



BL O/090/07

30 March 2007

PATENTS ACT 1977

APPLICANT Whereonearth Limited

ISSUE Whether patent application number GB
0326489.2 complies with section 1(2)

HEARING OFFICER R C Kennell

DECISION

- 1 This application is directed to the determination of a geographical location from internet protocol (IP) address information. It was filed on 13 November 2003 with no claim to any earlier priority date, and was published under serial no. GB 2408114 A on 18 May 2005.
- 2 Despite amendment of the claims during substantive examination to overcome novelty and obviousness objections, the applicant has been unable to persuade the examiner that this is a patentable invention within the meaning of section 1(2) of the Act. A hearing has been offered to the applicant, who has elected to have the matter decided on the basis of the papers on file.

The invention

- 3 The claims as amended comprise independent claims 1 and 9 to a method and system respectively. Essentially, in both of these a given IP address is used to interrogate a database of IP address information mapped to domain level (for example an internet Directory Name Service); the database returns a domain name from which one or more likely web site addresses are then derived; and the site of each derived address is scanned for geographical address information. Thus a retrieved domain name *mypc.myoffice.example.com* might generate likely website addresses www.mypc.myoffice.example.com , www.myoffice.example.com , and www.example.com for analysis.
- 4 As the specification explains, existing methods for determining the approximate geographical locations of IP addresses suffer from the disadvantages that they can only provide a best estimate down to city or suburb level and they assume that all IP addresses are of equal importance. The invention seeks to overcome this by exploiting the facts (i) that in most office IT infrastructures internet access is via a gateway address which effectively hides, and is therefore of much greater importance than, most of the true internal IP address of the client; (ii) that most businesses have a web

page which contains contact information, and (iii) that businesses with a high level of computer use are likely to have a mail server or similar service which links the domain name to at least some of the IP addresses. On (i) it is pointed out that knowledge of the IP addresses which are actually used for web access can dramatically reduce the scope of a search.

The law and its interpretation

5 The relevant parts of section 1(2) read (emphasis added):

“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.**”

6 On 27 October 2006, the Court of Appeal delivered its judgment in the matters of *Aerotel Ltd v Telco Holdings Ltd* and *Macrossan’s Application* [2006] EWCA Civ 1371 (hereinafter “*Aerotel/Macrossan*”). In this case the court reviewed the case law on the interpretation of section 1(2) and approved a new 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.

7 In a notice published on 2 November 2006¹, the Patent Office stated that the new test would be applied by examiners with immediate effect. As appears from paragraphs 17 – 18, it is not expected that this will fundamentally change the boundary between what is and is not patentable in the UK, except possibly for the odd borderline case. Although the approach differs from that currently adopted by the European Patent Office in *Hitachi* (T 0258/03), it is expected that the result will be the same in nearly every case.

8 Of course, 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. However, the decisions of the Boards of Appeal of the EPO under Article 52 of the EPC do not bind me, and

¹ <http://www.patent.gov.uk/patent/p-decisionmaking/p-law/p-law-notice/p-law-notice-subjectmatter.htm>

their persuasive effect 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.

Arguments and analysis

- 9 Although there was an extensive correspondence between the examiner and the applicant before *Aerotel/Macrossan* was decided, the applicant has merely indicated disagreement with the examiner's objections on the basis of the new test and provided no new arguments. I will however consider the applicant's previous arguments (see letters dated 13 January, 19 May and 25 July 2006) where they still appear relevant.
- 10 I do not think that the first step of the test – the construction of the claims – presents any difficulty. For the second step I need to identify the contribution which the invention makes, and, as paragraph 43 of *Aerotel/Macrossan* explains, I should approach this by asking what it is that the inventor has added to human knowledge.
- 11 The examiner has explained that reverse domain name look up systems which allow a computer user to enter an IP address in order to find out a corresponding domain name were well known in the computer art at the priority date of the invention. Accordingly, as I understand it, he believes the contribution to be the use of a domain name so obtained to derive one or more likely website addresses and to identify geographical information from the sites of these addresses. The applicant has not commented directly on this. However I note that, in arguments based on the earlier test for patentability under *CFPH LLC's Application* [2005] EWHC 1589 (Pat), [2006] RPC 5, the applicant considered the inventive concept to be the process of determining likely geographical location including the steps of deriving one or more likely website addresses from the domain name, and scanning the site of the or each derived website address for geographical address information. Although I do not think that identifying the contribution for the purposes of the *Aerotel/Macrossan* test necessarily equates to identifying the inventive step in relation to the prior art, it would seem that there is substantial agreement between the examiner and the applicant as to where the contribution lies, and I believe that the examiner has correctly identified the contribution.
- 12 The third step of the *Aerotel/Macrossan* test asks whether the contribution, considered as a matter of substance, lies solely in excluded matter. The examiner maintains that it does, either as a computer program or a mental act. The applicant disagrees, but has not linked its earlier arguments directly to *Aerotel/Macrossan*. Although those arguments were mainly directed to the earlier *CFPH* test I believe that I still need to address some of the points made by the applicant.
- 13 As regards the computer program exclusion, the applicant points out that the invention does not require the use of a computer, as witnessed by the omission of a computer from the claims. On the applicant's view, the invention cannot be a computer program as such because it is a tool for carrying out a

process of determining a likely geographical location: the invention does not lie in the programming of a computer but in the steps which a computer may be programmed to carry out.

