



PATENTS ACT 1977

APPLICANT	Barclays Bank PLC
ISSUE	Whether patent application GB1306615.4 complies with section 1(2) of the Patents Act
HEARING OFFICER	Stephen Brown

DECISION

Introduction

- 1 The application relates to a mobile payment system and methods for providing, validating, authorizing, activating and using a mobile payment account on a portable electronic device to enable efficient and secured contactless payment at an electronic point of sale. The application was filed on 28 September 2011. It claims priority from seven US applications, the earliest of which is 28 September 2010. The application was published on 26 June 2013 as GB2497900. The applicants are represented by patent attorneys Maucher Jenkins.
- 2 Following two rounds of amendments and correspondence the examiner remains of the view that the invention is excluded from patentability under section 1(2). Consequently, on 5 February 2018 the applicants asked to be heard. However, on 26 March 2018 they indicated that they no longer wished to attend a hearing. The case thus came before me for a decision on the papers.
- 3 I confirm that, as set out in the examiner's pre-hearing report of 22 February 2018, this decision will only cover the issue of excluded matter under section 1(2) of the Act. Should I find the invention not to be excluded then it will need to be remitted back to the examiner to address various other issues. I further confirm that in reaching my decision I have considered all of the applicant's arguments present on the file. The compliance period has not been extended and expired on 3 April 2018.

The invention

- 4 The application relates to the field of contactless payment using a portable electronic device. The invention aims to provide a solution to the problem of delays between a customer requesting a new mobile account and the time when the mobile account is ready and can be used to carry out payments. The description sets out that

currently the setting up of a mobile payment account is a complicated and time-consuming process which often requires, for example, the customer to post documents to verify their identity or make a telephone call to provide verbal confirmation of identity. The invention aims to provide a solution to this problem with a system for receiving a request to create a mobile payment account from a portable electronic device, such as a mobile phone, which identifies the user and device, creates data for the account associated with the device automatically and any necessary verification such that the device can be enabled for mobile payments.

- 5 The current claims were filed on 5 February 2018. There are three independent claims: claim 1 to the system, claim 13 to a portable electronic device comprising a data communication interface and a wallet application module configured for the system of payment, and claim 14 to a method. With some minor differences, which I believe do not significantly affect the assessment of the invention, the operations of claims 13 and 14 essentially correspond with the system of claim 1. I will therefore firstly consider independent claim 1, and only go on to consider the other independent claims individually if it appears that the assessment of the invention might be affected by these minor differences. Claim 1 reads:

1. A system for providing a mobile payment account associated with a portable electronic device to enable contactless payment at an electronic point of sale using a wallet application module on the portable electronic device, the system comprising means configured to:

receive a request from the wallet application module on the portable electronic device to create a mobile payment account, the request including data identifying the portable electronic device and an associated user:

create data for the new mobile payment account associated with the portable electronic device based on data received in the request, wherein the created mobile payment account data includes data identifying an activation servicing state of the mobile payment account as one of a first inactive state indicating that associated user must be verified by an account management system, a second inactive state indicating that the mobile wallet application must be configured for user access security, and an active state indicating that the user is verified and user access security is configured;

transmit data identifying the created mobile payment account to the portable electronic device, wherein the activation servicing state of the mobile payment account is initially set to the first inactive state.;

perform processing steps to automatically verify the identity of the associated user and in response set the servicing state to the second inactive state, and

receive data indicating that the user access security has been configured for the mobile wallet application, and in response, set the activation servicing state to the active state, whereby the wallet application module is enabled for contactless payment using the activated mobile payment account.

The Law

- 6 Section 1(2) declares that certain things are not inventions for the purposes of the Act, as follows:

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 –

(a) a discovery, scientific theory or mathematical method;

(b) a literary, dramatic, musical or artistic work or any other aesthetic creation whatsoever;

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

(d) the presentation of information;

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.

- 7 In *Aerotel/Macrossan*¹, the Court of Appeal reviewed the case law on the interpretation of section 1(2) and approved the following four-step approach to help decide the issue of what is often called “excluded matter”:

Step one: properly construe the claim

Step two: identify the actual contribution (although at the application stage this might have to be the alleged contribution)

Step three: ask whether it falls solely within the excluded matter

Step four: check whether the actual or alleged contribution is actually technical in nature.

