US005623492A

United States Patent [19]

Teraslinna

[11] Patent Number: 5,623,492

[45] Date of Patent: Apr. 22, 1997

[54] **METHODS AND SYSTEMS FOR MANAGING BANDWIDTH RESOURCES IN A FAST PACKET SWITCHING NETWORK**

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[73] Assignee: **U S West Technologies, Inc.**, Boulder, Colo.

[21] Appl. No.: **410,369**

[22] Filed: **Mar. 24, 1995**

[51] **Int. Cl.**[6] **H04J 3/24**

[52] **U.S. Cl.** **370/397**; 370/468

[58] **Field of Search** 370/60, 60.1, 58.1–58.3, 370/94.1, 94.3, 17, 118, 94.2, 15, 16, 110.1, 112, 85.2

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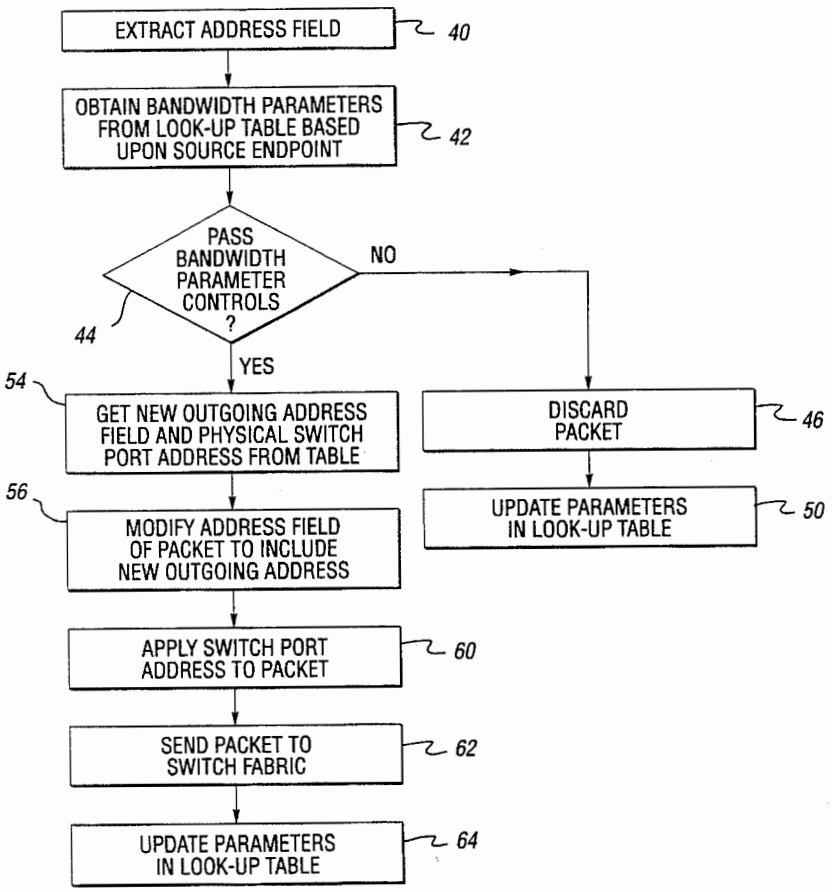
Primary Examiner—Douglas W. Olms
Assistant Examiner—Ajit Patel
Attorney, Agent, or Firm—Brooks & Kushman

[57] **ABSTRACT**

Methods and systems for resource management in a fast packet switching communication network are disclosed. A packet containing an address field identifying a source endpoint and a destination endpoint is received. A bandwidth constraint based upon the source endpoint, but independent of the destination endpoint, is enforced for the packet. In a communication network wherein a plurality of virtual connections are provisioned from a single source endpoint to a plurality of destination endpoints, the bandwidth constraint is associated with bandwidth usage over all of the virtual connections.

