

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
6 November 2008 (06.11.2008)

PCT

(10) International Publication Number
WO 2008/134719 A1

(51) International Patent Classification:

H04L 1/20 (2006.01) *H04L 25/03* (2006.01)
H04L 1/00 (2006.01)

(21) International Application Number:

PCT/US2008/062012

(22) International Filing Date: 30 April 2008 (30.04.2008)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:

60/915,004 30 April 2007 (30.04.2007) US
12/109,436 25 April 2008 (25.04.2008) US

(71) Applicant (for all designated States except US): **QUALCOMM Incorporated** [US/US]; ATTN: International IP Administration, 5775 Morehouse Drive, San Diego, California 92121-1714 (US).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **MERGEN, Gokhan** [TR/US]; 5775 Morehouse Drive, San Diego, California 92121-1714 (US). **SHAH, Manini S.** [IN/US]; 5775 Morehouse Drive, San Diego, California 92121-1714 (US). **GROSSMAN, Nathaniel Lev** [US/US]; 5775 Morehouse Drive, San Diego, California 92121-1714 (US). **KASTURI, Nitin** [US/US]; 5775 Morehouse Drive, San Diego, California 92121-1714 (US). **LI, Yan** [CN/US]; 5775 Morehouse Drive, San Diego, California 92121-1714 (US).

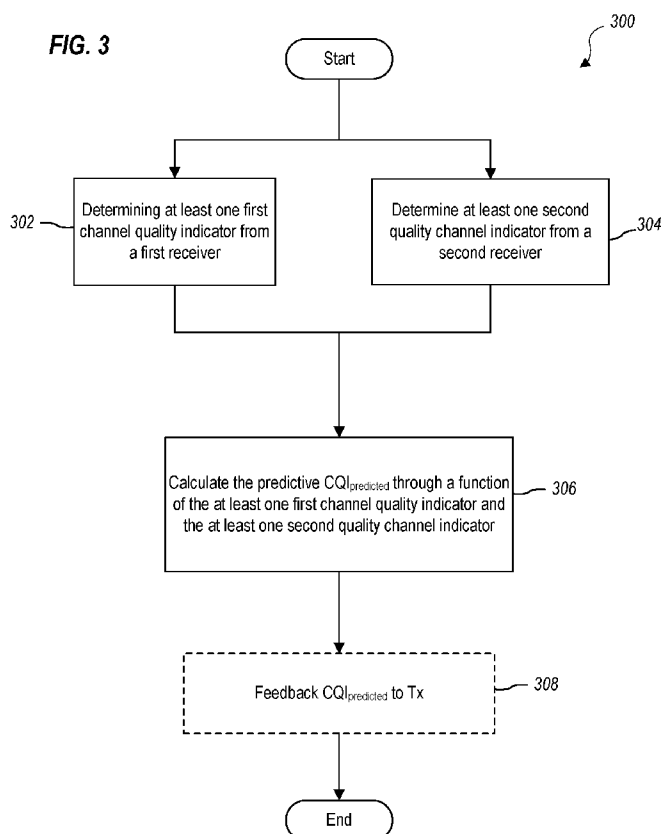
(74) Agent: **MOSKOWITZ, Larry J.**; ATTN: International IP Administration, 5775 Morehouse Drive, San Diego, California 92121-1714 (US).

(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, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC,

[Continued on next page]

(54) Title: METHODS AND APPARATUS FOR PREDICTING A CHANNEL QUALITY INDICATOR IN A COMMUNICATION SYSTEM

FIG. 3



(57) Abstract: Disclosed are methods and apparatus for predicting a channel quality indicator in a communication system, and in particular a delayed receiver. A disclosed method for determining the predictive channel quality indicator for a delayed receiver includes determining at least one channel quality indicator from a non-delayed receiver. The method also includes determining another channel quality indicator from the delayed receiver, and then calculating the predictive channel quality indicator for the delayed receiver through a function of the channel quality indicators from the non-delayed receiver and the channel quality indicator from the delayed receiver. Corresponding apparatus are also disclosed.



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, 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*