

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
15 May 2008 (15.05.2008)

PCT

(10) International Publication Number
WO 2008/058152 A3

(51) International Patent Classification:
H04L 9/00 (2006.01)

(21) International Application Number:

PCT/US2007/083826

(22) International Filing Date:

6 November 2007 (06.11.2007)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:

60/864,682 7 November 2006 (07.11.2006) US
11/613,691 20 December 2006 (20.12.2006) US

(71) Applicant (for all designated States except US): **SPAN-
SION LLC** [US/US]; 915 Deguigne Drive, Sunnyvale, CA
94088-3453 (US).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **NATARAJAN,
Venkat** [US/US]; 19500 Pruneridge Avenue, Apt. 2208,
Cupertino, CA 95014 (US). **WERNER, Jeremy Isaac
Nathaniel** [US/US]; 5579 Harvard Drive, San Jose, CA
95118 (US). **OBEREINER, Willy** [US/US]; 2416 White-
horse Drive, San Jose, CA 95128 (US). **TOM, Joe Yuen**
[US/US]; 1306 Melbourne Street, Foster City, CA 94404
(US). **BARCK, Russell** [US/US]; 5729 Morningside
Drive, San Jose, CA 95138 (US).

(74) Agents: **AMIN, Himanshu S.** et al.; Amin & Turocy, LLP,
1900 E. 9th Street, 24th Floor, National City Center, Cleve-
land, OH 44114 (US).

(81) Designated States (unless otherwise indicated, for every
kind of national protection available): AE, AG, AL, AM,
AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH,
CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG,
ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL,
IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK,
LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW,
MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL,
PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY,
TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA,
ZM, ZW.

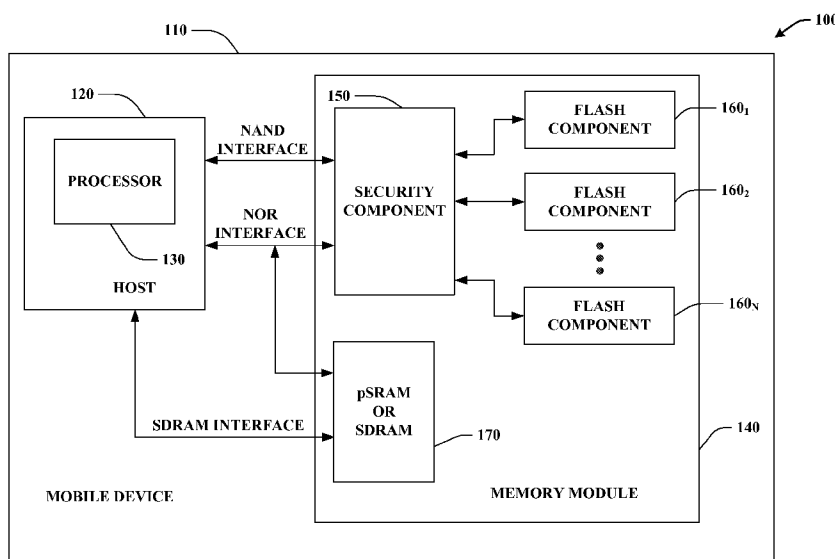
(84) Designated States (unless otherwise indicated, for every
kind of regional protection available): ARIPO (BW, GH,
GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM,
ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),
European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI,
FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, MT, 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

[Continued on next page]

(54) Title: MULTIPLE STAKEHOLDER SECURE MEMORY PARTITIONING AND ACCESS CONTROL



(57) Abstract: A machine implemented system (100) and method that effectuates secure access to a flash memory (160₁, 160₂, 160_N) associated with a mobile device (110). The system includes a security component (150) that intercepts transactions between an external processor and the flash memory (160₁, 160₂, 160_N) and implements authentication and access control to the flash memory (160₁, 160₂, 160_N). The system further includes components that can partition the flash memory and can associate authentication and access control information with the partitioned flash memory.

WO 2008/058152 A3



— *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments*

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

17 July 2008

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US 07/83826

A. CLASSIFICATION OF SUBJECT MATTER

IPC(8) - H04L 9/00 (2008.04)

USPC - 713/150

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)

713/150

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched
713/150-156, 161-162, 167-186, 189-194Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
Google; Google Scholar; Google Patents; PubWest(PGPB,USPT,USOC,EPAB,JPAB);
Search Terms Used: flash memory, partition, security, intercept communications, authentication, access control, access permit, PKI certificate, cryptographic

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 2006/0129848 A1 (PAKSOY et al.) 15 June 2006 (15.06.2006), para [0034]-[0055], para [0181]-[0264]	1-10
Y	US 2004/0259633 A1 (GENTLES et al.) 23 December 2004 (23.12.2004), entire document, especially para [0058], [0127], [0256]	1-10
A	US 2006/0194603 A1 (RUDELIC et al.) 31 August 2006 (31.08.2006)	1-10

☐ Further documents are listed in the continuation of Box C.

* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier application or patent but published on or after the international 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)

"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

"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

"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

"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

Date of the actual completion of the international search

22 April 2008 (22.04.2008)

Date of mailing of the international search report

16 MAY 2008

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:

Lee W. Young

PCT Helpdesk: 571-272-4300
PCT OSP: 571-272-7774