

(12) **United States Patent**
Larsson et al.

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- (54) **BROADCAST AS A TRIGGERING MECHANISM FOR ROUTE DISCOVERY IN AD-HOC NETWORKS**
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- (73) Assignee: **Telefonaktiebolaget LM Ericsson (publ)**, Stockholm (SE)
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- (52) **U.S. Cl.** **370/255; 370/351; 370/400**
- (58) **Field of Search** 370/351, 400, 370/401, 328, 254, 255
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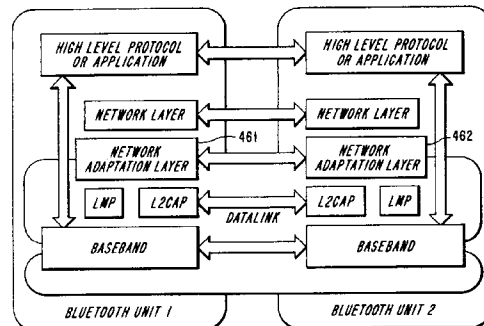
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(57) **ABSTRACT**

A method and/or an apparatus which places a broadcast message which the source expects a reply message in a broadcast message for route discovery. The combined message is broadcast throughout the ad-hoc network. When the combined broadcast message is received at the destination node, the destination node generates a response message including a reply message to the broadcast message that the source node expects a reply. The response message is sent back to the source node over the route which the combined broadcast message traveled to the destination node.