6 Claims, 6 Drawing Sheets



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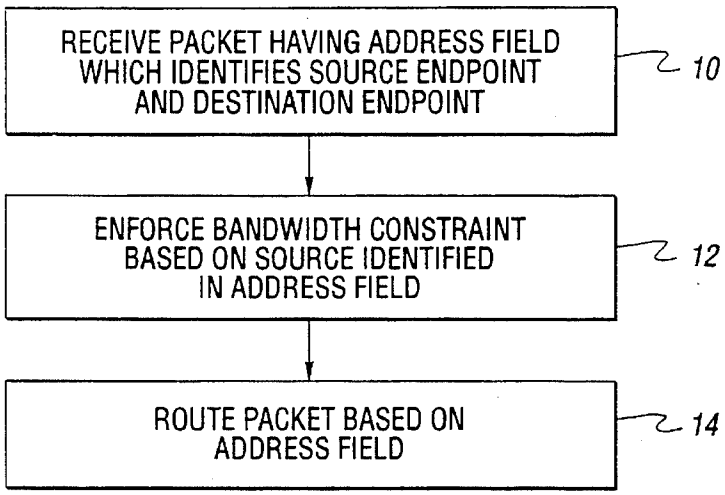

Fig. 1

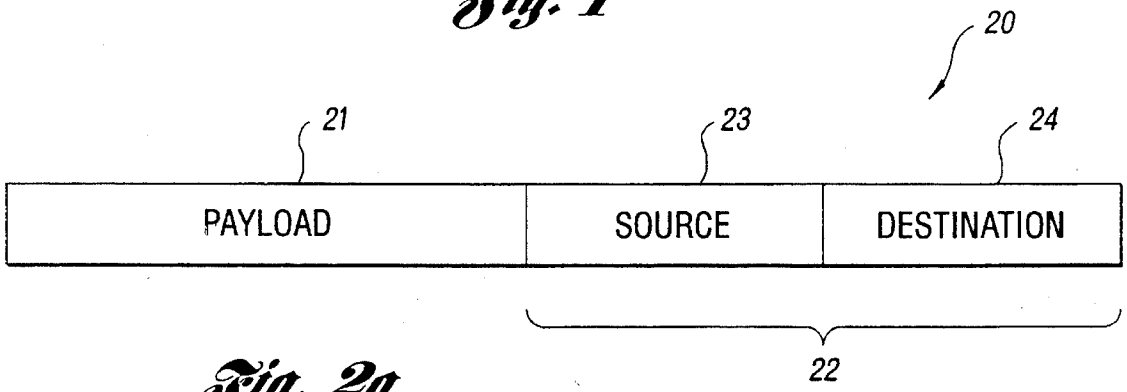

