

(19) World Intellectual Property Organization  
International Bureau



(43) International Publication Date  
23 November 2006 (23.11.2006)

PCT

(10) International Publication Number  
**WO 2006/124239 A3**

(51) International Patent Classification:  
**G06F 12/00** (2006.01) **G11C 7/00** (2006.01)

LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI,  
NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG,  
SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US,  
UZ, VC, VN, YU, ZA, ZM, ZW.

(21) International Application Number:  
PCT/US2006/016251

(22) International Filing Date: 26 April 2006 (26.04.2006)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:  
60/679,715 11 May 2005 (11.05.2005) US  
11/336,482 20 January 2006 (20.01.2006) US

(84) Designated States (unless otherwise indicated, for every  
kind of regional protection available): ARIPO (BW, GH,  
GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM,  
ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),  
European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI,  
FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT,  
RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA,  
GN, GQ, 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))

(71) Applicant (for all designated States except US): **MI-CROSOFT CORPORATION** [US/US]; One Microsoft Way, Redmond, WA 98052-6399 (US).

**Published:**

- with international search report
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

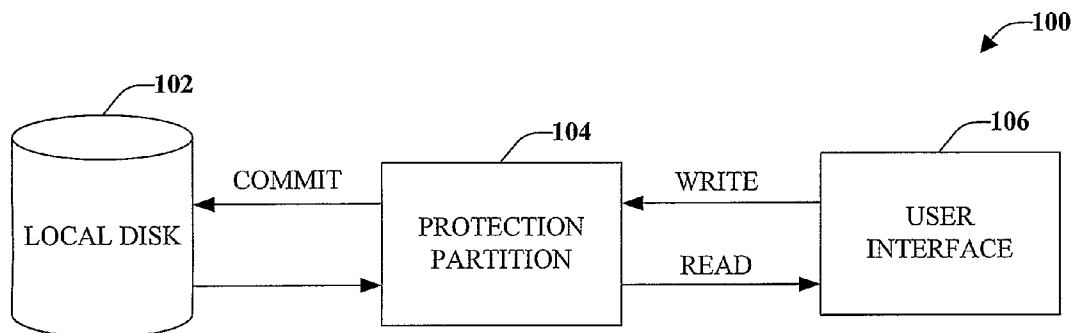
(72) Inventors: **CAMPBELL, Derick, A.**; One Microsoft Way, Redmond, WA 98052-6399 (US). **MALDONADO, Jose, F.**; One Microsoft Way, Redmond, WA 98052-6399 (US).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV,

(88) Date of publication of the international search report:  
1 November 2007

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: DISK PROTECTION USING ENHANCED WRITE FILTER



(57) Abstract: Protection of a writable disk through utilization of a protection partition is provided. Critical updates and other designated program updates can be automatically applied to the writable disk without user intervention. Machine account password changes for domain-joined computers can be initiated and saved during a critical update and/or save change process. Local user account password changes can be permanently saved using the save change process, thus preserving the password change. Information directed to the protection partition can be saved to the writable media through a user save request. The information in the protection partition can be retained indefinitely and/or deleted without affecting the writable media. The protection partition can be automatically refreshed upon each restart. A user can interact with the disk protection system through a user interface that facilitates modifying one or more parameter associated with the protection partition.

# INTERNATIONAL SEARCH REPORT

International application No.

PCT/US06/16251

## A. CLASSIFICATION OF SUBJECT MATTER

IPC: **G06F 12/00**( 2006.01);**G11C 7/00**( 2006.01)

USPC: 726/21

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. : 726/21

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)

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 6,240,527 (SCHNEIDER et al) 29 May 2001 (29.05.2001) columns 3, 6, 9, 13, 49, 50, 54	1-20
A	Linux ext3 FAQ. <a href="http://batleth.sapient-sat.org/projects/FAQS/ext3-faq.html">http://batleth.sapient-sat.org/projects/FAQS/ext3-faq.html</a> 14 October 2004, pages 3-4, regarding journalling	1-20
A	"ZFS - the last word in file systems" <a href="http://www.sun.com/2004-0914/feature/">http://www.sun.com/2004-0914/feature/</a> (verified by the Internet Archive at <a href="http://web.archive.org">web.archive.org</a> ) 14 September 2004 pages 2-3, "Taking the Guesswork Out of Data Integrity"	1-20



Further documents are listed in the continuation of Box C.



See patent family 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 invention
"A"	document defining the general state of the art which is not considered to be of particular relevance	"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
"E"	earlier application or patent published on or after the international filing date	"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
"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)	"&"	document member of the same patent family
"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		

Date of the actual completion of the international search

08 June 2007 (08.06.2007)

Date of mailing of the international search report

29 AUG 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

Thomas Gyorf

Telephone No. (571) 272-2100

DEBORAH A. THOMAS  
PARALEGAL SPECIALIST

*DM*