

**PATENTS ACT 1977**

APPLICANT                      Telefonakiebolaget LM Ericsson (PUBL)

ISSUE                                      The Patents Act 1977:  
Whether patent application GB0822907.2  
complies with section 1(2)

HEARING OFFICER                      Dr Lawrence Cullen

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**DECISION****Introduction**

1. This decision concerns patent application GB0822907.2 entitled "*A method and arrangement for handling communication requests from unknown parties*", and whether it relates to non-patentable subject matter as defined by section 1(2) of the Patents Act 1977 (the "Act"). The application was filed under the provisions of the Patent Cooperation Treaty (PCT) on 7 May 2007, claiming an earliest priority date of 19 May 2006, and was initially published as WO2007/136314 on 29 November 2007. On entering the national phase it was subsequently re-published as GB2452206A on 25 February 2009.
2. Throughout the examination process the examiner has consistently reported that the invention defined in the claims as filed and subsequently amended was not patentable because it related to a program for a computer as such. The applicant has not been able to persuade the examiner that the invention is patentable, and the matter came before me at a hearing on 20 January 2012.
3. The applicant, Telefonakiebolaget LM Ericsson (Ericsson), was represented by Dr Robert Lind and Mr Alan Chapman of Marks & Clarks LLP. Also present at the hearing were the examiner, Mr Jared Stokes, and the hearing assistant, Dr Natalie Cole.

**The Invention**

4. The application describes the desirability for a called party to be able to determine the "reliability" of a calling party and how to respond to an incoming call or request. The invention provides a method to facilitate determination as to whether a calling party can be regarded as "reliable", i.e., as suitable for communication with or not. The invention is executed by a presence server in an IP Multimedia Subsystem (IMS) network, the presence server providing a presence service, i.e. a service to provide information on the status of a user and their equipment with regard to the

network. As outlined in the application, such information might include identity information, i.e., who is connected to the network; status information, i.e., if they are available, busy, in a meeting etc; location data, i.e., location and physical condition of user and/or their equipment; and capability information, i.e. type and nature of connecting functions, such as SMS, video, games etc. Such presence services are based on communication groups which comprise contact lists of all those who are known to the users of the network

5. The invention relates to a method and arrangement for investigating an unknown calling party having sent a communication request to a called party, in order to provide relation information to the called party regarding the calling party. When the called party receives a request from a calling party, that is not known to the called party, a relation query for the calling party is sent by the called party to the presence service, and, if the calling party is absent from any contact list that has been defined for the called party, it is then determined by the server whether the calling party is known, directly or indirectly, to a third party known, directly or indirectly, to the called party. The server will search through the communication groups in the presence service that have been defined for the called party and then provide any information found on the relationship between the calling party and the called party, for example, that the calling party is known to a contact who is listed in the contact list of the called party.
6. The latest set of claims, filed on 8 April 2011, comprises three independent claims. Claim 1 specifies:

*“A method of investigating an unknown calling party having sent a communication request to a called party, in order to provide relation information to the called party regarding the calling party, as executed in a presence server in an IP Multimedia Subsystem, IMS, network, the presence server providing a presence service, comprising the following steps:*

*receiving a relation query for the calling party from the called party, said calling being absent from any contact list that has been defined for the called party and comprising parties known and related to the called party*

*determining whether the calling party is known and related to a third party directly or indirectly known and related to the called party in a group that has been defined for the called party for the presence service, by checking if the called party is present in a group that has been defined for said third party for the presence service, and*

*providing relation information to the called party based on the outcome from said determining step”*

7. Independent claim 9 relates to an arrangement for investigating an unknown calling party configured to perform the method of claim 1 and independent claim 17 relates to a caller investigation unit for use in a presence server in an IP Multimedia Subsystem (IMS) network also corresponding to the method of claim 1.

## The Law

8. Section 1(2) of the Act sets out certain categories of invention that are not patentable as follows:

*“It is 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 for 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”.*

9. Current IPO examination practice is to use the structured approach set out by the Court of Appeal in its judgement in *Aerotel/Macrossan*<sup>1</sup> for deciding whether or not an invention is patentable. The test comprises four steps:
- 1) Properly construe the claim;
  - 2) Identify the actual contribution;
  - 3) Ask whether it falls solely within excluded matter;
  - 4) Check whether the contribution is actually technical in nature.
10. The operation of the test is explained at paragraphs 40-48 of the *Aerotel/Macrossan*<sup>1</sup> judgment. More recently, the Court of Appeal in the *Symbian*<sup>2</sup> case confirmed that this structured approach is one means of answering the question whether or not the invention reveals a technical contribution to the state of art. In other words, *Symbian*<sup>2</sup> confirmed that the four-step test is equivalent to the prior case law test of ‘*technical contribution*’, as per *Merrill Lynch, Gale and Fujitsu*. The result being that what matters is what the ‘*technical contribution*’ amounts to, not whether it happens to be implemented by a computer.
11. During the course of correspondence reference was also made to the decisions of the Patents Court in *AT&T/CVON*<sup>3</sup> and *Halliburton*<sup>4</sup> and the relevance of these cases are discussed below.