Fig. 2a

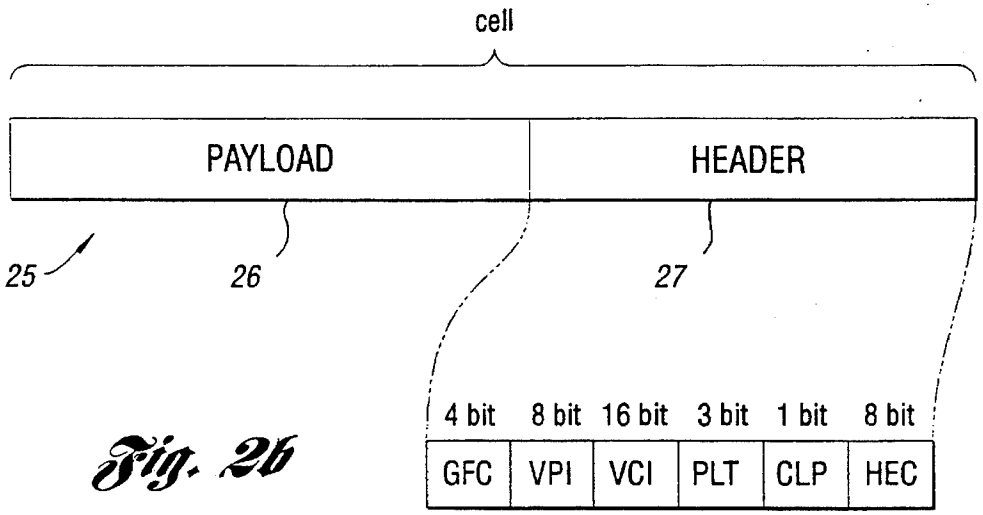

Fig. 2b

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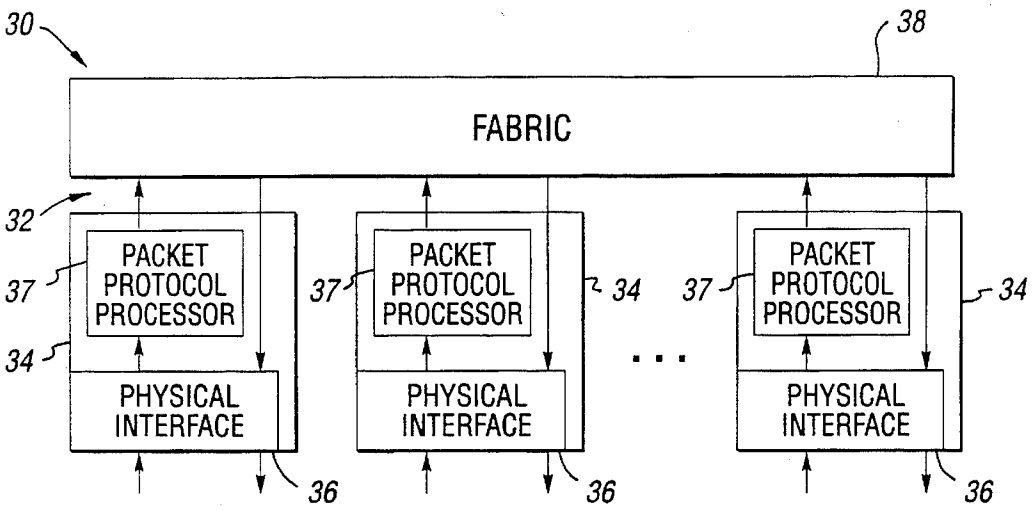