- 14 I am not convinced by the applicant's reasoning. It is indeed stated in the specification (at page 8) that the invention can be configured as a computer program adapted to perform the relevant steps when the program is run on a computer, and that the program can be embodied on a computer readable medium. Although this is presented as an option, no other way of carrying out the invention is described and I cannot see how the contribution of the invention, insofar as it is carried out on a computer, can as a matter of substance be other than a set of instructions and procedures which the computer is to carry out – in other words a program for a computer.
- 15 If the applicant's argument that the invention lies in the steps which the computer may be programmed to carry out rather than the programming of a computer was followed to its logical conclusion, then all computer programs could be made patentable by claiming them as a plurality of process steps and leaving out any mention of a computer. This would elevate form over substance contrary to UK case law as confirmed by paragraph 43 of *Aerotel/Macrossan*. That cannot be right. I think the applicant's argument is tenable only if the substance of the contribution extends beyond the program to embrace non-excluded matter, and I do not think that is the case here. Even though the invention undoubtedly achieves a useful result by enabling a likely geographical location to be determined from a limited amount of available information, it seems to me that the result comes about solely because of the way in which the computer has been programmed, and that the hardware in the system is entirely conventional in its construction and operation.
- 16 However, if the invention is not carried out on a computer, I need to consider whether the invention is excluded as a mental act. The applicant argues that this head of exclusion was intended to prevent the patenting of automated methods of performing acts previously performed by a human with no technical benefit being derived from the automated method. Thus it would be reasonable to exclude an automated method of adding two numbers together since this could be done wholly as an act of mental agility, but not to exclude a process such as the present which required a new tool to be invented.
- 17 The applicant quotes no authority for this proposition, and case law is not helpful in view of the uncertainty as to whether the exclusion extends to electronic means of doing what could otherwise have been done mentally (see paragraph 13 of the aforesaid Patent Office notice referring to the conflicting obiter dicta in *Aerotel/Macrossan* and *Fujitsu Ltd's Application* [1997] RPC 608 on this point). However I think the applicant's argument founders on the "new tool" argument. It seems to me that if the invention is not embodied as a computer program to carry out all the steps of the process, then the contribution boils down to taking a domain name obtained from an IP address by reverse domain name look up, analysing it to see what potential website addresses can be derived, typically by adding www to all or part of the domain name, and then checking the resultant websites to see what

geographical information they yield. I don't see anything here which constitutes a new tool. In my view, even though it would require a computer in order to interrogate the websites, the contribution relates solely to a mental act in that the analysis of the domain names is done entirely in the mind and the checking of the websites involves nothing more than looking at a series of website addresses and noting the information that they contain.

- 18 The invention therefore fails the third step of the *Aerotel/Macrossan* test. As the Court makes clear at paragraphs 41 and 45 – 47, the test is a re-formulation of that in *Merrill Lynch* which emphasised that inventive excluded matter could not count as a technical contribution. The fourth step of checking whether the contribution is technical, although necessary if *Merrill Lynch* is to be followed, may not therefore be necessary because the third step – asking whether the contribution is solely of excluded matter – should have covered the point. It therefore seems to me that the law is not now simply that stated in *Vicom* (T208/84), and that the presence or otherwise of a technical effect has become no more than a subsidiary factor, to be considered only where the invention passes the first three *Aerotel/Macrossan* steps.
- 19 However, in case I am wrong on the third step (particularly in view of the uncertainty of the law on the mental step exclusion) I will go on to the fourth step to consider whether the contribution of the invention is technical in nature. The applicant argues that determining a likely geographical location is a technical problem and its solution must therefore be inherently patentable. An analogy is drawn with GPS systems in that both use a limited amount of available information in order to determine a likely geographical location. However, as the examiner has pointed out, the invention differs from the use of a GPS system or a compass because nothing is actually being detected or measured: rather the invention searches for and retrieves pre-existing address information embedded in a web page determined via a reverse domain name system. Whilst I accept that this produces a useful result, I do not consider it to make a contribution which is technical in nature.

Conclusion

- 20 I therefore find the invention is excluded under section 1(2) in that it relates to a computer program as such and to a scheme or method for performing a mental act as such. I do not see any possible saving amendment and I therefore refuse the application under section 18(3).

Appeal

- 21 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