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

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
22 May 2009 (22.05.2009)

PCT

(10) International Publication Number
WO 2009/064678 A1

(51) International Patent Classification:
H04W 48/08 (2009.01) *H04W 72/02* (2009.01)

(21) International Application Number:
PCT/US2008/082866

(22) International Filing Date:
7 November 2008 (07.11.2008)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:

60/988,665	16 November 2007 (16.11.2007)	US
60/988,720	16 November 2007 (16.11.2007)	US
61/025,670	1 February 2008 (01.02.2008)	US
61/028,497	13 February 2008 (13.02.2008)	US
61/047,021	22 April 2008 (22.04.2008)	US
12/260,868	29 October 2008 (29.10.2008)	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)*: **KHANDEKAR, Aamod** [IN/US]; 5775 Morehouse Drive, San Diego, California 92121 (US). **GOROKHOV, Alexei** [FR/US]; 5775 Morehouse Drive, San Diego, California 92121 (US). **BHUSHAN, Naga** [US/US]; 5775 Morehouse Drive, San Diego, California 92121 (US). **PALANKI, Ravi** [IN/US]; 5775 Morehouse Drive, San Diego, California 92121 (US). **SAMPATH, Ashwin** [US/US]; 5775 Morehouse Drive, San Diego, California 92121 (US). **AGRAWAL, Avneesh** [US/US]; 5775 Morehouse Drive, San Diego, California 92121 (US).

(74) Agent: **CORIE, Florin C.**; Attn: International Ip Administration, 5775 Morehouse Drive, San Diego, Califonia 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, 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,

[Continued on next page]

(54) Title: PREAMBLE DESIGN FOR A WIRELESS SIGNAL

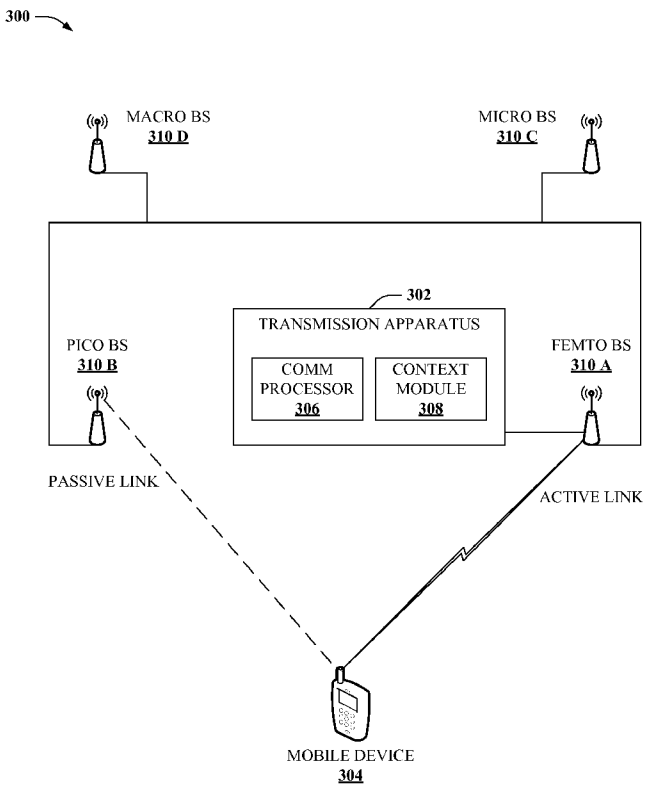


FIG. 3

(57) Abstract: Providing for management of wireless communications in a heterogeneous wireless access point (AP) environment is described herein. By way of example, system data of an over-the-air message can be configured to include information identifying a distinct type of transmitting base station. In some aspects, the information can include an access type of the base station and/or a sector ID for distinguishing the base station among large numbers of other base stations. According to other aspects, system data transmitted on the wireless signal can include wireless channel resources designated for a particular type of base station, or blanked by the transmitting base station, to facilitate interference reduction on such resources. By employing aspects of wireless communication management disclosed herein, efficient and reliable communication can be affected in large heterogeneous AP networks.

WO 2009/064678 A1

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, 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, 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, MT, NL, NO, PL, PT, RO, SE, SI, SK, 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:

— *with international search report*

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