



14 February 2011

PATENTS ACT 1977

APPLICANT Dell Products L.P.

ISSUE Whether patent application number
GB 0800337.8 complies with section
1(2) of the Patents Act

HEARING OFFICER Joanne Pullen

DECISION

Introduction

1. Patent application GB 0800337.8 entitled “System and method for dynamic generation of environmental operational models” was filed on 09 January 2008 claiming a priority date of 9 January 2007 from a US application. It was published on 23 July 2008 as GB 2445844.
2. There have been several rounds of amendment however, the examiner has maintained his objection that the invention is unpatentable under section 1(2) of the Patents Act 1977 (“the Act”) as it relates to a computer program and business method. Objections were also raised on the grounds of novelty, inventive step and clarity/support, but the applicant has requested that the issue of patentability be settled before the others are addressed, as these objections would be moot if the application was found to be unpatentable.
3. The matter came before me for decision. The applicant requested a decision be made on the papers.

The application

4. The application relates to the environmental analysis of an information handling systems which following user selection of components of a potential system, uses configuration information of the components to generate thermal information and produce an environmental analysis.
5. The most recent set of claims were filed on 1 February 2010. There are two independent claims which relate to a method (claim 1) and system

(claim 10). The independent claims share the same inventive concept and for the purpose of this decision I need only recite one of them.

6. Claim 1 reads as follows:

A method of determining environmental operating conditions for an information handling system, the method comprising:

- (a) accessing configuration information of a system to be used at a site;*
- (b) accessing configuration information of the site;*
- (c) generating a thermal information output using the configuration information of the system and the configuration information of the site using a thermal management processor, wherein the thermal information output comprises static and variable attributes for the system and attributes of the site; and*
- (d) using the thermal information output to perform a dynamic computational fluid dynamics analysis*

7. The applicant has also requested that if I find that the claims currently on file are excluded from patentability, I consider a proposed amendment to claim 1 which was filed with his letter dated 10 December 2010.

8. The amended claim 1 reads as follows:

A method of determining whether a component for a server system existing in a data centre or an additional server system to be added to a data centre can operate reliably in the data centre, the method comprising:

- (a) accessing configuration information of the component for the server system or the additional server system to be used at the data centre;*
- (b) accessing configuration information of the data centre and/or of an existing server system of the data centre;*
- (c) generating a thermal information output using the configuration information of the component for the server system or the additional server system and the configuration information of the data centre and/or of an existing server system of the data centre using a thermal management processor, wherein the thermal information output comprises static and variable attributes for the component for the server system or the additional server system and attributes of the data centre and/or of an existing server system of the data centre; and*
- (d) using the thermal information output to perform a dynamic computational fluid dynamics analysis for the data centre comprising the existing server system and the component of the server system or the additional server system to be used in the data centre;*
- (e) determining, on the basis of the dynamic computational fluid dynamics, a thermal impact of the component of the server*

- system or of the additional server system on the existing server system in the data centre and vice versa; and,*
- (f) *deciding, based on the mutual thermal impact, whether the existing server system and the component of the server system or the additional server system can reliably be operated in the data centre.*

The law

9. Section 1 of the Act sets out the conditions that an invention must satisfy in order for a patent to be granted. Section 1(2) declares that certain things are not inventions for the purposes of the Act. The relevant parts of section 1(2) read:

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 -

- (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.

10. The applicant has argued, in his letter dated 9 August 2010, that I am permitted to follow the practice adopted by the European Patent Office (EPO), rather than that of the High Courts and should do so. The examiner responded to the applicant on 14 October 2010 and pointed him to paragraphs 9-12 of recent IPO decision *Dell Products*¹, in which the Hearing Officer decided that she was bound to follow the precedent set by UK courts, treating EPO practice only as persuasive. In considering this application I will therefore follow the case law established in the UK. The test which I must apply is found in the Court of Appeal decision in *Aerotel/Macrossan*² and subsequently in *Symbian*³.

11. This test for patentability comprises the steps:

- (1) *properly construe the claim*
(2) *identify the actual contribution*

¹ Dell Products LP [2010] BL O/321/10

² Aerotel Ltd v Telco Holdings Ltd (and others) and Macrossan's Application [2006] EWCA Civ 1371

³ Symbian Ltd's Application [2008] EWCA Civ 1066

(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. I will consider each of the steps of the *Aerotel/Macrossan* test with regard to the claims presently on file.

Step 1 – Properly construe the claim

13. During the processing of the application there have been minor objections raised with respect to the clarity of the independent claims. These clarity objections have not prevented the examiner from construing the claim, nor has the applicant at anytime disputed the examiner's analysis of the claim construction.

14. The claims would seem to relate to a method and system for determining environmental operating conditions for an information handling system by accessing configuration information, generating a thermal information output and using this output to perform a dynamic computational fluid dynamics analysis.

