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Bruckman

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(54) **MULTIPOINT TO MULTIPOINT COMMUNICATION OVER RING TOPOLOGIES**

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H04L 12/26 (2006.01)

(52) **U.S. Cl.** **370/232**; 370/231; 370/235

(58) **Field of Classification Search** 370/229–235, 370/237–238, 395.2–395.21
See application file for complete search history.

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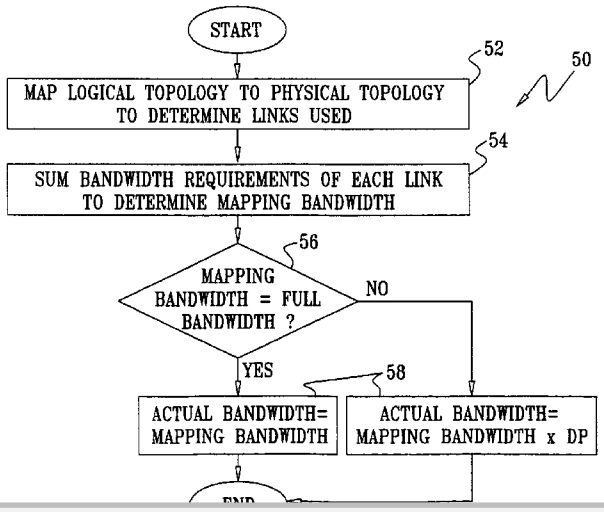
(57) **ABSTRACT**

A method for assigning bandwidth in a network including nodes coupled by links arranged in a physical topology, the method including: defining between the nodes logical connections associated with a data transmission service to be provided over the network, the logical connections having a connection topology different from the physical topology, and determining respective bandwidth requirements for the logical connections based on parameters of the service. The method further includes mapping the connection topology to the physical topology, so that each of the logical connections is associated with one or more links of the physical topology, and allocating a bandwidth for the service on each of the links in response to the bandwidth requirements of the logical connections and to the mapping.

30 Claims, 4 Drawing Sheets



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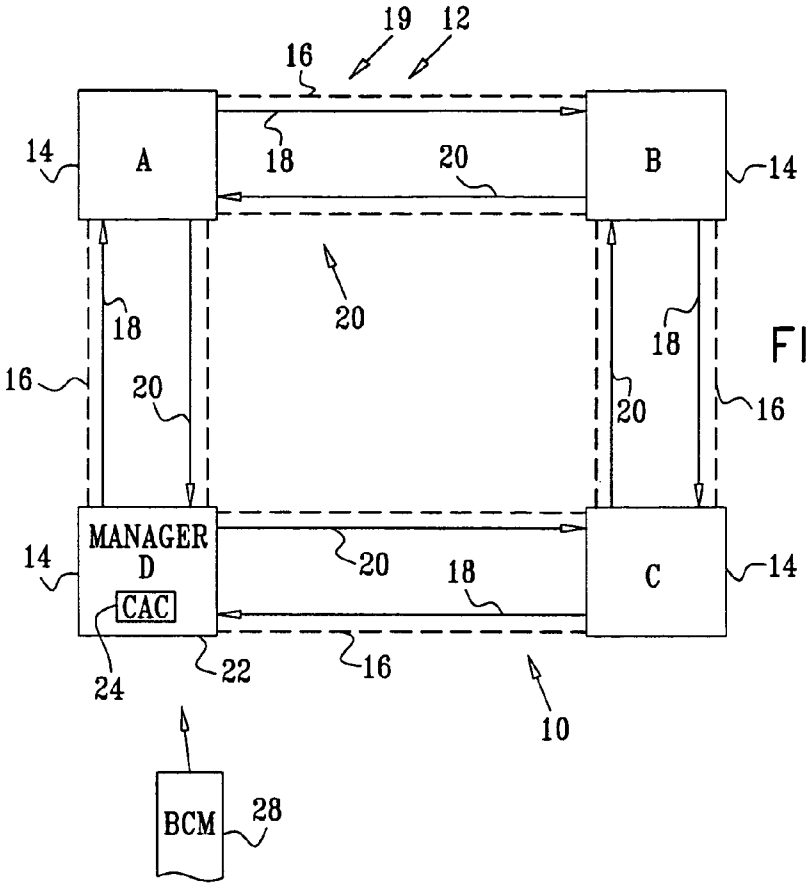