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

<sup>2</sup> *Symbian Limited’s Application* [2008] EWCA Civ 1066; [2009] RPC 1

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

<sup>4</sup> *Halliburton’s Applications* [2011] EWHC 2508 (Pat)

## Argument and Analysis

12. As agreed by the agent and examiner the correct approach to take is to apply the four steps of the *Aerotel/Macrossan*<sup>1</sup> test to determine what is the actual contribution and whether it falls solely within excluded matter or not:

### Step 1: Properly construe the claims:

13. The examiner found the construction of the claims to be straight forward, and I agree with that analysis. The meaning of the claims is clear, and does not require further comment.

### Step 2: Identify the actual contribution

14. Paragraph 43 of *Aerotel/Macrossan*<sup>1</sup> states that identifying the contribution should involve looking at substance and not form, and that this is probably best summed up by considering what has the invention claimed really added to human knowledge?
15. There was some disagreement between the applicant and examiner with regards to the answer to this question.
16. The applicant suggested, within the skeleton arguments submitted before the Hearing, that the invention solves the technical problem of enabling a telecommunication network to provide a called party with relation information regarding a calling party that is unknown to the called party. This relation information would be, for example, details of whether the caller is known to someone that is included in the called party's list of contacts on the telecommunications system, i.e., the caller is known through a contact that the called party considers sufficiently reliable to be included in their own list of contacts. Therefore, the applicant considers that the contribution can be identified as a method of implementing a service in a telecommunication network that provides a called party with relation information regarding a calling party that is unknown to the called party.
17. This was expanded on and discussed further during the hearing. Dr Lind suggested that the routine solution to enabling the provision of a new service within a telecommunication network would be to introduce additional servers into the network, with these new servers being configured to provide the new service. He went on to explain that the present invention recognises that a separate server/computer within the network is not required and makes use of the existing contact information stored in an IMS presence server to provide the "friend(s)-of-a-friend" look-up/authentication service. The latter is not something that the presence server is primarily intended to do. Furthermore, the invention takes advantage of presence information and links this data to form trust relationships and so get authentication in real time where the presence server is already established in the IMS network.
18. Dr Lind noted that, with regard to the *Aerotel/Macrossan*<sup>1</sup> case, the addition of an extra server, referred to as a special exchange, to a conventional system for making a phone call altered the architecture of the system to create a new system for making telephone calls. Thus, in that case, the addition of an element which wasn't otherwise there was considered to form part of the contribution. Dr Lind went on to

suggest that by analogy, the fact that an additional server is not required in the application in suit to provide the relation information because it is implemented instead on the presence server, constitutes a fundamental change in the nature of the architecture and thus should also be regarded as forming part of the contribution.

19. I am not persuaded by these arguments. There is nothing within the application as filed that gives any suggestion of such a contribution. Nowhere does it refer to any advantage in not using additional application servers, nor does it identify the need for additional servers as a problem that is overcome by the invention. Furthermore, the claims do not preclude the use of further application servers. Indeed, it would seem from the application as-filed that solutions other than the use of a presence server are envisaged. For example, the description states, at page 9, lines 9 to 17 that “[a]lternatively, the inventive method and apparatuses may be implemented in an Internet server for providing “friend-of-a-friend” searches or the like.”
20. Dr Lind also suggested at the hearing that the invention requires receiving a relation query for the calling party from the called party. This was also highlighted within the skeleton arguments, where it was suggested that ‘*if the IMS presence server is considered to be operating in a substantially conventional way, such that the presence server is not considered to be part of the contribution, the invention requires that the presence server receives a relational query for the calling party from the called party. Furthermore, it is implicit that this relational query must include an identifier for the called party and for the calling party, and that this relational query is sent to the presence server by the called party following receipt of a communication request from the calling party. Only as a consequence of receiving this relational query is the presence server able to implement the processing required to determine if the calling party is known and related to a third party known and related to the called party. The contribution can therefore be identified as the receipt of a relational query, including an identifier for a called party and for a calling party at a presence server.*’ I agree with this argument, as it seems clear from the claims and description that the invention lies in the receipt of a relational query from a called party.
21. Taking the above issues into account, I consider that the contribution in this case relates to a program executing a method in a presence server comprising receiving a relation query for the calling party from the called party, determining whether the called party is known and related to a third party directly or indirectly known and related to the called party from a group that has been defined for the called party and providing relation information to the called party based on the outcome from the determining step.

Step 3: Does the contribution relate only to excluded matter?

22. It is clear that the invention is implemented by a computer program and that the program requires a presence server in an IP Multimedia System (IMS) network. I consider that that there is nothing unusual in the hardware being used as the presence server would appear to be a conventional computer. Therefore, I must now decide whether the contribution relates to a computer program as such, or whether there is something which takes it outside this exclusion.

