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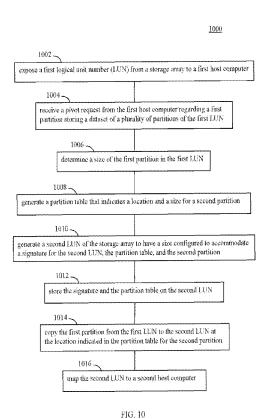
- (71) Applicant (for all designated States except US): MI-CROSOFT CORPORATION [US/US]; One Microsoft Way, Redmond, WA 98052-6399 (US).
- (72) Inventors: LIONETTI, Chris; c/o Microsoft Corporation, LCA - International Patents, One Microsoft Way, Redmond, WA 98052-6399 (US). PIKE, Robert; c/o Mi-

crosoft Corporation, LCA - International Patents, One Microsoft Way, Redmond, WA 98052-6399 (US).

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[Continued on next page]

(54) Title: CONVERTING LUNS INTO FILES OR FILES INTO LUNS IN REAL TIME



(57) Abstract: A LUN is provided that can store multiple datasets (e.g., data and/or applications, such as virtual machines stored as virtual hard drives). The LUN is partitioned into multiple partitions. One or more datasets may be stored in each partition. As a result, multiple datasets can be accessed through a single LUN, rather than through a number of LUNs proportional to the number of datasets. Furthermore, the datasets stored in the LUN may be pivoted. A second LUN may be generated that is dedicated to storing a dataset of the multiple datasets stored in the first LUN. The dataset is copied to the second LUN, and the second LUN is exposed to a host computer to enable the host computer to interact with the dataset. Still further, the dataset may be pivoted from the second LUN back to a partition of the first LUN.



SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, Published: GW, ML, MR, NE, SN, TD, TG).

Declarations under Rule 4.17:

- as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))
- as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii))

- with international search report (Art. 21(3))
- (88) Date of publication of the international search report: 17 February 2011

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A. CLASSIFICATION OF SUBJECT MATTER

G06F 15/16(2006.01)i, G06F 15/167(2006.01)i, G06F 9/44(2006.01)i, G06F 3/06(2006.01)i

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)

G06F 15/16; G06F 12/02

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched Korean utility models and applications for utility models

Japanese utility models and applications for utility models

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used) eKOMPASS(KIPO internal) & Keywords: LUN, virtual, volume

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.			
A	US 2005-0021591 A1 (KENNETH WAYNE BOYD et al.) 27 January 2005 See [0005] - [0065].	1-15			
A	US 6526478 B1 (JAY W. KIRBY) 25 February 2003 See column 2, line 66 - column 13, line 55.	1-15			

Further documents are listed in the continuation of Box C.

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See patent family annex.

- * Special categories of cited documents:
- "A" document defining the general state of the art which is not considered to be of particular relevance
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- "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of citation or other special reason (as specified)
- O" document referring to an oral disclosure, use, exhibition or other means
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- "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
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- "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

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Korean Intellectual Property Office Government Complex-Daejeon, 139 Seonsa-ro, Seogu, Daejeon 302-701, Republic of Korea

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KWON, Oh Seong

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Information on patent family members

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cited in search report	Publication date	Patent family member(s)	Publication date
US 2005-0021591 A1	27.01.2005	US 7251691 B2	31.07.2007
US 6526478 B1	25.02.2003	None	
	US 2005-0021591 A1 US 6526478 B1		