FIG. 1

FIG. 2

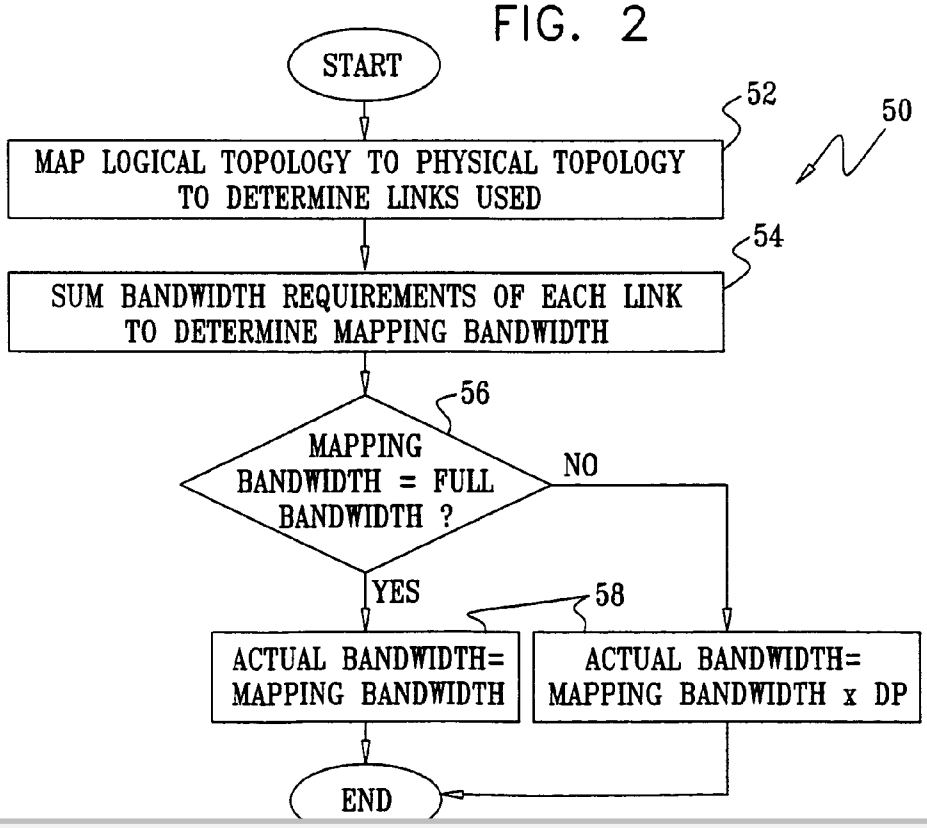


FIG. 3

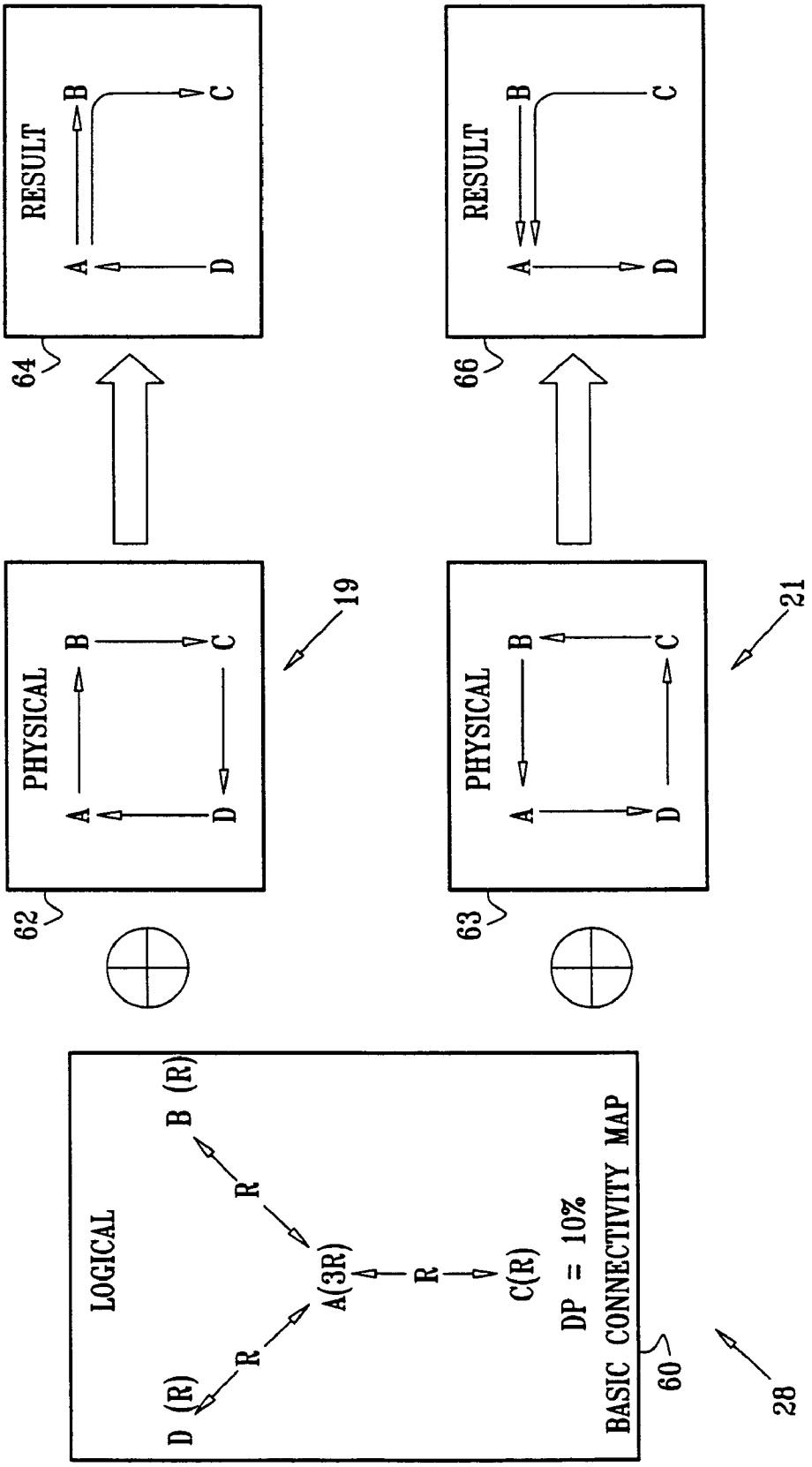