Fig. 3

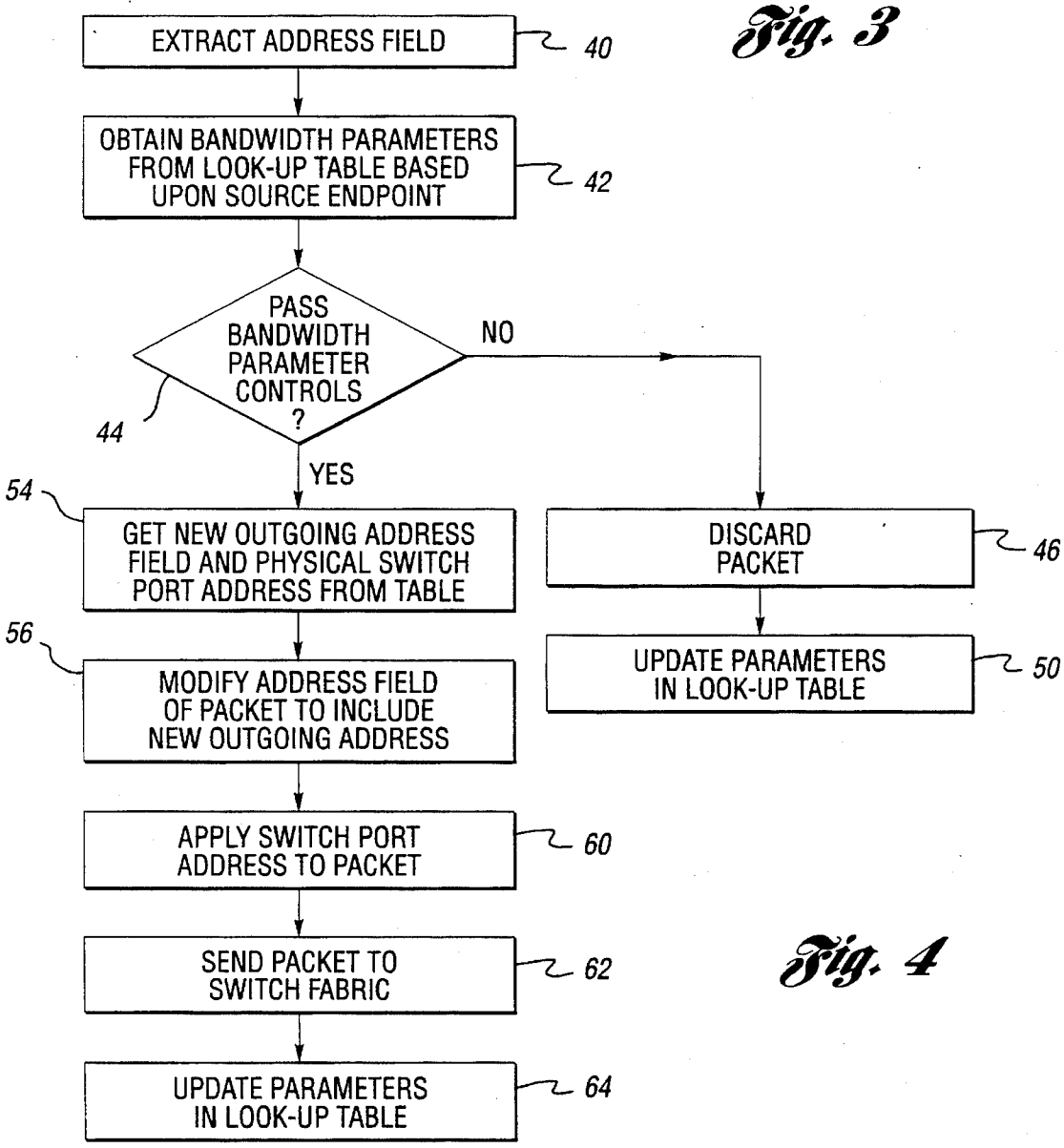

Fig. 4

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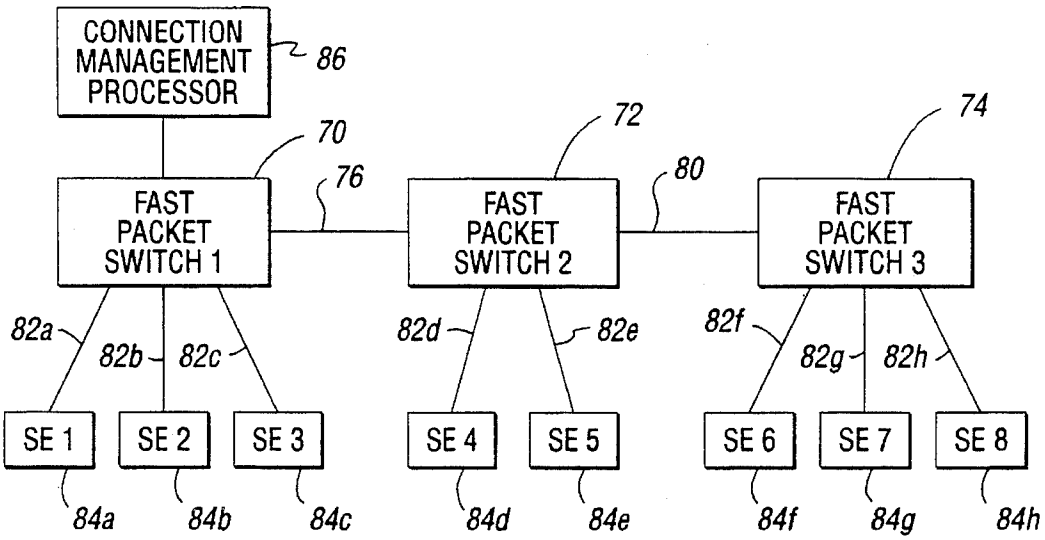

