



## PATENTS ACT 1977

APPLICANT	Apple Inc.
ISSUE	Whether patent application GB2211038.1 complies with the requirements of section 1(2) of the Patents Act 1977
HEARING OFFICER	Ben Micklewright

---

### DECISION

#### Introduction

- 1 This decision relates to whether patent application GB2211038.1 complies with section 1(2)(c) of the Patents Act 1977 (“the Act”).
- 2 The application was lodged on 28 July 2022 claiming divisional status from parent application GB1912496.5 which was filed on 28 February 2018 with a priority date of 16 March 2017. The request for ante-dating was allowed and the divisional application was published as GB 2605936 A on 19 October 2022.
- 3 The examiner considered the invention to be a program for a computer and a method of doing business as such and therefore to be excluded from patentability. The applicant disagreed and, following several rounds of correspondence, requested that the matter be referred to me for a decision based on the correspondence on file.
- 4 I confirm that I have considered the arguments made in all the correspondence on file, in particular the letters from the applicant dated 15 September 2022 and 11 October 2022.
- 5 In the time since the application was forwarded to me, the parent application was refused by a hearing officer in decision O/1086/22 as a method for doing business and a program for a computer as such. On 24 February 2023 I invited the applicant to provide any submissions or comments they may have in relation to that decision and its relevance to the present case. The applicant responded with further submissions on 9 March 2023, but they did not relate to the earlier decision. Instead they relate to arguments based on the European Patent Office’s approach to patentability. These submissions are focussed more on whether the claimed invention makes an inventive step over a particular prior art document. Inventive step is not however at issue before me. Insofar as they relate to the issue before me the submissions are essentially a reworking of arguments already made in previous correspondence. Moreover any further general submissions the applicant wished to

make in relation to this application should have been made at the point where a decision on the papers was requested. As the submissions do not relate to the relevance of the IPO decision on the parent application, and for the other reasons set out above, I will not consider them further. In any case, although the claims of the parent application share some features with the claims of the present application, in my view the two sets of claims are of differing scopes and directed to different inventions. I will therefore proceed to determine whether the present application is allowable on its own merits giving no weight to the earlier decision.

## **The invention**

- 6 The invention relates to a payment transaction system for a device such as a set-top box or smart TV. When said device receives a request to perform a payment transaction corresponding to accessing particular content, such as a movie, the device selects a proximate device, such as a smartphone, tablet, laptop, etc., to perform the payment transaction from a plurality of proximate devices. The selection is based at least in part on likelihood values, received from each respective proximate device, that each proximate device will perform the payment transaction. Once confirmation is received that the payment transaction has been completed, access to the particular content is provided.
- 7 The latest amendments to the claims were filed on 11 October 2022. Claim 1 is the only independent claim and reads as follows:

*1. A device, comprising:*

*at least one processor configured to:*

*receive, via a user interface, a request to perform a payment transaction corresponding to accessing particular content via the device;*

*transmit, responsive to receipt of the request, a message to a plurality of proximate devices that is each configured to perform the payment transaction, the message comprising an attribute of the payment transaction;*

*receive, using a first communication protocol and from each respective proximate device of the plurality of proximate devices, a respective device identifier of each respective proximate device and a respective likelihood that each respective proximate device will perform the payment transaction, the respective likelihood being determined by each respective proximate device based at least on the transmitted attribute of the payment transaction;*

*select, based at least in part on a payment factor and the received respective likelihood values, a default payment device from the plurality of proximate devices configured to perform the payment transaction;*

*transmit, via a second communication protocol, a message to perform the payment transaction, the message comprising the device identifier of the default payment device;*

*receive confirmation that the payment transaction was completed; and*

*responsive to receipt of the confirmation, provide, via the user interface, access to the particular content corresponding to the payment transaction.*

## The law

- 8 The Examiner raised an objection under section 1(2) of the Act that the invention is not patentable because it relates to a method for doing business and a program for a computer as such. The relevant provisions of this section of the Act are shown below:

*1(2) 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.*

- 9 The provisions of Section 1(2) were considered by the Court of Appeal in *Aerotel*<sup>1</sup> where a four-step test was set out to decide whether a claimed invention was excluded from patent protection:

*(1) Properly construe the claim;*

*(2) Identify the actual contribution;*

*(3) Ask whether it falls solely within the excluded subject matter;*

*(4) Check whether the actual or alleged contribution is actually technical in nature.*

- 10 It was stated by Jacob LJ in *Aerotel* that the test is a re-formulation of and is consistent with the previous ‘technical effect approach with rider’ test established in previous UK case law. Kitchen LJ noted in *HTC v Apple*<sup>2</sup> that the *Aerotel* test is followed in order to address whether the invention makes a technical contribution to the art, with the rider that novel or inventive purely excluded matter does not count as a ‘technical contribution’.

