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

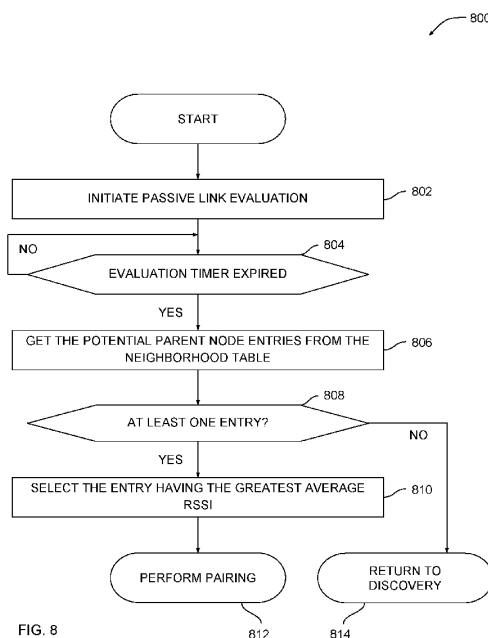


FIG. 8

(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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