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# (12) United States Patent

## Subramanian et al.

#### (54) DISTRIBUTED COMPUTATION IN NETWORK DEVICES

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- (\*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 1839 days.

This patent is subject to a terminal disclaimer.

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- (22) Filed: Dec. 13, 2000

#### **Related U.S. Application Data**

- (60) Provisional application No. 60/239,484, filed on Oct. 11, 2000.
- (51) Int. Cl. *G06F 15/16* (2006.01) *G06F 15/173* (2006.01)

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#### (45) **Date of Patent:** \*Dec. 28, 2010

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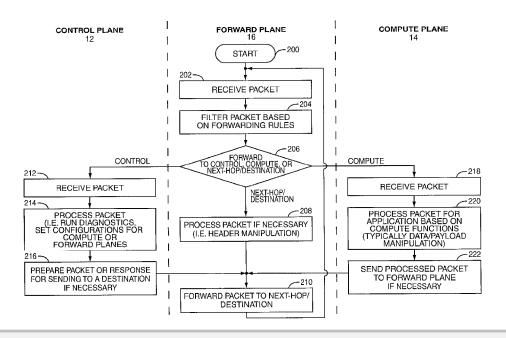
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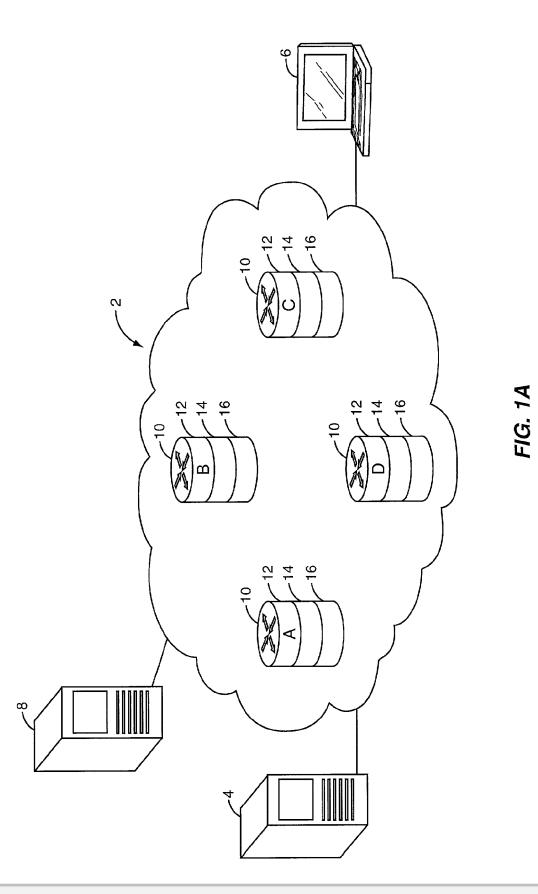
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#### (57) ABSTRACT

The present invention facilitates routing traffic over a network and distributing application level support among multiple routing devices during routing. Routing nodes are configured to process the content of the traffic to provide the requisite application level support. The traffic is routed, in part, based on the resources available for providing the processing. The processing of the traffic may be distributed throughout the network based on processing capacity of the routing nodes at any given time and given the amount of network congestion.

