

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
8 November 2007 (08.11.2007)

PCT

(10) International Publication Number
WO 2007/127972 A3

(51) International Patent Classification:
H04L 29/06 (2006.01)

(21) International Application Number:
PCT/US2007/067722

(22) International Filing Date: 29 April 2007 (29.04.2007)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/795,775 28 April 2006 (28.04.2006) US

(71) Applicant (for all designated States except US): **QUALCOMM Incorporated** [US/US]; Attn: International Ip Administration, 5775 Morehouse Drive, San Diego, California 92121 (US).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **MAHESHWARI, Shailesh** [IN/US]; 12639 El Camino Real, #6305, San Diego, California 92130 (US). **CHIKKAPPA, Kiran**

[IN/US]; 5775 Morehouse Drive, San Diego, California 92121 (US). **RAMACHANDRAN, Vivek** [IN/US]; 5134 Whitman Way, #203, Carlsbad, California (US).

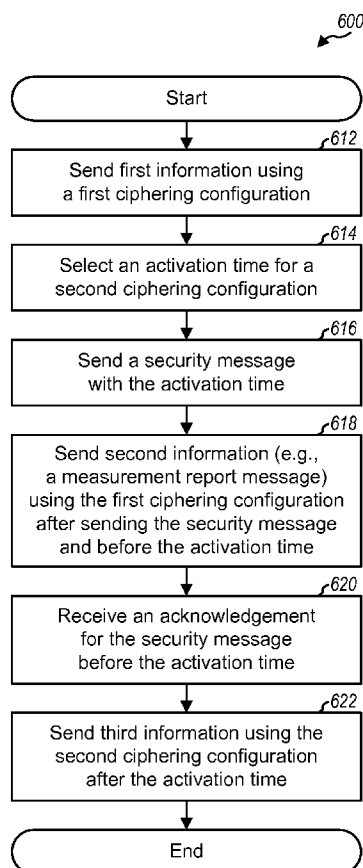
(74) Agent: **OGROD, Gregory D.**; Attn: International Ip Administration, 5775 Morehouse Drive, San Diego, California 92121, (US).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BH, 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, 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, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, 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, 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,

[Continued on next page]

(54) Title: UNINTERRUPTED TRANSMISSION DURING A CHANGE IN CIPHERING CONFIGURATION



(57) Abstract: Techniques for sending information without interruption during a change in ciphering configuration are described. A user equipment UE (110) communicates with a wireless communication network for a call. The UE sends first information to the wireless network using a first ciphering configuration (612). For a change in ciphering configuration, the UE selects an activation time for a second ciphering configuration (614) and sends a security message with the activation time (616). This activation time is the time at which the UE applies the second ciphering configuration to transmission sent to the wireless network. The UE thereafter sends second information, e.g., a measurement report message) using the first ciphering configuration after sending the security message and before the activation time (618). The UE sends third information using the second ciphering configuration after the activation time (622).

WO 2007/127972 A3



FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, MT, 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).

— *before the expiration of the time limit for amending the
claims and to be republished in the event of receipt of
amendments*

Declarations under Rule 4.17:

- *as to applicant's entitlement to apply for and be granted a
patent (Rule 4.17(ii))*
- *as to the applicant's entitlement to claim the priority of the
earlier application (Rule 4.17(iii))*

Published:

- *with international search report*

(88) Date of publication of the international search report:
24 January 2008

*For two-letter codes and other abbreviations, refer to the "Guid-
ance Notes on Codes and Abbreviations" appearing at the begin-
ning of each regular issue of the PCT Gazette.*