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(54) **Title:** DETERMINING NETWORK RELIABILITY USING MESSAGE SUCCESS RATES

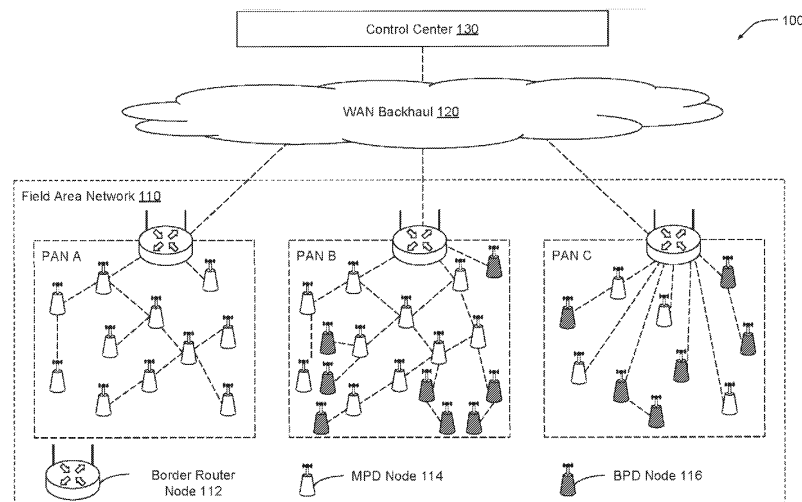


FIGURE 1

(57) **Abstract:** Techniques for evaluating connections between nodes include a first node determining one or more first accumulated message success rates associated with transmitting messages from the first node to a target destination via an established parent node and with receiving messages from the target destination via the established parent node; determining, based on the one or more first accumulated message success rates, that a search for a different parent node should be performed; identifying a plurality of potential parent nodes; computing, for each potential parent node, one or more second accumulated message success rates associated with transmitting messages from the first node to a target destination via the potential parent node and with receiving messages from the target destination via the potential parent node; and based on the second accumulated message success rates, selecting a new parent node from the plurality of potential parent nodes or maintaining the established parent node.

[Continued on next page]

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