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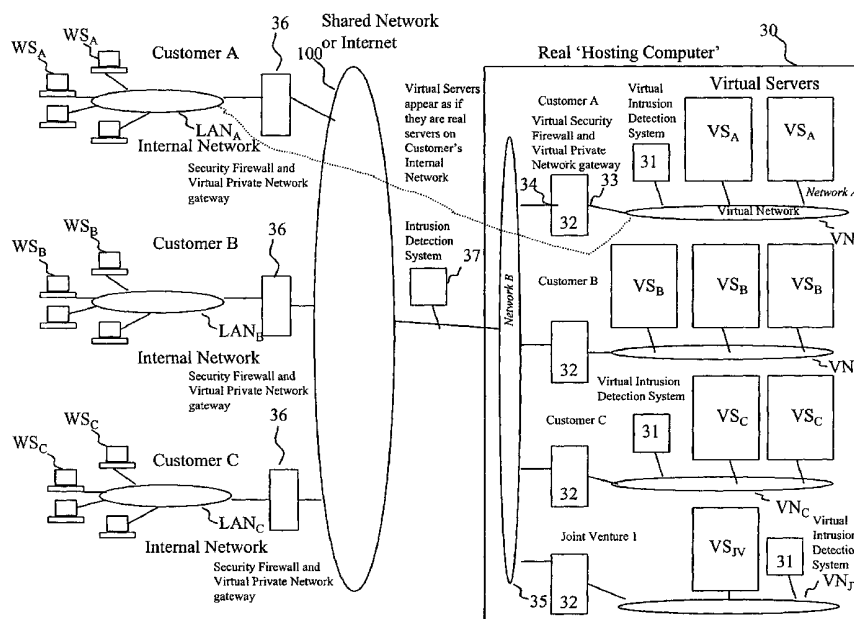
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- (88) Date of publication of the international search report: 25 July 2002

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: METHOD AND APPARATUS FOR PROVIDING COMPUTER SERVICES



(57) Abstract: An apparatus and method are disclosed for providing one or more computer services to a plurality of customers (A, B, C). At least one virtual machine (VS) is set up on a real computer (30) for each of the customers (A, B, C) at the request of each of the customers (A, B, C). The or each virtual machine (VS) for each of the customers (A, B, C) has a specification specified by the respective customer (A, B, C).

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INTERNATIONAL SEARCH REPORT

International Application No
PCT/GB 01/02952

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 H04L29/06 G06F9/455

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched. (classification system followed by classification symbols)
IPC 7 H04L G06F

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 6 061 349 A (HOWES RICHARD A ET AL) 9 May 2000 (2000-05-09)	1-3,13, 20-22, 31-33, 42,47
Y	abstract; figure 3 column 2, line 37 - line 43	4-9, 23-27, 34-38
Y	column 5, line 28 - line 49 --- US 5 835 726 A (DOGON GIL ET AL) 10 November 1998 (1998-11-10) cited in the application abstract; figure 6 column 9, line 60 - line 64 --- -/--	4-9, 23-27, 34-38

Further documents are listed in the continuation of box C.

Patent family members are listed in annex.

° Special categories of cited documents :

- "A" document defining the general state of the art which is not considered to be of particular relevance
- "E" earlier document but published on or after the international filing date
- "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- "O" document referring to an oral disclosure, use, exhibition or other means
- "P" document published prior to the international filing date but later than the priority date claimed

- "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- "&" document member of the same patent family

Date of the actual completion of the international search

13 February 2002

Date of mailing of the international search report

26.04.02

Name and mailing address of the ISA

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INTERNATIONAL SEARCH REPORT

International Application No

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	WO 99 22332 A (INTERDESIGN HDL) 6 May 1999 (1999-05-06) abstract; figure 1 page 2, line 18; claim 30 -----	13,42

INTERNATIONAL SEARCH REPORT

International application No.
PCT/GB 01/02952

Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:

2. Claims Nos.:
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:

3. Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1. As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

1-9, 13, 20-27, 31-38, 42, 47

Remark on Protest

- The additional search fees were accompanied by the applicant's protest.
- No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. Claims: 1-9,13,20-27,31-38,42,47

Apparatus and method for providing computer services wherein at least one virtual machine is connected to a virtual firewall.

2. Claims: 10-12,28-30,39-41

Apparatus and method for providing computer services comprising a real data storage device and a virtual storage subsystem.

3. Claims: 14-17,43-46

Software providing an encrypted communication channel

4. Claim : 18

Real computer comprising plural physical computers

5. Claims: 19,48

Redundancy providing

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/GB 01/02952

Patent document cited in search report	Publication date	Patent family member(s)	Publication date	
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