

PATENTS ACT 1977

APPLICANT Bank of America Corporation

ISSUE Whether patent application number
GB0916278.5 complies with Section 1(2)

HEARING OFFICER Dr. Stephen Brown

DECISION

Introduction

- 1 This decision concerns the issue of whether the invention claimed in patent application GB0916278.5 relates to non-excluded subject matter as required by section 1(2) of the Act. It is entitled “Wireless number risk scores for use with mobile payments” and was filed on 16th September 2009 with a priority date of 17th September 2008. The application was published as GB2463573 on 24th March 2010.
- 2 The examiner has maintained throughout that the invention claimed in this application is excluded from patentability as both a computer program and a method of doing business. A decision on the papers on this matter was requested on 14th September 2012.

The Invention

- 3 The claims relate to a method of evaluating the financial risk involved in a wireless financial transaction.
- 4 The claims are those originally filed. There are 22 claims in total, five of which are independent. Claims 1, 20 and 21 relate to methods of evaluating the financial risk in transactions involving wireless devices. Claims 13 and 17 are to computer-readable mediums storing computer-executable instructions for performing the said methods.
- 5 The wording of each of these five claims is as follows:

Claim 1: A method for evaluating risk of default for transactions via wireless device, the method comprising: receiving customer history and account activity for a wireless phone number; processing customer information to generate a risk score for the wireless phone number, the risk for quantifying risk of non-payment; and incorporating the wireless number risk score into the authorization process for transactions via wireless device.

Claim 13: A computer-readable medium storing computer-executable instructions which, when executed by a processor on a computer system, perform a method for generating wireless number risk scores, the method comprising: receiving information regarding customer history and account activity; authenticating customer information; and processing the information to generate a wireless number risk score.

Claim 17: A computer-readable medium storing computer-executable instructions which, when executed by a processor on a computer system, perform a method for electronically authorizing a payment via wireless device, the method comprising: receiving a request for authorization by a party to the transaction; authenticating customer information; applying standard company authorization procedures; applying wireless number risk scoring; and transmitting approval or denial to the parties to the transaction.

Claim 20: A method for evaluating risk of default for a transaction via a wireless device, the method comprising: receiving customer data for a customer having a wireless phone account; processing the customer data to generate a score quantifying risk of default and assigning that risk score to the wireless phone number associated with the account; and incorporating the wireless phone number risk score into the authorization process for a transaction via a wireless device.

Claim 21: A method for evaluating risk of default for a transaction, the transaction being consummated via a wireless device, the method which may be employed by a consortium of industry participants, the method comprising: receiving customer data for a wireless phone account from an industry participant; authenticating the customer data; allocating the customer data into categories; and processing the customer data to generate a wireless phone number risk score.

- 6 For simplicity, the following discussion will deal with the common concept underlying these independent claims. While they have some minor variations I believe they will all stand or fall subject to the conclusions reached about their common concept.

The law and its interpretation

- 7 Section 1(2) of the Patents Act reads:

It is hereby declared that the following (among other things) are not inventions for the purposes of this Act, that is to say, anything which consists of:

...

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

...

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

8 In addition to the above there is also the case law established in the UK in *Aerotel/Macrossan*¹, and further elaborated in *Symbian*² and *AT&T/CVON*³, which I am bound to follow. In *Aerotel* the Court of Appeal reviewed the case law on the interpretation of section 1(2) and approved a four-step test for the assessment of patentability, namely:

- 1) Properly construe the claim
- 2) Identify the actual (or alleged) contribution
- 3) Ask whether it falls solely within the excluded matter
- 4) Check whether the contribution is actually technical in nature.

The operation of the test is explained at paragraphs 40-48 of the judgment. Paragraph 43 confirms that identification of the contribution is essentially a matter of determining what it is the inventor has really added to human knowledge, and involves looking at substance, not form. Paragraph 47 adds that a contribution which consists solely of excluded matter will not count as a technical contribution.

Application of the *Aerotel* test

Properly construe the claims

9 From the application as a whole I have no doubt that the method of the claims is implemented in software. I thus construe the independent claims as relating to a computer implemented method of evaluating financial risk and incorporating this evaluation into the authorisation process of a wireless transaction.

¹ *Aerotel Ltd v Telco Holdings Ltd (and others) and Macrossan's Application* [2006] EWCA Civ 1371

