

redemption transaction respectively. Claim 10 is to a method of clearing a transaction. The independent claims read:

1. A computer-implemented method for processing a redemption transaction on a point-of-sale terminal comprising:

receiving transaction information, said transaction information comprising a transaction amount;

instantiating communication with a redemption card, said redemption card comprising an IC chip;

receiving an indication of a private currency associated with said redemption card;

periodically receiving updates to changes made to an exchange rate at a currency exchange server, said exchange rate defining the conversion ratio between said private currency and a terminal currency;

determining, using said exchange rate, that a balance of a redemption account is sufficient to fund said transaction amount;

indicating approval of said transaction, wherein said redemption transaction is processed offline;

creating a clearing record, said clearing record comprising the transaction amount;

and

transmitting said clearing record for further processing.

16. A point of sale terminal for processing a redemption transaction comprising:

a receiver configured to receive transaction information, said transaction information comprising a transaction amount;

a communications unit configured to communicate with a redemption card, said redemption card comprising an IC chip, said communications unit further configured to receive an indication of a private currency associated with said redemption card;

an exchange rate retrieval unit configured to periodically receive updates to changes made to an exchange rate an exchange rate at a currency exchange server, said exchange rate defining the conversion ratio between said private currency and a terminal currency;

a determination unit configured to determine, using said exchange rate, that a balance of a redemption account is sufficient to fund said transaction amount; and

a display unit configured to indicate approval of said transaction, wherein said redemption transaction is processed offline;

wherein the point of sale terminal is further configured to:

create a clearing record, said clearing record comprising the transaction amount;

and

transmit said clearing record for further processing.

10. A computer-implemented method for clearing a transaction at a clearing server comprising:

receiving a clearing record, said clearing record comprising a transaction amount, a card identifier, and a merchant identifier, said merchant identifier indicating a merchant associated with said transaction;

identifying a lodged card associated with said transaction based on said card identifier;

computing a periodic aggregate amount for mileage transactions associated with said lodged card and further associated with said merchant, said periodic aggregate amount comprising said transaction amount; and

triggering a purchase transaction with said lodged card towards an acquirer associated with said merchant for said periodic aggregate amount.

The law

- 5 The examiner has raised objections under section 1(2)(c) of the Act that the invention is not patentable as it relates to both a method of doing business and a program for a computer as such; the relevant provisions of the Act are shown in bold below:

1(2) it is hereby declared that the following (amongst other things) are not inventions for the purposes of the Act, that is to say, anything which consists of –

(a) ...

(b) ...

(c) **a scheme, rule, or method for performing a mental act, playing a game or doing business, or a program for a computer;**

(d) ...

but the foregoing provisions shall prevent anything from being treated as an invention for the purposes of the Act only to the extent that a patent or application for a patent relates to that thing as such.

- 6 In accordance with established case law, the starting point for determining whether an invention falls within the exclusions of section 1(2) is the judgement of the Court of Appeal in *Aerotel/Macrossan*². Also of relevance is the decision of the Court of Appeal in *Symbian*³.

- 7 *Symbian* arose under the computer program exclusion, but as with its previous decision in *Aerotel/Macrossan*, the Court gave general guidance on section 1(2). Whilst in the *Symbian* case the Court approached the question of excluded matter primarily on the basis of whether or not there was a technical contribution, it nevertheless (at paragraph 59) considered its conclusion in the light of the *Aerotel/Macrossan* approach. The Court was quite clear (see paragraphs 8-15) that the structured four-step approach of *Aerotel/Macrossan* was not a new departure in domestic law; that it remained bound by its previous decisions, particularly *Merrill Lynch*⁴ which rested on whether or not the contribution was technical; and that any

² *Aerotel Ltd v Telco Holdings Ltd and Macrossan's Application* [2006] EWCA Civ 1371; [2007] RPC 7

³ *Symbian Ltd v Comptroller-General of Patents* [2009] RPC 1

⁴ *Merrill Lynch's Application* [1989] RPC 561

differences in the two approaches should affect neither the applicable principles nor the outcome in any particular case. But the *Symbian* judgement does make it clear, that in deciding whether an invention is excluded, one must ask does it make a technical contribution? If it does then it is not excluded.

