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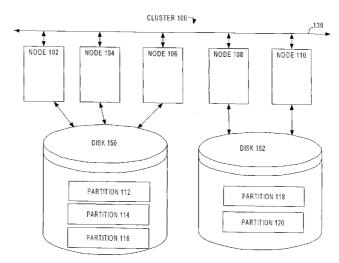
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#### (54) Title: OWNERSHIP REASSIGNMENT IN A SHARED-NOTHING DATABASE SYSTEM



(57) Abstract: Various thechniques are described for improving the performance of a shared-nothing database system in which at least two of the nodes that are running the shared-nothing database system have shared access to a disk. Specifically, techniques are provided for changing the ownership of data in a shared-nothing database without changing the location of the data on persistent storage. Because the persistent storage location for the data is not changed during a transfer of ownership of the data, ownership can be transferred more freely and with less of a performance penalty than would otherwise be incurred by a physical relocation of the data. Various techniques are also described for providing fast run-time reassignment of ownership. Because the reassignment can be performed during run-time, the shared-nothing system does not have to be taken offline to perform reassignment. Further, the techniques describe how the reassignment can be performed with relatively fine granularity, avoiding the need to perform bulk reassignment of large amounts of data across all nodes merely to reassign ownership of a few data items on one of the nodes.



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#### INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER IPC 7 G06F9/46 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 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 CA 2 435 388 A1 (ORACLE INTERNATIONAL 1-5,25, CORPORATION) 9 January 2003 (2003-01-09) 34 - 38,67γ 14-18, 47-51 Α 6-13.19-24,26-33, 39 - 4652-66 the whole document Υ WO 02/073416 A (ORACLE INTERNATIONAL 14-18, CORPORATION) 47-51 19 September 2002 (2002-09-19) the whole document -/--Further documents are listed in the continuation of box C. Х Patent family members are listed in annex. · Special categories of cited documents : 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 "A" document defining the general state of the art which is not considered to be of particular relevance invention "E" earlier document but published on or after the international "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 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) "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 docudocument referring to an oral disclosure, use, exhibition or other means ments, such combination being obvious to a person skilled in the art. document published prior to the international filing date but later than the priority date claimed "&" document member of the same patent family Date of the actual completion of the international search Date of mailing of the international search report 20 July 2005 03/08/2005 Name and mailing address of the ISA Authorized officer European Patent Office, P.B. 5818 Patentiaan 2 NL – 2280 HV Rijswijk Tel. (+31–70) 340–2040, Tx. 31 651 epo nl, Fax: (+31–70) 340–3016 Michel, T

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