36 Claims, 11 Drawing Sheets



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Fig. 1
Prior Art

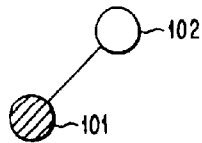


Fig. 2
Prior Art

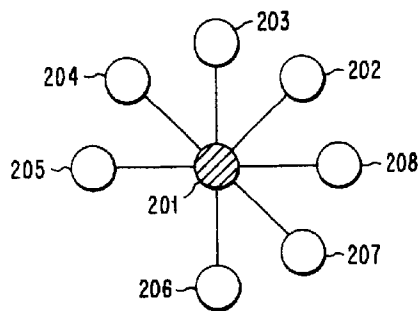


Fig. 3
Prior Art

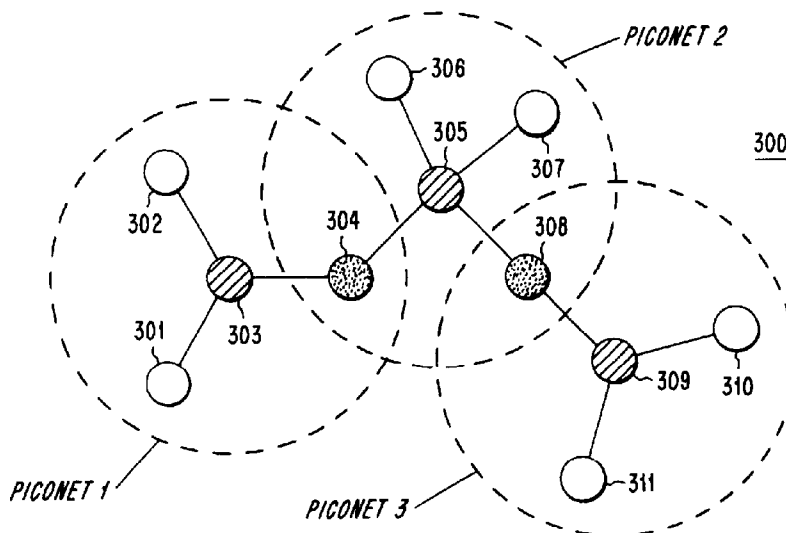


Fig. 4a
Prior Art

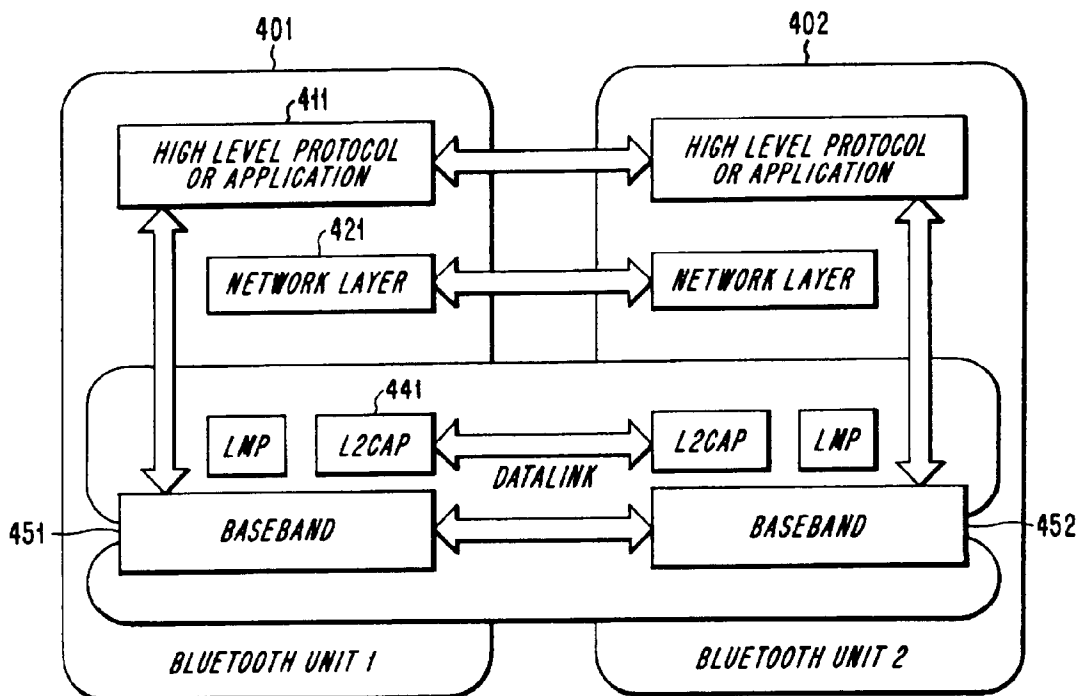


Fig. 4b

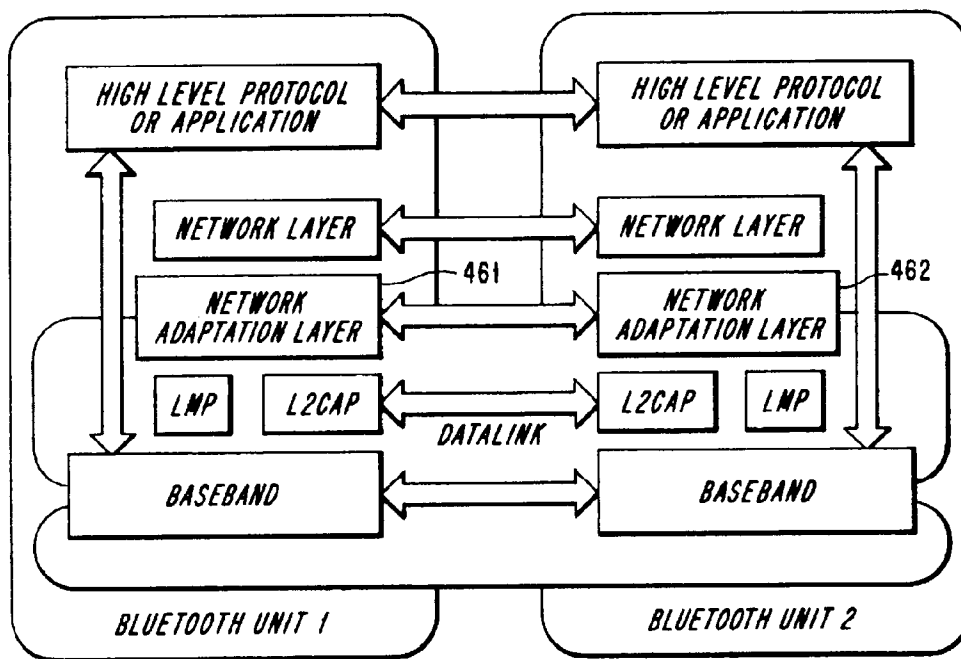


