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United States Patent [19]
Fischer

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[54] SERIAL LAYERED MEDICAL NETWORK

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[51] Int. Cl.⁶ H04J 3/24; H04L 29/02; H04L 12/56

[52] U.S. Cl. 370/94.1

[58] Field of Search 370/94.1, 60, 85.15, 370/58.1, 56, 112, 92, 85.13, 42, 83, 85.6

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Primary Examiner—Wellington Chin

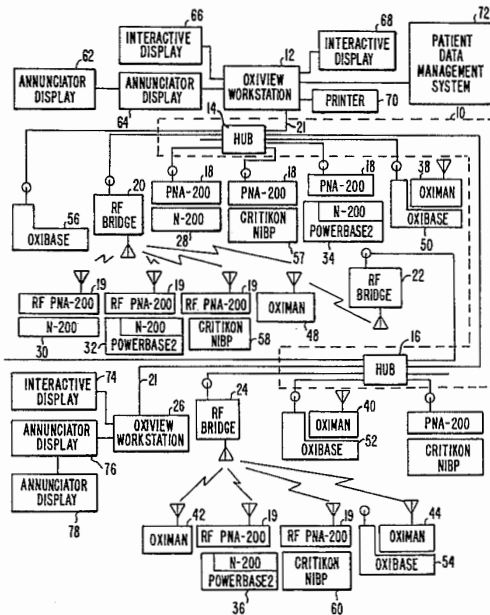
Assistant Examiner—Ajit Patel

Attorney, Agent, or Firm—Townsend and Townsend and Crew

[57] ABSTRACT

A network or telemetry system which allows virtual services at the application or presentation layer to communicate with other virtual services without regard to the physical interconnections. Each message, called a parcel, includes the information to be transmitted along with a virtual address header. The parcel is provided to a gateway, which inserts the parcel without modification into a packet with address information for the physical through session layers in the packet header. The packet is then transmitted to another network node, which receives and delivers the unmodified parcel to the addressed destination virtual service. A number of parcels from the same or different virtual services can be packed into a single packet for transmission from the gateway in cases where these parcels are all directed to virtual services at the same destination node. Once a session is established, such as between a gateway and a workstation, virtual services at the gateway node and the workstation can communicate with each other without requiring a lot of header overhead for each transmission. Instead, the session need simply be identified. Each gateway typically has one session at a time, but a workstation can support up to 64 sessions simultaneously.

