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**Turner et al.**

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(54) **NETWORK DEVICE HAVING ACCOUNTING SERVICE CARD**

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(73) Assignee: **Juniper Networks, Inc.**, Sunnyvale, CA (US)

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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 1034 days.

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(21) Appl. No.: **10/228,150**

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(51) **Int. Cl.**  
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(57) **ABSTRACT**

(52) **U.S. Cl.** ..... **370/253; 370/244; 370/252; 370/392**

A network device integrates accounting functionality for generation of flow statistics with packet intercept functionality to provide a comprehensive traffic analysis environment. The device comprises a set of network interface cards to receive packets from a network, and a set of accounting service cards to calculate flow statistics for the packets. The device further comprises a control unit to receive the network packets from the interface cards and distribute the packets to the set of accounting service cards. The accounting service card comprises an interface for insertion within a slot of a network device. Accounting service cards may be added to easily scale the network device to support higher bandwidth communication links, such as OC-3, OC-12, OC048 and higher rate links. Additional accounting service cards may be used for purposes of redundancy to support continuous, uninterrupted packet processing and accounting in the event of a card failure.

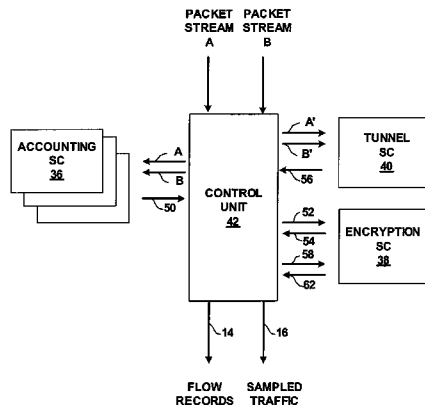
(58) **Field of Classification Search** ..... 370/235, 370/242-244, 250, 252, 253, 389, 392, 396, 370/469, 471; 709/223, 224, 229  
See application file for complete search history.

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**24 Claims, 9 Drawing Sheets**



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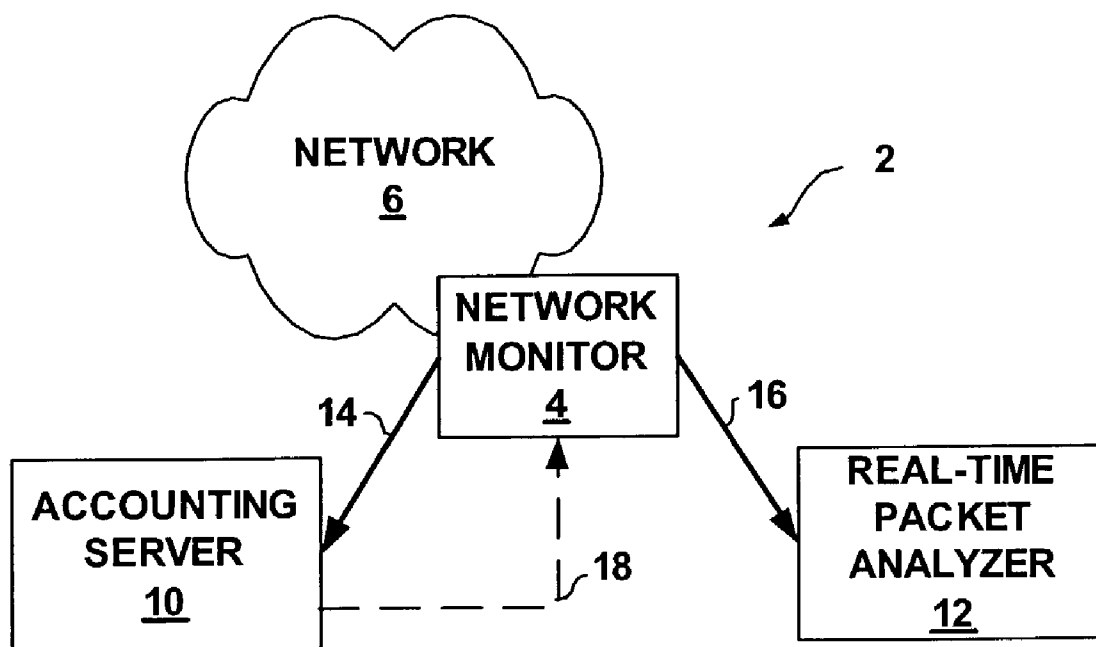


