

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
19 June 2008 (19.06.2008)

PCT

(10) International Publication Number
WO 2008/073697 A1

(51) International Patent Classification:

H04B 7/208 (2006.01) **H04L 27/26** (2006.01)

(21) International Application Number:

PCT/US2007/085556

(22) International Filing Date:

27 November 2007 (27.11.2007)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

11/637,449 12 December 2006 (12.12.2006) US

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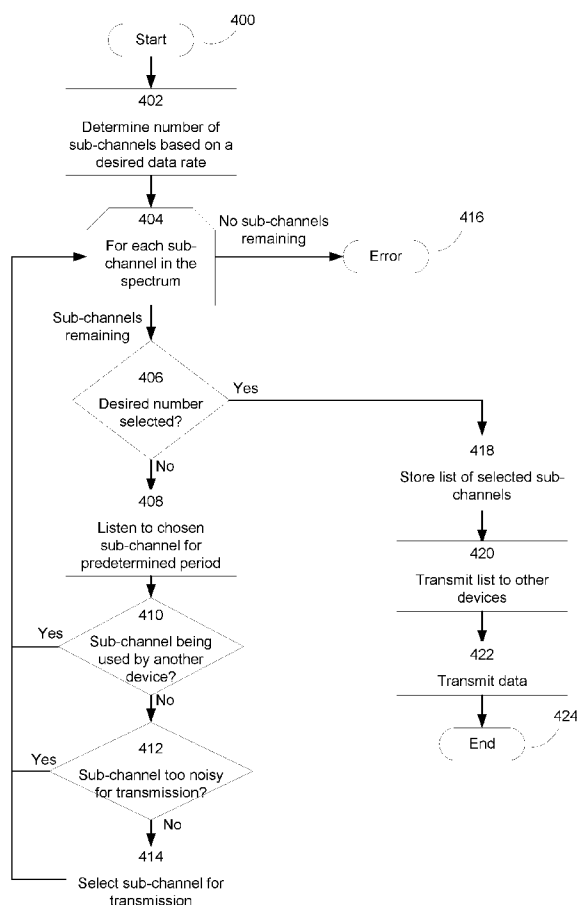
6399 (US). HUITEMA, Christian; c/o Microsoft Corporation,
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(US).

(81) Designated States (unless otherwise indicated, for every
kind of national protection available): AE, AG, AL, AM,
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, 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, 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, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, PL,

[Continued on next page]

(54) Title: COGNITIVE MULTI-USER OFDMA



(57) Abstract: A computing device operating according to a frequency division multiplexed protocol in which communication occurs over a signal formed from a plurality of sub-channels selected from anywhere in a frequency spectrum. A computing device may select sub-channels cognitively by using information about sub-channels previously deemed suitable or unsuitable by that computing device or other computing devices. A described technique for determining sub-channel suitability includes analyzing radio frequency energy in the sub-channel to detect signals generated by another computing device or high noise levels. Information may also be used to cognitively select sub-channels to be analyzed, such as by first selecting for analysis previously-used sub-channels.



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))*

Declarations under Rule 4.17:

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

Published:

— *with international search report*