- 11 Lewison J in *AT&T/CVON*<sup>3</sup> set out five signposts that he considered to be helpful when considering whether a computer program makes a technical contribution. Lewison LJ reformulated the signposts in *HTC v Apple* in light of the decision in *Gemstar*<sup>4</sup>. The signposts are:

---

<sup>1</sup> *Aerotel Ltd v Telco Holdings Ltd and Macrossan's Application* [2006] EWCA Civ 1371

<sup>2</sup> *HTC Europe Co Ltd v Apple Inc* [2013] EWCA Civ 451

<sup>3</sup> *AT&T Knowledge Ventures/CVON Innovations v Comptroller General of Patents* [2009] EWHC 343 (Pat)

<sup>4</sup> *Gemstar-TV Guide International Inc v Virgin Media Ltd* [2010] RPC 10

- 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 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.*

## **Assessment**

- 12 To determine whether the claimed invention is more than a program for a computer and/or a method for doing business as such I am required to follow the approach set out by the Courts in *Aerotel*.
- (1) Properly construe the claim*
- 13 It appears from the correspondence between the applicant and the examiner that there is agreement that the construction of the claim presents no particular challenges.
- 14 As described above, claim 1 relates to a device such as a set-top box or smart television (as described in paragraph [0018]), for accessing content, such as a movie (as described in paragraph [0034]). The proximate devices may be portable computing devices such as laptops, smartphones, tablets, watches, etc. as described in paragraph [0017].
- 15 Paragraph [0026] states that an “attribute of the payment transaction” may be the identity of the merchant associated with the payment transaction, the item or service associated with the payment transaction, a type of payment required, etc.
- 16 The “device identifier” of the proximate device may be an identifier that can be used to communicate with the proximate device (paragraph [0022]).
- 17 The “payment factor” is described as being related to one or more attributes of the commerce being conducted and/or one or more attributes associated with the individual proximate devices (paragraphs [0013] and [0023]).
- 18 The “first communication protocol” may be Bluetooth or NFC for instance (paragraph [0019]), while the “second communication protocol” may be Wi-Fi or cellular for instance (paragraph [0019]).
- 19 I note that the “message to perform the payment transaction” transmitted by the second communication protocol comprises the device identifier of the default payment device. Although it is not entirely clear in the claim, I construe this step as transmitting the message to the default payment device. There is support for this construction in, for example, paragraphs [0041] and [0051] of the description. The

message is not however necessarily transmitted directly to the default payment device. According to paragraph [0041] it may be transmitted to an electronic payment server which then initiates the payment transaction with the default payment device. It is also not necessarily the case that the default payment device completes the payment transaction. In fact the description makes clear that the default payment device can handoff the payment to another device, and the payment could even be split between devices. The confirmation that the payment was completed is not therefore restricted to the payment having been completed by the default payment device. My decision does not however turn on these points of construction.

*(2) Identify the actual contribution*

- 20 Identifying the contribution in the second step of this test is critical and I refer to paragraph 43 of *Aerotel* for guidance:

*“The second step – identifying the contribution – is said to be more problematical. How do you assess the contribution? Mr Birss submits the test is workable – 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 the substance not form – which is surely what the legislator intended.”*

- 21 The applicant identified the contribution in their letter of 15 September 2022 as:

*The selection of a device from a plurality of devices to perform a task, wherein each of the plurality of devices are configured for performing the task, such that the best device becomes the default device.*

- 22 The examiner subsequently considered the contribution, in their examination report of 28 September 2022, to be:

*Selecting from a plurality of proximate devices a device to perform a payment transaction based on a payment factor and a likelihood of the device to perform said transaction, determined based on an attribute of the transaction.*

- 23 This reflects the problem addressed by the invention of selecting a single device most likely to perform a payment transaction when there are multiple proximate devices capable of performing the transaction (as discussed at paragraph [0014]).

- 24 I note that neither formulation includes details of the hardware required to implement the invention. This is appropriate given that it is acknowledged that the hardware required to implement the invention is known in the art at paragraphs [0003] and [0012].