² *Symbian Limited's Application* [2008] EWCA Civ 1066

³ *AT&T Knowledge Ventures LP and CVON Innovations Limited* [2009] EWHC 343

Identify the actual contribution

- 10 In their letter of 23rd April 2012 the applicants' attorneys argue that the contribution is twofold. Firstly, it is the provision of a 'risk score' within the authorisation process of a wireless transaction. This score is a measure of the risk that a customer may default on a payment made via a wireless device. The score is based on customer history and account activity for the wireless device.
- 11 In the same letter, the attorney's also argue that there is a second element to the contribution, namely that the operation of providing the risk score requires a new arrangement of hardware. The examiner disagrees, arguing in his report of 3rd February 2012 that the hardware utilised is merely conventional networked computers, 'point of sale' hardware and other known wireless devices.
- 12 For the sake of argument, at least, I am content to accept the first element of the contribution, namely the provision of a risk score. The second element though is more problematical. Given the nature of his objections the examiner concluded that a search would serve no useful purpose so I am left to address this problem without the benefit of any identified prior art. Additionally, in their letter, referred to above, the attorneys do not offer any argument or evidence as to why the invention requires a new arrangement of hardware, they simply assert that it does.
- 13 The attorneys do however suggest that the present invention is akin to that in the *Honey Pot Trust*⁴. This case before the Office concerned a system which recorded audio/visual data in order to verify that a business transaction, such as the delivery of a parcel, had occurred. In this case the hearing officer, H. Jones, decided that the invention was not excluded under section 1(2) as it required a specific collection of hardware components drawn together in a particular way for a particular purpose. In his decision, the hearing officer highlighted that a key part of this system was that the audio/visual data was stored in a subsidiary data store of a central system, with each such store being accessible by a separate satellite processing system. In my opinion, it was this level of hardware detail that led the hearing office to conclude that the contribution was more than just a program for a computer or a method of doing business as such.
- 14 In contrast, I cannot find anything approaching the same level of detail in the description of the hardware required by the invention of the current application. Looking at figure 1, and the associated part of the description, I cannot see anything more than a known computing device attached to the internet. Indeed paragraph 34 of the description even labels component 101 as a 'generic computing device'. Likewise, figure 2b, and the associated description, detail standard wireless devices that only differ from common general knowledge in the data they are exchanging, namely the 'risk score'. The remaining figures and description appear to relate entirely to the various steps in the claimed method.

⁴ BL O/361/10.

- 15 Overall, I cannot see any evidence of any new arrangements of hardware in the current application. I am thus forced to conclude that the contribution is the provision of a 'risk score' within the authorisation process of a wireless transaction using conventional hardware.

Ask whether it falls solely within excluded matter

- 16 I will now discuss each category of exclusion raised by the examiner with regards to the contribution just identified.

Method for doing business

- 17 In their letter of 23rd April 2012 the applicants' attorneys argue that while the purpose of the invention is to provide an enhanced payment system what the inventor has actually contributed is a different technical system including both new arrangements of hardware and software. For this reason they argue that the contribution does not fall entirely within excluded subject matter.
- 18 As reasoned above I do not accept the argument that the current invention must result in a new arrangement of hardware. If that were the case I would expect some disclosure pointing towards this conclusion in the application and I can find none.
- 19 While the contribution allows 'risk' data to be provided efficiently I cannot see that it solves any wider technical problem. Neither can I see any effect or other thing that falls outside the business method exclusion *except possibly* for those elements that may require the provision of new software. I will now consider that category of exclusion.

Program for a computer

- 20 As discussed above, there is no doubt in my mind that the contribution requires one or more computer programs for its implementation. Indeed claims 13 and 17 make this explicit. However, the mere fact that the invention is effected in software does not of course mean that it is automatically excluded as a program for a computer as such. What matters is whether or not the program provides a technical contribution beyond that of a mere program.
- 21 On this point I am reminded of paragraphs 54 & 56 of *Symbian*² which directly address this issue. They state that:

More positively, not only will a computer containing the instructions in question "be a better computer", as in Gale, but, unlike in that case, it can also be said that the instructions "solve a 'technical' problem lying with the computer itself". Indeed, the effect of the instant alleged invention is not merely within the computer programmed with the relevant instructions. The beneficial consequences of those instructions will feed into the cameras and

other devices and products, which, as mentioned at [3] above, include such computer systems. Further, the fact that the improvement may be to software programmed into the computer rather than hardware forming part of the computer cannot make a difference – see Vicom; indeed the point was also made by Fox LJ in Merrill Lynch.

and:

Putting it another way, a computer with this program operates better than a similar prior art computer. To say "oh but that is only because it is a better program – the computer itself is unchanged" gives no credit to the practical reality of what is achieved by the program. As a matter of such reality there is more than just a "better program", there is a faster and more reliable computer.

- 22 In my opinion the contribution in this case does not solve a technical problem lying with the computing system itself. Neither does it result in a faster or more reliable computing system. What it results in is an enhanced payment system that includes the provision of a 'risk' score. Unlike in *Symbian*², the computing system itself does not appear better as a matter of practical reality.
- 23 In his report of 3rd February 2012 the examiner compared the contribution in this application to the signposts in CVON³, finding that it did not meet any of them. I will not repeat that exercise here but I note that the applicants' attorneys do not dispute the examiners conclusions with regards to the signposts. While I agree with the attorneys that the signposts are not compulsory the fact that the contribution identified above does not appear to meet any of them can only reinforce the conclusion I am about to reach based on the approaches of *Aerotel*¹ and *Symbian*².
- 24 To summarise: the contribution is the provision of a 'risk score' within the authorisation process of a wireless transaction. The purpose of this contribution is to provide an enhanced payment system, i.e. a better method of doing business. While this business method is implemented in software, I can see no technical effect either outside or within the computer system. The computer system does not involve a new arrangement of hardware, neither does the software result in the computer system itself operating in a new way. I am thus forced to conclude that the contribution is excluded as a combination of a method for doing business and a program for a computer as such.

Check whether the contribution is actually technical in nature

- 25 As reasoned above, the contribution does not have a relevant technical effect. Thus the application also fails the fourth *Aerotel* step.

Decision

- 26 I have found that the contribution made by the invention defined in the independent claims falls solely in subject matter excluded under section 1(2) as some combination of a program for a computer and a method for doing business as such. I have read the specification carefully and I can see nothing that could be reasonably expected to form the basis of a valid claim. I therefore refuse this application under section 18(3).

Appeal

- 27 Under the Practice Direction to Part 52 of the Civil Procedure Rules, any appeal must be lodged within 28 days.

Dr. Stephen Brown

Deputy Director, acting for the Comptroller