8 Subject to the clarification provided by *Symbian*, it is therefore necessary to proceed on the basis of the four-step approach explained at paragraphs 40-48 of *Aerotel/Macrossan*, namely:

- (1) *Properly construe the claim.*
- (2) *Identify the actual/alleged contribution.*
- (3) *Ask whether it falls solely within the excluded matter.*
- (4) *If necessary check whether the actual/alleged contribution is actually technical.*

9 The *Aerotel/Macrossan* approach has been used consistently throughout the prosecution of this application. As this has not been challenged I will assume the applicant agrees that this is the correct approach to resolve this issue.

Properly construe the claim

10 During the prosecution of this application neither the examiner nor the applicant has identified any issue in the construction of the independent claims. Having considered the claims myself I do not think claims 1, 10 and 16 present any real difficulties in construction as their language is clear.

11 Claims 1 and 16 are related to a method and apparatus for processing a redemption transaction on a POS terminal, and claim 10 to a method of clearing transactions at a clearing server.

12 There are several inconsistencies in the claims dependent upon claim 1 which could cast doubt upon the true scope of the claim. As I believe these inconsistencies to be unintentional and to have occurred as a consequence of drafting errors during the amendment stages I will not consider them here, but will consider their relevance in full should they have any potential impact upon the contribution as decided.

Identify the actual/alleged contribution

13 The examiner has identified the contribution in general terms to be a computer program to manage conversion rates within a redemption system. The applicant has been more detailed in his assessment and identified the contribution of claims 1 and 16 to be found in the redemption transaction being carried out 'within the apparatus of the redemption card', in performing the method 'offline' and in 'periodically receiving updates and changes made to the exchange rate'.

14 The applicant also states that the contribution of claim 10 to lie in the step of 'computing a periodic aggregate amount for mileage transactions'.

15 I will consider the contribution of claim 10 separately to the contribution of claims 1 and 16.

16 The starting point for assessing step 2 can be found in the well known statement of Jacob LJ, in paragraph 43 of *Aerotel/Macrossan*, who said:

'It is an exercise in judgment probably involving the problems said to be solved, how the invention works, what its advantages are. What has the inventor really added to human knowledge perhaps best sums up the exercise. The formulation involves looking at substance not form – which is surely what the legislator intended'

- 17 The opening paragraphs of the description set out the problems to be addressed by the invention of the application. Lines 21-24 of page 1 of the description set out one of the aims of the invention and they read:

'Airlines who sponsor and host extensive, complex frequent flier programs for their customers need to carry the aggregate of unused but active miles as a liability on their balance sheet. Airlines have become increasingly sensitive towards this liability and are looking to create innovative propositions to increase miles spending.'

- 18 It is acknowledged in the opening paragraphs that airlines already allow participants to use their reward credits to make purchases in dedicated shops and catalogs, or to convert them to retail vouchers, therefore, the retail redemption scheme, in itself, does make a contribution to this invention.
- 19 At various points throughout the description, and in the cited prior art, it is disclosed that the hardware i.e. POS terminals, redemption cards, network/authorisation servers etc are standard, therefore, I do not consider the hardware to make a contribution to this invention.

Claims 1 and 16

- 20 I do not believe the alleged contribution to be as broad as the examiner suggests. However, I also disagree with the applicant that the step of receiving periodic updates to changes made to the exchange rate adds to the contribution as it is conventional in the art for a local device to receive only periodic updates to information from a central server. Incorporating this feature into the main claims does not add anything of substance to the claims. Furthermore, claim 4 discloses receiving real time updates to the information, which is inconsistent with claim 1. As I also consider this option to also be entirely conventional within the art I do not believe this inconsistency will affect the contribution.
- 21 Claims 1 and 16 do not require an indication as to whether the redemption account is sufficient to fund the transaction amount be determined within the apparatus of the redemption card contrary to the submissions in the agent's letter of 28 May 2013. The claims merely require the POS terminal to be in communication with a redemption card and the redemption transaction to be processed offline. Dependant claims 5 and 6 give two alternatives relating to the transaction being determined within the apparatus of the card and within the POS terminal respectively. However, I consider that the fact that the transaction is processed offline, as required by the independent claims, encompasses both these possibilities.
- 22 I consider the contribution of claims 1 and 16 to relate to a system and a computer implemented method for processing a redemption transaction on a POS terminal comprising receiving transaction information, communicating with a redemption card, and determining offline, using a private currency and an exchange rate, whether the balance of a redemption account is sufficient to fund the transaction.

