



(51) International Patent Classification:
H04W 36/02 (2009.01) H04L 1/00 (2006.01)
H04L 1/18 (2006.01)

(21) International Application Number:
PCT/US2009/048057

(22) International Filing Date:
19 June 2009 (19.06.2009)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
61/074,325 20 June 2008 (20.06.2008) US
12/484,969 15 June 2009 (15.06.2009) 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) Inventor; and

(75) Inventor/Applicant (for US only): **MAHESHWARI, Shailesh** [IN/US]; 5775 Morehouse Drive, San Diego, CA 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,

[Continued on next page]

(54) Title: METHOD AND APPARATUS FOR PRIORITIZING STATUS MESSAGES (E.G. ACKNOWLEDGEMENTS) IN A WIRELESS COMMUNICATION SYSTEM

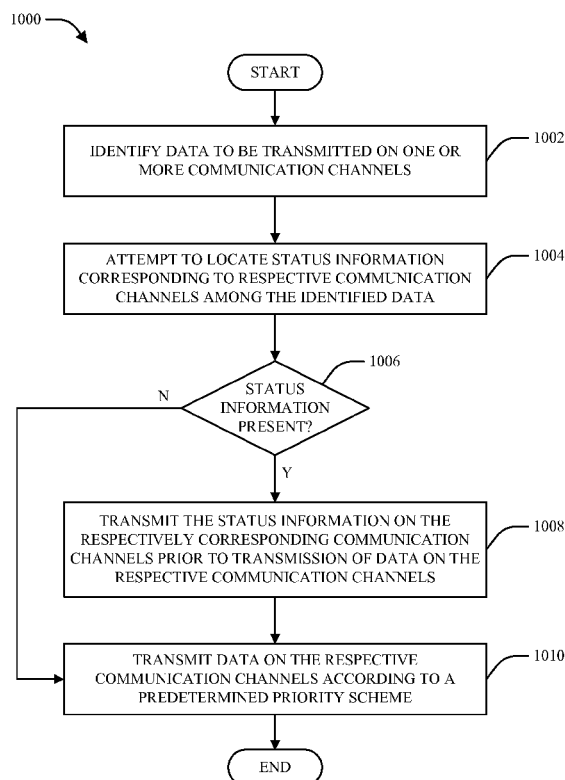


FIG. 10

(57) Abstract: Systems and methodologies are described that facilitate scheduling for transmissions of status messages, such as Packet Data Convergence Protocol (PDCP) status messages or Radio Link Control (RLC) acknowledgement messages, in a wireless communication system. As described herein, at time periods at which transmission of status messages is desired, respective status signaling associated with a set of radio bearers, logical channels, or the like can be configured to be transmitted prior to conducting transmission(s) of data. By doing so, a receiving entity can obtain the status signaling at substantially the earliest possible opportunity, allowing the receiving entity to avoid unnecessary bandwidth and/or memory expenditure associated with re-transmissions of information. As further described herein, status information can be prioritized by the use of separate status bearers, respective indicators provided within information elements queued on respective radio bearers, a maintained list of respective radio bearers containing status information, and other similar mechanisms.



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, MK, 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).

— *as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii))*

Published:

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

— *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments (Rule 48.2(h))*

Declarations under Rule 4.17:

— *as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))*