Fig. 5
Prior Art

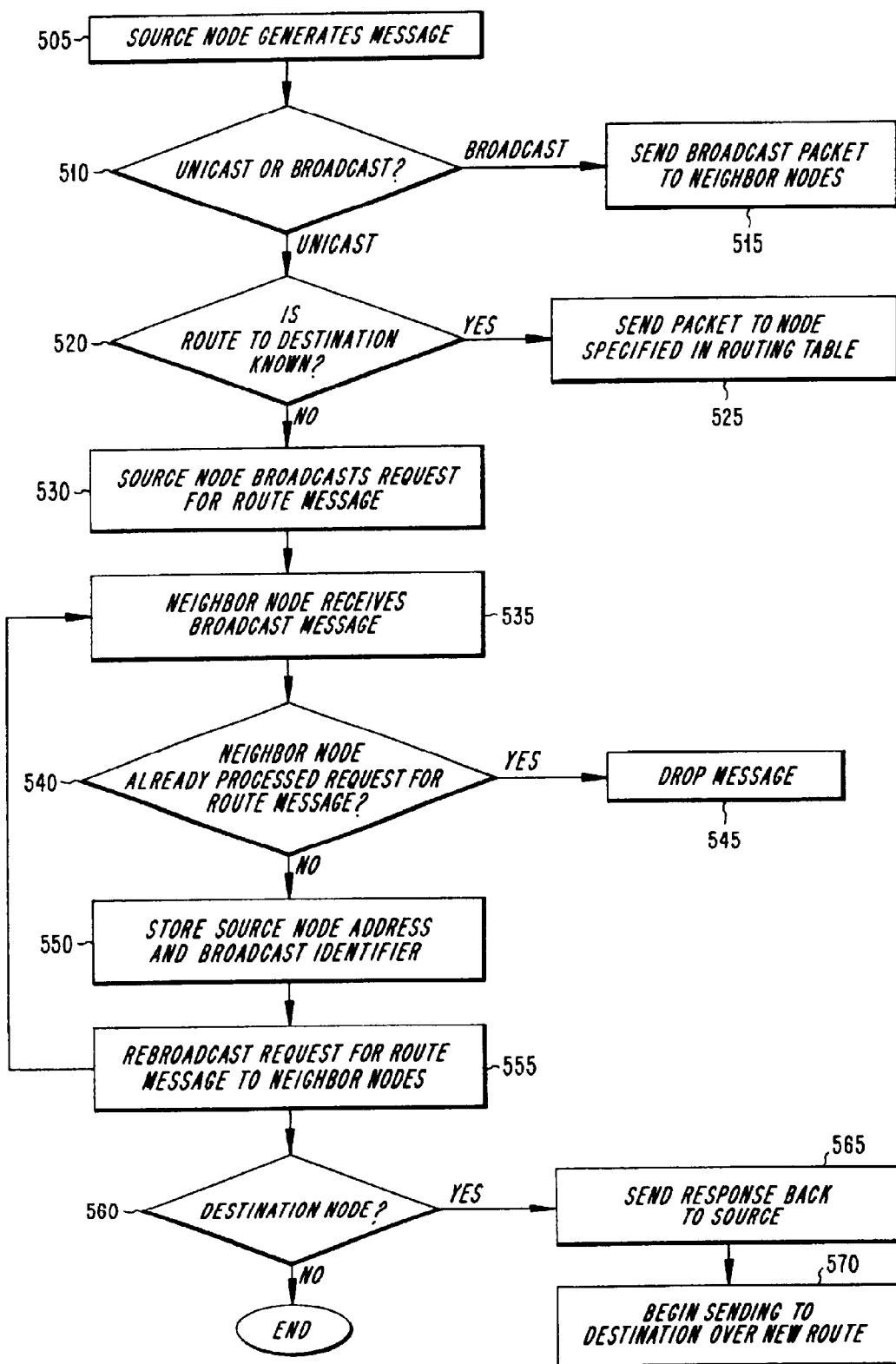
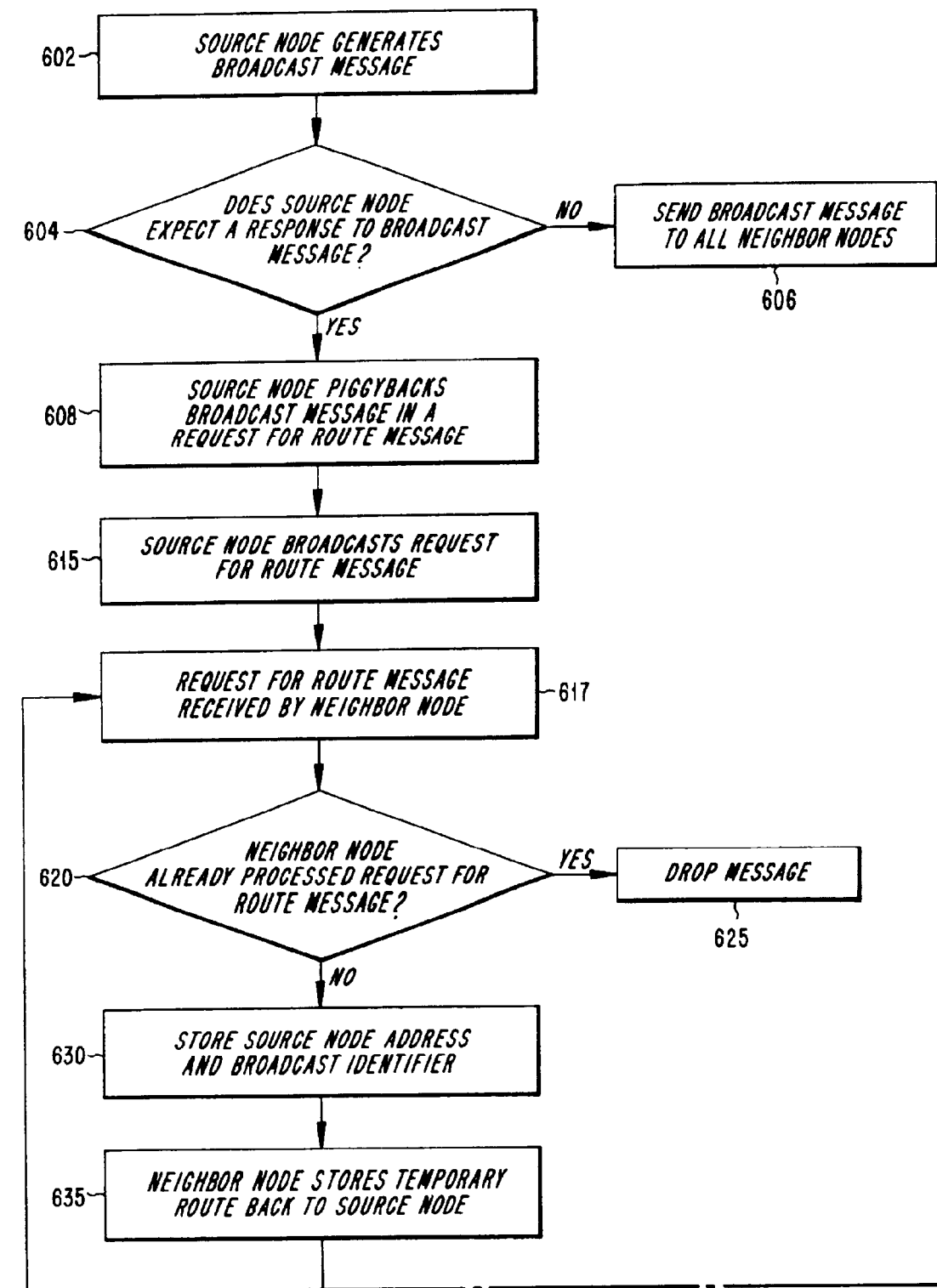


Fig. 6a



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