Fig. 5

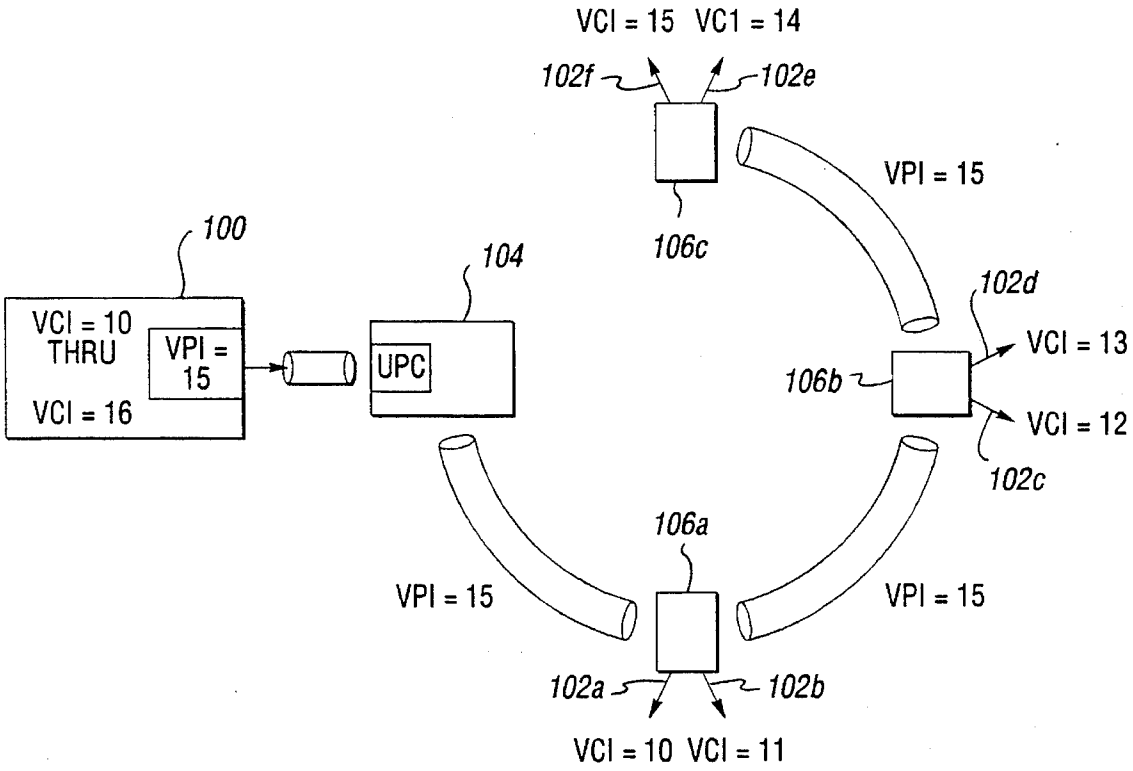

Fig. 6

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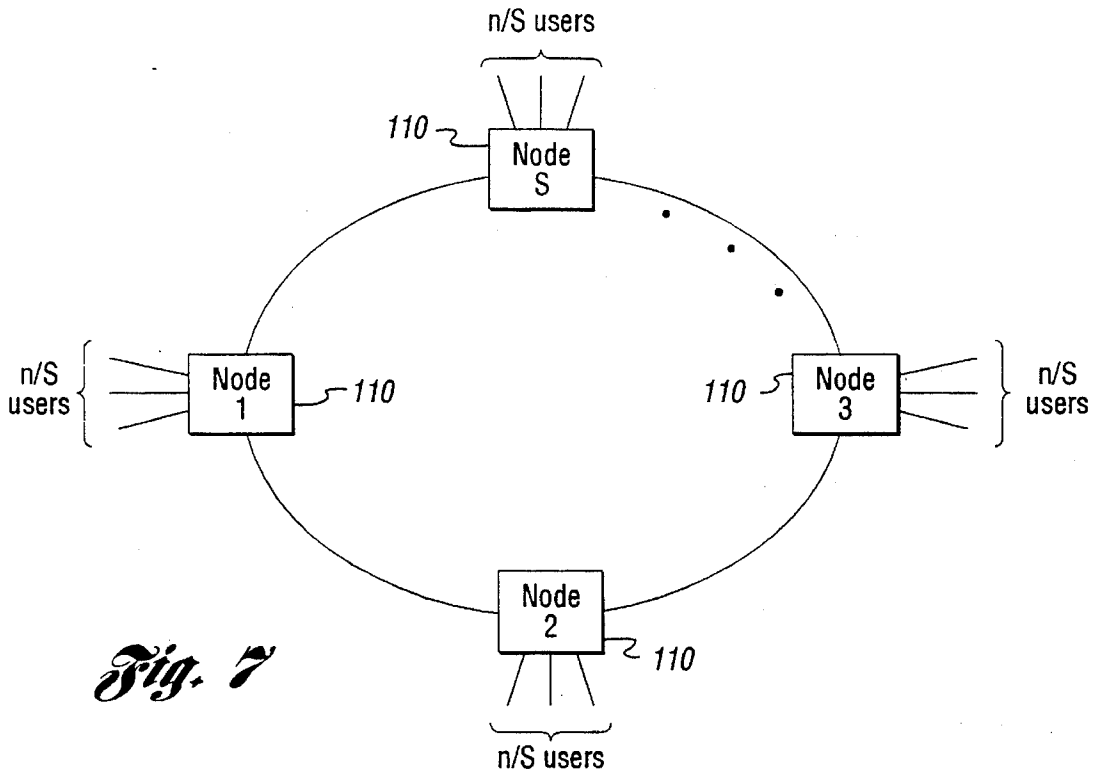