FIG. 1

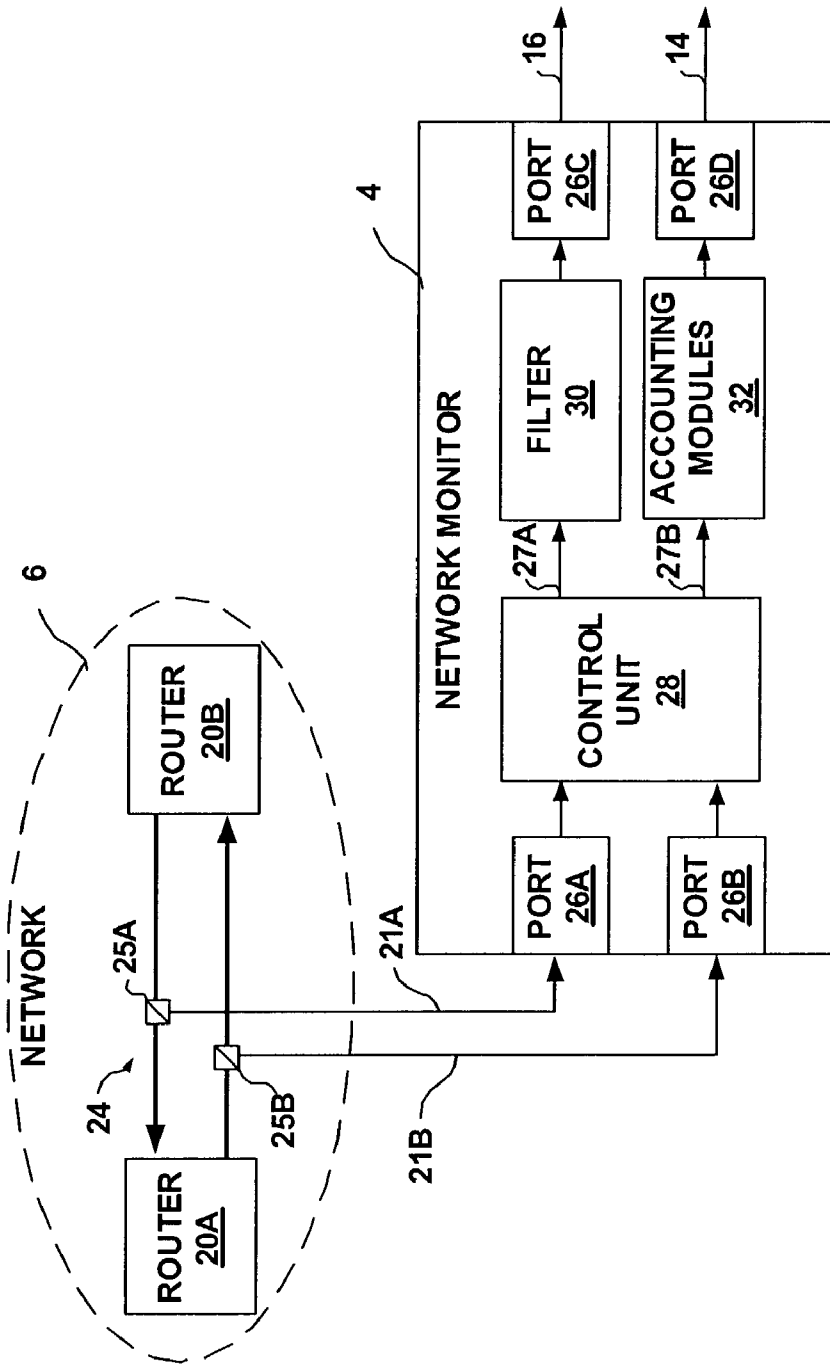


FIG. 2

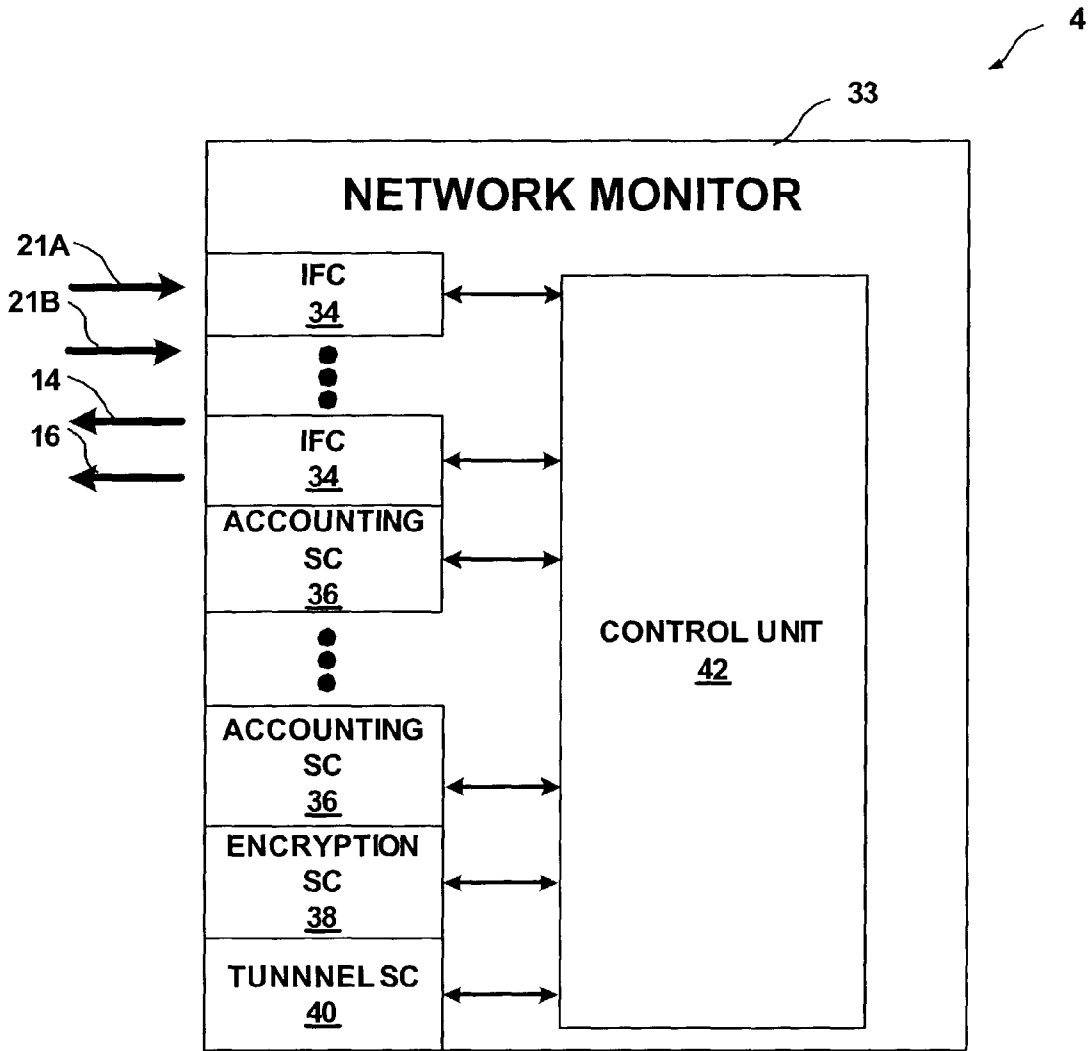


FIG. 3

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