Intellectual Property Office

BL O/069/18

30 January 2018

**PATENTS ACT 1977**

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| APPLICANT | Qikserve Ltd |
| ISSUE | Whether patent application GB1411459.9 complies with sections 1(1) and 1(2) of the Act |
| HEARING OFFICER | Dr J Houlihan |

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**DECISION**

**Background**

1 The application is derived from PCT application PCT/GB2013/050158, filed on 24 January 2013, and claiming priority dates of 25 January 2012 and 13 September 2012 from US applications US 61/590,496 and US 13/615,512 respectively. The PCT application was published as WO2013/110942 on 1 August 2013, entered the UK national phase (the present application) on 27 June 2014, and was republished as GB2511992 on 17 September 2014.

2 Throughout substantive examination the examiner has maintained that the invention defined in the claims is excluded from patentability under section 1(2) of the Patents Act 1977 as a computer program and a method of doing business. The examiner's pre-hearing report also includes objections under clarity and added matter, and also under possible novelty or inventive step - on the basis that the clarity and added matter issues make this difficult to determine.

3 These issues came before me at a hearing on 28 November 2017. At the hearing, the applicant was represented by Peter McBride of Scintilla IP Ltd and Ronnie Forbes, co-founder of Qikserve Ltd. Also present were Alex Swaffer - my assistant, Peter Doenhoff - the examiner, and two associate patent examiners as observers.

**The invention**

4 The invention is concerned with a method, a computer program product comprising instructions, and a system for ordering menu items for delivery to a station at a premises. At the hearing, Mr McBride asserted that the invention is applicable to situations beyond the embodiments of the invention, but it is useful to discuss what the invention is in the context of these embodiments.

5 In a restaurant situation, the invention allows the customer to order food and drinks via a mobile device, which may be the customer's own smart phone. The mobile device is able to identify which premises and station (table) the customer is at, and provide a menu applicable to that premises (and possibly the time of day). The customer is able to order items from the menu using the mobile device, and the order is sent over the internet to a web-based server platform. The platform then facilitates communication of the order to the electronic point-of-sale (EPOS) system of the restaurant premises. It is acknowledged that the term *facilitates* glosses over what is alleged to be the critical part of the invention, but that will be discussed in more detail later.

**Claims**

6 The current set of claims were submitted on 21 September 2017, and includes three independent claims. The claims read as follows:

*1. A method of ordering menu items for delivery to a station at a premises, the method comprising the steps:*

*(a) receiving, at a mobile device, a station input which comprises a station identifier and a premises identifier together identifying the station at the premises;*

*(b) retrieving a menu at the mobile device via the internet from a platform comprising a web-based server, the menu comprising menu items selected using the premises identifier;*

*(c) displaying the retrieved menu at the mobile device;*

*(d) receiving an order input at the mobile device, the order input indicating a selection of at least one of the output menu items;*

*(e) sending the order input over the internet to the platform;*

*(f) transmitting an order from the platform to the premises identified by the input premises identifier, the order including the station identifier and the selection of the output menu items,*

*wherein the step of transmitting the order from the platform to the premises comprises:*

*(g) selecting, based on the premises identifier, appropriate EPOS and connection information for the premises comprising: (1) an EPOS adapter from a plurality of EPOS adapters, (2) a communication protocol from a plurality of communication protocols and (3) a communication network from a plurality of communication networks; wherein said EPOS and connection information specifying a plurality of EPOS adapters, communication protocols and communication networks is stored at the platform; and*

*(h) transmitting the order to an EPOS system at the premises using the selected EPOS adapter, communication protocol and communication network.*

*13. A computer program product comprising one or more sequences of machine-readable instructions for use in ordering menu items for delivery to a station at a premises, the instructions being adapted to:*

*cause at least one mobile device to receive a station input, the station input comprising a station identifier and a premises identifier together identifying the station at the premises;*

*cause the at least one mobile device to retrieve via the internet from a platform comprising a web-based server a menu comprising menu items using the premises identifier;*

*cause the at least one mobile device to display the retrieved menu;*

*cause the at least one mobile device to receive an order input, the order input indicating a selection of at least one of the output menu items;*

*cause the at least one mobile device to send the order input over the internet to the platform; and*

*cause the platform to transmit the order to the premises identified by the input premises identifier, the order including the station identifier and the selection of the output menu items,*

