system in terms of inputs, outputs, inquiries, interfaces to other systems and internal logical files. There are a number of function point counting techniques but the ones which were adopted in this case were the Mk II technique and the International Function Point User Group (IFPUG) technique. Each technique requires a definition of the elements which have to be counted and those elements differ between the two methods.
1549. For the MkII technique the elements are "logical transactions" defined as the *"lowest level of self-consistent process. It consists of three components; input across an application boundary, processing involving stored data within the boundary, and output back across the boundary"* and it is something that is *"triggered by a unique event that is of interest to the user..."* In the IFPUG technique the elements of the functional requirement which are counted are referred to as "elementary processes" ("EPs"). Those are defined at page 6-4 of Part 1 of the Function Point Counting Practices Manual (Release 4.2) as the *"smallest unit of activity that is meaningful to the users ..."* It *"must be self-contained and leave the business of the application being counted in a consistent state"*.



1550. EDS rely on two criticisms made by Robert Worden of the function point count carried out by Neil Douglas on the Actual CRM System. First he says that PA have misapplied the Mk II definition of 'logical transaction', thereby under-counting logical transactions by a factor of two to four times. Secondly, he says that PA have misapplied the definition of 'primary entity' which is a core component of a logical transaction, thereby under-counting such entities by a factor of up to four.

1551. I shall turn to consider these criticisms.

***Logical transactions***

1552. Robert Worden considers that the rules for the Mk II technique rules require every alternative pathway through a use case to be counted as a separate logical transaction and that Neil Douglas has failed to do this. Robert Worden describes "alternative pathways" as branches or places within a transaction where the process can follow different alternative pathways depending on the data that is being processed. Robert Worden considers that any reasonable counting method would take account of such alternative pathways because they probably make a big difference to the size of a system. He says that alternative pathways through a piece of functionality may require to be counted because the software required to provide such functionality may make a difference to the size of the system and this would not be sufficiently recognised by counting a single logical transaction. He says that Neil Douglas has largely ignored alternative pathways through a logical transaction, each of which may involve several elementary interactions with the user.

1553. In the Mk II Counting Practices Manual at section 4.4.1 it provides:

*"Variations in processing path resulting from different input values on distinct occasions are not regarded as giving rise to different logical transaction types. All the entities which could be referenced by all possible processing paths should be counted in the one logical transaction type."*

1554. Robert Worden says that this requires each alternative path to be counted, whereas Neil Douglas says that it does not. Sky submit that, as a matter of textual analysis, where a use case contains an alternative pathway and the determination of whether or not that pathway is taken depends only on the inputs to the transaction, for example, who the CA happens to be, both or all pathways are counted as part of a single logical transaction. Sky say that all pathways through a logical transaction do contribute to the size of that transaction because all entities referenced by all possible processing paths are counted. EDS submit that this is not so and that if two alternate pathways are incorrectly counted as one and some entities appear in both of the two merged pathways, those entities would be counted twice if the paths are not merged and only once if they are merged.

1555. Sky say that further confirmation that Robert Worden's interpretation of the Mk II guidance is incorrect can be found in "Software Sizing and Estimating: Mk II FPA", the book in which Charles Symons, the creator of the MKII technique, explains Mk II Function Point analysis. He says

*“Changes in the value of an input data element cannot trigger separate logical transactions. Thus for example, the value of an input parameter may determine whether a particular report is produced or not. The process part of the logical transaction has to include the possibility of producing the particular report, even if it is [sic] not produced on a particular occasion. Therefore the entities referenced in creating the report, and the data elements making up the report must be counted in the score for the one logical transaction. (A logical transaction may result in more than one physical output, or indeed require more than one physical input).”*

1556. EDS say that the point being made by Charles Symons is that changes in the value of an input data element may determine whether a particular transaction occurs or not. But, where combinations of input data may control a much more complicated set of operations, perhaps triggering different combinations of processes the system to be counted is much larger than a single transaction.
1557. Sky say that Robert Worden now accepts that alternative pathways do not fall to be treated as separate logical transactions when, for instance, they differ only by a simple succeed/fail message and that where he had previously asserted that Neil Douglas had underestimated the number of logical transactions by “*by a factor as much as 4*” he now says that “*at least some fraction of the alternate use case scenarios at Baseline 3 would fall to be counted as separate logical transactions. In my opinion this fraction is a large one, at least ½*” although in his oral evidence on Day 83 he said that having heard the evidence that might have been generous and that the circumstances in which an alternative pathway need not be treated as a separate logical transaction are rather rare.
1558. Sky refer to Neil Douglas’s evidence on Day 82 and say that he had in fact counted alternative pathways as separate logical transactions wherever in his opinion the pathways warranted such treatment, that is whenever each separate pathway represented a self-consistent process triggered by a unique business event of interest to the user.
1559. Sky also say that Robert Worden’s conclusion in his evidence on Day 83 that Neil Douglas had not counted the alternative pathways in the vast majority of cases was incorrect and was based on a very small sample. EDS do not accept that Neil Douglas counted alternative pathways. They refer to his evidence about the “Record Visit Outcome” use case, with its 16 alternative scenarios and 51 process steps, where Neil Douglas said in evidence on Day 82 that it was a single elementary process and a single logical transaction. EDS say that a complex function such as this will require more work to implement than a simple elementary process such as capturing a customer’s address.
1560. Sky say that, in any event, the figure used by Robert Worden for the extent of over counting is wrong and is based on the Baseline 3 functional specifications, whereas Neil Douglas has counted the Actual CRM System. On this basis Sky say that Robert Worden’s view would be that Neil Douglas should have identified

1,100 logical transactions as against the 764 that he did identify, a difference of far less than a factor of two.

### ***Analysis***

1561. There are two issues arising from this debate between the experts. The first is whether Neil Douglas should have counted certain alternative pathways and the second is whether he did not count them. It seems to me that, on the basis of the Mk II Counting Practices Manual and the commentary by Charles Symons, alternative pathways do not always need to be counted as separate logical transactions but that entities relating to those alternative paths do need to be counted. It follows that some, but not all, alternative pathways do need to be counted as separate logical transactions. However, on the evidence before me Sky asserts that Neil Douglas has counted alternative pathways wherever they came within the definition. They also assert that entities were counted.
1562. I am far from satisfied that Robert Worden's evidence on this element of the case is correct. In any event, his evidence does not identify how this would affect the function point count. I bear in mind that Neil Douglas specialises in function point counting techniques and this is a matter where his expertise is far greater than Robert Worden's. I also accept that difficult decisions have to be made at a practical level when it comes to applying function point counting as an estimating process and that expertise in this area is therefore likely to be a better guide than the interpretation of words in manuals. Whilst errors can obviously be made, I am not persuaded that Neil Douglas' approach to Mk II Function Point counting has any significant deficiencies. There may be some inaccuracies but he accepts that his overall estimate is within plus or minus 10% and I consider that this range would cover any such inaccuracies or deficiencies.
1563. In the circumstances I consider that Neil Douglas, as he explained in evidence, did properly apply the definition of logical transaction in the context of alternative paths.

### ***Primary entities***

1564. Primary entities are described by the Mk II Counting Practices Manual as '*the main things in the real world about which the application being sized is required to hold data*'. The number of primary entities referenced by a logical transaction is a key determinant of the size of that transaction and therefore the contribution it makes to a function point count.
1565. Robert Worden says that Neil Douglas only counted approximately half of the entities in the Conceptual Data Model ("the CDM"), the class model used as the basis of his count of primary entities and that, in any event, the CDM was an inappropriate model to use because it was incomplete. As a result Robert Worden says that Neil Douglas has counted only approximately 100 entities whereas he should have counted a number much closer to 400.
1566. Neil Douglas does not agree and says that he did not omit half of the entities in the CDM but that several classes in the CDM appear multiple times and each class should be counted only once in a Mk II Function Point count. He says that

the CDM is incomplete, not in the way that Robert Worden suggests, but in terms of scope and that he compensated for this when performing his count by generating the missing entities. Neil Douglas says that he identified 104 primary entities, 46 of which he generated. Neil Douglas says that the CDM is at a different level of abstraction to the lower-level Rose model, which contains 434 entities and that the entities of the CDM are at the correct level of abstraction for a Mk II Function Point count. Whilst, as Neil Douglas said in evidence on Day 83, it would have been possible to start from either model as a base, he stated that a lot of interpretation would have been required to work from the 434 entity model and it was easier to develop something that was appropriate to the circumstances, guided by the smaller model.

1567. Neil Douglas says that the definition of ‘primary entity’ in the Mk II Counting Practices Manual is based on three distinctions. The first is between primary entities and the System Entity; the second distinction is between primary entities and data element types and the third distinction is between primary entities and sub-entities. Sky say that in determining how to classify an individual entity, it is necessary to apply expert judgment and the expert view of Neil Douglas should be preferred to Robert Worden’s.
1568. EDS say that compared to the Rose model, Neil Douglas had started from the CDM which was incomplete and had very many fewer entities than the Enterprise Data Model which was also in the Rose Model. EDS say that there is no reference to any level of abstraction in the Mk II Manual. EDS say that Neil Douglas’ evidence was that he had used the CDM which was not fully developed but he considered it was closest to being a suitable logical model. However, whilst he had said in evidence on Day 82 that the Rose Model may have contained some entities that would have to be classed as part of the system entity, there was no need to reject his approach on that account as those entities could simply be ignored.
1569. EDS say that the identification of entities involved many judgements to the effect that entities appearing in the delivered system were not really entities, but either sub-entities, or data element types, or part of the system entity. These judgements were fluid and depended on the customer’s requirements. EDS say that Neil Douglas’ knowledge of the requirements was not impressive.

### *Analysis*

1570. It seems that using either Neil Douglas’ Conceptual Data Model or the Rose Model it would be possible to arrive at a figure for the primary entities needed to make the appropriate Mk II Function Point Count. With the Conceptual Data Model it was necessary to generate missing entities whilst with the Rose Model it was necessary to see whether some of the entities were not in fact primary entities. In carrying out either exercise, it was necessary to have a detailed knowledge of the requirements in order to interpret the model and arrive at the correct number of primary entities. The assessment of the number of primary entities was a matter of judgement but in the exercise of that judgement it was

necessary to apply that detailed knowledge of the requirements so as to be able to determine whether something was a primary entity.

1571. Whilst I do not accept that the figure of 434 from the Rose Model properly measures the number of primary entities, during his cross-examination I did not find that Neil Douglas displayed the degree of detailed knowledge of the requirements which is clearly necessary to be able properly to estimate the primary entities using the Conceptual Data Model. Whilst, as I have said, I do not doubt his expertise in the function point counting techniques, without a detailed knowledge of the requirements, the number of primary entities are likely to have been underestimated. I cannot put any particular quantitative measure on the extent to which Neil Douglas has failed to measure primary entities, but I find his estimate is likely to have been lower than it should have been and I estimate that an additional 20% should be allowed in relation to the function point count.

#### **Accuracy of the Function Point Count**

1572. This then leads to the question of the accuracy of the estimate which was made by Neil Douglas using the Mk II Function Point counting technique.
1573. In the First PA Report Neil Douglas concluded that the Actual CRM System comprised 12,945 function points. When he presented a revised function point count in the Fifth PA Report the figure was 21,216 function points.
1574. Sky say and EDS do not dispute, that the difference between the two figures can be explained by three matters. First, a difference of 6,160 function points is accounted for because the original count did not cover the entirety of the Actual CRM System. Secondly, the person within PA carrying out the first count failed to make allowance for the fact that almost every logical transaction in the Actual CRM System references the System Entity and this accounts for 1,159 function points. Thirdly, Neil Douglas reviewed his categorisation of primary entities and by adding five primary entities this contributed an extra 430 function points. Sky say that this latter adjustment falls within the 10% range within which expert function point counters are expected to agree.
1575. Sky say that Neil Douglas' function point count of 21,216 should be accepted whilst EDS say that for the reasons set out above it should be increased. EDS also criticise PA for relying on only one method of measurement. It seems to me that, subject to the measurement of primary entities which I have already dealt with, the approach of PA cannot be criticised. The Mk II Function Point counting technique is a well established method of which Neil Douglas is a leading expert and as a method of measuring the size of the Actual CRM System I do not consider that they can be criticised for using one method, which would be expected to give rise to a reasonable degree of accuracy at that stage.
1576. My concern arises from the degree to which the missing entities in the Conceptual Data Model may have created an inaccuracy in the function point count which, otherwise would be expected to vary by about 10% from 21,216 to, say, 19,000 to 23,500 function points for the Actual CRM System. For the Baseline 2 function point count used by PA for the PwC CRM System the figure is 22,996 and on the

same basis of 10% accuracy, the size would be expected to vary from, say 20,700 to 25,700.

1577. I consider that the concerns over the missing entities could be dealt with by expanding the upper range by 20%. I propose to use a figure for the Actual CRM System of 28,200 function points (23,500 plus 20%) and for the Baseline 2 CRM System a figure of 31,000 (25,700 plus 20%).

**PA's conversion from Function Points to effort**

1578. In order to convert the function point count to effort, PA had to use a productivity factor in terms of hours per function point. That factor was derived by Ian Murray. For the function point count of 21,216 produced by Neil Douglas in PA's fifth report Ian Murray used productivity factors of 8.4 hours per function point and 5.7 hours per function point, giving an average of 8.818 hours per function point.
1579. EDS criticise these productivity factors used by Ian Murray. They say that for the original function point count of 12,945 Ian Murray had used a productivity factor of 16 hours per function point but the figure used for the revised function point count of 21,216 was about 8 hours per function point.
1580. Ian Murray in PA's first report said that he had derived the original figure of 16 hours per function point from Charles Symons data and he supported this figure by reference to the comparable figure typically used by PA of 15 hours per function point. He gave productivity figures, derived from a graph in Charles Symons' book which was described as showing the relationship of "*Industry-Average*" size to productivity for a 3GL environment. The graph shows productivities (expressed as function point per hour) over different project sizes and in paragraphs F200 to 202 of PA's first report Ian Murray derived these figures: Lower: 16.67 hours per function point; Mean: 13.33 hours per function point; Upper: 8.33 hours per function point. Ian Murray said that 16 hours per function point was a reasonable and prudent figure and he said that this assumes lower than average productivity according to Charles Symons.
1581. EDS criticise these figures and say that they are not lower, mean and upper productivities for a single project, but average productivities for projects of differing sizes. Although the 16.67 hours per function point was the lowest productivity on the graph in Charles Symons' book, it was the average productivity for projects above about 1000 function points and that Ian Murray's mean and upper figures would be applicable only to smaller projects of under 1000 function points. EDS say that such figures have nothing to do with the Sky CRM Project which PA now estimate at over 20,000 function points and that the graph stops at projects of 2000 function points.
1582. EDS therefore say that Ian Murray was wrong to characterise the figure of 16 hours per function point as he did in PA's fifth report at paragraph 125 as "*a conservative (low) productivity factor*" or "*a prudent figure*" or a figure "*at the bottom end of his productivity range*" or that by selecting "*such a low productivity factor*" he was "*building in some estimating contingency*".

1583. Ian Murray then re-evaluated the figure of 16 hours per function point because he said at paragraph 126(iii) of PA's fifth report that Neil Douglas had now measured the system within an error margin of 10% and the contingency was no longer needed. EDS say that this is an incorrect approach and point out that the effect of the reduced productivity was to balance the increase in function points counted by Neil Douglas.
1584. Ian Murray's re-evaluation, set out in Appendix B to PA's fifth report, used 5.7 hours per function point or 8.4 hours per function point, with 16 hours per function point being applied to deferred or de-scoped work. This produced a revised figure of 8.818 hours per function point and was based on an analysis of International Software Benchmarking Standards Group ("ISBSG") data. This database contains information about over 3000 projects undertaken by "best-in-class" Systems Integrators and developers. EDS say that Ian Murray recognised in paragraph 854 of PA's fifth report that the ISBSG data "*provides challenges in arriving at appropriate and reliable figures*", particularly, as noted by the ISBSG, in relation to Mk II Function Points because of the paucity of Mk II data. EDS say that there were only 35 Mk II Function Point projects within the ISBSG data, only 20 of which provided the required unadjusted function point figures and that of these only three are in excess of 1000 function points in size.
1585. Ian Murray took the implied productivity figures for the Mk II projects under 1000 function points, IFPUG projects under 1000 function points and IFPUG projects over 1000 function points and concluded that productivity of larger projects was significantly higher, using about 69% of the hours per function point compared with smaller projects. In paragraph 859 of PA's fifth report he therefore used that ratio and applied it to the average productivity of the smaller Mk II projects of 10.4 hours per function point to infer an average productivity of 7.2 hours per function point for larger Mk II projects. Similarly from IFPUG figures for small and large 3GL and 4GL projects, he inferred at paragraph 861 figures of 8.4 hours per function point for large Mk II 3GL and 5.7 hours per function point for large Mk II 4GL.
1586. EDS say that there are numerous objections to this approach because it is based on inadequate Mk II data; the extrapolation from IFPUG data is flawed in concept; the IFPUG data itself was shown to be a very poor predictor of effort; the process implies economies of scale when industry experience suggests that diseconomies are far more common and the process produces productivity figures that are out of line with related estimates based on the same data.
1587. EDS say that Ian Murray accepted that the original base figure was derived from insufficient quality data for him to rely on but then said that it was the most reasonable approach for that data. EDS also criticise the multiplier approach and say that it is flawed because, on the basis of Neil Douglas' evidence, IFPUG and Mk II methods produced markedly divergent counts at larger sizes. For the delivered system, the ratio of his Mk II estimate to his IFPUG estimate was 2.77 and EDS say that, if the unit of work represented by the two types of function point diverged to that degree with increasing size, it is difficult to see how there could be any consistency in the ratios of large to small between IFPUG and Mk II

- projects. They say that the fact that the relationship between IFPUG and MkII estimates was pseudo-linear up to 1000 function points did not justify applying that relationship at 20000 function points where the relationship is, on PA's evidence, anything but linear.
1588. EDS also say that IFPUG data was itself very variable as illustrated by Ian Murray's graph in the Third Joint Memorandum at paragraph 122 which shows a wide range of variability of effort against IFPUG v4 from the ISBSG database. EDS say that the spread shows that the project involving the most effort would have involved about a hundred times more effort than the least amount of effort from the same function point, although Ian Murray's filtering process reduced the variability. EDS rely on Robert Worden's examination of the IFPUG data which showed a very wide distribution in the implied productivities, as set out at paragraphs 180 to 195 of the Third Joint Memorandum. His analysis of the largest of the datasets used by Ian Murray shows a peak around 16 hours per function point and a very wide spread from 8 to 32 hours per function point. Robert Worden concluded that the use of function points as a predictor of project effort has a very wide range of errors - at least a factor 2 in either direction, or 5 overall.
1589. EDS say that the 69% productivity ratio between smaller and larger projects used by Ian Murray would suggest significant economies of scale which is contrary to industry experience. EDS rely on what Robert Worden said at paragraph 1069 of his second report in introducing the CoCoMo II model. He said that the effort required to build a piece of software grows with the size of the requirements and the software in a manner which is often 'worse than linear'. In his evidence on Day 84 Ian Murray did not accept the view that it was a "universal truth" that productivity decreases as size increases. He said that some authorities considered that economies of scale can be achieved but, on analysis, this seemed to depend on being able to characterise a large project as a number of smaller projects.
1590. Sky rely on the following observation from a publication (which they attribute to Putnam and Myers) where it says that productivity research "*from the QSM database shows a strong correlation between system size and productivity. Small systems generally exhibit lower average [productivity indexes] than large systems. We can only speculate as to the reasons but two important influences may be management influence and economies of scale. Larger projects may have higher profiles and are often strategically important to the organization. For this reason they are generally managed and staffed by more skilled and experienced teams of managers. They are more likely to be heavily capitalised with access to the best technology available. This may explain in part why they perform better. There may be economies of scales enjoyed by large projects. The typical startup activities and learning curve have less impact when spread out over a longer project schedule... Small systems on the other hand are often managed in a more informal fashion. Team members must slice time between several smaller projects. Small projects often have a lower priority and so on. The start-up period occupies a greater percentage of a short project's schedule. These factors may explain their relatively lower productivity.*"



1591. Robert Worden's view was that this was referring to very small projects but that for larger size projects where proper management disciplines are applied then it was his experience that scaling up increases the difficulty and makes things harder. He referred to the CoCoMo project, where they filtered the data to achieve quality and he said that this shows, for the majority of projects, a diseconomy of scale. It is to be noted that, as referred to in the Third Joint Memorandum at paragraph 147 at page 30 of "Software Cost Estimation with CoCoMo II" it explains: *"It turns out the most significant input to the COCOMO II model is Size. Size is treated as a special cost driver in that it has an exponential factor, E." This exponent is an aggregation of five scale factors*" and can range from 0.91 to 1.226, anything more than one representing a dis-economy of scale.
1592. Robert Worden's choice of the CoCoMo scale factors in paragraphs 1119 to 1127 of his second report led to an exponent of 1.0746. This, as EDS point out, was used by PA in their calculations at paragraph 144 of PA's fifth report. It was not used by them in their effort calculations. EDS say that the exponent of 1.07 used implies a dis-economy of scale and is inconsistent with the marked economy of scale that underlies the productivity figure used by PA.
1593. Robert Worden also used the formula  $\text{effort} = \text{size}^E$  to derive the exponent E from a number of references which, overall, give a productivity factor of 30 hours per function point as set out in his table at paragraph 209 of the Third Joint Memorandum. First, he considered the book by Capers Jones which was cited by PA in support of their own 15 hours per function point figure. That book "Software Assessments, Benchmarks, and Best Practices" at page 274 gives figures for 'best-in-class' productivity in terms of hours per IFPUG Function Point at 1,000 function points and 10,000 function points from which Robert Worden derives an exponent of 1.605 which derived a productivity factor of 119.5 hours per function point for MkII Function Points at 20,000 function points. Sky say that this figure is only derived by ignoring a third data point for hours per function point at 100 function points. If this is used then exponents of 1.118 and 1.361 are derived and Sky say that the variability in exponents derived in this way points to the data not supporting the underlying formula.
1594. Ian Murray pointed out that the Capers Jones figures were based on IFPUG Function Points not Mk II Function Points and suggested that this change of productivity was due to the flattening of IFPUG Function Point counts in large projects. Ian Murray used the ratio of Mk II to IFPUG of 2.77 that Neil Douglas had derived. EDS say that, even with that major modification to Capers Jones figures, Ian Murray could only produce a more probable range of economies of scale from 0.95 (i.e. an economy of scale) through to 1.46 (i.e. a dis-economy of scale). EDS say that to achieve an economy of scale required the 2.77 factor modification, best-in-class figures and best-in-class performance and that, even then, the economy of scale would be 0.95, rather than the ratio applied here of 0.69.
1595. Robert Worden also relied on Putnam and Myers "Five Core Metrics: the intelligence behind successful software management", whose formula when re-arranged by him produced an exponent of 1.286 and a factor of 33 hours per

- function point, although Sky say that this dis-economy of scale was contrary to the view expressed by those authors, as cited above. He also relied on “Software Estimation: Demystifying the Black Art” by McConnell and derived an exponent of 1.1 and 15.6 hours per function point. McConnell also says that projects “*have an exponential increase in effort as a project size increases*”. However Sky point out that Robert Worden’s figures from McConnell are stated to be “*computed using data from the CoCoMo II estimating model, assuming nominal diseconomy of scale*” and therefore are not separate data but based on CoCoMo. Robert Worden’s exponent of 1.07 using CoCoMo and his own scale factors yield a figure of 14 hours per function point.
1596. Robert Worden at paragraph 213 of the Third Joint Memorandum said that, using the combined productivity scaling shown from his table at paragraph 209, Ian Murray’s estimate would be around 8000 man-months, with a very large uncertainty or, using only the CoCoMo scaling of productivity, Ian Murray’s effort estimate would almost double.
1597. EDS say that Ian Murray’s productivities are lower than other figures derived from the same data: the ISBSG itself derives a median figure of 11.3 hours per function point from its database representing the best 20% of the industry and a paper by Grant Rule, an assistant to Charles Symons, also based on ISBSG data had a median figure of 15 hours per function point. Ian Murray produced a figure of 8.3 hours per function point which he derived from all the MkII data points.
1598. Sky say that the figure of 8.8 hours per function point has been derived by Ian Murray on the basis of his expert judgment and should be accepted. Sky submit that it is very unlikely that this figure is wrong by a factor of four as Robert Worden suggests and that 15 hours per function point represents the absolute upper bound. That figure, they say, is consistent with Robert Worden’s calculation which yields a figure of only 14 hours per function point rather than 30 hours per function point. Sky say that if 15 hours per function point were applied for the Alternative Systems Integrator then PA’s effort estimates would increase by approximately a factor of two. However, the effect on PA’s PwC estimate would only increase it from 1,429 to 1,502 man-months and the timescale would remain unchanged at 19 months, the change being from 18.7 to 19.3 months.

### ***Analysis***

1599. Having rehearsed the complex debate between the experts, I have come to the conclusion that Ian Murray’s change in productivity from 16 hours per function point to 8.8 hours per function point cannot be justified on the basis of the material which I have reviewed. However, neither do I think that Robert Worden’s figure of 30 hours per function point can sensibly be adopted.
1600. There is obviously very great difficulty in using the available data from ISBSG or from the other authors and applying it to derive a productivity factor for the Sky CRM Project with a function point count of in excess of 20,000 Mk II Function Points. First, much of the data is based on IFPUG Function Point data and the

relationship between MkII and IFPUG Function Point counts for different size projects cannot be easily derived. Secondly, there is little MkII Function Point data within the data sets and very little data above 1000 function points. Thirdly, on the data I do not consider that for a large project it is appropriate to assume that there will be economies of scale unless the project can be dealt with as a number of smaller sub-projects or there are other special characteristics to differentiate it. This, in my view, is not the case here. Fourthly, I am not persuaded that the accuracy of Neil Douglas' function point count is a factor which can be used to justify a reduction in the estimated effort for each function point, as Ian Murray suggested. There is still uncertainty in estimating the amount of effort and attempting to modify the productivity factor of hours per function point is not, in principle, an appropriate way of dealing with uncertainty in the number of function points.

1601. I have come to the conclusion that a figure of the order of 16 hours per function point is likely to be representative of the effort for the Alternative Systems Integrator position and for the bespoke element necessary for the Siebel package in relation to the PwC bid.

#### **Robert Worden's approach**

1602. As set out above, Robert Worden's view is that PwC would have expended 14,552 man-months of effort to build Sky's CRM system using Siebel, and that the project would have taken 59.5 months elapsed time to complete. In coming to these conclusions, Robert Worden has relied upon an analysis of "avoidable costs". That analysis starts from a consideration of the effort actually expended by Sky from March 2002 to March 2006. On this analysis, he concludes that a competent Systems Integrator would have required 12,906 man-months to implement Sky's Chordiant-based solution, with an elapsed time of 49.5 months. He then adjusts this estimate for the PwC and ASI CRM Systems.
1603. EDS submit that Robert Worden has adopted a common sense approach in basing his analysis on Sky's performance from March 2002 to March 2006 so as to make an "avoidable costs" analysis. EDS say that the analysis also provides a useful reality check on the more theoretical estimates. EDS rely on Robert Worden's explanation that he followed the classic way of estimating projects. He explained in evidence on Day 85 that he looked at Sky's cost spreadsheet for March 2006, converted the effort to man-months and, looking at each major component of the effort and considering what went wrong or what might have been saved, arrived at an estimate of what a competent Systems Integrator would have done.
1604. Sky say that the estimates made by Robert Worden and the effort figures based on them are far too high for two main reasons. First, his effort estimate and the timescale estimate that flows from it are based on an assumption that the CRM system as implemented by PwC would not have been the Siebel package-based solution for which PwC had bid and planned, but would instead have comprised a large-scale bespoke development because of the poor fit of Siebel to Sky's requirements. Secondly, the avoidable costs analysis attempts to estimate the

effort that a competent Systems Integrator would have required to build a Chordiant-based solution on the basis of the effort actually expended by Sky.

**PwC System estimate**

1605. Robert Worden's effort estimate for the PwC Scenario is based on an analysis of a number of components derived from a breakdown of Sky's actual effort. It is made up of the following components:

- (1) The effort that Sky spent developing the 'Chordiant', 'Integration' or 'Other' parts of the Actual CRM System (the "Core System effort") which he derived using the CoCoMo model. He considers that, because Siebel was a poor fit to Sky's requirements, PwC would have had to implement the equivalent functionality as bespoke software and this would have meant PwC writing approximately the same number of lines of code as Sky wrote for the Actual CRM System, but using Siebel inferior VB programming language rather than Chordiant's Java. He therefore uses his SLOC count of the Actual CRM System as the input to a CoCoMo effort estimate but adjusting the cost drivers to account for the inferiority of Siebel VB. This produces an effort estimate of 4,270 man-months.
- (2) The effort expended on Increments 2.4 and 2.5 of the Actual CRM System is based on the Core System estimate. Robert Worden applies a multiplier of 0.385 to the figure of 4,270 man-months. The figure of 0.385 is derived by calculating the size ratio between the Core System and Increments 2.4 and 2.5. This gives a figure of 1,644 man-months for these increments
- (3) For the remaining components, Robert Worden first undertakes the avoidable costs analysis to estimate the effort Sky would have expended if they had been Competent Systems Integrators. Secondly, he identifies the extent to which a Siebel solution would have required less or more effort in the corresponding area.

1606. Sky say that, as Robert Worden accepts, the CoCoMo model is not an appropriate tool for estimating the effort required to undertake a package implementation, such as Siebel, provided that the package is a good fit to requirements. Sky say that, as a result, if Siebel is a good fit, Robert Worden's effort estimate of 4,270 man-months for the Core System and his estimate of 1,644 man-months for increments 2.4 and 2.5 derived from it, cannot stand. In these circumstances, Sky say that whilst the figure would be significantly lower than 5,916 (4,270 + 1,644) man-months, Robert Worden has not provided any evidence as to what it might be.

1607. For the remaining components, Robert Worden's figures are based on his opinion that the choice between Siebel and Chordiant makes little difference, so that the effort required by PwC is similar to that required for a competent Systems Integrator using Chordiant. For most of the remaining components Robert

Worden has used the equivalent Chordiant estimate for his PwC estimate, with some reductions for channels, batch and correspondence, on the basis that Siebel would provide some useful functionality in those areas. Whilst it is common ground that some minor aspects of the development, such as the modifications made to Sky's legacy systems, are unlikely to have been affected by the particular choice of CRM system, Sky say that several components were highly sensitive to the question of Siebel fit and that PwC would not have needed to undertake a large bespoke development in Siebel. This, Sky say, would mean that there would be a stable architecture from the outset, shorter development timescales, fewer technical difficulties and, ultimately, less development effort. However, Sky say that Robert Worden has not sought to provide an estimate for these circumstances.

1608. Sky refer to the fact that Robert Worden has included a figure of 1,824 man-months in his estimate to reflect his opinion that PwC would have implemented functionality equivalent to Sky's Phase 1 and Increments 2.1 and 2.2, as he considers that Sky and PwC would have realised the necessity for some interim solution given the timescales. However, Sky say that if the Siebel Core System had been implemented quickly, these interim developments would not have been needed.
1609. Sky say that if Robert Worden is wrong on the question of Siebel fit, these 1,824 man-months relating to Phase 1 and Increment 2.1 and 2.2 functionality would be reduced to zero, and that it would be necessary to revise downward both the CoCoMo-based estimate of 5,916 man-months for functionality equivalent to the Core System and Increments 2.4 and 2.5 and the remaining 6,812 (14,552 total minus 5,916 minus 1,824) man-months derived from the avoidable costs analysis. In any event, Sky say that there are flaws in Robert Worden's avoidable costs analysis from which he derives 60% of PwC effort estimate.
1610. Thus, Sky say that if, contrary to Robert Worden's evidence, Siebel is not a poor fit to Sky's requirements, his estimate of the effort and, by extension, the timescale of a PwC solution cannot stand and the Court cannot make the required adjustments because the evidence has not been provided for this outcome.

#### **Avoidable cost analysis**

1611. Robert Worden's avoidable costs analysis proceeds first by considering which costs incurred by Sky in building the Actual CRM System might have been avoided by a competent Systems Integrator building a Chordiant-based solution. Next, for each component of the estimate, Robert Worden considers whether the choice of Siebel as opposed to Chordiant would make any difference.
1612. Sky refer to Robert Worden's evidence that the schedule compression has two effects. First, there is a dis-economy of scale because, in order to compress a schedule, a larger team is needed and this increases such things as communications and overheads. Secondly, schedule compression leads to such

- matters as avoidable mistakes, over parallelism in the number of activities being conducted in parallel and a lack of design overview.
1613. Sky say that, as Robert Worden accepted, when there is a tight timescale, the effect is not to add or subtract a number of man-months of effort but is to multiply the effort required by a factor greater or less than one. Sky say that this is what Robert Worden has failed to do but instead he has analysed avoidable costs by adding and subtracting a number of man-months from the components of his estimate and applied no multiplicative factors.
  1614. Sky say that, by attempting to identify specific problems that affected individual components of Sky's development, Robert Worden has failed to identify and account for the systematic and pervasive difficulties that affected Sky's project such as the effects of "Brook's law". That is a reference to what was said by Frederick Brooks in his 1995 book *"The Mythical Man Month"* that *"adding manpower to a late software project makes it later"*. Sky say that the effect of Brook's Law, the schedule compression and the five scale factors and 17 cost drivers of the CoCoMo model, have a substantial impact on effort generally. They challenge Robert Worden's statement in evidence on Day 85 that this effect has been taken into account in the 85% compression factor he used in his CoCoMo calculations.
  1615. EDS say that whilst the avoidable costs analysis may not take account of pervasive factors which increased or decreased costs overall on the project, the approach is based on experience and has the advantage that it is based on the actual project, with the same IT requirements and desired outcomes.
  1616. In relation to Sky's contention that Robert Worden failed to take into account schedule compression, EDS say that Sky has over-emphasised the effect of schedule compression by relying on the extreme effects of compression suggested by the Putnam & Myers formula in order to bridge the gap between their estimates and Sky's actual effort. EDS say that the effects of schedule compression in Putnam & Myers are far more extreme than those suggested by CoCoMo. In any event, EDS say that Robert Worden took schedule compression into account in two ways: first he had allowed for 85% compression in the CoCoMo calculations of effort and secondly, it was taken into account in terms of its overt effect on the avoidable costs for which he considered he had identified the "major ones". EDS say that Sky has not identified any other major effect of schedule compression and that the suggestion that there were other unidentified avoidable costs arises because Sky's estimates of effort are much lower than actual costs. EDS say that the more rational explanation is that Sky's estimates are wrong.
  1617. Sky also challenge Robert Worden's assumption in his avoidable costs analysis, that all effort was productive. They say that this is an example of his failure to analyse what actually happened on the Sky project and why. Sky say that his avoidable costs analysis starts from an unverified premise that Sky's actual effort

- was all channelled into productive work. In response, EDS say that Robert Worden did attempt to analyse what actually happened and why, and that it is Sky, by using PA's function point approach, who have avoided analysing what actually happened and why.
1618. Sky also say that the avoidable costs analysis cannot be relied on as it is opaque, its metrics are arbitrarily chosen and its methods are inconsistently applied. By way of example, Sky refer to Robert Worden's estimate of 650 man-months for the Arbor component both for a Competent Systems Integrator building a Chordiant-based solution and for PwC using Siebel. He assesses that Sky spent 747 man-months implementing Arbor and 474 man-months testing it. Although the Arbor component itself was not a cause for concern, Robert Worden says that it is likely that Arbor suffered knock-on problems because of its tight integration with Chordiant. Taking these 'knock-on' problems into account and also taking into account his view that a Competent Systems Integrator would have completed testing, Robert Worden concludes that a Competent Systems Integrator would have saved approximately 500 out of the 1,221 man-months which Sky spent. This leads to an avoidable costs estimate of 721 man-months. Robert Worden then carries out a CoCoMo cross-check, using a SLOC count of 96,000 as input, which yields a figure of 448 man-months. This, with the 721 man-months figure from the avoidable costs estimate, produces an overall estimate by Robert Worden of 650 man-months.
1619. Sky criticise this approach. They say that Robert Worden made no attempt to explain what the knock-on problems might be or how they would affect the Arbor development; he carries out no analysis of the Arbor test results; he gives no basis for his opinion that Sky did not complete testing or how 721 is combined with 448 to yield an overall effort figure of 650 man-months, when the arithmetic mean is 585.
1620. Sky also refer to Robert Worden's estimate of the Chordiant component and say that the assessment is entirely arbitrary. They refer to his statement in his fourth report at paragraph 485 that "*a competent systems integrator could, by proper design leading to reduced effort in testing and defect-fixing, and other savings such as automation of testing, have completed the work in approximately 55% of the effort Sky would have taken to complete it...*". This led to a reduction from 6000 man-months to 3200 man-months. Sky say that there was no explanation in that report of how the 55% was derived but they refer to the later explanation in his reply 36 to Part 35.6 questions. There he said that the estimate of 55% has large uncertainties and was derived in the following manner: "*in the Chordiant testing, each test was repeated approximately 20 times, which in my experience is well above what should be expected. If the design and unit testing had been done better so that each system test only needed to be repeated 7 times on average, then the cost of testing and defect fixing would have been approximately one third of what Sky spent. The costs of design and development, apart from defect fixing, would have been more or less unchanged. 30% plus one third of 70% makes approximately 55%*". Sky say that this explanation leaves the figure of 7 tests

unexplained and is inconsistent with his report which stated that the 55% took into account not only reductions in testing and defect fixing relating to design but also ‘*other savings, such as automation of testing*’. That is not mentioned and the figure of 7 tests is applied to the entirety of his Chordiant estimate, including integration and ‘other’ components which, on Robert Worden’s own figures had average test repetitions of around 2 rather than 20.

1621. EDS say that Sky’s criticism of Robert Worden’s approach as being unreliable is unfounded. They say that he had to apply judgments and in his report he accompanied many of his calculations with ranges and “error bars”. He pointed out that errors on smaller figures do not contribute a large amount to the error in the total number.

### **Cross-checks**

1622. Sky say that Robert Worden only uses CoCoMo as a cross-check on avoidable costs for the Chordiant, Arbor, Debt and Reference Data Manager components which account for 1,041 man-months out of his total estimate of 12,096 man-months for an ASI and 14,552 man-months for the PwC system. Therefore, Sky say that the influence of CoCoMo on the overall figures is negligible. Nor, Sky say, would the multiplicative cost drivers for a competent Systems Integrator apply to the Sky project with a few small adjustments, as Robert Worden suggested on Day 85.
1623. Sky also say that Robert Worden’s cross-checks on the avoidable costs analysis lack consistency of approach. They say that when he has been unable to use the CoCoMo effort formula owing to a lack of SLOC data, he has used, in some cases, a metric derived from testable requirements instead of the CoCoMo formula but has done so selectively. They say that he did not use the metric for data warehouse or data migration, despite the ready availability of testable requirements data for those components but said that he was unable to undertake a cross-check for either of these components owing to the lack of SLOC data for a CoCoMo calculation.
1624. Sky challenge Robert Worden’s statement on Day 85 that the testable requirements technique was unsuitable for data warehouse and data migration because it yielded ‘*enormously low*’ results and that this might be attributable to the data migration and data warehouse teams not using the test director database.
1625. They say that if Robert Worden had performed a cross-check of these components using the testable requirements technique he would have found:
- (1) For data migration, the cross-check would have yielded an effort figure of 95 man-months, compared with the 1,015 man-month estimate from the avoidable costs analysis;



- (2) For the data warehouse, the cross-check would have yielded a figure of 302 man-months, compared with the 1,114 man-months from the avoidable costs.
1626. EDS say that Sky's criticism of Robert Worden's cross-checks as being selective is unfounded. They point to the fact that in paragraphs 179 to 180 of PA's fifth report Neil Douglas carried out a cross-check based on SLOC/CoCoMo, but had to adapt it to cater for the fact that there were aspects of the system for which SLOC could not be counted and submit that Robert Worden adopted a similar approach. They rely on his explanation in evidence on Day 85 that his approach has only been selective in that: *"Where I believe the evidence is reliable and gives me useful constraints on the number, I have used it and where I believe there is reason not to trust a number or that the number is inappropriate, I have always used the most appropriate numbers. And I come back to the point: I have had no interest in pushing these overall numbers in either direction. I am simply trying to find the most reliable number I can and give a responsible account of its error bars."*

### **Analysis**

1627. In principle, I consider that Robert Worden's approach of using an avoidable costs analysis could be a valid way to predict the effort which a CSI would expend in developing a Chordiant based solution. I am however persuaded by the general arguments put forward by Sky in relation to the way in which the avoidable costs analysis has been derived and consider that the matters relied on by Sky do undermine the credibility of Robert Worden's analysis. Much of his analysis derives from judgements which are not properly explained or uses figures which have not been analysed to see why a number of man-days of effort were taken by Sky.
1628. This latter aspect of the avoidable costs analysis gives rise to particular concern. I do not see how a figure can properly be derived for the effort which a competent Systems Integrator would have expended when that is based on figures for the Actual CRM Project and no detailed analysis has been carried out to assess the reasons why that effort was expended. I consider that this gives serious grounds for concern in using an analysis of the effort used to implement the Actual CRM System to derive a value for the effort which a competent Systems Integrator would have expended.
1629. There are two particular concerns. First, the analysis does not seek to deal with the systematic and pervasive difficulties that affected Sky's project. Secondly, there was no proper attempt to consider the extent to which there was unproductive time in the Actual CRM System. This means that his analysis for a competent Systems Integrator cannot be applied to calculate effort or duration for an ASI or PwC CRM System.
1630. I also accept that, as Sky submit, Robert Worden's analysis is not immediately or easily applicable to provide an estimate of the effort which PwC might have

expended in developing a Siebel solution. Rather, I have found that much of Sky's required functionality could have been provided by Siebel "out of the box" and that some 30% of the solution would have required bespoke development to enable the Siebel package to meet Sky's requirements with the degree of flexibility and functionality which Sky would have wanted. There is no way that Robert Worden's analysis, which assumes widespread and difficult bespoke development work to provide functionality in Siebel, can be applied to my findings.

