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Diedrich et al.

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(54) **METHOD AND APPARATUS FOR MULTIMEDIA DATA INTERCHANGE WITH PACING CAPABILITY IN A DISTRIBUTED DATA PROCESSING SYSTEM**

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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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(51) **Int. Cl.**⁷ **G06F 13/38; G06F 15/177**

(52) **U.S. Cl.** **709/231; 709/219; 709/234**

(58) **Field of Search** 395/800, 200, 395/600; 364/200; 370/94, 94.1; 709/231, 219, 234

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Primary Examiner—Mark H. Rinehart

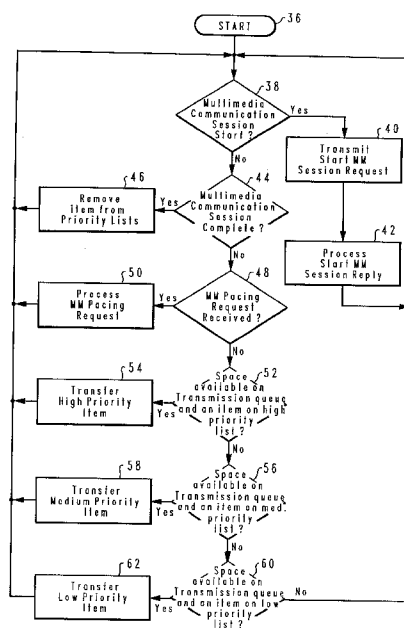
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(57) **ABSTRACT**

A method and apparatus for efficient multimedia data interchange which utilizes multimedia pacing in a distributed data processing system. During a multimedia communications session, each of a plurality of receiving stations transmits multimedia pacing requests to a sending station at negotiated set time intervals. The multimedia pacing request includes information on the availability of current storage for multimedia data at the receiving station, a minimum data time remaining in storage in the receiving station and other information pertaining to the interchange of the multimedia data. The sending station then allocates various priorities to the transmission of data to the plurality of receiving stations in an order indicative of the type of data, i.e. multimedia or non-multimedia, and the information in the multimedia pacing request pertaining to the minimum data time remaining in storage at the receiving station. In addition, the sending station periodically determines the availability of the transmission queue. When the transmission queue is not readily available, the sending station transfers only high priority multimedia data to the transmission queue; however when the transmission queue is available, the sending station transfers lower priority multimedia data to the transmission queue as well. The sending station can then supply a plurality of receiving stations with significant multimedia data in advance when the communications interface is not overloaded.