*wherein the instructions are further adapted to:*

*cause the platform to select, based on the premises identifier, appropriate EPOS and connection information for the premises comprising: (1) an EPOS adapter from a plurality of EPOS adapters, (2) a communication protocol from a plurality of communication protocols and (3) a communication network from a plurality of communication networks; wherein said EPOS and connection information specifying a plurality of EPOS adapters, communication protocols and communication networks is stored at the platform;*

*and wherein the order is transmitted to an EPOS system at the premises using the selected EPOS adapter, communication protocol and communication network.*

*14. A system for ordering menu items for delivery to a station at a premises, the system comprising:*

*a mobile device adapted to:*

*(a) receive a station input, the station input comprising a station identifier and a premises identifier together identifying the station at the premises;*

*(b) retrieve a menu comprising menu items using the premises identifier;*

*(c) output the retrieved menu; and*

*(d) receive an order input, the order input indicating a selection of at least one of the output menu items,*

*(e) send the order input over the internet to a server;*

*and the system further comprising a server remote from the premises operable to receive the order input from the mobile device and to cause transmission of an order to the premises identified by the input premises identifier, the order including the station identifier and the selection of the output menu items, wherein the server is adapted to:*

*(e) select, based on the premises identifier, appropriate EPOS and connection information for the premises comprising: (1) an EPOS adapter from a plurality of EPOS adapters, (2) a communication protocol from a plurality of communication protocols and (3) a communication network from a plurality of communication networks; and*

*transmit the order to an EPOS system at the premises using the selected EPOS adapter, communication protocol and communication network.*

**The law**

7 This decision concerns section 1(1)(a) (novelty), section 1(1)(b) (inventive step) and section 1(2)(c) (excluded matter) of the Act.

8 Section 1 reads, as is relevant, that:

*"1(1) A patent may be granted only for an invention in respect of which the following conditions are satisfied, that is to say –*

*(a) the invention is new…;*

*(b) it involves an inventive step...;*

*(c)…;*

*(d)…;*

*and references in this Act to a patentable invention shall be construed accordingly.*

9 Section 3 of the Act requires that:

*"An invention shall be taken to involve an inventive step if it is not obvious to a person skilled in the art, having regard to any matter which forms part of the state of the art by virtue only of section 2(2) above (and disregarding section 2(3) above)."*

10 Whether an invention defined by the claims involves an inventive step is assessed using the four-step test first formulated by the Court of Appeal in *Windsurfing*

*International Inc. v Tabur Marine (Great Britain) Ltd*[1] and restated by the court in *Pozzoli SPA v BDMO SA*[2]:

1(a). Identify the notional "person skilled in the art"

1(b). Identify the relevant common general knowledge of that person

2 Identify the inventive concept of the claim in question or if that cannot readily be done, construe it

3. Identify what, if any, differences exist between the matter cited as forming part of the "state of the art" and the inventive concept of the claim or the claim as construed

4. Viewed without any knowledge of the alleged invention as claimed, do those differences constitute steps which would have been obvious to the person skilled in the art or do they require any degree of invention?

11 Section 1(2) 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 –*
>
> *(a).....;*
>
> *(b).....;*
>
> *(c) a scheme, rule or method of performing a mental act, playing a game or doing business, or a program for a computer;*
>
> *(d)....;*
>
> *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."*

12 There is a large volume of case law on the subject of excluded inventions. In *Aerotel/Macrossan*[3] the Court of Appeal set out a four step test to approach the issue of excluded matter which they affirmed in *HTC v Apple*[4] and *Lantana*[5]. In

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[1] Windsurfing International Inc. v Tabur Marine (Great Britain) Ltd, [1985] RPC 59

[2] Pozzoli SPA v BDMO SA [2007] EWCA Civ 588

[3] Aerotel Ltd v Telco Holdings Ltd; Macrossan's Application, Court of Appeal [2007] RPC 7 (hereinafter referred to as "Aerotel")

[4] HTC Europe CO Ltd v Apple Inc [2013] EWCA Civ 451

[5] Lantana Ltd v The Comptroller General of Patents, Designs and Trade Marks [2014] EWCA Civ 1463 (13 November 2014)

*Aerotel* the issue was a computer program; *Macrossan* concerned a method of doing business.

13 The four step test formulated in *Aerotel* is as follows:

1. Properly construe the claims
2. Identify the actual (or alleged) 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

14 In *Symbian*[6] the Court of Appeal confirmed that the *Aerotel* test is equivalent to the previous case law test of "technical contribution". The same court confirmed this approach in *HTC v Apple* and also, with some modification, the five signposts established in *AT&T*[7] for interpreting whether a computer program makes a technical contribution. *Aerotel* thus codifies the approach to the law on excluded matter but does not depart from the principles in domestic law which were established before it. In particular, the law regarding the business method exclusion established in *Merrill Lynch*[8] remains relevant.

