



16 February 2007

PATENTS ACT 1977

APPLICANT NEC Corporation

ISSUE Whether patent application number GB 0308095.9 complies with section 1

HEARING OFFICER A Bartlett

DECISION

Introduction

- This decision concerns the issue of whether patent application number GB0308095.9 relates to excluded subject matter. The application, which is entitled "Electronic mail receipt processing method and portable communication apparatus for practicing the same", was filed in the name of NEC Corporation on 8 April 2003 and was published as GB2388219A on 5 November 2003.
- At various stages of the examination process the examiner reported that the invention was not novel and lacked an inventive step over the prior art and was excluded as a program for a computer, a method of performing a mental act and/or the presentation of information. Various amendments have satisfied the examiner that the claims as filed on 2 October 2006 are novel and inventive but in his examination report of 9 October he reported that he still considered the invention to be excluded and suggested that a hearing be appointed to help determine that issue.
- Before the hearing could be arranged the Court of Appeal issued its judgment in *Aerotel/Macrossan*. (*Aerotel* hereafter) where it considered the scope of the exclusions and proposed a new approach for assessing whether an invention was excluded. As a result the examiner issued a final report following the *Aerotel* approach in which he set out the issues to be addressed at the hearing. The hearing took place before me on 18 December 2006 where the Applicants were represented by Mr Michael Moir and Mr Jeremy Smith of the Patent Attorneys Mathys & Squire. The examiner, Mr Paul Marshall, also attended.

1. Aerotel Ltd vs Telco Holdings Ltd (and others) and Macrossan's application [2006] EWCA Civ 1371

For brevity of this decision I shall attribute all comments made on behalf of the Applicants to Mr Moir but I acknowledge the helpful contribution made by Mr Smith at the hearing. I am also extremely grateful for the skeleton submissions provided by Mr Moir in advance of the hearing which I shall refer to at various points of this decision.

The application

- The application concerns a system for processing email depending upon the content and source of the mail. The claim set I was asked to consider at the hearing contained 14 claims in total of which the independent method and apparatus claims are reproduced below. Following discussion at the hearing, Mr Moir requested that I should consider an alternative version of claim 1 including the limitation that the method is used in a portable communication apparatus (as per claim 7) in the event that I found the first version to be unpatentable. That version of claim 1 is also reproduced below although I shall focus on the claims as filed on 2 October for the bulk of my decision.
 - An electronic-mail receipt processing method comprising:
 a first determining step of determining whether a source mail
 address of a received electronic mail is identical with one of at least one
 registered mail address registered beforehand at mail-address storing
 means;

a second determining step, carried out if the source mail address of a received electronic mail is identical with one of the at least one registered mail address, the second determining step determining whether one of at least one character line stored beforehand in a character-line storing means is contained in a title or body of a received electronic mail; and,

a processing step, carried out if one of the at least one character line is contained in the title or body of the received electronic mail, the processing step executing preselected processing that comprises outputting, at the same time, first and second kinds of alarm tone, the first kind of alarm tone being associated with a source mail address of the received electronic mail and the second kind of alarm tone being associated with a character line contained in the title or body of the received electronic mail.

7. A portable communication apparatus comprising:

inputting means for allowing a user of said portable communication apparatus to input at least one electronic mail address and at least one character line:

mail address storing means for storing the at least one electronicmail address input on said inputting means;

character-line storing means for storing the at least one character line input on said inputting means;

mail address determining means for determining whether a source mail address of a received electronic mail is identical with one of the at least one stored electronic mail address; character-line determining means for, if the source mail address is identical with one of the at least one stored electronic mail address, carrying out a determination as to whether the character-line determining means determining (sic) whether the at least one stored character line is contained in a title or a body of the received electronic mail; and,

processing means for, if one of the at least one stored character line is determined to be contained in the title of the body of the received electronic mail, executing preselected processing comprising outputting, at the same time, first and second kinds of alarm tone, the first kind of alarm tone being associated with a source mail address of the received electronic mail and the second kind of alarm tone being associated with a character line contained in the title or body of the received electronic mail.

