



04 February 2013

**PATENTS ACT 1977**

APPLICANT                                      Lantana Ltd.

ISSUE    Whether patent application number  
GB1014714.8 complies with Section 1(2)

HEARING OFFICER                          Dr. Stephen Brown

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**DECISION**

**Introduction**

- 1     This decision concerns the issue of whether the invention claimed in patent application GB1014714.8 relates to non-excluded subject matter as required by section 1(2) of the Act. It is entitled “Methods, systems, and computer program products for retrieving a file of machine-readable data” and was filed via the PCT route with a priority date of 22 February 2008. The application was republished as GB2470521 on 24 November 2010.
- 2     The examiner has maintained throughout that the invention claimed in this application is excluded from patentability as a program for a computer as such. A decision on the papers on this matter was requested on 21 December 2012.

**The Invention**

- 3     The claims relate to a system for the retrieval of electronic data from a remote station.
- 4     The most current claims were filed on 21 December 2012. There are 16 claims, five of which are independent. Claim 1 relates to a data retrieval system, claim 13 to a computer system suitable for use as the local station in claim 1, claims 14 & 15 relate to methods of data retrieval, and claim 16 is a claim to a computer-readable medium storing computer-executable instructions for performing the method of data retrieval.
- 5     While these different independent claims have some minor variations in scope they all express the same underlying concept and thus will stand or fall subject

to the conclusions reached in respect of any one of them. For simplicity therefore, the following discussion will deal primarily with claim 1.

6 The wording of claim 1 is as follows:

*An electronic data retrieval system comprising a local station, a remote station, a packet switched network to provide a transmission path between the local station and the remote station, and a machine-readable data storage device storing retrievable data files including machine-readable data representing at least one of a visual product and an audio product,*

*wherein said local station includes:*

*a data store storing a plurality of machine-readable data retrieval criteria identifying data files among said retrievable data files stored at said machine-readable data storage device to be retrieved;*

*a packet switched network interface connected to said packet switched network;*

*a user interface co-operable with said data store and interactable with a user, to enable selection by the user of one or more machine-readable data retrieval criteria; and*

*an electronic processor configured to produce, in response to the selection by the user of the one or more machine-readable data retrieval criteria, a first e-mail message including the selected one or more machine-readable data retrieval criteria together with a machine-readable instruction for retrieving data files, among said retrievable data files stored at said machine-readable data storage device, using the selected machine-readable data retrieval criteria, and to send the first email message to the remote station via said packet switched network interface and said packet switched network;*

*wherein said remote station includes:*

*a packet switched network interface connected to said packet switched network to receive the first e-mail message from the packet switched network;*

*a filter adapted to parse the first e-mail message to determine whether the first e-mail message includes any machine-readable instruction and any data retrieval criteria; and*

*an electronic processor to execute the first machine-readable instruction, and upon execution of the machine-readable instruction and in accordance with the selected machine-readable data retrieval criterion, retrieve the one or more required data files among said retrievable data files stored at said machine-readable data storage device from the machine-readable data storage device, produce one or more second e-mail messages, the one or more second e-mail*

*messages including the retrieved one or more data files as one or more attachments, and send to said local station, via the packet switched network interface of the remote station, and the packet switched network, the one or more e-mail messages and one or more attachments.*

## **The law and its interpretation**

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

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

...

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

...

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

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

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

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

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

<sup>2</sup> *Symbian Limited's Application* [2008] EWCA Civ 1066

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

## **Application of the *Aerotel* test**

### Properly construe the claim

- 9 I do not think that this step poses any problems. The claims all relate to retrieving data from a remote station to a local station using e-mail. To achieve this the local station sends a first e-mail containing machine-readable retrieval criteria and the remote station responds with an e-mail containing the requested data.