1631. I therefore consider that Robert Worden's analysis is not directly applicable to an estimate of the effort that would have been needed by PwC to provide a Siebel package, so that his estimate of 14,552 man-months and 59.5 months would have to be substantially reduced to reflect a Siebel package implementation.

#### **Dr Worden's use of SLOC and CoCoMo II**

1632. Robert Worden has also used effort calculations based on the application of the CoCoMo II formulae to a count of the source lines of code (SLOC). The formulae derived from the CoCoMo project can be used to estimate the required effort and duration for software projects. An explanation of this method is contained in a book by Barry Boehm and others "Software Cost Estimation with CoCoMo II".
1633. It is common ground that the ability of the CoCoMo formula to predict within the published accuracy of 30% of actual for 69% of the time applies only if the model is fed an accurate SLOC figure and if the cost drivers and scale factors are set appropriately.
1634. Sky say that the court should treat Robert Worden's estimates based on CoCoMo with a high degree of caution and they rely on PA's criticism of his application of the CoCoMo formulae to effort. Sky say that there are two problems with his calculation of effort based on the CoCoMo formula. First, his SLOC figure is grossly inflated, because he has included automatically generated code in his count. Secondly, the values chosen for the 17 cost drivers and the 5 scale factors have a dramatic impact on the output of the CoCoMo formula.
1635. I now turn to consider the two criticisms made by Sky.

#### ***SLOC count***

1636. A SLOC count is the measure of the number of 'active' lines in the source code for a computer program, that is lines which are read by a compiler and turned into object code. By counting the active lines of source code, the resulting SLOC count gives some idea of the size of the program.

#### ***The use of a SLOC count***

1637. Sky rely on PA's view that it is not appropriate to use SLOC counts for effort estimation at all for the Sky CRM Project and they refer to the views by Capers Jones, a metrics expert, who states that "*using lines of code for productivity studies involving multiple languages and full lifecycle activities should be viewed as professional malpractice*". EDS rely on Robert Worden's view explained in his

- evidence on Day 83 that what Capers Jones was criticising in the relevant document was the use of SLOC to derive function points and that, Capers Jones exaggerated the difficulty of obtaining SLOC estimates from physical statements.
1638. Sky also point out that Robert Worden's SLOC figure has changed: his original estimate being 1.4m SLOC which fell to 717,000 by the time of his fourth report and has been revised downward again in the Third Joint Memorandum to 555,700. Whilst Sky accept that Robert Worden may be right in saying that the SLOC figure is '*very insignificant*' compared with the cost drivers, this should not give comfort that the fluctuations in the SLOC figure are unimportant.
1639. In fact, initially, Robert Worden had based his estimate on a presentation by Steve Sharkey dated 10 August 2004 which stated that the system comprised 4 million lines of code, 5 million including generated code. Later, Sky disclosed a SLOC count carried out by Steve Lennon and exhibited to Norman Macleod's second witness statement. This then allowed the experts to agree the count of hand-written code in the Third Joint Memorandum at Agreement 2-1 as 358,712.
1640. It seems to me that the measurement of the size of a program by counting active lines of source code is a legitimate exercise and that the criticism made by Capers Jones was aimed at the difficulty of converting the count to effort where there is a large variation in the efficiency of coding by programmers, the design of the application, the programming language being used and other such factors. I do not accept that, even given those difficulties, it provides no useful data. Rather, it produces data which, like all data on this aspect, needs to be used carefully.

***Counting generated code***

1641. In any event, Sky say that Robert Worden's SLOC figure is grossly inflated, because he has included automatically generated code in his count. They say that the inclusion of generated code is contrary to the express guidance of the CoCoMo book and his own explanation in his fourth report. Sky say that his application of the CoCoMo formula is based on a SLOC count which is too high. Sky say that because of the changing and decreasing estimates of SLOC and the fact that Robert Worden's correlation with his function point count would otherwise have been shown to be poor, Robert Worden then contended, contrary to his previous view, that generated code should be counted.
1642. EDS say that Steve Sharkey's presentation implied that generated code was about 20% of the total SLOC and initially Robert Worden considered this to be insignificant and he had ignored it. Later, a source code count had been carried out and it appeared that the majority of Chordiant code was generated. As a result, as he said in paragraphs 127 to 130 of his fourth report, he had to consider how such code could be accounted for in the SLOC count.
1643. EDS say that generated code is not effort free and refer to Mark Britton's evidence on Day 82 where he accepted that, whilst code may be generated automatically, there is still effort in designing and testing the relevant parts dealt

- with by generated code. EDS say that some account should be taken of it and that it appeared to have been taken into account in the ISBSG data which included 3GL and 4GL projects which could potentially have used generated code.
1644. Neil Douglas makes a number of criticisms of Robert Worden's approach to counting generated code. First, he said that CoCoMo II was not calibrated on projects that catered for generated code and so any reference to that effort would be unsafe. He cited Barry Boehm's book at Table 2.53 as expressly saying that it should be excluded. In the "*Definition Checklist for Source Statements Counts*" in that book he sets out whether particular statement types or attributes are to be included. He says source statements "*Generated with source code generators*" are to be excluded. Secondly, in evidence on Day 82 he said that Robert Worden was using an uncalibrated, unproven approach which was, at best, theoretical.
1645. Thirdly, in his evidence on Day 82 he said that generated code would be taken into account because the CoCoMo formula is calibrated in such a way that the effort for generated code is accounted for in the calculations of hand-written code. Fourthly, he said that it was necessary to take account of the purpose of the code, which he developed in relation to the data access code.
1646. EDS contend that Neil Douglas is not correct in his criticisms. First, they say that Table 2.53 is a checklist indicating which lines should be counted in a source code count but by saying that generated lines of code, like comments, should not be included in the code count, does not mean that generated code should not be taken into account at all. Secondly, EDS do not accept Neil Douglas' assertion that generated code would be taken into account within the CoCoMo formula based on calculations of hand-written code. EDS say that this is an implausible suggestion and point out that it is possible to have 100% generated code so that the effort for generating that code could not be included by the application of the formula to hand-written code.
1647. Thirdly, EDS refer to section 2.2.2 of Barry Boehm's book which refers to Table 2.1 and 2.53 of that book and states "*Code generated with source code generators is handled by counting separate operator directives as source lines of code. It is admittedly difficult to count "directives" in a highly visual programming system. As this approach becomes better understood, we hope to provide more specific counting rules.*" EDS say that this indicates that some account should be taken of generated code and suggests a method applicable to non-visual code generators. EDS refer to Robert Worden's evidence that at the time of the CoCoMo Manual, the approach to generated code had not then been defined. Fourthly, Robert Worden cites two papers by McDonald, Strickland & Wildman and by McDonald, Giles and Strickland together with guidance he received by email from Brad Clark, the author of Chapter 2 of Barry Boehm's book. Those papers show that there is difficulty in counting generated code but that some allowance should be made for it. Brad Clark suggests that a rule of thumb for generated code is to assess the effort on the basis of the re-use model at section 2.2.4.2 with values for "integration and test modified" (IM) and "assessment and assimilation" (AA), to take account of those aspects.

1648. EDS submit that Neil Douglas' view that Robert Worden was using an uncalibrated, unproven approach fails to acknowledge the common sense of the method or to take into account the support it derives from the independent authorities. EDS say that Robert Worden looked at each set of generated code files and determined how expressive they were in terms of equivalent code generated by hand. He then reduced the count by 70% to reflect the fact that such code still needs to be designed and tested and that these activities would account for about 30% of the development.
1649. In relation to Neil Douglas' reliance on the purpose of the code, EDS say that this was the data access code to which Robert Worden had assigned an 'expressiveness' factor of 0.1. EDS say that in paragraphs 132, 140 and 141 of his fourth report Robert Worden had not simply applied without further consideration the 30% that emerged from the two papers and from the email from Brad Clark but had also checked whether the generated code was consistent with hand-written code in its 'expressiveness'. The result, as he explained in evidence on Day 84 was that this code was counted for CoCoMo at just 3% of the generated lines, rather than 30%.

#### **Analysis**

1650. In my view the treatment of generated code has to be approached with care and the end purpose for which the SLOC count is to be used has to be taken into account. However, I do not consider that generated code can simply be ignored nor do I think that the CoCoMo II model can simply be applied to handwritten code on the basis that, as Neil Douglas suggests, the model somehow takes into account the element of generated code. That seems an incorrect approach, particularly given the wide variance in amount of generated code in any project. It is also contrary to industry practice as set out in Barry Boehm's book, the two papers and the email from Brad Clark. Whilst I accept that Robert Worden's determination of expressiveness and his percentage reduction are both highly subjective figures, he has in my view identified the correct concept and the necessary factors to be taken into account. In all the circumstances, given the estimating process which is under review, I consider that Robert Worden's analysis provides a reasonable measure of the equivalent handwritten code to account for generated code given my view that some allowance must be made for the work involved in designing and testing that code.

#### ***Scale Factors and Effort Multipliers/Cost Drivers***

1651. Sky say that the values set for the various parameters needed for the CoCoMo formula rely heavily on the subjective judgment of Robert Worden. They refer to his estimate that PwC would have expended 4,270 man-months implementing functionality equivalent to the Core System which was made on the basis of a SLOC count of 557,377 and using the cost drivers or effort multipliers and scale factors set out in his second report. They say that if Robert Worden had set each of the cost drivers to its most aggressive value, CoCoMo would instead have estimated that a mere 180 man-months of effort would have been required and if

- he had set each to its most conservative value, the estimate would have increased to 257,000 man-months.
1652. Sky submit that, as illustrated by this large variation in effort, CoCoMo's sensitivity to the values of cost drivers and scale factors is a major flaw in the use of the model. They say that this inevitably causes a problem for anyone seeking to rely on it, given that choosing appropriate cost drivers and scale factors for any given project requires the application of subjective judgment.
1653. Sky say that the extent of the problem is illustrated by the three changes Robert Worden made to his choice of cost drivers and scale factors to convert his estimate for a Chordiant-based development into his estimate for a Siebel-based one. They refer to a change to the 'RESL' scale factor which reflects the architectural and risk resolution attributes of a project by one increment from 'High' to 'Nominal' on the ground that *'adding large amounts of Visual Basic to Siebel raises more difficult architectural issues than using a Chordiant/J2EE framework'*. Sky say that leaving aside the question of whether Robert Worden is correct in identifying that there is a difficulty by adding large amounts of Visual Basic to Siebel, it is apparent that the translation of his opinion into a value for the RESL scale factor is a highly subjective one. Sky refer to the CoCoMo guidance relating to RESL as illustrating how difficult it is. They say that the estimator is required to reach a conclusion by balancing six separate and rather nebulous project characteristics including the adequacy of risk management plans, schedule and budget, time devoted to architectural issues, availability of software architects, tool support and *'level of uncertainty in key architecture drivers'*.
1654. Sky also refer to Robert Worden's change to the 'PLEX' cost driver which reflects the extent to which personnel working on a project would be likely to have experience of the relevant development platform and the change to the 'TOOL' cost driver, which reflects the sophistication of the software tools being used.
1655. Sky say that, in the context of a model that provides 17 cost drivers and 5 scale factors, the adjustments made by Robert Worden to convert his Chordiant settings into Siebel ones were very minor indeed: he adjusted two of 22 parameters by one increment and one by two increments. However, even these small changes led to a substantial 59% increase in the effort estimate.
1656. Sky say that, in the light of Robert Worden's use of it, Neil Douglas has constructed a CoCoMo model for the effort that would be required by a competent Systems Integrator to build the Actual CRM system using only handwritten SLOC as an input rather than Robert Worden's SLOC figure which includes generated code. For the purposes of their exercise, as set out in PA's fifth report at paragraph 182, Neil Douglas adopted Robert Worden's settings of all cost drivers except four of the six relating to personnel capabilities (ACAP, PCAP, PCON and APEX), which were altered to reflect their view of the likely attributes of a

competent Systems Integrator undertaking the Actual CRM development. PA say that the adjustments made to the cost drivers, if applied to his calculations, are sufficient to reduce his Chordiant CoCoMo estimates by 60% and his Siebel estimates by more than 75%.

1657. However EDS say that Sky overestimate the scope of dispute because PA initially agreed with Robert Worden's cost drivers and many of them have since been untouched by PA. EDS point out that, as Neil Douglas set out in paragraph 596 of PA's third report, he used the scale factors and effort multipliers selected by Robert Worden in his calculations and stated that he believed that they were generally appropriate for the purposes of estimating cost and duration of the Sky CRM Project with a Chordiant based solution. He did indicate that in some circumstances, such as Product Complexity (CPLX) and Architecture/Risk Resolution (RESL), he believed that the multiplier should be Nominal rather than High, but nonetheless used the same figures as Robert Worden. Similarly, EDS point out that whilst Ian Murray referred to the potential subjectivity introduced by the effort multipliers/cost drivers, he said at paragraph 132 of PA's fifth report that he agreed that Robert Worden's selection of values were chosen appropriately.

#### ***Analysis***

1658. It is clear that the CoCoMo II method is very sensitive to the choice of values for the costs drivers/effort multipliers and the scale factors. That means that the figure chosen contains a large element of judgment and that two experts could reasonably differ in their views of the values to be used. The evidence indicates that in their reports neither Neil Douglas nor Ian Murray put forward a serious challenge to Robert Worden's views on the relevant values, although they have now made some criticisms of those values. Overall, I do not find that those criticisms are made out. Rather, they indicate that there can be different views and that effort estimates based on CoCoMo II have to be seen in the context of a sensitivity analysis based upon the adoption of alternative values.
1659. I therefore conclude that, given the limitations of the CoCoMo II estimating process, Robert Worden's analysis could provide evidence of the scope of the work necessary, subject to the sensitivity of those values to his underlying assumptions, as illustrated by PA's analysis. However, as explained above, like the avoidable costs analysis, this estimate is not directly applicable to the effort that would have been needed by PwC to provide a Siebel package, so that his estimate for the PwC CRM System has to be substantially reduced to reflect the fact that a Siebel package implementation would have needed much less bespoke development than he considered to be needed.

#### **Summary on the approaches of the IT experts**

1660. I can now summarise my findings in respect of the approaches of the IT experts.
1661. In relation to PA's approach to the estimation of the effort and time for PwC to implement the PwC CRM System, I consider that PwC's estimate of time and effort contained within the PwC Response can be relied upon as a starting point

- for an assessment of the time and effort for the PwC CRM System but must take account of the uncertainty in that starting figure given the early stage at which the estimate was made.
1662. In relation to the Siebel application, PwC would have been able to use the Siebel package to provide many of Sky's requirements and could have done so with significantly less effort than would have been needed for a Chordiant framework based solution. There would, however, still have been a substantial element of bespoke development to match Sky's expectations and to provide a system which allowed Sky some flexibility going forward. I consider that some 30% would therefore have needed to be dealt with by bespoke development.
  1663. Taking account of the potential inaccuracies and potential deficiencies in the function point count and the concerns that I have as to the accurate identification of primary entities, I consider that Neil Douglas' function point count should be increased from 21,216 to 28,200 function points for the Actual CRM System and from 22,996 to 31,000 for the PwC CRM System.
  1664. I do not consider that the productivities of 8.4 hours per function point and 5.7 hours per function point which led to Ian Murray's average of 8.818 hours per function point can be justified on the available data. Rather, I consider that a figure of the order of 16 hours per function point is likely to be representative of the effort needed for the ASI CRM System and for the bespoke element necessary for the Siebel package in relation to the PwC CRM System.
  1665. In relation to Robert Worden's approach, I am not satisfied that in this case an avoidable costs analysis provides an appropriate method of assessment either for an ASI CRM System or the PwC CRM System.
  1666. In relation to the PwC CRM System, the premise on which Robert Worden proceeded was that Siebel was a poor fit to Sky's requirements, PwC would have had to implement the equivalent functionality as bespoke software and this would have meant PwC writing approximately the same number of lines of code as Sky wrote for the Actual CRM System, but using Siebel inferior VB programming language rather than Chordiant's Java. I have found that this premise is not made out and that the PwC CRM System based on Siebel would have needed much less bespoke development.
  1667. In relation to Robert Worden's analysis of the effort using SLOC and the CoCoMo II formula, I consider that his analysis could provide evidence of the scope of the work necessary for a Chordiant framework development by an ASI, subject to the sensitivity of the estimate to the values used in the formula. However, the premise that the Siebel package would have used the same number of SLOC and would have been more difficult to develop, with more effort for bespoke development, is contrary to my finding. As a result, the estimate based on SLOC and the CoCoMo II formula is not directly applicable to the effort that would have been needed by PwC to provide a Siebel package and his estimate for the PwC CRM System would have to be very substantially reduced to reflect the fact that a Siebel package implementation would have needed much less bespoke development, with less effort than he considered to be needed.



1668. It follows, that whilst I have found that there are some areas where PA's approach needs to be modified, in the case of Robert Worden's approach, the only area where that exercise may provide useful evidence is in relation to analysis of the effort using SLOC and the CoCoMo II formula for a Chordiant framework development by an ASI.
1669. On that basis I now turn to consider my conclusions on the time and effort for the PwC CRM System (Scenario B1) and for the ASI CRM System (Scenario B2).

**Conclusions on Time and Cost of PwC implementing the CRM Project using Siebel (Scenario B1)**

*Effort*

1670. Because of my findings, I consider that PA's approach provides the best basis for assessing the effort and time that it would have taken for PwC to achieve go-live. PA's analysis leads to the conclusion that PwC would have expended 1,429 man-months of effort, completing the implementation in 19 months, giving a go-live date of 1 March 2002.

1671. PA's effort estimate is summarised at Table 13 at paragraph 152 of their fifth report as follows in man-days and man-months (using 19 days per month):

(1)	Technology Workstream	15,941	839
(2)	Programme Management Work stream	1,441	76
(3)	People Workstream	1,660	87
(4)	Process Workstream	2,737	144
(5)	Additional Bespoke Development	2,000	105
(6)	Cross-check to function points	3,238	171
(7)	Data Migration	0	0
(8)	Capabilities	125	7
	Total	27,142	1,429

1672. Approaching the Sky estimate, I consider that the 839 man-months based on the PwC estimate should be increased because of the stage at which they made that estimate. I consider that a substantial increase is required in the figure of 839 man-months. My assessment is that about a further two-thirds of that effort should be allowed, giving a figure of 1,400 man-months. I consider that this would reflect the likely outturn of the effort from that starting point, given the need for the 8 week scoping study and the need for the capture of the requirements both of which I have no doubt would have increased the scope of the project. I note that originally PA allowed a 20% contingency at paragraph F182 of their first report. I consider that a larger amount is needed to cater for the uncertainty at the ITT stage.

1673. In relation to the additional bespoke development I consider that more bespoke development would be likely to be required. If the Baseline 2 function point count were to be 31,000, as I have found by allowing for the margin of error and the lack of entities, then the 30% needing bespoke development would be 9,300 function points. I note from Table 12 of PA's fifth report that on average 5.5 hours per function point represents, in Ian Murray's view, the productivity level implied in PwC's Response based on the Baseline 2 function point count. The implied productivity would be greater for the increased function point count. On the original function point count the implied productivity was 3.38 to 4.01 for the bulk of the development work and I propose to take 3.7 hours per function point as representing the implied productivity in the PwC Response for the areas which I consider would require bespoke development.
1674. On that basis, the increased effort would be 9,300 function points at 16 hours per function point less 3.7 hours per function point. This would give an additional effort of 12.3 hours per function point for those 9,300 function points. On this basis, allowing a 162.5 hours per month this would give 704 man-months. Given the original allowance of 105 man-months, the total would now be 809 man-months.
1675. I consider that in addition the Billing should be increased to 16 hours per function point as set out in paragraph 148 of PA's fifth report, giving an additional 3,238 man-days or 171 man-months.
1676. Data Migration would have been one element where I accept that there would have been further effort but I accept that the way in which Data Migration would have been dealt with would have been much reduced compared to the Actual CRM System. I consider though that an additional allowance should be included of 100 man-months.
1677. On that basis, I consider that the PA approach, as adjusted, should lead to a figure of some 2,794 man-months as follows:
- |     |                                 |       |
|-----|---------------------------------|-------|
| (1) | Technology Workstream           | 1,400 |
| (2) | Programme Management Workstream | 76    |
| (3) | People Workstream               | 87    |
| (4) | Process Workstream              | 144   |
| (5) | Additional Bespoke Development  | 809   |
| (6) | Cross-check to function points  | 171   |
| (7) | Data Migration                  | 100   |
| (8) | Capabilities                    | 7     |
|     | Total                           | 2,794 |
1678. I have also had regard to Robert Worden's estimate of 14,552 man-months as summarised at section 10.6 of his fourth report as amended on 15 April 2008.

Given the failure of that estimate to reflect the PwC CRM System because of the assumption that the Siebel package application would have needed extensive bespoke development, his figures cannot be used. In addition, given the deficiencies in the avoidable costs approach, I am not surprised to find that the results of my adjusted PA analysis vary so much from Robert Worden's estimate.

1679. In the circumstances, I have concluded that PwC would have completed the project more in line with the effort predicted by PA but making allowances for additional effort and bespoke development. Making the necessary allowances, I consider that a total effort of 2,794 man-months would be more likely to represent the effort to produce the PwC CRM System.

*Time*

1680. In assessing the duration to implement the PwC CRM System at paragraphs 153 and 154 of PA's fifth report, Ian Murray has taken the PwC's base bid of 16.5 months and has considered the impact on that duration of the adjustments made for bespoke development and the function point cross-check effort, which is also likely to be bespoke work. The additional duration derived from that figure, using CoCoMo II, is 2.2 months. This gives a total duration of 18.7 or 19 months.

1681. Robert Worden's estimate of time for PwC is as follows in months:

(1)	Initial period to complete contract/mobilisation	4
(2)	Complete requirements and analysis	3
(3)	CoCoMo II estimate with 80% compression	49.5
(4)	Additional time for roll-out	3
	Total	59.5

1682. In terms of time, I propose to follow, initially, the same approach as Ian Murray. Compared to the figures of 1,121 and 846 in paragraphs 153(i) and (ii) of PA's fifth report, the figures on the basis of my assessment would be 2,487 and 1,407 man-months respectively. Applying the CoCoMo II formula  $(3.67 \times \text{effort}^{(0.28 + 0.2(1.0746-0.91))} \times 0.8)$  this gives 33.91 months and 28.37 months instead of Ian Murray's 26.4 and 24.2 months. The relevant additional period is therefore 5.54 months instead of 2.2 months. When added to the 16.5 month period this would give a period of 22 months instead of 18.7 months.

1683. If the CoCoMo II formula with 80% compression were to be applied to the overall effort of 2794 man-months, despite the concerns that such an approach would not be appropriate for a Siebel package development, then the overall duration would be 35.2 months.

1684. In my judgment, the starting point should be PwC's time which, as pleaded by Sky, amounted to 18 months. Whilst that is not derived from the 66 weeks in the PwC Response, I consider that it should be used as the starting point. To that I add the 5.54 months to represent the additional effort. I also consider that there would have been additional time at the beginning of the PwC CRM Project whilst the contractual position was resolved and requirements were analysed. I consider

that the 8 week scoping study would still have left matters to be resolved. On that basis, I consider that a period of 4 months should be added. The data migration would then have added, in my view, a further period of a month. The overall period from 31 July 2000 would then have been 28.54 months (18 + 5.54 + 4 + 1), giving an implementation date of, say, 17 December 2002. In these circumstances the implementation would have been delayed until 1 February 2003 for the reasons set out in paragraph F 189 of PA's final report.

**Summary**

1685. In summary, I find that PwC would have implemented the PwC CRM System with a total effort of 2,794 man-months and would have achieved go-live on 1 February 2003..

**Conclusions on Time and Cost of an ASI implementing the CRM Project (Scenario B2)**

**Effort**

1686. On the basis of my findings, I must now consider how this affects the conclusions on time and effort for an ASI. In this case there is not the difficulty in Robert Worden's assumption concerning the development effort of Siebel but there is concern about the avoidable loss method. Again, the approach used by PA provides a more transparent method but I must consider Robert Worden's conclusions to see whether the outcome of an amended assessment based on PA's approach appears reasonable.

1687. I start with the results of the analysis which has been carried out.

- (1) PA say that an ASI would have expended 2,319 man-months of effort, completing the implementation in 34 months, giving a go-live date of 15 May 2004.
- (2) Robert Worden says that PwC would have expended 12,906 man-months of effort and completed the implementation after 49.5 months, giving a go-live date of September 2005.

1688. PA's effort estimate is summarised at Table 14 at paragraph 156 of their fifth report as follows in man-days and man-months:

(1)	Base effort from function point count of	22,996	and
	8.818 hours per function point	25,348	
(2)	Add 125 man-days to cover pleaded capabilities	25,473	
(3)	Increase by 15.7% for split in increments	29,473	
(4)	Add 554 man-days for Kana	30,027	
(5)	Add 2,850 man-days for Data Migration	32,877	
(6)	Add 1,037 man-days for desktop implementation	33,914	
(7)	Increase effort for 80% schedule compression	43,579	
(8)	Add 8 week inception phase with 12 people	44,059	

1689. Approaching the PA estimate, as I have said, I consider the 8.818 hours per function point to be low and that this should be 16 hours per function point. I also consider that the function point count should be increased to 28,200. Based on an 8 hour day this gives a figure of 56,000 man-days. If the same technique is applied to this then the result is as follows:

(1)	Base effort from function point count of 28,200 and 16 hours per function point	56,400
(2)	Add 125 man-days to cover pleaded capabilities	56,525
(3)	Increase by 15.7% for split in increments	65,400
(4)	Add 554 man-days for Kana	65,954
(5)	Add 2,850 man-days for Data Migration	68,804
(6)	Add 1037 man-days for desktop implementation	69,841
(7)	Increase effort for 80% schedule compression	89,746
(8)	Add 8 week inception phase with 12 people	90,226

1690. Based on 19 days per month this figure of 90,226 man-days gives 4,749 man-months of effort. Robert Worden's estimate is summarised at section 10.6 of his fourth report as amended on 15 April 2008 at 12,906 man-months. This includes 4,433 man-months for "Chordiant + integration + Other" based on the SLOC value and the CoCoMo II effort formula. Given the concerns that I have expressed about the deficiencies in the avoidable costs method and given the sensitivity of the CoCoMo II method to the parameters chosen, I consider that the adjusted assessment based on Ian Murray's approach provides a reasonable basis for estimating the effort. On that basis, I propose to use a figure of the total effort of an ASI of 4,749 man-months.

***Time***

1691. Based on the effort set out above and applying the approach of PA to time in Table 14 at paragraph 156 to PA's fifth report, this gives a duration as follows, compared to the figures used by Ian Murray (in brackets) :

(1)	Effort, excluding compression or 8 week inception, for 19 days per month	3,676	(1,785)
(2)	Duration in months using CoCoMo II and factor of 1.0746	38.3	(31)
(3)	Add 8 weeks for inception phase	40.3	(33)
(4)	Add 4 weeks for final data migration	41.3	(34)

1692. This gives a figure for the duration for an ASI of 41.3 months. Robert Worden's estimate of time for an ASI is as follows in months:

(1)	Initial reduction due to EDS progress	(3)
(2)	Time to relaunch project	3
(3)	Complete requirements and analysis	3
(4)	CoCoMo II estimate with 80% compression	48.1
(5)	Additional time for roll-out	54.1

1693. He then combines this estimate of 54.1 months with an estimate produced from his alternative project plan of 45 months to give his overall estimate of 49.5 months. The difference between the estimates produced from PA's approach and this approach is comparatively small. I do not consider that any additional time should be allowed for requirements as these could be dealt with in the period to relaunch the project. I do consider that an extra month for data migration would be appropriate. Otherwise I see no reason to amend the adjusted assessment produced by PA's approach.

1694. On that basis the duration would be 41.3 months plus an extra month, that is 42.3 months from 15 July 2001. That would be about the end of January 2005 and the implementation would have been delayed until 1 February 2005 for the reasons set out in paragraph F189 of PA's first report.

***Summary***

1695. In summary, I find that an ASI would have implemented the ASI CRM System with a total effort of 4,749 man-months and would have achieved go-live on 1 February 2005.

1696. I now consider the two issues which arise in relation to damages for breach of contract.

**Damages for breach of the Prime Contract prior to July 2001**

1697. This forms an additional claim in Scenario B2, the claim arising from misrepresentations prior to the Letter of Agreement. As I have said, Sky claims damages for breach of the Prime Contract prior to July 2001 which it waived under the terms of the Letter of Agreement but obviously would not have done so had it not entered into the Letter of Agreement. The issue is as to the useful work which was produced as a result of the 1,413 man-months of effort which it is agreed were expended by EDS up to the date of the Letter of Agreement.

1698. Mark Britton has considered the work carried out by EDS and his view as stated in paragraph E1082 of PA's first report is that the only work that may have been of continued value to the project was Arthur Andersen's Business Process work which represents effort of approximately 1,550 man-days; the telephony system which was worth the full value of the effort expended on it; the desktop installation work which was also of full value; work on the knowledge base which was of full value; the Forte Fusion proof-of-concept undertaken by Telford which was worth approximately 10 man-days; the data migration strategy which was worth approximately 15 man-days and possibly the billing work which was worth approximately 70% of what Sky paid for it. Richard Boulton has calculated the

value of the useful effort on this basis and values the wasted costs at £16.3 million at tables 2-10 and 3-2 of his revised fifth report.

1699. Robert Worden's view is similar in that he considers that the main value lay in requirements, telephony and knowledge management but with some architecture. His view is that the useful work amounts very approximately to 150 man-months out of the 1,000 man-months that EDS expended overall. The quantum experts agree the estimate of wasted costs on the basis of Robert Worden's opinion at £15.4 million in paragraphs 3.78 to 3.84 of the Revised Third Joint Memorandum.
1700. In my judgment the view of Mark Britton is to be preferred. He has set out in detail the useful work whilst Robert Worden has made a broad estimate. There is, as can be seen, little difference in the value of the estimates of the useful work. Although the Quantum experts raised the question of whether the damages should be discounted, I have had no submissions on that issue. I therefore find that the wasted costs are £16.3 million and this forms the basis of the award of damages for breach of the Prime Contract prior to July 2001.

#### **Damages for breach of the Prime Contract as varied by the Letter of Agreement**

1701. Sky are entitled to damages for breach of the Prime Contract as varied by the Letter of Agreement. As set out above there is an issue as to the basis on which the damages are to be calculated. Sky claim that damages should be measured by reference to the costs incurred after 6 March 2002 in reaching the stage of development that EDS would have reached if they had expended the effort they had charged for in performing their obligations in accordance with their obligations under the Prime Contract as amended. Sky's calculation of damages is based on the cost of reaching the stage in the CoCoMo lifecycle that EDS should have reached by 6 March 2002. Whilst EDS do not contend that this is not a possible basis, they contend that the appropriate measure is the costs wasted prior to 6 March 2002.
1702. In my judgment, this is a case where EDS expended effort prior to 6 March 2002 which should have allowed the Sky CRM Project to reach a particular stage, if EDS had not been in breach of contract. In those circumstances Sky are entitled to damages to put them in the position they would have been in and I consider that they are entitled to damages calculated on the basis that they put forward, rather than wasted costs.
1703. There is also an issue as to whether Sky's damages should be based on the effort Sky in fact expended in reaching that stage or whether, as EDS submit, they should be based on the effort that a competent Systems Integrator would have required to reach that stage. As Sky did carry out work to reach the appropriate stage then, in principle, they should be entitled to recover the cost of the effort they in fact expended. Unless EDS can establish that Sky failed to mitigate their loss or some loss was not caused by the breach, the actual effort expended by Sky should be recoverable. In this case, EDS has not established either a failure to mitigate or that loss was caused by some other matter. I therefore consider that Sky's damages should be based on the effort Sky in fact expended in reaching the relevant stage.

1704. On that basis there is no difference in the value put on the damages between Richard Boulton and Timothy Hart. Richard Boulton values the damages at £52.8m including the value of the unpaid EDS invoices and Timothy Hart values the damages at £48.8m excluding those invoices, as set out in Revised Appendix 2-2 to and paragraph 3.85(1) of the Revised Third Joint Memorandum. There is no other issue which I have to resolve.



## **L: MITIGATION**

### **Introduction**

1705. EDS originally pleaded their case on mitigation only in paragraph 233 of the Defence and pleaded that Sky was put to strict proof that they had complied with the duty to mitigate losses.
1706. EDS' case on mitigation was amended and is now pleaded in paragraphs 233 to 233FF of the Defence. That case is, in summary, as follows:
- (1) That Sky failed to act reasonably in relation to six complaints: Definition of requirements; Architecture and Design; Unrealistically Compressed Schedules; Incomplete and Inadequate design; Coding and Unit Test and Non-Functional Requirements.
  - (2) That the failure to act reasonably in relation to the six complaints led to both non-functional and functional testing taking longer and to data migration being delayed.
  - (3) That, if the Claimants had acted reasonably they could have delivered Increment 2.3 by November 2005 with about 10,400 man-months of effort but would have increased the time taken by 4 months from 44 to 48 months and the effort by about 3,350 man-months from 10,400 to 13,750 man-months.
  - (4) That, to the extent that Merlin, Self-Service and Case Management formed part of the project and were removed or "de-scoped" by Sky and if, contrary to EDS' case, the business benefits were as large as Sky allege, then Sky should have implemented and not have de-scoped the relevant Merlin, Self-Service and Case Management functionality. In de-scoping that functionality EDS say that Sky failed to act reasonably to mitigate their loss.
1707. One of the late amendments was that made on Day 80 to paragraphs 233EE and 233FF where EDS sought to say that the effect of the various failures to mitigate was, essentially, the difference in effort between what Sky expended and what a competent Systems Integrator would have taken. On Robert Worden's evidence this would obviously be small but, if he were wrong then it would be larger on Ian Murray's figures.

### **Legal Principles**

1708. The parties have cited a number of authorities for the approach to be taken to questions of mitigation in this case. There is much common ground on this issue and I consider that the principles are as follows:
- (1) Mitigation may be defined in terms of three principles as summarised in Chitty on Contracts (29th edition) at paragraph 26-092:

- (a) A claimant cannot recover damages for any loss consequent upon the defendant's breach of contract which the claimant could have avoided by taking reasonable steps.
  - (b) A claimant who avoids or mitigates his loss consequent upon the defendant's breach cannot recover for such avoided loss, even though the steps he took were more than could be reasonably required of him.
  - (c) Where a claimant incurs loss or expense in the course of taking reasonable steps to mitigate the loss resulting from the defendant's breach, that claimant may recover this further loss or expense from the defendant.
- (2) The burden of proof is on the defendant, who must show that the claimant ought reasonably to have taken certain steps to avoid its loss: Roper v Johnson [1873] LR 8 CP 167 at pages 181, 184 and Garnac Grain Co v Faure & Fairclough [1968] AC 1130 at 1140 and that it could thereby have avoided some part of its loss: Standard Chartered Bank v Pakistan National Shipping Corporation [2001] 1 All ER (Comm) 822 CA.
  - (3) A claimant will not be held disentitled to recover the cost of remedial measures consequent on a breach merely because the party in breach can suggest that other measures less burdensome to him might have been taken: Banco do Portugal v Waterlow [1932] AC 452 at page 506.
  - (4) It is a question of fact in each case whether a claimant has acted reasonably to mitigate his loss: see Payzu v Sanders [1919] 2 KB 581 and McGregor on Damages (17th edition) at paragraph 7-016.
1709. In closing oral submissions, Sky referred to a passage in the speech of Lord Browne-Wilkinson in Smith New Court v Scrimgeour Vickers [1977] AC 254 where he said at 266:

*“Finally, it must be emphasised that the principle in Doyle v. Olby (Ironmongers) Ltd. [1969] 2 Q.B. 158, strict though it is, still requires the plaintiff to mitigate his loss once he is aware of the fraud. So long as he is not aware of the fraud, no question of a duty to mitigate can arise. But once the fraud has been discovered, if the plaintiff is not locked into the asset and the fraud has ceased to operate on his mind, a failure to take reasonable steps to sell the property may constitute a failure to mitigate his loss requiring him to bring the value of the property into account as at the date when he discovered the fraud or shortly thereafter.”*

1710. At 285 Lord Steyn said this:

*“The third limiting principle is the duty to mitigate. The plaintiff is not entitled to damages in respect of loss which he could reasonably have avoided. This limiting principle has no special features in the context of deceit. There is no issue under this heading and I need say no more about it.”*

1711. It is evident that the general principles of mitigation apply equally to a case of the tort of deceit. As Lord Browne-Wilkinson states, the duty can only arise when the claimant becomes aware of the deceit. In this case, Sky had become aware of the deceit certainly by the time they served their draft Particulars of Claim on 19 December 2003 and evidently some time before that. There is though no suggestion that they were aware of the deceit in March 2002 when they took over as Systems Integrator.

### **Issues of Mitigation**

1712. In Sky's written closing submissions they dealt with the six complaints pleaded by EDS at length. In their written closing submissions, EDS have not dealt with the six complaints but at paragraph 1517 of their written closing submissions have stated that, on the basis of what Ian Murray had said in evidence "*it seems unnecessary to examine the detailed criticisms advanced by EDS. To the extent it is necessary EDS' position is set out in its IT openings and in [the IT experts' Third Joint Memorandum]*". EDS went further in their written closing submissions in reply where at paragraph 338 they confirmed their view that Ian Murray's view that a competent Systems Integrator would have performed much better than Sky made the investigation of the six complaints somewhat academic. EDS did however attach a 15 page table of extracts in relation to the six complaints. They did not, however, develop any submissions on the basis of that material.

1713. EDS' submissions on mitigation in their written closing submissions were based on two separate and distinct arguments:

- (1) That Sky expended more effort and took longer in delivering the system than a CSI appointed in its place in March 2002 would have done; and
- (2) If and to the extent that the three post-March 2006 enhancements were within scope, Sky acted unreasonably in de-scoping them.

1714. These arguments raised the following issues: Sky's performance and the standard of a CSI and whether the enhancements were within scope and Sky's action in de-scoping the project. I will deal with those below.

#### **Sky's performance**

1715. The IT experts agree that Sky performed less well and took longer than a competent Systems Integrator. EDS rely on that as a basis for saying that Sky acted unreasonably. EDS plead at paragraph 233FF of the Defence that Sky's conduct must be judged by the standard of what a competent Systems Integrator instructed in March 2002 would have achieved.

1716. Sky say that EDS accept that it was reasonable for Sky to take on the role of Systems Integrator and are wrong in seeking to apply the standard of the reasonably competent and experienced Systems Integrator.

1717. Sky refer to the decision of His Honour Judge Newey QC in Board of Governors of the Hospitals for Sick Children v. McLaughlin & Harvey plc (1987) 19 Con L.R. 5, a case where the hospital had followed expert advice in carrying out

- remedial work to remedy defects caused by negligence. Judge Newey said at 98 that the court had to assess whether the claimant's actual conduct was in fact reasonable, rather than: “*to consider de novo what should have been done and what costs should have been incurred either as a check upon the reasonableness of the [claimant's] actions or otherwise.*”
1718. EDS say that Sky had time to plan the approach it wanted to take and took the view that, with the assistance of outside expertise, it was capable of carrying out the Systems Integrator role. One of EDS’ main criticisms of Sky is that, at all times until at least February 2005, Sky pressed on to get the system delivered at all costs, regardless of the constant slippage in the deadlines and wasted effort in trying to get the project done too quickly with too large a team.
1719. Further, EDS say that Sky's pleaded reliance on the expertise of Chordiant who carried out substantial work does not deprive Sky of responsibility for mistakes made, or poor advice given, by Chordiant. EDS submit that it is irrelevant whether the fault is that of Sky or the specialist contractor and that to the extent that the time and effort was increased by Sky's own unreasonable conduct, it is not recoverable because Sky has failed to mitigate its loss.
1720. EDS say that, to the extent that the time and effort was increased as a result of mistakes or poor advice given by Chordiant, it resulted from an independent cause and not from any alleged wrongdoing on the part of EDS. EDS rely on The Sivand [1998] 2 Lloyd's Rep 97 at 104, where Evans LJ, having referred to the speech of Viscount Dunedin in The Metagama (1927) 29 Lloyd's Rep 252, said:
- “Viscount Dunedin referred to the act of a third party as another possible type of novus actus interveniens. It is not necessary, in my judgment, that the third party's act must have been negligent for it to have this effect, although if it is negligent then it may be more likely to do so. I would hold that when the independent act of a third party is properly regarded as the effective cause of damage, to the exclusion of negligence for which the defendant is responsible, then that is because the intervening act was independent, not because it was or may have been negligent.*
- This therefore is a question of fact, to be answered on a common sense basis for the reasons suggested above, although considerations both of negligence and reasonable foreseeability may be relevant to it.”*
1721. EDS rely on the judgment of Evans LJ to establish that a non-negligent act of a third party could break the chain of causation. Sky submit, though, that Evans LJ was not dealing with questions of mitigation but questions of causation and foreseeability in the context of a negligence action. Rather Sky refer to the judgments of Hobhouse and Pill LJ at 106 to 110 as showing that, where the claimant acted in mitigation of his loss the sole relevant criterion was the reasonableness of the steps that he took in mitigation, provided he acted reasonably he was entitled to recover the cost of mitigation as the correct measure of his loss. Sky also say that negligence by experts does not necessarily break the chain of causation and rely on Webb v. Barclays Bank plc and Portsmouth

- Hospitals NHS Trust [2002] PIQR P8, CA in which a doctor's negligent treatment following an accident at work was found not to break the chain of causation. In giving the judgment of the Court of Appeal Henry LJ said at P79 that the later negligence did not eclipse the original wrong-doing.
1722. The Court of Appeal referred to the judgment of Laws LJ in Rahman v Arearose Limited [2001] QB 351 at 366G where he said: "...it does not seem to me to be established as a rule of law that later negligence always extinguishes the causative potency of an earlier tort." They also cited the decision of the High Court of Australia in Mahoney v. Kruschick Demolitions Pty Ltd (1985) 156 C.L.R. 522 where the court held that the negligent medical treatment did not break the chain of causation and said that the original injury can be regarded as carrying some risk that medical treatment might be negligently given.
1723. Sky also rely on Maersk Oil UK Limited v. Dresser-Rand (UK) Ltd [2007] EWHC 752 (TCC), in which His Honour Judge Wilcox applied the judgment of the Court of Appeal in Webb v. Barclays, in finding that later negligence does not always break the chain of causation but depends on whether the negligence of the third party was foreseeable as a consequence of the original wrongdoer's negligence.
1724. I accept Sky's submission. The fact that Sky may not have adopted steps that a reasonably competent Systems Integrator might have adopted does not mean that Sky acted unreasonably. Once it is established, as EDS accept, that Sky acted reasonably in taking over as Systems Integrator in March 2002, the onus is on EDS to show that Sky acted unreasonably. The fact that Sky obtained expert advice and support from specialist contractors such as Chordiant does not impose a higher duty of mitigation on Sky and, in my judgment, if Sky acted reasonably in engaging others then, absent any act which might break the chain of causation, Sky cannot be said to be failing to act reasonably to the extent that the project takes longer or costs more.

