

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
19 January 2006 (19.01.2006)

PCT

(10) International Publication Number
WO 2006/007329 A3

- (51) International Patent Classification:
G06F 11/00 (2006.01)
- (21) International Application Number:
PCT/US2005/020199
- (22) International Filing Date: 9 June 2005 (09.06.2005)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:
10/872,723 21 June 2004 (21.06.2004) US
- (71) Applicant (for all designated States except US): **MOTOROLA, INC.** [US/US]; 1303 East Algonquin Road, Schaumburg, IL 60196 (US).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): **LI, Yi, Q.** [US/US]; 7615 East Prairie Road, Skokie, IL 60076 (US). **DAB-BISH, Ezzat, A.** [US/US]; 445 Adare Drive, Cary, IL 60013 (US). **VOGLER, Dean, H.** [US/US]; 1231 Redwood Drive, Algonquin, IL 60102 (US).
- (74) Agents: **LAMB, James, A.** et al.; 1303 East Algonquin Road, Schaumburg, IL 60196 (US).

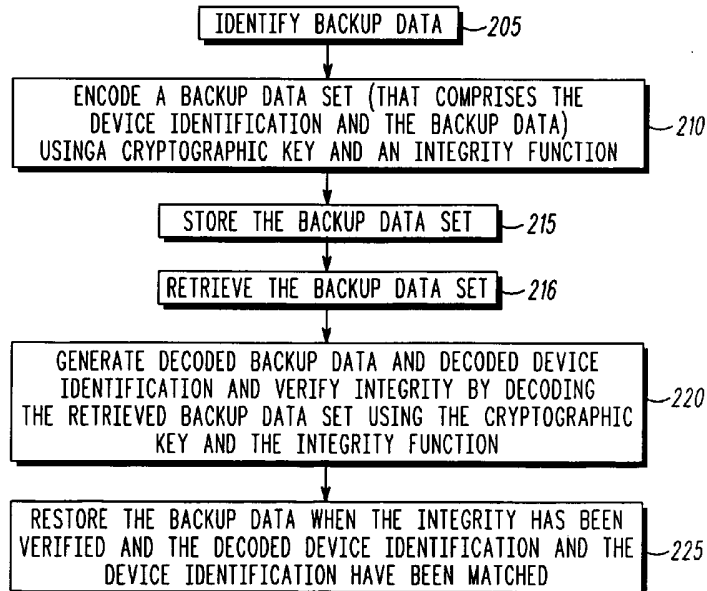
- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK,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

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

[Continued on next page]

(54) Title: SECURE DATA BACKUP AND RECOVERY



(57) Abstract: A technology provides secure data backup and recovery for an electronic device (100) having a device identification (115) that is unique and unalterable. A method of the technology includes identifying (205) backup data (405, 805, 1205) to be backed up, encoding (210) a backup data set by coding the device identification (115) and the backup data (405, 805, 1205) for integrity and authentication using a cryptographic key (110) and an integrity function, generating (220) decoded backup data (635, 1015, 1435) and decoded device identification (640, 1020, 1440) by decoding a retrieved backup data set (605, 1005, 1405) using the the cryptographic key (115) and the integrity function, and restoring (225) the backup data with the decoded backup data only when the integrity has been verified and the decoded device identification and the device identification match. Three methods of encoding and decoding are described.

WO 2006/007329 A3



(88) Date of publication of the international search report:

26 May 2006

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.

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US05/20199

A. CLASSIFICATION OF SUBJECT MATTER
IPC: G06F 11/00(2006.01)

USPC: 714/6;713/193,176
 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. : 714/6; 713/193,176, 168, 179, 180, 181, 194; 726/28,29,30,21; 705/56

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched
 Wikipedia.org

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 --- Y	US 2003/0074569 A1 (YAMAUCHI et al) 17 April 2003 (17.04.2003), Fig. 3A, Fig. 3B, paragraphs 0025, 0028, 0029 and 0030	1, 7-10 ----- 2-6
Y	Menezes, Alfred J., Paul C. van Oorschot, Scott A. Vanstone, 1997, pages 22-23, 27-28, 31-33, 322-323	2-6
A	US 6,931,549 B1 (ANANDA) 16 August 2005 (16.08.2005), entire document	1-10
A	US 2004/0146163 A1 (ASOKAN et al.) 29 July 29 2004 (29.07.2004), entire document	1-10

Further documents are listed in the continuation of Box C. 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	"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
"E" earlier application or patent published on or after the international filing date	"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
"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 documents, such combination being obvious to a person skilled in the art
"O" document referring to an oral disclosure, use, exhibition or other means	"&" document member of the same patent family
"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 23 February 2006 (23.02.2006)	Date of mailing of the international search report 29 MAR 2006
--	--

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 <i>Marc Duncan</i> Marc Duncan Telephone No. 571-272-2100
---	---