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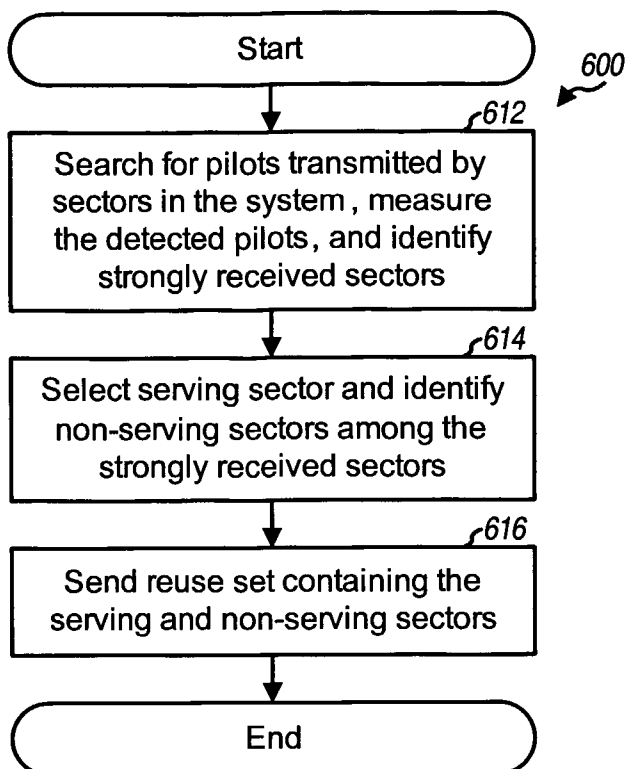
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(54) Title: **SOFT HANDOFF FOR REVERSE LINK IN A WIRELESS COMMUNICATION SYSTEM WITH FREQUENCY REUSE**



(57) Abstract: For soft handoff on the reverse link with restrictive reuse, a wireless terminal searches for pilots transmitted by sectors in a wireless system, measures the detected pilots, selects a serving sector (e.g., the strongest received sector), and identifies non-serving sectors that may receive high interference from the terminal. The serving sector assigns the terminal with subband(s) that are usable by the serving sector and unusable by the non-serving sectors. The terminal transmits data symbols on the assigned subbands to the serving and non-serving sectors. These sectors process the reverse link transmission from the terminal and obtain soft-decision symbols, which are estimates of the transmitted data symbols. The soft-decision symbols from co-located sectors may be combined and then decoded to obtain decoded packets. The sectors may also independently decode the soft-decision symbols, and the decoded packets from these sectors may be combined to obtain final decoded packets for the terminal.

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