#### **The Standard of a Competent Systems Integrator**

1725. Sky say that whether they, as a Satellite Television company, acted reasonably or unreasonably in the conduct of the project is a matter of fact to be determined in all the circumstances. They refer to EDS' amended pleading at paragraph 233FF of the Defence where EDS plead the circumstances which are relevant to their contention that Sky must be judged by the standard of what a competent Systems Integrator instructed in March 2002 would have achieved. Those circumstances, EDS say, include:
- (1) The Claimants' leadership of the CRM programme at all times;
  - (2) The Claimants' close involvement in the definition of the functional specifications at Baseline 2;
  - (3) The Claimants' carefully considered decision to take over the role of Systems Integrator in March 2002;
  - (4) The Claimant's retention of experienced project managers including Simon Post (a one time partner in AA), Jeff Hughes, Karen Flanagan (both

of whom were originally seconded by PwC) and Rob Hornby (formerly of AA);

- (5) The availability to the Claimants of expert advice and support from a range of specialist contractors including PwC, IBM, Chordiant and CSG (formerly Lucent).
1726. Sky review each of those matters in their written closing submissions at paragraphs 783 to 809 and conclude that the circumstances pleaded by EDS, if anything, show that Sky was not and should not be judged by the standard EDS propose. Sky also say that the significance of the relevant circumstances introduced by late amendment of paragraph 233FF of the Defence on 16 April 2008 is unclear.
1727. EDS do not further elaborate on those points in their written closing submissions. Having reviewed Sky's submissions and the evidence relevant to those points, I have come to the conclusion that the circumstances pleaded by EDS do not go near establishing that Sky has to be judged by the standard of a competent Systems Integrator to assess whether they acted reasonably. First, the fact that Sky took over as Systems Integrator when they did and therefore became involved in managing the CRM Project and the workstreams does not mean that their conduct must be judged against that of a reasonably competent Systems Integrator so that they can only recover the costs of such a Systems Integrator. Secondly, the fact that EDS accept that Sky's decision to take over as Systems Integrator was reasonably made meant that they did not go down the route of employing another party to act as a reasonable competent Systems Integrator. Thirdly, the fact that they employed experienced people and had expert advice and support available does not mean that they, as an organisation, have to be judged by the standard of a reasonably competent Systems Integrator.
1728. On the common accepted basis that Sky acted reasonably in taking over as Systems Integrator in March 2002, it seems to me that the matters referred to by EDS go more to establish that Sky acted reasonably. The fact that Sky had leadership of the overall CRM programme at all times and had close involvement in the definition of the functional specifications at Baseline 2 shows that Sky was acting reasonably. After Sky took over as Systems Integrator, the fact that they retained experienced project managers and made use of the availability of expert advice and support from a range of specialist contractors including PwC, IBM, Chordiant and CSG (formerly Lucent) also indicates that they acted reasonably. Unless, as I have said above, there was some action by a third party which broke the chain of causation then Sky can recover for the loss incurred unless they acted unreasonably.
1729. Thus I do not consider that, in judging reasonableness, the performance of the project by Sky, including the time taken, is to be judged against the performance of a competent Systems Integrator, so as to establish the degree to which Sky acted unreasonably. There will be a range of ways in which a competent Systems Integrator may act but that does not set a standard so that any failure to act as a competent Systems Integrator is thereby unreasonable conduct.

### **The time taken by Sky compared to the estimate for a CSI**

1730. Despite my view on the relevance of the time taken by a CSI, I consider that the fact that Sky took 296,460 man-days or 15,603 man-months (based on 19 days per month) compared to PA's view that the effort taken by an ASI from March 2002 would have been 1,772 man-months or Robert Worden's view that a CSI would have taken 11,178 man-months does raise a question as to which expert's view is correct and whether the existence or absence of reasons why Sky might have taken longer supports either experts' view. On the view that I have taken of the approaches of the experts, there is clear evidence that Sky took much longer than a CSI would have done.
1731. EDS say that Robert Worden and PA do not substantially disagree about Sky's conduct of the project as Systems Integrator. In particular, EDS say that PA agree at a high level with various of the shortcomings in Sky's performance identified by Robert Worden, but disagree with most of his specific complaints.
1732. In PA's third report Ian Murray referred to this significant difference between the estimate for a competent Systems Integrator and the effort taken by Sky to deliver the system. He suggested that it could be accounted for as follows:
- (1) That Sky made business decisions to deliver the system for new customers in advance of the delivery for all customers;
  - (2) That it was necessary for Sky to keep on a large team that was already in existence while the situation was assessed in order to avoid losing potentially valuable knowledge;
  - (3) That Capers Jones observes that the typical productivity of a Systems Integrator is higher than that of a company developing its own system. A typical Systems Integrator will outperform a typical company by delivering a 10,000 function point system in about 83% of the time using about 71% of the effort;
  - (4) That, once the previous three factors have been taken into account, there is a remaining balance that can be more than accounted for by mistakes and inefficiencies in Sky's approach to developing the system that a professional Systems Integrator might have avoided.
1733. EDS say that these factors do not explain the gap. They say that, in their fifth report, PA quantify the impact of a particular factor, schedule compression, predicting in paragraph 469, as corrected on 3 July 2008, that Sky should have taken 20 times the effort for a CSI before schedule compression. EDS say that on the basis of PA's estimates this would have led to effort which was nearly double Sky's actual effort. EDS say that PA have not sought to explain this extraordinary estimate or to reconcile it with Sky's actual effort.
1734. Rather EDS rely on Robert Worden's evidence in paragraph 113 of the Third Joint Memorandum that PA have mis-applied their schedule compression model. EDS say that PA have wrongly sought to rely on the Putnam Myers formula under which the results of schedule compression are much more extreme than CoCoMo

II, relating effort to the fourth power of time. EDS say that PA accepts that the compression was well within the impossible zone and that, in any event, the calculation is for illustrative purposes only.

1735. EDS say that since Sky's conduct post-March 2002 cannot credibly account for the gap in Sky's figures, any assessment of whether Sky properly mitigated their loss must consider whether Sky's CSI figure is correct and, if so, the plausibility or otherwise of the factors cited by PA to account for the gulf in figures between a CSI and Sky's actual conduct.
1736. This is an aspect where EDS chose to plead a case relying on the specific complaints. It is those to which I now turn.

### **The six complaints**

1737. As I have said, in their closing written submissions Sky refer to the six complaints which EDS made in relation to Sky's conduct and which EDS say have led to an increase in the effort required. Given that EDS have not developed their submissions on these issues, I can deal briefly with the complaints.

#### ***Complaint 1: Definition and Size of Increment 2.3***

1738. EDS say that given the size of Increment 2.3 and the fact that Sky allege that business benefits derive from Increment 2.3 and not Increments 2.1 or 2.2, it was unreasonable for Sky to defer work on Increment 2.3 and they should have proceeded with requirement definition for Increment 2.3, in particular the core area of Order Creation and should have divided Increment 2.3 into smaller increments.
1739. Sky submit that the allegation is essentially that Sky should have planned the implementation of Increment 2.3 differently so to achieve a shorter implementation period at a lower cost. I accept that and, in the circumstances it would have to be shown that Sky was aware of the deceit and acted unreasonably in the way in which they decided to implement Increment 2.3.
1740. When Sky took over they decided to proceed first with Increments 2.1 and 2.2 and then to carry out Increment 2.3 as one increment to replace the DCMS in one go. I do not consider that these decisions were unreasonable in the context in which Sky found themselves at the time when, in any event, they were not aware of the deceit.

#### ***Complaint 2: Architecture and Design***

1741. EDS say that the Application Architecture document of May 2002 and Technical Architecture document of October 2002 were inadequate or incomplete. EDS say that these documents were not updated before late 2003 at a time when the majority of coding had begun and was in test and it was too late to influence the design on which the coding was based.



1742. Sky say that the Application Architecture document was produced about two months after Sky took over from EDS and that the incomplete state of the document derives from EDS' work. Sky say that, given their position, it is unsurprising that the early draft of the Application Architecture was incomplete.
1743. I accept that the Application Architecture documents were initially inadequate but this was at the commencement of Sky's work as Systems Integrator. Sky then proceeded to deal with Application Architecture by the Define Teams and they set up a Solution Architecture Team. It is true that there were defects which were picked up in the Design Concerns document but overall these are not matters which can give rise to a complaint in terms of mitigation. I accept Mark Britton's evidence that the Application Architecture is to be found in a number of documents and that by the time coding was underway developers were relying on design documents which had evolved beyond the scope of Application Architecture and Technical Architecture documents.

***Complaint 3: Unrealistically Compressed Schedules***

1744. By a late amendment on Day 80 EDS allege that Sky had caused or contributed to their own losses and/or failed to take all reasonable steps to mitigate by reason of the fact that, until February 2005, the planned go-live dates for Increment 2.3 were unrealistic as evidenced by a series of go-live dates that slipped. EDS say that to meet these unrealistic deadlines Sky over-compressed the schedules and this contributed to the lack of adequate design, design review, coding and unit testing.
1745. Sky say that slippage was caused by the significant difficulties encountered during the course of the project which were not of Sky's making, in particular, problems with Chordiant JX and performance issues arising from server-side design and code. They say that if their planning approach led to over compression of activities, then that was the unintended consequence of the legitimate desire to make progress and implement Increment 2.3 as soon as possible.
1746. I accept Sky's submission that the schedule was set so as to achieve Increment 2.3 as soon as possible in the light of difficulties which arose during the course of the CRM Project. On the evidence, the planning procedure, certainly in 2002 and 2003, was to set targets which were believed to be achievable and resources were then applied to meet those targets. I consider that, in the circumstances, Sky approach to planning was reasonable. I am not persuaded that EDS has established that any schedule compression caused inadequate design, review, coding and testing but it would have increased the effort.

***Complaint 4: Incomplete and Inadequate Design***

1747. EDS say, first, that Sky spent insufficient time on detailed design when coding began in November 2002 with the result that the server-side design was still substantially incomplete and inadequately detailed. This allegation is part of EDS' criticism of performance design. Secondly, EDS rely on six matters recorded in

Sky's Design Concerns document and say that Sky failed to address these concerns. Thirdly, EDS say that Sky failed to address performance issues adequately in the design phase. Finally, they say that Sky failed to carry out any or an adequate review of the architecture and high level design before proceeding to detailed design.

1748. It is clear, as Mark Britton says, that Sky made design errors. He says that they were what could be expected from a company that was putting together a team and process and that they were consistent with a desire to implement the system as soon as possible.
1749. The Design Concerns document was written in August 2003 by Ken Cook who collected points that had been raised by others. The document was produced as part of the "Design Amnesty" that was put in place in mid 2003. That document was obviously put together as part of a concern to make sure that the Architecture was correct. I accept that, taken overall, the evidence from Sky's witnesses is that Sky knew about the problems, they understood them and properly dealt with them. I do not consider that this shows that Sky acted unreasonably in relation to design.

***Complaint 5: Coding and Unit Test***

1750. EDS say that Sky caused or contributed to their own loss and/or failed to take all reasonable steps to mitigate their loss in two respects. First they say that they failed to carry out any effective review of the Detailed Design before proceeding to coding with the result, combined with the inadequate and incomplete design, that the code was poorly structured and inefficient. Secondly they say that they failed to carry out any or any proper unit testing against agreed acceptance criteria or any or any adequate regression testing of units after changes to code had been made.
1751. Sky say that reviews of the Detailed Design were carried out as part of the software development life-cycle and that the composition of the Define, Development and Test teams allowed for and facilitated continual review. Sky say that, as disclosed by Sky there were Detailed Design reviews and copies of the 50 design reviews were sent to EDS. I have considered the evidence of Norman MacLeod at paragraphs 34 to 38 of his first witness statement and on Day 33 which, in my judgment, supports the conclusion that Sky carried out adequate design and code reviews. I also accept Sky's submission that it was not an absence of code reviews that led to poorly structured code and poor quality code and then to increased testing time but it was the problems with server-side code.
1752. In relation to Unit Tests, Sky say unit testing was carried out and refer to a CRM Programme Review of 10 March 2003 which records that they were "*in the process of tracing unit test scripts in development back from test and ensuring there is a clear unit test plan for all teams*" and that they were "*creating a 'link' test within development to try and catch the glaring integration errors before*

*moving code into full testing.*” Sky say that in addition to unit testing, the development teams carried out end to end testing and dev-link testing before handing over the code to the testing teams. They say that in relation to automated testing, there were pros and cons of going down the non-automated route but it cannot be said that Sky acted unreasonably. I accept that in relation to unit testing there is nothing to show that they failed to carry out unit testing and that any problems were caused by this.

1753. There is little documentary evidence of regression testing but I accept the evidence of Mark Britton that, based on an assessment of the timing of the defects raised, both unit and dev-link regression testing was performed. This is supported by the evidence of Richard Stobart and Rob Hughes that regression testing was undertaken as part of dev-link testing.

***Complaint 6: Non-Functional Requirements***

1754. EDS say that the Non-Functional Requirements (NFRs) were not developed early enough to influence the architecture or design. They say that the consolidated NFRs were produced on 21 October 2005 which was after the design was largely completed and that any NFRs in existence at the time of the Define team exercise were inadequate.
1755. Sky say that they followed Chordiant’s advice and that shortly after taking over as Systems Integrator they put in place an NFR team and in February 2004, they set up a Non-Functional Group. They say that NFRs were captured in a series of 15 documents that were inputs into the Define Teams and that non-functional testing started in 2004 after functional testing was sufficiently complete and the code was sufficiently stable. The document of 21 October 2005 ignores, Sky say, the earlier versions of that document.
1756. I accept that Sky dealt with NFRs in the manner they say and that EDS’ reliance on the document of 21 October 2005 is misplaced. In any event, there is no evidence to suggest that Sky wasted effort or elapsed time in dealing with NFRs.

***Summary on the six complaints***

1757. In summary, I am not persuaded that the six complaints put forward by EDS but not developed by them in closing have established a case that Sky failed to act reasonably in relation to those matters. They do not therefore establish a failure to mitigate.

***De-scoping the three enhancements and failure to introduce interim Self Service***

1758. EDS contend that Sky failed to mitigate their loss in the context of business benefits because they acted unreasonably in two separate respects:
- (1) That Sky acted unreasonably in de-scoping the three enhancements given the substantial benefits claimed to arise from those enhancements and the limited effort that would have been required to implement them.

- (2) That, in relation to Self Service functionality, Sky unreasonably assumed that go-live for the Actual CRM system was imminent and in those circumstances unreasonably failed to consider implementation of interim Self Service functionality given the benefits claimed from such implementation and the length of time that would otherwise elapse before Self Service functionality was implemented.

***De-scoping the three enhancements***

1759. Sky say that EDS' submission fails to recognise that there were competing priorities, with the first priority being the replacement of DCMS with Increment 2.3 as soon as possible. Sky also say that EDS' observations in relation to time and financial benefits are made with the benefit of hindsight.
1760. Sky say that one of their key motivations for the CRM Programme was the need to replace DCMS and that the view in 2000 was that DCMS was unable to cope with demand and was in danger of collapsing, with issues of usability, maintainability, extensibility and performance.
1761. When Sky took over as Systems Integrator, the Baseline 2 Functional Specification was divided into five increments, 2.1 to 2.5. In October 2002 Sky decided to proceed only with "Channels Scope Pre-Migration", that is to develop Increment 2.3 merely to reproduce existing DCMS functionality in CRM and not to proceed with Increments 2.4 and 2.5.
1762. EDS refer to Simon Montador's evidence at paragraph 16.1 of his second witness statement. He was involved with delivery of Self Service since the time of discussions at the Woking workshop. He says that that the decision to de-scope Increment 2.3 was made in the expectation that the implementation of Increment 2.3 was "just around the corner". EDS say that this was an unreasonable view, not simply with hindsight, but on the basis of facts known to the CRM Steering Committee in October 2002.
1763. EDS say that although there were suggestions that Sky should consider how the Business Case would look without Increments 2.4 and 2.5, there is no evidence that this was ever done and as Ian Shepherd of the Marketing Department recorded at the time, he was concerned that the major marketing benefits were in increments 2.4 and 2.5.
1764. Sky say that in the light of their experience of DCMS and the criticality of the system to Sky's business, it was entirely reasonable for them to have made replacement of DCMS a top priority. They submit that the decision to descope Increment 2.3 to replace DCMS and implement Increment 2.3 as quickly and as safely as possible was entirely reasonable. In relation to the question of timing of Increment 2.3 Sky say that, in early 2003, they believed that go-live in September 2003 was feasible but, as shown in the Programme Review of 10 March 2003, Sky appreciated that there were risks of slippage and go-live might not be achieved by September 2003. Sky say that it follows that when, in February 2003, Sky were making strategic decisions about what Increment 2.3 should include,

they appreciated that go-live might move out to March 2004 and the decisions to de-scope the relevant functionality were made with that knowledge.

1765. Sky also say that they did not know in early 2003 that go-live would not be achieved until September 2005 for new customers and March 2006 for existing customers. They say that they had no way of knowing, for example, that they would experience significant performance problems with the Chordiant JX framework or the WebSphere bug in 2004 or that problems would be encountered with Data Migration in 2004 and 2005.

### **Inclusion of Merlin in Increment 2.3**

1766. EDS rely on the evidence of Robert Worden who sees no reason why the Merlin functionality could not have been included within the scope of Increment 2.3 and that it would have been reasonable to do so given the size of the benefits now being claimed for Merlin and Sky's own business case for Merlin.
1767. EDS say that Increment 2.3 included a requirement for the system to provide prompts and other assistance to enable the CA to carry out cross-selling and up-selling activity, but this capability was de-scoped in 2004 for reasons which have not been explained. EDS contend that, to the extent that Merlin functionality was in scope, Sky acted unreasonably in de-scoping that functionality and should have implemented it as part of Increment 2.3. EDS rely on Robert Worden's estimate in paragraph 239 of his sixth report that the required effort to implement Merlin would have been about 80 man-months.
1768. EDS also rely on Ian Murray's evidence at paragraph 640(i) of PA's third report that Sky "*could have developed the remaining elements that relate to Case Management (number 15) and Sales (numbers 8 and 14) as part of Increment 2.3 without additional time or effort had they been specified at the outset and recognised as critical deliverables.*"
1769. EDS say: that the bulk of the development of Merlin could have been carried out independently of the CRM system and implemented as part of CRM go-live in March 2006 but Sky did not develop Merlin until late 2006.
1770. In these circumstances, EDS contend that Sky could and should have implemented those parts of Merlin which were within scope as part of the CRM system delivered in March 2006 and could in fact have implemented Chordiant Decision Manager without significant development effort or delay to the project. As a result, they say that any delay in the receipt of the benefits from Merlin after March 2006 is attributable to Sky's failure to mitigate its loss.

### **De-scoping of Case Management**

1771. EDS refer to Sky's acceptance in paragraph 76A6(ii) of the Reply that the limited Case Management of Technical Enquiry, Customer Feedback and Damage Claims could have been delivered as part of Increment 2.3. Sky say that the Case Management functionality is more than that basic requirement and they decided to implement all aspects of this in one Case Management Planning Pack.

1772. EDS rely on Robert Worden's view that the simple element of functionality now relied upon by Sky could have been defined as a requirement for Increment 2.3 and done as part of it. Robert Worden's evidence at paragraph 600 of his fourth report is that Sky could have delivered case management as part of Increment 2.3 for an effort of no more than 20 man-months and say that this is consistent with PA's view at paragraph 640 of their third report that Sky could have delivered Element 15 without any increase in time and effort.

**Conclusion on de-scoping Increment 2.3 and not proceeding with Increments 2.4 and 2.5**

1773. I have come to the clear conclusion that Sky cannot be criticised as acting unreasonably in de-scoping Increment 2.3 and not proceeding with Increments 2.4 and 2.5. The underlying purpose of the new CRM System was to provide Sky with a replacement for DCMS about which it is clear that Sky had concerns both in terms of performance and stability. I consider that Sky reasonably decided in 2003 that they had to replace the core DCMS functionality by introducing the equivalent functionality on the new CRM System as a first priority in the circumstances in which they found themselves at that stage. Whilst the decision was taken at a time when Sky thought that the implementation of Increment 2.3 would only take a few months, they were aware of the inevitable risk that even the de-scoped system would not be available within that timescale.
1774. I consider that much of EDS' case on mitigation in relation to the descoping is made with the benefit of hindsight and ignores the fact that once the decision to descop was reasonably made the priority became the implementation of the core CRM System as soon as possible. In relation to any delay that then occurred the natural and reasonable reaction of Sky would not have been to seek ways to increase the scope so as to re-introduce the de-scoped parts of the project with its impact of the programme and resources. The fact that the de-scoped parts of the project might have involved a small amount of effort to achieve significant benefits does not, in my view, render the decision to de-scope those parts or not to re-introduce them at a later stage unreasonable when viewed in the light of all the circumstances relevant at the time.

**Earlier delivery of Self Service**

1775. EDS submit that Sky could and should have delivered certain elements of the functionality by developing a stand-alone form of Self Service independently of the CRM system; alternatively, that Sky could have delivered the remaining elements no later than February 2003 by developing the web front end applications in Vignette, as Sky did post-March 2006 and building a non-invasive interface to the DCMS system by "screen-scraping" so as to avoid risking the stability of DCMS. EDS rely on Robert Worden's evidence that this would have enabled the self-service applications to go-live at any time, independently of Increment 2.3 and that the only costs which would have been thrown away would have been the relatively small costs of interfacing the web front-end with DCMS.
1776. Sky say that it did not act unreasonably in not introducing Self Service functionality in the form of either a stand-alone system or by using screen

scraping. They refer to the priority of replacing DCMS with the CRM System because of concerns about the stability and performance of DCMS. Sky rely on Mark Britton's view that, given the contemporaneous records of DCMS performance and stability and the likely impact on DCMS of a system that was capable of providing Self Service to an adequate standard, it would have been reasonable for Sky to have ruled out expansion of the existing Self Service facilities even by non-invasive methods.

1777. Sky refer to the fact that EDS do not rely on a particular date in late 2003 or 2004 or 2005 and say, at that point, Sky could not possibly have believed that Increment 2.3 would be completed on the date then contemplated and that it was therefore incumbent upon Sky to reconsider their strategy on the functionality which had been de-scoped. Sky say that the idea that in 2004 or 2005 Sky acted unreasonably in failing to add more functionality and more complexity with the result that greater effort and more time would be needed is untenable, quite apart from risk to the project that would be created.
1778. I now consider the two methods suggested by EDS for providing an earlier implementation of Self-Service.

*Stand-alone Self Service*

1779. Self Service functionality for web or STB Self Service is provided by front-end applications which provide the user interface, data validation and processing for self service transactions. In some cases there would need to be a link into the back-end system.
1780. EDS say that where Self Service requires access to customer data, there will need to be a link of some sort with the CRM back-end system but the link need not be in real time or automated and can be provided by the overnight batch transfer of data between the front-end and back-end systems. EDS say that there seems no technical reason why Sky could not have extended the "view bill" functionality to the web or have supplemented the amount of information which the customer was able to view.
1781. EDS say that where there is no need for access to customer data, such as technical enquiries, Sky could have implemented Self Service independently of the CRM system at any time and did, in fact, implement technical FAQs on the STB in 2005. They submit that any delay in migrating technical enquiries to self service is therefore attributable to Sky's failure to implement stand-alone technical self service and has nothing to do with the delayed delivery of the CRM system.
1782. Sky rely on Mark Britton's view that the stand-alone system would be complex and need to replicate much of the functionality in the CRM System but would be limited by the capacity and stability of DCMS. He also refers to the need for additional functionality to synchronise data between both systems in both directions and the difficulty of the length of time that overnight batch processing was taking which would have meant that there would not have been enough time in the day to keep both systems up to date.

1783. I do not consider that Sky acted unreasonably in failing to introduce a stand-alone Self Service system. I am not persuaded that such a modified form of Self Service was a realistic and practical proposition to introduce Self Service functionality on an interim basis. Robert Worden accepted that he had not explicitly considered the quality of a stand-alone system with a Self-Service front-end interfaced with DCMS and there would clearly be complex issues which would require extensive analysis to reach any definite conclusion on this. Whilst Robert Worden said that he saw no decisive argument for the limitations of DCMS leading to an unacceptable quality of service, I am not persuaded that there is any sound basis for this view, in the absence of some analysis of what would have been required to provide stand-alone functionality.
1784. Further, in relation to Robert Worden's reliance on the fact that Sky had interfaced some Self Service functionality with DCMS for a number of years, I accept Sky's submission that the IDO functionality implemented by Sky in 2000 and 2003 was much more limited than the Self Service functionality envisaged by Elements 16 to 21 and no conclusion can be drawn from the performance of the IDO functionality. The interface implemented in 2003 between DCMS, IDO and FMS was limited because it only delivered Self Service functionality permitting existing and new customers to purchase Sky+ and an extra digibox online.

*Screen scraping DCMS*

1785. Essentially a screen-scraped solution would have involved the writing of a program so that the input and output would have operated as if the task was being carried out on the DCMS.
1786. Robert Worden considers that an interim form of self service could have been implemented by screen-scraping customer data from DCMS and that this solution would have avoided making changes to the code of DCMS and thus the risks posed by the perceived instability of the system. Mark Britton does not consider that a workable self service solution of this type could have achieved adequate performance and rejects Robert Worden's suggestions for overcoming performance issues such as a "pre-fetching" strategy.
1787. Sky again rely on Mark Britton's evidence that there would be problems with the response time of DCMS exacerbated by the need for a Screen Scraped Solution to navigate across several DCMS screens to gather the data for a single Self-Service screen.
1788. Whilst it might in principle provide a solution to long response times, I am not persuaded that Robert Worden's suggested solution of using a "pre-fetching" strategy was workable and I accept Mark Britton's evidence that pre-fetching would make the system much more complicated and extend development timescales.
1789. Robert Worden fairly accepts the points raised by Mark Britton as being valid issues which would have to be considered. In the absence of a proper system



design or some comfort as to performance, I am not persuaded that the screen scraping solution would have been a viable and practical solution to provide the required self service functionality on an interim basis.

### **Self service as part of CRM 2.3**

1790. EDS also rely on Robert Worden's view that Sky could have developed self service largely independently of the CRM system and implemented it with the CRM system within the scope of Increment 2.3.
1791. EDS say that the true position is that there was no particular sense of urgency about extending the existing self service functionality until Sky acquired Easynet in October 2005 and that it was that acquisition which gave the necessary impetus to the self service projects as Sky perceived that it would need to offer online services in connection with its new Broadband product.
1792. Sky submit that it was reasonable for Sky to de-scope Self Service from the CRM System and therefore that it cannot be said that it was unreasonable not to implement Self-Service independently of the CRM System. They say that an independent Self-Service project would be a significant undertaking requiring at least the same effort, resources and management time that would have been required for Self Service within the CRM System and that it would be inevitable that there would be an impact on the CRM System with resources being diverted away from the main objective of delivering Increment 2.3.

### ***Conclusion on Self Service***

1793. As I have said above, I consider that the decision by Sky to de-scope Increment 2.3 and not to proceed with Increments 2.4 and 2.5 was reasonable. In such circumstances the suggestion by EDS that Sky acted unreasonably in not introducing Self Service functionality by a stand-alone system, by screen scraping or by proceeding independently of the CRM System, faces difficulty.
1794. I do not consider that EDS have established a case that Sky acted unreasonably in failing to introduce an interim scheme of Self Service in the form of a stand-alone system or by using screen scraping. Both of those interim developments would have faced particular difficulties and, as I have said, I am not persuaded that they would have provided viable and practical Self Service functionality on an interim basis. I am also not convinced that, in any case, much of the effort which would have been expended in developing those interim systems would have provided usable functionality for the CRM System. Nor do I consider that, having de-scoped Self Service, it can be said that Sky acted unreasonably in not introducing Self Service functionality as a parallel system to the CRM.
1795. In my judgment, Mark Britton was also correct in his view that it was unlikely that a system could have been produced which would have achieved sufficient quality to deliver the required benefits either by screen scraping or by building a stand-alone system and transferring data to DCMS in batches. In particular, I

consider that the potential number of concurrent users would have been likely to lead to performance issues with these interim solutions.

### **Summary on Mitigation**

1796. In relation to Sky's performance from March 2002 to March 2006 I accept that there is a large gap between the effort and time which Sky took to complete the Actual CRM System and the effort and time which a competent, alternative Systems Integrator might have taken to achieve that implementation. There are a number of reasons why that might have happened. Those put forward by Sky such as schedule compression could account for some of the gap. EDS has sought to rely on particular deficiencies but I do not consider that they have established a case that the additional costs were caused by Sky acting unreasonably and thereby failing to mitigate their loss.
1797. I do not consider that EDS can merely rely on the gap between the effort and time which a competent, Alternative Systems Integrator might have taken and seek thereby to establish that Sky acted unreasonably. Sky acted reasonably in taking over as Systems Integrator and proceeded in an attempt to achieve go-live as soon as possible using EDS personnel and other external specialist resources. Inevitably there were problems in achieving go-live but that does not establish that Sky acted unreasonably.
1798. Further, for the reasons set out above, EDS has not established that Sky acted unreasonably in de-scoping Increment 2.3 and not proceeding with the implementation of Increments 2.4 and 2.5. They reasonably took the decision to concentrate as a priority on achieving a replacement of DCMS by the core functionality of the CRM System.
1799. In addition, I do not consider that Sky acted unreasonably in not introducing some form of interim Self Service functionality by a stand-alone system or a screen scraping system based on DCMS. Nor was it unreasonable for Sky not to seek to develop separate Self Service functionality in parallel with the development of the CRM System.
1800. As a result, I do not consider that Sky failed to mitigate their loss by acting unreasonably in implementing the Actual CRM System or by de-scoping or by failing to introduce Self Service functionality at an earlier date.

## **M: BUSINESS BENEFITS**

### **Introduction**

1801. It is common ground that the new and improved functionality provided by replacing the original DCMS system with the Actual CRM System gives rise to business benefits. Sky claims damages for the delay in being able to enjoy these business benefits because of the late delivery of the CRM Project compared to the position it would have been in under Scenarios B1 or B2, with either PwC or an ASI producing the relevant CRM System. Those business benefits consist of two aspects: a reduction in “churn” and a reduction in the number of calls made to the call centre.
1802. Sky say that they lost the benefit of the financial contribution from subscribers who “churned” or ceased to be Sky customers but whom they would have been able to retain if the CRM System had been implemented earlier by either PwC in Scenario B1 or by an ASI in Scenario B2. In this way it would have been able to reduce “churn”.
1803. Sky also say that another of the benefits envisaged from the new CRM System was a reduction in the number of calls which would be made to the call centre. Sky say that they would have been able to reduce the volume of incoming calls by the earlier implementation of the PwC or ASI CRM Systems and so would have been able to reduce call centre staff and make costs savings.
1804. In evaluating the benefits which would have flowed from implementing the PwC or ASI CRM System at an earlier date than the Actual CRM System, it is common ground that Sky must give credit for the additional costs of operating the system from the earlier dates on which the PwC or ASI CRM System would have come into operation.
1805. Sky plead that functionality equivalent to Phase 1 and Increments 2.1 to 2.5 of Phase 2 of the Actual CRM System would have been delivered by the PwC CRM System, although the PwC CRM System would not have been delivered in those stages. Similarly they plead that an ASI would have delivered a system with the same scope.
1806. In response to a Request for Further Information dated 22 June 2007, Sky set out 22 elements of functionality which they contend would have formed the relevant functionality in Phase 1 and Increments 2.1 to 2.5. They amended the description of Merlin functionalities 8 and 14 on 14 January 2008. It is these 22 elements of functionality which are therefore relied by Sky on as giving rise to the benefits.
1807. There are three particular aspects of functionality which were not delivered wholly or at all as part of Increment 2.3 but for which Sky makes a claim. They are Merlin, Self-service and Case Management, which I shall refer to as the “three enhancements”. These three enhancements are described by Sky as follows:
- (1) Merlin: This is the name of a project by which Sky introduced functionality to make customer information more easily accessible and intelligible to Sky’s CAs via an extra “tab” located in Chordiant. The purpose of this functionality was two fold. First to enable the CAs to have

easier access to information in relation to each customer, such as information of what products the customer has, how recently the customer upgraded their equipment and whether they had a history of “churning”. While this information was available in the Actual CRM System in March 2006, the purpose of the Merlin functionality was to make it more immediately and clearly accessible by presenting it in a customer information panel available in Chordiant. Secondly, the purpose of Merlin functionality was to provide cross-sell and up-sell prompts tailored to each customer’s characteristics. For example broadband would only be prompted for someone who lived in a Postcode area where broadband was available. This would allow the CA to identify suitable products, packages and offers for each customer.

- (2) Self-service: This is functionality which allows a Sky customer to undertake certain customer service transactions or account management tasks without interacting with a CA at Sky. It involves the use of other channels of communication such as the internet, interactive voice recognition technology (“IVR”) or the set-top box (“STB”).
- (3) Case Management: Sky defines this as is functionality which allows Sky to track each enquiry or “customer contact” and to analyse when and how it is resolved.

### **The implementation of the Actual CRM System**

1808. The Actual CRM System was implemented in a number of stages. The first stage was the introduction of a new telephony switch, referred to as the Avaya switch, in February 2001. Although this change features in the list of 22 elements of functionality, it is not relied on by Sky's experts.
1809. The second stage was the Knowledge Management System (KMS) which was introduced in February 2002. Until the implementation of the Actual CRM System in March 2006, this was available only as a stand-alone system, except to 200 CAs at any one time who could access it within the Chordiant wrapper.
1810. The third stage was the initial “go-live” date for the Core Functionality of the Actual CRM System for new customers in October 2005. Between October 2005 and March 2006, Sky operated both the DCMS and the new CRM System. The DCMS was used to deal with existing customers as at October 2005 and the Actual CRM System to deal with new customers.
1811. The final stage was the introduction in March 2006 of the Actual CRM System for all customers, when the data for existing customers as at October 2005 had been migrated to the Actual CRM System. At this stage, the DCMS was disconnected completely. This then formed the go-live date for what has referred to as the “Core Functionality”.
1812. Following go-live in March 2006, there have been further developments of the Actual CRM System:
  - (1) Additional Self-Service functionality was introduced. As Simon Montador states in his third witness statement and sets out in the schedule at SAM1

various additions to self-service were made at different dates. The Churn Rate experts have based their calculations on the assumption of a specific implementation date of additional functionality in December 2007, with a 2 year learning and development period.

- (2) After pilot testing between December 2006 and July 2007 and a limited roll-out beforehand, Merlin was only fully rolled-out in March 2008. Helen Jenkins assumes an implementation date of August 2007 and a 2 year learning and development period whilst Merlin Stone assumes implementation within the general 2 year learning and development period from March 2006.
- (3) Case Management had not been implemented even to the extent of the limited functionality relied on. Helen Jenkins assumes an implementation date of December 2007 and a 2 year learning and development period whilst Merlin Stone assumes implementation within his general 2 year learning and development period from March 2006.

### **Approach to the Business Benefits Claim**

1813. In order to assess Sky's claim it is necessary to consider the extent to which the Actual CRM System increased the functionality which Sky had with the DCMS system. EDS submit that this is not all that Sky must show to establish a claim for business benefits. They contend that Sky's claim for lost benefits must be limited to those benefits which were lost as a result of the delay in the implementation of the CRM System. EDS submit that it is the loss of the incremental benefit associated with the implementation of the CRM System over and above the position it would have been in, for which Sky are entitled to claim. The situation it would have been in has been referred to as the "Business as Usual" ("BAU") position.
1814. EDS say that Sky's business strategies play an important role in managing customer retention and keeping down call centre costs and Sky had many tools, techniques and strategies for reducing churn and call rates prior to the introduction of the CRM System. Thus EDS submit that benefits which are derived from new strategies, such as entering the market as a broadband provider by acquiring Easynet in October 2005, were not dependent on the CRM System which is only a tool which can be used to assist the CAs in doing their job to implement the strategies. EDS say that Sky can only recover for benefits which Sky was not in a position to realise in the absence of the CRM System.
1815. In principle, I consider that EDS is correct but equally I must bear in mind that with the DCMS there were limits to the extent to which Sky could or as a matter of practicality would develop certain strategies.
1816. In order to come to conclusions on these matters it is necessary to approach the subject by first reviewing the 22 elements of functionality. These Elements can be divided into two. First, there is "Core Functionality" which was provided by the Actual CRM System and which it is accepted would have been provided by either the PwC or the ASI CRM System. The issue here is largely concerned with the

extent to which the CRM provides functionality and usability over and above the DCMS.

1817. Secondly, there are the three enhancements: Merlin, Self-service and Case Management. In terms of the 22 elements of functionality, Elements 8 and 14 relate to Merlin functionality but Elements 3 and 7 were also enhanced by Merlin; Elements 16 to 21 relate to additional Self-service functionality and Element 15 relates to Case Management. In relation to the three enhancements there is an issue concerning the extent to which they would have been part of the PwC or ASI CRM Systems, as well the extent to which the CRM provides functionality and usability over and above the DCMS.
1818. Once I have reviewed the 22 elements of functionality, I shall then be in a position to consider the impact of the relevant functionality on churn rate and on call rate.

### **The 22 elements of functionality**

1819. In closing Sky summarised the effect of the functionality which they rely on as relating to two main areas: information and usability. In summary what they say in relation to information is that the Actual CRM System is better at collecting information, improves the accuracy of information, displays more information which is collected or comes from the KMS or is prompted or scripted through Merlin, allows information collected to be analysed by Sky's management, with the data capable of being updated manually or automatically.
1820. In relation to usability, Sky say that the system is easier for CAs to use in terms of finding information quickly, the screens being more readable and the data accessible; that the system is more flexible so that Sky can obtain reports, reconfigure screens and adjust information on KMS or in scripts more easily and that, with self-service facilities, the customer can make use of the system more easily.
1821. EDS say that, whilst the Actual CRM System has improved usability, Sky have exaggerated the improvements. In relation to information EDS say that information was either available or could have been made available from the DCMS.
1822. The dispute between EDS and Sky concerning which of the 22 functionalities would have been delivered by either the PwC or ASI CRM System was greatly narrowed by the IT experts' Fourth Joint Memorandum. The position reached is that EDS accepts that both the PwC and ASI CRM Systems would have delivered all Core Elements (Elements 1, 2, 3, 4, 5, 6, 7, 9, 10, 11, 12 and 13) and the other Elements except that:
- (1) Elements 3 and 7 where the difference is the extent to which functionality equivalent to the Actual CRM System rather than the Merlin enhancement would have been delivered.
  - (2) Elements 8 and 14, Merlin, where the issue is whether the functionality would have been based on off-line propensity modelling/evaluation with

later on-line propensity modelling or whether it would have been based on propensity models produced by Sky from outside the programme.

- (3) Element 9, KMS, where there is a difference in the date when PwC would have delivered it.
  - (4) Element 15, Case Management, where the difference is whether the functionality in PwC would have required bespoke development or would have been part of the normal Siebel configuration and extension.
  - (5) Elements 17(b), 18, 19 and 20, Self Service, where the issue is whether “change a payment due date” in Element 17(b) would have been included and the extent to which Elements 18, 19 and 20 would have been delivered.
1823. I shall deal with those issues as I review each of the 22 Elements.

### **Core Functionality**

#### ***Element 1***

1824. Element 1 is functionality to “*enable calls to be directed towards appropriately skilled CAs using skill based routing*”. It is common ground that this functionality was delivered with the Avaya telephony system in March 2001 and would not have been delivered any earlier by PwC or an ASI. It is not relied on by Sky or the Churn experts. However Neil Spencer-Jones relies on this Element as he attributes the improvement in Sky’s TCR performance relating to the number of calls to resolve 100 issues between 2000/1 and 2001/2 to this and other elements delivered at that time.

