

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau

(43) International Publication Date
16 January 2020 (16.01.2020)



(10) International Publication Number
WO 2020/014171 A1

(51) International Patent Classification:

H04W 76/00 (2018.01) H04W 84/18 (2009.01)
H04W 84/12 (2009.01) H04W 84/20 (2009.01)

(21) International Application Number:

PCT/US2019/040914

(22) International Filing Date:

09 July 2019 (09.07.2019)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

16/035,533 13 July 2018 (13.07.2018) US

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(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, DJ, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IR, IS, JO, JP, KE, KG, KH, KN, KP, KR, KW, 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).

(54) Title: POWER-EFFICIENT DISCOVERY PROCESS FOR NODES WITHIN A WIRELESS MESH NETWORK

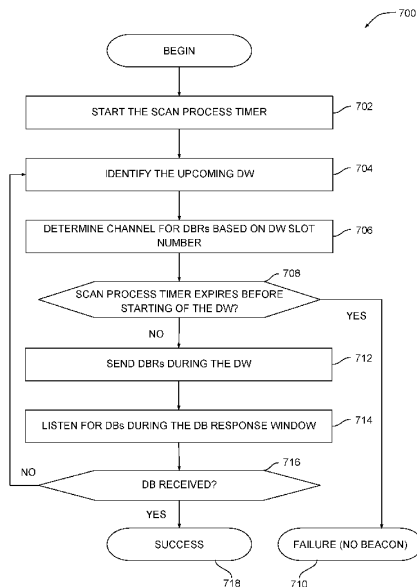


FIG. 7

(57) Abstract: A wireless network includes a plurality of nodes configured to implement an improved discovery process to efficiently and reliably pair with one another with low power consumption. A given node divides time into slots and then performs discovery operations during designated discovery windows. The discovery windows occur periodically but at different times of day. During a given discovery window, nodes attempt discovery using a reduced set of channels that varies from one window to the next, thereby increasing the likelihood that nodes operate on the same channel. Nodes also implement a pairing protocol to coordinate pairing, potentially avoiding situations where all nodes attempt to pair simultaneously. The discovery process may be completed expeditiously, thereby conserving power and extending the operational lifetime of nodes which rely on battery power.

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Published:

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