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(54) Title: METHODS AND APPARATUSES FOR RELAYING DATA IN A WIRELESS COMMUNICATIONS SYSTEM

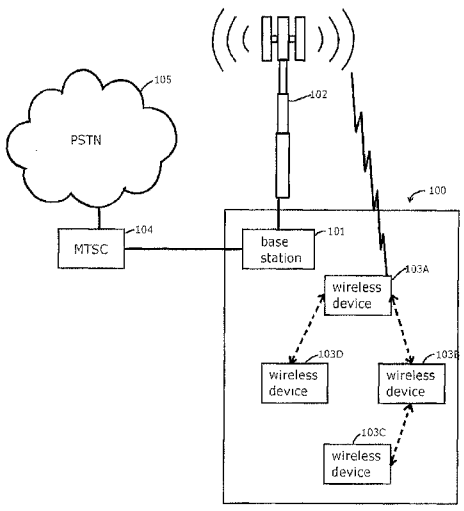


Figure 1

(57) Abstract: A method, wireless device and computer program product for expanding the coverage of a cellular network. A wireless device (e.g., cellular telephone) is able to communicate with a base station in a cell of the cellular network over a non-cellular interface via another wireless device in the cell through the use of multi-hopping. A wireless device may request permission to communicate with the base station over a non-cellular interface via hopping off another wireless device when its signal strength is below a threshold. Alternatively, a wireless device may receive a request to communicate with the base station over a non- cellular interface via hopping off the wireless device that sent the request when that wireless device has excess capacity in its bandwidth with the base station. By enabling wireless devices to communicate with a base station in such a manner, the effective coverage area of the cellular network is expanded and the effective capacity of the cellular network is improved.

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