23. In his assessment of whether the contribution is technical in nature, the examiner used the 'signposts' set out by Lewison J in paragraph 40 of *AT&T/CVON*<sup>3</sup>, and concluded that none of the signposts are shown by the present invention.

24. During the hearing, Dr Lind referred specifically to signpost (v) of *AT&T/CVON*<sup>3</sup> (i.e. whether the perceived problem is overcome by the claimed invention as opposed to being merely circumvented, see paragraph 40). He acknowledged that if the problem was implementing a friends-of-friends look-up on a computer then the examiners analysis that the problem was circumvented would be correct. However, he suggested that the problem being addressed in the application in suit is one which involves elimination of additional servers from the network and that the problem is being overcome by introducing new functionality onto the presence server. This is not merely circumventing the problem. However, as discussed above, I do not think that it is reasonable to suggest that the problem is one of eliminating the need of additional servers from the network. On the contrary, it seems to me quite clear from the application that the problem is one of providing a called party with information regarding the called party. Thus I consider that, rather than providing new functionality onto the presence server as argued by the applicant, the computer program of the invention circumvents the need for additional servers in the network. Furthermore, I do not believe that the computer program of the invention overcomes any other technical problem, such as making the network run faster or work in a more reliable fashion. Instead, the invention is a computer programme that uses a presence server to automate the cross-referencing of an unknown caller's details with members of numerous related group members when the presence server receives a relation query.

25. Although they have not been specifically referred to, for the sake of completeness, I consider briefly below the other signposts referred to in *AT&T/CVON*<sup>3</sup> (see paragraph 40):

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

the computer program of the application in suit does not have a technical effect on a process which is carried on outside the presence server.

- (ii) Whether the claimed technical effect operates at the level of architecture of the computer; that is to say whether the effect is produced irrespective of the data being processed or the applications being run:

the program does not operate at the level of architecture of the presence server, it does not produce an effect irrespective of the data being processed.

- (iii) Whether the claimed technical effect results in the computer being made to operate in a new way:

the program of the application in suit does not make the computer run in a new way.

- (iv) Whether there is an increase in the speed or reliability of the computer:

the program does not result in an increase in the speed or reliability of the server.

26. In conclusion, the computer program of the invention would not appear to meet any of the signposts to a relevant technical effect as set out by Lewison J in *AT&T/CVON*<sup>3</sup>.
27. In the skeleton argument submitted on 29 February 2012, the applicant makes reference to paragraphs 30 and 32 of *Halliburton*<sup>4</sup>. Paragraph 32 of this decision states:

*“[a] computer programmed to perform a task **which makes a contribution to the art which is technical in nature**, is a patentable invention and may be claimed as such”.*  
*(my emphasis added)*

The agent then goes on to say that *“the invention solves the problem of how to implement a service in a telecommunication network and thus the detailed problem of determining how to implement a service within a telecommunication network involves considering the technical capabilities and technical limitations of the telecommunication network and is therefore obviously technical in nature”*.

28. However, I do not consider this to be the case. As highlighted in bold above, this paragraph, indicates that what is important in deciding if the computer programmed to perform a task is patentable is that the task being performed makes a contribution to the art that is technical in effect. Considering the capabilities and limitations of the telecommunication network at a general level is not in my view a contribution to the art that is technical in nature. It does not form part of the contribution. One has to look in more detail as to what exactly is the task that the computer is performing.
29. Paragraph 30 of *Halliburton*<sup>4</sup> states:

*“[a]n invention which makes a contribution to the art which is technical in nature (to echo Kitchin J’s words in Crawford’s Application [2005] EWHC 2417) is patentable **even if it is implemented entirely on a computer and even if the way it works is entirely as a result of a computer program operating on that computer”**.*

*(my emphasis added)*

The agent then goes on to state that *“the reconfiguration of an existing presence server, by software alone, can therefore provide a technical contribution”*. In line with *Symbian*<sup>2</sup>, this would be the case if the invention solved a technical problem external to the computer or solved a technical problem within the computer, where further guidance to what constitutes a technical problem within the computer was outlined by the ‘signposts’ set out by Lewison J in *AT&T/CVON*<sup>3</sup>. However, I have already considered these signposts above and found that invention does not display a relevant technical effect. The sole reconfiguration of a presence server by a program which has no technical contribution can therefore not be technical in nature.

Step 4: Check whether the contribution is technical in nature

30. I think that I have sufficiently considered this issue under Step 3 above, and have concluded that the contribution is not technical in nature.

**Conclusion**

31. I find the invention is excluded under s.1(2) of the Act because it relates to a program for a computer as such.
32. Furthermore, having read the specification in detail, I can find nothing therein that might reasonably be expected to form the basis of a valid claim.
33. I therefore refuse this application under s.18(3) of the Act.

**Appeal**

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

**Dr L CULLEN**

Deputy Director, acting for the Comptroller