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Kim

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(54) **DISK SYSTEM ADAPTED TO BE DIRECTLY ATTACHED TO NETWORK**

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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 0 days.

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(Continued)

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(51) **Int. Cl.**

(57) **ABSTRACT**

G06F 15/16 (2006.01)
G06F 3/00 (2006.01)
G06F 12/00 (2006.01)

A network-attached disk (NAD) system is disclosed that includes an NAD device for receiving a disk access command from a host through a network, and a device driver at the host for controlling the NAD device through the network, where the device driver creates a virtual host bus adapter so that the host recognizes the NAD device as if it is a local device to the host. The host may run the UNIX or Windows family of operating systems. The NAD device includes a disk for storing data, a disk controller for controlling the disk, and a network adapter for receiving a disk access command from the host through a network port.

(52) **U.S. Cl.** **709/217**; 709/218; 709/236; 709/246; 709/250; 710/5; 710/36; 711/110

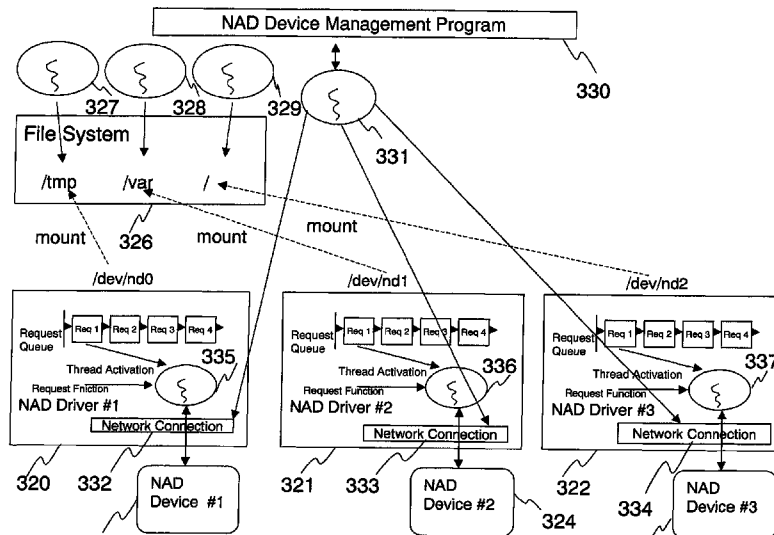
(58) **Field of Classification Search** 709/217, 709/218, 236, 246, 250; 711/110; 710/5
See application file for complete search history.

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22 Claims, 24 Drawing Sheets



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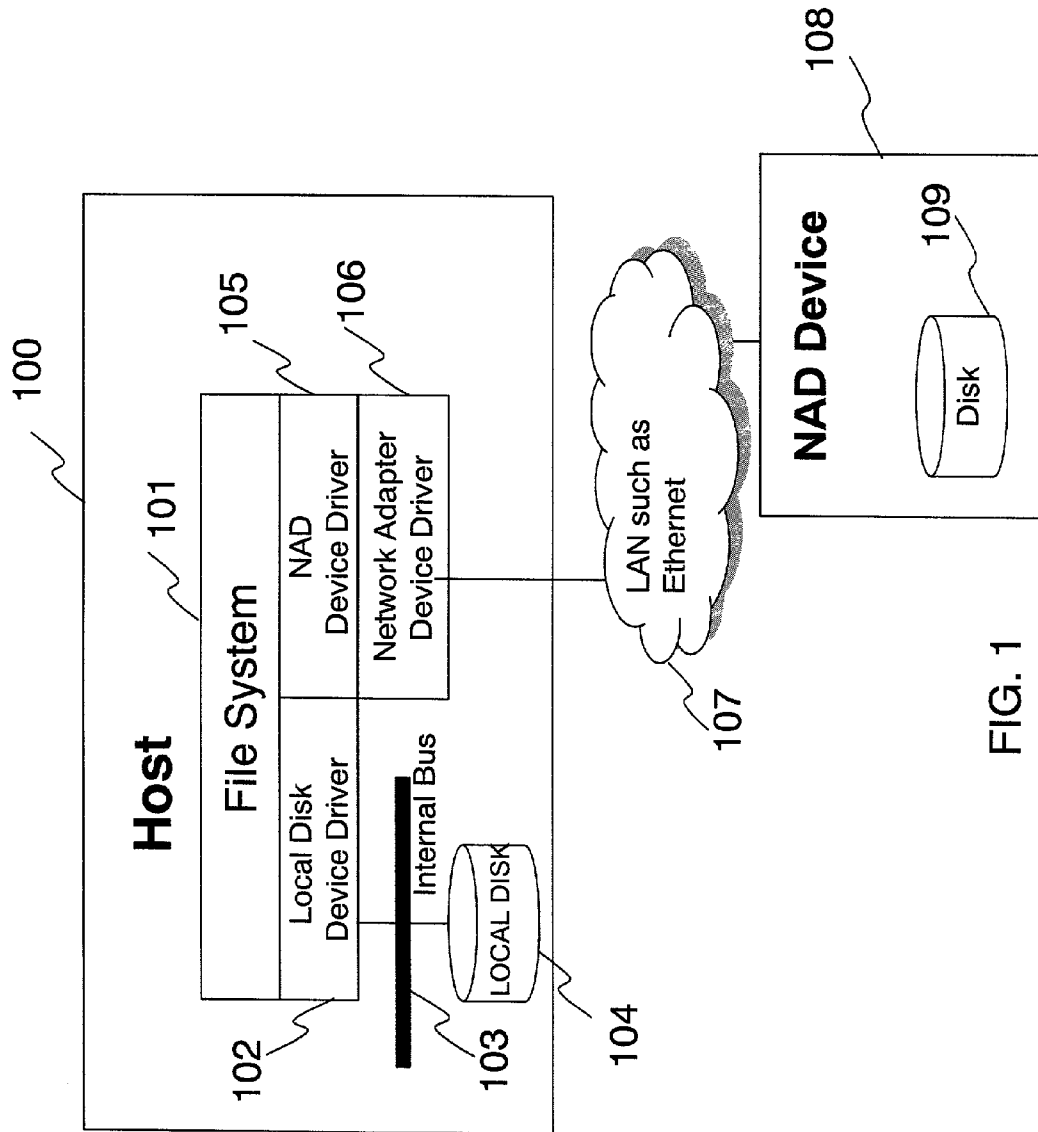