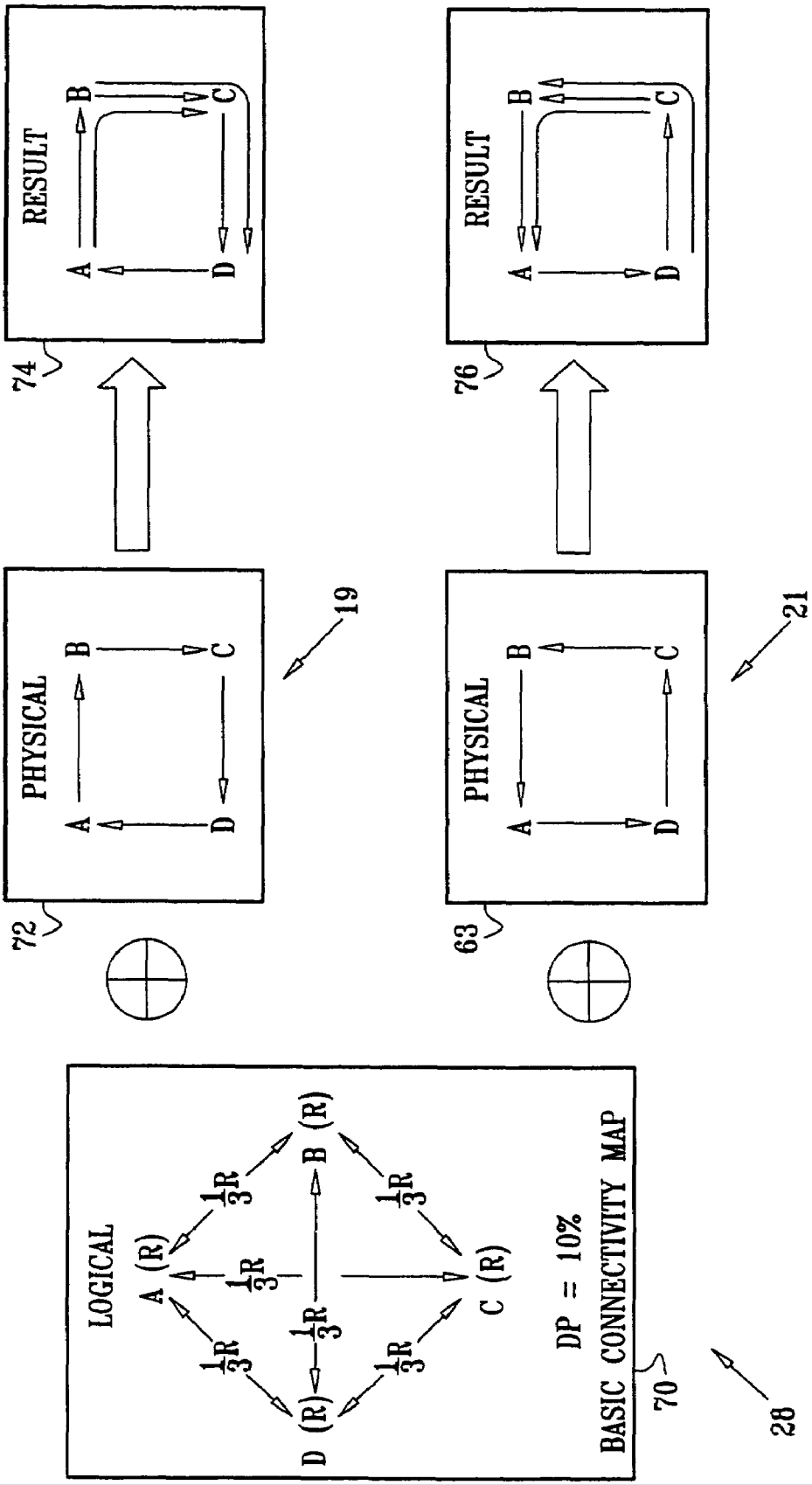


FIG. 4



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