#### ***Element 2***

1825. Element 2 is functionality to “*enable the CA to navigate around the system using a point and click interface. For example, instead of 'tabbing across' and using free-text entries, the CA can use a mouse to: (a) access further screens by clicking on 'link' buttons or screen tabs; or (b) select options, or input information by clicking on 'radio' buttons or using drop-down menus.*”
1826. EDS accept that the Actual CRM system permits navigation via a point and click interface and that this represents a change from the DCMS system, which used function keys and code entry. EDS submit that there is some minor improvement in navigability, particularly for inexperienced CAs but that this improvement is to some extent counter-balanced by the greater number of screens to navigate in the CRM system.
1827. Sky submit that the use of the CRM system with graphical user interfaces, point and click navigation, drop down menus, radio buttons, option buttons and trees represents a vast improvement on data entry and navigation over the tab and arrow keys, short cut codes and scrolling text fields that existed in DCMS.
1828. In my view the use of the screen navigation system on the CRM will allow CAs, particularly those who are new or inexperienced, to be able to become more

- competent in the use of the system more quickly and also allow all CAs to be able to obtain information in a more efficient manner than with the DCMS.
1829. The Churn Rate experts agree that the CRM system delivers an improvement in respect of this functionality but there is an issue as to the extent of the improvement. Helen Jenkins considers the improvement to have a minor effect whilst Merlin Stone considers it to be significant.
1830. In terms of call rate, Neil Spencer-Jones considers that there will be no benefit and that call duration would increase as would the number of calls unanswered. Simon Roncoroni considers that the improved functionality assists CAs to select appropriate options and minimise errors and that this should reduce the need for subsequent calls to resolve problems.

***Element 3***

1831. Element 3 is functionality to “*enable the CA to view relevant customer information presented clearly on key screens, and management to change the customer information presented to the CA (and the way in which it is presented) on those key screens.*”
1832. EDS accept that the Actual CRM System provides a clearer view of customer information compared to the DCMS, in that more lines are visible on screen at once, the free text notes are visible in the same window and account details are summarised in a “Customer” tab. Sky emphasise that there are two aspects, the presentation of information and the introduction of new screens or the reconfiguration of existing screens.
1833. As EDS accept, the ability to view information relating to the customer history is clearly much improved in the Actual CRM System. In relation to churn, Helen Jenkins agrees that the display of customer information is improved in the CRM.
1834. Neil Spencer-Jones does not attribute any call rate benefit to this element as he says that he cannot say whether a CA could more readily find and select information to complete a call. Simon Roncoroni does attribute benefit to the fact that the presentation of information will reduce customers calling back to correct errors and the ability to change the screens will ensure that CAs have more convenient access to information and can resolve customers’ cases.
1835. It is evident that the Actual CRM System provides a clearer view of customer information than was available in the DCMS and this is an improvement. I consider this Element further, below, in the context of Merlin.

***Element 4***

1836. Element 4 is functionality to “*enable the CA to manipulate relevant customer information. For example, the CA can sort, search or filter a customer's previous interaction history.*”
1837. EDS accept that the sort function is improved in the Actual CRM system as compared with the DCMS.



1838. Helen Jenkins accepts that there is an improvement but EDS submit that Merlin Stone exaggerates the change from the DCMS which they say did have some ability to sort entries.
1839. Neil Spencer-Jones does not rely on the improved sort function as giving rise to benefits as he considers that the length of the conversation with the customer is not dependent on the time to access data. Simon Roncoroni considers that the CA usually needs to find information about previous customer interactions during a live telephone call and that ease and speed of search is critical.

#### ***Element 5***

1840. Element 5 is functionality to “*enable the CA to capture customer information (including information about general customer enquiries, and information about technical enquiries) using 'radio' buttons, drop-down menus and/or full free-text fields. In particular, the CA can capture information using 'radio' buttons and drop-down menus about the type of each enquiry, and the outcome of each enquiry.*”
1841. EDS say that the DCMS permitted free text entries and the entry of pre-defined reason codes which varied according to the type and outcome of the enquiry. They also say that customer information codes could also be captured on the telephony platform using the call reason codes. EDS also refer to the evidence of Gary Innes to the effect that functionality permitting the capture of information about a customer's circumstances and preferences was implemented as part of Phase 1 but was deactivated prior to the go-live of Increment 2.3.
1842. EDS accept that the Actual CRM system generates more automatic entries of data as compared with the DCMS and that free text entries can be updated.
1843. Sky rely on certain aspects of the ability of the Actual CRM System to capture data. They say that:
- (1) Because data is entered by the CA through the selection of pre-defined options, it is collated in a standard form from call to call and with minimal effort from the CAs. The entry of data is a compulsory requirement, unlike the DCMS where data did not have to be captured. Whilst the DCMS had an “add note” function which allowed the CAs to add free text notes, they were not searchable and could not be exported to the data warehouse to be interrogated and analysed.
  - (2) Data captured is not only used for display to subsequent CAs in the “Contact History” screens but is also exported to the data warehouse connected to customer records and is available for later analysis and reporting: see Element 13.
1844. Helen Jenkins and Merlin Stone both rely on this as having an impact on churn. Neil Spencer-Jones does not consider that the interface which allows data to be entered will mean that more accurate data is captured. Simon Roncoroni considers that there is improved data capture which improves FTR and that Call Avoidance

is improved because there is “richer” or better data which can be used to carry out root cause analysis.

1845. I consider that this Element of functionality provides an important improvement as it allows Sky to capture data in a standard, comparable format and that data is linked to a customer record. This data is then available to be analysed as set out under Element 13 below.

***Element 6***

1846. Element 6 is functionality to “*enable the CA to create and price different packages for a customer by selecting individual products and services.*”
1847. EDS accept that the Actual CRM system is able to present the CA with a hierarchy of products which would serve as a navigation tool to identify appropriate products for the customer but say that, according to Gary Innes’ evidence, the functionality is not being used as intended because Sky’s Field Management System can only handle pre-defined packages.
1848. Sky say that creating and pricing packages for customers in DCMS and FMS was not an easy process because with 520 packages and the DCMS only being able to hold 10 lines of text per page, 52 screens had, potentially, to be scrolled through unless the CA knew the short cut code for a package or knew what "mix" (2, 4 or 6) the customer wanted.
1849. Sky say that the collation of a package is much easier using the CRM System because all products (subscription, equipment, broadband and telephony) are selected from the same screen with individual branches of a tree structure used to select what is required in respect of each.
1850. Helen Jenkins accepts that there is an improvement in the use of a “tree” structure in the CRM System compared to the list in DCMS but does not rely on it as reducing churn whereas Merlin Stone does.
1851. Neil Spencer-Jones does not rely on this element but Simon Roncoroni considers it does have a benefit in improving FTR in relation to sales calls but accepts that it is not a major contributor to FTR improvement.
1852. Whilst there is some benefit in the ability to create packages to offer to customers, I do not consider that the improvement in this area is very substantial. There would be improvement from the “tree” structure but under the DCMS the CAs would rapidly develop the ability to scroll down through screens to select appropriate packages.

***Element 7***

1853. Element 7 is functionality to “*enable the CA to identify appropriate offers for which a customer is eligible.*”
1854. EDS accept that Merlin provides prompts which enable the CA to identify offers for which a customer is eligible.

1855. Sky say that the Actual CRM System ensures that system rules prevent inappropriate or erroneous use of offers; that a CA's attention is drawn to available offers and that multiple offers can be applied to a single customer.
1856. Sky accept that offers could be identified in DCMS as a list of all offers was available but they say that the list was not filtered by product or customer, was not user specific and the DCMS did not allow more than one offer to be applied to a customer. Sky say that CAs were unable to identify eligible offers quickly and could not give a customer more than one offer. Sky also say that CAs were only provided with manual briefings and hard copy materials to inform them of available offers and eligibility criteria.
1857. Under the Actual CRM System and independently of Merlin, Sky say that offers could be located by a CA in any "Make Sale" transaction, as well as the "Apply Offers" function. In a "Make Sale" transaction, the offers screen automatically appears as part of the forced screenflow which CAs must follow.
1858. Sky rely on the fact that, on the basis of the application of various rules relating to a customer, the CA team and the combination of products already held by that customer and those placed in the order, the system automatically displays the available offers, applying automatic discounts and extras without the CA having to remember them.
1859. Helen Jenkins accepts that the identification of suitable offers delivers some benefit in the context of Value for Money (VFM) churn or home moving churners who also have those concerns. Merlin Stone considers that benefits are applied across the board as it improves offers.
1860. Neil Spencer-Jones places no reliance on this element. Simon Roncoroni says that making appropriate offers to customers is likely to improve FTR as customers would not have to call back to find a different offering, although the fact that Sky does not have a complex offer structure would reduce this.
1861. I am persuaded, particularly by viewing the screenshots, that there was improvement in the ability of CAs to identify eligible offers for a particular customer using the Actual CRM System, compared to the DCMS. I accept that the Actual CRM System has rules to prevent inappropriate or erroneous use of offers. It draws the attention of the CAs to available offers and permits multiple offers to be applied to a single customer account. I consider this Element further, below, in the context of Merlin.

***Element 9***

1862. Element 9 is functionality to *“enable the CA to access a knowledge management system, including decision tree diagnostics.”*
1863. Essentially, the Knowledge Management System (KMS) is a system which stores information electronically instead of being in hard copy form in A4 binders to which the CAs had access. This means that the information in the KMS is easier to access and easier to maintain as it can be updated centrally. Sky say that it has improved the accuracy, consistency and accessibility of information available to

- CAs and therefore improved the level of service they have been able to provide to customers.
1864. EDS accept that the KMS, which was implemented in February 2002 as part of Phase 1, has delivered churn rate benefits for Sky. Helen Jenkins considers that any benefit derived from KMS will have been derived upon its implementation in 2002 and arises from the CAs having access to information in electronic and searchable form. She does not consider that further benefit accrues either from the integration of KMS into the Chordiant environment or from the MOJO redesign of that system. EDS say that this view is consistent with Sky's RFI Response that KMS had delivered "recognisable business benefit" and that this was accepted as correct by Jo Ashcroft.
  1865. EDS say that the subsequent integration of the KMS into the Chordiant environment did not bring about any further benefits, nor would additional benefits have been available in either of the "but-for" scenarios relied upon by Sky.
  1866. Sky accept that the information now available to CAs on screen through the KMS and now known as MOJO, was delivered first as an initial rollout of stand-alone KMS in February 2002 as part of Phase 1 and then the KMS was integrated with the Chordiant-wrapper of DCMS but was only available to 200 CAs at a time. Prior to the implementation of KMS, Sky say that CAs had to resolve customer queries by relying on their initial training and on hard copy prompts which needed to be reprinted periodically to keep information up to date.
  1867. Merlin Stone considers that a greater benefit was delivered from the ability to open the KMS screen from within the Chordiant application than from the introduction for the first time of an electronic, searchable KMS database to replace individual A4 binders. He also considers that there was additional benefit from the later re-launch of KMS as MOJO.
  1868. Neil Spencer-Jones considers that the early implementation of the KMS will have improved First Time Resolution, in conjunction with other elements of the CRM programme such as the new telephony system. EDS say that this is confirmed by Jo Ashcroft. Simon Roncoroni considers that there will be an FTR benefit available through the integration of KMS/MOJO into the CRM system.
  1869. I consider that the greatest benefit and improvement was obtained by the introduction of the stand-alone KMS rather than hard copy documents which had to be referred to by the CA to deal with a call. The subsequent integration with the Chordiant-wrapper of DCMS and then with the Actual CRM System has, in my judgment, produced additional availability of and accessibility to the KMS. So far as the date on which PwC would have delivered the KMS, on the basis of my finding that PwC would have delivered the PwC CRM System after February 2002, I consider that the KMS would have been delivered as part of that integrated PwC CRM System and not as a separate delivery in February 2002.

***Element 10***

1870. Element 10 is functionality to “*enable the CA to use a field management system through an integrated CRM system.*”
1871. The Field Management System (FMS) was not integrated with the DCMS but the Actual CRM system is integrated with the FMS. This permits the CA to book an installation or service call without having to go into a separate system and re-enter the customer data. EDS accept that this is an improvement over the position pre-CRM, the main benefit relevant to business benefits being a reduction in errors in data entry.
1872. EDS refer to the evidence of Jo Ashcroft and say that there is no evidence of the extent to which data entry error was a problem in DCMS and therefore as to the degree of improvement which the CRM system may have brought about, although she referred to small elements of functional change, including the integrated calendar and integrated postcode checker.
1873. EDS also refer to the evidence of Jo Ashcroft on Day 86 and Merlin Stone on Day 91 as showing that the need to toggle between two screens in DCMS compared to the Actual CRM System was a minor change and that such toggling is quickly performed.
1874. Both Helen Jenkins and Merlin Stone consider that this would improve Customer Service and Home Moving churn.
1875. Helen Jenkins says that there is an improvement to Customer Service, as it eliminates the risk that mistakes could have been made by the CAs in transcribing the account number and hence booking service calls to the wrong address. She says that this will improve the service related elements of Home Moving churn.
1876. Neil Spencer-Jones says that this element will not deliver any call rate benefit, because the need to toggle between screens is a normal activity in Windows. Simon Roncoroni relies upon this element as improving FTR, but accepts that the benefit is limited to install calls.
1877. There is evidently an improvement in being able to enter data once only so that errors are reduced in copying that data across or entering it into FMS. As EDS point out there is a lack of data on the extent to which errors caused a problem. The fact that the functionality is contained in one screen and therefore a CA does not need to toggle between screens is, in my judgment, a minor advantage which would not otherwise give rise to particular benefits.

### ***Element 11***

1878. Element 11 is functionality to “*enable the CA to arrange for a customer about to move home to continue his relationship with Sky.*”
1879. EDS say that although this is singled out as an element in its own right by Sky, the Actual CRM system does not incorporate any new functionality which is specific to Home Moving but it is the other elements, such as Element 10, which make the improvement.
1880. EDS do not consider that the Actual CRM system incorporates any improvements in functionality relevant to Home Moving over that of the DCMS system.

1881. EDS say that the DCMS had the functionality to add a second address and a date on which that address would become the primary address. EDS accept that the Actual CRM system permits a customer to be contracted into a new service at a new address before moving home.
1882. Merlin Stone relies upon the changes to the data warehouse to record two addresses as being a specific benefit to Home Moving. He says that the ability of keeping track of the old and the new address allows Sky to identify new prospects at the old address and also take advantage of the move to promote up-sell and cross-sell opportunities.
1883. EDS say that, to the extent that the data warehouse was unable to record new and old addresses for a customer moving house, this is not attributable to the absence of the Actual CRM system and is a matter which Sky could have addressed at any time. EDS say that Jo Ashcroft's evidence in paragraph 52 of her second witness statement and on Day 86 demonstrates that the new data warehouse delivered with the CRM system has the capability to record two addresses against a customer record, whereas the old data warehouse, MIDAS, could not.
1884. EDS say that Jo Ashcroft's evidence does not show whether Sky had looked into the question whether it was possible to configure the data warehouse to hold two addresses and Neil Spencer-Jones says that MIDAS could have been changed to hold two addresses.
1885. Helen Jenkins considers that the CRM system delivers negligible new functionality in relation to home moving and she attaches no reliance on this element as delivering any churn rate benefit.
1886. Neither Neil Spencer-Jones nor Simon Roncoroni attribute any benefit to this element.
1887. I have no doubt that the ability of the data warehouse to store two addresses is an improvement which has created benefits. Whilst I accept that Sky might have introduced a capability into MIDAS to store two addresses, I consider that the advantage of doing so was to add the function as part of the increased functionality of the Actual CRM System.

***Element 12***

1888. Element 12 is functionality to "*enable the CA to initiate automated post-call posting of paperwork.*"
1889. In the DCMS system the CA had to initiate the sending of correspondence but the content and sending of the letter was automated. In the Actual CRM system the initiation of the sending of the letter is also automated.
1890. EDS say that the automatic sending of the letter is a minor improvement. They refer to Jo Ashcroft's evidence on Day 86 that CAs quickly learn the codes for the letters which they sent most frequently and that the process would not take long. EDS also rely on the fact that Jo Ashcroft could not point to any evidence of the extent to which the manual generation of correspondence was a problem in DCMS because, for example, letters were not sent or the wrong letter was sent.

1891. Helen Jenkins considers that there is a minor benefit in relation to Customer Service and Home Moving. Merlin Stone says that this element of functionality assists in limiting errors and omissions in sending letters and has an impact across the board.
1892. The automatic sending out of a letter after the call is an improvement which will have some benefit but that benefit is difficult to gauge over the position with the DCMS in the absence of data on the extent to which difficulties occurred through errors and omissions in sending letters.

***Element 13***

1893. Element 13 is functionality to “*enable management to generate reports relating to customer enquiries (including general customer enquiries and technical enquiries). For example, management can generate reports using data including the following:*
- (a) the types of issues driving enquiries;*
  - (b) whether the CA successfully resolved the issue driving an enquiry;*
  - (c) actions taken to resolve issues;*
  - (d) which CA or group of CAs handled particular enquiries;*
  - (e) customer information relevant to issues (eg, type of equipment);*
  - (f) number of enquiries required to resolve an issue.”*
1894. EDS say that the capability to generate reports in relation to (a), (d) and (e) existed prior to the implementation of the Actual CRM system. They say that the telephone system used with DCMS permitted the CA to record a technical enquiry by the entry of call work codes into the telephone keypad and that the telephony system implemented in March 2001 enabled the generation of the reports in relation to (a). They say that the DCMS system enabled the generation of reports in relation to (d) and (e).
1895. EDS accept that the Actual CRM system permits the CA to capture more detailed information about technical enquiries than was possible in DCMS, using drop down lists of options. However, they say that the accuracy with which such information is captured depends on the level of compliance by CAs in entering data into the Technical Enquiry function, which is a matter of management control and not dependent on technology.
1896. EDS do not accept that the Claimants have yet implemented the functionality required to deliver reports in relation to (b), (c) and (f).
1897. EDS also say that this is really a repetition of Element 5. The reports are generated in the Data Warehouse using an industry standard application, “Business Objects” with data captured by the CRM System and that it is therefore the capture of data which is important.
1898. Sky accept that the analysis of the data in the form of reports depends on that data being captured in the first place as set out in Element 5. However Sky say that the

- data is recorded in standard, comparable form and is linked to a customer record. Sky say that under the DCMS, as Edwina McDowall and Simon Montador explain, only very limited reports on technical enquiries were possible using data collected independently through the telephone system codes.
1899. Sky say that reports can be produced which assist them to assess what business strategies, policies, procedures and rules to implement to minimise churn and optimise contact centre efficiency. They say that reports can also be used to resolve problems and improve technical performance. They rely on the fact that reporting is not limited to technical enquiries but that, as Simon Montador explained, Sky has now implemented a call type monitoring functionality for general enquiries, similar to that for technical enquiries, which allows information about the reason for each contact to be recorded in the customer history, permitting Sky to analyse the reasons for the call, to reduce call transfers from one team to another and to manage first time resolution performance better.
1900. I consider that there is a major improvement in the fact that data is captured under Element 5 in a standard form, linked to a customer record and that this allows the information to be analysed and reports produced using this improved data source. The reporting function, I accept, is dependent on there being better data and this leads to the generation of more detailed reports.

***Element 22***

1901. Element 22 is functionality to “*enable the customer, when about to move home, to arrange to continue his relationship with Sky using the Internet.*”
1902. This is not a functionality relied upon by either churn or call rate experts as Sky has chosen, for understandable reasons, to adopt a policy that requires telephone contact with a customer on the point of moving house. I do not therefore need to consider this element further.

**The three enhancements**

1903. EDS submit that, to the extent that Sky is now deriving benefits from elements of the three enhancements which would not have been in scope, those benefits would not have been derived in the PwC or ASI CRM Systems and must be ignored for the purposes of the claim. EDS say that Sky place considerable reliance on the capability of the enhancements, particularly Merlin.
1904. Sky say that in order to achieve a go-live date for the Actual CRM System which was as early as possible, it de-scoped the CRM project with the result that part of the functionality envisaged in Increment 2.3 and the whole of Increments 2.4 and 2.5 were not incorporated in the Actual CRM System at go-live. Since go-live of the Actual CRM System in March 2006 Sky say that they have implemented or intend to implement the three enhancements: Merlin, Self Service and Case Management, all of which would have been within the scope of the ITT.
1905. EDS challenge Sky to establish what aspects of functionality were not incorporated in the Actual CRM System at go-live and the reasons why they were de-scoped. I have considered above EDS’ contention that Sky’s decision to de-



- scope the three enhancements was unreasonable because, EDS say, it was driven by wholly unrealistic views of when the system would go-live.
1906. The issue is therefore whether the three enhancements were within the appropriate scope for the PwC or the ASI CRM Systems.
  1907. In paragraphs 108.3 and 108.8 of the Particulars of Claim Sky has pleaded that the PwC CRM System would have had the full functionality specified in PwC's bid and that the ASI CRM System would have had the full functionality specified in EDS' bid. They therefore say that those CRM Systems "*would have delivered the functionality equivalent to Phase 1 and Increments 2.1 to 2.5 and would therefore have delivered at least the benefits that the Actual CRM System, as further developed, will deliver.*"
  1908. Sky now rely on a number of documents to establish that the PwC and ASI CRM Systems would have included this wider functionality.
  1909. EDS submit that the Baseline 2 Functional Specification superseded earlier scope documents and provides the broadest definition of the scope both of the system which would have been delivered by PwC in Scenario B1 and by the ASI in Scenario B2.
  1910. Sky submit that the requirements contained in the ITT and PwC's Response to the ITT, together with the technology and implementation approach that PwC proposed, are all critical pieces of evidence that bear on the system PwC would have delivered. Sky also say that developments in CRM technology during the relevant period should be taken into account because such developments would also have influenced and shaped the system that PwC delivered.
  1911. Sky say that, by contrast, the Baseline 2 Functional Specifications are a snapshot of Sky's requirements at a particular time and were the product of a wholly different development approach based on different technology in different circumstances. Further, Sky say that the Baseline 2 Functional Specifications were the product of an incompetent requirements capture process and whilst Sky set out what they required to the best of their ability, it required the knowledge and experience of those who develop and build CRM systems. Sky say that the exercise which PwC would have carried out would have been very different because the focus would have been on what was already there in Siebel and how best to exploit that package functionality. They say that a robust Siebel-based solution would have provided Sky with the technical foundations for further development.
  1912. Sky say that Baselines 3 and 4 represented a cut down version of requirements and were the minimum that Sky required to replace DCMS and cannot possibly be construed as a proper representation of Sky's requirements or what Sky would have received by way of functionality had PwC been awarded the contract. They say that as well as de-scoping Increments 2.4 and 2.5, all of the marketing functionality was stripped out from Increment 2.3.
  1913. I have come to the conclusion that Sky's reliance on wider documentation is misplaced and that the appropriate scope for both the PwC and the ASI CRM

Systems is that set out in the Baseline 2 Functional Specifications. This was the basis on which Sky approached this case. First, consistent with that position Scott Mackay gave evidence that the Baseline 2 FS reflected Sky's business requirements for the CRM System, as set out in the ITT. He said in paragraphs 22 and 26 of his second witness statement that his main concern was to ensure that the requirements in the Baseline 2 FS, once completed, could be tied back to the original table of requirements set out at section 2.4 of the ITT and so reflected what Sky required from the system and encompassed all the requirements of Sky's business, as expressed in the ITT. Secondly, this approach is reflected more generally in Sky's submissions. In their written opening submissions at paragraph 1377.2 they stated that the Baseline 2 FS provided "*the 'largest' statement of Sky's requirements*" and in their written IT opening submissions they stated at paragraph 179 that "*Baseline 2 is, if anything, likely to represent a more extensive set of requirements than that which PwC would have needed to fulfil. It follows that Baseline 2 represents an upper bound on what PwC would have been required to build.*"

1914. Thirdly, as the ITT says in paragraph 2 of the Introduction the "*deliverables form the high level definition of the end product and will require further analysis as the project progresses*". It is therefore necessary to look at how this "end product" was further defined as the project progressed. In the case of the PwC Siebel based CRM System, the question is raised whether the PwC Response to the ITT provides a better definition of the functionality of the Siebel based system than the Baseline 2 FS which, of necessity, is based on a Chordiant CRM System.
1915. As can be seen from the PwC Response, PwC were much more circumspect in the terms in which they submitted their Response to the ITT. They proposed an eight week definition phase at the start of the project which they referred to as being "key" and producing a "blueprint" which "*will contain your view of the exact scale and scope of your 'world class' solution. Our cost estimates will then be aligned with this.*" As a result, PwC stated that their Response was submitted on a "for information only" basis and did not constitute an offer capable of acceptance for the implementation of the project. In those circumstances, I consider that the best guide to scope would be the Baseline 2 FS in which Sky set out their ITT requirements. I am not persuaded that in respect of the three enhancements the Siebel system would have had significant differences in functionality from those expressed in the requirements incorporated into the Baseline 2 FS, although the manner of achieving those requirements would necessarily have differed in a Siebel package application.
1916. In the case of the ASI CRM Chordiant based System then I accept EDS' submission that the requirements which an ASI taking over the project in July 2001 would have been required to deliver, would have been no more extensive than the requirements contained within the Baseline 2 FS. As an ASI would have been providing a Chordiant based solution, the Baseline 2 FS would be likely to set out the requirements for a Chordiant system. Whilst, there is a suggestion from Sky that the EDS Response or the Preliminary Specification incorporated into the Prime Contract might have included relevant requirements, the reality is that the

EDS Response indicated an understanding of Sky's requirements in June 2000, but was superseded by the more detailed Preliminary Specification which was then, in turn, superseded by the Baseline 2 FS, signed off in October 2001, with the Channels Addenda signed off in December 2001.

1917. Although both sets of experts expressed concerns at certain aspects of the Baseline 2 FS, it seems to me that they provide a much better definition of Sky's requirements than any other documents for both the PwC and ASI CRM Systems. On that basis I now turn to consider the extent to which the enhancements would have been included within the requirements in the Baseline 2 FS.

**Merlin: Elements 8 and 14**

1918. As explained by John Ramdenee in paragraph 6 of his third witness statement, Merlin provides functionality so that appropriate messages can be selected for the CA to give while speaking to a customer by telephone. Merlin displays "prompts" to the CA as to the Next Best Action ("NBA") to take in relation to the customer. This live delivery of prompts is calculated and delivered by the rules engine within Merlin which is referred to as Real Time Decisioning.
1919. The experts have divided the Merlin functionality into three components:
- (1) *Knowledge/Insight*: the "customer data mart", which is a database of customer related information which collates, joins and analyses customer data from different sources to derive a better understanding of the customer;
  - (2) *Decision*: a "decision engine" component which has the ability to identify the information, products and services appropriate for certain customers and customer segments;
  - (3) *Presentation*: the screen component with equivalents for other channels, which delivers information, prompts and scripts for an agent and then captures the outcome to enable feedback and refinement.
1920. There is documentation in the following form: the NBA Catalogue which lists available treatments at any given time; the Merlin Master Treatment Library which contains the rules underlying these treatments and the Merlin Leadership Support Pack which describes how Merlin works.
1921. Merlin is based on the Chordiant Decision Manager suite of products, apparently based on a product developed by a company called KIQ which Chordiant Software had acquired by summer 2004. As explained by John Ramdenee, the Chordiant Decision Manager includes three elements: the Recommendation Advisor, the Adaptive Decisioning Server and the Strategy Director and includes an adaptive modelling capability.
1922. The Recommendation Advisor is the "front end" which presents the NBAs to the CA. The Strategy Director is the tool which enables the business analysts to build the rules offline. The Adaptive Decisioning Server both runs the adaptive propensity models and executes the rules in real time to be displayed in the Recommendation Advisor.

1923. It is common ground that the PwC or ASI CRM Systems would have both delivered Real Time Decisioning, in the sense that they would have applied rules and conditions to filter prompts which were delivered in real time. Real Time Decisioning can describe a number of processes and three types of decisioning model have been referred to in evidence and I will use these definitions:
- (1) an offline propensity model is a programme which is run offline in the marketing department and which analyses data and applies rules. The resulting file is then updated for the next day's interactions with customers and sets tags for customers who have been identified as having a propensity to buy particular products, so that the CAs can use filtered prompts delivered in real time;
  - (2) an online, or real time, propensity model which works in a fixed way and analyses data and applies rules, running in the background on line during the interaction with the customer. The "tagging" is done by the model in real time when the customer rings in;
  - (3) a real time adaptive propensity model has the additional feature of being "adaptive" in the sense that the model does not work in a fixed way but adapts and learns from responses and data captured by the CA and therefore refines the model in real time.
1924. It is also common ground between the parties that the PwC or ASI CRM Systems would not have incorporated a real time adaptive propensity model. Real time adaptive propensity modelling was not available in 2000. The evidence suggests that online propensity modelling would have been available from 2003 and although uncertain, it appears that Chordiant had a real time adaptive propensity model available from late 2004 which they sold to Sky later in 2006.

#### **Merlin Functionality**

1925. EDS' position in relation to Merlin changed towards to end of the hearing when they adopted Robert Worden's position and accepted that certain elements of Merlin were within the scope of the PwC and ASI CRM Systems. EDS now accept that the following elements of Merlin would have been delivered as part of both the PWC and ASI CRM Systems:
- (1) Prompts for cross and up-selling;
  - (2) Real time decisioning to filter those prompts; and
  - (3) Recording of the outcomes of attempts to sell.
1926. EDS continue to contend that the following elements of Merlin, as now delivered, were not within the scope of what would have been delivered in the PWC and ASI CRM Systems:
- (1) Prompts other than for the cross-selling or up-selling of the Claimants' products and services;
  - (2) Weighting and ranking of NBAs;
  - (3) Use of call context to filter NBAs;

- (4) Recording of customer mindset;
  - (5) Calculation of the financial impact on Sky of NBA outcomes;
  - (6) Propensity analysis or propensity modelling, whether adaptive or otherwise;
  - (7) Recording outcomes of NBAs other than cross-sell and up-sell NBAs; and
  - (8) Viewing Advisor.
1927. In order to consider the position in more detail, it is necessary to review the relevant Baseline 2 FS and what was provided for within it. It is then necessary to consider whether the eight elements of Merlin which EDS contend were not within scope are, in fact, within the scope of the PwC and ASI CRM Systems.

### **Functional Specification 5 Cross/Up-Sell**

1928. The only Baseline 2 FS which the experts consider to be relevant to Merlin is FS 5, Cross/Up Sell. EDS refer to the four Use Cases in this FS:
- (1) UC 05.01 is “Customer Profile Cross/Up-Sell”. EDS say that the description indicates that opportunities are identified from offline analysis based on the customer profile or transaction history held about a customer and that the analysis is outside the scope of the programme and is the responsibility of Sky Marketing. EDS say that once the customer is successfully identified and verified, the system checks pre-defined conditions in real time and, if the conditions are satisfied, the system triggers a prompt which remains for the duration of the contact. EDS say that it is this checking of conditions in real time which constitutes Real Time Decisioning.
  - (2) UC 05.02 is “Product Relationship Cross/Up-Sell”. Again, EDS say that the product relationships are identified as a result of offline data analysis which is out of scope and that when the customer is in the course of purchasing a particular product, the selection of the product triggers the prompt of a complementary product to be offered to the customer. EDS say that, as before, the system checks the pre-defined conditions in real time before triggering the prompt.
  - (3) UC 05.03 is “Attempt Profile Based Sale” and EDS say that this does not require any prompting by the system at all and they refer to Ian Murray’s evidence on Day 99. EDS say that, if during a conversation with a customer the CA decides that the appropriate moment has come to attempt a cross/up sell, the CA can press the Sales Prospect button on the toolbar, thus invoking a display of all products currently registered as leads for the particular customer.
  - (4) UC 05.04 is “Capture Unsuccessful Sales Attempt” which captures the reason why a cross/up sale attempt has not been successful.
1929. I now turn to consider each of the points which Robert Worden considers fell outside the scope of the PwC and ASI CRM Systems.

***Propensity model, adaptive propensity model (real time or otherwise)***

1930. Sky refer to PwC's Response to ITT which sets out a scenario where the use of analytics is described to reduce churn, increase up-sell and cross-sell and to apply to a wide variety of other applications. Sky say that, despite EDS' and Robert Worden's assertion that all propensity models were out of scope, Robert Worden confirmed that PwC would have provided the capability to analyse data in order to provide prompts to CAs for a broad range of purposes.
1931. Sky refer to the heading 'Determine prospects' in the ITT which specified that scripts should be capable of being developed and changed quickly in such a way as to identify a customer's propensity to buy products and services. Sky refer to Robert Worden's evidence that the broad picture presented by the ITT was one where Sky was interested in establishing customer propensities and required a system that could exploit such propensities. Robert Worden agreed that analytical tools were part of the toolkit but, in relation to PwC's Response to ITT, said that what precisely was required would be sorted out in the 8 week scoping study.
1932. Sky also say that CRM concepts and technology in relation to data mining, propensity and adaptive propensity modelling and real time decisioning were developing rapidly and that it is likely that a CRM system developed during 2000 and 2002 would have taken advantage of those advances. Sky rely on Ian Murray's evidence that they could have had on-line propensity modelling in mid 2003 and on-line adaptive propensity modelling by 2005.
1933. Sky refer to Robert Worden's view that propensity modelling was not within scope on the basis of Use Case 5.01 which stated that "*This analysis (although not the capture and provision of data to support it) is outside the project scope and remains the responsibility of Sky Marketing*". They say that Robert Worden acknowledged that propensity models were within scope of the ITT as set out above. They also refer to John Ramdenee's evidence that the propensity models themselves were within scope of the project albeit the creation of such models was not and say that this is entirely consistent with the ITT and with the wording of Use Case 5.01.
1934. The experts are in agreement that an adaptive propensity model would not have been delivered by PwC in the first instance and Sky submit that the evidence of Robert Worden and John Ramdenee suggests that there is little difference between benefits achievable by using offline propensity models to those achievable using adaptive propensity models, as the result from the propensity modelling, whether offline or adaptive, is simply a variable used by the rules engine.
1935. EDS say that it is clear from Functional Specification 5, that propensity modelling was not within the scope of the delivery required from EDS and that such modelling, as was required, was to be carried out by Sky offline. Furthermore, EDS say that there was no requirement for an adaptive propensity model, real time or offline. EDS refer to Ian Murray's evidence that once the relevant technology became available PwC would have been instructed to enhance the PwC system to deliver online propensity modelling and, later, adaptive propensity modelling. He says that online propensity modelling would have been available in

2003, but he cannot say that adaptive propensity modelling would have been available earlier than it was actually introduced.

1936. EDS say that whether PwC would have been instructed by Sky to enhance the system over a year after its delivery is irrelevant as the online and adaptive elements were, on this basis, not within the scope of what PwC would have contracted to deliver in June 2000 and were therefore outside the scope of what Sky has pleaded that PwC would have delivered.
1937. In my judgment, neither PwC in 2000 nor the ASI in 2001 would have provided, within the scope of their CRM System either an online, or real time propensity model or a real time adaptive propensity model. The scope, as set out in the relevant Use Case in the Baseline 2 Functional Specification 5, was limited to an offline propensity model. The specification provided that the marketing department would provide the data and the Use Case required the provision of functionality to apply that data to the CA's decision process. For the reasons set out above I do not consider that references in the PwC Response to the ITT assist on this issue. In any event, I consider that the capability to analyse data and provide prompts to CAs referred to in the PwC Response was limited to an offline analysis of data which would then be loaded onto the system at regular intervals.
1938. I do not consider that it is correct to consider what might have been ordered as a separate package at a later date rather than what would have been within the original scope of the PwC or ASI CRM System. First, the question of what would have been in scope in each of those "but for" scenarios cannot properly introduce later additions. Secondly, I am by no means persuaded that, given the timing of the further development of Real Time Decisioning, any additions would have been made to those packages.
1939. I consider that the introduction of the further developments in the form of, first, online or real time propensity modelling and, later, real time adaptive propensity modelling each provided significant improvements over the predecessors. I shall consider below what the benefits would have been of the offline propensity modelling which is what I consider would have been provided by both PwC and an ASI with the relevant CRM System.

***Prompts other than for cross/up-selling***

1940. Sky refer to the fact that Robert Worden in his evidence on Day 100 agreed that PwC's Response to ITT addresses the use of prompts for a range of transactions broader than just up-sell and cross-sell. Sky say that the ITT specified requirements for customer loyalty and there is no reason to suppose that CAs would not have been prompted to pursue processes designed to achieve this purpose as well.
1941. Sky say that, in relation to direct debit, the ITT specifically explained that CAs should be encouraged to persuade customers to move to direct debit. Sky say that PwC's Siebel-based solution was not limited in terms of the flags and prompts to up-sell and cross-sell and included generic functionality that would have provided flags and prompts to CAs in a wide variety of circumstances. Sky rely on Robert

- Worden's evidence on Day 100 that Siebel SmartScript was a suitable delivery vehicle for the kind of NBA prompting supported by Merlin.
1942. Sky submit that EDS and Robert Worden are wrong to say that the requirement for prompts is a limited requirement relating to up-sell and cross-sell. They say that because the ITT states that any information from the prospect or customer that might be useful should be captured, the system should be intuitive and reactive enough to prompt and collect the data, which included lifestyle data.
1943. Sky say that they set out their requirements for interactive prompts to guide the CAs through interactions with the customer and that the ITT gave cross-sell as a non-exclusive example of where interactive prompts were required. Sky say that they were setting out a generic requirement for the prompting and capturing of any data and they rely on Robert Worden's evidence on Day 100 that what the ITT was describing was a system with generic capability to prompt CAs and collect data that could be deployed in any number of ways and situations.
1944. EDS say that FS 5 is limited to the provision of prompts for cross-selling and up-selling Sky products and refer to Ian Murray's acceptance that FS 5 does not explicitly describe any other form of prompts. EDS say that although Ian Murray's evidence was limited to prompts for sales, he now says that it would be reasonable to assume that Sky would have asked the ASI to include non-sales prompts, although Sky did not in fact ask EDS to do so. Sky say that this was on the basis that because Merlin as now delivered in 2007 includes a wider range of prompts, Sky would have asked an ASI instructed in July 2001 or PwC instructed in June 2000 to do the same. EDS say that this does not take account of the fact that Merlin in its current form sprang from the Woking workshops initiated in November 2004.
1945. EDS say that in his evidence on Day 99 Ian Murray could not point to any evidence that Sky had widened its requirements for prompts between March 2002 when it took over as Systems Integrator and January 2004 when it de-scoped the functionality described in FS 5. EDS also say that he had to concede that he had not done the analysis to determine how big an exercise it would be to extend the NBAs beyond cross-sell and up-sell.
1946. As set out above, I have come to the conclusion that the Baseline 2 Functional Specifications provide a definition of the requirements which Sky required and which would also have formed the basis of the CRM Systems provided by PwC or the ASI. In such circumstances I consider that the general descriptions in the ITT are more specifically defined in the specifications which were subsequently developed and it is those which must be considered.
1947. The fact that the ITT or the PwC Response to the ITT might have indicated that interactive prompts would be wider than the Baseline 2 FS does not, in my judgment, determine how matters would have developed after the eight week scoping study for PwC or after the ASI had been through the detailed requirements phase when cost and time constraints would have come to bear.

***Recording outcomes of NBAs other than for cross/up-sell***



1948. Sky say that the requirement for the recording of the result of each contact was stated in the ITT under the heading “Every contact with the customer is recorded in full detail”. Sky say that, given the emphasis in the ITT on the collection of data, where prompts were used to elicit the information it is obvious that Sky and PwC intended that the information should be recorded.
1949. Sky rely on Ian Murray’s evidence on Day 99 in which he confirmed that the outcome of NBAs was the critical factor in the learning process because Sky were measuring customer reactions. Sky also refer to Robert Worden’s evidence on Day 100 that Sky required a system that would record the result of each contact.
1950. Sky say that it follows that if during the course of the contact, a prompt delivered to a CA posed a particular question or made a particular offer, the answer to that question or offer would be recorded.
1951. EDS say that FS 5 contemplated only that an unsuccessful sales attempt would be recorded as an input to the offline analysis and that there was no provision for recording other outcomes, because only sales-related outcomes were within scope.
1952. As set out above, I have come to the conclusion that the Baseline 2 Functional Specifications provide a specific definition of the requirements which Sky required and which would also have formed the basis of the CRM Systems provided by PwC or the ASI. In those circumstances, the extent to which an outcome would be recorded was specifically defined in Functional Specification 5 and was to be limited to unsuccessful sales. As a result, I do not consider that there was a requirement to record outcomes other than for cross-sell or up-sell.

*Use of call context to filter NBAs*

1953. Sky say that the requirement for the call context to be recorded was stated in the ITT under the heading “Every contact with the customer is recorded in full detail”. Sky say that Robert Worden, in his evidence on Day 100, agreed that Sky required a system that would record the reason or trigger for the contact and accepted that any information about the reason for calling was relevant to cross-sell and up-sell.
1954. Sky say that even in relation to the Baseline 2 FS, Ian Murray explained that whilst the requirement may not be explicit, as a matter of commonsense, the filtering by call context would be necessary.
1955. EDS say that Ian Murray was wrong to suggest in his evidence on Day 99 that this aspect of Merlin was expressly contemplated in FS 5 and that he misread the reference in UC 5.03. to “information provided during a current customer interaction” as requiring the CA to click on a call context button. EDS say it is clear that the information received from the customer is processed in the CA’s brain and is not input into the system, and say that Ian Murray accepted this.
1956. EDS also say that Ian Murray was wrong to rely on the fact that FS 5 specifies that rules used to filter cross-sell or up-sell attempts can be related to attributes of the customer and the product, as those rules are not derived from the call context, but are pre-flagged on the customer record, as set out on pages 12 to 13 of FS5.

1957. EDS also say that Ian Murray was wrong to say that, as a matter of common sense “there is no particularly technical difficulty in including call context as a condition”. EDS say that Sky did not in fact choose to include call context in FS 5 and there is no evidence that Sky later changed its mind before de-scoping this functional specification in its entirety in 2004.
1958. As set out above, the Baseline 2 Functional Specifications provide a definition of the requirements which Sky required and which would also have formed the basis of the CRM Systems provided by PwC or the ASI. I do not consider that the Baseline 2 Functional Specification 5 required filtering by call context and this was the document which, in my judgment, set out the specific requirement, rather than the general description in the ITT.