12 Claims, 8 Drawing Sheets



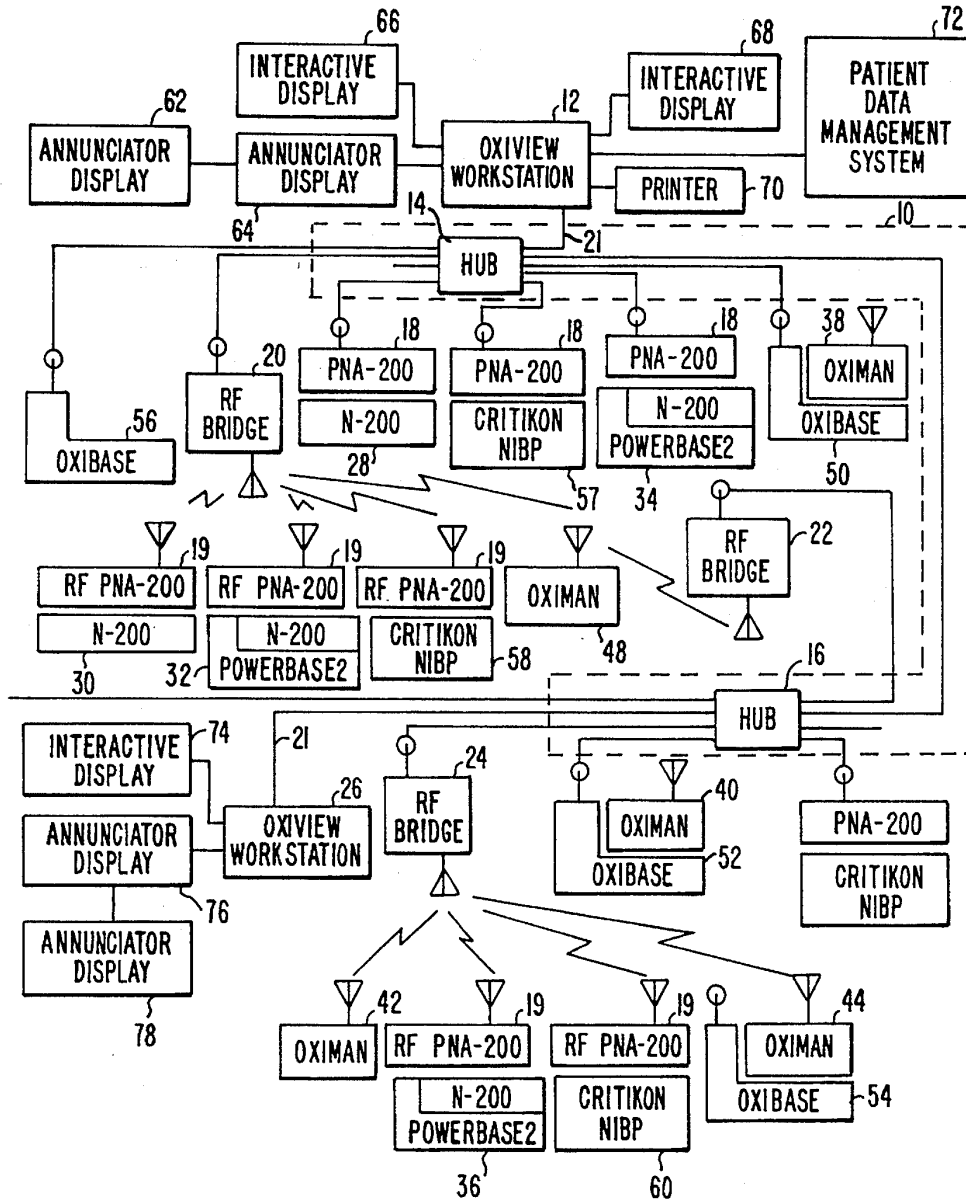


FIG. 1.