Fig. 7

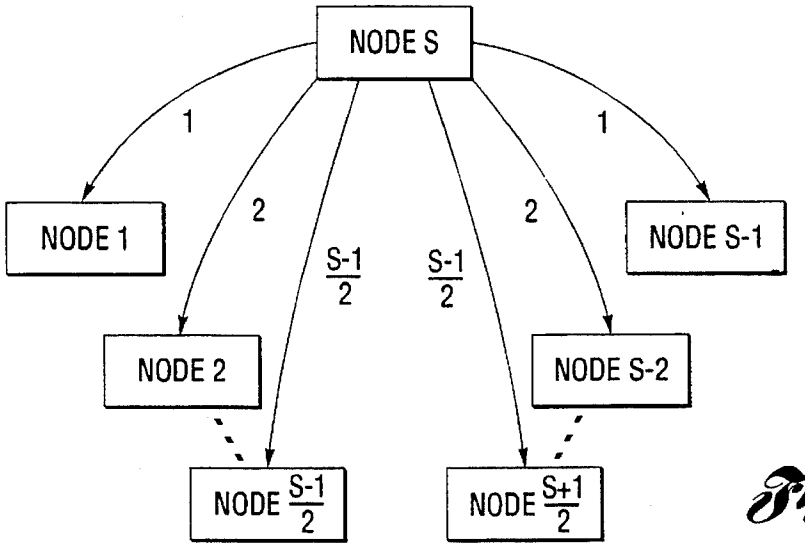

Fig. 8

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