### Identify the actual contribution

- 10 From the description as a whole I have no doubt that the invention is implemented on standard computing devices connected by a standard communication network. I note that such a conclusion was also expressed by the examiner and that the applicants have never disputed it.
- 11 Further, as detailed on page 81 of the description, the specific steps of the invention are controlled either by software or primarily by hardware such as application specific integrated circuits (ASICs). I mention the latter option merely for completeness. To my mind there is little legal difference between re-writable software and the same instructions 'frozen into' an ASIC. They both represent programmes for a computing device. If embedding software in an ASIC automatically got an invention around section 1(2) it would render that area of exclusion null and void.
- 12 There is thus no doubt in my mind that the contribution requires a computer program for its implementation. I thus construe the contribution to be a computer implemented system for retrieving data from a remote station across a network using e-mails containing machine-readable instructions and/or retrieved data.
- 13 However, the mere fact that the invention is effected as a computer program does not of course mean that it is automatically excluded as that thing as such. What matters is whether or not the invention provides a technical contribution beyond that of a mere program running on a conventional computer.

### Ask whether it falls solely within excluded matter

- 14 In their letters to the Office, the attorneys for the applicants have argued that the invention is not excluded for a number of specific reasons. These may be summarised as:
- i. The transfer of data over a network is not among the list of exclusions;
  - ii. Extracting data from a database has been held by the High Court to be a technical process;

- iii. The transfer of data between memories in a computer has been held by the High Court to be a technical process thus by extension the transfer of data between computers must also be a technical process;
- 15 I will address these arguments in order. Firstly, the fact that the invention concerns transferring data over a network does not automatically mean it cannot relate to excluded matter. It is established legal precedent that the list in section 1(2) was not intended to be an exhaustive, or exclusive, list of the detailed technologies that are excluded from patentability. As reasoned above the current invention is implemented as a programme for computing devices. Thus it *may* be excluded if I decide that it only relates to that thing as such.
- 16 In support of their second point, the applicant's attorneys referred to the decision in IGT/Acres Gaming<sup>4</sup>. This case concerned addressing a database using encrypted data, such as the data on a credit card, in order to operate a loyalty scheme in a casino. In paragraph 29 of his decision the Judge stated:
- If – and I stress the word "if" – it was indeed new and not obvious to those skilled in the art at the priority date of the patent application to devise an apparatus where a card bearing encrypted information is presented to a reader and the information is used to access a record in a database without decrypting the information first, it would be so irrespective of the business (if any) in which the concept was to be employed. It would be a new and inventive technical procedure. It could therefore hardly be said to be subject-matter falling solely within the excluded province.*
- 17 On this basis the applicant's attorneys argue that methods of addressing databases are technical procedures and thus not excluded. I am afraid that I cannot draw such a broad conclusion from this decision. To my mind what the judge is saying is that in that case the method of addressing a database was technical due to the contribution of using encrypted data without having to decrypt it. Nowhere in the decision can I see a more general precedent that henceforth any and all methods of addressing databases are to be considered technical.
- 18 In support of their third point, the applicant's attorneys referred to the decision in Gemstar v Virgin<sup>5</sup>. In paragraph 234 of this decision Mann J. stated:
- Again the question is whether what the invention achieves has a relevant technical effect. This time I think that it does. This is not merely a computer running a program without any effect in what might be regarded as the outside world. While it does not produce a "better computer" it does actually achieve something which can be regarded as a physical effect, namely the initiation of movement of data from one disk to another (both metadata and TV programme content). That seems to me to be enough to prevent it being just a computer program as such and to render it patentable material. It is true that it does not produce an effect outside the system itself, but it is still an effect.*

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<sup>4</sup> IGT/Acres Gaming Inc. [2008] EWHC 568 (Pat).

<sup>5</sup> Gemstar v Virgin [2009] EWHC 3068, [2010] RPC 10.

- 19 The applicant's attorneys argue that this establishes that the movement of data from one disc (i.e. memory) in a computer to another memory is a relevant technical effect. They further argue that if this is so then the transfer of data from a memory in one computer (or station) to that in a second computer must also be a relevant technical effect.
- 20 Again I am afraid I cannot take such a general precedent from this decision. To my mind what *Gemstar v Virgin*<sup>5</sup> teaches is that the movement of data *may* be a relevant technical effect. On the facts of that case the judge decided that it was. However, the facts of this case are not identical and it is on those facts that I must make my decision.
- 21 At this point I believe it would be useful to bring in the decision in *Symbian*<sup>2</sup>. Paragraphs 54 & 56 of that decision state that:

