

(51) International Patent Classification:
H04B 7/26 (2006.01)(21) International Application Number:
PCT/KR2010/007699(22) International Filing Date:
3 November 2010 (03.11.2010)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
10-2009-0107056 6 November 2009 (06.11.2009) KR(71) Applicant (for all designated States except US): **SAM-SUNG ELECTRONICS CO., LTD.** [KR/KR]; 416, Maetan-dong, Yeongtong-gu, Suwon-si, Gyeonggi-do 442-742 (KR).(72) Inventors: **LIM, Chae-Gwon**; #302, Royvill, 909-9, Daechi 4-dong, Gangnam-gu, Seoul 135-841 (KR). **CHO, Song-Yean**; #103-1704, Gyeongnam Gyosu APT., Sindaebang 1-dong, Dongjak-gu, Seoul 156-727 (KR). **LIM, Han-Na**; #202, 612-135, Banpo 4-dong, Seocho-gu, Seoul 137-807 (KR). **CHOI, Sung-Ho**; #437-601, Samsung Raemian APT, Yeongtong-dong, Yeongtong-gu, Suwon-si, Gyeonggi-do 443-470 (KR). **BAE, Beom-Sik**; #1001-1803, Bangjukmaeul Yeongtong Tranchae APT, 707, Mangpo-dong, Yeongtong-gu, Suwon-si, Gyeonggi-do 443-400 (KR).(74) Agent: **LEE, Keon-Joo**; Mihwa Bldg. 110-2, Myongryun-dong 4-ga, Chongro-gu, Seoul 110-524 (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, 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, RO, RS, RU, 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).

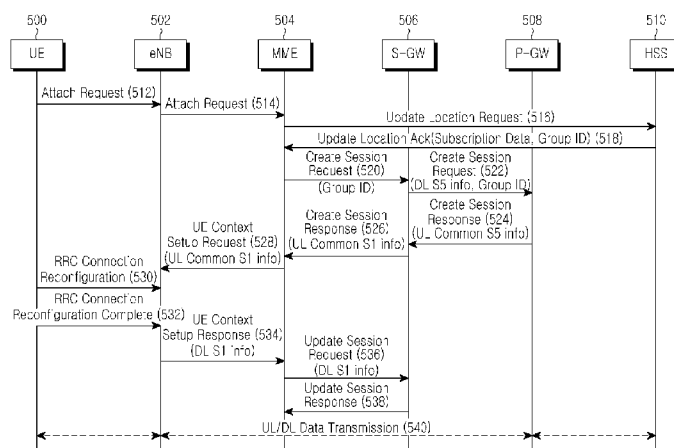
Published:

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

(88) Date of publication of the international search report:
27 October 2011

(54) Title: METHOD AND APPARATUS FOR SETTING UP UPLINK COMMON BEARER IN WIRELESS COMMUNICATION NETWORK

[Fig. 5]



(57) Abstract: A method and apparatus for setting up an UpLink common bearer shared by a plurality of User Equipments (UEs) in a wireless communication network is provided. The apparatus includes a Serving GateWay (S-GW) for receiving a group identifier of a UE from a Mobility Management Entity (MME), sending a create bearer request message including the group identifier to a Packet Data Network (PDN) GateWay (P-GW), receiving a create bearer response message including UL common S5 bearer information (UL common S5 info) for a group corresponding to the group identifier from the P-GW, and sending a create bearer response message including UL common S1 bearer information (UL common S1 info) to the MME, and the P-GW for receiving the create bearer request message from the S-GW, and generating and sending the create bearer response message including the UL common S5 info.

A. CLASSIFICATION OF SUBJECT MATTER**H04B 7/26(2006.01)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)

H04B 7/26; H04W 28/16; H04W 80/04; H04W 80/10; H04W 76/04

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: common bearer, S-GW(Serving Gateway), MME(Mobility Management Entity);

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	J. Shin, et al., "Design of Session and Bearer Control Signaling in 3GPP LTE System", In: Proceedings of 68th IEEE Vehicular Technology Conference, 21-24 September 2008, pp. 1-5. See Chapter II & III.	1-18
A	KR 10-2009-0054760 A (ELECTRONICS AND TELECOMMUNICATIONS RESEARCH INSTITUTE et al.) 01 June 2009 See all documents.	1-18
A	KR 10-2008-0112946 A (LG ELECTRONICS INC.) 26 December 2008 See all documents.	1-18
A	KR 10-2009-0045778 A (SAMSUNG ELECTRONICS CO., LTD.) 08 May 2009 See all documents.	1-18



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

21 JULY 2011 (21.07.2011)

Date of mailing of the international search report

21 JULY 2011 (21.07.2011)

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

SEONG, KYOUNG A

Telephone No. 82-42-481-8171



INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No.

PCT/KR2010/007699

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
KR 10-2009-0054760 A	01.06.2009	US 2010-0254399 A1 WO 2009-069867 A1 WO 2009-069867 A8	07.10.2010 04.06.2009 04.06.2009
KR 10-2008-0112946 A	26.12.2008	None	
KR 10-2009-0045778 A	08.05.2009	KR 10-0953453 B1	09.04.2010