United States Patent [19]

Maria et al.

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[54] **METHOD AND APPARATUS FOR UPDATING ADDRESS LISTS FOR A PACKET FILTER PROCESSOR**

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[*] Notice: This patent issued on a continued prosecution application filed under 37 CFR 1.53(d), and is subject to the twenty year patent term provisions of 35 U.S.C. 154(a)(2).

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[51] **Int. Cl.**^{7} **G06F 11/30**
[52] **U.S. Cl.** **713/201**; 713/154
[58] **Field of Search** 713/200, 201, 713/202, 100, 153, 154; 709/225, 229, 242; 707/9; 380/23, 25

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[57] **ABSTRACT**

A dedicated data packet filtering processor whose only function is to filter data packets based on a list of source IP addresses stored in high-speed memory of the processor. The processor has a specialized operating system which controls the operation of the processor. The processor examines the source IP address of each received data packet to determine if the source IP address matches one of the stored source IP addresses, and if there is a match, either discards or forwards the data packet depending on the processor configuration. The list of source IP addresses are updated by a service provider having a central administrative site. The service provider keeps these lists up to data and periodically updates the source IP addresses stored in the random access memory of the dedicated IP filtering processors.
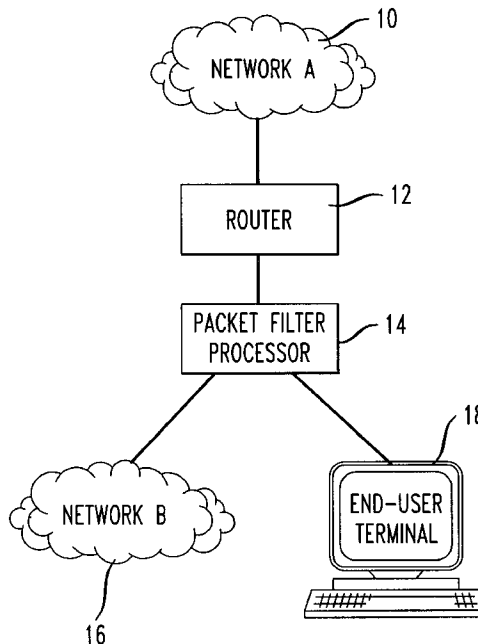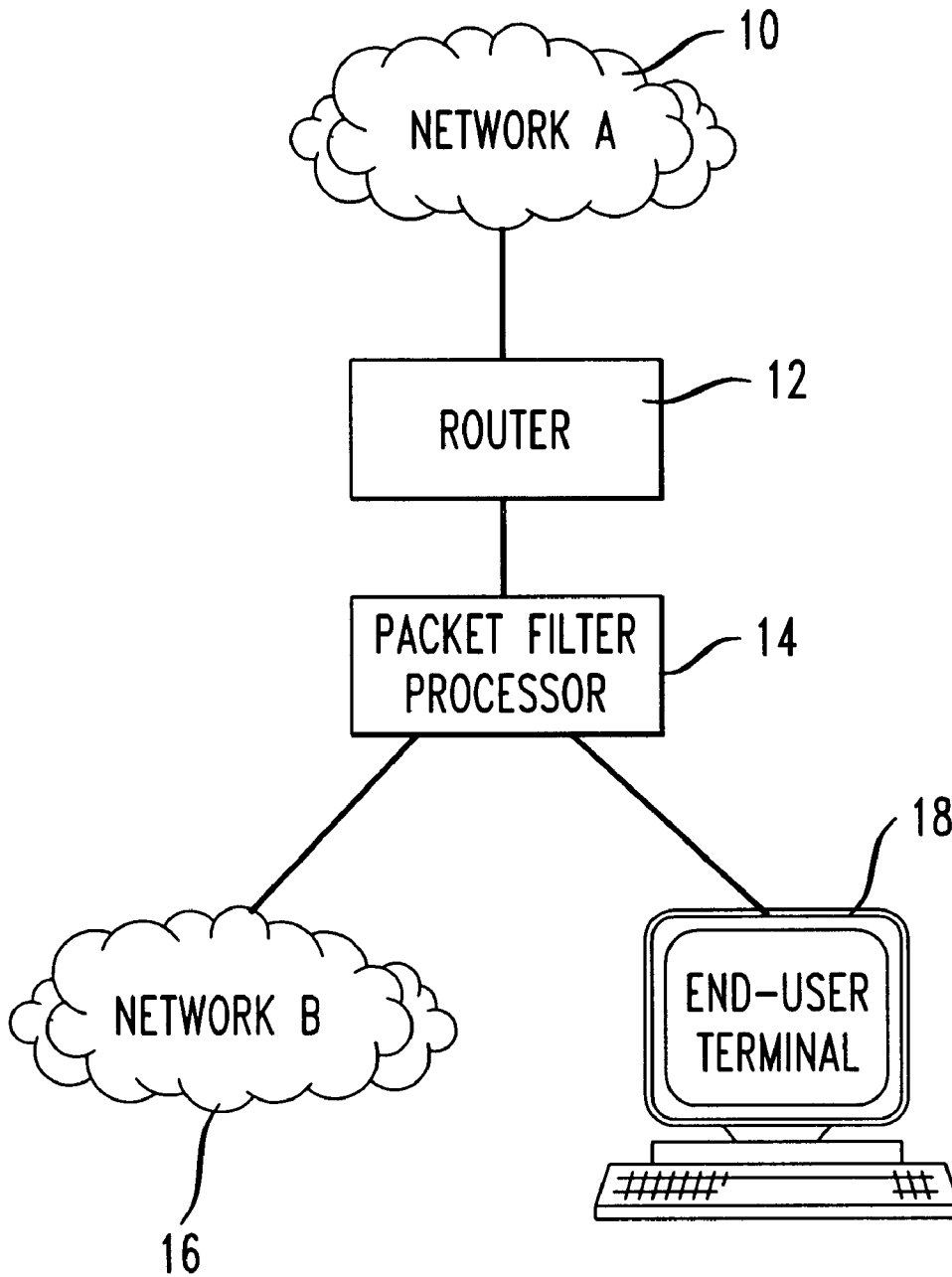
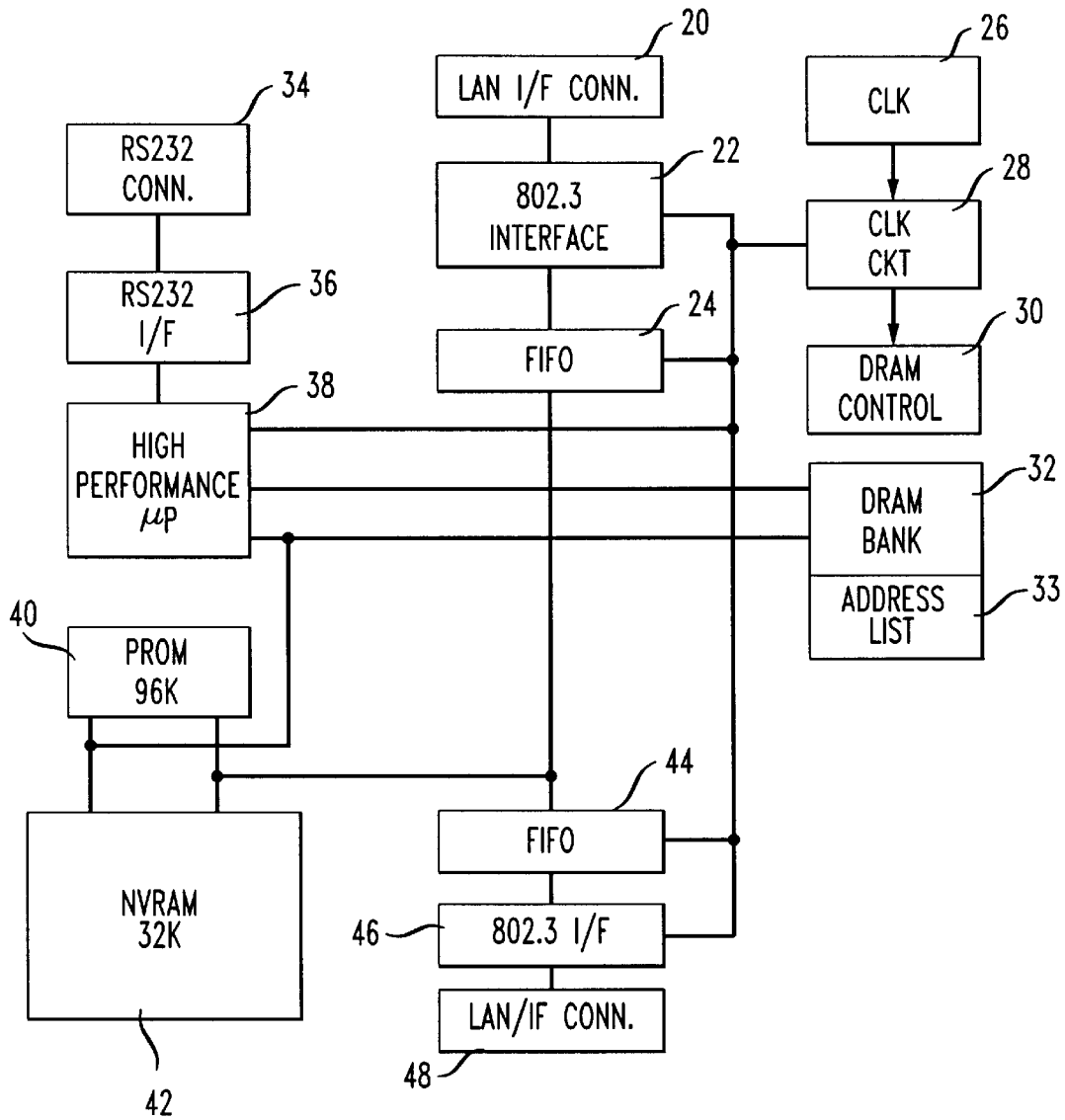**9 Claims, 4 Drawing Sheets**
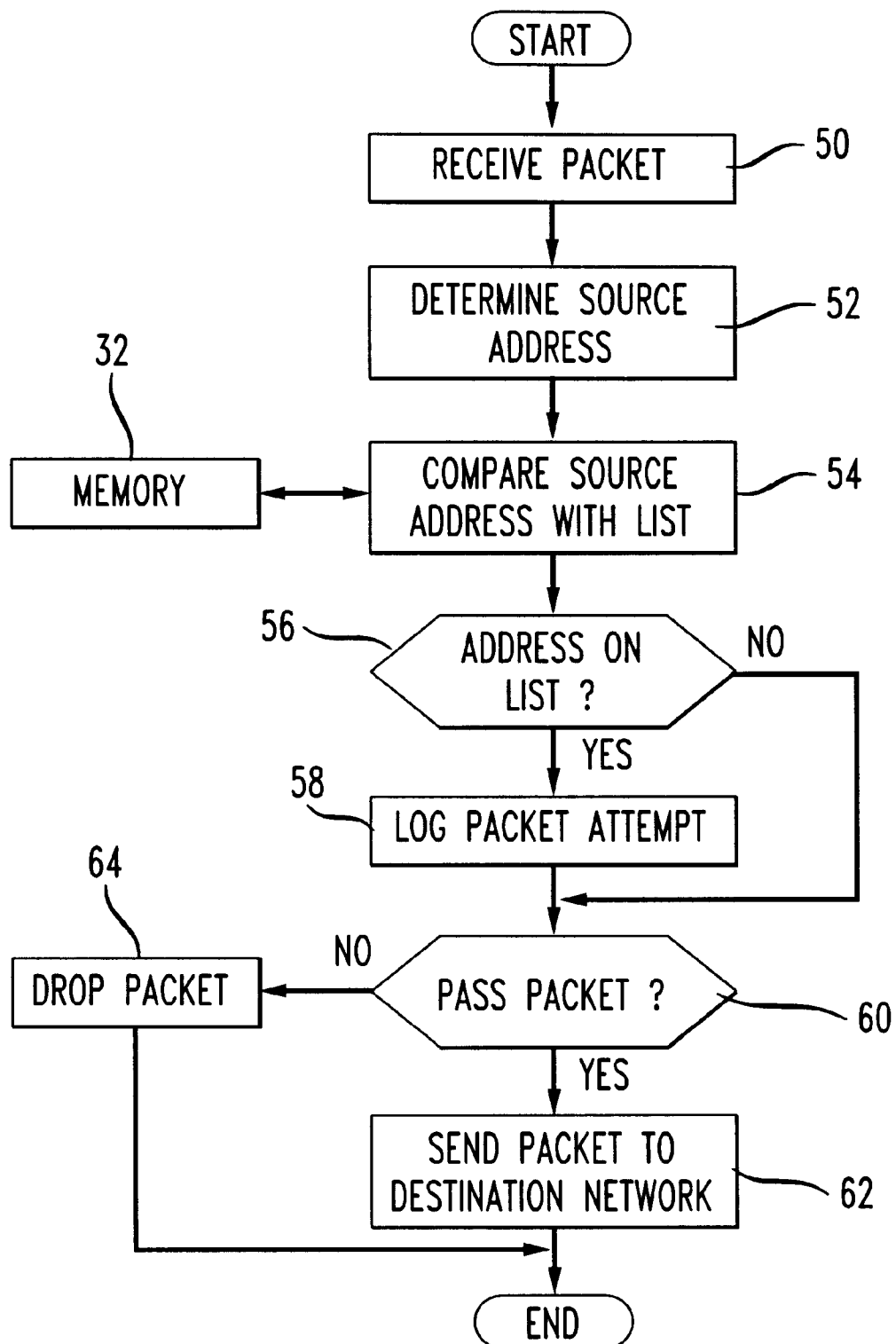
FIG. 1

