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(54) Title: DISTRIBUTED OPERATING SYSTEM MANAGEMENT

(57) Abstract: A system and method are provided for a distributed operating system manager. In one example, the method includes retrieving an internet protocol address of a boot server connected to a client computer via a network; determining whether the boot server is available via the network; transferring to the boot server a description of an operating system on the client computer; validating hardware credentials of the client computer; and determining whether to perform a remote boot process.



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INTERNATIONAL SEARCH REPORT

International application No.

PCT/US05/24641

A. CLASSIFICATION OF SUBJECT MATTER IPC: G06F 15/177(2006.01);G06F 15/16(2006.01) USPC: 713/2;709/221 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) U.S. : 713/2;709/221 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 practicable, search terms used) EAST TEXT SEARCH US-PGPUB; USPAT; EPO; JPO; DERWENT																	
C. DOCUMENTS CONSIDERED TO BE RELEVANT <table border="1"> <thead> <tr> <th>Category *</th> <th>Citation of document, with indication, where appropriate, of the relevant passages</th> <th>Relevant to claim No.</th> </tr> </thead> <tbody> <tr> <td>X --- Y</td> <td>US 6421777 B1 (Pierre-Louis et al) 16 Jul. 2002 (16.07.2002), Abstract, Column 1, Lines 6-12 and Line 66 through Column 2, Line 14, Column 3, Lines 3-2, Column 5, Lines 61-67, Fig. 5A, Steps 506-508, Fig. 4, Column 9, Lines 6-38, Column 11, Lines 45-65, Column 12, Lines 1-12, Column 8, Lines 40-59, Column 10, Lines 25-46, and Column 11, Line 66 through Column 12, Line 12.</td> <td>1-6, 8-13, 20-23 ----- 7</td> </tr> <tr> <td>X</td> <td>US 6209089 B1 (Selitrennikoff et al) 27 Mar. 2001 (27.03.2001), Abstract, Column 1, Lines 7-14, Figs. 3, 7&8, Column 2, Lines 51-53 and Column 3, Lines 5-40, Column 3, Lines 5-67, Column 6, Lines 44-52, Column 7, Lines 17-65, Column 7, Lines 29-41</td> <td>14-19</td> </tr> <tr> <td>A</td> <td>US 20030005096 A1 (Paul et al) 02 Jan. 2003 (02.01.2003) entire document</td> <td>1-23</td> </tr> <tr> <td>A</td> <td>US 20030126242 A1 (Chang) 03 Jul. 2003 (03.07.2003) entire document</td> <td>1-23</td> </tr> </tbody> </table>			Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.	X --- Y	US 6421777 B1 (Pierre-Louis et al) 16 Jul. 2002 (16.07.2002), Abstract, Column 1, Lines 6-12 and Line 66 through Column 2, Line 14, Column 3, Lines 3-2, Column 5, Lines 61-67, Fig. 5A, Steps 506-508, Fig. 4, Column 9, Lines 6-38, Column 11, Lines 45-65, Column 12, Lines 1-12, Column 8, Lines 40-59, Column 10, Lines 25-46, and Column 11, Line 66 through Column 12, Line 12.	1-6, 8-13, 20-23 ----- 7	X	US 6209089 B1 (Selitrennikoff et al) 27 Mar. 2001 (27.03.2001), Abstract, Column 1, Lines 7-14, Figs. 3, 7&8, Column 2, Lines 51-53 and Column 3, Lines 5-40, Column 3, Lines 5-67, Column 6, Lines 44-52, Column 7, Lines 17-65, Column 7, Lines 29-41	14-19	A	US 20030005096 A1 (Paul et al) 02 Jan. 2003 (02.01.2003) entire document	1-23	A	US 20030126242 A1 (Chang) 03 Jul. 2003 (03.07.2003) entire document	1-23
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☒ Further documents are listed in the continuation of Box C. ☐ See patent family annex.																	
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Date of the actual completion of the international search 25 December 2006 (25.12.2006)		Date of mailing of the international search report 31 JAN 2007															
Name and mailing address of the ISA/US Mail Stop PCT, Attn: ISA/US Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450 Facsimile No. (571) 273-3201		Authorized officer Jacqueline A. Whitfield William C. Vaughn Special Project Asst. Telephone No. (571) 272-3922															

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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	US 20020161868 A1 (Paul et al) 31 Oct. 2002 (31.10.2002) entire document	1-23

INTERNATIONAL SEARCH REPORT

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Box No. II Observations where certain claims were found unsearchable (Continuation of item 2 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 No. III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:
Please See Continuation 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 additional fees, this Authority did not invite payment of any additional fees.
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.:

- Remark on Protest**
- ☐ The additional search fees were accompanied by the applicant's protest and, where applicable, the payment of a protest fee.
- ☐ The additional search fees were accompanied by the applicant's protest but the applicable protest fee was not paid within the time limit specified in the invitation.
- ☐ No protest accompanied the payment of additional search fees.

INTERNATIONAL SEARCH REPORT

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BOX III. OBSERVATIONS WHERE UNITY OF INVENTION IS LACKING

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1. In order for all inventions to be examined, the appropriate additional examination fees must be paid.

Group I, claim(s) 1-13 and 20-23, drawn to an invention reciting functional limitations directed to:

- retrieving an internet protocol address of the boot server for the client computer;
- determining whether the boot server is available via the network;
- transferring to the boot server a description of an operating system on the client computer;
- validating hardware credentials of the client computer; and
- determining whether to perform a remote boot process.

Group II, claim(s) 14-19, drawn to an invention reciting functional limitations directed to:

- moving an existing operating system directory on the client computer to a set-aside location;
- downloading an operating system directory image from the boot server;
- comparing cyclic redundancy check values of each file in the operating system directory with an existing file in the existing operating system directory; and
- generating a new operating system directory based on the comparing of the cyclic redundancy check values