

PATENTS ACT 1977

APPLICANT Saleh Al-Sarawi

ISSUE Whether patent application number GB
 0508058.5 complies with section 1(2)

HEARING OFFICER R C Kennell

DECISION

- 1 This application was filed on 21 April 2005 with no claim to earlier priority. It was published under serial no. GB 2 425 854 A on 8 November 2006.

- 2 Despite amendment of the claims during substantive examination, the applicant has been unable to persuade the examiner that the invention is patentable within the meaning of section 1(2) of the Act. This matter therefore came before me at a hearing on 23 April 2008. The applicant was represented by Nicholas Wallin, assisted by Andrew Mears, both of the patent attorneys Withers & Rogers. The examiner, Kalim Yasseen, assisted via videolink.

The invention

- 3 The invention relates to the conduct of transactions using a mobile communications device. Web-based news and brokerage services for online trading and monitoring of stocks and shares make particular use of "rich content" such as graphics and require a relatively high bandwidth connection and a high resolution screen display; normally therefore they can only be accessed by a desktop or laptop computer with a fully functional browser. However, as Mr Wallin explained, the invention provides a transaction interface which receives user messages, which are set out according to a predetermined lightweight syntax, and parses them in order to generate the necessary control data for the back-end system. The syntax contains in a single message all the information necessary to allow a back-end transaction to be performed.

- 4 Very concise and simple messages, such as would be sent by a mobile phone capable merely of sending text messages, can therefore be used to perform the transactions, and no high bandwidth communication channel is necessary. The ability to instruct a transaction in a single message improves the bandwidth

capabilities of the system because it does not require a multiple exchange of messages.

- 5 Examples of the syntax for various categories of transaction are described at pages 12-14 of the specification. Thus a preferred syntax for the buying or selling of shares is of the form

<Stock symbol>Q<Quantity>P<Price><Transaction PIN>

preceded by B or S; eg

B NBK Q5000 P 1.750 1234.

- 6 The claims as amended comprise independent claims 1 and 7 to a transaction interface system and method. Claim 7 reads:

“A message-based transaction interface method for allowing transactions to be instructed from a mobile telecommunications device, the method comprising:-

- a) receiving, at an input logically connected to a mobile telecommunications network, user messages sent via said mobile telecommunications network from user mobile telecommunications devices;
 - b) parsing said user messages received at said input, to determine the information content of each message;
 - c) storing interface information which in use allows communication with a back-end system which performs a transaction;
 - d) accessing the interface information to generate control data for the control of said back-end system; and
 - e) transmitting said control data to said back-end system to control said back end system to perform the transaction;
- said method being characterised in that:-
- f) the received user messages are arranged in accordance with a predetermined lightweight message syntax which contains, within a single message, a set of information needed to define a transaction to be performed; and wherein
 - g) said parsing step parses said message in accordance with said predetermined lightweight message syntax to determine transaction information contained within a received message and defining a transaction to be performed; and
 - h) when said transaction information is determined, said control data is generated in dependence on said transaction information and transmit [*sic*] to said back-end system;
- whereby a transaction is capable of being instructed and performed upon receipt of a single user mobile message. “

and claim 1 is to a corresponding interface system. There are also claims 13 and 14 respectively to a computer program or suite of programs arranged when executed to carry out the method, and to a computer readable storage medium storing the program(s).

- 7 Mr Wallin submitted an auxiliary request at the hearing, for my consideration in the event that I did not find these claims allowable. This limits claims 1 and 7 to the user messages being “short message service” (SMS) messages, this being one of a number of message format options specified in claims 6 and 12.

The law and its interpretation

- 8 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) 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.”;

the examiner is maintaining objection on the highlighted grounds.

- 9 It is not disputed that the starting point for the assessment of patentability under section 1(2) is the judgment of the Court of Appeal in *Aerotel Ltd v Telco Holdings Ltd* and *Macrossan’s Application* [2006] EWCA Civ 1371, [2007] RPC 7 (hereinafter “*Aerotel*”). In this case the court reviewed the case law on the interpretation of section 1(2) and approved a four-step test for the assessment of patentability, namely:

- 1) Properly construe the claim
- 2) Identify the actual contribution (although at the application stage this might have to be the alleged contribution)
- 3) Ask whether it falls solely within the excluded matter
- 4) Check whether the actual or alleged contribution is actually technical in nature.

- 10 The operation of the test is explained at paragraphs 40-48 of the judgment. In particular:

- Paragraphs 41 and 47 explain that the test is consistent with the principles established in previous decisions of the Court of Appeal, and is a re-formulation in a different order of the approach in *Fujitsu*¹, asking the same

¹ Fujitsu Ltd’s Application [1997] RPC 608

questions but in a different order.