FIG. 2

FIG. 3

FIG. 4

DOCKET ALARM
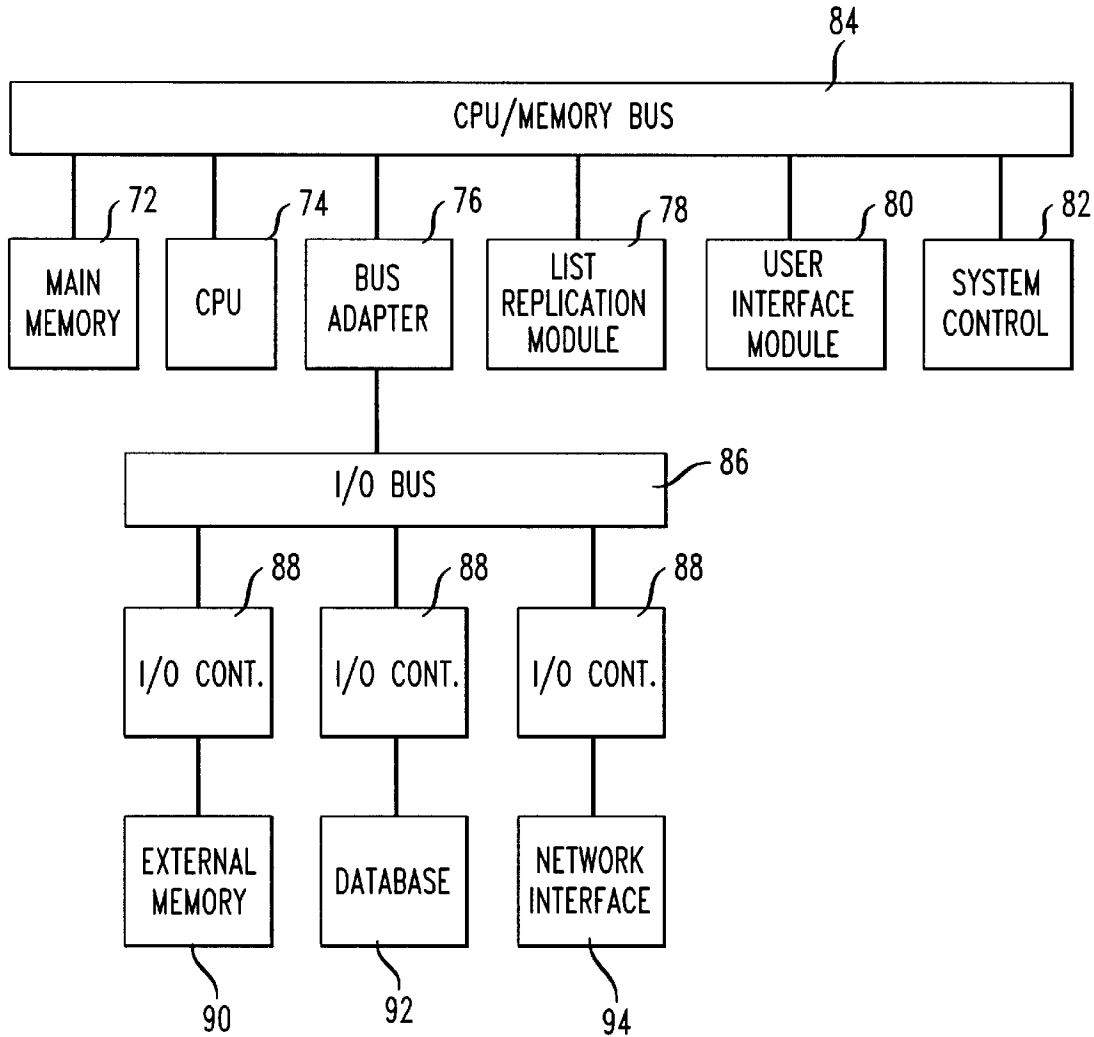
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