6 Claims, 8 Drawing Sheets



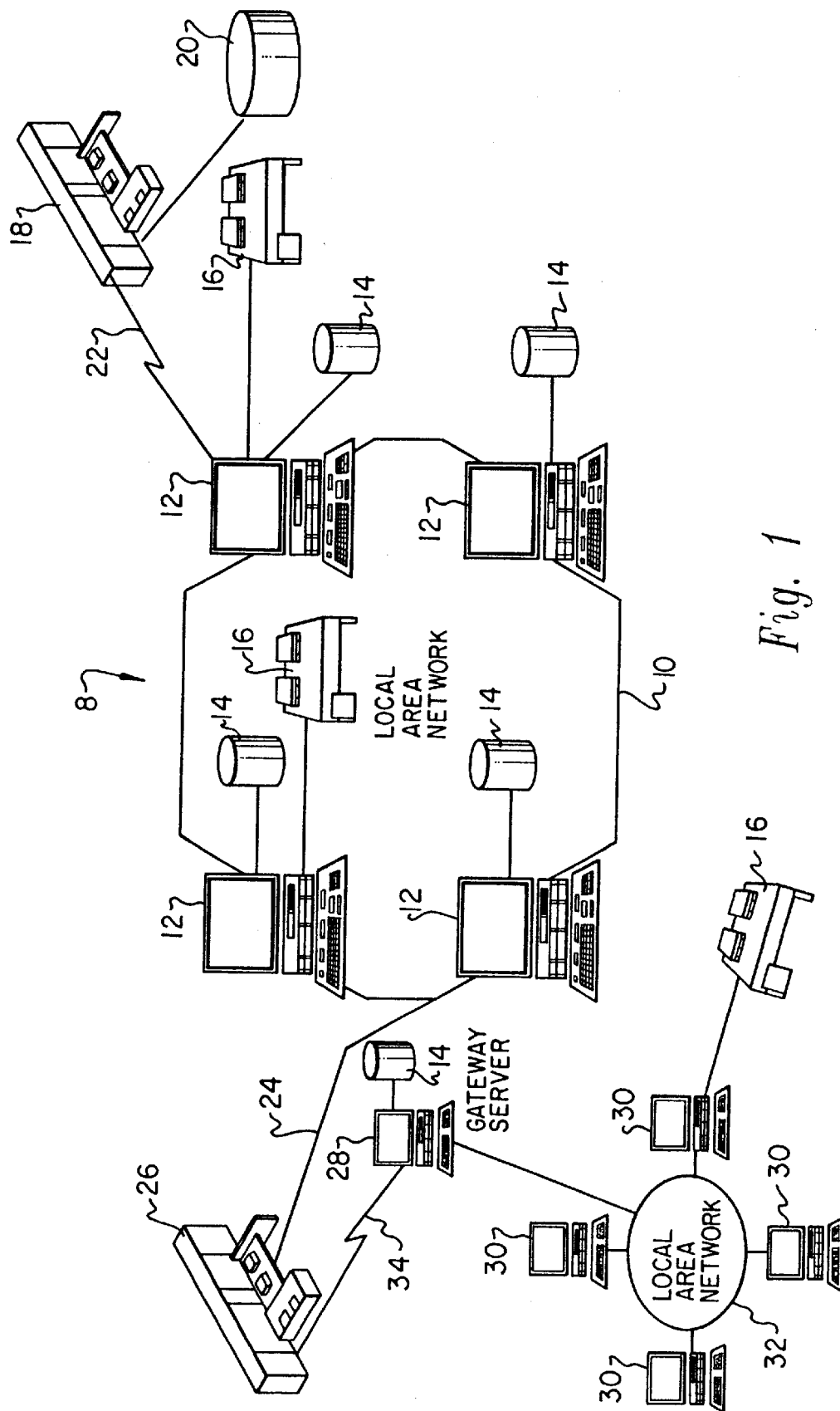


Fig. 1

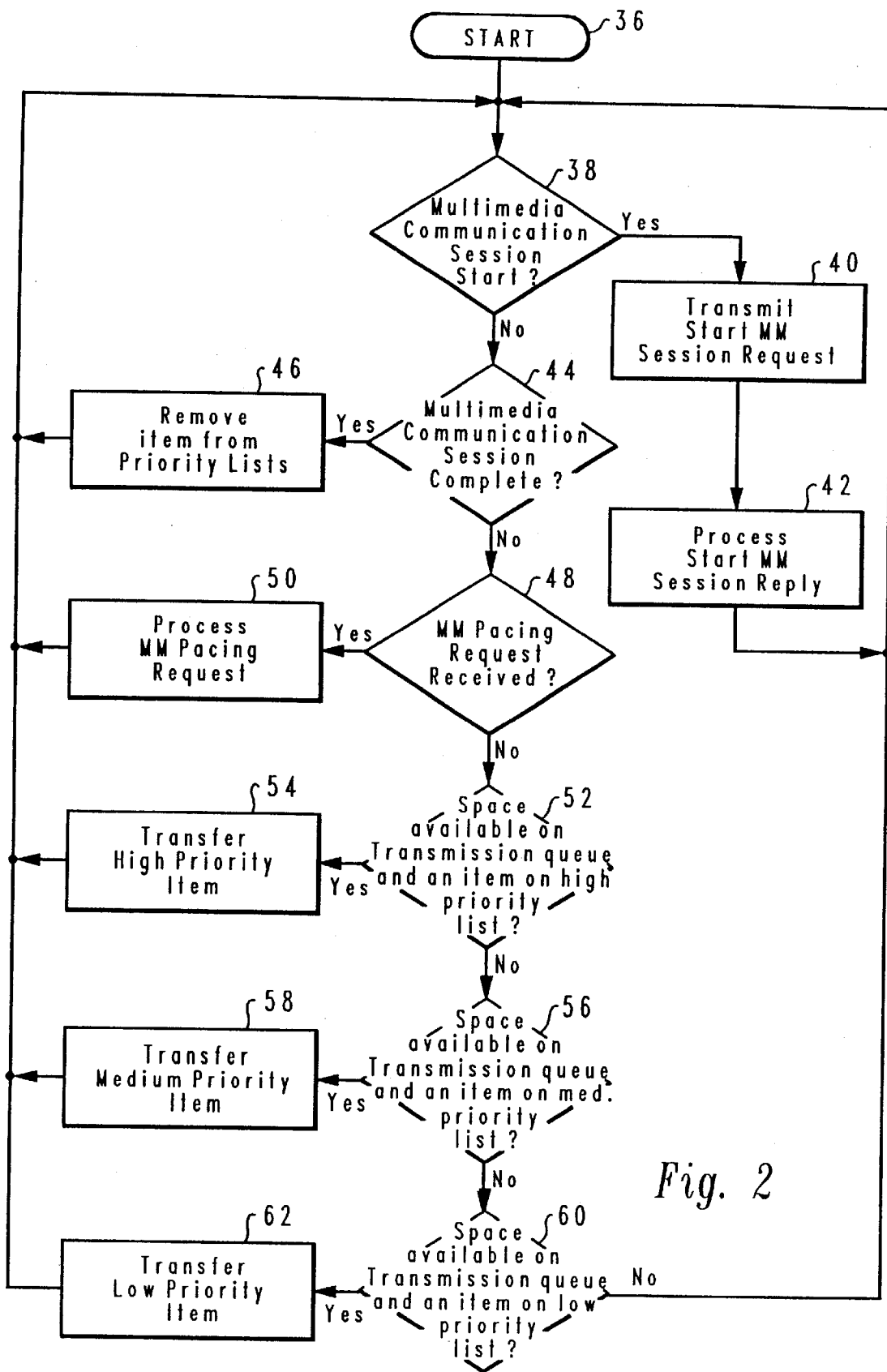


Fig. 2