15 Firstly, I will address the issue of excluded matter.

**Excluded matter**

Step 1 - construe the claims

16 The examiner provided his view of the scope of claims 1, 13 and 14 in paragraphs 5 and 6 of his pre-hearing report dated 18 October 2017. The applicant did not contend this and I see no reason to disagree with it. In summary, claim 1 defines a method of ordering menu items for delivery to a station at a premises, and claim 13 defines a computer program product comprising instructions that perform the method of claim 1. Claim 14 defines a system that performs the method of claim 1, with the following exceptions:

(a) The EPOS adapter, communication protocol and communication network are selected at a server rather than the *platform comprising a web-based server* defined in claims 1 and 13.

(b) There is no explicit requirement for a plurality of EPOS adapters, communication protocols and communication networks to be stored at the server.

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[6]Symbian Ltd v Comptroller-General of Patents, Court of Appeal, [2008] EWCA Civ 1066, [2009] RPC 1 (hereinafter referred to as "Symbian")

[7] AT&T Knowledge Ventures LP Application and CVON Innovations Ltd's Application v Comptroller-General of Patents [2009] EWHC 343 (Pat) High Court (hereinafter referred to as "AT&T")

[8] Merrill Lynch's Application [1989] RPC 19

(c) There is no requirement for the menu to be retrieved from the server.

17 Although *platform* and *server* are not entirely synonymous, in the context of the application as a whole, the skilled person would understand there to be no material difference in the substance of these terms.

18 At this point it is useful to consider the clarity and added matter objections raised in paragraphs 23 and 24 of the examiner's pre-hearing report dated 18 October 2017, as they have a bearing on how the claims should be construed.

19 The clarity objection relates to an internal inconsistency in each of claims 1 and 13. Each claim defines a step of selecting appropriate EPOS and connection information with which to transmit an order to an EPOS system at a premises, the EPOS and connection information comprising an EPOS adapter, a communication protocol, and a communication network. Each claim therefore defines that a single one of each of an EPOS adapter, a communication protocol, and a communication network makes up the EPOS and connection information. I therefore agree that it is inconsistent to later define in each claim that said EPOS and connection information (i.e. that previously defined) specifying a plurality of EPOS adapters, communication protocols, and communication networks is stored at the platform. However, I consider that a skilled person would understand what each of claims 1 and 13 is intending to define in this respect - that the platform stores a plurality of EPOS adapters, communication protocols, and communication networks, and it is from these pluralities that the appropriate EPOS adapter, communication protocol, and communication network are selected with which to transmit the order to the EPOS system as the premises. There is scope to address this by amendment, if I find in favour of the applicant.

20 The added matter objection is that there was no reference to a plurality of EPOS adapters, communication protocols, and communication networks in the application as filed, and therefore adding such reference to the claims adds matter. At the hearing, Mr McBride argued that the disclosure of selecting an EPOS adapter, a communication protocol, and a communication network (see claims 12-14 as filed in particular) implicitly discloses selecting from a plurality of each. I agree. Furthermore, page 9 lines 27-30 of the application as filed discloses that the central database of the platform stores restaurant information, and that the location information extracted from a read QR code may be used to retrieve the relevant EPOS and connection information for the restaurant. From this I consider it is implicit that more than one adapter can be retrieved from the central database of the platform and also that more than one communication protocol and communication network can be selected. I am therefore satisfied that there is no added matter in the claims as presently worded.

21 Although the meanings of the terms *EPOS, EPOS adapter*, c*ommunication protocol*, and *communication network* are likely to be bread-and-butter to the skilled person, Mr McBride and Mr Forbes helpfully provided explanations to aid my understanding of the invention and construction of the claims. It is useful to provide a summary of the meanings of each term here:

(a) *EPOS* - An electronic point-of-sale system is far more complex than a standard till, and can understand menus and pricing, monitor stock levels, and integrates with various on-premises hardware devices.

(b) *EPOS adapter* - There are many different EPOS systems in use, and an EPOS adapter provides the formatting, authentication and security for communication with a specific EPOS system. An EPOS adapter will dictate how data relating to an order is packaged and routed.

(c) *Communication protocol* - This is a system of rules which govern how the data is transmitted to the EPOS system, and may include things such as the order in which the different parts of the data is transmitted.

