



## (51) International Patent Classification:

H04W 36/14 (2009.01) H04W 88/06 (2009.01)  
H04W 48/16 (2009.01)

## (21) International Application Number:

PCT/KR20 12/000 142

## (22) International Filing Date:

6 January 2012 (06.01.2012)

## (25) Filing Language:

English

## (26) Publication Language:

English

## (30) Priority Data:

61/430,170 6 January 2011 (06.01.2011) US

(71) Applicant (for all designated States except US): **LG ELECTRONICS INC.** [KR/KR]; 20 Yeouido-dong, Yeongdeungpo-gu, Seoul 150-721 (KR).

## (72) Inventors; and

(75) Inventors/Applicants (for US only): **YUK, Youngsoo** [KR/KR]; 533, Hogye-Dong, Dongan-Gu, Anyang-Si, Gyeonggi-Do 431-080 (KR). **LEE, Eunjong** [KR/KR]; 533, Hogye-Dong, Dongan-Gu, Anyang-Si, Gyeonggi-Do 431-080 (KR). **JUNG, Inuk** [KR/KR]; 533, Hogye-Dong,

Dongan-Gu, Anyang-Si, Gyeonggi-Do 431-080 (KR). **CHO, Heejeong** [KR/KR]; 533, Hogye-Dong, Dongan-Gu, Anyang-Si, Gyeonggi-Do 431-080 (KR). **KWAK, Jin-sam** [KR/KR]; 533, Hogye-Dong, Dongan-Gu, Anyang-Si, Gyeonggi-Do 431-080 (KR).

(74) Agent: **KIM, Youg In**; KBK & Associates, 7th Floor, Hyundai Building, 175-9, Jamsil-dong, Songpa-gu, Seoul 138-861 (KR).

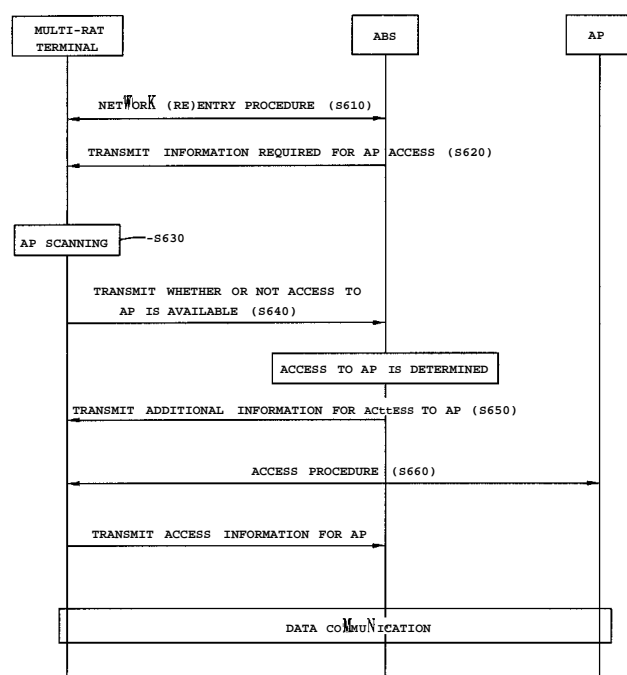
(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, 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, RW, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU,

[Continued on nextpage]

(54) Title: DATA COMMUNICATION METHOD AND APPARATUS VIA INTERLOCK BETWEEN HETEROGENEOUS NETWORKS IN RADIO ACCESS SYSTEM SUPPORTING MULTI RADIO ACCESS TECHNOLOGY

[Fig. 6]



(57) Abstract: The present invention relates to a method for transmitting and receiving data via a first base station supporting a first radio access technology (RAT) and a second base station supporting a second RAT in a radio access system supporting a multi-radio access technology, and the method may include performing a network (re)entry procedure with the first base station; receiving control information required for an access to the second base station located in the vicinity of the first base station from the first base station; performing a scanning procedure for at least one second base station located in the vicinity of the first base station; receiving an instruction message instructing an access to the second base station from the first base station; and performing an access procedure with the second base station.



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).

— *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:

8 November 2012

Published:

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

## INTERNATIONAL SEARCH REPORT

International application No.  
**PCT/KR2012/000142****A. CLASSIFICATION OF SUBJECT MATTER*****H04W 36/14(2009.01)i, H04W 48/16(2009.01)1, H04W 88/06(2009.01)1***

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 36/14; H04W 88/06; H04W 36/30

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) &amp; Keywords: inter-RAT, handover

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X A	WO 2009-139934 A1 (QUALCOMM INCORPORATED et al.) 19 November 2009 See figures 4-9; paragraphs [0064]-[0092].	1-12, 16-17 13-15
A	KR 10-2008-0062352 A (SAMSUNG ELECTRONICS CO., LTD.) 03 July 2008 See figure 2; claims 1-19.	1-17
A	KR 10-2009-0006122 A (INTERDIGITAL TECHNOLOGY CORPORATION) 14 January 2009 See figures 2-4; claims 1-17.	1-17
A	KR 10-2009-0012478 A (SAMSUNG ELECTRONICS CO., LTD.) 04 February 2009 See figure 3; claims 1-11.	1-17



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

"&amp;" document member of the same patent family

Date of the actual completion of the international search

11 SEPTEMBER 2012 (11.09.2012)

Date of mailing of the international search report

**12 SEPTEMBER 2012 (12.09.2012)**

Name and mailing address of the ISA/KR

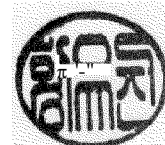
Korean Intellectual Property Office  
189 Cheongsu-ro, Seo-gu, Daejeon Metropolitan  
City, 302-70 1, Republic of Korea

Facsimile No. 82-42-472-7140

Authorized officer

Hwang, Yujin

Telephone No. 82-42-481-5451



# INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No.

PCT/KR2012/000142

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
WO 2009- 139934 A1	19.11.2009	EP 2292041 A1 EP 2294863 A1 EP 2294864 A1 JP 2011-520399 A JP 2011-52040 1 A JP 2011-522467 A KR 10- 1175026 B1 KR 10- 1175726 B1 KR 10-20 11-00 10107 A US 2009-0279503 A1 US 2009-0279504 A1 US 2009-02808 12 A1 Wo 2009- 140045 A1 Wo 2009- 140046 A1	09.03,2011 16.03,2011 16.03,2011 14.07,2011 14.07,2011 28.07,2011 17.08,2012 21.08,2012 31.01,2011 12.11,2009 12.11,2009 12.11,2009 19.11,2009 19.11,2009
KR 10-2008-0062352 A	03.07.2008	None	
KR 10-2009-0006 122 A	14.01.2009	EP 2005783 A2 JP 2009-53 1972 A JP 2012-010352 A KR 10-2008-0 114832 A KR 10-20 12-0079152 A US 2007-0224988 A1 wo 2007- 111860 A2	24.12,2008 03.09,2009 12.01,2012 31.12,2008 11.07,2012 27.09,2007 04.10,2007
KR 10-2009-00 12478 A	04.02.2009	us 2009-0036 133 A1 wo 2009-017352 A2	05.02,2009 05.02,2009