***Recording of customer mindset***

1959. Sky say that the requirement for the recording of the customer mindset at the beginning and end of each contact was stated in Appendix A to the ITT as one of the ‘headline themes’ and is described under the heading “Every contact with the customer is recorded in full detail”. Sky say that although the requirement is described as the recording of ‘the customer disposition’, this is the same thing as ‘customer mindset’. Sky refer to the fact that later in Appendix A, under the heading “Resolve Customer Query”, the requirement is repeated in the following terms: “*Customer disposition at the end of contact is recorded to be used in future contacts with the customer as a reference.*”
1960. Sky refer to Robert Worden’s evidence on Day 100 and say that he agreed that Sky required a system that would record customer disposition at both the start and end of each contact and that any information about customer disposition was relevant to cross-sell and up-sell. Sky also rely on Ian Murray’s explanation on Day 99 that as far as the ITT was concerned the reference to using customer disposition was a reference to using it “*in some sort of assessment as to whether to do certain things with a customer while they are on the phone.*”
1961. Sky accept that they only set out what they required in the ITT at a high level but say that the emphasis placed by PwC in their Response to ITT on personalising each contact and using information about the customer to inform recommendations makes it more than likely that the Siebel-based solution proposed by PwC would not only have recorded customer mindset or disposition at the beginning and end of each call, but would also have ensured that such information was used during the course of the call in terms of the prompts made to the CA. Sky say that the fact that the CRM system did not provide this functionality in EDS’ time or in the period up to go-live in March 2006 is irrelevant.
1962. EDS say that Ian Murray accepted on Day 99 that this aspect is not mentioned in FS 5 but rather he referred to the ITT and suggested that the requirement must then have been missed out owing to the incompleteness of the Baseline 2 FS. EDS say that the more obvious conclusion is that Sky’s requirement had narrowed since the ITT.

1963. On the basis of my conclusion that the Baseline 2 Functional Specifications provide a definition of the requirements which Sky required and which would also have formed the basis of the CRM Systems provided by PwC or the ASI, I do not consider that the general descriptions in the ITT or the matters set out in PwC's Response to the ITT represent what would ultimately have been within the scope of the PwC or ASI CRM Systems. The reference in PwC's Response does not, in my judgment, take the matter further as there would need to be further definition during the eight week scoping study and under pressures of time and cost this would have been likely to lead to the final requirements being similar to those contained within the Baseline 2 Functional Specifications.

***Ranking of NBAs and showing their weights to the CA***

1964. In Merlin as delivered, clicking on the call context/reason generates three NBAs which are ranked in priority order, the weights being shown by bars on the screen and the list can be expanded to up to 15 NBAs. The exercise of determining those weightings is carried out by the marketing department.
1965. Sky say that the description in PwC's Response to ITT as to how SAS, Business Objects, BroadVision and NetPerceptions was to be used shows that functionality for the personalisation of the contact would have been delivered. Sky say that the process of automating business rules and applying them to flags is the process of ranking and weighting. They refer to Robert Worden's evidence on Day 100 and say that he agreed that the general thrust of the functionality provided by NetPerceptions was the making of recommendations.
1966. Sky also refer to the evidence of Ian Murray on Day 99 to show that the process of producing weightings, that is the calculation of particular NBAs, is based on the input from the Treatment Library and is within the scope of the system. He stated that the means by which weightings get into the system would have been within the scope of the project, whilst the exercise of determining the weightings would not.
1967. Ian Murray relied on the fact that the product rules defined in FS 5 refer, at page 14, to a "priority rating" which allows campaign cross-sell/up-sell conflicts to be managed. Robert Worden considered that this was a simple mechanism to allow Sky management to cope with potential conflicts between different campaigns and offers and possibly only recommend one in cases where there was a conflict. EDS say that this is supported by a reference to the AA class model produced in May 2001 which had been relied on by Ian Murray.
1968. EDS say that it is clear that FS 5 does not contemplate anything like the sophisticated weighting and ranking mechanism now provided by Merlin and described in Herbert Smith's fifth letter of 26 February 2008. That letter indicates that the overall numerical value/score for each NBA is a product of six different factors. The numerical values and scores for each NBA are presented in the Merlin Master Treatment Library, which also describes the weighting and ranking mechanism.

1969. On the basis of my conclusion that the Baseline 2 Functional Specifications provide a definition of the requirements and would also have formed the basis of the CRM Systems provided by PwC or the ASI, the references in PwC's Response do not, in my judgment, take the matter further as there would need to have been further definition during the eight week scoping study. Under pressures of time and cost the scope would have been reconsidered and, in my judgment, this would have been likely to lead to the final requirements being similar to those contained within the Baseline 2 Functional Specifications. I do not consider that the reference to "priority weighting" in FS5 is a reference to the type of weighting and ranking system which is applied to NBAs in Merlin. Rather, I accept Robert Worden's view that the reference to the management of campaign cross-sell/up-sell conflicts was to a simple mechanism to allow Sky's management to cope with potential conflicts between different campaigns and offers.

*Viewing Advisor*

1970. Sky refer to the ITT which set out a requirement for CAs to search the programme guide in electronic format and to prompt CAs on upcoming events that may be of interest to the customer based on information collected in relation to that customer's lifestyle, with the functionality being required through all media. Robert Worden accepted in his evidence on Day 100 that this looked like a Viewing Advisor but said that the requirement was an aspiration which he felt was superseded by the Baseline 2 Functional Specification.

1971. EDS say that the "Recommendations Engine" was a Woking project in its own right which initially had nothing to do with the Real Time Offers project which was superseded by Merlin. EDS say that Sky implemented the Recommendations Engine on the web in mid-2005 and at some point took a decision to incorporate Recommendations Engine within Merlin, so that it is now integrated as the Viewing Advisor screen which is accessed as a tab within Merlin.

1972. EDS refer to Ian Murray's evidence that "programme recommendations" might feature in the capability for non-selling activities which it would be reasonable to assume Sky would have asked an ASI to include. EDS say that in his oral evidence on Day 99 Ian Murray accepted that Viewing Advisor already existed pre-Merlin and was brought in and integrated with Merlin and also that he could only express a view as to whether Sky could have integrated Viewing Advisor if they had required it, not as to whether Sky would have required it. EDS also point to the fact that John Ramdenee said on Day 88 that the first time he had heard of the idea of having a recommendations engine was in the Woking workshop of November 2004.

1973. Having come to the conclusion that the Baseline 2 Functional Specifications provides a definition of the requirements which would also have formed the basis of the CRM Systems provided by PwC or the ASI, I do not consider that the Viewing Advisor would have formed part of the scope of the work within the PwC or ASI CRM Systems. Rather it was developed after the Woking workshop in 2004 and was subsequently integrated with Merlin and was not part of the Baseline 2 FS.

## **Summary**

1974. On that basis, it is my view that the CRM System provided either by PwC or by an ASI would have had an offline propensity model and would not have had prompts other than for the cross-selling or up-selling of the Claimants' products and services; would not have had weighting and ranking of NBAs; would not have used call context to filter NBAs; would not have recorded customer mindset; would not have recorded outcomes of NBAs other than cross-sell and up-sell NBAs and would not have had functionality equivalent to Viewing Advisor.

## **Merlin**

1975. I now turn to consider the relevant Elements, 8 and 14, in the light of those conclusions on the extent to which the Merlin functionality would have been provided either by PwC or by an ASI .

### ***Element 8***

1976. Element 8 is functionality to “*generate and enable the CA to receive automated prompts, including prompts identifying products, services or offers appropriate for a customer.*” This is part of the functionality introduced through Merlin.
1977. For the reasons set out above, the automated prompts or NBAs in Merlin and the adaptive propensity model that supports the presentation of NBAs would not have been part of the PwC or the ASI CRM Systems.

### ***Element 14***

1978. Element 14 is functionality to “*enable management to control types of prompts given to CAs through the use of configurable rule sets and arrange for CAs to promote particular products and services to particular classes of customer.*”
1979. As set out above, in the PwC or ASI CRM System Sky's marketing department could decide on the types of prompts but only apply those prompts by an offline propensity model. The wider functionality in Merlin would not have been part of the scope of either the PwC or ASI CRM Systems.

### ***Element 3***

1980. Element 3 has two aspects: “*enable the CA to view relevant customer information presented clearly on key screens*” and enable “*management to change the customer information presented to the CA (and the way it is presented) on those key screens.*”
1981. As set out in paragraph 17 of the Fourth Joint Memorandum, Robert Worden and Ian Murray agree that Element 3 was delivered by Sky in the Actual CRM system on 30 March 2006 and that Merlin delivered enhancements to Element 3.
1982. EDS refer to the evidence of Ian Murray in PA's sixth report and say that, on the first aspect, he accepts that this was delivered as a “basic function inherent in Chordiant”. They also refer to Robert Worden's evidence in paragraph 200 of his sixth report that this requirement was met without Merlin. Accordingly, EDS say that the fact that Merlin later enhanced the presentation of customer information

on screens is irrelevant as Element 3 was delivered as part of the Actual CRM system in March 2006 and did not require the further delivery of Merlin.

1983. In relation to the second aspect, EDS say that this was delivered as part of the Actual CRM System and refer to Ian Murray's evidence which suggests that this introduced some further ability to make changes. On that basis, EDS say that the delivery of Merlin was not something which was required by Element 3, and in fact the delivery of Merlin could not be said to have enhanced management's ability to change customer information in relation to other parts of the system.
1984. I am not persuaded that there was any element of functionality in relation to Sky's Element 3 that was not introduced as part of the Actual CRM System and which is relevant to Sky's claim. Rather any enhancement is over and above the scope relied on by Sky as delivering the business benefits.

#### ***Element 7***

1985. Element 7 is functionality to "*enable the CA to identify appropriate offers for which a customer is eligible.*"
1986. The IT experts agree at paragraph 17 of the Fourth Joint Memorandum that Element 7 was delivered by the Actual CRM system without Merlin and that the delivery of Merlin enhances Element 7.
1987. EDS refer to Ian Murray's oral evidence on Day 99 where he indicated that Merlin provided an enhancement to Element 7, in predicting the propensity to accept offers as well as identifying appropriate offers. EDS say that the enhancement relates only to Merlin itself and not to the rest of the system.
1988. Similarly to Element 3, I am not persuaded that there was any element of functionality in relation to Sky's Element 7 that was not introduced as part of the Actual CRM System and which is relevant to Sky's claim. Rather any enhancement is over and above the scope relied on by Sky as delivering the business benefits.

#### **Conclusion on Merlin**

1989. EDS submit that Sky cannot recover benefits which flow from elements of Merlin as actually implemented which would not have been delivered in the PWC or ASI CRM Systems. As I have found, many of the elements of Merlin were out of scope. EDS say that most of those elements, in particular, the adaptive propensity model, the call context, the weighting and ranking of NBAs and prompts other than for cross-sell and up-sell account for substantially the entire benefit of Merlin and I will consider this below.

#### **Self Service: Element 16 to 21**

1990. The self service functionality relevant to these proceedings consists of the ability of Sky's customers to carry out certain operations either by using the internet or by using the Set Top Box ("STB"). Whilst there are self service capabilities available through the interactive voice recognition technology (IVR) system

- which, for instance, allow customers to order pay per view items, these do not form part of the claim because they were not enabled by the CRM system.
1991. Sky had significant self service capabilities prior to the CRM system. They had offered web self service since the acquisition of the [www.sky.com](http://www.sky.com) website in 2000 and they developed a web front end in the form of the IDO application. This allowed TV packages and equipment to be purchased online by new customers and from 2003 the installation process was also automated as part of the function. In 2003, Sky implemented functionality which allowed an existing customer to replace their STB or upgrade it to Sky+ or add an extra digibox over the internet and allowed a new customer to purchase a Sky + digibox or extra digibox online.
  1992. In the period before CRM go-live, package upgrades were available to existing customers via the internet for the top three packages: Sky World, Sky Movies World and Sky Sports World.
  1993. In relation to STBs, Sky had offered some forms of self service since the launch of these products. Initially, for example, customers could reset an STB PIN and from July 2001 Sky offered its customers the ability to view their bill on the STB, referred to as Customer Interactive Connect (“CIC”). Package upgrades were available via the STB. In 2005, Sky relaunched its STB self service offerings and the “View Sky Statement” capability was extended, customer support in the form of FAQs was added, as was *“product information and ordering - to up-sell/cross-sell to existing customers, including interactive ordering of selected products or promotions.”*
  1994. Both churn rate experts have assumed an overall implementation date of December 2007 for additional Self Service. This date has been chosen for convenience, as some aspects were implemented earlier than December 2007 and others more recently.
  1995. Simon Montador gives evidence of the self service functionality which Sky have implemented since go-live of the Actual CRM System. EDS say that it is more extensive than Elements 16 to 22 and includes a number of self service transactions in relation to which Sky make no claim (including reset and confirm STB PIN via the internet; view and modify pay per view (PPV) booking on the internet and sale of wholesale line rental), as well as including a number of transactions which would not have been available in the PwC or ASI CRM Systems because the relevant product was not available, such as adding Sky Broadband, upgrade to HD and upgrade existing Sky Broadband package.
  1996. EDS also say that it includes functionality which could have been and in fact has been implemented independently of the CRM system because it only requires access to the front end application, such as technical inquiries via the web and STB and the implementation of the Sky “Virtual Assistant” on the website.
  1997. EDS say that the set of self service transactions of which Elements 16 to 22 form part, is itself a relatively limited set of transactions when compared with the full functionality available to a CA. In particular, it excludes downgrading and

cancellation, because Sky requires that customers interact with a CA when they want to cancel or downgrade.

1998. There are two particular issues relating to the scope of Self Service:
- (1) whether EDS was responsible for delivery of the front end self service applications or only for integrating them with the CRM back end;
  - (2) which of the transactions listed in Elements 16 to 22 would have been delivered as part of the PwC or ASI CRM Systems.

***Front end or back end***

1999. EDS refer to PA's view that EDS was responsible for delivering the entirety of the Self Service capability, including development of the front end applications. However Sky does not contend that EDS was responsible for the development of the front end applications, but only that it was responsible for integrating the front end applications with the CRM back end. EDS accept that it was responsible for the interfaces and therefore it seems that there is now common ground on this issue.

**Which elements of Self Service were within the scope of the PwC or ASI CRM Systems?**

2000. The IT experts agree that most of the relevant elements of self service (Elements 16 to 22) would have been delivered in either the PwC or ASI CRM Systems as part of the delivery of the main system. They disagree as to the effort and date required for the delivery of those systems.
2001. In relation to Scenario B1, the PwC CRM System, they also disagree as to the degree of bespoke development which would have been required to deliver the elements of self service using Siebel. This reflects part of the general disagreement on Siebel which I have dealt with above.
2002. In relation to both the PwC and ASI CRM Systems the following elements remain in dispute in relation to the scope of Self Service:
- (1) Element 17(b), whether functionality would have been provided which allowed customers to change the payment due date;
  - (2) Elements 18 and 19, the extent to which Self Service could have catered for new products and services not offered by Sky at the date of the relevant CRM System;
  - (3) Element 20 in so far as it relates to "case tracking".

***Change Payment Due Date (Element 17(b))***

2003. Element 17 is functionality of "Account Management" which allows management of a customer account by performing certain actions. Sky say that the functionality to change the payment due date would have been included within the PwC or ASI CRM Systems and Merlin Stone relies on this element of functionality in forming his view on the ability of the CRM system to help save VFM churners and Sycanners. Sky say that the ITT envisaged such functionality



- in Appendix A at section 1.4.5, Paragraph 3 and they rely on Mark Britton's view that such functionality would have been delivered as part of PwC's system or delivered shortly thereafter. He formed this view on the basis that, since PwC's system would have allowed functionality to be added very easily, there was no reason why it could not have been added if it was not delivered in the first instance. He considered that Sky's thinking would have developed more quickly if they had had a system in place.
2004. EDS rely on section 3.2.1.6 of the Baseline 2 Billing Account Details Functional Specification Addendum which provides that "*a self service customer will not be able to amend the billing cycle.*" EDS say that the specific exclusion of this functionality from the ambit of self service indicates that it was not overlooked by Sky, but was excluded for some business reason, presumably because Sky felt that it would be undesirable to permit the customer to change the billing date. EDS also rely on Robert Worden's evidence in paragraph 83 of the Fourth Joint Memorandum that, since it was excluded from the scope of the Baseline 2 FS, it would similarly have been excluded from the scope of the PwC and ASI CRM Systems.
2005. Mark Britton agrees that it was expressly excluded, but says at paragraph 83 of the Fourth Joint Memorandum that the fact that Sky subsequently decided to enable such functionality when they delivered it in May 2007 indicates that Sky would have required either PwC or the ASI to deliver this element.
2006. EDS say that Mark Britton cannot point to any evidence which suggests that Sky would have changed its mind in time to include this requirement in either the PwC or ASI CRM Systems. EDS also say that Mark Britton's suggestion in oral evidence on Day 99 that once Sky had a CRM system in place it would have decided to add this element is in fact an acceptance that the requirement would have been out of scope for the main delivery.
2007. As I have set out above, the Baseline 2 Functional Specification provide the best evidence of what PwC or an ASI would have provided. The reference in the ITT to flexible payment options does not, in my judgment, include this functionality to permit the customer to change the payment due date. Nor am I persuaded that the view that Sky have reached in 2007 in wanting to have this functionality indicates that they would have wanted it to be included at an earlier date. There was obviously a decision taken by Sky at the time of the Baseline 2 Functional Specification expressly to exclude this functionality from the scope of the CRM Project and I consider that this is a more accurate reflection of Sky's requirements than any other document.
- Upgrade Package (Element 18) and Upgrade or Replace Equipment (Element 19)***
2008. These elements allow various types of upgrades or replacements and, in particular, include functionality to upgrade using the internet or the STB to include Sky Broadband, Sky +, Sky HD and Sky Multiroom. The question is the extent to which these products and services would have been provided.

2009. Sky refer to the Introduction section to the High Level Business Process Model at Appendix A to the ITT and say that this set out Sky's requirement for a flexible system to support new products and services. They say that this was also reflected in the Preliminary Specification which formed part of the Prime Contract. Sky refer to the fact that, whilst EDS concentrated on paragraph 6.2.2.5 of the Preliminary Specification and the reference to the Web channel requirement being limited to purchasing "core Sky TV Digital product", at paragraph 6.3 there are set out supported products and services and a table containing "anticipated current and future market offerings" such as "Internet Service Provider", "Multiple Cards/Multiple STBs per Household", "Hard Products (e.g. next generation STBs)" "DSL/ADSL" and other items which would include Broadband, Sky+, Sky HD, multi-room and Sky Talk.
2010. Sky also rely on the evidence of Mark Britton in paragraphs 88 and 89 of the Fourth Joint Memorandum and on Day 100 when he said that it would have been extremely simple to add those services to the web interface and that Sky would have insisted on the delivery of a CRM system with sufficient "flexibility" to enable products of these types to be added.
2011. EDS rely on paragraph 6.2.2.5 of the Preliminary Specification which provides under "Web" that "purchasing of the core Sky digital TV product, including arranging installation and upgrades, is within scope". They say that this, as a matter of construction, does not extend to adding Sky Broadband or Sky Talk, which are not TV products.
2012. EDS say that there is no reason to suppose that Sky would have required PwC or the ASI to deliver a scope wider than that set out in the Preliminary Specification. They rely on Robert Worden's evidence on Day 100 that, although there was always the intention to develop generic platforms that can easily be extended, the level of success was variable; specific new products have specific requirements and there is only a limited amount that can be done to anticipate those requirements.
2013. Robert Worden also expresses the view at paragraph 100 of the Fourth Joint Memorandum that PwC would not have provided functionality which anticipated the launch of Sky Broadband, Sky Talk and Sky HD more than four years or, in the case of the ASI two years, in advance of the launch of such products. He said on Day 100 that, given that Sky only acquired Broadband several years later, he does not believe that development of an abstract general Broadband selling facility would have been able to anticipate specific requirements that Sky had when they acquired Easynet.
2014. In response to Sky's reliance on paragraph 6.3 of the Preliminary Specification, EDS say that it expressly provides that: "*additional, specific functionality may be required by particular products or services dependent on the eventual nature of these future offerings in order to fully support them. It is not possible to include details for future products within functional specifications and new products will have to be specified and added as additional ad hoc workpackages.*"

2015. EDS submit that a valid distinction can be drawn between different types of product. Whilst EDS accept that if PwC had provided the functionality to allow a subscriber to add a STB or a Sky+ STB via the internet or STB, then it is not a great step to also enable the subscriber to add a different kind of digibox, the position is different in relation to adding Sky Talk or Sky Broadband, which had specific requirements which do not resemble requirements to add set top boxes.
2016. It is evident that the scope of functionality was limited to purchasing of the core Sky digital TV product at paragraph 6.2.2.5. I do not consider that Sky is correct in saying that paragraph 6.3 provided for a wider definition of products and services within scope. The only requirement was for there to be generic functionality and I consider that Robert Worden is right when he says that specific new products have specific requirements and there is only a limited amount that can be done to anticipate those requirements. The specific functionality to support Sky Broadband, Sky+, Sky HD, multi-room and Sky Talk could not be anticipated or allowed for in any CRM System. Rather, what was required was the specific functionality for the core digital TV product, with generic, not specific, functionality for the other products. This would, in my judgment, be the limited extent to which flexibility would have been provided to enable these other products to be added when the detailed requirements became known.

***Case Tracking (Element 20)***

2017. Element 20, Track Order, is functionality to allow a customer to Track a case or product order over the internet. The IT experts agree that tracking of products via Self Service is within the scope of the PwC and the ASI CRM Systems.
2018. EDS rely on Robert Worden's evidence at paragraph 101 of the Fourth Joint Memorandum. He considers that case tracking was not in scope because it was expressly excluded by UC 32.02 of FS 32 History and Memo page 20 which states "*Collate & Display Associated Lines of History & Memo - Web Contact: This use case is not applicable to web contact.*" While EDS accept that UC 32.01 "*Core History & Memo -Web Contact: The requirements specified in this section, apply to instances where contact is engaged over the Web*" does refer to the web channel, they point out that the use case states that "*the only facets displayed are the date and time of the last contact*". They say that this means that the customer will only be able to view details of the most recent contact, which is not case tracking.
2019. In relation to this aspect, Sky refer to the evidence of Mark Britton. At Paragraph 90 of the Fourth Joint Memorandum he accepts what is said by Robert Worden, as set out above, but says that as the functionality would be provided to the CA and as both Siebel and Chordiant provide architectures oriented towards making functionality available over multiple channels, Sky would have had the capability of adding this functionality to the Self Service channel.
2020. I consider that, again the use cases within the Baseline 2 Functional Specification provide the best guide to the scope of Sky's requirements which would have been

implemented as part of the PwC or the ASI CRM Systems. For whatever reason Sky accepted that web self service would not apply to case tracking but all that was to be provided was a limited view of the recent contact. Whilst I do not doubt that the functionality could have been added, that was not what Sky sought at the time and I see no reason why Sky's requirements would have changed in this respect.

**Case Management: Element 15**

2021. Element 15 is functionality to “*enable the CA to track any enquiries or transactions according to a case number.*”
2022. It is common ground between the experts, as set out at paragraphs 70 and 71 of the Fourth Joint Memorandum, that limited Case Management functionality forming part of that described in Element 15 would have been delivered by either PwC or the ASI as part of the relevant CRM system.
2023. EDS contend that the functionality would have been limited to Technical Enquiries, Customer Feedback and Damage Claim, in accordance with the scope of Use Case 32.02 in Functional Specification 32 and say that Ian Murray accepted that the use case only covered these three areas.
2024. Sky rely on the requirement set out at paragraph 1.3.1.5 of Appendix A to the ITT that systems must be in place to ensure that CAs can see whether the customer is calling for a second time about the same query. Robert Worden says that it was unclear in this provision of the ITT where the line between the functionality of the CRM System and the work of the CAs was to be drawn.
2025. Sky refer to the evidence of Ian Murray who said that Case Management was a familiar concept in CRM. His view was that Siebel provided the required functionality for Case Management, using its Trouble Ticket or other functionality and that the Siebel product could have shaped the Case Management requirements. Sky say that such functionality would not be limited to the three instances in the Baseline 2 Functional Specification, as EDS contend, because if the functionality was provided by Siebel it is more than likely that Sky would have required it to be implemented.
2026. EDS say that Sky has not displayed great enthusiasm for the delivery of Case Management functionality or the use of it once delivered. EDS say that the only aspect of case management functionality which was delivered with the Actual CRM System in March 2006 was the automatic allocation of a unique identification number to all technical enquiries received in the call centre and that this is not being used by the CAs in practice to track the history of technical enquiries. EDS say that similar functionality was implemented for general enquiries in February 2008 enabling a CA to select an enquiry topic and generate a reference number for the query but that this is only being used for enquiries relating to deceased customers and Sky Talk.
2027. I do not consider that the reference in Appendix A to the ITT provides sufficient definition for Sky to establish that a broad case management functionality would have been provided. The more relevant provision is, I consider that in the

Baseline 2 Functional Specification which Ian Murray confirms would cover the limited functionality which EDS contend is included: Technical Enquiries, Customer Feedback and Damage Claim. Whilst Siebel may have functionality which PwC could have used, the limited scope of the Functional Specification together with what I accept is Sky's limited enthusiasm for Case Management lead me to the view that in both the PwC and the ASI CRM Systems, the functionality would have been limited as EDS contend.

## **N: LOST BENEFITS: CHURN RATE REDUCTION**

### **Introduction**

2028. Having reached the conclusions on the extent to which elements of functionality would have been within the scope of either the PwC or the ASI CRM Systems and having rejected EDS' case on mitigation, I now turn to consider what impact those findings have on the claim for loss of benefits in the form of reduction in churn. My approach has been to consider the functionality that was within scope and then assess saveability based on that functionality.
2029. Sky claim lost benefits on the basis that the delayed implementation of the CRM System meant that Sky did not obtain benefits in the form of reduction in customer churn rate as early as they should have done. The issue is therefore the extent to which the Actual CRM System will enable Sky to reduce churn by more than it would have been able to do in the "business as usual" scenario.
2030. The Churn Rate Experts, Merlin Stone and Helen Jenkins, agree that the implementation of the CRM system will deliver churn rate benefits for Sky but have different views as to the size of that benefit.
2031. They have both now approached the question of churn by considering two separate groups of customers who churn. First there are those who cancel their subscriptions by contacting Sky to do so. This is referred to as "Customer Cancellation" or "Cuscan" and the customers who cancel in this way are referred to as "Cuscan Churners" or "Cuscanners". Secondly, there are those customers whose subscriptions are cancelled by Sky because, commonly, they have not paid their subscription and other charges. This is referred to as "System Cancellation" or "Syscan" and the customers who have their subscriptions cancelled in this way are referred to as "Syscan Churners" or "Syscanners".
2032. The basis on which the churn benefits should be assessed has been dealt with in the closing submissions.
2033. Sky submit that Merlin Stone has asked the right question: what is the incremental effect on churn reduction as a result of the replacement of DCMS by the Actual CRM System combined with Sky's other strategies and processes for reducing churn? Sky say that Helen Jenkins has asked herself the more limited question: what is the incremental effect on churn reduction as a result exclusively of using

the Actual CRM System instead of DCMS? Sky say that there were many churn reduction strategies deployed by Sky throughout the period, the effectiveness of which could be improved by the use of the Actual CRM System.

2034. EDS do not accept that Helen Jenkins has approached the exercise on the basis exclusively of the improvements of using the Actual CRM System instead of the DCMS. They say that the correct question is this: what is the incremental effect on churn reduction as a result of the replacement of DCMS by the Actual CRM System combined with Sky’s other strategies and processes for reducing churn, to the extent that those strategies and processes were dependent on the introduction of the new CRM System?
2035. It is evidently not possible to consider the Actual CRM System and the DCMS in a vacuum and I do not consider that Helen Jenkins does so. It is clear that over a period of time Sky developed strategies for churn reduction and continued to develop these strategies post-implementation of the Actual CRM System. That meant that, at any given time, the strategies would be different. If a particular strategy was not available in the “business as usual” scenario and it is that strategy which reduces churn then the mere fact that it is introduced with the CRM System does not mean that the churn reduction is to be attributed to the CRM System. If however that strategy can be implemented more effectively with the CRM System then that incremental improvement is a churn reduction benefit attributable to the Actual CRM System. Equally, if a new strategy can only be implemented effectively because of the functionality in the Actual CRM System and would have been ineffective with the DCMS then there is a churn reduction benefit attributable to the Actual CRM System. I shall therefore approach the question on this basis.

**The scope of the dispute between the Churn Rate experts**

2036. The experts have addressed the potential reduction in churn attributable to the CRM system under four main headings: Syscan, Home Moving, Value for Money (VFM) and Customer Service. The overall conclusions are set out in the following table from which it can be seen that, on the assumption that all of the three enhancements are within scope, Merlin Stone, Sky’s expert, considers that the churn rate reduction expressed as a percentage of churn will be 14.9% whereas Helen Jenkins, EDS’ expert, considers that the figure will be 2.2%.

	<b>Professor Stone’s view</b>		<b>Dr Jenkins’s view</b>	
	% effect	Reduction in churn rate of 13.30% (from BAU churn rate of 13.30%)	% effect	Reduction in churn rate of 13.30% (from BAU churn rate of 13.30%)
<b>Customer Service</b>	2.5%	(0.33%)	0.9%	(0.11%)

<b>Value for Money</b>	5.6%	(0.745%)	1.1%	(0.15%)
<b>Home Moving</b>	2.1%	(0.28%)	0.2%	(0.03%)
<b>Syscan</b>	4.6%	(0.61%)	0.0%	(0.00%)
<b>Total Effect on BAU Churn Rate</b>	14.9%	1.98%	2.2%	0.29%
<b>Churn Rate after effect</b>		11.32%		13.01%

2037. The main differences of view between Merlin Stone and Helen Jenkins arise from three issues:

- (1) the extent of the new or improved functionality of the CRM System as compared with DCMS and also the extent to which that new or improved functionality will reduce churn rates;
- (2) the ability to prevent customers from ceasing to subscribe to Sky's services by cancelling their subscriptions ("Saveability of Cuscanner"). Customers can only cancel once they are outside the 12 month term of their contract;
- (3) the ability to prevent customers from ceasing to subscribe to Sky's services because Sky's system cancels their subscriptions ("Saveability of Syscanners"). These cancellations are initiated automatically by the system on grounds of non-payment by the customer.

2038. It is convenient then to consider the following issues: the functionality of the CRM System compared to DCMS; saveability of Cuscanners; and the saveability of Suscanners.

### **Functionality of the CRM System compared to DCMS**

2039. Helen Jenkins sought to attribute churn rate reduction benefits to each of the following functionality of the CRM System: the KMS, the Actual CRM, Merlin, Self Service and Case Management. Merlin Stone has attributed benefits to Core Elements, Merlin and Case Management and has then applied a Self Service uplift.

#### **The KMS**

2040. Helen Jenkins' view is that the KMS reduces the churn rate by comparison with the situation with the DCMS, referred to as the "Business as Usual" Scenario. However she considers that this has no impact on the claim as the benefit is achieved on the same date for the Actual CRM System, the PwC CRM System and the ASI CRM System, namely from February 2002. Merlin Stone treats the early implementation of the KMS, as part of the Actual CRM system but considers there will be a benefit from KMS once integrated within the CRM System and in its modified MOJO development.

### **The Actual CRM System**

2041. The relevant elements of the Actual CRM System are Elements 2, 3, 4, 5, 6, 7, 10, 12 and 13 of Sky's list of 22 Elements. Helen Jenkins considers that the Actual CRM System will have the biggest proportional impact on the category of Customer Service churn. Merlin Stone holds a similar view, but attributes a larger proportional impact to it.

### **Merlin**

2042. Helen Jenkins considers that the biggest impact from Merlin is likely to be on VFM churners. Merlin Stone shares the view that Merlin will have the biggest impact on VFM churn and also considers that Merlin will have a similar impact on Syscanners who he treats as a subset of VFM churn. He considers that Merlin will have some impact on Home Moving churn and will have very little impact on Customer Service churn.

### **Self Service**

2043. Helen Jenkins considers that Self Service will have the biggest impact on Customer Service churn, some impact on VFM churn and none on Home Moving or Syscan churn. Merlin Stone has estimated the impact of Self Service by assigning a 20% uplift to the saveability of certain particular reasons for churn.

### **Case Management**

2044. Sky's case is that Element 15 alone will deliver the business benefits associated with Case Management. Merlin Stone has assumed a much wider functionality than Element 15 and has assumed that Case Management functionality is available in relation to all types of enquiry, not just Technical Enquiries.

### **Saveability of Cuscanners**

2045. The experts have approached the saveability of Cuscanners in similar ways. However there are two particular differences in approach which need some initial consideration. The foundation for the analysis has to be some data from which it can be seen why customers churn. Merlin Stone has used Tracker Reports. Helen Jenkins has used reports referred to as "State of the Nation" reports. In addition, Helen Jenkins has chosen to divide customers between "Basic" and "Premium" customers dependent on their subscriptions. I shall now consider these differences. There is also one particular matter relied on by Helen Jenkins. She says that there should be an adjustment to the Cuscan figures because 2% of those cancelling will do so as a result of the death of a customer and that category is not saveable. In addition, I have formed certain views about the percentages which the experts have used.

### **State of the Nation and Tracker Reports**

2046. In order to analyse the reasons why customers became Cuscanners, the experts have had to use data produced by Sky which sets out those reasons. When a customer calls in codes are entered by the CA which categorise the reason given



- by the customer. Both experts consider that the reason entered by the CA may not be accurate: the customer may not wish to give the real reason for cancelling or the CA may, in the short conversation, not properly classify the reason.
2047. Merlin Stone has therefore relied on the information given from Tracker Reports which were produced for Sky by Simons Priest Associates from January 2002 to September 2006. The methodology used to produce the Tracker Reports was that market researchers telephoned customers who had left Sky within the previous four weeks and asked them if they had to give a single reason for cancelling their subscription to Sky, what would it be. The answers given by the customers were summarised and then allocated to one of a number of pre-defined reasons by coding them according to a coding sheet. A table was then produced allocated the number of answers to each of the Tracker Reasons. A monthly Tracker Report was then prepared.
2048. These Reports were replaced by the "State of the Nation" Reports with effect from the first quarter of 2006. At that stage, they became quarterly reports rather than monthly reports; the reasons were grouped into 13 categories ("SOTN Categories") and the tables showed the 13 SOTN Categories and the sub-reasons.
2049. Helen Jenkins initially used just the quarterly SOTN Reports which began in 2006. She relies on the 13 SOTN Categories but has split the SOTN Category referring to "Lifestyle Changes" into two, removing the Tracker Reason that related to Home Moving to form a further category, making 14 categories in total. As set out in her revisions dated 28 April 2008, she then used the tracker data and constructed the SOTN Categories for the earlier period from that tracker data.
2050. Whilst the experts have used different data I do not consider that this has any significant effect on the outcome of the analysis. As set out below, I deal with both the Tracker Reasons and the SOTN Categories when considering the relevant aspect of churn reduction. However, the convenient way to summarise the position is by the State of the Nation Categories. Having considered the approach of Helen Jenkins to the assessment of the percentages for each SOTN, particularly in the light of the use of a complete data set, I accept that those percentages form a reasonable basis for assessing the overall churn figure.

### **Premium and Basic Customers**

2051. Helen Jenkins considers that the CRM system is likely to have a differential impact on basic and premium churners, depending on their reasons for churning. Her definition of "Basic" includes all subscribers who subscribe only to any combination of basic channels, while "Premium" includes subscribers to any of the premium channels. She says that, for example, the CRM system is more likely to be able to save a premium churner with "poor perceptions of value" than a basic churner because the CA has more options for downsizing the premium customer: She has accordingly sought to assess the impact of the system separately for each category of churner and each churn reason.

2052. Merlin Stone has not differentiated between basic and premium subscribers but recognises that the Actual CRM System may have a different effect according to the package that a subscriber has purchased but he does not agree with the distinction made by Helen Jenkins.
2053. I have come to the conclusion that whilst, in principle, a distinction between basic and premium packages might prove useful in analysing the different behaviour of customers, in practice it is not possible to make a proper analysis on the available data. Further, the method of assessment is not sufficiently sensitive or accurate to be able to differentiate between the two categories.
2054. First, the distinction between Premium and Basic groups all subscribers to premium channels together although the churn behaviour of movie subscribers was different to that of Sports subscribers, as is the churn of those with premium channels added to the package. Secondly, as Helen Jenkins says at paragraph 4.45 of her first report, unfortunately, she has no information to assess whether the reasons subscribers churn differ depending on whether the subscriber was basic or premium. She has therefore used the same proportions for basic and premium subscribers. Since the relevant data is not available there is little point in making the distinction.
2055. Thirdly, Helen Jenkins has had to make the general assumption that subscribers giving any reason for leaving are split between Premium and Basic subscribers in the same ratio as such subscribers are represented generally among Sky's customer base. Where she has not done so, I am not persuaded that the distinction can be made. Finally, I am not persuaded that because of the lack of relevant data and the need to make simplifying assumptions, the distinction will make any significant overall difference to the outcome of the analysis. So far as the assessment of quantum is concerned, I consider that an average contribution can be applied to deal with the fact that the premium and basic customers make different contributions.

**Death of a customer**

2056. Helen Jenkins has excluded 2% of customers from her calculations of Cuscan on the basis that deceased customers represent about 2% of overall cancellations. She says that dead people will not have follow up surveys and so tracker surveys cannot be relied upon. Merlin Stone disagrees and says that a subscription need not be cancelled in the case of death. The person who contacts Sky will self-evidently not be the customer but a household member and similar issues will arise such as right sizing for the household. He also points to the evidence of Jo Ashcroft who said that dead customers do apply for new subscriptions and this is referred to the "Lazarus phenomenon". She also set out the reasons why some customers might cite death as a reason to avoid having to explain cancellation. Merlin Stone also says that many deaths will lead to Syscan. For these reasons he says that he is content to assume that death as a reason would be picked up in the "Change of Lifestyle" category in the SOTN Reports.

2057. I have come to the conclusion that, whilst death might appear to be a situation where the customer would not be saveable, the position is not so straightforward. There is evidence from Jo Ashcroft that 1,900 of 26,000 cancellations with death as a reason are still active and there is the uncertain area where death might be incorrectly cited as a reason or where the Lazarus Phenomenon might apply.
2058. Whilst, therefore, the death of a customer might lead to a Syscan or a Cuscan, I see no reason to exclude a percentage for this reason. Some will come within the number of general Syscanners and some will be Cuscanners who are saved because another member of the household takes over the subscription or some other reason leads to it being active. In the circumstances, I see no reason to exclude a small percentage of Cuscanners who give death as a reason from the overall analysis.

**Percentages used by the experts**

2059. I have considered the approach of the experts to the assessment of the percentages to be applied in arriving at the saved in practice figure for churn. Merlin Stone uses figures of up to 80% as saveable percentages and increases these to 96% for cases where Self Service applies. I regard that level of saveability as not being justified on the basis of any of the causes of Churn which are relied on. It seems to me that much lower figures of saveability will apply to each of the reasons and I am not persuaded that any reasoning given by Merlin Stone has justified those figures. Merlin Stone has then applied a percentage of those saveable who will be saved in practice. This depends on the effect of the functionality and he has used a figure of up to 60%.
2060. Helen Jenkins has adopted a lower figure for the saveability based on saveability related to the particular functionality but has applied a constant 60% factor to arrive at the saved in practice figure.
2061. Sky criticise the approach of Helen Jenkins and say that the basis for her assessments is an erroneous use of a figure of 5% as the saveability to be derived from Merlin. This issue was raised by Merlin Stone and is relied on by Sky in their closing submissions. Sky say that the 5% figure derived from the view expressed by John Ramdenee in paragraph 9 of his first witness statement where he refers to business case assumptions which were that 1 in 20 would be saved as a result of the NBAs suggested by Merlin to the CA during a call.
2062. Sky say, relying on Merlin Stone's evidence in paragraphs 114 to 118 of his second report, that Helen Jenkins' use of this as a 5% saveability is in error for two reasons. First, the 1 in 20 is a saved in practice figure so that the saveability should be over 8% to take account of the 60% factor applied by Helen Jenkins to derive a saved in practice figure. Secondly, they say that she has only taken account of the effect in limited SOTN Categories and that the 1 in 20 was an overall effect, so that if it were limited to particular categories the figure should be higher.

2063. Helen Jenkins evidently considered the evidence given by John Ramdenee and relied on it in her first report. However, she acknowledges that by limiting it to certain categories she is reducing the figure but in the light of her view derived from the Merlin Pilot she considered that her approach was generous. Helen Jenkins then, in her second report, gave further consideration to Merlin and carried out an analysis of the effect of NBAs based on the available data and taking account of the results of a customer survey. She concluded at paragraph 4.91 where she states:

*“Thus I consider my original estimates of the impact of Merlin to be sound and, if anything, generous. For a number of categories of churn, I found that Merlin would have a small positive impact. It may assist particularly inexperienced CSRs and may contain some more sophisticated customer-specific targeting than can be achieved by other means. The reports that are produced may assist Sky in developing and targeting new NBAs (assuming the recorded outcomes are accurate). However, in my view, a significant proportion of any churn-reducing benefit that arises from the current NBAs would have been available without the implementation of the CRM.”*

2064. Sky say that by the time that Helen Jenkins gave evidence, she was no longer able to rely on the customer surveys and had further information about the effectiveness of NBAs. They say that the 5% figure for Merlin is therefore too low to take account of the effect of Merlin, the potential effect and the ability to change strategies based on the new data capture and reporting facilities.