Auxiliary request

1. An electronic-mail receipt processing method in a portable communications apparatus comprising:

a first determining step of determining whether a source mail address of a received electronic mail is identical with one of at least one registered mail address registered beforehand at mail-address storing means:

a second determining step, carried out if the source mail address of a received electronic mail is identical with one of the at least one registered mail address, the second determining step determining whether one of at least one character line stored beforehand in a character-line storing means is contained in a title or body of a received electronic mail; and,

a processing step, carried out if one of the at least one character line is contained in the title or body of the received electronic mail, the processing step executing preselected processing that comprises outputting, at the same time, first and second kinds of alarm tone, the first kind of alarm tone being associated with a source mail address of the received electronic mail and the second kind of alarm tone being associated with a character line contained in the title or body of the received electronic mail.

The Law

Section 1 of the Patents Act 1977 sets out the requirements that an invention must fulfil for it to be patentable. Section 1(2) identifies a list of things for which patent protection is not available and the relevant parts of this section read:

- (a)
- (b)
- (c) a scheme, rule or method for performing a mental act, playing a game

[&]quot;1(2) It is hereby declared that the following (among other things) are not inventions for the purposes of this Act, that is to say, anything which consists of -

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 purpose of this Act only to the extent that a patent or application for a patent relates to that thing as such."

Interpretation

- As I have already indicated, in its decision in *Aerotel* the Court of Appeal approved a new approach for assessing excluded matter which the Patent Office announced it would follow with immediate effect in its practice notice dated 2 November 2006.². In accepting that as the approach I must follow in determining whether the present invention is patentable, Mr Moir observed that the Court saw this a "structured and more helpful way of re-formulating the statutory test" that did not change what is patentable and has not replaced the statute.
- The judgment did though address a number of other points relevant to the interpretation of this section of the Act in the present case. First, the Court made it clear that deciding whether an invention was excluded was a question of law and thus there was no benefit of the doubt to be enjoyed by the Applicant in applying these provisions.
- 9 Second the Court made it clear that the excluded categories are not exceptions to what is patentable, rather S1(2) sets out positive categories of things which are not to be regarded as inventions. Accordingly the general UK and European principle of statutory interpretation that exceptions should be construed narrowly does not apply to them.
- Finally, and of particular relevance to the Applicants submissions in the present case, I note that by virtue of section 130(7) of the Act section 1(2) is so framed as to have, as nearly as practicable, the same effects as the corresponding provisions of the European Patent Convention. I should therefore pay due regard to the decisions of the Boards of Appeal of the European Patent Office under Article 52 of the EPC. However, such decisions do not bind me, and the reliance that I can place on them must now be limited in view of the contradictions in the Boards' decisions highlighted by the Court of Appeal in *Aerotel/Macrossan* and its express refusal to follow EPO practice.

Applying the test

- 11 The test for assessing patentability approved by the Court of Appeal in *Aerotel* comprises the following four steps:
 - (1) properly construe the claim
 - (2) identify the actual contribution;

 $^{2\} http://www.patent.gov.uk/patent/p-decisionmaking/p-law/p-law-notice/p-law-notice-subjectmatter.htm$

- (3) ask whether it falls solely within the excluded subject matter;
- (4) check whether the actual or alleged contribution is actually technical in nature.
- 12 Apart from one typographic error in claim 7 (the third occurrence of "determining" in clause 5 should apparently read "determines"), the meaning of the claims is clear. Thus step 1 properly construing the claims does not cause any particular difficulty. In fact the only point of note to emerge during the hearing on step 1 was that the claims impose no limitation on the source of the emails they could equally well be generated automatically or upon the action of a human sender.
- 13 Looking at claim 1 first, this defines

a method for determining whether the source address of a received email matches an address stored previously. If the answer is yes

determining whether a previously stored character line is contained in the title or body of the email. If the answer to that is yes

simultaneously outputting first and second alarm tones associated with the source address and character line respectively.

- 14 Claim 7 defines portable communication apparatus for implementing that method. Likewise, claim 1 of the auxiliary request relates to the same method for use in portable communication apparatus.
- The second step identifying the actual contribution was the source of significant disagreement between the examiner and Mr Moir. Mr Moir did however accept that the hardware used to implement the invention was conventional and that the contribution results from the functionality that the device is programmed to provide. I should add at this point that the Court made it clear in *Aerotel* that in identifying the actual contribution, it is the substance of the invention that is important, rather than the form of claim.
- In his letter of 13 November 2006 the examiner identified the contribution as being:

"the production of two alarms that are dependent on the email's source and content to convey information to the user that a message is from a predefined sender and contains predefined text."