*More positively, not only will a computer containing the instructions in question "be a better computer", as in Gale, but, unlike in that case, it can also be said that the instructions "solve a 'technical' problem lying with the computer itself". Indeed, the effect of the instant alleged invention is not merely within the computer programmed with the relevant instructions. The beneficial consequences of those instructions will feed into the cameras and other devices and products, which, as mentioned at [3] above, include such computer systems. Further, the fact that the improvement may be to software programmed into the computer rather than hardware forming part of the computer cannot make a difference – see Vicom; indeed the point was also made by Fox LJ in Merrill Lynch.*

and:

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

- 22 In my opinion there are number of differences between this case and that in *Symbian*<sup>2</sup>. Firstly, the contribution does not solve a technical problem lying with the computing system itself. Also, the contribution does not result in a faster or more reliable computing system. What it results in is a way of retrieving data from a remote station across a network using e-mails containing machine-readable instructions. In short, the computing system itself does not appear better as a matter of practical reality.
- 23 This conclusion is reinforced if I turn to CVON<sup>3</sup>. In paragraphs 39-41 of this case Lewison J states:

*It seems to me, therefore, that Lord Neuberger's reconciliation of the approach in Aerotel (by which the Court of Appeal in Symbian held itself bound, and by which I am undoubtedly bound) continues to require our courts*

*to exclude as an irrelevant "technical effect" a technical effect that lies solely in excluded matter.*

*As Lord Neuberger pointed out, it is impossible to define the meaning of "technical effect" in this context, but it seems to me that useful signposts to a relevant technical effect are:*

*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 there is an increase in the speed or reliability of the computer;*

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

*And, if there is a technical effect in this sense, it is still necessary to consider whether the claimed technical effect lies solely in excluded matter.*

- 24 In respect of the first signpost, if there is an effect outside of the two computers (or 'stations'), it is only the transmission and reception of e-mails, something which computers attached to networks are widely known to do. The contribution of the current invention is to use those e-mails to effect the retrieval of data from the remote station. This method of retrieval clearly only affects processes within the two computers themselves – I can see nothing external to the two computers that is affected.
- 25 In respect of the second signpost, it is quite clear that the claimed technical effect does not operate at the level of architecture in either 'station'. Rather it is a way of retrieving data from the remote station by 'piggy-backing' on the operation of an e-mail application. The crux of *Symbian*<sup>2</sup> was that it related to a program which allowed a computer to operate on other programs faster - in essence a generic program. That is not the case here - there is nothing to suggest that the two computers' architectures are anything other than conventional.
- 26 In respect of the third signpost, neither the two computers, nor the connecting network, are operating in a new way.
- 27 In respect of the fourth signpost, any increase in the reliability of the data retrieval process is solely due to the use of e-mail rather than any other communication method. There is no evidence of either of the two computers or the network being intrinsically more reliable themselves. In the case of *Symbian*<sup>2</sup> it was accepted that an overall improvement in reliability of the

computer itself was achieved. The contribution in this case does not seem to operate with anything like the same level of generality.

- 28 Finally, in respect of the fifth signpost, the problem addressed is that of how to retrieve data from a remote station without the usual problems associated with establishing a continuous connection to said station. The current application addresses this issue by choosing to use a well known non-continuous communication technology instead, namely e-mail. The contribution cannot be said to solve the problems identified. Rather it circumvents the problems of maintaining a good continuous connection by simply not using a continuous connection.
- 29 To summarise: the contribution is a better way of retrieving data from a remote station by using e-mail to transmit retrieval criteria and to receive back the corresponding data. I can see no technical effect outside of the two computers. Neither is either computer or the connecting network operating in a new way. I am therefore forced to conclude that the contribution is excluded as a program for a computer as such.

#### Check whether the contribution is actually technical in nature

- 30 As reasoned above, the contribution does not have a relevant technical effect. The application thus fails the fourth Aerotel step.

#### **Decision**

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

#### **Appeal**

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

**Dr. Stephen Brown**

Deputy Director, acting for the Comptroller