#### 50 Claims, 9 Drawing Sheets





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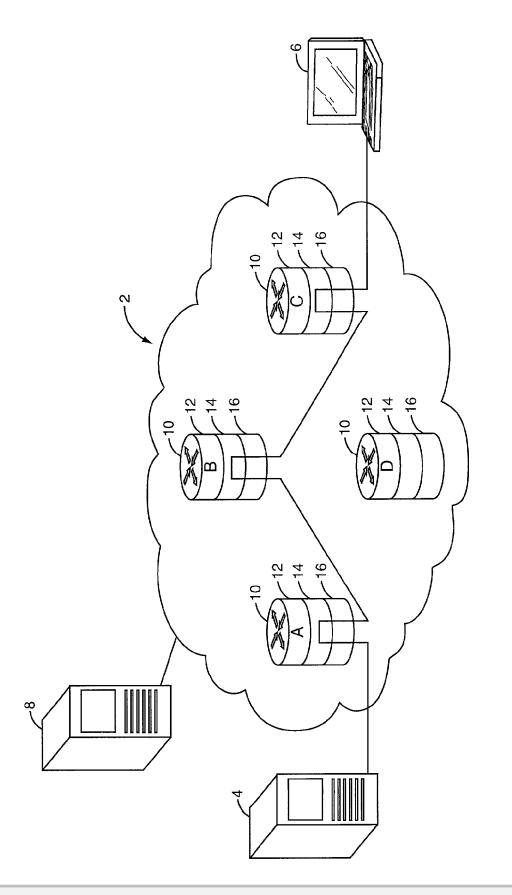
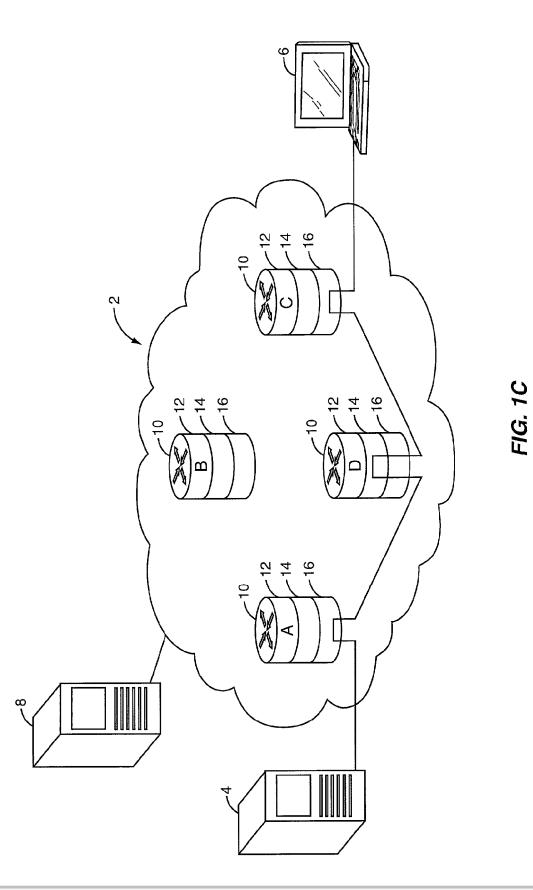


FIG. 1B

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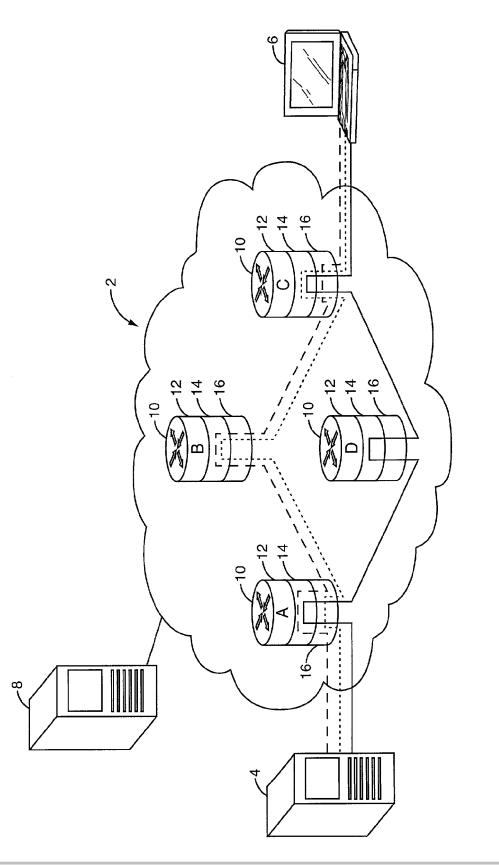


FIG. 1D

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