2065. I do not accept those criticisms. The assessment of the effect of Merlin or any other part of the CRM System or the three enhancements is difficult. It depends on an expert opinion based on the available information. She did not rely solely on the 1 in 20 from John Ramdenee but came to the view that 5% derived from that and applied as she applied it was a generous allowance. I found Helen Jenkins’ evidence much clearer and more firmly based on available evidence. Whilst, I accept that Merlin Stone has more experience of CRM Systems, I did not find his articulation of his views on percentages convincing or to be firmly based on an analysis of the available evidence.

2066. I therefore prefer the approach of Helen Jenkins and consider that the percentages used by her are closer to the figures that I would expect to apply and that a 60% factor is appropriate to reach the saved in practice figure. She has, though, in my view underestimated her figures in a number of cases and I have adjusted these figures to take account of the matters raised by Merlin Stone and Sky. Whilst I have adopted the general approach of Helen Jenkins to percentages I have, as set out above, sought to relate my percentages to the functionality that was within scope.

## Home Moving

2067. The experts identify Home Moving as a reason for a customer to churn. Merlin Stone relies on the Tracker Reasons “moved/moving houses” and “going away/away” whilst Helen Jenkins refers to the equivalent State of the Nation category D “Change in Lifestyle (Home Moving)”.
2068. Merlin Stone is of the view that the Actual CRM System gives rise to a 2.1% reduction in churn, whilst Helen Jenkins’ opinion is that the figure should be 0.2%.
2069. The importance of home moving in terms of churn is that when a customer moves there is an opportunity for the customer to decide whether they wish to continue with Sky. That decision will be based on a number of factors. First, the customer will review whether the service received from Sky has been acceptable. This therefore is linked to the general topic of Customer Service churn. Secondly, the customer will consider whether they are receiving value for money in terms of their subscription. Again, this is linked to the general topic of Value for Money churn. Thirdly, the customer will also take account of the particular service that it has received in relation to moving home. It is to be noted that Sky has deliberately implemented a system where customers have to make a call to Sky when moving home moving and cannot carry out this operation by using a self service system.
2070. Merlin Stone has arrived at a saveability of 80% to which he has added a 20% self-service uplift. With the 60% factor this has led him to 57.6% saved in practice.
2071. Helen Jenkins has arrived at a saveability of 9.5% leading to a saved in practice percentage of 5.7%. Her 9.5% was derived from 2% as a result of general improvements in the Actual CRM such as the sort function, the better integration of FMS, management reporting and improved usability which would improve customer service. To this she added 5% for Case Management which she said would enable a case to be opened when a customer makes a first call to indicate that they are moving and could be closed once there was a successful transfer and installation at the new address. Finally, she added 2.5% on the basis that from the survey evidence 42% (“reassess once moved”, “go to a competitor” or “other”) might be saveable through Merlin and that a 5% save rate should be used for the impact of Merlin on reducing churn by improving the way in which products are presented to the customer by the CAs.
2072. In closing submissions, Sky accepted that it was inappropriate for the Self Service uplift to be applied to arrive at the saveability as there was no self service functionality which applied to the process and Sky accepted that Merlin Stone had misunderstood that a customer could change his move date using self service. Equally, EDS accepted a point made in Sky’s closing, but not put to Helen Jenkins, that she would have to adjust her 9.5% to take account of the fact that 23% of reasons given by Home Movers were financial for which she now

assessed the saveable effect at 5%. This would increase her 9.5% by an additional 1% (5% of 23%) to 10.5%.

2073. The experts rely on two pieces of information which reflect on Home Moving churn. First, a December 2006 document produced by Clarity Blue and referred to as a Homemover Diagnostic in which that organisation analysed the position at the stage when people moved home and reviewed strategies for Sky to deal with it. This included the implementation of a dedicated Home Moving Team which was subsequently adopted by Sky. As part of the analysis they set out underlying reasons why customers considered leaving Sky at the point of moving home. These were, it seems, taken from the Boston Consulting Group document referred to below: Financial 23% which were broken down into various reasons which, as Merlin Stone said, were similar to Value for Money reasons; Product no longer meets needs 17%; Can't have at new home 18%; Go to competitor 6%; Reassess once moved 11%; Customer Service issues 2%; Technical issues 3% and Other 20% against which Clarity Blue stated that "*at least a third of these causes of cancellation should be addressable*".
2074. Secondly in a document produced by Boston Consulting Group on 12 October 2006 in relation to Project Carlsberg that organisation stated that "Homemover experience has no influence on churn", noting that "Easy Homemove and Hard Homemove exhibit the same churn patterns." They also noted that 50% of customers rated Sky's Homemover experience as better than other companies and 41% rated it as comparable. It was also stated that home-movers who churned cited reasons for churning as being those set out above in the Clarity Blue report.
2075. It is evident from Merlin Stone's letter of 8 October 2007 in which he corrected his evidence on Home Moving that this was an aspect which he did not fully understand at the time of his first report. In that letter he also identified that one of the limitations was that the MIDAS database associated with the DCMS could not record two addresses at once. I am not persuaded that this limitation on the MIDAS database is something that was caused by the DCMS but rather I accept the evidence given by Neil Spencer-Jones that this could have been overcome by Sky without difficulty.
2076. I consider that the main churn reduction benefit of the Actual CRM System is its ability to deal with concerns as to Value for Money and Customer Service issues during the period of the customer's subscription so that the customer does not use the home move as an opportunity to churn. There is also some benefit in being able to avoid re-keying in the customer's number and address into the FMS and DCMS, although I accept that this was limited because the FMS had an integrated address checker and there is no evidence that this was a problem. Indeed there seems to be only 2% churn because of a problem with the home moving process.
2077. In terms of figures, I found it difficult to understand how Merlin Stone could maintain his figures when his understanding of the Sky home moving process evidently changed dramatically. Indeed Sky themselves now accept that Merlin

Stone misunderstood self-service functionality and this has led to Sky no longer relying on the 20% self-service uplift. I have preferred the approach of Helen Jenkins but consider that her percentages need to be increased to take account of Sky's submissions. I consider that her estimate for the core Actual CRM System of 2% is low and should be increased to 5% to reflect improvements in navigability, the integration of the FMS and the ability to use data for management reporting. I also add 0.5% for the "financial" correction made in EDS' closing submission. I see no reason to change her percentages of 2.5 % for Merlin, other than to increase it by 0.5% to 3% for the "financial" correction, or to change her 5% for Case Management. Overall therefore I have assessed the percentage saveable as 13.5% (5.5% + 3% + 5%) which at 60% saved gives a saved in practice percentage of 8.1%.

2078. I consider in summary that the relevant saved in practice figure would be 3.3% for the Actual CRM System, 1.8% for Merlin and 3% for Case Management, making the total of 8.1%.

### **Value For Money**

2079. The experts both identify Value for Money as a reason for a customer to churn. Again Merlin Stone relies on the Tracker Reasons whilst Helen Jenkins refers to the equivalent State of the Nation categories.

2080. Merlin Stone is of the view that the Actual CRM System gives rise to a 5.6% reduction in churn, whilst Helen Jenkins' opinion is that the figure should be 1.1%.

2081. The main debate between the experts is the extent to which customers who cite Value for Money reasons can be saved. It is evident from paragraph 95(b) of his first report and his answer to question 10 of his CPR Part 35 responses that originally Merlin Stone concentrated on price and product as influencing a customer's perception of value for money. However, in his second report he broadened out the aspects which influenced that perception and included image and communication as being factors which could have a positive impact. Equally, if there is poor service quality or the customer feels that they are not being valued as a customer then these aspects can have a negative impact on the perception of Value for Money. In his evidence he accepted that, in cases of affordability, price and financial circumstances are more important.

2082. Whilst perception of Value for Money is an important aspect in relation to churn, I accept EDS' submission that the main factors will be price, content, competition and financial circumstances. That is not to say that other factors such as image and communication with Sky will not be relevant to the perception of Value for Money and customer satisfaction, but any reduction of churn must take account of the limitations imposed by the main factors. Indeed Merlin Stone has assessed that 30% of the customers who might churn for Value for Money reasons would be saved by the CRM System, compared to 60% for Customer Service or Home

Moving because *“this area of possible churn reduction is highly contingent on Sky’s success in focusing its efforts on adjusting its packages, products and offers to retain those most likely to churn, and in addressing the constant challenges of competition.”*

2083. I shall address the various reasons for leaving which have been considered by the experts in relation to Value for Money.

### **Subscription Fee Issues**

2084. This forms category A of the State of the Nation reports relied on by Helen Jenkins and is equivalent to “Monthly fee too expensive”, “should pay only for what you watch”, “continuous price rises” and “equipment too expensive” tracker reasons relied on by Merlin Stone.

2085. Helen Jenkins differentiates between Basic and Premium Customers. She considers that 5% and 7.5% are saveable, that self-service is not relevant and that with 60% saved in practice this gives 3% and 4.5% saved in practice. Merlin Stone has different percentages for three tracker reasons:

- (1) For “monthly fee too expensive” he says that 60% are saveable. With a 20% uplift for self-service this gives 72%. Using his figure of 30% saved, this leads to 21.6% saved in practice;
- (2) For “should pay only for what you watch” he says that none are saveable;
- (3) For “continuous price rises” he says that 40% are saveable. With his figure of 30% saved, this leads to 12% saved in practice; and
- (4) For “equipment too expensive” he says that 80% are saveable. With a 20% uplift for self-service this gives 96%. Using his figure of 30% saved, this leads to 28.8% saved in practice.

2086. As set out above, I do not consider that the division between premium and basic is appropriate. In addition, it is clear that the most significant tracker reasons in terms of the number of people who give those reasons are “monthly fee too expensive” and “continuous price rises”. Given that fact and the broadly phrased tracker reasons, I am not persuaded that there is any overall advantage in dividing Subscription Fee Issues into sub-categories.

2087. In relation to Self Service, whilst I accept that during the customer lifecycle, customers might use self service to upgrade or switch to direct debit, I do not consider that the availability of self service is likely to improve the overall churn of customers who have Subscription Fee Issues. Any perception of Value for Money that might have been derived by the earlier use of Self Service would not, in my judgment, impact on those customers who gave such reasons for ceasing to subscribe.



2088. For this category of Cuscan, the impact of the CRM System will be upon matters which affect the perception of Value for Money. I consider that Merlin Stone's assessments of 21.6%, 12% and 28.8% are too high. Equally, though, I do not think that Helen Jenkins' figures reflect the functionality in element 7 (offer eligibility) or element 2 (navigation) which would allow offers to be more accessible and enable the CAs to move around the screen quickly, see the customer's history and make appropriate offers. Equally, the ability to use the data captured in elements 5 and 13 for the effective management of offers is of importance. As set out above I do not accept that Self-Service will assist in reducing churn. On this basis I consider that Helen Jenkins' figure of 2.5% for the core CRM System is too low and that a figure of 5% is more appropriate. On the data available I consider that a figure of 5% for all customers for the impact of Merlin would be appropriate. Thus I consider that the appropriate figure is 10% saveable which, with the 60% factor, gives 6% saved in practice.
2089. I consider in summary that the relevant saved in practice figure would be 3% for the Actual CRM System and 3% for Merlin, making the total of 6%.

#### **Change in Financial Situation**

2090. This forms category B of the State of the Nation reports relied on by Helen Jenkins and is equivalent to the "Change in financial/employment circumstances/could not afford" tracker reason relied on by Merlin Stone.
2091. Helen Jenkins assesses this category at 0% for basic customers and 5% for premium customers which at a factor of 60% gives 3% saved in practice for premium customers. Merlin Stone assesses this category at 40% saveable with a 30% factor giving 12% saved in practice.
2092. Helen Jenkins considers that apart from premium customers who can downsize their subscription, for which she allows 2.5 % for the Actual CRM System and 2.5% for Merlin, there is no possibility of saving other customers. Again, I do not consider that 40% of this category can be said to be saveable, as Merlin Stone says but, equally, I think that, on Helen Jenkins' analysis, the impact of the general functionality of the Actual CRM System and Merlin is low. By applying her figures to both basic and premium customers, then I consider that a 3% saved in practice for all customers properly reflects the impact of that functionality. I accept her division between the effect of the Actual CRM System and Merlin.
2093. I consider in summary that the relevant saved in practice figure would be 1.5% for the Actual CRM System and 1.5% for Merlin, making the total of 3%.

#### **Technical Issues (Part)**

2094. This forms category H of the State of the Nation reports relied on by Helen Jenkins and is equivalent to the "Equipment too expensive (cost of replacing faulty box)" tracker reason relied on by Merlin Stone.

2095. Helen Jenkins assesses this category at 12.5% for basic and 20% for premium customers. With the 60% factor this gives 7.5% and 12% saved in practice. Merlin Stone assesses this category “equipment too expensive (cost of replacing faulty box)” as 80% saveable with a 20% uplift for self-service, giving 96%. When his 30% factor of saved from saveable is taken into account the result is 28.8% saved in practice.
2096. I consider that the Actual CRM System and the Enhancements will not be able to save 28.8% as assessed by Merlin Stone. Whilst improved knowledge, better access to offers and being able to provide a better fault service will have some effect, the free service call available in Turnaround will be likely to have most effect. On this basis I do not consider that the saved in practice will exceed Helen Jenkins’ assessment of 12% for premium customers but this figure should apply to all customers. I accept that 2% will be attributable to the KMS (to take account of the limited effect of the later integration of the KMS), 10% to the Actual CRM System and 5% to Case Management.
2097. I consider, in summary, that the relevant saved in practice figure would be 1.2% for KMS, 6% for the Actual CRM System and 3% for Case Management, making the total of 10.2%.

#### **Poor Perception of Value**

2098. This forms category J of the State of the Nation reports relied on by Helen Jenkins and is equivalent to the “Poor value for money” tracker reason relied on by Merlin Stone.
2099. Helen Jenkins assesses this category at 7.5% for basic and premium customers although the individual components of that figure vary for the two types of customer. With the 60% factor this gives 4.5% saved in practice. Merlin Stone assesses this category as 60% saveable with a 20% uplift for Self Service, giving 72%. When his 30% factor of saved from saveable is taken into account the result is 21.6%.
2100. Helen Jenkins considers that the poor perception of value is likely to be because of programme and channel content particularly in the context of price increases. She considers that all customers would benefit from the Actual CRM System and has attributed 2.5% for this. In relation to Merlin, she has assessed an increase of 2.5% for Basic customers and 5% for Premium customers. She also allows 2.5% for Self Service for Basic customers on the basis that they might resolve the poor perception of value by an upgrade.
2101. Again, I consider that the Actual CRM System and the Enhancements have a more limited impact than would be represented by the 72% assessed by Merlin Stone. For similar reasons to Subscription Fees Issues I consider that Helen Jenkins’ figures need to be increased for the core Actual CRM System and I increase the impact to 5% for all customers. I also allow 5% for all customers for

the effect of Merlin. So far as Self Service is concerned, I consider that the ability to carry out actions by self service would have a potential impact on all customers and I increase Helen Jenkins' 2.5% to 5% for all customers. Overall, the figure is therefore 15% saveable. With a 60% factor this gives 9% saved in practice.

2102. I consider in summary that the relevant saved in practice figure would be 3% for the Actual CRM System, 3% for Merlin and 3% for Self Service, making the total of 9%.

#### **Contractual Account Issues (Part)**

2103. This forms category L of the State of the Nation reports relied on by Helen Jenkins and is equivalent to the "Other price/expense reason (end of special offer)" tracker reason relied on by Merlin Stone.
2104. Helen Jenkins assesses this category at 25% for both basic and premium customers. With the 60% factor this gives 15% saved in practice. Merlin Stone assesses this category as 80% saveable with a 20% uplift for self-service, giving 96%. When his 30% factor of saved from saveable is taken into account the result is 28.8%. He says that, like the reason that the monthly fee is too expensive, this can be resolved by better packages and by self-service.
2105. Helen Jenkins considers that the increased functionality around customer history and, in particular, case management and the ability to view billing information on line may reduce churn in this category. She does not consider that there is any difference in basic and premium customers. She assesses 5% for the core Actual CRM System, 10% for Case Management and 10% for Self Service.
2106. I consider that Merlin Stone's figures are too high and that Helen Jenkins' figures properly reflect the functionality. Thus I consider that the appropriate figure is 25% saveable which, with the 60% factor, gives 15% saved in practice.
2107. I consider in summary that the relevant saved in practice figure would be 3% for the Actual CRM System, 6% for Case Management and 6% for Self Service, making the total of 15%.

#### **Summary of Value for Money**

2108. In summary the figures for Value for Money are Subscription Fee Issues 6%; Change in Financial Situation 3%; Technical Issues (Part) 10.2%; Poor Perception of Value 9% and Contractual Account Issues (Part) 15%.

#### **Customer Service**

2109. The experts identify Customer Service as a reason for a customer to churn. Again, Merlin Stone relies on the Tracker Reasons whilst Helen Jenkins refers to the equivalent State of the Nation categories.

2110. Merlin Stone is of the view that the Actual CRM System gives rise to a 2.5% reduction in churn, whilst Helen Jenkins' opinion is that the figure should be 0.9%.
2111. The main debate between the experts is the extent to which the CRM System can improve various categories of customer service.
2112. I shall address the various reasons for leaving which have been considered by the experts in relation to Customer Service.

### **Service Issues**

2113. This forms category F of the State of the Nation reports relied on by Helen Jenkins and is equivalent to "Poor customer service from installer/sales person/customer service"; "Did not/slow to sort out problem" and "other Customer service issues" tracker reasons relied on by Merlin Stone.
2114. Helen Jenkins considers that 27.5% of all customers are saveable, including 5% for self-service and that with 60% saved in practice this gives 16.5% saved in practice. Merlin Stone has different percentages for three tracker reasons: "Poor customer service from installer/sales person/customer service" and "Did not/slow to sort out problem" are 80% saveable, with a 20% uplift for self-service giving 96% saveable, which at his figure of 60% saved results in 57.6% saved in practice; "other Customer service issues" is 60% saveable which with a 20% uplift for self-service gives 72% saveable and applying 60% saved results in 43.2% saved in practice.
2115. Again, I consider that Merlin Stone has adopted figures that are too high in relation to these service issues. I consider that Helen Jenkins' figures are likely to be closer to reality but equally, there are certain aspects of her analysis which do not properly take into account the indirect impact of the Actual CRM System, improving soft skills, on issues with installation and equipment. Whilst I accept Helen Jenkins' figures of 5% for Case Management and Self-Service, I consider that the figure for the KMS should be reduced to 2% and for the core CRM System should be increased from 10% to 15% and Merlin from 2.5% to 5%. This gives a saveable figure of 32% which at 60% gives 19.2% saved in practice.
2116. I consider, in summary, that the relevant saved in practice figure would be 1.2% for the KMS, 9% for the Actual CRM System, 3% for Merlin, 3% for Case Management and 3% for Self Service, making the total of 19.2%.

### **Technical Issues (Part)**

2117. This forms category H of the State of the Nation reports relied on by Helen Jenkins and is equivalent to "Problems receiving a signal/poor reception" and "Faulty equipment/technical problems" tracker reasons relied on by Merlin Stone.

EDS also include “Equipment too expensive” as a tracker reason here but I have dealt with it under Subscription Fees Issues in Value for Money above.

2118. Helen Jenkins differentiates between Basic and Premium Customers. She considers that 12.5% and 20% are saveable, that Self Service is not relevant and that with 60% saved in practice this gives 7.5% and 12% saved in practice. Merlin Stone has different percentages for two tracker reasons: “Problems receiving a signal/poor reception” is 50% saveable which at 60% gives 30% saved in practice and “Faulty equipment/technical problems” is 70% saveable, with a 20% uplift for self-service gives 84% which at 60% results in 50.4% saved in practice.
2119. Again, I do not consider that Merlin Stone’s figures are justified but prefer the figures of Helen Jenkins with some adjustments to take account of the points raised by Sky. There will obviously be some technical problems which are not amenable to resolution and where therefore there will be no improvement in the overall result compared to the DCMS. There will however be improved reaction to technical queries because of knowledge of the customer history and improved navigation in the core functionality of the Actual CRM System. In relation to this aspect, as set out above, I do not consider it appropriate to make a distinction between Basic and Premium customers. Self Service over the period when the customer subscribes to Sky will reduce churn although I accept that, in the end, serious technical problems will not be resolved by this route. I also consider that Merlin will have some impact in seeing whether there are repeated Syscan or Cuscan issues which will inform the CA and allow the customer to be managed more effectively.
2120. I reduce Helen Jenkins’ figure to 2% for KMS, I apply 15% for all customers for the Actual CRM System, 2.5% for Merlin, 5% for Self-Service and 5% for Case Management. This gives 29.5% saveable with a figure of 17.7% for saved in practice based on the 60% factor.
2121. Overall, in summary, I consider that the figure for saved in practice should be 17.7%, made up of 1.2% for the KMS, 9% for the Actual CRM System, 1.5% for Merlin, 3% for Self Service and 3% for Case Management.

#### **Summary on Customer Service**

2122. In summary the figures for Customer Service are Service Issues 19.2% and Technical Issues (Part) 17.7%.

#### **System Cancellation or Syscan**

2123. The process which Sky applies to customers whose subscriptions are cancelled by Sky was set out at paragraph 39 of the second witness statement of Mark Anderson. In summary, if a customer misses payment then after a number of days they are given a status known as “active block”, which results in their Sky TV channels being “blue screened”. Unless the customer pays their outstanding balance within 35 days after they go into “active block” (49 days for invoice

customers) their subscription is terminated. Between 45% and 55% of customers who enter “active block” are terminated. Sky has a “winback” programme for such Syscanners who have been terminated within the last 12 months. Recently they have changed their policy and do not attempt to win back customers with more than one previous Syscan event.

### **The issues on Syscan**

2124. The main difference in view between the churn rate experts in relation to Syscan is whether, as Helen Jenkins says, Syscanners as a group have different characteristics to Cuscanners and are not amenable to being saved at all by the CRM system or whether, as Merlin Stone says, Syscanners are essentially similar to Cuscanners who are undergoing a change in their financial circumstances and can be saved in the same way as such churners.
2125. One particular issue is whether in fact a proportion of Syscanners are actually customers who choose to cancel their direct debits as a way of cancelling their subscriptions. These customers would then be Cuscanners and, although they would appear within the group of Syscanners, they are in fact and have been referred to as “Hidden Cuscanners”. I shall deal separately with this particular issue of Hidden Cuscan.
2126. The issues which divide the experts are therefore:
- (1) To what extent are there Hidden Cuscanners within the Sycanners? If there are Hidden Cuscanners how should they be assessed?
  - (2) To the extent to which there are Syscanners who are not Hidden Cuscanners, how should they be assessed?
2127. I deal first with general Syscanners who are not Hidden Cuscanners.

### **General Syscanners**

2128. In relation to general Syscanners Helen Jenkins considers that the limited functionality improvements in the Actual CRM System cannot save these customers because it will not affect the underlying cause which is that a person cannot pay their bill. She points out that there will only be any contact with Sky after Sky terminates the customer’s service if the customer calls in. She also says that Sky does not seem to wish to retain these churners as evidenced by Sky’s decision to exclude customers from “winback” with more than one Syscan event. She also considers that neither Merlin nor Case Management have any additional functionality designed to encourage customers to pay their bill.
2129. She has considered the suggestion that the NBAs in Merlin of “set up direct debit” and “change bill date” would assist in reducing Syscan, as suggested by Simon Montador at paragraph 37 of his second witness statement but in paragraph 5.13 of her second report has noted that Syscanners tend to be customers who pay by

invoice and so have already elected not to pay by direct debit. She referred at paragraph 5.40 of her second report to the suggestion by Mark Anderson at paragraph 48 of his second witness statement that right sizing may help to save Syscanners but she says that once a customer is in Active Block, no relevant NBAs are triggered in Merlin even if the customer calls in. She disagrees that the service and loyalty messages which Merlin prompts to the CA are likely to have an effect on Syscanners as they tend to have no service issues and to be loyal Sky customers.

2130. Helen Jenkins referred to a number of Sky initiatives to improve Syscan churn but said that many of these pre-dated the CRM system, such as trying to persuade invoice customers to move to payment by direct debit and other, more recent, initiatives reflect changes in business strategy which are not CRM dependent, such as the recent decision referred to by Mark Anderson at paragraph 39 of his second witness statement to shorten the period during which the customer is in Active Block and to reduce the amount of debt which Sky is willing to roll over on re-instating a Syscanner.
2131. EDS refer to Merlin Stone's view in his first report where he assumed that the CRM system would only deliver benefits in terms of saving Cuscanners and say that he did not initially hold the view that any Syscanners would be saved by the CRM system. Helen Jenkins noted at paragraph 7.29 of her first report that Merlin Stone had not assessed the category of Syscan churn because he had based himself on the Sky Tracker reports which only gave reasons for Cuscan churn. She noted that Merlin Stone had applied figures derived from the Sky Tracker reports to the entire churn base and pointed out that the effect of this was to overstate the claim by 40% as approximately 40% of gross churn is Syscan churn. This led to a comment by Merlin Stone at paragraph 33 of the First Joint Memorandum that:

*“Dr Jenkins has analysed churn by differentiating customers who cancel voluntarily (“cuscan”) from customers who are terminated by Sky’s system automatically (“syscan”). She finds that 40% of churn is due to terminations and this is likely to continue in the future. Professor Stone is not persuaded of the need to differentiate on this basis but has agreed to consider this in his supplemental report.”*

2132. Merlin Stone said at paragraph 73 and 74 of his second report that he was in error in applying his saved percentages to the total net churn figures in his first report, because he had assumed that the churn rate figures he was working on were only Cuscan figures. EDS say that Merlin Stone's explanation was inconsistent with his previous statement which gave the impression that Merlin Stone had intended to consider Syscan in his first report. In oral evidence on Day 91 Merlin Stone said that he had been confused about his instructions at the time of his first report and thought he was supposed to be considering Cuscan only. He also said that at the time of his first report he had sought clarification of the breakdown in the churn numbers provided to him between Cuscan and Syscan and whether he was

supposed to be dealing with them both. He said that he had made an error in applying a Cuscan proportion to figures for Cuscan and Syscan.

2133. I have to say that I found Merlin Stone's explanation difficult to understand. He was obviously not experienced in giving evidence and did not seem to be aware of the importance of ensuring that any errors, which are understandable in these complicated subjects, are made clear and the cause of the error is fully explained. Merlin Stone's varying explanations were neither clear nor full. I was left with the impression that he had not properly understood the difference between Cuscan and Syscan when he prepared his first report.
2134. Merlin Stone at paragraph 79 and Appendix 1 to his second report considers that Syscan churn can be reduced by a number of features of the CRM System such as by "right sizing" the customer's package from an early stage, by persuading the customer to switch to direct debit and by enabling the customer to change their payment date.
2135. In his second report at paragraph 80 Merlin Stone applied the same saveability and saved percentages to Syscanners as he applies for the "change in financial/employment circumstances/could not afford" category of Value for Money Cuscanners and concluded that 40% are saveable and that 30% will be saved, arriving at a final percentage of 12%.
2136. EDS refer to Sky's policy not to win back customers who have Syscanned more than once and say that Merlin Stone's calculations of the saveability of Syscanners do not take account of this and that, even on his approach, he has overstated the proportion of saveable Syscanners.

#### **The characteristics of general Syscanners**

2137. Sky rely on Merlin Stone's evidence on Day 91 when he expressed the view that Syscanners and Cuscanners are not two distinct populations and that what the CRM System can do with Cuscanners, it can also partly do with Syscanners given that there are significant groups of people who are both Cuscanners and Syscanners can. Merlin Stone also referred to the Retention Update presentation produced in January 2008 and notes the declining trend in Syscan termination and while he says that Sky had decided to be tighter on debtors, they also focused on preventing subscribers getting into debt in the first place.
2138. EDS say that a significant volume of Syscanners have had their subscriptions cancelled more than once and refer to Clarity Blue's Churn Diagnostic Initial Analysis of September 2006 at page 29 which shows that 20% of Syscanners have had their subscriptions cancelled before and this increases to 30% at a household level.
2139. EDS also refer to Arena's findings that Syscanners are generally customers in financial difficulties and this is the reason for non-payment of their subscription, either temporarily, repeatedly or for a longer period of time. Reference was also



made to Curzon's presentation "Customer Retention Project: Syscan Opportunity" which showed that invoice customers constitute a disproportionate volume of Syscanners. The presentation also showed that 32% had churned at least once previously, nearly always by Syscan; 30% churn in the first 12 months; 39% were council renters; 41% were on the top tier package and 55% were paying over £50 per month compared to 8% for Cuscanners. The conclusions were that Sky should be tougher on debt and should increase right sizing initiatives.

2140. In Sky's January 2008 Retention Update it was stated that Syscan customers were generally struggling households; that 12% of Syscanners have a County Court Judgment at a personal level or 44% at a household level.
2141. I accept EDS' submission that, in summary, the evidence shows that overall Syscanners count themselves as loyal Sky customers who would like to go on receiving the service, but have serious financial difficulties which mean they cannot afford to pay for it. Syscanners are not simply customers experiencing a one-off change in financial circumstances; they are likely to have severe, recurrent difficulties, as is indicated by the high proportion of repeat Syscan. They cease to pay not because they are discontented with Sky's products and services or with the customer service which they have received, but because they cannot afford to go on paying.

**Does the CRM system help to save general Syscanners?**

2142. Sky say that the use of the Actual CRM System will not only address the issues driving churn but also, if CAs' soft skills are improved, customers who are thinking of cancelling will be more inclined to communicate with Sky rather than simply allow/cause their payments to stop.
2143. Sky say that with DCMS, they would make pre-Syscan calls to customers once default had been made and, if an account was terminated, the "winback" team would call the customer to try to retain their custom. Sky rely on Merlin Stone's evidence on Day 91 that saving Syscanners does not depend only on measures that were taken at the point of Syscan. Sky say that with DCMS all calls were not recorded but they are now recorded on the CRM System, so that the CAs would have a better view of a customer's history and could see whether concerns about affordability were a repeated problem giving Sky the ability to analyse how effective particular strategies had been that were designed to prevent Syscan.
2144. Sky say that Helen Jenkins' view that Syscanners should be treated differently fails to take into account the fact that, on the Merlin tab, a CA can see a concise history of previous Syscan and Cuscan churn patterns, as well as reinstate events, for the previous 12 months. Sky know that Syscanners will often have been the subject of Syscan in the past and will be able to treat them appropriately. Further Sky say that Helen Jenkins has formed the incorrect view that there are no NBAs currently in use in Merlin for customers who are Syscanners because she focuses narrowly on the point when the Turnaround team are trying to prevent the

- customer from churning and she fails to consider steps that could have been taken earlier to assist people with obvious financial difficulties.
2145. EDS refer to the fact that the claim is concerned with the proportion of Syscanners who will now be saved by the use of the CRM system who would not have been saved before. They say that, as the claim is only in respect of those Syscanners who have not reinstated within the year, the relevant Syscanners are less likely to be customers experiencing temporary cashflow issues and more likely to be those customers who genuinely cannot afford to pay for the service or who are determined not to pay for it, or to pay as little for it as they can get away with. EDS say that as Syscan churners are not discontented with what Sky offers them, but in financial difficulty, there is not a lot which Sky can do, which they had not done previously, to address their difficulties using the CRM System.
2146. EDS also refer to the fact that before the implementation of the CRM system Sky had a “winback” team to persuade both Cuscanners and Syscanners to reinstate their Sky subscription. They refer to a presentation “Customer Retention: a New Approach” of November 2005 which noted Sky’s success in managing churn but said they needed to become more pro-active leading to a number of retention programmes including “pre-syscan calls” and converting invoice customers to Direct Debit. EDS refer to evidence from Mark Anderson at paragraphs 42 to 45 of his second witness statement as to how Sky is improving its processes for saving Syscan customers and say that none of those Syscan initiatives required the CRM system.
2147. EDS say that there is no evidence to suggest that Syscan churn rates have improved as a result of the implementation of the CRM system and that Merlin Stone’s reliance at paragraph 85 of his second report upon the January 2008 Retention Update as showing that Sky is getting better at saving Syscanners now that it has a good CRM system is misplaced and that it is business strategies focusing on products which have driven any improvement in churn.
2148. I consider that strategies to reduce Syscan are important and that, generally, Syscanners will not be easy to save. There are though elements of the CRM which will assist in limited ways in retaining customers who would otherwise be Syscanners, particularly, as Merlin Stone says in the earlier period prior to the time when they Syscan. I shall consider the particular methods available.

### ***Right Sizing***

2149. “Right sizing” is the policy of ensuring that a customer has a Sky subscription which matches their needs and financial ability.
2150. Sky rely on Merlin Stone’s view that right sizing under the CRM System will save Syscanners who would otherwise not have been saved. They say that right sizing customers will prevent some later Syscan by dealing with affordability issues.

2151. EDS say that right sizing is an obvious option for a CA to consider, it does not require prompting by Merlin and cannot assist a customer who genuinely cannot afford the subscription. Further EDS say that it is common ground that the Merlin Rightsize NBAs are only made available in “turnaround”, that is when a customer phones in to cancel and is referred to the Turnaround team.
2152. The underlying principle of right sizing is, I consider, an important aspect of Sky’s strategy to prevent churn. It is evident from the research set out above that Syscanners are more likely than Cuscanners to be on a high priced package and the strategy of right sizing is therefore important in preventing Syscan.
2153. However, I accept that the underlying strategy of right sizing does not depend on the Actual CRM System and that the issue is the extent to which the Actual CRM System improves the implementation of this strategy over the pre-existing system. In relation to right sizing NBAs, they only apply when a potential Cuscanner contacts Sky and will not generally be applied to potential Syscanners. They will not be applied at the point when Syscan applies. Therefore I do not consider that there is any improvement in the Actual CRM System in relation to making sure that a customer is on the right package other than the general improvement which applies to the use of the Actual CRM System during any earlier contacts with the customer which might ensure that they are on a more affordable package.

#### **Switching invoice customers to direct debit**

2154. Sky say that Merlin will increase the likelihood that customers pay their bill by direct debit because of the availability of the billing-related NBA, ‘Set Up Direct Debit’.
2155. EDS say that this is a very obvious strategy which does not depend on the implementation of the CRM system. EDS refer to the fact that Sky has for a long time been trying to move invoice customers to direct debit as John Ramdenee confirmed on Day 88. They say that this strategy continues with “set up direct debit” in the current NBA Catalogue for Customer Service. Further, EDS say that the strategy of changing to direct debit will not solve real financial difficulties.
2156. The policy of changing a customer to direct debit is again an important aspect of Sky’s strategy of reducing churn. The evidence shows that a larger proportion of Syscanners are customers who pay against an invoice and such a method of payment obviously makes it easier for a customer to avoid making payment than a method which automatically debits sums from a bank account.
2157. However, again, I accept that the underlying strategy does not depend on the Actual CRM System and that the issue is the extent to which the Actual CRM System improves the implementation of this strategy over the pre-existing system. Given that Syscanners are not generally identified at an earlier stage and that setting up a direct debit is not available when Syscan applies and, in any case, would not be effective at that stage, I do not consider that there is any improvement in the Actual CRM System in relation to trying to encourage a

customer to set up a direct debit other than the general improvement which applies to the use of the Actual CRM System during any earlier contacts with the customer which might ensure that they are on direct debit.

***Moving the payment date***

2158. Sky say that Merlin will increase the likelihood that customers pay their bill through the billing-related NBA, 'Change Bill Date'.
2159. EDS refer to Merlin Stone's view that moving the payment date to a date closer to the date when money is received into the customer's account would have an effect. EDS say that whilst he suggested that Sky had implemented a policy of attempting to persuade customers to move the payment date, he was not able to point to any relevant evidence.
2160. EDS say that "Change Bill Date" is an NBA in the current Merlin NBA Catalogue, but is only available in Turnaround when a customer contacts Sky to cancel a subscription and not in Customer Service. They say that it is therefore not a tool for pro-active churn management.
2161. I accept that the policy of encouraging a customer to pay his bill at a date closer to the date when money is received into his bank account is another important aspect of Sky's strategy of reducing churn.
2162. However, again, the underlying strategy does not depend on the Actual CRM System but the issue is the extent to which the Actual CRM System improves the implementation of this strategy over the pre-existing system. Given that Syscanners are not generally identified at an earlier stage and that changing bill date is not applied when Syscan occurs and would not be effective at that stage, I do not consider that there is any improvement in the Actual CRM System in relation to trying to change the bill date. Indeed it seems that it only applies when a customer attempts to Cuscan. If that happens then the general improvement which applies to the use of the Actual CRM System during any earlier contacts with the customer might assist in ensuring that the bill date is moved closer to the date when they receive payment.

***Customer management***

2163. Sky rely on Merlin Stone's view that early management in the lifecycle will save Syscanners who would otherwise not have been saved and that, in this way, Case Management will help save Syscanners by allowing an understanding of the history of Syscanners' interactions with Sky.
2164. EDS say that whilst the Merlin screen presents the CA, for example, with a history of previous churn by a customer, both Cuscan and Syscan, which would enable them to identify a repeat Syscanner, there is no evidence that the history function of the CRM system tells the CA that there has been a repeated history of late or missed payment. Instead, Sky uses credit data from Clarity Blue, held in the Olive database, to assess creditworthiness and takes pro-active steps by, for example, imposing a £30 installation charge. EDS say that although such

initiatives may improve retention rates, they have nothing to do with the CRM system.

2165. In response to this Sky exhibited to their response written closing submissions a screenshot of the Financial History tab from the Chordiant history function. This shows payment failure through the failure of a Direct Debit as information on the screen.
2166. The CRM System evidently allows for the better management of customers through the more complete and more easily accessible customer history available to the CA when the customer contacts Sky during the “customer lifecycle” starting from the date when the customer starts their Sky subscription. However, the effect of this aspect of the CRM System on Sycanners will depend on the extent to which they have contact with Sky between the initial subscription and the point of Syscan.

#### *Summary of effect of CRM System on Syscan*

2167. Overall, I am not persuaded that the Actual CRM System would have much of an impact on Sycanners apart for the general benefits which apply to operating with the CRM System compared to DCMS during the “customer lifecycle”. In particular, I do not consider that there is any particular change introduced by the Actual CRM System which changes the available strategies or improves the possibility that those who Syscan might be prevented from doing so.

#### **Hidden Cuscan**

2168. Merlin Stone sets out his view at paragraph 78 of his second report that a proportion of Sycanners are not unable to pay for their subscription but simply choose to bring their relationship with Sky to an end by cancelling their direct debit rather than call the call centre. In this way he says that these customers are, in fact, Cuscanners. While Merlin Stone has found no specific research to support this view, Sky say that it makes obvious sense. Sky say that research which showed that 80% of bill payment failures were reported to be due to an account having insufficient funds rather than due to the cancellation of a direct debit, implies that 20% of Syscan resulted from a deliberate act by the customer in choosing to stop the payment.
2169. Sky refer to the evidence of Helen Jenkins on Day 94 and say that she accepted that cancelling a direct debit facility was a way of terminating a subscription without the need to call the contact centre and also accepted that, if this happened, the reason they were doing it and whether they could be saved were both relevant considerations.
2170. In relation to available data Sky say that the Arena research which involved Sky trying to contact 600 Sycanners to ask why they had Sycanned, cannot be relied on in the manner that Helen Jenkins suggests. They say that of the 600 former customers the researchers were only able to interview seven, one of whom said

- they were a voluntary canceller through stopping payment. Sky submit that it could not be said that only one in 100 was a hidden Cuscanner and a figure of one in seven would be near to 20%. Overall, Sky submit that around 20% of Syscan is comprised of Hidden Cuscan.
2171. EDS say that, as accepted by Merlin Stone in his evidence on Day 91, there is very little evidence as to what proportion of total Syscan is made up of Sycanners of this nature. EDS say that the experts agree that the Arena research cannot be relied upon quantitatively. EDS refer to the Clarity Blue Churn Diagnostic which records that 80% of bill payment failures are reportedly due to insufficient funds as opposed to direct debit cancellation. EDS say that this suggests that at least 80% of Sycanners cannot afford to pay but that it does not follow that 20% of Syscan results from the customer initiating the process by cancelling his direct debit. They say that an unknown proportion of customers inadvertently Syscan because the direct debit fails for some reason other than lack of funds or because their credit/debit card has expired. EDS say that these involuntary Sycanners are likely to reinstate voluntarily once their television is “blue-screened”, either within the Active Block period or within the year following termination. EDS say that this group would not form part of the subset of Sycanners who are Hidden Cuscanners because they did not intend to break off their relationship with Sky but there is no evidence of the proportion of Syscan represented by these involuntary Sycanners or what proportion of these did not reinstate.
2172. In relation to Hidden Cuscan Helen Jenkins was cross-examined on the contents of the “Sky Churn Wheel” document and it was suggested that, as the data was said to include Syscan and indicates that 21.5% of churners churned because they moved home, then because the Sky Tracker research suggests that Cuscan churn for reasons of home moving is around 6 to 9%, there must be a significant volume of Syscan churners in the Home Move category. EDS contend that this is not correct for a number of reasons.
2173. It seems to me that some of the customers who cancel their direct debit may be people who do so as a result of moving home and they do that rather than cancelling by contacting Sky. However the figures given are not a reliable indication of the relevant percentage. The analysis which leads to 21.5% appears to include various categories where the reason for cancelling was unknown but where the relevant figure for this unknown reason was added to specific categories, including home moving. Also the Sky documents on the characteristics of Sycanners do not suggest significant volumes of Sycanners are people who are moving home. In addition, the existence of this uncertainty was the reason why Sky commissioned the Arena research. I do not consider that there is any additional allowance to be made for this uncertain category of Home Moving in relation to Sycanners who are Hidden Cuscanners.
2174. There is clearly a category of Sky customer whose subscription is cancelled by the system not because they cannot pay but because their direct debit arrangements fail. This may be either because they cancel those arrangements as a way of

cancelling their subscription instead of contacting the call centre or because the direct debit arrangements fail because of, for instance, a change of credit card or bank or some other similar reason. The Clarity Blue Churn Diagnostic document records that 80% of bill payment failures are reportedly due to insufficient funds as opposed to direct debit cancellation. The other 20% of Syscan results from other reasons which lead to a failure of the payment mechanism.

