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

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
18 February 2010 (18.02.2010)

PCT

(10) International Publication Number
WO 2010/019679 A2

(51) International Patent Classification:
H04L 5/00 (2006.01)

(21) International Application Number:
PCT/US2009/053568

(22) International Filing Date:
12 August 2009 (12.08.2009)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:

61/088,319	12 August 2008 (12.08.2008)	US
61/112,029	6 November 2008 (06.11.2008)	US
61/113,443	11 November 2008 (11.11.2008)	US
61/143,146	7 January 2009 (07.01.2009)	US
12/536,733	6 August 2009 (06.08.2009)	US

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

(72) Inventors; and

(75) Inventors/Applicants *(for US only)*: **DAMNJANOVIC, Jelena, M.** [US/US]; 5775 Morehouse Drive, San Diego, CA 92121 (US). **MONTOJO, Juan** [US/US]; 5775 Morehouse Drive, San Diego, CA 92121 (US). **SARKAR, Sandip** [US/US]; 5775 Morehouse Drive, San Diego, CA 92121 (US). **GAAL, Peter** [US/US]; 5775 Morehouse Drive, San Diego, CA 92121 (US). **KHANDEKAR, Aamod D.** [IN/US]; 5775 Morehouse Drive, San Diego, California 92121 (US). **FARAJIDANA, Amir** [IR/US]; 5775 Morehouse Drive, San Diego, California 92121 (US).

(74) Agent: **PATEL, Milan, I.**; Attn: International IP Administration, 5775 Morehouse Drive, San Diego, CA 92121 (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, 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, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, ST, 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,

[Continued on next page]

(54) Title: MULTI-CARRIER GRANT DESIGN

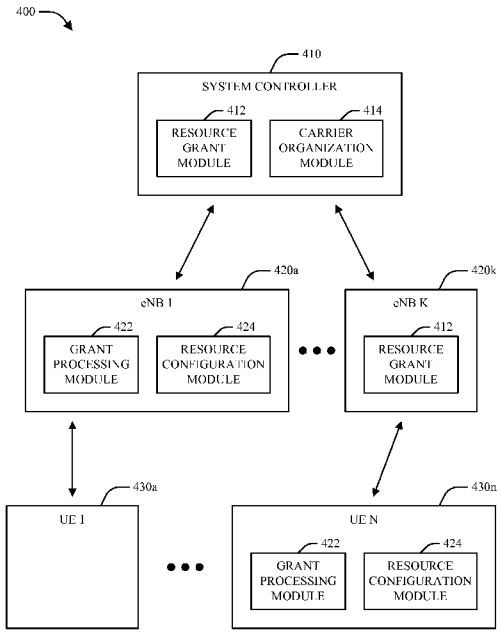

FIG. 4

(57) Abstract: Systems and methodologies are described that facilitate assigning resources for an anchor carrier and an additional carrier with a grant message. The grant message communicated with an anchor carrier can include resource information a plurality of carriers. Moreover, the systems and methodologies that facilitate identifying control information for an anchor carrier and/or an additional carrier based upon an operating mode, wherein the operating mode is a legacy mode or an extended mode. Based on the operating mode, particular resources associated with control regions are monitored for control information for respective anchor carrier(s) or additional carrier(s).

WO 2010/019679 A2

TM), European (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, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

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:

— *without international search report and to be republished upon receipt of that report (Rule 48.2(g))*