- 25 The applicant does not disagree with the examiner’s assessment in their subsequent correspondence. In my view, based on my construction of the claim, it does not quite capture the contribution accurately, as the selected device may not perform the payment transaction. I therefore consider the contribution to be:

*Providing access to content via a device by selecting, from a plurality of devices proximate to the device, a default payment device most likely to*

*perform a payment transaction based on a payment factor and a likelihood of the device to perform said transaction, determined based on an attribute of the transaction transmitted to the proximate devices, a respective likelihood that each respective proximate device will perform the payment transaction based on that attribute being received by the device and the device receiving confirmation that the payment transaction has been completed.*

(3) Ask whether it falls solely within the excluded subject matter;

(4) Check whether the actual or alleged contribution is actually technical in nature

26 The third and fourth steps of the *Aerotel* test involve considering whether the contribution falls solely within excluded categories, and then checking whether the contribution is technical in nature. I will consider these two steps together because whether the contribution is technical in nature will have a direct impact on whether it falls solely within excluded matter.

27 The examiner identifies the contribution as a computer program carrying out a method for doing business, but as the examiner correctly points out, just because the contribution is implemented using a computer program it is not immediately excluded as a computer program as such. In *Symbian*<sup>5</sup>, the Court of Appeal stated that a computer program may not be excluded if it makes a technical contribution. In order to determine if the contribution is technical in nature, I will make use of the *AT&T* signposts.

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

28 In their letter of 15 September 2022, the applicant accepts the examiner's suggestion, in light of the High Court judgment of *Lantana*<sup>6</sup>, that the computer can be considered to be the processor and the entire network of proximate devices. However, in their letter of 11 October 2022 the applicant argues that *Lantana* cannot be used to justify defining the computer in this way because the present application claims a single device as opposed to in *Lantana* where the claimed system comprised a local and a remote station.

29 The system defined by the claim clearly requires a network of devices in communication rather than merely a single device. Such a network of devices is entirely conventional. I therefore agree with the examiner that the network of devices can be considered as a single computing arrangement for the purposes of the first signpost. The point made in *Lantana* (at paragraph 30) is that the fact that an entirely conventional computing arrangement is required is not what makes a software invention patentable.

30 The applicant argues, in their letter of 15 September 2022, that the present invention involves a different physical interaction with the world outside the computer as it provides an automated selection of a device from a plurality of devices which are each capable of performing a payment without requiring further physical steps from the user. They argue that if this feature was not present, the user would have to

---

<sup>5</sup> *Symbian Ltd v Comptroller General of Patents* [2009] RPC 1

<sup>6</sup> *Lantana Ltd v Comptroller General of Patents* [2013] EWHC 2673 (Pat)

either use a default device that may not be as efficient or secure, or attempt to select the best device for the specific transaction, requiring additional time in comparison to the inventive concept. They draw comparisons with the judgment of *Lenovo*<sup>7</sup> in which it was found that a card payment method for solving a card clash problem of contactless payment cards involved a different physical interaction with the world outside the computer due to the automatic nature of the system.

- 31 In response, the examiner argued that the present invention does not solve a card clash problem, or a problem that is considered analogous, and so *Lenovo* is of limited relevance. The examiner argued that the removal of a physical step would not universally be considered technical in all applications.
- 32 I agree with the examiner's assessment. It was not the automation of a previous manual process on its own that was decisive in *Lenovo*, but rather that the automation solved a problem with card clash. It was this latter aspect that provided the necessary technical character to the problem being solved. In this case there is no such comparable technical problem to be overcome as the present invention does not relate to payment cards or to potential card clash issues. The payment transaction is instead conducted entirely within the computing arrangement without the use of external payment cards. The effect of the invention lies entirely within the computing arrangement.
- 33 The invention may well provide a different user interaction which might provide certain advantages to the user in some circumstances, but the mere automation of a manual process is not sufficient to demonstrate a technical effect outside of the computer. The advantages of the present invention relate to the expected benefits of the computer-implemented automation of a process, namely the reduction of user input and thus the saving of time. The process is improved merely because a computer system is being programmed to replicate some of the steps previously carried out manually. I can see no technical effect outside of the computer.
- 34 I note in their letter of 11 October 2022 the applicant further argues on this point that a different physical interaction occurs which qualifies as being technical in character due to it solving a problem of ensuring that the device which executes the transaction is one which is capable of doing so. Thus the invention solves a device clash problem by ensuring that the device which is capable of handling the request is used.
- 35 I am not convinced by this argument. The invention does not solve a problem of ensuring the device which executes the transaction is one which is capable of doing so. The claim explicitly requires that each of the proximate devices are configured to perform the payment. The plurality of proximate devices are therefore all capable of executing the payment transaction. Instead, the problem merely relates to selecting a device which is most likely to perform the payment transaction. This is not a technical effect outside of the computer and therefore the first signpost cannot assist the applicant.