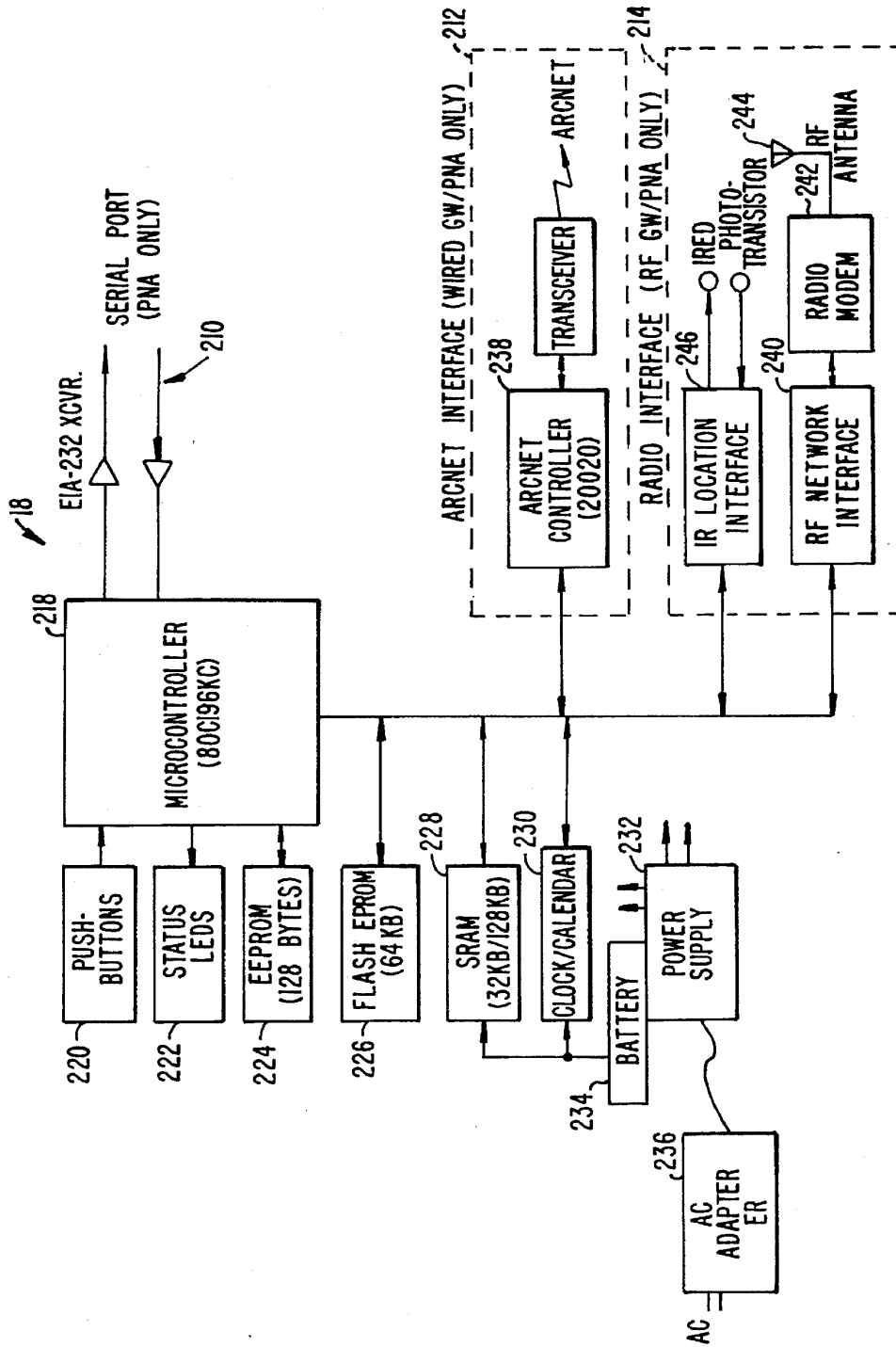


FIG. 2.