This assessment was based on the prior art acknowledged within the specification and identified by the examiner during the examination process. In particular, the specification acknowledges with reference to figure 2 that it was known at the priority date for users to be able to configure their mobile phone to generate specific notify tones to indicate when an email was received from particular source addresses. Furthermore, one of the Applicants' own earlier patent applications GB2371181 discloses a system in which the notify feature

could be configured to respond to different senders or different content (but not both), this document only constituting prior art for the purpose of novelty under section 2(3) but not inventive step.

- In contrast, Mr Moir saw the contribution to be somewhat different to that. He said that he thought the examiner's assessment was based on the misconception that identifying the contribution was equivalent to identifying the novel, inventive aspect of the invention. That he said was akin to applying the approach adopted by Falconer J in *Merrill Lynch* when that case was before the High Court, an approach subsequently rejected by the Court of Appeal when the case was before it and in light of its judgment in *Genentech*.
- Mr Moir submitted that in correctly identifying the contribution made by the invention, it was necessary to take account of the problem the invention sought to solve, the end result it achieves and the field in which it is applied. In furthering this argument Mr Moir characterized the problem to be solved as how to alert a user of a device of an important change in the state of the system without him having to interact with the device. As for the end result and the field in which the contribution is made, Mr Moir suggested that the invention provided an improved communication system one where information could be communicated more effectively so that for example the user of a mobile phone could identify important emails without having to look at his phone or even remove it from his pocket.
- Thus, in Mr Moir's view the contribution made by the invention was as set out in paragraph 3.9 of his skeleton, namely

"The provision of an improved method and associated apparatus for automatically providing a substantially instantaneous incoming email alert indicative of the source and contents of the email to the user of a mobile communications device without the need to interact with the device".

- I do not think this is an accurate assessment of the contribution made by the invention. First, to determine the origin and content of a received email, the user has to listen to the notify tones produced by the device. Whilst the user activity required to do that is less intrusive than say having to remove the device from a pocket and look at it, listening to the tones still in my view constitutes interacting with the device. Thus to say that the contribution is in part provided by the lack of need for any interaction is to my mind wrong. Second, claim 1 as filed on 2 October 2006 is not limited to a mobile communications device so that aspect of the context within which the contribution is made is not applicable to it. Claim 7 and the auxiliary request do not of course suffer from that point.
- I think it is stretching things still further to say that the contribution is an improved communication system. The reason for arguing that it is is self evident communication systems sound intrinsically technical so an improved communication system would, by extension, seem to be patentable. However,

³ Merrill Lynch Inc's Application [1988] RPC 1 and [1989] RPC 561.

⁴ Genentech Inc's Patent [1989] RPC 203.

at paragraph 43 of the *Aerotel* judgment, Jacob LJ said that identifying the contribution is an exercise best summed up by asking the question "what has the inventor really added to human knowledge". The inventor's contribution is not, in my view, a new communication system - the invention has no effect on the way the emails are transmitted and the invention does not result in an improved communication system in the way that for example a new data compression technique that can increase data traffic would. Neither is the contribution the provision of an audible notify facility in such a system - the Applicants having acknowledged in the specification that it was known at the priority date in the mobile telecoms field to provide specific notify tones when the source address of an email matches one preset by the user. Rather the contribution made by the invention defined in present claim 1 is the specific manner of indicating the source and content of a received email by simultaneous generation of first and second notify tones.

- Given that it is the substance of the invention that is important in identifying the actual contribution made, that contribution is no different in claim 7 (or auxiliary claim 1) where portable communication apparatus is used.
- The third step in the *Aerotel* test is to ask whether that contribution falls solely within the excluded subject matter. In his final letter the examiner reported that it falls solely within the computer program and presentation of information exclusions. In light of the obiter comments in the *Aerotel* judgment on the scope of the mental act exclusion he did not maintain objection under that category. From that judgment it appears that the Court felt that the mental act exclusion did not extend to activities conducted via a computer. Whilst a mobile phone is not strictly speaking a computer, the present invention is implemented via programmed hardware and thus the Court's comments on interpretation of the mental act exclusion seem equally applicable to it. Thus I think the invention as presently claimed escapes that particular exclusion.
- Mr Moir said that if his formulation of the contribution was followed, then the invention made a contribution to the field of telecommunications and was clearly not excluded. I have already rejected that assessment of the contribution. Helpfully though Mr Moir also addressed me on how the invention was patentable even if the examiner's assessment of the contribution was followed.
- Much of Mr Moir's argument was based upon two EPO Board of Appeal decisions. on applications which he said were closely analogous to the present one and on the comments of the Comptroller's Hearing Officer in his decision in BL O/184/06. Quoting from the headnote of *T115/85* he said that these three decisions all pointed to an established principle of UK and European practice that