---

<sup>7</sup> *Lenovo (Singapore) Pte Ltd v Comptroller General of Patents* [2020] EWHC 1706 (Pat)

*Signpost 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;*

*Signpost iii) Whether the claimed technical effect results in the computer being made to operate in a new way*

- 36 I will consider signposts ii) and iii) together. The applicant has not put forward any arguments in relation to these signposts, and so I can deal with these briefly. It is clear that the invention does not operate at the level of the architecture of the computer. The effect of the invention is restricted to a specific process at the application level rather than being a general effect across all data being processed or applications being run. Furthermore, the computer itself does not operate in a new way. I therefore agree with the examiner that these signposts are not relevant.

*Signpost iv) Whether the program makes the computer a better computer in the sense of running more efficiently and effectively as a computer*

- 37 The applicant argues, in their letter of 15 September 2022, that an automated selection of the most efficient section (i.e. one of the proximate devices) of the computing arrangement to perform a task unequivocally increases the efficiency of the computing arrangement and causes it to run more effectively.
- 38 The applicant also argues, in their letter of 11 October 2022, that the device is made more efficient because there is reduced need to interact with users such that computer resources are conserved. Furthermore, the proximate devices are made more efficient as the likelihood of initiating a payment transaction that will end in failure is reduced. In addition, the applicant also argues that the invention increases transaction success rate and speed which ultimately enables efficient use of computer resource in the device and proximate devices.
- 39 The examiner disagreed and argued that the computer itself would operate at the same efficiency. The proximate devices would process the transaction data in the same way regardless of the invention.
- 40 I agree with the examiner. The computer itself does not run more efficiently or effectively as a computer. It processes data in the same way as it did before. Any improvement in efficiency or effectiveness is specific to processing a payment transaction rather than in the running of the computer itself as a whole. This signpost therefore does not point to a technical effect.

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

- 41 The applicant argues, in their letter of 15 September 2022, that the selection of a most suitable device to perform a payment transaction is not a method of doing business, but rather is a technical process as it involves technical analysis of device attributes. Therefore, the perceived problem of having multiple payment devices configured to perform a payment transaction where only one is required to perform the payment transaction is technical, as is the solution.



- 42 The examiner acknowledges that the perceived problem may have been overcome by the invention but argues that the problem is not technical because it relates to a payment transaction which falls firmly within the method for doing business exclusion.
- 43 I agree with the examiner. The suitability of the device to perform a payment transaction is determined at least in part on an attribute of the payment transaction. Selecting a device based on payment attributes is an administrative process relating to a method for doing business. This feature does not impart a technical character to the determination of suitability or therefore to the invention.
- 44 The applicant further argues in their letter of 11 October 2022 that the problem relates to ensuring that the device which executes the transaction is one which is capable of doing so. As I have already discussed above in relation to the first signpost, I do not believe this is a fair characterisation of the problem because all the proximate devices are required by the claim to be capable of performing the payment transaction. Moreover, as I referred to above, paragraph [0026] states that an “attribute of the payment transaction” may be the identity of the merchant associated with the payment transaction, the item or service associated with the payment transaction, a type of payment required, etc. These seem to me to be attributes relating to the payment rather than to the device itself. This signpost therefore does not point to a technical contribution.
- 45 I therefore conclude that none of the signposts point to the present invention making a technical contribution.
- 46 Taking a step back and considering the contribution more generally, it relates to the task of selecting a device from a plurality of devices to perform a payment transaction. The selection is made by a suitably programmed processor, taking into account a payment factor and a likelihood of the devices to perform the transaction based on an attribute of the payment transaction. The task relates to conducting a payment transaction and is carried out by a computer program. I cannot see any technical effect. The contribution simply relates to a computer program carrying out a business activity.

### **Conclusion**

- 47 The invention fails to comply with section 1(2)(c) of the Act because it relates to a program for a computer and method for doing business as such. I therefore refuse the application under section 18(3) of the Act.

### **Appeal**

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

Ben Micklewright  
Deputy Director, acting for the Comptroller