

(19) World Intellectual Property Organization  
International Bureau



(43) International Publication Date  
7 February 2008 (07.02.2008)

PCT

(10) International Publication Number  
**WO 2008/016819 A3**

(51) International Patent Classification:  
**H04K 1/00** (2006.01)

[CN/US]; 1004 Westwood Drive - Apt. 826, Schaumburg, Illinois 60173 (US).

(21) International Application Number:  
PCT/US2007/074411

(74) Agents: **KARPINIA, Randi, L.** et al.; 8000 West Sunrise Boulevard, Room 1610, Plantation, Florida 33322 (US).

(22) International Filing Date: 26 July 2007 (26.07.2007)

(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.

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:  
60/835,206 2 August 2006 (02.08.2006) US  
11/531,498 13 September 2006 (13.09.2006) US

(71) Applicant (for all designated States except US): **MOTOROLA, INC.** [US/US]; 1303 East Algonquin Road, Schaumburg, Illinois 60196 (US).

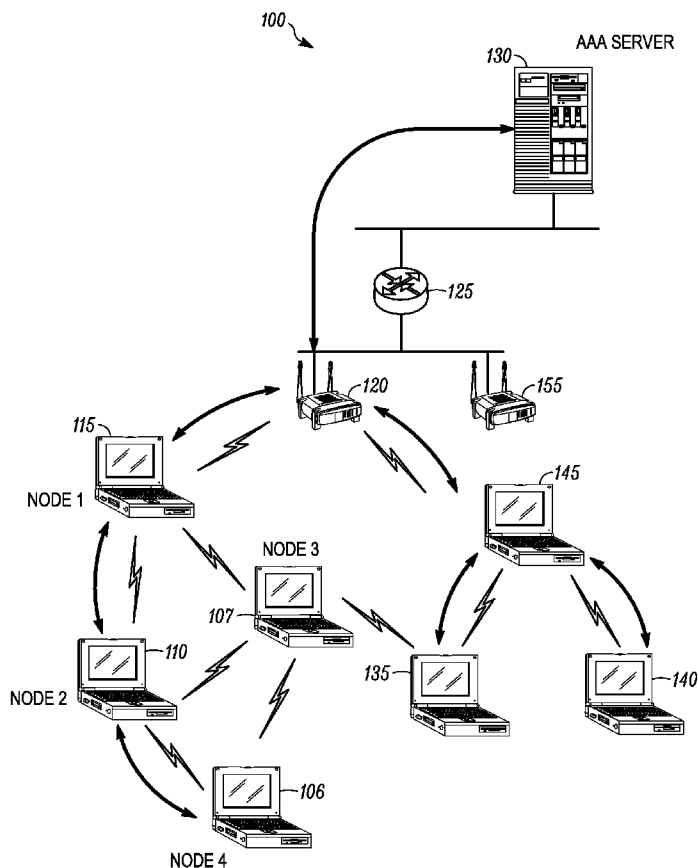
(72) Inventors; and

(75) Inventors/Applicants (for US only): **KORUS, Michael, F.** [US/US]; 17100 Round Lake Road, Eden Prairie, Minnesota 55346 (US). **SHATIL, Ohad** [IL/US]; 9508 70th Street, Kenosha, Wisconsin 53142 (US). **ZENG, Surong**

(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,

[Continued on next page]

(54) Title: MANAGING ESTABLISHMENT AND REMOVAL OF SECURITY ASSOCIATIONS IN A WIRELESS MESH NETWORK



(57) Abstract: Techniques and technologies are provided for managing establishment, maintenance and removal of security associations (SAs) between nodes in an ad hoc network, such as a wireless mesh network.

WO 2008/016819 A3



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).

(88) Date of publication of the international search report:  
23 October 2008

**Published:**

— *with international search report*

**INTERNATIONAL SEARCH REPORT**

International application No.

PCT/US07/74411

**A. CLASSIFICATION OF SUBJECT MATTER**

IPC: **H04K 1/00(2006.01)**

USPC: 380/270

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. : 380/270

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 --- T	US PUB. 20070189249A1 (GUREVICH et al) 16 August 2007 (16.08.2007), [0007]-[0008] and [0024]-[0032].	1-10
A	US PUB 20060126845 A1 (ZHENG) 15 June 2006 (15.06.2006), [0021].	1-10
A	US PUB 20060146846 A1 (YARVIS et al) 6 July 2006 (06.07.2006), [0016]-[0017].	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		
"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

04 June 2008 (04.06.2008)

Date of mailing of the international search report

18 JUL 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

SHIN-HON CHEN

Telephone No. (703) 305-9000