(d) *Communication network* - although not covered at the hearing, the meaning of this term is abundantly clear.

22 A minor point of clarification with which Mr McBride agreed is that in step (d) of claim 1 "*receiving an order input*" means making an order using the mobile device. In all, the above considerations allow for the claims to be appropriately construed and for the contribution to the art to be identified which is the subject of the next step. Some points made in relation to construction are also relevant to the identification of the actual contribution and the question under step 3 - essentially is the contribution technical? I have therefore referred to some of the points made by Mr McBride in relation to construction in more detail under steps 2 and 3 below.

Step 2 - identify the actual contribution

23 The approach to identify the actual contribution an invention makes was laid out by Jacob J (as he then was) in *Aerotel* (paragraph 44) and is now firmly established as the approach to this step in the consideration of excluded matter. In a nutshell, one has to ask the question as a matter of substance, not form: "*what has the inventor really added to human knowledge?"*

24 In this case there has been some disagreement as to what the actual contribution is. The main bone of contention was the nature of the 'platform' that is claimed. The platform provides a plurality of EPOS adapters, communication protocols, and communication networks, from which one of each is selected to transmit an order to an EPOS at a specific premises. The examiner contends that a new platform does not appear to have been developed, the platform being no more than a server comprising a database which stores the plurality of EPOS adapters, communication protocols, and communication networks.

25 In opening, Mr McBride made the point that the "as such" provision in section 1(2) is deliberately a narrow exclusion in law and should not be over-expanded. I will bear that in mind. He also said that the authorities make it clear that the question of the section 1(2) exclusion is of substance over form. I fully agree. Mr McBride referenced section 1.21.1 of the Manual of Patent Practice (MoPP) and acknowledged that the guidance therein that conventional apparatus or standard hardware does not form part of the contribution. Mr McBride also acknowledged that the platform of the

invention could be a conventional server, but asserted that, when the server is programmed and configured to run as the platform of the invention, it in fact becomes a new piece of hardware. To emphasise this point, Mr McBride gave his view on the differences between the *Macrossan* and *Aerotel* judgments. In *Macrossan*, it was held that form filling was a standard function of a PC, and the configuration needed to allow the form filling of the claimed invention was trivial, and therefore the configured PC did not form part of the contribution. However, in *Aerotel*, the 'special exchange' was considered to be a new piece of hardware, and the overall system constituted a new arrangement of hardware. Mr McBride asserted that the difficulty in configuring a standard piece of hardware for the invention is an important consideration in deciding whether it constitutes a new piece of hardware. Overall, I understood from his submissions that he considered that the configuration of a server into the platform of the invention is sufficiently difficult and technical in nature to represent a new piece of hardware.

26 The nub of Mr McBride's submissions was that while the advantage may be a business one, the implementation of the invention is technical. While the question of what is the problem that the invention solves is addressed under the *AT&T* test below, Mr McBride considered it relevant to the question of the actual contribution. He referred to a passage in the applicant's final letter on page 12 lines 41-45 which summarises the applicant's views on this point. It reads "*The problem is rather, generally speaking, how to enable integration with existing EPOS systems in a manner which is not achieved in the prior art. More specifically, the invention solves the problem for a restaurant of how to enable customers to use their own mobile devices without needing to worry about security and authentication aspects; and the invention also solves the problem of how a solutions provider can provide a system that can be used across multiple different sites*".

27 Mr McBride pointed out, in identifying the actual contribution of the invention, it is useful to take into account the closest prior art available. From the applicant's own admitted prior art, and the documents cited by the examiner in his report dated 18 October 2017, it is clear that placing a restaurant order from a menu using a mobile device was well known at the priority date of the application. However, where the invention differs from the prior art is in the transmission from a mobile device to a restaurant. In the prior art, the order is sent via the internet or email to a restaurant where the order would need to be relayed manually into a restaurant's EPOS or POS system. Mr McBride emphasised that the claimed invention uses a platform in the form of a web-based server which receives the order from a mobile device and formats it appropriately such that it can be sent directly into a restaurant's EPOS system.

28 Mr McBride said, in particular, that the platform determines how the data is packaged and, crucially, identifies the specific EPOS system of the receiving restaurant. The platform then carries out the required formatting for that EPOS system. Mr McBride distinguished the invention from prior art systems. He submitted that, in the prior art, mobile ordering systems feed an order directly into an EPOS system, whereas in the invention the ordering system includes a configuration step as part of the ordering process, and enables the provision of an order to any EPOS system for which the relevant details are stored at the platform. In particular, the prior art systems would have to be configured according to the EPOS system in question, and therefore a

mobile device would only be able to communicate with that particular EPOS system. Mr McBride submitted that, in contrast, the invention provides a central configuration system, a “hub”, which enables access to EPOS systems at multiple sites. This access is provided by the combination of the EPOS adapters, communication protocols and communication networks.