Step 2 – Identify the actual contribution

15. Paragraph 43 of *Aerotel/Macrossan* confirms that identifying the contribution involves looking at the substance of the claimed invention, rather than the form of the claims, to determine what the inventor has added to the stock of human knowledge. This may involve looking at the problem to be solved, how the invention works and what its advantages are.

16. It is clear from the specification that the intended hardware is entirely conventional, and therefore no contribution lies in the hardware per se.

17. There is no explicit statement in the specification of the problem to be solved by the invention; however the applicant, in his letter dated 10 December 2010 has directed the examiner towards paragraphs 3 and 26 of the specification and suggests these paragraphs indicate that 'the addition of either components or servers to an existing data centre can affect environmental considerations'.

18. I agree that the complexity and density of components within information handling systems may put the planning and modeling of changes or additions to said systems beyond the ability of the person skilled in the art. I believe that the problem to be overcome is how to deal with the amount of information and number of variables which need to be considered in order to determine environmental operating conditions for a new or changed information handling system.

19. The applicant has argued that the contribution of the invention is to ensure correct and reliable operation of an information handling system following changes or additions to the components. For example, in his letter of 10 December 2010 applicant states that 'Whilst some of these steps may be implemented using a computer software the invention does not relate merely to the computerization using computer software of an otherwise known method but relates to a novel method for determining whether additional components or systems can reliably be operated in an existing data centre'.
20. The method of the present invention does not however appear to determine whether additional components can be reliably operated in an data centre. The output of the invention is an environmental operation analysis which may include the use of computational fluid dynamic analysis which the end user can use for various purposes (see paragraph 26 of the specification). The output of the invention is presented to the user for action (see paragraphs 36 and 42 of the specification). The user may chose to accept the selected components based on a favorable analysis or may chose to modify the selected components or alternatively, may still choose to accept the selected components based on an unfavorable analysis (see paragraph 44 of the specification).
21. There is nothing in this application to suggest that the environmental analysis is anything more than a calculation based on parameters drawn from a database. It appears to be left to a user to define initial parameters for analysis and then to act on the results of the analysis.
22. Having considered these points I am of the opinion that the contribution is a method for determining environmental operating conditions for an information handling system by accessing configuration information for a system to be used at a site and generating thermal information and analysing this output.

Steps 3 and 4: Does the contribution fall solely within the excluded subject matter and is it actually technical?

23. The contribution I have identified is an improved method of providing environmental analysis. There would appear to be nothing in the contribution identified above which falls outside the computer program exclusion.
24. The applicant, in his letter of 10 December 2010, argues that due to 'The almost infinite number of possibilities that result from different configurations of existing data centres, different additional components or server systems that could be included in the existing data centre, and the vast range of operating conditions of data centres, mean that analysis by mere mental act could never be achieved.' I agree entirely with this assessment, which further points me towards the invention being a computer program implemented using computer software.

25. The applicant has referred to the signposts set out in *AT&T/CVON*⁴ for considering whether the invention is technical in nature, and has argued that there is a technical contribution which resides in the reliability of the information handling system and satisfies the fourth of the signposts.

26. The *AT&T/CVON* signposts 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.*

27. There is no effect on any process outside the 'computer' due to the invention, the claimed technical effect does not operate at the level of the architecture of the computer nor does it result in the computer operating in a new way. Therefore none of the first three signposts assist the applicant's case.

28. The applicant has argued that the technical effect of the invention improves the reliability of the computer (or in this case the system/site) as 'the system and method of the present invention will ensure that the site will operate more reliably, and that the information handling system within the site will operate more reliably, than may otherwise had been the case.' The overall system may indeed be more reliable due to being with acceptable environmental parameters but this is not due to a technical effect of the invention is due to the decision of a user to take positive action based on the output of a computer program.

29. The perceived problem of overcoming the issues with the environmental operating limits of increasingly dense and complex information handling systems does not appear to be solved by the invention, but circumvented by providing an environmental analysis upon which the decision to chose alternative hardware may be based.

⁴ AT&T Knowledge Ventures LP and CVON Innovations Limited [2009] EWHC 343

30. Therefore I find that the contribution made is a computer program and lies within the excluded fields, and is excluded as it is not technical in nature. I do not now have to consider whether the application is excluded as a business method.

Auxiliary claims

31. The changes proposed in the auxiliary claims do not change the contribution, therefore they cannot be considered patentable. Furthermore, as it is the substance of the claims, rather than the form of the claims which is important, there does not appear to be any modification which could be made to the claims to confer patentability.

Conclusion

32. I find the application is excluded under section 1(2) as relating to a computer program. I also find that there are no possible amendments to allow the application to progress to grant and I therefore refuse it.

Appeal

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

J Pullen

Deputy Director acting for the Comptroller