2175. I accept that within the 20% will be a number of people who choose the method of cancelling the direct debit arrangement but equally there will be some people who cancel the direct debit arrangements because they have serious affordability issues and they will not be Hidden Cusanners available to be saved. Putting a precise figure on the number of Hidden Cusanners within this particular Syscan group is necessarily difficult but I do not consider that this precludes me from making an assessment. I do not accept that it is as large as one in seven, based on the one response from the seven out of 600 who participated in the Arena survey. Neither do I think that it is anything near as low as one in 600. I see no reason why there should be more people who would deliberately cancel their direct debit to cancel their subscription compared to those who cancel it for other reasons and taking a figure at the lower end of the possible range, I assess that 6% of Syscan comprises Hidden Cuscan. It follows that the other 94% are to be treated as general Syscanners.

#### **Saveability of Syscanners**

2176. In the light of my review of general Syscan and Syscan which is Hidden Cuscan, I can now consider the saveability of those 94% who are general Syscanners and the 6% who are Hidden Cusanners.
2177. In terms of saveability, Merlin Stone considers that Syscanners are relatively unsaveable and, in the absence of a breakdown of the reasons why Syscan occurs, he treats all Syscan as he does Cuscan subscribers who cite “Change in Financial/Employment Circumstances/could not afford” in the Value for Money category as their reason for leaving. He therefore assesses that 40% are saveable and that 30% will be saved arriving at an overall figure of 12% which Sky rely on for the purpose of their calculations. Helen Jenkins has assessed that Syscanners are not saveable and therefore her percentage is 0%.
2178. It follows that Merlin Stone applies 12% saveability to all Syscanners and does not distinguish between hidden Cusanners and the other general Syscanners and Helen Jenkins does not present any figures for this aspect.
2179. EDS criticise Sky’s approach and say that the analysis should have proceeded in stages. First, EDS say that Sky should have eliminated the 20 to 30% repeat Syscanners entirely from the calculation. Secondly, EDS say that Sky should have split the general Syscanners from the Hidden Cusanners. Thirdly, they say that the saveability of each group should have been considered separately. In principle,

it seems to me that this is a valid criticism and that EDS' suggested approach would be the preferred method by which to evaluate Syscan.

2180. At the first stage I start by eliminating repeat Syscanners before applying the 6% : 94% split for Hidden Syscanners and general Syscanners. For practical purposes this category should be treated as unsaveable. On the basis that the evidence indicates that 20 to 30% of Syscanners are repeat Syscanners, I consider that the figure of 25% provides a reasonable assessment, leaving 75% to be assessed for saveability. Of the 75% then 6% of all Syscanners or 4.5% of this 75% are Hidden Cuscanners, as I have found above. This leaves 70.5% of the general Syscanners who are to be assessed for saveability as general Syscanners.
2181. I treat the Hidden Cuscanners as equivalent to relatively saveable Cuscanners who I have assessed with a saved in practice percentage of 9% derived from my analysis of poor perception in value above but to take account of the range of reasons which might apply. The general Syscanners have an element of saveability but I consider that Merlin Stone's figures of 30% being saveable and 40% being saved put the figure far too high. I consider that 10% being saveable and 20% being saved reflects the reality that they are customers who have such serious financial problems that very few are saveable and that the only method by which they might be saved would be by the limited improvement available to save them compared with the ability to save them with strategies using the DCMS. This leads to a saved in practice figure of 2%. The total saved in practice is therefore 1.8%, derived from 0.4% (9% of 4.5%) plus 1.4% (2% of 70.5%).
2182. Assessing the impact of the core Actual CRM System and the three enhancements on these figures is also difficult. I consider that the relative percentage derived from by my Cuscan analysis would be 1% for the Actual CRM System, 0.5% for Merlin and 0.3% for Self Service, making the total of 1.8%.

## Conclusion

2183. At paragraph 2821 of their Closing on Business Benefits, Sky invite me to make findings as to the percentage of Cuscan and Syscan which will be saved in practice by assessing the saveability of churn for each reason for leaving or by making findings as to the percentage of Customer Service, Value for Money, Home Moving and Syscan that will be saved in practice. I have adopted the former and my findings are as follows for Cuscan:

State of the Nation Report Category	Letter	Saved in Practice
<b>Home Moving</b>		
Change in Lifestyle (Home Moving)	D	8.1%
<b>Value for Money</b>		
Subscription Fee Issues	A	6%
Change in Financial Situation	B	3%
Technical Issues (Part)	H	10.2%
Poor Perception of Value	J	9%



Contractual Account Issues (Part)	L	15%
<b>Customer Service</b>		
Service Issues	F	19.2%
Technical Issues (Part)	H	17.7%

2184. For Syscan, I have found that the saved in practice percentage is 1.8%.
2185. Sky submit that based on my findings of saved in practice percentages and certain associated findings that need to be made in relation to valuation matters, the accountant experts should be able to proceed to calculate the lost benefit. I proceed on that basis noting that the churn experts have agreed to adopt a future ratio of Cuscan to Syscan equal to the average of the ratios for the years 2002/03 to 2005/06.

## **O: LOST BENEFITS: CALL RATE REDUCTION**

### **Introduction**

2186. Sky also claim for lost benefits arising from Call Rate Reduction (“CRR”). Sky say that the improvements in functionality delivered by the Actual CRM System resulted in valuable benefits to Sky by reducing the number of calls that are received by their Contact Centres because of three aspects:

- (1) Self Service. Sky say that the introduction of full Self-Service facilities, integrated with the Actual CRM System, reduced the number of enquiries made by telephone as customers use their Set Top Box (“STB”) or the internet to carry out transactions or find out information;
- (2) Call Avoidance. Sky say that improvements in data capture and analysis in the Actual CRM System enabled Sky’s contact centre managers to identify problems that may be, or become, widespread, at an early stage with the result that action can be taken to solve the problem by root cause analysis and prevent calls by more customers;
- (3) Improved First Time Resolution (“FTR”). Sky say that better access to information, both about the specific customer who is calling, and about matters affecting the services provided to customers generally, together with improved means of recording information accurately and so avoiding errors, enabled the CAs to resolve issues quickly and comprehensively, reducing the need for a customer to make follow-up calls, the aim being to improve the rate at which issues are resolved first time, and, in doing so, to improve the rate of issue resolution generally.

2187. Sky’s call centre operations are divided between different teams or units: Customer Services, Technical and Install (referred to collectively as “CTI”) and Inbound Sales, which includes Sales Upgrades.

2188. Sky’s claim for lost call rate benefit is based on the premise that the Actual CRM System will reduce inbound subscriber calls to the call centres, thereby enabling Sky to reduce the number of CAs required to answer calls. Sky also claim that the reduction in calls will enable it to reduce the number of staff who manage the CAs (described as “CTI Support” and “Sales Support”).

### **The Experts**

2189. Sky rely on the evidence of Mr Simon Roncoroni and EDS rely on the evidence of Mr Neil Spencer-Jones.

### **Self Service**

2190. I accept that, as Simon Roncoroni says at paragraph 5.5.1 of his second report, the advantages of self-service include *“being able to get information from a single source; being able to compare prices from many different suppliers almost*

*instantly; and getting access to goods and services at any time of the day or night.”*

2191. EDS contend that, pending the implementation of the Actual CRM System, Sky should have integrated more self-service facilities with DCMS or should have delivered a “stand-alone” solution which had no link to DCMS or the Actual CRM System.
2192. As set out above in relation to mitigation, I accept Sky’s submission that they were under no duty to introduce an interim Self Service solution, in summary, for the following reasons. It is clear that Sky’s IT resources were focused on the delivery of the Actual CRM System and, in order to achieve this, Sky had to de-scope increments 2.4 and 2.5 and parts of increment 2.3 and impose a change freeze. In those circumstances I accept that Sky could not reasonably have diverted resources to making any development of self-service. Further, I accept that there were proper concerns as to the stability of the DCMS.
2193. It is also evident that “stand-alone” facilities do not provide the same benefits as integrated facilities. There is a delay in updating customer records as transactions are occurring online and in the call centre. I also accept that a disappointing self-service experience will discourage future use of the facility.
2194. Therefore, until a full suite of online self-service facilities was available, I consider that Sky acted reasonably in not implementing a “stand-alone” Self Service facility but waiting for the development of those facilities once the Actual CRM System had been implemented.
2195. The experts have adopted the same approach to analysing the impact of Self-Service. The approach of both Simon Roncoroni and Neil Spencer-Jones to their estimates of migration of calls to Self Service takes, as its starting point, consideration of the range of transactions that are or would be available through the STB or online and the total percentage of all calls received that are accounted for by calls related to those transactions. For Customer Services there were Element 16 (Account Enquiries), Element 17 (Account Management), Element 18 (Upgrading Package) and Element 20 (Order Tracking). For Sales Upgrade there was Element 19 (Upgrading Equipment) and for Technical Enquiry there was Element 21 (Technical Enquiries).
2196. The experts also agree that three factors would affect levels of migration to Self Service: access to self-service media; ease of, or willingness of customers to use, self-service; and level of promotion of self-service facilities by Sky.
2197. Of the three potential areas of activity which are amenable to Self Service being Customer Service, Sales Upgrade and Technical Enquiry, the main difference between the parties relates to Customer Service.

### **Customer Service**

2198. Simon Roncoroni estimated in his first report that by 2010/11 45% of Customer Service calls would have migrated to Self Service. In his second report he reduced this figure by a factor of 18% to take account of the necessity to exclude calls relating to downgrades and cancellations which Sky, for business reasons, did not

- permit to be dealt with by Self Service. His figure then became 36.9% (later adjusted to 35%). Neil Spencer-Jones in Appendix 5 to his first report estimates a much lower figure of 11.1% for 2010/11 based on 8.5% in 2006.
2199. Simon Roncoroni's figure of 45% appears, from his reports and his responses to Part 35 questions, to have been derived from other industries which he says show "*that the proportion of transactions grows very rapidly and many have seen the proportion of traffic that migrates to self service in excess of 50% of total traffic*". He says that he has taken a more cautious approach in this case and believes that the proportion of traffic could reach 45% for Customer Services over a period of 5 years.
2200. Simon Roncoroni's evidence on how he had approached this figure was not satisfactory. In his oral evidence he said that he had not started by assuming that 100% of Customer Service calls were amenable to Self-Service but had started with a figure of 80%. This was not apparent from his report and was not the understanding of Sky as set out in their opening submissions or the reports of the forensic accountant experts. It then led Sky to suggest in submissions that Simon Roncoroni had, in fact, started with a figure of 56% (45% of 80% as an equivalent percentage) which would change the whole basis for the calculation.
2201. I consider that there is force in EDS' submission that Simon Roncoroni should have taken 24% and not 18% as the relevant figure for the percentage of calls relating to downgrades and cancellations, based on 2005/6 figures before go-live rather than the 2006/7 figures from which the 18% was derived. If Simon Roncoroni took 80% then he started by assuming that 20% of calls were not amenable to Self Service. A further 24% should then be deducted for cancellation/downgrade calls so that only 56 out of 100 calls would be amenable to Self Service. If 45% is applied to this figure then 45% of 56 out of 100 calls would mean that only 25 out of 100 or 25% of Customer Service calls would be transferred to Self-Service. I consider that this is a preferable approach to that taken by Sky in their closing submissions at paragraph 2861.1. Even on the basis of their submissions they derive a figure of 35%.
2202. Neil Spencer-Jones approached his calculation on the basis that 56.8% of Customer Service calls were amenable to Self Service and that 15% of Sky's customers would be able, willing and confident to use Self Service. He therefore concluded that the maximum call rate reduction from web based Self-Service would be 8.5%. I consider that the approach of Neil Spencer-Jones to the assessment of the percentage of Customer Service calls amenable to Self-Service is robust as his analysis is based on Sky data relating to the top 20 transactions which make up 79% of Sky's annual call volume. He finds that that 56.1% of calls relating to the top 20 transactions relate to Customer Service and that 31.9% of such calls are amenable to Self-Service. Applying 31.9/56.1 as a percentage gives Neil Spencer-Jones' figure of 56.8%.
2203. In their closing submissions EDS seek to reduce the 56.8% figure to 30% on the basis that he has included within his analysis amenable Customer Service calls which do not form part of Sky's claim or which, on analysis of the documents, are

- not amenable. They also add back in customer upgrade calls. As Sky point out, the case proceeded on the basis that EDS' case was as set out in Neil Spencer-Jones' report and that it would be unfair for EDS to raise these matters only in closing submissions. On analysis, EDS seek to reduce the percentage by 7.4% (OPPV transactions) and 1% (Customer feedback) which are not claimed but then add back 14% for upgrades. The other figures are in fact criticisms of Neil Spencer-Jones' assessment of what transactions would be amenable to Self Service. I do not consider that EDS can depart from their expert's views in this way in their closing submissions. If those criticisms are ignored then EDS' proportion of top 20 transactions reduces to 23.5% (31.9% less 7.4% less 1%) which represents a percentage of 41.9 % (23.5/56.1) and if 14% is then added back, the result is 55.9% compared to EDS' figure, based on Neil Spencer-Jones' evidence, of 56.8%. I do not consider that this makes any significant difference.
2204. In relation to Neil Spencer-Jones' figure of 15%, this is derived in the following manner. First Neil Spencer-Jones has assessed the percentage of households which could access the internet. This he concludes was 57% in 2006. He then assesses that 50% would prefer to speak over the phone so that 50% of those with internet (or 29% of all households) would use internet. He says that, from this figure of 29% of households, 1% should be deducted for people with a disability; 9% should be deducted to account for those with dial-up connections in 2006 and 4% should be deducted to account for those who fail to connect and abandon Self Service. This results in the figure of 15%.
2205. Sky criticise this approach and the figure for internet access. They refer to Sky data which indicates that 72% of Sky customers have access to the internet and that many have access at work. They criticise Neil Spencer-Jones' use of the North American January 2006 Forrester Report "Customers Want Live, Speedy Support" to derive his figure of 50% of people who prefer to phone. Sky correctly point out that Neil Spencer-Jones was late to make an important correction in that, contrary to what he said, the Forrester Report did not state that it was based on customers with internet access. Sky also say that those who prefer to phone would already take into account people with disability, those with slow connections and those who failed to connect.
2206. I consider that there is force in some of Sky's criticisms. I bear in mind that Sky's 72% internet access figure was based on a survey for the first quarter of 2007 rather than 2006 but I consider that some increase for "work use" is appropriate. I propose to use 65% for 2006. I note that the Forrester Report arrives at a 50% reduction and that the other reductions in total amount to a further 50% reduction. I consider that there is force in the criticism of overlap and I consider that, with the uncertainty of the data in the Forrester Report, I should only take a 60% reduction overall, not the 50% Forrester reduction and the further reductions.
2207. I therefore assess that the appropriate figure is a 60% reduction of the 65% which means that the figure should be 40% of 65%, which is 26%. When this is applied to the 56.8% figure for the percentage of Customer Service calls amenable to Self-Service, the result is that 15% of calls would have migrated to Self Service. Subject to those adjustments I prefer the approach of Neil Spencer-Jones. On that

- basis I propose to use 15% as the percentage of Customer Service calls which would have migrated to Self-Service in 2006. Although greater than Neil Spencer-Jones' figure of 8.5%, it is still in the same range as figures which Neil Spencer-Jones refers to at paragraph 7.16 of his first report and which I do consider to be a relevant consideration.
2208. There is also an issue of the extent to which the use of Self Service through the Set Top Box should be taken into account in relation to Customer Service. In relation to this, there is some doubt as to how and to what extent Simon Roncoroni took STB Self Service into account, particularly as a result of references in his first report. It is not clear what transfer to Self Service he attributes to the internet and what to the STB. Neil Spencer-Jones did not make any allowance for use of the STB and in his first report he explains that "*Sky introduced Customer Services functionality to the STB in 2002 without the Actual CRM, and this is therefore considered not to be linked to the CRM and is therefore excluded from any claimed lost benefit*". He was cross-examined on the basis that he should have made some allowance for the use of Self Service by the Set Top Box for Customer Service transactions.
2209. In his oral evidence Simon Roncoroni said that the availability of the STB to 100% of Sky's customers was a relevant consideration in coming to his conclusion on his 45% figure for Customer Service. However, there was no evidence of how that worked into his calculation. Neil Spencer-Jones accepted that Customer Service was available on the STB but said that he was looking at new Customer Service functionality and, in his view, there was no new Customer Service functionality which would deliver benefit. I have come to the conclusion that there is only limited further Customer Service functionality on the STB compared to what was previously available and my review of Simon Montador's revised appendix SAM1 demonstrates that. The main difference appears to be that the functionality would be available on the internet which had greater usability. On that basis, I consider that it is the transfer to the internet from phone calls which is of importance in relation to Customer Service rather than a transfer from calls to the STB. The screenshots which were provided during Neil Spencer-Jones' evidence minimised the problems which occur in practice and I am not persuaded that new CRM functionality will lead to benefits in terms of transfers from a phone call to Self-Service over the STB which have not been captured by Neil Spencer-Jones' calculation based on the internet. Simon Roncoroni's evidence does not assist on this aspect.
2210. There is a further difference between the experts as to the period over which the Customer Service calls would be transferred to Self-Service. Simon Roncoroni's view is that the take up would be over four years whilst Neil Spencer-Jones considers that the period would be one year. There is evidence of the transfer to Self-Service in the form of Glide Path documents and Historical eService Transactions ("HET") spreadsheets which appear to be based on the same data but covering slightly different periods and transactions. The experts differ in their interpretation of that data, in particular as to whether volumes of Self Service transactions are still increasing or have now flattened out. However they are close

in their figures for the percentage of Customer Service transactions which will be carried out by Self Service in the year 2007/8. Simon Roncoroni's figure is 9.64% and Neil Spencer-Jones' figure is now 8.6% as amended in his letter of 14 May 2008.

2211. I have not found the way in which the experts have tried to fit a straight line to the data in these documents of much assistance. Essentially, Neil Spencer-Jones says that the data shows that the line is flattening out at 8.6%, consistent with 8.5% in one year and Simon Roncoroni says that 9.64% is consistent with 36.9% over four years. There seems to me to be some continuing rise on the line and I believe that this is consistent with 15% over about two years.

### **Sales Upgrade**

2212. The experts agree that 100% of Sales Upgrade transactions are potentially amenable to Self-Service. Simon Roncoroni considers at Appendix 2 to his first report that 45% of Sales Upgrade calls will transfer to Self Service by 2010/11 while Neil Spencer-Jones' figure in Appendix 5 to his first report is 47.8% by 2010/11. It is therefore common ground that about 45% of Sales Upgrade calls will transfer to Self Service.
2213. However, on the basis that Sky can only recover the difference between call rate benefits actually received, including those anticipated to be received by 2011, compared to those which would have been received in the B1 or B2 scenario, EDS say that the assessment of Sky's loss has to take account of the dates when relevant Self Service functionality was implemented.
2214. EDS contend that Sky had the relevant functionality concerned with upgrades of products and packages in Elements 18 and 19, prior to the go-live of the Actual CRM System as there was an ability to upgrade products in particular to Sky+ and "Extra Digibox" (now Sky Multiroom) from 2003. Therefore EDS say that, if the Sales Upgrade figures do not include packages, Sky can claim no loss.
2215. Sky say that this is a late and incorrect point raised by EDS, first, in the Third Joint Memorandum of the Accountants on 26 June 2008 where Timothy Hart refers to Simon Montador's evidence that internet Self Service for Sales Upgrades for products was available on DCMS in 2003. Sky say that Simon Montador had set out the relevant details in Appendix SAM1 to his third witness statement, together with the dates in paragraph 75 of Gary Innes' witness statement. Sky also say that the IDO facility which was introduced in 2003 was limited to 250 users and two products and therefore was far from being the multi-channel Self Service functionality in Elements 16 to 21.
2216. It is clear that there was a limited Self Service facility under IDO Phase 2 but I do not consider that the impact of this small amount of Self Service would be significant in terms of migration of calls to Self Service and any effect was a matter for the call rate experts but was not mentioned by them.
2217. In the circumstances I see no reason to alter the common view of the experts that some 45% of Sales Upgrade calls will transfer to Self Service.

### **Technical Enquiry**

2218. Simon Roncoroni considers that 25% of Technical Enquiry calls will transfer to Self Service by 2011. The figure is calculated by taking the 45% used for Customer Service as a starting point and reducing it because Simon Roncoroni accepts that not all Technical Enquiry calls can be resolved by Self Service. In oral evidence Simon Roncoroni stated that he had assumed that “probably about 30%” of technical enquiries were not resolvable by Self Service. This would give a figure of 70% as the percentage of technical enquiries amenable to Self Service.
2219. Neil Spencer-Jones was of the view that 75.2% of Technical Enquiry calls were amenable to Self Service. He used the figure of 15% for Sky’s customers who would be able, willing and confident to use Self Service for internet, as set out under Customer Service above. In relation to STB, he used the figure of 10% of the 38% which was derived as having a propensity to use STB Self Service but said that he was not able to derive an accurate figure because he had no data on propensity to use STB on which to base a calculation. As a result he considered that 11.2% of internet Technical Enquiries and 3.8% of STB Technical Enquiries would migrate to Self Service.
2220. The figure of 11.2% was derived from the 15% figure which I have adjusted to 26%. On this basis, the figure of 11.2% should be 19.5%, giving 23.3% overall when the 3.8% is added. That is the figure I propose to use, as relevant.
2221. However, EDS say that this functionality was not dependent on any link between the web-front end and the back end of the DCMS or CRM system and could have been implemented by Sky at any time as part of the continuous development of Sky’s website content. As a result they say that, as this element of Self Service functionality was not dependent on the introduction of the CRM system and was only dependent on the introduction of the KMS which took place by March 2002, no claim can be made for lost benefits in respect of this element.
2222. Sky rely on Simon Montador’s evidence that enhancements to facilities to make technical enquiries online had only been developed after the Actual CRM System was implemented and that expansion of Self Service before the CRM system went live was not realistic as Sky’s efforts were focused on replacing DCMS. Sky also accept that, as implemented in the Actual CRM System, there was no link to the back end and rely on Simon Roncoroni’s evidence that, although there would be some benefit derived from the CRM System in terms of intelligence gathered from CA interactions with customers which would provide data to improve the unlinked self-service, it could be satisfied significantly better with a link to the back end and that, as Jo Ashcroft said, this would be Sky’s preference.
2223. Sky say, in addition, that in the alternative B1 and B2 scenarios there would have been a link between the Self Service front end and the CRM System and that the claim had been formulated so that the benefit in those scenarios was claimed less the equivalent benefit arising in the Actual scenario. Sky say that, in giving credit to EDS for benefits from the Actual CRM System based on an integrated Technical Enquiry function, they are reducing their claim a little more than they might had they compared what they would have obtained from an integrated



facility in the B1 or B2 scenarios with that they currently have in the Actual CRM System as a “stand-alone” function that does not yet deliver the same level of benefit.

2224. Whilst I accept that the benefit in call reduction for Self Service for technical enquiries could have been implemented before the introduction of the Actual CRM System on the basis that it did not need to link into the back-end system in the form of either the DCMS or the CRM system, if as I have found below, the alternative scenarios would have had a link to the back end system, I accept Sky’s submission that EDS benefit from a reduction in the net benefits of the alternative scenarios over the Actual CRM System.
2225. On that basis I therefore find that the calculation should be based on 23.3% of Technical Enquiry calls being transferred to Self Service by 2011.

### **Conclusion**

2226. I therefore find that the benefit calculation should be based on the migration of calls to Self-Service being 15% of Customer Service calls over some two years and 45% of Sales Upgrade calls and 23.3% of Technical Enquiry calls being transferred to Self Service by 2011.

### **Call avoidance**

2227. Root cause analysis in the context of call avoidance is a method used to determine the underlying reasons for Technical Enquiry calls, so that Sky can make improvements which will result in the rate of this type of call being reduced by Call Avoidance by removing, mitigating or otherwise influencing issues that customers may call about. Such root cause analysis can assist in reducing call rates by identifying technical problems so that when a customer calls the solution can be provided more quickly. Also, by fixing faults permanently through root cause analysis, customers would not have to call the contact centre in the first place.
2228. Sky rely on the improvements in data capture and analysis in the Actual CRM System and say that these improvements enabled Sky to identify problems at an early stage so that action could be taken to solve the problem and avoid calls by more customers. EDS say that Sky did not make use of information which they had and did not make changes which could have improved data capture prior to the implementation of the Actual CRM System and that, had they done so, then they would have obtained the same data on which to base root cause analysis as they were able to capture and make use of with the Actual CRM System. EDS therefore say that it was not the Actual CRM System which provided the benefits.
2229. The issue between the parties is essentially whether the Actual CRM System provided an improvement in Sky’s ability to carry out root cause analysis and, if so, to what extent did it do so. EDS accept Simon Roncoroni’s assessment of a 5% reduction in Technical Enquiry calls, if Sky had no capability to carry out root cause analysis before the Actual CRM system was implemented.
2230. I consider that Elements 5 and 13 of the actual CRM System allowed information to be captured and reported on in a way which provided Sky with richer

information as to the symptom, the cause, the action taken and the resolution of the problem in relation to technical enquiries. The previous DCMS relied on the CAs making any record at all and much of the useful information would have been in the form of free text added to individual customer records. There was no link between codes entered into the telephone keypads and customer records.

2231. Whilst there may have been ways in which Sky could have used the information which they acquired or could, with some changes, have acquired more information in the DCMS, I consider that Edwina McDowall was correct to characterise the Actual CRM System as giving rise to a “step change” in Sky’s ability to access information for root cause analysis. It is evident that some such analysis could have been carried out using DCMS and Sky did so. Whilst Sky might have been able to carry out further analysis if they had made changes to the DCMS and other components, I do not consider that this would have approached anything like the situation which occurred when the Actual CRM System was implemented.
2232. I therefore find that there was a real and substantial benefit in the functionality provided by the Actual CRM System and that this enabled richer information to be collected and used for the root cause analysis of technical enquiries which had an effect on call avoidance. I consider that Simon Roncoroni’s estimate of 5%, which is not challenged by EDS as a figure, is a proper assessment of the benefit derived from call avoidance by root cause analysis of technical enquiries by the Actual CRM System over and above the DCMS.

### **First Time Resolution**

2233. It is common ground that an improvement in the rate of First Time Resolution (“FTR”) of issues will lead to a lower ratio of calls which need to be made to solve problems. There are different definitions of FTR in the industry but the experts have used the following definition in the Merchants Benchmarking Report in 2006:

*“A customer enquiry or transaction that is resolved or completed to the customer’s satisfaction by the initial agent, or another resource that the call has been escalated to, and on which no further manual action needs to be taken by the initial agent or any other resource within the organisation after the call has been completed, other than initiating an automated process or standard post-call administration.”*

2234. The question is what effect the Actual CRM System has had upon FTR and to assess this it is necessary to consider what the rate of FTR was before and after the introduction of the Actual CRM System. Whilst the experts have approached this head of claim on the basis that Sky would achieve the industry benchmark of 80% FTR within 2 years of the introduction of the Actual CRM System, the issue between them concerns the FTR value prior to the introduction of the Actual CRM System in 2006 where there is no data on the actual rate of FTR.
2235. On this basis the experts have considered the available data on the total number of calls required to resolve 100 issues, referred to as “TCR”. This data consists of

- surveys carried out by Teleconomy from 1999 to 2005 and then Sky's Customer Operation Reports for 2005/2006. There is a difference in approach by the experts as to how this data should be interpreted, in particular, whether the data would include "abandoned calls", that is calls which a customer makes and then abandons because of the queuing time or for any other reason, which should not be treated as a call which might have resulted in the resolution of the problem.
2236. This difference of approach has led to Simon Roncoroni assuming that abandoned calls were not included in the data and Neil Spencer-Jones assuming that they were. On the basis of Neil Spencer-Jones' approach then Sky would have achieved an FTR of 80% prior to the introduction of the Actual CRM System and there would be no claim. On the basis of Simon Roncoroni's approach Sky's FTR prior to the introduction of the Actual CRM System would have been lower than 80%, leading to a claim for the benefit achieved by the Actual CRM System.
2237. In order to consider the position, Simon Roncoroni has converted the FTR of 80% to an equivalent TCR figure. Based on his experience he has concluded that there would be a range of between 130 and 160 calls needed to solve 100 issues. In this case he has chosen the figure of 145 calls. Thus, if 80 out of 100 calls are being resolved in the first call, the assumption is that the remaining 20 calls will be resolved by 50 to 80 calls with 65 calls being chosen in this case. In his evidence Simon Roncoroni explained his choice of 145 calls as being due to the lower than average performance of Sky and said that a higher figure should not be adopted because Sky's call traffic tended to be high volume and relatively routine.
2238. Neil Spencer-Jones accepts that Simon Roncoroni's range of 130 to 160 calls needed to solve 100 issues appears feasible. He considers that the appropriate way of dealing with the issue is not to select the average of 145 calls but to use the range. He has considered how Sky's call centre relates to other call centres as set out in the data from the Benchmark Report. The Benchmark Report contains average data for three parameters derived from a range of different call centres: abandoned calls, agent talk time and average call length. Neil Spencer-Jones compares the average values of those parameters with data obtained from Sky's weekly reports from July 2000 to July 2005. He finds that Sky has 17% higher abandoned call rates; 5% less agent talk time and 15% longer call length. He considers that this data is not consistent with an average figure of 145 and because Sky's parameters are, in his opinion, "worse" than an average business, he says that this is evidence that Sky should be assessed to operate at the upper end of the range.
2239. Both experts then have to consider what the historic data as to TCR shows, so as to compare this with the figure of 145 calls, in Simon Roncoroni's approach or the range of 130 to 160 calls in Neil Spencer-Jones' approach.
2240. The experts agree on the raw data derived from the Teleconomy Reports for 2000/1 to 2004/5 and Customer Operations Report for 2005/2006. These show that, using average data for each year, the number of calls in excess of 145 would be 122 (2000/1); 81 (2001/2); 69 (2002/3); 23 (2003/4) and 40 (2004/5). Neil Spencer-Jones considers, though, that the data should be adjusted to take account

- of abandoned calls. He says that the raw data will include abandoned calls and that to assess the benefits the data should be adjusted to eliminate those abandoned calls. Based on Sky's daily records of how many calls were made and how many were answered, he has derived a percentage Call Success Rate of 80% (2000/1); 66% (2001/2); 75% (2002/3); 84% (2003/4); 84% (2004/5), 68% (2005/6). Based on the raw data Neil Spencer-Jones calculates adjusted TCR rates and this leads to the number of calls in excess of 145 being 68 (2000/1); 4 (2001/2); 15 (2002/3); 0 (2003/4); 10 (2004/5) and 24 (2005/6).
2241. Simon Roncoroni relies on the raw data and has calculated benefits on the basis of an assumption that at the time of implementation of the Actual CRM System in 2006, Sky were achieving the FTR performance it achieved in 2004/5 and that Sky would then achieve the 80% benchmark within two years, with an improvement of 60% in the first year and 40% in the second year. He considers that the relatively small improvement which would be required for Sky to achieve the benchmark would be realised due to the History and Memo functionality, the single view of the customer and the integration of the previous manual "wrap" actions into the "in-flight" call process. In relation to the B1 Scenario, he considers that Sky would have achieved the 80% benchmark within two years of go-live. On the assumption of a go-live date of 1 February 2002 this gave a 60% improvement in 2002/3 and 40% improvement in 2003/4. He applied a similar analysis to the B2 Scenario on the basis of an assumed go-live of 2 February 2004.
2242. Neil Spencer-Jones bases his analysis on the reduced figures to take account of abandoned calls by using the Call Success Rate. On the basis that he uses the range of 130 to 160 calls, he concludes that Sky achieved the 80% benchmark in every year from 2001/2 to 2004/5 and that the apparent deterioration in performance in 2005/6 was caused by an increase in the number of calls per year from 40.7 million to 56.5 million. Neil Spencer-Jones notes that in February/March 2001 the new Avaya telephony system went live as part of the Actual CRM System and that call centre operations may be improved by a Knowledge Management System, a new telephony system and by training. On the basis that Sky achieved good FTR performance and long term stability of FTR performance, he does not believe that other elements of the Actual CRM System will deliver further improvements.
2243. As the parties submit, a major issue is whether the raw data should be adjusted for abandoned calls or whether it should be taken at face value. This is essentially a question of fact as to what the Teleonomy or Customer Operations survey data recorded but there is no direct evidence of whether those who responded to the survey took account of abandoned calls.
2244. Sky rely on Simon Roncoroni's evidence of other surveys which, he said, suggested that customers do not include abandoned calls but only answered calls. Sky say that Neil Spencer-Jones' view that 100% of abandoned calls were included in the data does not make sense in the light of the number of survey responses which stated that the problem took only one call to resolve. For instance, in 2001/2 where Sky failed to answer 34%, the Teleonomy surveys

showed that about 60% of customers said that their issue had been resolved in one call. Sky say that on this basis the other 40% of calls must have taken at least two calls, so that the minimum number of calls to resolve 100 issues would be 140. On Neil Spencer-Jones' figures 149 calls were required, indicating that 2.2 successful calls were needed per issue. Sky say that this is implausible taking into account the number of people who indicated that they needed between 6 and 15 calls to resolve their case. With a benchmark TCR of 145 equivalent to a FTR of 80%, then the remaining 20 issues would require 3.25 calls per issue and even higher if the TCR was 155. Sky also rely on Simon Roncoroni's evidence that in his experience he has not seen a business with a 30% abandoned call rate which could achieve an 80% FTR.

2245. EDS point to the fact that Simon Roncoroni accepted that Neil Spencer-Jones had raised a valid point on abandoned calls. They say that although he says that he took a conservative approach to evaluating the Teleonomy data, he did not do so because, for instance, he used an average of 3 calls where the survey responses were in the range of 2 to 5 calls. They also say that Sky's submission as to the 2.2 successful calls proceeds on the basis that the 60% FTR from the Teleonomy data is accurate but if in fact, taking account of abandoned calls, that represented an 80% FTR, then the figure would be 3.45 which is entirely plausible.

2246. I have come to the conclusion that it is reasonable to infer that some abandoned calls are likely to have been included by those who reported that two or more calls were needed to resolve their query. I consider, though, that the extent to which abandoned calls were included is much less than Neil Spencer-Jones suggests otherwise the number of people reporting resolution in one call would have been much less. I accept that Simon Roncoroni has erred on the conservative side in reducing the average number of calls. Further, whilst I consider that as finally explained some elements of the Actual CRM System would assist in FTR, I found Simon Roncoroni's initial explanation of how the introduction of the Actual CRM System in 2006 would assist in reducing FTR far from convincing.

2247. In addition I also have some concerns at the choice of the figure of 145 for the TCR when the agreed range was 130 to 160. I consider that a higher figure of 155 within that range should be used to reflect the non-pejorative description of Sky's performance as being "below average". I also propose that a reduction should be made of about 15% in the resulting "Number of calls in excess of 155".

### **Conclusion**

2248. I consider that the benefit to be derived from First Time Resolution should be Simon Roncoroni's table at paragraph 8.40 of his first report with figures of 95 (2000/1); 60 (2001/2); 50 (2002/3); 11 (2003/4) and 25 (2004/5). Otherwise I propose to adopt the approach of Simon Roncoroni as to the two year period, the 60% and 40% and the approach to the B1 and B2 Scenarios.

### **Overall Conclusion**

2249. Accordingly, in relation to business benefits to be derived by a reduction in call rate, I find that:

- (1) In assessing the benefits to be derived from Self Service, the benefit should be based on the migration of calls to Self-Service being 15% of Customer Service calls over some two years and on 45% of Sales Upgrade calls and 23.3% of Technical Enquiry calls being transferred to Self Service by 2011.
- (2) In assessing the benefits to be derived from call avoidance by root cause analysis of technical enquiries by the Actual CRM System, Simon Roncoroni's figure of a 5% reduction in Technical Enquiry calls should be used.
- (3) In assessing the benefits to be derived from an increase in First Time Resolution, this shall be based on a table similar to that in Simon Roncoroni's first report at paragraph 8.40 but with figures of 95 (2000/1); 60 (2001/2); 50 (2002/3); 11 (2003/4) and 25 (2004/5) and should adopt the approach of Simon Roncoroni as to the two year period, the 60% and 40% and his approach to the B1 and B2 Scenarios.

## **P: QUANTUM**

### **Introduction**

2250. Sky puts its claim on a number of alternative bases, as follows:

- (1) Damages in deceit for misrepresentation prior to the Prime Contract: £586.7 million is claimed by SSSL/BSkyB Ltd.
- (2) Damages for negligent misrepresentation prior to the Letter of Agreement and for breach of the Prime Contract prior to July 2001:
  - (a) £30 million is claimed by SSSL as Sky accept that these damages are limited by the contractual cap;
  - (b) £334.2 million is claimed by B SkyB Ltd.
- (3) Damages for non-repudiatory breach of Prime Contract as varied by the Letter of Agreement: £30 million is claimed by SSSL only, as Sky accept that these damages are limited by the contractual cap but they say that the full loss was £52.8 million.

2251. The quantum experts, Mr Richard Boulton instructed on behalf of Sky and Mr Timothy Hart instructed on behalf of EDS have been able to reach agreement on figures for the vast majority of the claims. However, given the divergence of views between the IT experts on issues, in particular the implementation dates of the PwC and ASI CRM Systems, the experts have considered four combinations of quantum. Essentially, those are to apply the views of the churn and call rate experts of each party with the views of both the IT experts for that party and the IT experts for the other party. My findings have not coincided with the views of one party's experts and so the four illustrative combinations cannot be applied to my findings. The parties recognised that this might be the outcome. In their oral evidence, the experts confirmed, with admirable confidence that, on the basis of my findings, they saw no difficulty in being able to apply the principles which they had agreed to those findings so as to arrive at the appropriate quantum. I am happy to assume that their confidence is well placed.

2252. Prior to the quantum evidence, a list was drawn up of eleven factual and expert quantum issues which needed to be determined and, subject to further agreements and development of the issues, this forms the main focus of the quantum issues in this case.

2253. In the Revised Appendices to the Revised Third Joint Memorandum of the Quantum experts there are a number of items which are described as "other minor differences". In their closing submissions on the Valuation of the Claims Sky say that these differences have not been the subject of any issue and have occurred

because of differences in the quantum models used by the two experts. In paragraph 10 of those submissions Sky submitted:

*“On that basis, Sky requests the Court to find that Mr Boulton’s models and his assumptions and inputs should be applied to determine the final valuation of the claims, subject only to such modifications as are required in the light of judgment given on the particular issues that have been identified between the parties and are the subject of Closing Submissions.”*

2254. Not surprisingly, EDS took issue with this approach. I do not have any submissions which would permit me to make any findings on the general applicability of the model of Richard Boulton or the model of Timothy Hart. In those circumstances, I shall provide answers to the particular issues which the parties have raised and shall assume that any differences can be resolved by the experts. If the confidence that this will happen is misplaced then I shall provide any further necessary findings.

### **The quantum issues**

2255. I therefore turn to each of those issues and deal with them in turn.

#### **Issue 1:**

*What rates should be applied by the accountants in order to determine the cost of effort expended by an ASI in Scenario B2?*

*(a) Is it appropriate to apply PwC’s rates in 2000 plus 10% for all work from the LOA (mid 2001) onwards (as Mr Boulton has done)? or*

*(b) Should this rate be applied from 1 January 2002 but with an additional 2.7% increase in fees be applied for work from 2003 and/or from 2004?*

2256. The quantum experts have agreed that it would be appropriate to price an ASI’s effort at PwC’s 2000 rates plus an uplift of 10%. The issue between the parties is as to when the 10% uplift should be applied and whether it should be the only uplift. Richard Boulton applies the 10% uplift to the £137.01 from 17 July 2001 and the same rate throughout the duration of the project. He considers that his approach, which involves assuming that the ASI was charging at the rate of a “best in class” Systems Integrator but producing work at the effort rate of an average Systems Integrator, already potentially undervalues the claim by over-costing the work of the ASI. He compared the weighted average of PwC plus 10% to EDS’ own charges which were about £80 per hour.

2257. Timothy Hart contends that the 10% uplift should be applied only from 1 January 2002 and that additional uplifts to allow for inflation, each of 2.7%, should be applied to rates with effect from 1 January 2003 and again from 1 January 2004.

2258. It is noted that Richard Boulton has taken the same approach as Timothy Hart in evaluating the ASI cost on the basis of Robert Worden’s figures but uses this different approach in valuing PA’s figures. Richard Boulton accepts that, in



practice, fee rates would have increased in 2003 and 2004 but seeks to balance this against the hours, saying that the calculation is seeking to apply the PwC “best of breed” rates to the effort of an average Systems Integrator. The Alternative Systems Integrator has obviously not been identified and I consider that in assessing the rate the court should take account of an appropriate and consistent rate that should be applied to either expert’s view of effort or the assessment made by the court.

2259. I therefore consider that the rates to be applied to determine the cost of effort expended by an ASI in Scenario B2 should be PwC’s rates in 2000 plus 10% from 1 January 2002, with an additional 2.7% increase in fees to be applied for work with effect from 1 January 2003 and again from 1 January 2004.
2260. I note that in Revised Appendix 3-1 to their Revised Joint Memorandum, the experts consider that this issue now accounts for a difference of £0.1million and not £1.3 million identified in paragraph 3.34 of that Memorandum. There is now a difference of £1.1 million identified as one of the items “other minor difference” which, it seems, reflects the balance of the difference. As stated above, I do not make any further findings in relation to that aspect.