29 Mr McBride expanded on his views about the problem solved by the invention. The examiner had argued that the problem solved was customers at a restaurant having to wait and attract the attention of a member of staff to make an order and pay for their meal, and customers requiring a separate ordering app for each restaurant. The examiner concluded that improving the satisfaction/convenience of customers and decreasing costs are entirely business concerns. Mr McBride disagreed with this, suggesting that these may be advantages of the invention, but they are not the problem solved by it. Instead, Mr McBride explained, the problem concerns how to integrate a mobile ordering app with existing EPOS systems across different sites with the required authentication and security. He submitted that whilst the advantages are in business, the solution to the problem addressed by the invention is not- it is technical.

30 On the basis of these clear submissions by Mr McBride I agree with him that the platform does form part of the contribution of the invention. It is clear to me that, on the basis of the prior art available, the use of the platform in this context has contributed to the stock of knowledge in this field. The examiner and Mr McBride have each offered versions of what the contribution might be, and each has their relative merits. Further, whilst there are claims to a computer program product and a system, the contribution of each of claims 1, 13 and 14, as a matter of substance, is in the method of the invention. The contribution is therefore most appropriately characterised as a method. It is also important to remember that claim 14 is in fact broader than claims 1 and 13, as it does not require that the pluralities of EPOS adapters, communication protocols, and communication networks are stored at the platform, or that the menu is retrieved from the platform. Therefore, I will provide two contributions, one for claims 1 and 13, and another for claim 14, in case the difference in the contributions has a material effect on whether each contribution falls solely within an excluded field.

Contribution of claims 1 and 13

*A method of ordering menu items via a mobile device for delivery to a station at a premises, the order comprising a selection of items from a menu (retrieved from a platform) and premises and station identifiers, wherein the order is transmitted to the platform where the premises identifier is used to select an EPOS adapter, communication protocol and communication network (from a plurality of each stored at the platform), the order data is packaged at the platform and transmitted to an EPOS system at the premises.*

Contribution of claim 14

*A method of ordering menu items via a mobile device for delivery to a station at a premises, the order comprising a selection of items from a menu and premises and station identifiers, wherein the order is transmitted to a server where the premises identifier is used to select an EPOS adapter, communication protocol and*

*communication network (from a plurality of each), the order data is packaged and transmitted to an EPOS system at the premises.*

Step 3 - does the actual contribution fall solely within an excluded field

31 The question of how the actual contribution of an invention in the field of computer programs should be considered can be found in the oft quoted phrase in *Symbian* which reads:

> "*What is decisive is the technical contribution which the invention described in the claim when considered as a whole makes to the known art" [37].*

32 At the hearing, Mr McBride addressed the exclusion of a method of doing business, and a program for a computer, separately. I will therefore consider these in turn.

Method of doing business

33 The thrust of Mr McBride's argument was that the contribution does not relate to a business method as such due to the presence of the technical features of the system used to carry out the method of the invention, in particular the functionality of the platform. Referring to the MoPP section 1.34.1, Mr McBride asserted that, as with *Aerotel*, the system as a whole is new as it contains a new piece of hardware, and not just because of the business method it performs. Mr McBride further argued that the contribution is not in the use of a mobile phone to order food, but in the solving of a specific technical problem, which is not in itself a method of doing business. Instead, it was suggested, that the contribution is analogous to a tool used to carry out the business.

34 Mr Forbes and Mr McBride emphasised the point that selecting the correct EPOS and connection information for an EPOS system is technical in their view.

35 The kernel of the applicant's submission in attempting to rebut the business method exclusion was clearly put by Mr McBride where he said that "*It's (the invention) used in business but fundamentally this invention is a technical process to do with how an order is transmitted, routed and formatted within an ordering process*". Mr McBride emphasised the role of the platform and EPOS adapters in that process. He sought to distinguish the applicant's invention from *Macrossan*. He said in *Macrossan* the process already existed but submitted, in contrast, that the applicant's "*…process did not exist because it's not been technically possible to do it*". However, despite Mr McBride's eloquent submissions on this point, I cannot see a new technical contribution in the process of the invention- the transmission, routing and formatting of an order. To me those are business processes, albeit implemented by a computer system.

