

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
24 August 2006 (24.08.2006)

PCT

(10) International Publication Number
WO 2006/087640 A3

- (51) International Patent Classification:
H04Q 7/38 (2006.01) H04L 12/28 (2006.01)
- (21) International Application Number:
PCT/IB2006/000929
- (22) International Filing Date:
13 February 2006 (13.02.2006)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:
0503041.6 14 February 2005 (14.02.2005) GB
- (71) Applicant (for all designated States except US): NOKIA CORPORATION [FI/FI]; Keilalahdentie 4, FIN-02150 Espoo (FI).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): RUUTA, Ville [FI/FI]; Illansuu 2 D 4, FIN-02210 Espoo (FI). NIEMEN-MAA, Jarko [FI/FI]; Punametsäntie 45, FIN-02920 Espoo (FI).
- (74) Agents: WILLIAMS, David, John et al.; Page White & Farrer, 54 Doughty Street, London WC1N 2LS (GB).

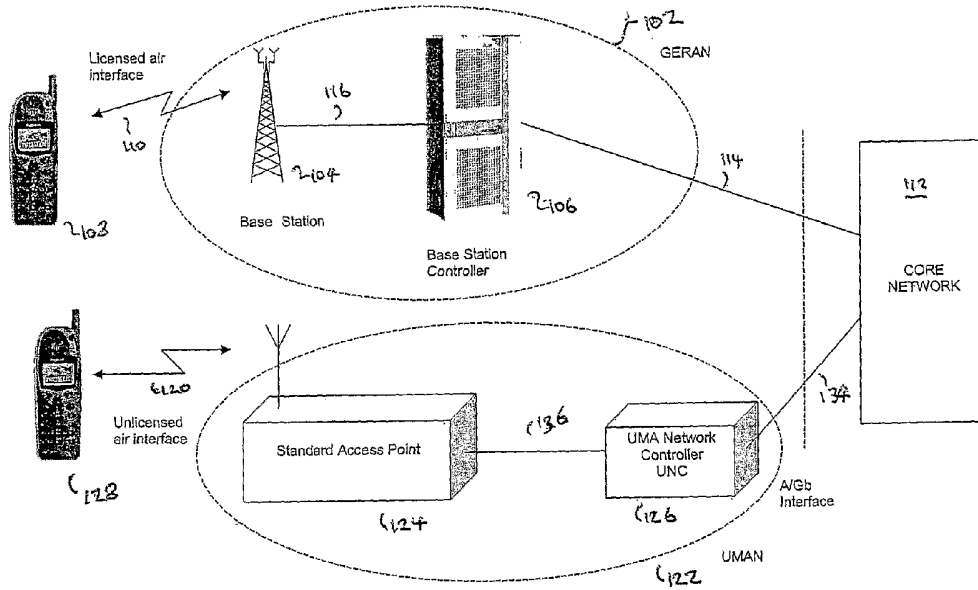
- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LC,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

Published:
— with international search report

(88) Date of publication of the international search report:
26 October 2006

[Continued on next page]

(54) Title: LOCATION SERVICES FOR UNLICENSED MOBILE ACCESS



(57) Abstract: There is disclosed an unlicensed mobile access network including a network control element and a network access point, said network being adapted, to determine the access and/or transmission range of a network access point to which a mobile terminal is connected, to determine whether the position of the network access point can be used as an estimate of a location of the mobile terminal, and a method of operation thereof.

WO 2006/087640 A3



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/IB2006/000929A. CLASSIFICATION OF SUBJECT MATTER
INV. H04Q7/38 H04L12/28

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)
H04Q H04L

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 practical, search terms used)

EPO-Internal, WPI Data, PAJ, INSPEC

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	"Unlicensed Mobile Access (UMA) Architecture (STAGE 2)" UMA ARCHITECTURE (STAGE 2) R1.0.0, .XX, XX, 8 October 2004 (2004-10-08), page complete, XP002381341 cited in the application paragraph [9.18]	1,3,7, 20,23, 28,32,34
A	US 2002/019698 A1 (VILPPULA MATTI ET AL) 14 February 2002 (2002-02-14) paragraphs [0006] - [0010]	1-34
A	WO 2005/004520 A (BOUYGUES TELECOM; BARCELO AROYO, FRANCISCO; MARTIN ESCALONA, ISRAEL; M) 13 January 2005 (2005-01-13) page 2, lines 4-25	1-34

 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
- *E* earlier document 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

5 July 2006

Date of mailing of the international search report

04/08/2006

Name and mailing address of the ISA/
European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,
Fax: (+31-70) 340-3016

Authorized officer

Weinmiller, J

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

PCT/IB2006/000929

Patent document cited in search report		Publication date		Patent family member(s)		Publication date
US 2002019698	A1	14-02-2002	AU	8215701 A		14-01-2002
			BR	0112016 A		13-05-2003
			CA	2414604 A1		10-01-2002
			CN	1449500 A		15-10-2003
			DE	01960758 T1		15-04-2004
			EP	1297352 A1		02-04-2003
			ES	2192157 T1		01-10-2003
			WO	0203093 A1		10-01-2002
			FI	108372 B1		15-01-2002
			JP	2004502942 T		29-01-2004
WO 2005004520	A	13-01-2005	ES	2237991 A1		01-08-2005