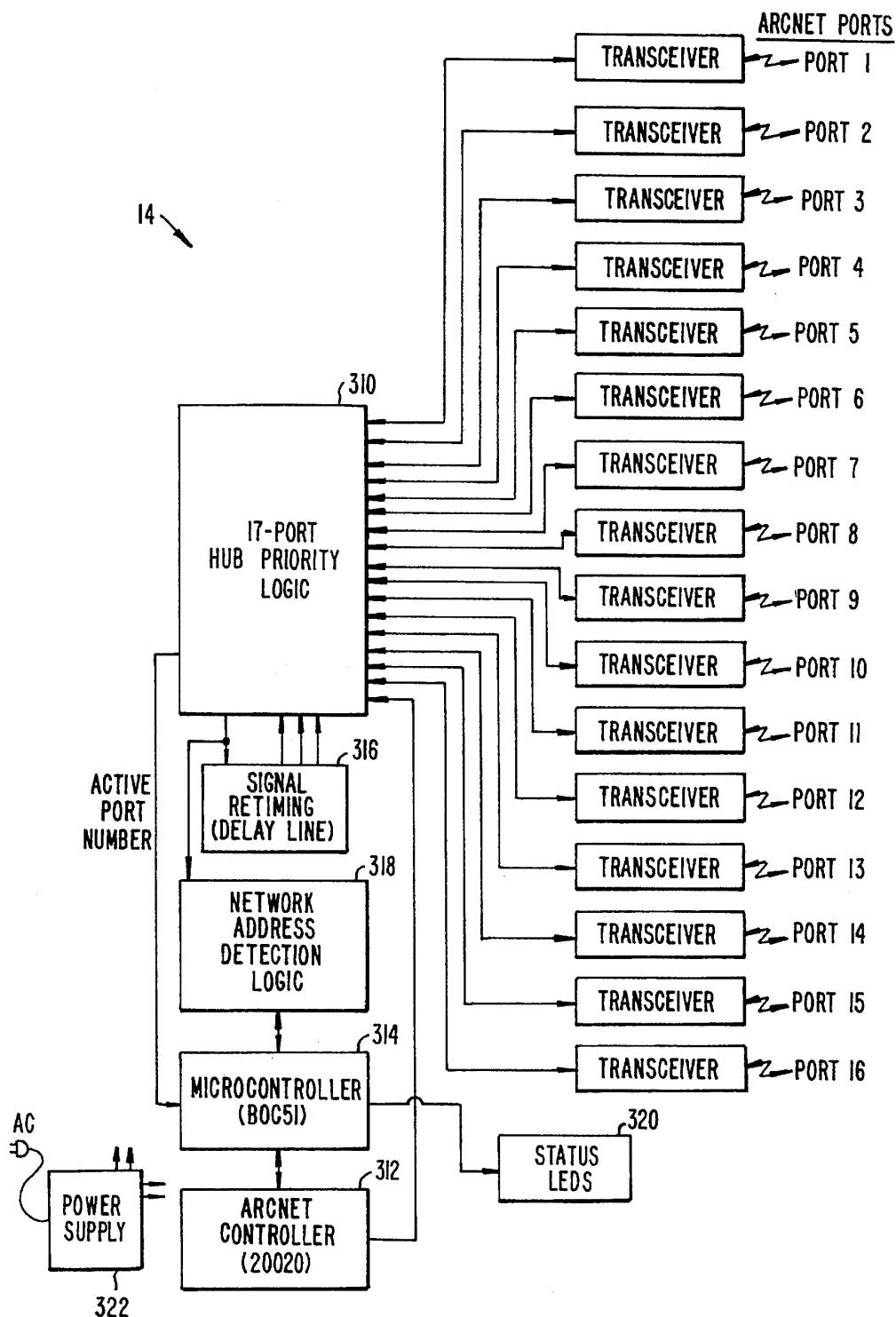


FIG. 3.

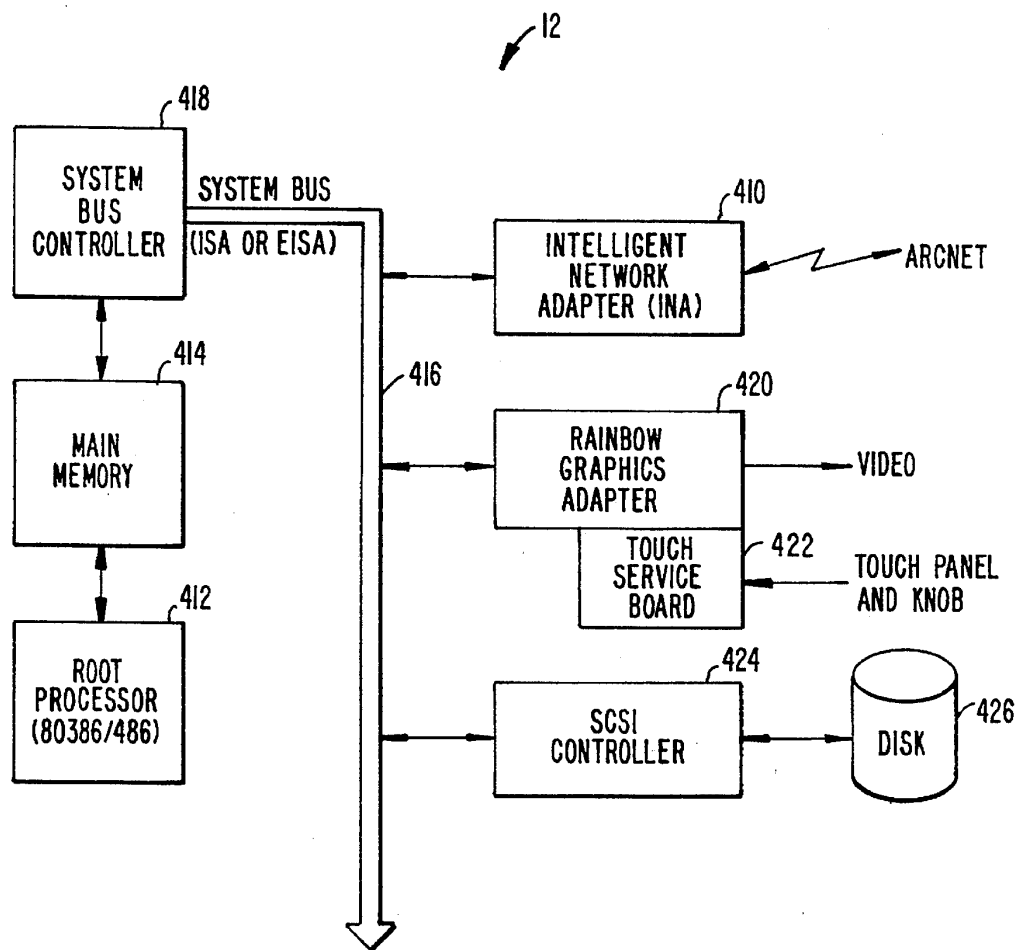


FIG. 4.

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