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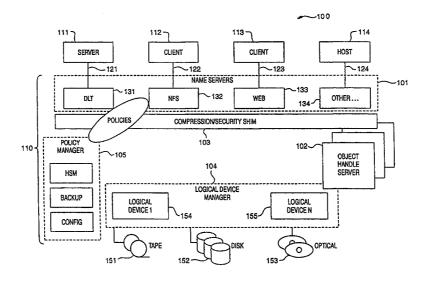
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(57) Abstract

The intelligent data storage manager functions to combine the non-homogeneous physical devices contained in a data storage subsystem to create a logical device with new and unique quality of service characteristics that satisfy the criteria for the policies appropriate for the present data object. In particular, if there is presently no logical device that is appropriate for use in storing the present data object. the intelligent data storage manager defines a new logical device using existing physical and/or logical device definitions as component building blocks to provide the appropriate characteristics to satisfy the policy requirements. The intelligent data storage manager uses weighted values that are assigned to each of the presently defined logical devices to produce a best fit solution to the requested policies in an n-dimensional best fit matching algorithm. The resulting logical device definition is then implemented by dynamically interconnecting the logical devices that were used as the components of the newly defined logical device to store the data object.

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a. classification of subject matter IPC 7 G06F3/06 H04N7/173 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 GO6F HO4N 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) PAJ, EPO-Internal C. DOCUMENTS CONSIDERED TO BE RELEVANT Citation of document, with indication, where appropriate, of the relevant passages Relevant to claim No. χ EP 0 689 125 A (HEWLETT-PACKARD COMPANY) 1-1227 December 1995 (1995-12-27) the whole document WO 97 07461 A (BORG TECHNOLOGIES) χ 1 27 February 1997 (1997-02-27) the whole document WO 98 40810 A (STORAGE TECHNOLOGY Α 1 CORPORATION) 17 September 1998 (1998-09-17) the whole document Α US 5 131 087 A (WARR) 2 14 July 1992 (1992-07-14) abstract -/--Further documents are listed in the continuation of box C. X Patent family members are listed in annex. ° Special categories of cited documents : "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 "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 docu-"O" document referring to an oral disclosure, use, exhibition or other means ments, such combination being obvious to a person skilled "P" 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 26 June 2000 06/07/2000 Name and mailing address of the ISA Authorized officer European Patent Office, P.B. 5818 Patentlaan 2 NL – 2280 HV Rijswijk Tel. (+31–70) 340–2040, Tx. 31 651 epo nl, Absalom, R Fax: (+31-70) 340-3016

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