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**Datasheet for the decision  
of 25 June 2012**

**Case Number:** T 0505/08 - 3.5.06

**Application Number:** 02710154.2

**Publication Number:** 1386226

**IPC:** H06F 9/00

**Language of the proceedings:** EN

**Title of invention:**

Resource balancing in a partitioned processing environment

**Applicant:**

International Business Machines Corporation

**Headword:**

Partition load balancing/IBM

**Relevant legal provisions (1973):**

EPC Art. 84, 54(1)(2), 56

EPC R. 88

**Keyword:**

"Clarity - no"

"Novelty - yes"

"Inventive step - yes"



Case Number: T 0505/08 - 3.5.06

**D E C I S I O N**  
of the Technical Board of Appeal 3.5.06  
of 25 June 2012

**Appellant:** International Business Machines Corporation  
(Applicant) New Orchard Road  
Armonk, NY 10504 (US)

**Representative:** Litherland, David Peter  
IBM United Kingdom Ltd.  
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**Decision under appeal:** Decision of the Examining Division of the  
European Patent Office posted 23 October 2007  
refusing European patent application  
No. 02710154.2 pursuant to Article 97(2) EPC.

**Composition of the Board:**

**Chairman:** D. H. Rees  
**Members:** G. Zucka  
W. Sekretaruk

## Summary of Facts and Submissions

- I. The appeal is against the decision by the examining division, with reasons dispatched on 23 October 2007, to refuse European patent application 02710154.2, on the basis that the subject-matter of the independent claims was not inventive, Article 56 EPC 1973, in view of the following document:
- D1: Govil K. *et al.*: "Cellular Disco: resource management using virtual clusters on shared-memory multiprocessors" *ACM Transactions On Computer Systems*, Dec. 1999, ACM, USA, vol. 33, no. 5, pages 154-169, ISSN: 0734-2071
- II. A notice of appeal was received on 19 December 2007, the appeal fee being paid on the same day. A statement of the grounds of the appeal was received on 20 February 2008.
- III. The appellant requested that the decision be set aside and a patent granted on the basis of the claims filed with the grounds for the appeal.
- IV. The board issued a communication, setting out its preliminary opinion on the appeal, mainly that claim 1 did not satisfy the requirements of Article 123(2) EPC but deletion of the added subject-matter would overcome this objection and the resulting claims would also satisfy the requirements of Article 56 EPC 1973.
- V. On 23 May 2012, the appellant submitted new application documents in response to the issues that had been raised in the board's communication.

VI. The independent claims of the sole request read as follows:

Claim 1

A method in a computing system having a first partition (1301) including a first operating system and a second partition (1307) including a second operating system, the method comprising the steps of:

collecting first partition cumulative throughput information in the first partition, the throughput information consisting of information concerning first partition processor utilization and first partition network packet activity;

calculating, in the first partition, a velocity metric based on the first partition cumulative throughput information collected in the first partition;

conveying the velocity metric (1302) from the first partition to a partition manager (1308);

creating in said partition manager, resource balancing directives based on said velocity metric;

dynamically allocating processor resources to the first partition by the partition manager according to the resource balancing directives.

Claim 12

A computing system comprising a first partition (1301) including a first operating system, and a second partition (1307) including a second operating system, the system further comprising means for carrying out all the method steps of any one of claims 1 to 11.

Claim 13

A computer program product comprising a computer useable medium having computer readable program code means therein for execution in a computing system having a first partition including a first operating system and a second partition including a second operating system, the computer readable program code means in said computer program product comprising computer readable program code means for carrying out all the method steps of any of claims 1 to 11.

- VII. The appellant's request is that the decision under appeal be set aside and a patent granted on the basis of the following text:

**Description, Pages**

4, 5, 7-10, 12-22, 24-26 as originally filed  
3, 3a received on 22 November 2004  
6a filed with telefax on 26 October 2005  
1, 2, 6, 11, 18, 23

**Claims, Numbers**

1-13 received on 23 May 2012

**Drawings, Sheets**

1/17-17/17 as originally filed

## Reasons for the decision

1. Reference is made to the transitional provisions in Article 1 of the Decision of the Administrative Council of 28 June 2001 on the transitional provisions under Article 7 of the Act revising the European Patent Convention of 29 November 2000, for the amended and new provisions of the EPC, from which it may be derived which Articles of the EPC 1973 are still applicable to the present application and which Articles of the EPC 2000 shall apply. As far as the Implementing Regulations are concerned, the board refers to Article 2 of the Decision of the Administrative Council of 7 December 2006 amending the Implementing Regulations of the European Patent Convention 2000.

2. *The admissibility of the appeal*

In view of the facts set out at points I and II above, the appeal is admissible, since it complies with the EPC formal admissibility requirements.

3. *Clarity, Article 84 EPC 1973*

The expression "throughout information" in paragraph 3 of claim 1 makes no sense and, for that reason, the claim does not satisfy the requirements of Article 84 EPC. It is, however, apparent that the use of this expression constitutes an obvious error. Both the earlier part of the claim and the description refer to "throughput information" and, therefore, the board considers that this is the wording which was obviously intended. In the following analysis of novelty and inventive step, it will be assumed that the expression

is corrected to read "throughput information". Such a correction would be allowable under Rule 88 EPC 1973.

4. *Novelty, Article 54(1)(2) EPC 1973*

None of the documents cited in the search report disclose the calculation of a velocity metric based on cumulative throughput information consisting not only of information concerning partition processor utilisation but also of partition network packet activity. The Board, therefore, considers that the subject-matter of the independent claims 1, 12 and 13 is novel.

5. *Inventive step, Article 56 EPC 1973*

The inclusion of network packet activity in the calculated "velocity metric", indicating the need, or otherwise, for further resources, is not obvious. Document D1 only refers to memory and CPU utilisation balancing (separately) and none of the other documents gives any hint that network packet activity could be useful in a prediction of the need for further resources, as described in detail on pages 21 to 23 of the present description. The appealed decision addresses only *how* the skilled person would implement such a metric, but not *whether* it would be obvious to do so in the first place. The Board, therefore, considers that the subject-matter of the independent claims 1, 12 and 13 is inventive.

6. *Conclusion*

Apart from the clarity objection raised under 3 above, the independent claims of the sole request are allowable.



**Order**

**For these reasons it is decided that:**

1. The decision under appeal is set aside.
2. The case is remitted to the department of first instance for further prosecution.

The Registrar:

The Chairman:

B. Atienza Vivancos

D. H. Rees