**Issue 2:**

*If Professor Stone’s view that syscanners are savable is accepted, how should the amount of the contribution saved syscanners be valued?*

*(a) Are they valueless?*

*(b) Is it appropriate to value the contribution as the same as the average contribution of a basic subscriber less 10%?*

2261. I have found above that the Actual CRM System will have an impact on Syscan churn. This therefore has to be valued. The issue between the accounting experts is how to value the contribution from the Syscanners who will be saved by the Actual CRM system. Richard Boulton values the contribution of saved Syscanners based on the evidence of PA and Merlin Stone at £74.9m. Timothy Hart values the contribution at nil.
2262. Richard Boulton values Syscanners as equivalent to basic subscribers less 10%, a discount which he applies to all churners, whether Cuscanners or Syscanners. He does not differentiate between Syscanners who cannot pay and Syscanners who are identified as Hidden Cuscanners. Timothy Hart essentially says that Syscanners who cannot pay have no value to Sky and that, whilst Syscanners who are hidden Cuscanners would have some value to Sky, he has no ability to say what proportion are within what category.
2263. In my assessment of the saved in practice percentage of 1.8% I have found that 0.4% would be saved Hidden Cuscanners and 1.4% would be saved general Syscanners who had financial problems. In my judgment, the Hidden Cuscanners should be valued as any other saved Cuscanners. I do not accept that it is

appropriate to value general Syscanners with financial problems in the same way. As Timothy Hart has set out in his illustration at paragraphs 5.22 and 5.23 of the Revised Third Joint Memorandum, for Sky to gain a benefit from a saved Syscanner, they have to recover their costs of providing the service to that subscriber. I consider that the general Syscanners with financial problems who are saved by the Actual CRM System are likely to make a higher contribution that more than covers the cost to Sky of providing the service. I consider that they are likely to provide a lower contribution than saved Cuscanners and in my judgment a figure of 33% of the value of a saved Cuscanner is appropriate to reflect the nature of the difficulties faced by those who Syscan for financial difficulties compared to those who Cuscan.

2264. On this basis and on the basis of my findings on Issue 3 below and on Syscan I trust that the quantum experts can agree the financial result.

**Issue 3:**

*How should the amount of the contribution of saved cuscanners be valued?*

*(a) Can the proportion of Basic and Premium subscribers within saved cuscanners be identified when applying Professor Stone's opinions, and,*

*(i) if so, what proportion should be assumed within saved cuscanners?*

*(ii) If not, is it appropriate to assume that the contribution of all saved cuscanners is to be valued as the average contribution of all subscribers less 10%?*

*(b) In valuing the contribution of saved Basic and Premium cuscanners when calculating the effect of Dr.Jenkins' opinions (and, subject to the answer to subparagraph (a) above, Professor Stone's), what discount should be applied?*

2265. The experts recognise that a different approach is required depending on whether the Court makes a distinction between Premium and Basic subscribers saved by the Actual CRM System. Sky maintain that the distinction cannot be made because the data is not available for such calculations to be performed. As set out above, I have accepted that the data does not exist to distinguish between the effect of the Actual CRM System upon Basic and Premium subscribers. The reduction in churn is therefore assessed for subscribers in general and not for the two categories of subscribers.
2266. On this basis, I consider that the approach to be adopted should be to use an average contribution method, taking account of the contributions from Basic and Premium subscribers, rather than trying to value the contribution of Basic and Premium subscribers in any other way.
2267. The issue then is to calculate the value of that average contribution. Richard Boulton takes the contribution from the average subscriber which he calculates as £260.92 on the basis of the ratio of Premium:Basic subscribers based on the overall ratio of these subscribers. He then discounts it by 10% to allow for a range of uncertainties including the possibility that the contribution from saved

- subscribers would be lower than the contribution from the average subscriber. His figure for the average contribution is £234.83.
2268. Timothy Hart derives the average by using the ratio of Premium:Basic subscribers of 57.86%:42.14% being the proportions in which Premium and Basic customers are saved. This means that his figure before deductions is £242.41, which is 7.1% less than Richard Boulton's figure. He then makes a deduction to the contribution from Premium subscribers for the fact that a proportion of Premium subscribers had to be down-sized to be saved and therefore the average contribution will be less than for a normal Premium subscriber. Timothy Hart analysed data and concluded that the average proportion of saved Cuscanners which were saved by down-sizing was 10.3%. He calculates that this is equivalent to a 9.4% reduction in the contribution from all saved Premium Cuscanners. Applying this discount gives an average contribution of £225.57 which represents a 13.5% discount.
2269. I accept that Richard Boulton's 10% discount is derived from a broad brush approach and that Timothy Hart's assessment of the appropriate figure has fluctuated over time. However I consider that Timothy Hart's analysis is, in principle, likely to derive a better assessment of the average contribution. First, whilst it may not be possible to distinguish between basic and premium subscribers by attributing different percentages of each group that are saved in practice, I consider that in calculating loss, given the significant differences in contribution of the two sets of subscribers, it is necessary to relate the average to the proportion of premium and basic Cuscanners in the churner base, not the overall subscriber base. Secondly, an adjustment is appropriate for the fact that some premium subscribers will be saved by downsizing. The figure derived by Timothy Hart appears to me to be logical and the periods used as illustrated in the Revised Appendix 5-3 of the Revised Third Joint Memorandum appear to be appropriate. I do however accept that a small proportion of subscribers might be saved by upgrades and that not all Premium subscribers who downsize will move to become Basic subscribers. The impact of these matters is small. I consider that to allow for these matters a figure of £227 should be used.
2270. I therefore find that the contribution of saved Cuscanners should be valued at £227 which represents about a 13% discount from the figure of £260.92 in the Revised Appendix 5-3.

**Issue 4:**

*Should the accountants adapt the views of the benefits experts (and, if so, how) in the event that Dr Worden's views on self-service "ex CRM" integrated to DCMS with effect from 1 February 2003 are accepted?*

2271. In the light of my finding that Sky did not fail to mitigate its loss by failing to implement an interim Self Service solution ex CRM integrated to DCMS with effect from 1 February 2003, I do not consider that there is anything for the experts to value. In any event, I do not consider that any valuation could be based

on Timothy Hart's assumption that functionality equivalent to Self Service functionality would have been implemented at that date. I accept Sky's submission that any such self-service would have been different so as to be integrated with the DCMS. Further, the way in which any particular Self Service would impact on the churn rate is properly a matter for the churn rate experts and I do not consider that the quantum experts can adapt the views of those experts to assess the benefits.

**Issue 5:**

*Should the accountants adapt the views of Professor Stone, Mr Roncoroni and Dr Jenkins (and, if so, how) in the event that Mr Spencer-Jones' views on self-service "ex CRM" as a stand-alone facility are accepted? If so, which date should they assume self-service as a stand-alone facility should have been introduced in each scenario?*

2272. Similarly to my decision on Issue 4, in the light of my finding that Sky did not fail to mitigate its loss by failing to implement Self Service ex CRM as a stand-alone facility, I do not consider that there is anything for the experts to value. In any event, again I do not consider that any valuation could be based on Timothy Hart's assumption that functionality equivalent to Self Service functionality would have been implemented. I accept Sky's submission that any such self-service would have been different so as to provide a stand-alone solution. Further, the way in which any particular self-service would impact on the churn rate is properly a matter for the churn rate experts and I do not consider that the accounting experts can adapt the views of those experts to assess the benefits.

**Issue 6:**

*What BAU call rates should be assumed from 2007/08 to 2010/11?*

*(a) Should the call rates for 2008/09 to 2010/11 be assumed, in BAU, to have been the same as for 2007/08?*

*(b) Should the call rates for 2007/08 to 2010/11 be calculated by reference to the forecast by Sky in their business plan?*

*(c) If Sky's business plan forecasts are to be used:*

*(i) Did Sky prepare those forecasts anticipating any particular effect of the CRM System on call rates during that period? If so, what effect of the CRM System was in fact built into those forecasts?*

*(ii) Should an adjustment be made on account of any assumption made by Sky about the effect of the CRM System on call rates during that period, and if so what adjustment should be made?*

2273. This issue has been resolved by EDS accepting that the Business as Usual Call Rates from 2008/09 to 2010/11 are assumed to be the same as in 2007/08.

**Issue 7:**

*What external operating/maintenance costs have in fact been incurred by Sky in relation to the Actual CRM System, and what assumptions should be made about annual costs in the future?*

2274. Whilst Sky kept records of the Project Development costs under separate cost codes in the Fixed Asset Register, they did not keep a separate record of the costs of maintaining and operating the Actual CRM System. Sky therefore have carried out an exercise to identify those costs. Richard Boulton's calculations of those Maintenance and Operating Costs are based on factual information supplied by three of Sky's witnesses: Patrick Wynne, Richard Bartley and Norman Macleod.
2275. The experts have reached agreement on a substantial amount of these costs but there remain three heads of adjustment which Timothy Hart considers should be made and which amount to £10.2 million. Those are: that no supporting documents have been found for costs of £6.6 million; that maintenance costs of £3.1 million appear excessive and that costs of £0.5 million relate to assets acquired after March 2006.

***No supporting documents***

2276. There are sums claimed in relation to five suppliers which EDS say have no supporting documents.
2277. The basis for the attribution of the cost to the Actual CRM System was set out in the evidence of Patrick Wynne. He refers to a spreadsheet of CRM costs compiled by Mr Ed Richards, a trainee accountant at Sky, who used certain codes in the General Ledger which related to external costs incurred on hardware and software maintenance. As these costs recorded in the General Ledger related both the CRM System and to non-CRM projects, Patrick Wynne apportioned those costs on the basis of his own experience and discussions with a number of colleagues involved in those aspects. For some of the costs, vouchers or invoices could not be found. Timothy Hart stated in his oral evidence that the sums claimed had more likely than not been incurred by Sky and that the focus was more on whether the costs related to the Actual CRM System. Sky however point out that Timothy Hart carried out a sample exercise by looking at 57 entries and found that, for the 47 entries for which there was supporting documentation, the allocation to the CRM System was correct.

2278. I now consider the issue in relation to each supplier separately.

***IBM/PwC***

2279. So far as lack of supporting documents is concerned, Revised Appendix 7-4 to the Revised Third Joint Memorandum of the quantum experts sets out the relevant details of the sums claimed and Patrick Wynne's evidence in relation to IBM/PwC costs.

2280. EDS say that, in the absence of supporting documentation and with a lack of any proper analysis to arrive at the proportion, Sky have not proved that these costs or the allocated proportion of them have been incurred operating or maintaining the Actual CRM System. I accept, as EDS submit, that Patrick Wynne's oral explanation of the way in which the proportions had been calculated was confused and not satisfactory. Also the explanation given, for instance for the allocation of 62% in relation to the sum of £216,876 under item 82 of the Expanded Spreadsheet is also not clear. Equally criticisms can be made of certain aspects of Patrick Wynne's analysis and explanation of the spreadsheet at Tab 97 of the Defendants' Additions Bundle relating to the IBM Agreement of 2006.
2281. However, I have to consider this in the light of the fact that the costs arise from entries which were made on the General Ledger. It is also evident from the Expanded Spreadsheet and other documents that Sky have carried out a detailed exercise. They have reviewed the available material and taken into account the views of the people who generally had knowledge of the relevant aspects of the Actual CRM System. The robustness of the analysis is confirmed, in my view, by Timothy Hart's conclusion that in the 47 cases where there were invoices and other documentation, the allocation to the Actual CRM System was found to be correct. On balance I am satisfied that the costs which are set out for IBM/PwC costs have been properly allocated and, where appropriate apportioned to the Actual CRM System.

***Oracle***

2282. Sky claim costs relating to Oracle at items 112 and 113 of the Expanded Spreadsheet. They claim 100% of £274,218 at item 113 and 50% of £493,358 at item 112. Again, I do not consider that the fact that there are not now documents to support this claim nor that there is no reference to an asset in the CRM Fixed Asset Register (CRMFAR) is determinative of whether there is a claim. Rather, I consider that the detailed exercise carried out by Sky has been shown to be robust and I am satisfied that Sky is entitled to claim these items as maintenance and operating costs of the Actual CRM System.

***Avaya***

2283. Sky claim costs relating to Avaya at item 9 of the Expanded Spreadsheet. They claim £171,853. In this case EDS say that Patrick Wynne's explanation that relevant codes referred to general computing costs in 2000 to 2003 conflicted with his statement that the 1581 code for this item was a support and maintenance code. The code seems to be from SSSL's General Ledger balance sheet account and Patrick Wynne relied on the fact that these costs had been put into the profit and loss account rather than the capital account. He also relied on information supplied by Andy Waddell. Again I am satisfied that this is likely to represent a sum that Sky can claim as a maintenance and operating cost of the Actual CRM System.

***Fujitsu***

2284. Sky claim costs of £326,273 relating to Fujitsu at item 65 of the Expanded Spreadsheet. Patrick Wynne relies on what he was told by Andy Waddell. These are clearly periodical payments. Again, whilst there are not now documents to support this claim nor a reference to an asset in the CRMFAR, I am satisfied for the reasons set out above that this is likely to represent a sum that Sky can claim as a maintenance and operating cost of the Actual CRM System.

*Veritas*

2285. Sky allow a credit of £78,877 in respect of Veritas at item 141 of the Expanded Spreadsheet. This formed the basis of a credit by Timothy Hart originally but in the closing submissions EDS have said that they no longer challenge this so that it would not give rise to a credit. Again this is a case where a credit appearing on an invoice has been allowed at 90% of the invoice cost on the basis that it related to the Actual CRM System. If I had come to the conclusion that the invoice did not relate to the Actual CRM System, then an allowance would have had to be made for this. For the reasons set out above, I consider that this is likely to relate to a maintenance and operating cost of the Actual CRM System.

*Sun*

2286. Sky claim costs of £417,529 in respect of Sun Microsystems at item 130 of the Expanded Spreadsheet. This sum is based on a 40% apportionment of costs which appear on the General Ledger but for which an invoice cannot be found. EDS point out that the earliest entry on the CRMFAR is September 2001 whilst the invoice dates are earlier. I am not satisfied that the CRMFAR accurately represents all the assets which would require maintenance or support and for the reasons set out above, I consider that the costs claimed are likely to relate to a maintenance and operating cost of the Actual CRM System.

*Excessive Costs of IBM/PwC*

2287. Sky claim a total of about £7.8million as maintenance and operating costs paid or payable to IBM/PwC. Timothy Hart is concerned that the costs are excessive when compared to the assets recorded in the document prepared as the CRMFAR and that there is a lack of supporting documentation.

2288. The criticism as to excessive costs arises because as Timothy Hart says and Patrick Wynne of Sky agrees, the annual maintenance cost would be expected at most to be 25% of the value of the asset in the CRMFAR. Timothy Hart has therefore identified aggregate costs of £1.039 million in the CRMFAR to which he has applied the 25% figure to calculate a sum of £2.4 million over 9 years.

2289. Sky submit that no deduction should be made. They say that the operating and maintenance costs were incurred and that the disproportionate ratio of such costs to the figure in the CRMFAR is explained by the fact that the assets purchased in the CRMFAR are understated and they refer to the evidence in Patrick Wynne's fourth statement of there being Software Licence Agreements in 2003 and 2006 with values of £2,540,667 and £9,414,474, the latter including sums for additional

licences under the 2003 agreement. Although those agreements did not identify separately operating and capital expenditure (“opex” and “capex”), the Sky finance department had made an assessment of the division between those two heads of expenditure.

2290. I have come to the conclusion that the figures in the CRM FAR do not accurately reflect the asset costs of IBM software licences for the CRM and therefore that it is not possible to use the 25% figure to verify the ratio of asset value to maintenance and operating costs for the IBM/PwC assets. The way in which the opex and capex values were achieved is not evident on the documents but was, as Richard Boulton said, a matter of judgment for Sky’s finance department when they came to consider the matter contemporaneously. I have no basis for going behind those figures and there is no suggestion of double counting, for instance, by costs being both development costs and operating costs.
2291. I do not therefore consider that any adjustment should be made on the basis that the IBM/PwC maintenance and operating costs are excessive.

***Post March 2006 costs***

2292. Sky claim some £123,000 for maintenance costs paid to Hewlett Packard after March 2006. That sum is then used in the calculation of maintenance costs over the four years to 2010/11. EDS say that the costs appear to be costs for licences acquired after March 2006 as a result of a decision to switch from BMC and is not a maintenance cost. Sky say that they are entitled to claim the costs of operating and maintenance incurred after March 2006. In the Fourth Joint Memorandum of the quantum experts at paragraphs 2.65 and 2.66 Richard Boulton supports this on the basis that Sky are giving credit for the benefits and should be entitled to take account of the effect on those benefits of incremental operating costs of the hardware and software. He does not consider that any adjustment is required for this item.
2293. I accept that Sky are entitled to claim for operating and maintenance costs in the period post 2006 for the reasons given by Richard Boulton. EDS do not seek to challenge that but now raise the question of whether these costs are costs of licences rather than the cost of maintenance and support. In my judgment they are likely to be costs which relate to the costs of operating the system and that, for the reasons given by Richard Boulton, such costs should be included in maintenance and operating costs.

**Issue 8:**

*What maintenance/operating costs should the accountants take into account as those that Sky would have incurred in relation to the PwC CRM System?*

*(a) Should they assume that PwC’s estimate was comprehensive (i.e. covered all maintenance and support activities, including those activities which, in practice, in relation to the Actual CRM System, Sky has carried out using internal resources)? Or*



*(b) Should they add to PwC's estimates the cost of internal resources that Sky has in fact needed to use in maintaining/operating the Actual CRM System?*

*(c) What phasing of maintenance costs should be assumed for the PwC CRM System in scenario B1?*

2294. In calculating lost benefits it is necessary to consider what maintenance and operating costs would have been expended in the alternative scenarios of a PwC CRM System and an ASI CRM System. There is an issue between the parties as to the maintenance and operating costs which would have been incurred by PwC. As I have previously observed this is a case where there is documentation from PwC and this issue is essentially a question of interpreting the PwC response to the ITT to see whether in fact they included for maintenance and operating costs which Sky, in the Actual CRM System, spent as internal costs. In the ASI scenario, there is agreement between the experts that the costs of maintaining the ASI CRM System would have been broadly the same as the Actual CRM System operating costs.
2295. In the ITT Sky stated that "*An overall summary by workstream detailing expected set up costs and annualised operating costs is also required at a high level*". PwC provided an estimate of the annualised Operating Costs of the PwC System but did not provide a detailed breakdown of those costs. PwC's bid documentation does not indicate in express terms whether PwC included costs for support and/or maintenance work that could in fact be undertaken by internal Sky resources or whether PwC was quoting simply for external costs, assuming that some unspecified work would be done by Sky internally. In the absence of such evidence the accounting experts have made different assumptions as to what PwC's estimate of annualised Operating Costs included. Reference was also made, in addition to the PwC bid and its revision in the letter of 16 June 2000, to an analysis of the PwC bid and a template distributed by Penny Hicks.
2296. On the basis of these documents, Richard Boulton assumes that PwC's estimate was intended to represent total maintenance costs and did not distinguish between internal or external costs. He assumes that PwC's estimate was comprehensive and included all such costs. He notes that the estimate is already between £20 and £35 million more than the total costs incurred by Sky doing some of the work in-house and contracting externally for other work. Timothy Hart assumes that PwC's estimate was for external costs only and that it would be appropriate to add the internal maintenance costs actually incurred by Sky to that estimate with the result that the PwC CRM System would have cost about £85 to £97 million more than Sky's Actual Operating Costs.
2297. Sky rely on Richard Boulton's analysis and say that, while it is possible that the costs of operating the Siebel system might have differed from the costs of operating a Chordiant system, neither PA nor Robert Worden have suggested that they would be significantly different or that a Siebel system would cost more than a Chordiant system to maintain. Sky submit that the purpose of seeking PwC's estimate of annualised Operating Costs was to allow Sky to understand what PwC believed would be the overall Operating Costs of their system.

2298. EDS rely on Timothy Hart's analysis. He considers that PwC must have left out of their estimate work that they assumed would be done internally. EDS say that Sky have not established that the PwC bid included Sky's internal operating costs or that it included the projects on which Sky has expended internal resource. They say that Sky has maintenance contracts with its suppliers in relation to the various applications, including Chordiant and Arbor but the internal costs fell outside the scope of support provided under these contracts and there is no reason why it similarly would not fall outside the scope of the support contracts for the comparable applications in the PwC System.
2299. This is a case where no witness has addressed the key question of whether the internal activities were encompassed within the PwC bid. Whilst expert analysis of the figures is of assistance, the question is not one for opinion evidence. It is a question of the interpretation of PwC's bid. I agree with EDS that various documents besides the ITT and PwC's bid, which Sky have referred to, do not take the case any further.
2300. I have however come to the conclusion that Sky's interpretation of the PwC bid is to be preferred. The question asked in the ITT was a broad question as to annualised Operating Costs. At one stage Timothy Hart was of the view that these costs were comprehensive and I consider that PwC's response should be taken as being comprehensive, it being a matter for Sky as to whether they entered into external contracts for maintenance, they outsourced the work in another way or carried it out by use of internal resources. In the context of the Actual CRM System, Sky, as the Systems Integrator, might well be doing more maintenance and operations work internally than it would have done had it engaged a third party Systems Integrator.
2301. Whilst I accept that the longer operating and maintenance period and higher PwC cost levels might lead to PwC's costs being higher, I consider that the level of costs based on Richard Boulton's view is more likely to be representative of those costs which I have no reason to think would be so much greater for a Siebel than for a Chordiant solution.
2302. Therefore, in assessing what maintenance and operating costs Sky would have incurred in relation to the PwC CRM System, the quantum experts should assume that PwC's estimate was comprehensive in that it covered all maintenance and support activities, including those activities which, in practice, in relation to the Actual CRM System, Sky has carried out using internal resources.
2303. In relation to Issue 8(c), which concerns the phasing of maintenance costs for the PwC CRM System in scenario B1, the issue is whether those costs would have been ramped up from the commencement of the development work to the implementation of the PwC CRM System, as Richard Boulton assumes, or whether the costs would have been incurred annually from January 2001 and increased with inflation, as Timothy Hart assumes.
2304. There is now no issue between the parties on this issue as at paragraph 303 of their Closing Submissions EDS say that if the internal resource costs were

included in the PwC bid, then they do not challenge Richard Boulton's approach to the phasing of costs and, in any event, I consider that the ramping up assumed by Richard Boulton is more likely to represent the way in which operating costs would increase during the course of the project.

**Issue 9:**

*What training costs would Sky have incurred in relation to the “but for” CRM Systems, assuming Dr Worden is correct on timing?*

*(a) Would they have incurred the same costs as they incurred in relation to the Actual CRM System?*

*(b) Would they have incurred less costs because (on Sky's case) they would not have wasted costs in an unnecessary initial training session which anticipated a false implementation date?*

2305. This issue between the quantum experts concerns the costs of training that would have been incurred in relation to either the PwC or the ASI CRM Systems, assuming Robert Worden's opinions on the timing of CRM go-live. There is no difference of view based on PA's opinions as to timing. Timothy Hart assumes that the but-for training costs in B1 and B2 on Robert Worden's opinion as to timing would have been £1.9m, which is the actual aggregate cost of both the first abortive and second training sessions. Richard Boulton calculates, based on the actual hours for the first abortive training sessions and CA costs per hour at the relevant times, that the training costs in B1 and B2 would have been £1.3m and £1.0m respectively. This gives rise to a difference with Timothy Hart of £0.6m in B1 and £0.9m in B2.
2306. Sky refer to the evidence of Craig McPhee who says in his witness statement that Sky incurred more costs on training staff than was necessary because of a first session of training in 2004/2005 that was wasted on account of a delay in go-live of the Actual CRM System. He says at paragraph 11 that there was an abortive training session in October 2004 in the run up to anticipated go-live shortly thereafter and that the training was abandoned after 6 weeks as a result of the postponement of the go-live date. This is claimed and included in the Actual CRM System Operating Costs.
2307. Richard Boulton assumes that in the B1 and B2 scenarios Sky would not have wasted the initial training session and so would not have required the two separate training sessions. Timothy Hart assumes that both training sessions would have been required in the B1 and B2 scenarios, based on Robert Worden's views as to the go-live date.
2308. Robert Worden considers that in the B1 and B2 Scenarios the go-live dates would have been July and September 2005 respectively. EDS submit that it is likely that in both those scenarios Sky would have anticipated, as they did, that the CRM system would go-live earlier than it would have done and, hence, would have conducted an abortive training session, as they in fact did, prior to the assumed earlier go-live date. In addition EDS say that no evidence has been provided that the actual abortive training was entirely wasted effort and it is most likely that it provided benefits for those CAs who participated and reduced the efforts required

in respect of the subsequent training session prior to the actual go-live date. Consequently, EDS say that it is reasonable to assume, as Timothy Hart has done, that the related costs would also have been incurred in both but-for scenarios.

2309. In my findings as to timing in relation to scenarios B1 and B2, I have not accepted the assumptions of either expert but my view has been closer to that of PA. On my findings as to timing, I do not consider that it is correct to assume that there would have been an abortive training session such as that arranged in October 2004. I have no reason to think that on the timing I have found, the particular circumstances which led to this abortive training session would have been replicated. Rather I consider that that the training costs should be based on Richard Boulton's analysis.

**Issue 10:**

*Should the accountants adjust Mr Roncoroni's estimates of actual CTI AVHT for 2007/08? If so, should the accountants also adjust Mr Roncoroni's estimates of actual CTI AVHT for 2008/09 – 2010/11 and but for CTI AVHT for those years and relevant prior years to ensure consistency (and, if so, how)?*

2310. This issue has been resolved by EDS accepting that Simon Roncoroni's estimate of Average Call Handling Time ("AVHT") for 2007/8 should be applied and that no adjustment is to be made to Simon Roncoroni's estimates of future AVHT.

**Issue 11:**

*What adjustments (if any) are required in respect of the calculations of loss of benefit in respect of self-service for sales upgrades to take account of the fact that self-service for certain sales upgrades was available via the web prior to March 2006?*

2311. Timothy Hart considers that the quantum experts should adjust the effect of the opinions expressed by both Neil Spencer-Jones and Simon Roncoroni because he thinks they did not take account of Simon Montador's evidence that limited sales upgrades were possible online before the Actual CRM System was implemented.
2312. In their Closing Submissions on lost benefits EDS submitted at paragraphs 1117-1123 that with respect to Simon Roncoroni's estimates, Sky can only claim benefits relating to the migration to self service of sales upgrade calls in respect of which it did not have self service functionality prior to the implementation of the CRM system.
2313. As I have already stated in my findings on those submissions on lost benefits, there was a limited Self Service facility under IDO Phase 2 but I do not consider that the impact of this small amount of Self-Service would be significant in term of migration from calls to Self-Service and any effect was a matter for the call rate experts but was not mentioned by them.
2314. As a result, I do not consider that any adjustments are required in respect of the calculations of loss of benefit in respect of self-service for sales upgrades to take

account of the fact that Self Service for certain sales upgrades was available via the web prior to March 2006.

### **Other quantum issues**

2315. There are certain other quantum matters which I mention at this stage.

#### **Losses of Sky**

2316. Sky contend in response to a Request for Further Information that their losses were all suffered by SSSL with the exception of the Churn Rate benefit which was suffered by B Sky B. In the introduction to Appendix 2 to EDS' closing submissions on the Forensic Accounting Expert Evidence, EDS say that they do not dispute the apportionment of loss between the Sky claimants. On that basis no issue arises.

#### **Ancillary calculations**

2317. In paragraphs 364 to 374 of Sky's closing submissions on Quantum of the Claims, they refer to the need for adjustments to the damages for the impact of changes of Corporation Tax, for discounting of damages for future losses and for interest. It is accepted that these matters will need to be dealt with when the Quantum experts have concluded their consideration of quantum based on my findings.

#### **EDS' Counterclaim**

2318. EDSL advance a counterclaim in respect of unpaid invoices both under the Prime Contract and under the Memorandum of Understanding in the sum of £4,805,400.45 Sky pleaded various matters in the Defence to Counterclaim and in their written opening submissions they contend that the Counterclaim should fail.

2319. The Quantum experts agree that the sum counterclaimed comprises:

- (1) The total amount of the unpaid EDSL invoices recorded as a cost in the CRM Fixed Asset Register or Write-Offs (excluding VAT) (£3,957,239.32);
- (2) VAT at 17.5% on the total amount of the unpaid EDSL invoices recorded as a cost in the CRM Fixed Asset Register or Write-Offs (£692,516.88);
- (3) The total amount of the unpaid EDSL invoices not recorded as a cost in the CRM Fixed Asset Register or Write-Offs (including VAT at 17.5%) (£30,088.21); and
- (4) The alleged understatement of the amount due in invoice 90203081 dated 11 April 2002 (including VAT at 17.5%) (£125,555.19).

2320. The experts have agreed that the Project Development Costs actually incurred by Sky in building the Actual CRM System amount to £265.2 million if the unpaid invoices the subject of EDS' Counterclaim of £3,957,239.32 (the VAT exclusive

amount of EDS' invoices recorded on the CRM Fixed Asset Register) are taken into account as a cost, or £261.2 million if they are not taken into account. It is common ground that if the amount of the unpaid invoices is included in the damages calculated as due from EDS, Sky will have to deduct from the final sum the amount of those invoices.

2321. Subject to any further submissions, the issue of what sums are due in respect of the counterclaim still has to be resolved. Once that issue is resolved then the question of the final value of the development costs, the sum due to EDSL on the Counterclaim and the effect on the cap can then be considered. At this stage, I make no finding on the issue of what sums are due on the counterclaim.

## **Q: OVERALL SUMMARY AND CONCLUSION**

2322. I now summarise some of the main findings and conclusions arising from this judgment.

### **Provisions of the Prime Contract**

2323. In relation to construction of the Entire Agreement clause at Clause 1.3.1 of the Prime Contract, this clause does not preclude SSSL from advancing a claim for negligent misrepresentation or misstatement against EDSL.

2324. Except for claims in deceit, Clause 20.2(ii) of the Prime Contract has the effect of excluding EDSL's liability to SSSL for Call Rate Reduction benefits.

### **Provisions of the Letter of Agreement**

2325. Paragraph 17 of the Letter of Agreement is an exclusion clause for claims for breach of the Prime Contract between EDSL and SSSL but is not an exclusion of "All known claims and all unknown claims" (in the latter case up to 17 June 2001) which SSSL could advance against EDSL on the basis of breach of contract as EDS contend.

### **The Memorandum of Understanding**

2326. In relation to the Memorandum of Understanding, there was no separate binding agreement made by Richard Freudenstein and Steve Leonard on 6 March 2002.

2327. The Memorandum of Understanding signed on 26 March 2002 was not a legally binding agreement when it was signed. It was and was intended to be "subject to contract" and both parties envisaged a later contract which would govern the changed relationship between Sky and EDS dealing with the matters in the document. It is not possible to spell out any contractual relationship founded on conduct after 6 or 26 March 2002.

2328. As a result the Memorandum of Understanding does not give rise to any full and final settlement nor does it give rise to new warranty provisions.

### **Duty of Care**

2329. No duty of care should be imposed upon EDSC in favour of BSKyB or SSSL or upon EDSL in favour of BSKyB which circumvents or escapes the contractual exclusion or limitation of liability which the parties put in place between EDSL and SSSL. That contractual structure negatives such duties of care and no such duties arise in this case. Any liability of EDSL to SSSL arising under a duty of care will not permit SSSL to circumvent or escape the contractual exclusion or limitation of liability provisions for the act or omission that constitutes the tort.

### **Misrepresentations prior to the selection of EDS and the Letter of Intent**

2330. As to alleged misrepresentations as to resources made prior to the selection of EDS and the Letter of Intent: the Greater Resources Representation was not made by EDS and Sky have not established that EDS made a misrepresentation in relation to the

Lesser Resources Representation or the Ready to Start Representation. Accordingly, EDS are not liable to Sky for misrepresentation as to resources.

2331. As to the alleged misrepresentations as to time prior to the selection of EDS and the Letter of Intent, EDS represented that they had carried out a proper analysis of the amount of elapsed time needed to complete the initial delivery and go-live of the contact centre and that they held the opinion that, and had reasonable grounds for holding the opinion that they could and would deliver the project within the timescales referred to in the Response. That representation was false as there was no “proper analysis” nor were there “reasonable grounds”. It was made dishonestly by Joe Galloway who knew it to be false. In making the misrepresentation, EDS intended Sky to rely on it and to select EDS for the Sky CRM Project and Sky did so. Accordingly, EDS are liable to Sky in deceit for that misrepresentation.
2332. As to the alleged misrepresentations as to cost prior to the selection of EDS and the Letter of Intent, EDS represented that they had carried out a proper estimate of the cost of completing the project and that they held the opinion that, and had reasonable grounds for holding the opinion that, they could and would deliver the project within that budget in the Response. In putting in an estimate of some £54m in the EDS Response, EDS carried out a proper estimate of the cost of completing the project and had reasonable grounds for holding the opinion that they could and would deliver the project within that budget in the Response. Accordingly, EDS are not liable to Sky for misrepresentation in relation to cost.
2333. EDS has no liability in misrepresentation for the Proven Technology Representation or the Significant Risk Representation or the alleged misrepresentation as to methodologies.
2334. Accordingly, I find that EDS made fraudulent representations as to time both prior to the selection of EDS and the Letter of Intent but otherwise Sky’s other allegations of misrepresentation fail.

#### **Misrepresentations prior to the Prime Contract**

2335. As to the alleged misrepresentations made prior to the Prime Contract, EDS represented that they had carried out a proper analysis of the amount of elapsed time needed to complete the initial delivery and go-live of the contact centre and that they held the opinion that, and had reasonable grounds for holding the opinion that they could and would deliver the project within the timescales referred to in the Response. That representation was false as there was no “proper analysis” nor were there “reasonable grounds”. It was made dishonestly by Joe Galloway who knew it to be false. In making the misrepresentation EDS intended Sky to rely on it and to select EDS for the Sky CRM Project and Sky did so. Accordingly, EDS are liable to Sky in deceit for that misrepresentation.

#### **Misrepresentations prior to the Letter of Agreement**



2336. In relation to the allegations of misrepresentations prior to the Letter of Agreement, the statements made by EDS did amount to a representation that they had developed an achievable plan, which had been the product of proper analysis and re-planning. EDS did not carry out a proper analysis and re-planning exercise to produce a programme which would have been achievable and the representation was false and was made negligently. The misrepresentation was a material misrepresentation which EDS intended Sky to rely upon and which Sky did rely upon in entering into the Letter of Agreement. EDSL are therefore liable to SSSL for negligent misstatement and under section 2(1) of the Misrepresentation Act 1967. Otherwise, EDS is not liable for any other misrepresentation prior to the Letter of Agreement.

### **Liability for misrepresentations**

2337. The misrepresentations which were made prior to the selection of EDS and the Letter of Intent and also prior to the Prime Contract were only made on behalf of EDSL and not on behalf of EDSC but were made to both BSKyB and SSSL.

2338. EDSL has no liability to BSKyB for the negligent misrepresentations made prior to the Letter of Intent, the Prime Contract or the Letter of Agreement.

### **Breach of the Prime Contract**

2339. In relation to breach of the Prime Contract, EDS failed properly to resource the project after the Letter of Agreement; EDS were seriously in delay in carrying out the work and achieving the Milestones and delivering the Deliverables and EDS had carried out little work in the period mainly because they had failed to capture the requirements or manage that process or merely because of the general lack of progress. On that basis EDS failed to exercise reasonable skill and care or conform to good industry practice because there was no effective programme management, the design and development of the solution was not properly documented and EDS did not provide sufficient technical or managerial resources.

2340. However, neither the breaches alone nor the combination of breaches amounted to a repudiatory breach of the Prime Contract, as varied. Further, the evidence does not establish that there was an acceptance of any repudiation.

### **Causation**

2341. In terms of causation, if EDS had not made the misrepresentations to Sky prior to the selection of EDS and the Letter of Intent, Sky would not have continued with EDS but would have engaged PwC to implement the PwC CRM System using Siebel. Sky are entitled to recover losses caused by entering into the Prime Contract on the basis of either the misrepresentations made prior to selection and the Letter of Intent or prior to the Prime Contract. PwC would have implemented the PwC CRM System with a total effort of 2794 man-months and would have achieved go-live on 1 February 2003.

2342. If EDS had not made the misrepresentations to Sky prior to the Letter of Agreement, Sky would not have continued with EDS but would have engaged an Alternative Systems Integrator to continue with the CRM project and implement the ASI CRM System. An ASI would have implemented the ASI CRM System with a total effort of 4,749 man-months and would have achieved go-live on 1 February 2005. EDS are also liable for damages which represent damage for breach of the Prime Contract prior to July 2001 and I find that damages should be awarded on the basis that the wasted costs, being effort expended less useful work, are £16.3 million.

2343. Sky are entitled to damages for breach of the Prime Contract as varied by the Letter of Agreement which should be based on the costs of the effort incurred by Sky after 6 March 2002 in reaching the stage of development that EDS would have reached if they had expended the effort they had charged for in performing their obligations in accordance with their obligations under the Prime Contract as amended. On that basis the Quantum experts have agreed that the figure is £52.8m including the value of the unpaid EDS invoices or £48.8m excluding those invoices, the sum recoverable being subject to the cap under clause 20 of the Prime Contract.

#### **Mitigation**

2344. In terms of EDS' contentions on mitigation, Sky did not fail to mitigate their loss by acting unreasonably in implementing the Actual CRM System or by de-scoping or by failing to introduce Self Service functionality at an earlier date.

#### **Lost Business Benefits**

2345. In terms of lost business benefits, the lost benefits in relation to reduction of churn rate should be assessed on the basis that the saved in practice percentages for customers who cancel (Cuscanners) should be:

- (1) Home Moving: Change in Lifestyle (Home Moving): 8.1%;
- (2) Value for Money: Subscription Fee Issues: 6%; Change in Financial Situation: 3%; Technical Issues (Part):10.2%; Poor Perception of Value: 9% and Contractual Account Issues (Part): 15%;
- (3) Customer Service: Service Issues: 19.2% and Technical Issues (Part): 17.7%

2346. The lost benefits in relation to reduction of churn rate should be assessed on the basis that the saved in practice percentages for customers who are cancelled by the System (Syscanners) is 1.8%.

2347. In relation to the lost business benefits to be derived by a reduction in call rate

- (1) The benefits to be derived from Self Service by migration of calls to Self-Service should be based on 15% of Customer Service calls over some two years and on 45% of Sales Upgrade calls and 23.3% of Technical Enquiry calls being transferred to Self Service by 2011.
- (2) The benefits to be derived from call avoidance by root cause analysis of technical enquiries by the Actual CRM System, should be based on Simon Roncoroni's figure of a 5% reduction in Technical Enquiry calls.

- (3) The benefits to be derived from an increase in First Time Resolution, should be based on a table similar to that in Simon Roncoroni's first report at paragraph 8.40 but with figures of 95 (2000/1); 60 (2001/2); 50 (2002/3); 11 (2003/4) and 25 (2004/5) and should adopt the approach of Simon Roncoroni as to the two year period, the 60% and 40% and his approach to the B1 and B2 Scenarios.

### **Quantum Issues**

2348. In relation to the quantum issues raised for resolution:

- (1) Issue 1: The rates to be applied to determine the cost of effort expended by an ASI in Scenario B2 should be PwC's rates in 2000 plus 10% from 1 January 2002, with an additional 2.7% increase in fees to be applied for work with effect from 1 January 2003 and again from 1 January 2004.
- (2) Issue 2: General Sycanners with financial problems who are saved by the Actual CRM System should be valued on the basis of a figure of 33% of the value of a saved Cuscanner.
- (3) Issue 3: The contribution of saved Cuscanners should be valued at £227.
- (4) Issue 4: This issue does not arise.
- (5) Issue 5: This issue does not arise.
- (6) Issue 6: This issue has been resolved by EDS accepting that the Business as Usual Call Rates from 2008/09 to 2010/11 are assumed to be the same as in 2007/08.
- (7) Issue 7: There should be no adjustment in relation to the three heads of adjustment where EDS say that there are no supporting documents; where EDS say that maintenance costs appear excessive or where EDS say costs relate to assets acquired after March 2006.
- (8) Issue 8: In assessing what maintenance and operating costs Sky would have incurred in relation to the PwC CRM System, it should be assumed that PwC's estimate was comprehensive in that it covered all maintenance and support activities, including those activities which, in practice, in relation to the Actual CRM System, Sky has carried out using internal resources.
- (9) Issue 9: On my findings as to timing, it is not correct to assume that there would have been an abortive training session such as that arranged in October 2004.
- (10) Issue 10: This issue has been resolved by EDS accepting that Simon Roncoroni's estimate of Average Call Handling Time ("AVHT") for 2007/8 should be applied and that no adjustment is to be made to Simon Roncoroni's estimates of future AVHT.
- (11) Issue 11: There should not be any adjustments in respect of the calculations of loss of benefit in respect of self-service for sales upgrades to take account of

the fact that Self Service for certain sales upgrades was available via the web prior to March 2006.

### **Reservation**

2349 As set out above various quantum issues still have to be determined including the impact of tax, discounting and interest, together with the Counterclaim and the effect of the cap. To the extent that further issues or clarification are required for the quantum experts to deal with the detail of quantum then I reserve those matters to a later decision once the relevant matters have been identified. I also reserve the question of EDSC's liability under the Deed of Guarantee for later determination.

### **Postscript**

2350 On any view this was a case which involved complex issues ranging over a wide variety of topics. The case involved hundreds of bundles and thousands of documents. Over a period of 10 months there were 109 hearing days, including submissions, witness and expert evidence. I would wish to thank counsel and solicitors for the way in which they conducted the proceedings. I have been much assisted in the preparation of this judgment by the detailed expert evidence and by the written and hyperlinked submissions which were provided by the parties. I would also like to thank the court staff who ensured that proceedings ran smoothly, including sitting late or early on occasions to ensure witnesses completed their evidence in accordance with the timetable.