Claim 10

23 As the examiner has not identified a contribution relating to claim 10 I am content to accept the contribution put forward by the applicant which is a computer implemented method for clearing a transaction at a clearing server including the step of computing a periodic aggregate amount for mileage transactions.

Ask whether the contribution falls solely within the excluded matter and check whether the contribution is technical

24 I consider each of the contributions identified above to clearly relate to methods of doing business as such. Even if I were to accept the contribution of claims 1 and 16 to be as put forward by the applicant in his agent's letter of 24 May 2013 the contribution would still clearly relate to a business method. There is also no doubt in my mind that the identified contributions require computer programs for their implementation.

25 For completeness I will consider the arguments put forward by the applicant in support of the patentability of the independent claims. The applicant has argued, in several of his letters, that the step of processing the redemption transaction offline makes a technical contribution as it 'maintains data security and confidentiality' and 'solves the problem of performing this type of data processing when external networks are not available'. The applicant also refers to the fifth *AT&T*⁵ signpost in support of this step making a technical contribution. The applicant maintains that the problem of improving data security is solved, not circumvented, but provides no further explanation as to why this is the case.

26 The technical contribution proposed by the applicant to lie in claim 10 is that the aggregation of data processing operations improves the efficiency of the data processing system, but again there is no explanation given by the applicant as to why this is the case. This proposed contribution relates to the fourth of the signposts.

27 I will, therefore consider the *AT&T* signposts, paying particular attention to the fourth and fifth signposts. The fourth signpost was revised by Lewison J in *HTC v Apple*⁶ and the signposts now read:

- i) Whether the claimed technical effect has a technical effect on a process which is carried on outside the computer.
- ii) Whether the claimed technical effect operates at the level of the architecture of the computer; that is to say whether the effect is produced irrespective of the data being processed or the application being run.
- iii) Whether the claimed technical effect results in the computer being made to operate in a new way.
- iv) Whether the program makes the computer a better computer in the sense of running more efficiently and effectively as a computer.

⁵ *AT&T Knowledge Ventures/Cvon Innovations v Comptroller General of Patents* [2009] EWHC 343 (Pat)

⁶ *HTC Europe Co Ltd v Apple Inc* [2012] EWHC 1789 (Pat), *Gemstar-TV Guide International Inc v Virgin Media Limited* [2010] RPC 10

- v) Whether the perceived problem is overcome by the claimed invention as opposed to merely being circumvented.

- 28 There has been no discussion, between the applicant and the examiner, of the first three signposts, and as I can find nothing of relevance to them in the identified contributions I will discuss them no further.
- 29 I can see that processing the redemption transaction offline maintains data security and confidentiality at the time of processing by simply not sending the account information across a network. However, this is clearly circumventing the problem of data security, by omitting to send the data, rather than doing anything to make it more secure. Account data must be transmitted between a redemption card and an account server at some point in time, choosing not to do this when a transaction is made merely shifts the problem to a different point in the process i.e. when it becomes necessary to update the reward balance on the card with accrued reward points.
- 30 For similar reasons I can see that by processing the transaction offline there is potentially no need for external networks to be constantly available and I presume data is simply stored until the network becomes available. However this does nothing to address the problem of poor network availability/connectivity, it circumvents it by waiting until the network is available before transferring information such as the clearing records and updating the exchange rate.
- 31 I completely fail to see how the computer program of claim 10 results in a better computer in terms of its efficiency and effectiveness. I agree that there may be less data to process as a result of the periodic aggregation of mileage transactions, but the data that is processed by the computer is processed with the same relative speed and in the same way.

Conclusion

- 32 I conclude that the inventions as claimed are excluded under section 1(2) as they relate to computer implemented methods of doing business as such.
- 33 I have read the specification and can find no saving amendments. I therefore refuse the application.

Appeal

34 Any appeal must be lodged within 28 days

J Pullen

Deputy Director, acting for the Comptroller