- Paragraph 43 states that identification of the contribution is “an exercise in judgment probably involving the problem said to be solved, how the invention works, what its advantages are”; it is essentially a matter of determining what it is the inventor has really added to human knowledge, and involves looking at substance, not form.
- Paragraph 44 accepts that at the application stage the Office will generally have to accept what the inventor alleges to be his contribution, but that in the end the test must be what contribution has actually been made.
- Paragraph 45 explains that the third step – whether the contribution is “solely” of excluded matter - is merely an expression of the “as such” qualification of section 1(2).
- Paragraph 46 explains that, although the fourth step of checking whether the contribution is technical may not be necessary because the third step should have covered the point, it is a necessary check if *Merrill Lynch*² is to be followed.

11 As Mr Wallin pointed out, there have been a number of High Court judgments which interpret the *Aerotel* test and apply it to particular circumstances. Whilst he did not think it necessary to embark on a full review of these, he particularly commended to me the recent judgments in *IGT/Acres Gaming Inc* [2008] EWHC 568 (Ch) and *Symbian Ltd* [2008] 518 (Pat). Before moving to the application of the *Aerotel* test to the case in hand, I must consider the full and helpful argument on this case law which Mr Wallin advanced both in his skeleton argument and at the hearing.

IGT – identification of the contribution

12 In *IGT* the invention lay in the use of a the encrypted information on an existing card, such as a driver’s licence or credit card, without decrypting it, in order to select a pre-existing account or establish a new account with a casino. Allowing an appeal against the decision of the comptroller that this was excluded as a system or method for doing business, the Deputy Judge, Mr Peter Prescott QC, generalised the invention in the following terms at paragraph 30 of his judgment:

“In an environment where cards bearing information encrypted according to mutually incompatible protocols may be presented to a card reader, the use of the raw encrypted number to access a record in a database without decrypting the number first”.

He pointed out that he had stated the concept without any reference to a business method as such.

13 Noting that the Deputy Judge had used the broader abstract term “a record in a

² *Merrill Lynch’s Application* [1989] RPC 561

database” rather than “an account in a casino”, Mr Wallin took the view that provided the contribution could be expressed without reference to excluded subject-matter, then the invention could not be excluded matter as such. He urged me not to follow the more recent judgment of Floyd J in *Kapur* [2008] EWHC 649 (Pat) which he saw as conflicting with *IGT* since it appeared to hold that the computer program exclusion could still bite even if the contribution could be expressed in terms which covered both manual and computer implementation of the invention. More importantly perhaps he thought *Kapur* difficult to reconcile with the statement in paragraph 45 of *Aerotel* that the contribution had to be “solely” of excluded matter to be excluded “as such”.

- 14 However, I think it is essential when trying to generalise the underlying concept of the invention from the particular wording used in the claims not to lose sight of what contribution has actually been made as a matter of substance. *IGT* and *Kapur* show that this will not always be a simple matter. I do not think that I need to pursue the possible differences in approach in these two cases: it seems to me that the assessment in *Kapur* was dictated by doubts about whether the invention did actually extend beyond computer implementation.

Symbian – the relevance of a technical contribution

- 15 From *Symbian* Mr Wallin took the view that in the case of the computer program exclusion, the identification of a relevant technical contribution over and above that to be expected from the mere loading of a program into a computer was determinative of the matter. In *Symbian* (see paragraphs 42 and 58) Patten J stated that the question of whether a claim fell solely within excluded matter could not be answered in isolation from the issue of whether it embodied a relevant technical contribution; the latter was the determinant of whether EPC Art 52(3) had any application – the equivalent of the “as such” proviso in section 1(2) – and that whether it was asked as part of step 2, 3 or 4 of *Aerotel* mattered much less than whether it was asked at all.
- 16 At the hearing I put it to Mr Wallin that this might not be altogether easy to reconcile with judgments such as *Oneida Indian Nation* [2007] EWHC 954 (Pat) and *Astron Clinica Ltd* [2008] EWHC 85 (Pat). In *Oneida* the Deputy Judge, Christopher Floyd QC (as he then was), stated that identification of a technical advance would not bring back into contention an invention excluded at step 3, because if an invention had been excluded at step 3 any technical contribution must have been one of purely excluded matter; step 4 was intended merely to make sure that inventions which passed step 3 were technical in nature. In *Astron Clinica* Kitchin J noted that the first three steps ought to provide the answer and should avoid “the vexed question” of what was a relevant technical contribution.
- 17 Mr Wallin did not see either of these judgments as being particularly at odds with *Symbian*. In his view *Oneida* had taken the technical contribution into account by deciding what the contribution was in step 2 and whether it was excluded in step 3; this approach would be acceptable so long as the technical contribution was actually taken into account. Further, notwithstanding the above comments in *Astron Clinica*, Kitchin J did not dispute the necessity of step 4 as a cross-check

to ensure that technicality was not overlooked.