36 Further, Mr McBride referred to paragraph 30 of *Wolovitz's Application*[9] in which the hearing officer agreed that the contribution made by the system as a whole should be considered, as well as by the individual elements. I take this point, but note that decisions of hearing officers are not binding.

[9] Lionel Wolovitz's Application BL O/353/16

37 In considering the business method exclusion for a computer implemented invention, as is the case with the present invention, the judgement of Birss HHJ (as he then was) in *Halliburton*[10] provides useful guidance. His Honour said:

*The business method cases can be tricky to analyse by just asking whether the invention has a technical effect or makes a technical contribution. The reason is that computers are self-evidently technical in nature. Thus when a business method is implemented on a computer, the patentee has a rich vein of arguments to deploy in seeking to contend that his invention gives rise to a technical effect or makes a technical contribution. For example the computer is said to be a faster, more efficient computerized book keeper than before and surely, says the patentee, that is a technical effect or technical advance. And so it is, in a way, but the law has resolutely sought to hold the line at excluding such things from patents. That means that some apparently technical effects do not always count. So a computer programmed to be a better computer is patentable (Symbian) but as Fox LJ pointed out in relation to the business method exclusion in Merrill Lynch, the fact that the method of doing business may be an improvement on previous methods is immaterial because the business method exclusion is generic. [35]*

*The Aerotel approach is a useful way of cutting through the cases like Merrill Lynch, Macrossan and Gale in which more than one exclusion is engaged. Take a patent claim consisting of a claim to a computer programmed to perform a business method. What has the inventor contributed? If the answer is a computer program and method of doing business and there is nothing more present, then the contribution falls solely within the excluded subject matter. It can be seen not to be patentable at step 3, before one gets bogged down in the argument that about whether a book keeping system running more efficiently on a computer is a technical effect. Following Aerotel the question has answered itself" [36]*

38 On the basis of the authorities, the specification and the applicant's submissions my view is that at least part of the contribution is no more than a business method. A method of ordering menu items via a mobile device for delivery to a station at a premises, the order comprising a selection of items from a menu, and the order being transmitted to an EPOS system at the premises is, to my mind, a method of doing business as such. What remains of the contribution relates to the computer implemented process of delivering the order from the mobile device to the EPOS system at the premises. Next, I will consider whether this part of the contribution relates to a program for a computer as such.

Program for a computer

39 Mr McBride referred to MoPP 1.35 in asserting that all software is not naturally excluded from patentability, but instead it is the contribution which must be assessed in deciding whether an invention is excluded. I agree. Mr McBride went on to submit that on a formal level, a computer program as such is not being claimed. Instead, says Mr McBride, what is claimed is an overall system that enables integration of existing EPOS systems in a new way due to the functionality of the platform. Thus,

[10] Haliburton Energy Services Inc's Application [2011] EWHC 2508 (Pat), RPC 12

he says it is the platform which provides the contribution. Mr McBride acknowledged that software is at the core of the invention, but submitted that the invention makes a contribution that is clearly solving a technical problem, and therefore the invention does not fall within the category of a computer program as such.

40 Referring back to *Wolovitz's Application*, Mr McBride suggested that the AT&T signposts are not always very helpful when considering an invention comprising a network of hardware, such as in the present invention. In my view, as the signposts have been affirmed by the Court of Appeal in *HTC v Apple,* with the fourth signpost being modified by Lewison LJ, they represent appropriate guidance and should be given due consideration. Mr McBride acknowledged this and submitted that all of the signposts could still be answered in the affirmative. I will address each signpost in turn.

*Signpost 1. Does the claimed technical effect have a technical effect on a process which is carried on outside of the computer?*

*41* Mr McBride began his point by saying there is some ambiguity about what "the computer" means in the context of the applicant's invention. In *Lantana*[11] Birss J said "*the fact that two computers and the internet are required is not what makes a software invention patentable"*. Thus, to me a "computer" can be a network of computing systems. Mr McBride submitted that the invention enables a bring-your-own-device system by providing a platform that stores and selects the communication options which allow integration with different EPOS systems, and that the process of the invention has a technical effect on how orders are delivered in, for example, a restaurant. Mr McBride further submitted that if we take the 'computer' of the signpost to be the combination of the mobile device, platform and EPOS system, then there is a technical effect outside the computer as the invention allows orders to be routed in an efficient way, and optimises the process of ordering and delivery of menu items. I agree that, in this case, the combination of the mobile device, platform and EPOS system can be considered as a single 'computer', and further agree that the invention does provide an effect outside the computer. However, to my mind, this is not a technical effect as required by the signpost. Rather, the effect is only in the efficiency and optimisation of a menu ordering and delivery process, which is a business process and not a technical one.

