

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
23 July 2009 (23.07.2009)

PCT

(10) International Publication Number
WO 2009/091776 A1

(51) International Patent Classification:

H04L 12/14 (2006.01)

(21) International Application Number:

PCT/US2009/030922

(22) International Filing Date: 14 January 2009 (14.01.2009)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:

61/021,013 14 January 2008 (14.01.2008) US

12/352,734 13 January 2009 (13.01.2009) 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): **GIARETTA, Gerardo** [IT/US]; 5775 Morehouse Drive, San Diego, California 92121 (US). **AHMAVAARA, Kalle I.** [FI/US]; 5775 Morehouse Drive, San Diego, California 92121 (US). **CASACCIA, Lorenzo** [IT/US]; 5775 Morehouse Drive, San Diego, California 92121 (US). **TSIRTSIS, George** [GB/US]; 5775 Morehouse Drive, San Diego, California 92121 (US). **MAHENDRAN, Arungundram C.** [IN/US]; 5775 Morehouse Drive, San Diego, California 92121 (US).

(74) Agent: **PATEL, Milan I.**; 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, AO, AT, AU, AZ, BA, BB, BG, BH, BR, 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, 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, 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).

Declarations under Rule 4.17:

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

[Continued on next page]

(54) Title: POLICY CONTROL AND CHARGING (PCC) RULES BASED ON MOBILITY PROTOCOL

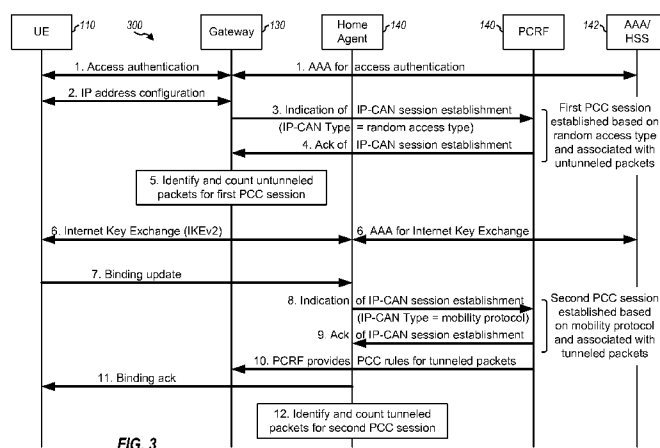


FIG. 3

(57) Abstract: Techniques for supporting policy control and charging (PCC) functions in a wireless communication network are described. In one design, a Policy Control and Charging Rules Function (PCRF) may receive a request from a first network entity (e.g., a home agent) to establish a PCC session for a user equipment (UE) accessing the first network entity using a mobility protocol (e.g., Mobile IP). The PCRF may determine the mobility protocol used by the UE based on an IP-CAN Type parameter included in the request. The PCRF may determine PCC rules for the PCC session based on the mobility protocol and may send the PCC rules to the first network entity. The first network entity may apply the PCC rules on packets for the PCC session and may count each packet for charging. A second network entity may forward the packets but would not count these packets for charging.

WO 2009/091776 A1



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

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

Published:

— with international search report