- 8 The case law in this area has been further elaborated in *Symbian*². *AT&T/CVON*³ and *HTC v Apple*⁴. In particular, *AT&T/CVON* provided five helpful signposts to apply when considering whether a computer program makes a relevant technical contribution. In *HTC v Apple*, Lewison LJ amended the fourth of these signposts. The signposts, as modified in *HTC v Apple*, are:

- i) *Whether the claimed technical effect has a technical effect on a process which is carried on outside the computer.*

¹ *Aerotel Ltd v Telco Holdings Ltd and Macrossan's Application* [2006] EWCA Civ 1371; [2007] RPC 7

² *Symbian Ltd's Application* [2008] EWCA Civ 1066; [2009] RPC 1

³ *AT&T Knowledge Venture/CVON Innovations v Comptroller General of Patents* [2009] EWHC 343 (Pat); [2009] FSR 19

⁴ *HTC Europe Co Ltd v Apple Inc* [2013] EWCA Civ 451; [2013] RPC 30

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

9 The attorney's submissions in response to the examination report refer directly to the *Aerotel/Macrossan* four-step test and thus the attorney clearly agrees with the examiner that the approach to determining patentability under section 1(2) is governed by these judgements. I will consider the attorney's submissions as part of my analysis below.

Application of the *Aerotel* test

Step 1: Properly construe the claim

10 I agree with the attorney's submission of 5 February 2018 that the construction of claim 1 is relatively straightforward. In their submission of 31 July 2017 the attorney helpfully sets out the construction of the claims as they were filed at that time in some detail as follows:

The claimed invention is concerned with real-time processing of a request from a mobile wallet of a portable device to configure the device for electronic payment from a new payment account. In response to the request, an account data processing system creates data for a new mobile payment account, including data identifying an activation servicing state of the mobile payment account as an inactive state indicating that the inactive mobile payment account is not available for use by the portable device to carry out transactions.

The wallet application module receives and stores the data associated with the inactive mobile payment account, and receives a subsequent request to activate the inactive mobile payment account. In response to the request to activate the inactive mobile payment account, an account activation unit of the account data processing system authenticates the user associated with the inactive mobile payment account by transmitting validation data to the portable device, before activating the mobile payment account by updating the servicing state of the mobile payment account.

Activating the mobile payment account thereby configures the portable device to enable a payment transaction to be made from the activated mobile payment account.

11 The updated claims differ slightly from this but the essence of the claimed invention remains the same. It is a system for processing a request from a portable device to configure that device to enable mobile payment. The processing includes the automatic identification and verification of the user and activation of the account.

- 12 The attorney describes the invention in his construction above as “*real-time processing*” and in his submission of 5 February 2018 talks of “*facilitating instant yet secured creation and provisioning of a new mobile payment account for contactless payment*”. The claims and description set out how request and activation of the account will happen automatically through the user’s personal electronic device and the description is clear that this will be faster. However, I do not think that the description or claims mean that the overall process is necessarily instantaneous or in real-time. Automatic refers to the fact that the system operates without human interaction and not that it is necessarily instantaneous. In fact depending upon the necessary verification required setting up the account could take some time for example, as the description sets out, if a plurality of identification and verification questions need to be answered. I accept that in some cases the automatic verification may happen almost instantaneously and that automating the process is likely to be quicker than existing methods of setting up a payment account but the claims do not provide that the overall system will always be in real-time or instant. Thus despite the attorney’s arguments, I exclude these features from my construction of the claim.

Step 2: Identify the actual contribution

- 13 *Aerotel/Macrossan* provides guidance for this step in paragraph 43 of the judgement (my emphasis added):

*It is an exercise in judgement probably involving the problem 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.*

- 14 The attorney, in the submission of 5 February 2018, asserts that the actual contribution is “*in the solution to the problem of facilitating instant yet secured creation and provisioning of a new mobile payment account for contactless payment*”. The examiner’s view of the contribution provides a little more detail on how the invention works and is set out in his pre-hearing report of 22 February 2018 as “*the contribution therefore lies in establishing and activating a (secure) mobile payment account for contactless payment involving transmission of security identifiers to and from a mobile device wallet application and verification of the user identity.*”
- 15 I note that that the main substantive differences between the examiner and attorney’s assessment of the contribution is that the attorney specifically provides for facilitating the account to be instant. However, as I have set out above, while the request for a new account is automatic there is no support for the verification and creation of the account to necessarily be instant. I accept that in some circumstances due to the automation it may effectively occur instantaneously but that feature is not part of the claim as I have construed it.

- 16 Apart from the use of the word 'instant' though I am happy to agree with the attorney. I thus identify the contribution to be the automatic creation of a new secured mobile contactless payment account.