*Signpost 2. Does the claimed technical effect operate at the level of the architecture of the computer; that is to say is the effect produced irrespective of the data being processed or the application being run?*

42 Mr McBride submitted that the first part of this signpost is not particularly helpful, but the second part does have some relevance as the effect of the invention is irrespective of the data being processed. He pointed out that the selection of items could be extended to clothing, for example, as well as food and drink. Although this may be true, it does not automatically follow that there is any technical effect operating at the level of the architecture of any of the hardware components, or of the system containing all of the hardware components of the contribution. Although the menu items could be any consumer goods (or even services), the data being processed and the application being run is still the same (relating to an order of

[11] Lantana v Comptroller General of Patents [2013] EWHC 2673 (Pat)

menu items). Accordingly, in my view the claimed technical effect does not operate at the level of the architecture of the computer.

*Signpost 3. Does the claimed technical effect result in the computer being made to operate in a new way?*

43 Mr McBride submitted that the platform is clearly operating in a new way compared with standard hardware which then needs to be configured and reprogrammed to function as the platform. Therefore, says Mr McBride, the platform is clearly a computer operating in a new way. In my view, although the platform is configured and programmed to act as such, this is true of all hardware which carries out a particular function. To my mind, this does not result in the computer operating in a new way as required by the signpost.

*Signpost 4. Does the program make the computer a better computer in the sense of running more efficiently and effectively as a computer?*

44 Mr McBride did not put much store in this signpost. He acknowledged that in the present invention the computer is not necessarily made to run more efficiently and effectively, but observed that the specific nature of this signpost suggests that signpost 3 should be interpreted more broadly. He submitted that the present invention meets the requirement that the computer operates in a new way. I agree that signposts 3 and 4 are distinct from one another, with signpost 4 being more specific, but this does not change my assessment of the invention with respect to signpost 3.

*Signpost 5. Is the perceived problem overcome by the claimed invention as opposed to merely being circumvented?*

45 Mr McBride said that the problem is how to allow users to use their own mobile devices with an ordering system across different EPOS systems and providers of goods or services. He submitted this is a technical problem, which is overcome by the invention. My view is that the problem is that different EPOS systems require data relating to an order in different ways, and that the data provided from a mobile device via a web-based system would not be compatible with all EPOS systems. The problem is therefore not solved by the invention, but instead is circumvented by repackaging the data in the required format for the EPOS system to which it is to be transmitted.

46 I have not been able to answer any of the signposts in the affirmative. Furthermore, more generally, I cannot see anything in the specification having regard to Mr McBride's submission that convinces me that there is a technical aspect to the actual contribution. Both of the actual contributions as I have characterised them in paragraph 30 above represent entirely excluded subject matter. Therefore, I believe that the contribution lies wholly in a business method implemented by a computer program, as such, and therefore is excluded by virtue of section 1(2)(c).

Step 4 - check whether the alleged contribution is technical

47 I do not need to consider step four as I have answered step three in the negative and, moreover, have considered the issue of technical contribution under that step.

**Novelty and inventive step**

48 In the pre-hearing report, the examiner objected that the invention might not be new or obvious, there being some doubt due to the clarity issue previously discussed. Although I agree that there is a clarity issue, I do not consider that it significantly hinders the assessment of the novelty and inventive step of the independent claims. The documents cited as possibly impugning on the novelty or inventive step of the claims are:

US2002/0013734 A1 (BUENO)

US2008/0270230 A1 (HENDRICKSON)

US2004/0158494 A1 (SUTHAR)

**Novelty**

49 There is no doubt that independent claims 1, 13 and 14 are each restricted to selecting an EPOS adapter, a communication protocol and a communication network from a plurality of each at a platform or server that sits between a mobile device and an EPOS system. None of the cited prior art documents disclose (even implicitly) this part of the invention, and so I find that claims 1, 13 and 14 (and all claims dependent thereon) to be novel in view of the three cited documents.

**Inventive step**

*50* For completeness, I will address the issue of whether the claims are obvious by applying the Windsurfer/Pozzoli test.