"Giving visual indications automatically about conditions prevailing in an apparatus or system is basically a technical problem"

⁵ T 0887/92 IBM & T 0115/85 IBM

⁶ British Telecommunications plc's application GB 2397920 BL O/184/06

and that inventions for doing that were patentable. That the present invention gives audible rather than visual indications, he said, did not affect the patentability of the invention.

27 Whilst I agree with him on that final point, as I have already indicated above, the extent to which I should rely on decisions of the Board of Appeal is limited in light of the contradiction in the Boards' decisions highlighted by the Court of Appeal in Aerotel and its refusal to follow EPO practice. However, more significant is the principle that each case must be decided on its individual facts. Thus that the Board of Appeal found the inventions in T0887/92 & T0115/85 to be patentable is of little bearing here. I must decide whether the present invention in patentable using the test approved by the Court in Aerotel. I note however that in BL O/184/06, when presented with a similar argument, the Hearing Officer held that the invention there was not about the technical problem of finding out what was going on in a network and displaying the status to a user, but was about a better way of presenting information to the human eye. In this case I consider the invention to not be about automatically indicating the state of the system – it is about audibly indicating to the recipient of an email who sent it and what its content is.

Presentation of information

The scope of the presentation of information exclusion was discussed at the hearing and in some detail in the earlier correspondence between the examiner and Mr Moir. At the hearing Mr Moir said he thought that whilst the invention did not necessarily allow more information to be conveyed, it conveys information in a different way. In his view that did not constitute the presentation of information as such. This it seems to me is not altogether consistent with the arguments put forward in the correspondence on this point. For example in his letter of 2 October Mr Moir said that the presentation of information exclusion

"has always been directed to the appearance of displayed information rather than to its contents, ie directed to the form of the message and not to its substance. In this case it is not the type of alarm tone being claimed, rather it is a processing method and apparatus that include two different kinds of alarm tone; the particular form of the alarm tone is not a significant feature."

However, any apparent inconsistency in those arguments would appear to be somewhat academic given the judgment of Laddie J in *Townsend*⁷. to which the examiner referred in his report of 9 October 2006. In that judgment, Laddie J concluded that the presentation of information exclusion encompassed the provision of information as well as the expression of information. It seems to me from this that the exclusion covers both the way that information is presented and the content of that information. Furthermore, in the present instance the two tones are necessarily different and thus whilst their exact nature is not specified, the invention relies upon their form being different for it to operate.

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⁷ Townsend's Application [2004] EWHC 482 (Pat)

The contribution I have identified as being made by the invention is the specific manner of indicating the source and content of a received email by simultaneous generation of two different notify tones. That contribution seems to me to reside solely within the excluded area of presentation of information.

