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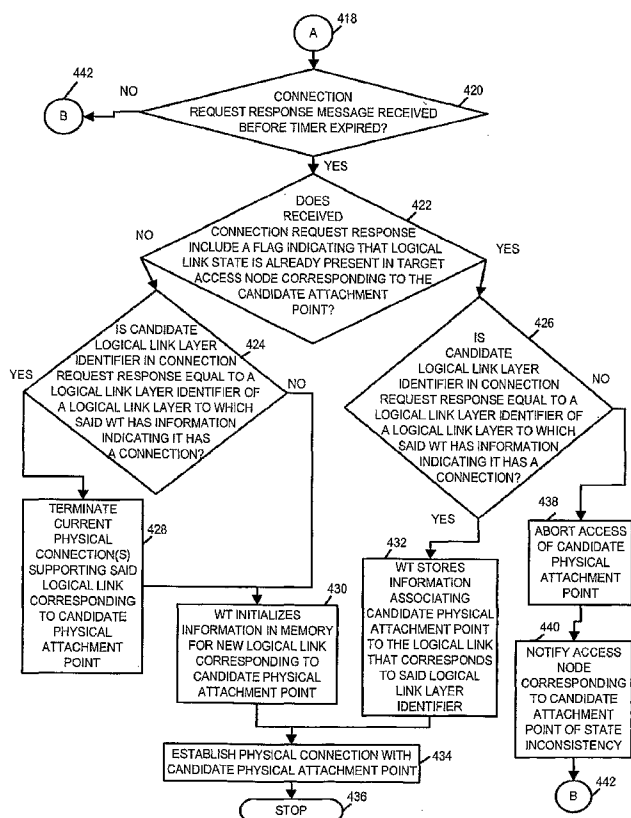
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(54) Title: COMMUNICATIONS METHODS AND APPARATUS FOR USING A SINGLE LOGICAL LINK WITH MULTIPLE PHYSICAL LAYER CONNECTIONS



(57) Abstract: A base station uses a common link layer controller corresponding to multiple physical attachment points, facilitating multiple concurrent wireless connections between different base station sector physical attachment points and the same wireless terminal using the same link layer link. A wireless terminal maintains multiple simultaneous wireless connections for the same link layer link. A packet of user data is fragmented into a plurality of grouping of MAC frames, thus a packet portion can be communicated over a connection. A single packet is sometimes communicated with different portions conveyed over different wireless connections. Automatic repeat request, implemented using the common link layer controller, allows for retransmission of a packet portion over a different connection than it was initially transmitted over. A wireless terminal sends connection request messages including lists of link layer identifiers associated with the wireless terminal. A base station sends response messages including an indication of whether logical link state was already present.

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