Step 3: Ask whether it falls solely within the excluded subject matter

- 17 It appears to me that the above contribution revolves around changes to how a new payment account is set up. Specifically it is about automatically verifying and securing a new mobile account to enable contactless payment. In my opinion, the problem being solved here is a purely business related one – namely that it is desirable to speed up the account creation process. Furthermore, while technical means are employed to enact the automation, the devices themselves are doing nothing that wasn't well known at the priority date. In my view, the underlying substance on the contribution is a business method. I thus conclude that the contribution falls wholly within the exclusion of a method for doing business as such.
- 18 Having read the specification, it seems clear to me that the contribution identified is delivered through one or more programs for various computing devices. Prima facie it would thus appear that the contribution might also be excluded as a program for a computer as such. The attorney's submission of 5 February 2018 focussed in detail on this area and on whether the contribution is technical in nature. I shall therefore go on to consider these points in more detail.

Step 4: Check whether the actual or alleged contribution is actually technical in nature

- 19 In his submission of 5 February 2018 the attorney referred to the five *AT&T* signposts when considering whether or not the contribution is actually technical in nature. I agree that it is useful here to consider the signposts in some detail. I do so while noting that these are aimed at considering whether a computer program, and not a business method, makes a relevant technical contribution. However, I believe that as the mobile payment account creation of this invention is related to computing systems it makes the signposts useful in this case. I will, however, apply them with some caution regarding the business exclusion. I will now consider each signpost in turn:

(i) whether the claimed technical effect has a technical effect on a process carried on outside a computer

- 20 In the submission of 5 February 2018 the attorney stated that there is such an external effect because the computing hardware is caused to "*dynamically control access to the contactless payment functionality*". Whilst I can see that there is an effect on the way that payments are processed outside of the computer I am afraid that I do not accept that this is a technical effect. In my view, this effect is an improvement to the experience of setting up and using a payment account. This is an improvement in the 'business method' not a technical effect.

(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 applications being run;

- 21 The claimed technical effect is clearly not operating at the level of computer architecture. The invention depends entirely upon the data being processed in order to create a new secured payment account. I note that the attorney has not referred to this signpost in any of his submissions.

(iii) whether the claimed technical effect results in the computer being made to operate in a new way;

- 22 In the submission of 5 February 2018 the attorney asserts that “*each feature [of the claim] ultimately causes an effect on the technical function of the system, as well as the wallet application module on the portable device*”. He argues that this means that the computing system is being made to operate in a new way. The attorney also says that “*the resulting system functions differently depending on the values of these security-related data elements.*”

- 23 I am afraid that I do not agree with these arguments. While the system does behave differently depending on the data it receives that is simply what all programmed computers do. The computing system *itself* is not operating in a new way. I thus conclude that this signpost is also not satisfied.

(iv) whether the program makes the computer a better computer in the sense of running more efficiently and effectively as a computer;

- 24 As discussed above, I consider that the individual data processing components for creating the secured payment account are running in a conventional manner on conventional hardware. Thus I can see nothing to indicate that the computing system itself is running more efficiently or effectively. Again, I note that the attorney has not referred to this signpost in any of his submissions.

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

- 25 The contribution of this invention, as set out above, is the automatic creation of a new secured contactless payment account. I have concluded that this is a business related problem not a technical one. Therefore, even though the problem is overcome it does not result in a non-excluded technical contribution.

- 26 Finally, the attorney argued that the contribution is not excluded because: “*it relates to technical aspects of a mobile wallet system, in particular the generation, transmission and use of data defining an inactive/activated account, where the contribution is clearly technical in nature*”. However, as I have reasoned above, I consider that the automatic creation of a new mobile account/wallet is, in one aspect, merely a ‘better’ business method. In the contributions other aspect, i.e. the generation, transmission and use of data to define the account, this is just the action of one or more computer programs running on standard hardware. Thus after careful consideration I cannot identify any non-excluded technical contribution. It

follows that the fourth *Aerotel* step is not satisfied and I find that the invention is excluded as a business method and a program for a computer as such.

- 27 Returning briefly to independent claims 13 and 14, the differences between these two claims and claim 1 relate only to minor differences in the steps and not to the substance of the invention. Thus I can see nothing in these claims what would lead me to a different conclusion to that reached in respect of claim 1.

Decision

- 28 I thus decide that the invention defined in the claims falls solely within matter excluded under 1(2) as a method for doing business and a program for a computer as such. Having reviewed the application, I do not consider that any saving amendment is possible. I therefore refuse this application under section 18(3).

Appeal

- 29 Any appeal must be lodged within 28 days after the date of this decision.

Stephen Brown

Deputy Director, acting for the Comptroller