FIG. 1

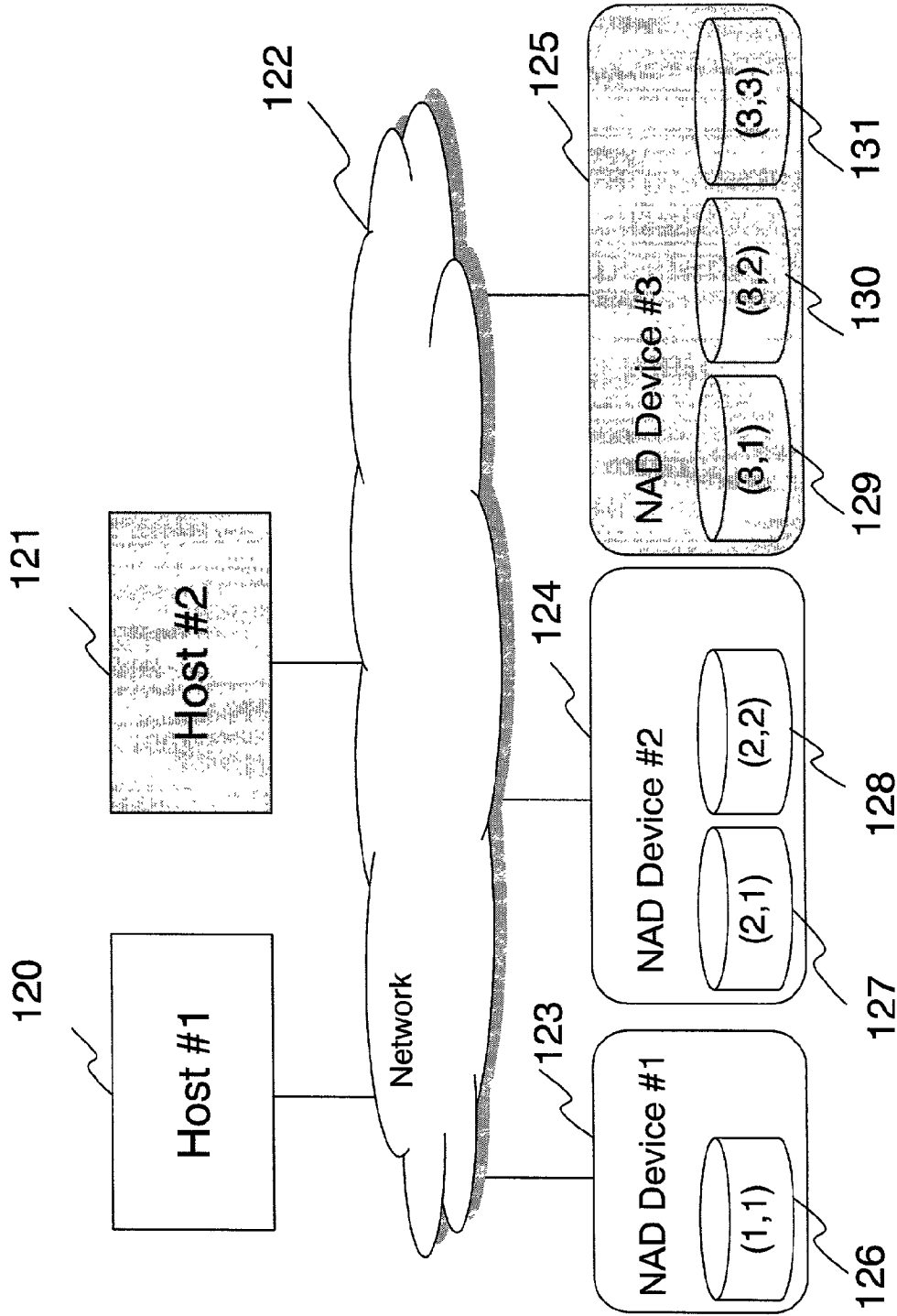


FIG. 2