Step 1(a) - Identify the notional “person skilled in the art”

*51* As the invention concerns the integration of mobile devices with EPOS systems via the internet, the skilled person in this instance would be a solutions architect with experience of working with mobile devices for ordering goods and services, as well as (at least access to) knowledge of EPOS systems.

Step 1(b) - Identify the relevant common general knowledge of that person

52 The earliest priority date of the application is 25 January 2012. As information technology has changed considerably in the past six years, it is important to remember that it is the common general knowledge of the skilled person in January 2012 that needs to be established.

*53* The skilled person would, even in January 2012, be well aware of the use of mobile devices to order items from a menu which has been retrieved from the internet. He/she would also be aware of the operation of sophisticated EPOS systems, and the requirements for data to be input to different EPOS systems in different formats.

He/she would also have all the usual knowledge of a solutions architect, as it was in January 2012.

*Step 2 - Identify the inventive concept of the claim in question or if that cannot readily be done, construe it*

54 The analysis of the contribution of the invention in assessing excluded matter is a useful starting point in identifying the inventive concept. However, the inventive concept should be the real crux of the invention, and in this case can be summarised as follows:

*Integration of any mobile device with any EPOS system to allow transmission of an order, wherein the order is transmitted to a platform/server where an EPOS adapter, communication protocol and communication network (from a plurality of each) is selected with which to transmit the order to an EPOS system.*

Step 3 - Identify what, if any, differences exist between the matter cited as forming part of the "state of the art" and the inventive concept of the claim or the claim as construed

Step 4 - Viewed without any knowledge of the alleged invention as claimed, do those differences constitute steps which would have been obvious to the person skilled in the art or do they require any degree of invention?"

55 I will deal with steps 3 and 4 together as the answer to the question of step 4 naturally follows on directly from the task posed by step 3.

56 BUENO discloses a method of using a mobile device to retrieve a menu from the internet, and to order items from that menu. In particular, in paragraph 0015, BUENO describes an order being sent to a selected restaurant '*through the internet or via an e-mail message*'. There is no mention of an EPOS system at the restaurant, but the skilled person would find it obvious that a restaurant of sufficient size would use some kind of EPOS system, and that the order received would need to pass through the EPOS system for the order to be processed. However, at the hearing, Mr McBride submitted that transmitting an order by email (which would presumably contain text and written numeric data) is very different from integrating the order from a mobile device with an EPOS system via a platform as in the present invention, and that the latter would not be obvious in view of the former. He also submitted that, although transmitting the order through the internet is disclosed, there is no specific detail on how this is achieved, and certainly no suggestion of integration with an EPOS system.

57 I can see nothing in BUENO that would lead the skilled person to modify its disclosure such that the inventive concept of the present invention would be obvious. It is true that the term 'internet' is not specific, and therefore the skilled person would need to implement a solution to enable an order to be successfully transmitted to the restaurant. However, mobile technology and the internet (even in 2012) provides a seemingly limitless way of achieving objectives. In my view the inventive concept

offers a different solution from that disclosed in BUENO. I therefore do not believe that the present invention is obvious having regard to BUENO.

58 HENDRICKSON discloses a similar internet based restaurant ordering method to that of BUENO. HENDRICKSON does not explicitly disclose the use of a mobile device, but even in 2012 the use of mobile devices to access the internet was common place. Further, HENDRICKSON provides no details of how the order is transmitted to the restaurant. Whilst it is probably implicit that transmission is via the internet, I can see no motivation or reason for the skilled person to modify the method in HENDRICKSON to create a method on the lines of the inventive concept in suit. In my view, the solution offered by the present application is not obvious in light of HENDRICKSON.

59 SUTHAR is probably further from the invention than either of BUENO and HENDRICKSON. In SUTHAR there is no use of a mobile device to place the order, instead dedicated in-restaurant terminals being used. These would inherently be compatible with any EPOS system used within the restaurant. I can see no reason why the skilled person would modify the method of SUTHAR to achieve inventive concept of the present invention. The invention in suit is not obvious in light of SUTHAR.

## Conclusions

60 I find that the inventive concept of claims 1, 13 and 14 is not obvious in view of any of BUENO, HENDRICKSON and SUTHAR.

61 I find that the subject matter of claims 1, 13 and 14 is excluded from patentability as it relates entirely to both a business method and a computer program, as such. I have considered the dependant claims and the description and can find no saving amendment. I therefore refuse the application under section 18(3) as it does not comply with section 1(2) of the Act.

## Appeal

62 Any appeal must be lodged within 28 days.

**Jim Houlihan**
**Deputy Director acting for the Comptroller**