

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

(19) World Intellectual Property
Organization
International Bureau

(43) International Publication Date
29 March 2018 (29.03.2018)



(10) International Publication Number
WO 2018/057908 A1

(51) International Patent Classification:

H04W 12/04 (2009.01) *H04W* 48/18 (2009.01)
H04L 29/06 (2006.01) *H04W* 36/00 (2009.01)

(21) International Application Number:

PCT/US2017/052979

(22) International Filing Date:

22 September 2017 (22.09.2017)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

62/398,699 23 September 2016 (23.09.2016) US
15/710,991 21 September 2017 (21.09.2017) US

(71) Applicant: **QUALCOMM INCORPORATED** [US/US];
ATTN: International IP Administration, 5775 Morehouse
Drive, San Diego, California 92121-1714 (US).

(72) Inventors: **LEE, Soo Bum**; 5775 Morehouse Drive,
San Diego, CA 92121-1714 (US). **KUBOTA, Keiichi**;
5775 Morehouse Drive, San Diego, California 92121-1714
(US). **ESCOTT, Adrian Edward**; 5775 Morehouse Drive,
San Diego, California 92121-1714 (US). **HORN, Gavin
Bernard**; 5775 Morehouse Drive, San Diego, California

92121-1714 (US). **PALANIGOUNDER, Anand**; 5775
Morehouse Drive, San Diego, California 92121-1714 (US).

(74) Agent: **READ, Randol W.** et al.; Patterson & Sheridan,
L.L.P., 24 Greenway Plaza, Suite 1600, Houston, Texas
77046-2472 (US).

(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, BN, BR, BW, BY, BZ,
CA, CH, CL, CN, CO, CR, CU, CZ, DE, DJ, DK, DM, DO,
DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN,
HR, HU, ID, IL, IN, IR, IS, JO, JP, KE, KG, KH, KN, KP,
KR, KW, KZ, LA, LC, LK, LR, LS, LU, LY, MA, MD, ME,
MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ,
OM, PA, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SA,
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, ST, SZ, TZ,
UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, 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,

(54) Title: ACCESS STRATUM SECURITY FOR EFFICIENT PACKET PROCESSING

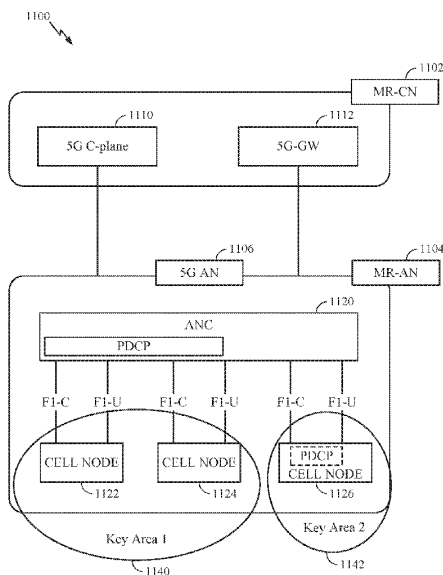


FIG. 11

(57) Abstract: Certain aspects of the present disclosure provide techniques for managing security keys for enciphering and deciphering packets transmitted in a wireless communications system. According to certain aspects, a method of wireless communication by a user equipment (UE) is provided. The method generally includes obtaining an indication of a key area identifier (ID) of a first cell node, wherein the key area ID identifies a set of cell nodes that are associated with a network node that uses a first key for enciphering or deciphering messages and communicating a first set of messages with the first cell node using the first key for enciphering or deciphering the first set of messages.

WO 2018/057908 A1

[Continued on next page]

TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW,
KM, ML, MR, NE, SN, TD, TG).

Published:

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