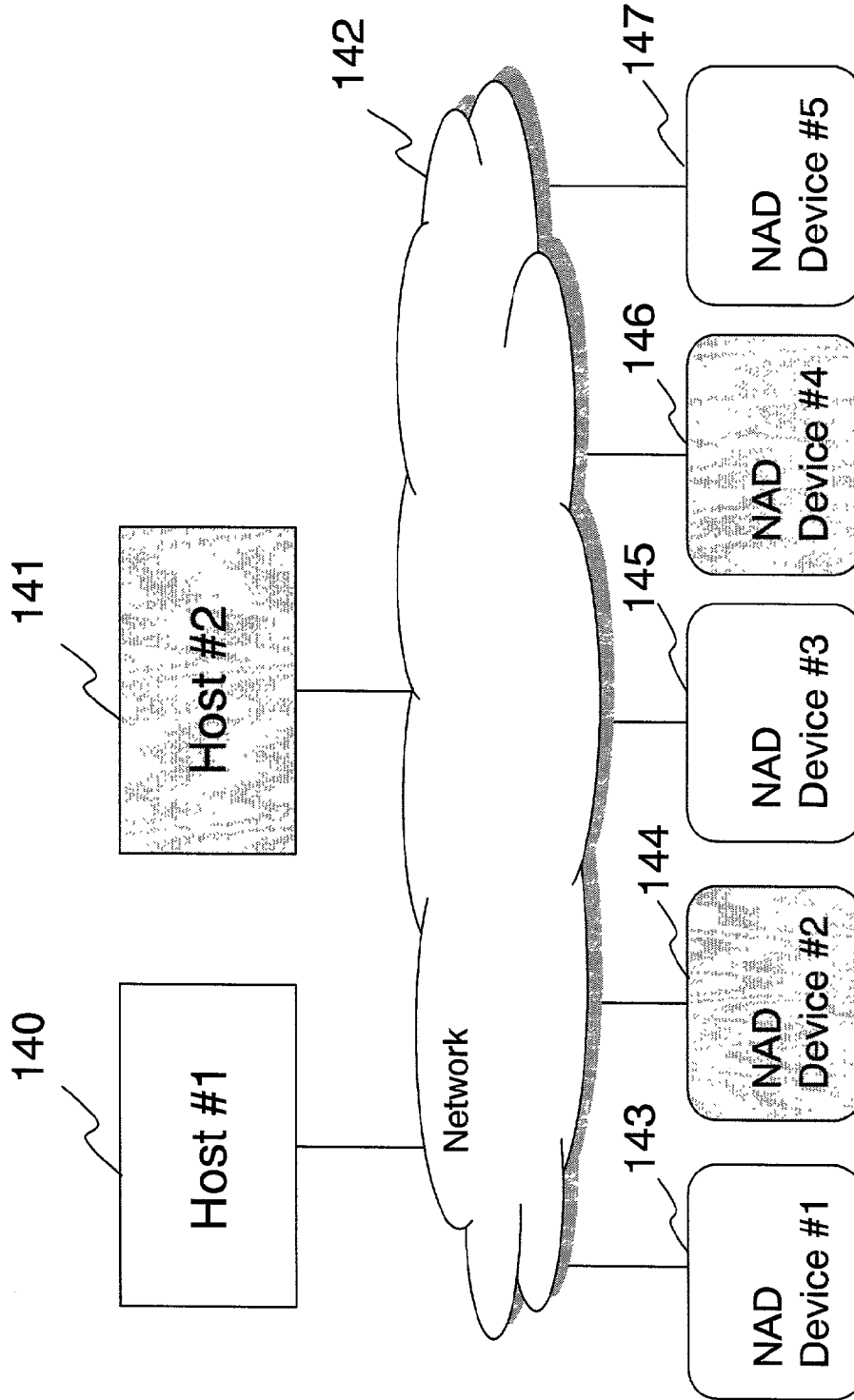


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