Program for a computer

- As indicated above, Mr Moir accepted that the hardware employed to implement the invention was entirely conventional and that the contribution was provided by the particular functionality it is programmed to provide. At the hearing he put it to me that just because a computer program is used to implement the invention does not mean it is necessarily excluded. I agree with him entirely on that point. However, in this instance the contribution resides solely in the program for customizing the notify characteristics of a user's device so that the source and subject of an email can be determined audibly. That contribution seems to me to reside solely in the program through which that functionality is provided.
- Thus I also consider the contribution to fall solely within the computer program exclusion.
- I have indicated above that I consider the substance of the contribution made by the invention of claim 7 to be the same as that of present claim 1. I therefore also consider the contribution of claim 7 to reside solely in excluded matter for the same reasons as claim 1.
- Having found the contribution made by the invention to reside solely in excluded matter I do not consider it necessary to apply the check of step 4. I should however at this point address the submissions made by Mr Moir at the hearing on "technical contribution" and the application of the 4th step.
- Mr Moir suggested that in order for the new test to be consistent with *Merrill Lynch* (which the court acknowledged in *Aerotel* it was bound to follow), it is encumbent on me to specifically consider whether the invention makes a technical contribution. He said that if technical contribution is not considered when applying step 3, there is a risk that it would not be considered at all if the approach suggested in the Office's Practice Notice is followed whereby step 4 is only needed when step 3 has been passed. Thus he said an application could be refused at step 3 without technical contribution being considered. To do so, he said, would be inconsistent with *Merrill Lynch*. In his opinion, the only time that it was not necessary to go on to step 4 was if technical contribution had been explicitly considered in step 3. More specifically he suggested that in applying step 3 the first thing to do was to consider whether the contribution was technical and, if it was, then the invention cannot relate to excluded subject matter as such.
- As I said at the hearing, however, that is not how the Court applied the test. The Court looked to see if the contribution resided solely in excluded matter in step 3. I fail to see how not applying step 4 after a finding in step 3 that the contribution is excluded is inconsistent with *Merrill Lynch*. A finding in step 3 that the contribution resides solely in excluded matter means that the

contribution is not "technical" and the check in step 4 is redundant. However the converse is not necessarily true; a finding that the contribution does not fall solely within the specific exclusions does not mean it must be "technical". Thus to be consistent with *Merrill Lynch*, when the third step is passed step 4 must be invoked to ensure that the contribution is actually technical in nature. Thus *Merrill Lynch* is followed in the event of an invention failing step 3 or in passing step 3 and failing step 4 (as well of course in passing both steps). The purpose of step 4 is not as Mr Moir suggested at one point to avoid a wrong result which might arise if the contribution were incorrectly identified in step 2.

In summary then, answering Jacob LJ's question, in my opinion what the inventor of claims 1 and 7 has contributed to the stock of human knowledge is not the provision of an audible notify that reduces the need to look at the device to see what mail has been received or a better communication system. Rather he has invented one specific type of notification, namely simultaneous output of two different tones to indicate the source and content of an email. I consider that contribution to be a better way of presenting information to the user of the device by configuring the device (via a program) according to a user's preference, a contribution which resides solely in excluded matter.

The Auxiliary request

- The auxiliary request the Applicants asked me to consider at the hearing was filed on 21 December 2006. This was after the end of the section 20 period as extended following their request under rule 110(3). Consequently they have sought a further, discretionary extension under rule 110(4) to allow the amendment to be filed. I therefore also need to consider whether to exercise the Comptroller's discretion for that further extension.
- The circumstances are as follows. Having sought their as of right extension on 5 October, the Applicants requested a hearing in their letter of 18 October 2006. Under normal circumstances the hearing would have taken place before the end of the extended section 20 period and thus the auxiliary request would have been allowable as regards timing. However the handing down of the *Aerotel* judgment on 27 October and the need to give the Applicants the opportunity to consider it meant that it was not possible to arrange the hearing before the end of the extended section 20 period. Thus if I do not exercise discretion, the Applicants will be deprived of an opportunity that would otherwise have been available to them. In those circumstances I consider that the request should be allowed.
- According to the requirements of rule 110(6) that discretionary extension is only effective if form 53/77 is filed within two months of notification of the grant of the request. This decision constitutes notification of the allowance of the request for the extension and if the Applicants want the amendment to claim 1 to be effective they need to file the form 53/77 within two months of the date of this decision.
- However, as I have indicated above that may be something of an academic exercise in terms of the patentability of this invention. The effect of the proposed amendment to claim 1 is merely to limit the method of that claim to

use in a portable communications apparatus. I have found above that that limitation does not affect the substance of the contribution made by the invention and hence that the contribution made in claim 1 of the auxiliary request is also not patentable.

Decision

- I have found that the contribution made by the invention defined in claims 1 and 7 (and in the amendment proposed to claim 1 in the auxiliary request) resides solely in excluded matter as the presentation of information and a program for a computer and that they are not patentable.
- I can see nothing in any of the dependent claims or the remainder of the specification which could form the basis of a patentable claim. I therefore refuse the application as relating to subject matter excluded under section 1(2)(c) and (d) as such.

Appeal

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

A BARTLETT

Deputy Director acting for the Comptroller