- 18 At the hearing Mr Wallin said that the comptroller's decision in *Symbian* (BL O/209/07) had not considered technicality at all. I do not think that is correct. I note that Patten J states at paragraph 57 of his judgment "that the hearing officer does not ask herself in terms what the technical contribution made by the invention is although that is perhaps implicit in her analysis at step 2". However, as I read the hearing officer's decision, even if the question of technicality is not put in Patten J's terms, the discussion of the third *Aerotel* step is very much directed to whether the computer program affords any solution to a technical problem or control of a physical or technical process. I confess to some difficulty in seeing how this approach is out of step with *Aerotel*, even if in the result Patten J disagreed with the hearing officer on the facts of the case as to whether the contribution was actually technical in nature.
- 19 I do not think the various court judgments are easy to reconcile but neither do I think it is necessary for me to attempt the task. Decisions of the court are of course binding on me, but I do not think that either *IGT* or *Symbian* add any binding "gloss" to the *Aerotel* test, to which I now turn. I am mindful that, as stated in paragraph 41 of the judgment, this is a structured approach which is consistent with earlier decisions of the Court of Appeal and is intended to avoid "reliance by applicants on broad observations which work well in the particular circumstances in which they were made but break down when applied elsewhere". I certainly do not read the *Aerotel* test as diminishing the importance of a technical contribution – to my mind that is quite clear from paragraph 46.

Application of the *Aerotel* test

Step 1 – construction of the claims

- 20 Although the examiner had raised no objection, Mr Wallin considered it important to construe the term "transaction" since this would have a bearing on the definition of the contribution of the invention. As he pointed out, the embodiment described in the specification listed several examples:

- commercial transactions such as the sale or purchase of a share;
- the specification of information to be provided to a user;
- the specification of control conditions for the supply of information or sale or purchase of a share;
- and the initial log-in;

and the skilled man would therefore construe the term as meaning something broader than commercial transactions. Mr Wallin thought that it would be difficult to specify a generic term to cover all the above examples, but suggested that they had in common a start, an end and an instruction in between in order to cause a change of state or make something happen beyond the mere communication of information.

- 21 I accept Mr Wallin's construction. I doubt that it will be feasible to provide any better general term, and I think that in any case all the elements that are needed to make up the transaction are sufficiently clear from the claims.
- 22 In correspondence, the examiner had objected that the definition of the syntax as "lightweight" was unclear, but Mr Wallin had taken the view that the term was clear in context having regard to dictionary definitions of computing terms and the statement at page 15 of the specification that message formats contained "only the minimum set of information needed to define the required transaction". At the hearing he suggested that the functional definition of the syntax in the claims probably covered what "lightweight" meant. I agree, and I therefore propose to ignore this term in construing the claims.

Step 2 – identify the contribution

- 23 Mr Wallin thought that in view of the definition of the contribution in paragraph 43 of *Aerotel*, it was desirable to take into account not only what was claimed (which he accepted the examiner had done) but also the problem to be solved and the advantages gained. Accordingly, and taking into account the prior art cited by the examiner, he summarised the contribution as follows:

"The provision of a transaction interface system which operates in accordance with a predetermined lightweight message syntax to allow a user provided with a mobile telephone to instruct transactions to be performed which would otherwise require more complicated instructions, using a single user message composed in accordance with the lightweight message syntax, thereby providing advantages that the functionality of the user mobile device itself need not be increased, mobile network bandwidth is saved, and the time required to instruct a transaction is reduced." ;

he noted that the claims had in fact been re-cast into "two-part" form with respect to what he considered to be the nearest cited document, WO 2003 / 090133 A (Collectivity Ltd).

- 24 The point which Mr Wallin emphasised was that the syntax allowed the user to define the instruction in a single message which could be used to generate control data; he accepted that the above definition did not mention the generation of control data, but thought that this was implicit. He argued that this situation was distinguished from Collectivity, where the user could not conduct a transaction without an exchange of messages.
- 25 In Collectivity, a wireless information device is programmed to access betting related services, so that the device is operable to make an automatic selection of the best odds on an event from the odds offered by two or more bookmakers, display an option to initiate placing a bet at the best odds, and send instructions to place the bet. The specification explains that this form of integration is particularly useful for devices such as mobile telephones with small screens and keyboards which make complex user interactions slow and awkward, and minimizes the number of instructions needed between the device and a remote

server. Examples of betting via an SMS interface are described at pages 15-19; typically a search for options is initiated by inputting the name of a team or player, or a term such as "soccer" or "golf"; a bet is placed by sending a reply SMS in a stipulated format, e.g. "bet 1 on 4" to place a bet of £1 on item no 4 in a list of bettable events with specified odds; and the bet is confirmed by inputting a PIN.

