(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
29 March 2012 (29.03.2012)

WIPO | PCT

(10) International Publication Number
WO 2012/039585 A3

(51) International Patent Classification:
H04W 36/38 (2009.01)

(21) International Application Number:
PCT/KR2011/006968

(22) International Filing Date:
21 September 2011 (21.09.2011)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
201010292413.3
21 September 2010 (21.09.2010) CN

(71) Applicant *(for all designated States except US)*: **SAMSUNG ELECTRONICS CO., LTD.** [KR/KR]; 416, Maetan-dong, Yeongtong-gu, Suwon-si, Gyeonggi-do 443-742 (KR).

(72) Inventors; and

(75) Inventors/Applicants *(for US only)*: **XU, Lixiang** [CN/CN]; 12/F Zhongdian Fazhan Building, No.9, Xiaguanli, Chaoyang District, Beijing 100125 (CN). **WANG, Hong** [CN/CN]; 12/F Zhongdian Fazhan Building, No.9, Xiaguanli, Chaoyang District, Beijing 100125 (CN). **LIANG, Huarui** [CN/CN]; 12/F Zhongdian Fazhan Building, No.9, Xiaguanli, Chaoyang District, Beijing 100125 (CN).

(74) Agents: **KWON, Hyuk-Rok** et al.; 2F. Seokwang Bldg., 1-96 Sinmun-ro 2ga, Jongro-ku, Seoul 110-062 (KR).

(81) Designated States *(unless otherwise indicated, for every kind of national protection available)*: AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CL, 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, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TH, 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, LR, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AL, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MK, MT, NL, NO, PL, PT, RO, RS, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

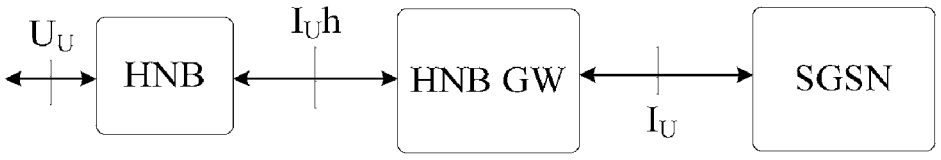
— *with international search report (Art. 21(3))*

— *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments (Rule 48.2(h))*

(88) Date of publication of the international search report:
14 June 2012

(54) Title: METHOD FOR DETERMINING RELOCATION PROCESS AND METHOD FOR DETERMINING HANDOVER PROCESS

[Fig. 1]



(57) Abstract: A method for determining relocation process and a method for determining handover process are proposed in the present invention. Wherein the method for determining relocation process includes: informing, by a home base station (HNB) gateway (GW) or an operation, administration and maintenance (OAM) device, the HNB of information of whether the HNB GW supports an optimized relocation process; determining, by the HNB, the relocation process to be implemented for the user equipment (UE) according to the information of whether the HNB GW supports the optimized relocation process. The methods according to the present invention may reduce the failure probability of the relocation/handover and improve the relocation/handover efficiency.

WO 2012/039585 A3

INTERNATIONAL SEARCH REPORT

International application No.
PCT/KR2011/006968

A. CLASSIFICATION OF SUBJECT MATTER

H04W 36/38(2009.01)i

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)

H04W 36/38; H04W 36/16; H04Q 7/00; H04Q 7/20; H04W 36/00

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

Korean utility models and applications for utility models

Japanese utility models and applications for utility models

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

eKOMPASS(KIPO internal) & Keywords: relocat*, handover, informat*

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 2008-0268846 A1 (KAMEL M.SHAHEEN) 30 October 2008 See abstract, figures 6-7 and claims 1-21.	1-15
A	US 2010-0202403 A1 (DOMAGOJ PREMEC) 12 August 2010 See abstract, figures 3 and claims 11-20.	1-15
A	US 2008-0043666 A1 (TOSHIYUKI TAMURA et al.) 21 February 2008 See abstract and claims 1-16.	1-15
A	US 2009-0175240 A1 (SADAFUKU HAYASHI) 09 July 2009 See abstract and claims 22-61.	1-15

☐ 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 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 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	Date of mailing of the international search report
23 APRIL 2012 (23.04.2012)	**24 APRIL 2012 (24.04.2012)**
Name and mailing address of the ISA/KR Korean Intellectual Property Office Government Complex-Daejeon, 189 Cheongsa-ro, Seo-gu, Daejeon 302-701, Republic of Korea Facsimile No. 82-42-472-7140	Authorized officer Yoo Sun Jung Telephone No. 82-42-481-5775

Form PCT/ISA/210 (second sheet) (July 2009)

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No.

PCT/KR2011/006968

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 2008-0268846 A1	30.10.2008	EP 2127445 A1	02.12.2009
		JP 2010-518793 A	27.05.2010
		KR 10-2009-0115882A	09.11.2009
		KR 10-2009-0118968A	18.11.2009
		WO 2008-100488 A1	21.08.2008
US 2010-0202403 A1	12.08.2010	EP 1995926 A1	26.11.2008
		KR 10-2010-0010936 A	02.02.2010
		WO 2008-145554 A2	04.12.2008
		WO 2008-145554 A3	22.01.2009
US 2008-0043666 A1	21.02.2008	EP 1890515 A2	20.02.2008
		EP 1890515 A3	15.12.2010
		EP 2369870 A1	28.09.2011
		JP 2008-072683 A	27.03.2008
		KR 10-0922377 B1	19.10.2009
		KR 10-0949155 B1	25.03.2010
		KR 10-2008-0016453A	21.02.2008
		KR 10-2009-0018018A	19.02.2009
		KR 10-2009-0071522 A	01.07.2009
		US 2011-0044251 A1	24.02.2011
		US 7848269 B2	07.12.2010
US 2009-0175240 A1	09.07.2009	EP 1986450 A1	29.10.2008
		KR 10-1078148 B1	28.10.2011
		KR 10-2008-0093452 A	21.10.2008
		KR 10-2008-0098651A	11.11.2008
		WO 2007-091401 A1	16.08.2007