

(51) International Patent Classification:
H04W 74/08 (2009.01) H04W 84/12 (2009.01)(21) International Application Number:
PCT/US2015/050041(22) International Filing Date:
14 September 2015 (14.09.2015)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
62/050,691 15 September 2014 (15.09.2014) US
14/852,434 11 September 2015 (11.09.2015) US(71) Applicant: QUALCOMM INCORPORATED [US/US];
ATTN: International IP Administration, 5775 Morehouse
Drive, San Diego, California 92121-1714 (US).(72) Inventors: ZHOU, Yan; c/o QUALCOMM Incorporated,
5775 Morehouse Drive, San Diego, California 92121-1714
(US). BARRIAC, Gwendolyn Denise; c/o QUALCOMM
Incorporated, 5775 Morehouse Drive, San Diego, Califor-
nia 92121-1714 (US). MERLIN, Simone; c/o QUAL-
COMM Incorporated, 5775 Morehouse Drive, San Diego,
California 92121-1714 (US). CHERIAN, George; c/o
QUALCOMM Incorporated, 5775 Morehouse Drive, San
Diego, California 92121-1714 (US).(74) Agents: GELFOUND, Craig A. et al.; c/o ARENT FOX
LLP, 1717 K Street NW, Washington, District of Columbia
20006-5344 (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, BN, 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, IR, IS, JP, KE, KG, KN, KP, KR,
KZ, LA, LC, LK, LR, LS, LU, LY, MA, MD, ME, MG,
MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM,
PA, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SA, SC,
SD, SE, SG, SK, SL, SM, ST, SV, SY, TH, 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, LR, LS, MW, MZ, NA, RW, SD, SL, ST, SZ,
TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, RU,
TJ, TM), European (AL, 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, RS, SE, SI, SK,
SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ,
GW, KM, ML, MR, NE, SN, TD, TG).

Published:

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

[Continued on next page]

(54) Title: ENHANCED RTS/CTS ENABLEMENT AND DETECTION

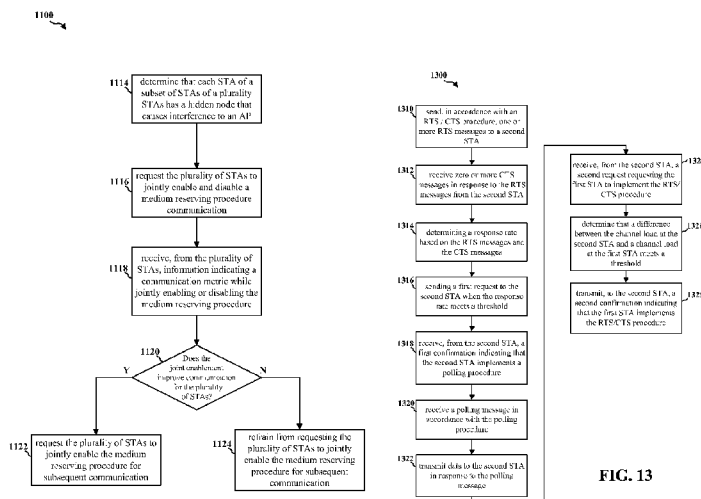


FIG. 11

FIG. 13

(57) **Abstract:** In an aspect of the disclosure, a method, a computer-readable medium, and an apparatus are provided. The apparatus may be an AP that requests a plurality of STAs to jointly enable and disable an MRP based on at least one of that each STA of the STAs has uplink traffic with the AP or that each STA of a subset of the STAs has a hidden node. The AP receives, from the STAs, information indicating a communication metric while jointly enabling or disabling the MRP. The AP determines, based on the received information indicating the communication metric, whether the joint enablement of the medium reserving procedure improves communication for the plurality of STAs. The AP requests the STAs to jointly enable the medium reserving procedure for subsequent communication when the joint enablement of the medium reserving procedure improves communication for the plurality of STAs.



— *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))*

(88) **Date of publication of the international search report:**
12 May 2016