26 I accept that in Collectivity the user is involved in an exchange of messages, but I am not convinced that this represents as significant a difference between the invention and the prior art as Mr Wallin suggests. Thus, it seems to me that the Collectivity system is in the end a series of individual transactions each instructed by the sending of a simple SMS message such as "soccer", "bet 1 on 4" or a PIN number. Conversely the single message of the present invention, even if not part of a message exchange, is likely to be part of a session involving the sending of a number of messages by the user, eg logging in, obtaining information, and buying or selling shares.

27 Furthermore, I think it is clear from the following documents cited by the examiner

US 2002 / 0107904 A1 (Talluri et al)
WO 01 / 98983 A1 (Chikka.com PTE Ltd)

that at the earliest date of the invention it was known to send SMS messages from mobile telephones in the form of information sparse commands which could be parsed to provide instructions for systems such as trading and auction systems and data providers. For example, paragraphs [0039] – [0041] of Talluri show the use of a command of the form "q<symbol><symbol>+..." to obtain a stock quote. It seems to me that, even if it is not explicitly stated, all these systems will have the advantages stated above by Mr Wallin.

28 It therefore seems to me that if the invention makes any contribution, it will be in the provision of a particular form of predetermined message syntax in a known type of transaction interface system in order to instruct the performance of user commands.

Step 3 – does the contribution relate solely to excluded matter?

29 The examiner maintained objection that the invention was excluded both as a computer program and as a system or method for doing business. Mr Wallin dealt with these separately at the hearing and I will do so as well.

Computer program

30 Although I take a different view from Mr Wallin of where the contribution of the invention lies, I accept that both our formulations make no specific mention of a computer or a computer program. For Mr Wallin, following *IGT*, that meant that the contribution had nothing to do with the fact that embodiments of the invention might be implemented on a computer. However, as I mentioned above, I have to determine whether the contribution, as a matter of substance as opposed to a particular form of wording, consists solely of excluded matter. In deciding this I think that I do need to consider how in practice the contribution is going to be

provided (see eg *Autonomy Corpn.* [2008] EWHC 146 (Pat) at paragraph 41).

- 31 The description illustrates the implementation of the invention by means of a general purpose computer with appropriate network connecting cards and a processor, memory and storage device which together provide for programs to be stored and executed in order to control the computer. I accept that this is only a preferred embodiment but, in line with the views expressed by the examiner, I cannot see in practice how the invention would be implemented other than by programming the appropriate syntax into the system.
- 32 The fact that an invention involves the use of a computer program is of course not sufficient to exclude it under section 1(2), as paragraph 22 of *Aerotel* makes clear. I accept that the invention does have effects which are external to a computer and that it has the advantages compared with the use of computer with fully functional browsers which are referred to above. However, although these are certainly technical features, for the reasons that I have explained I do not think that they are any different from those in the prior art systems. I do not therefore think that the program provides a relevant technical contribution in the sense of something over and above what is to be expected from loading a program into a computer³.

Business method

- 33 Mr Wallin argued that the contribution as he had defined it could not be solely a business method since the transaction need not be commercial in nature, and because he had identified a relevant technical contribution. In any case he thought that the invention was not actually about the performance of the transaction but concerned an interface system which generated the instructions to enable the back-end system to perform the transactions.
- 34 As with the computer program exclusion, I do not think there is a relevant technical contribution. Nor, in the light of paragraphs 67-71 of *Aerotel* emphasising that a transaction does not have to be completed in order for the business method exclusion to apply, am I convinced that the presentation of claim 7 as “a method for allowing transactions to be instructed” avoids the exclusion if the transactions in question are in fact business transactions. However, I accept that in both Mr Wallin’s and my definition of the contribution, the transaction it is not necessarily commercial in nature. I do not therefore think that the contribution can be said to relate solely to a business method.

Step 4 – is the contribution technical in nature?

- 35 I have covered this in step 3 and in accordance with *Aerotel* there is no need for me to go on to step 4.

Conclusion

³ See the comments of Pumfrey J in *Shopalotto.com Ltd* [2005] EWHC 2416 (Pat), [2006] RPC 7 at paragraph 9.

- 36 I therefore find the contribution of claims 1, 7, 13 and 14 to relate solely to a computer program. Having read the specification, I do not think that the incorporation of any features of the remaining claims (including the limitation to SMS messages proposed as an alternative by Mr Wallin) will overcome this finding. Nor do I think that any other saving amendment is possible.
- 37 Accordingly, the invention is excluded from patentability by section 1(2). I therefore refuse the application under section 18(3).

Appeal

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

R C KENNEL

Deputy Director acting for the Comptroller