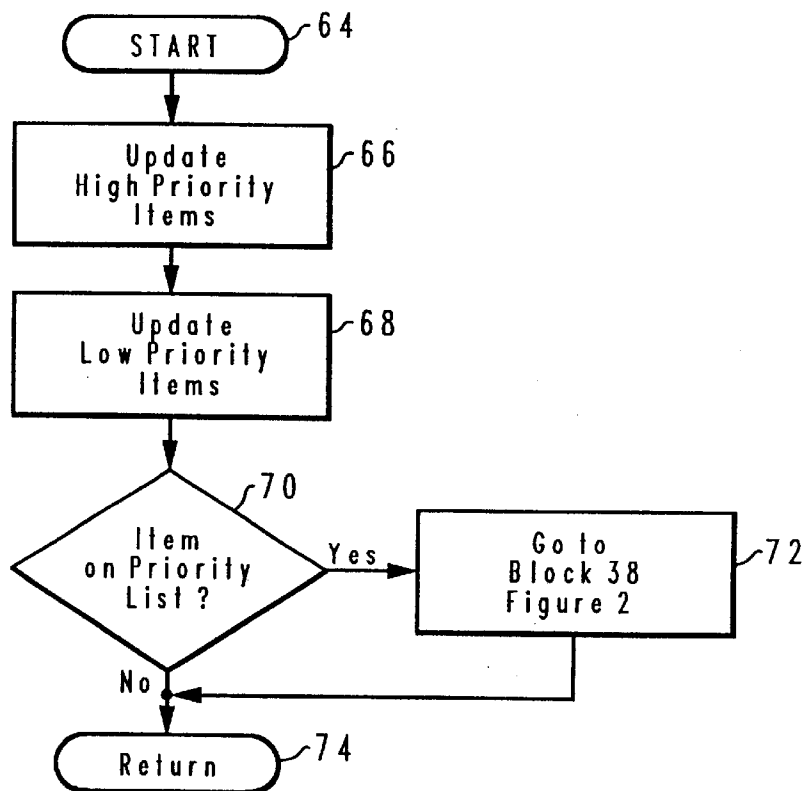


Fig. 3

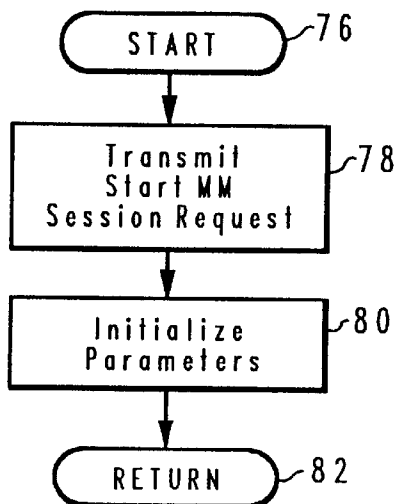


Fig. 4

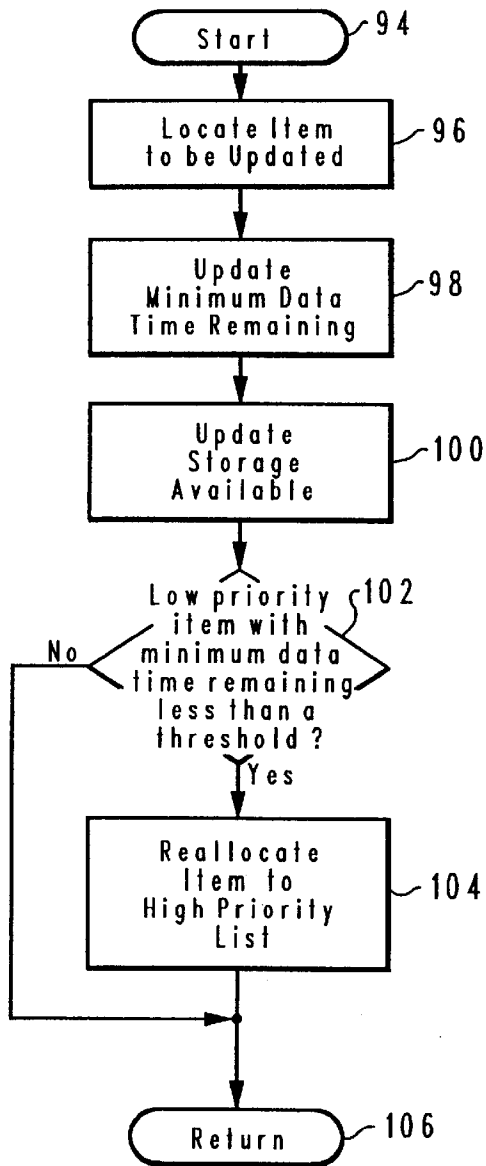


Fig. 6

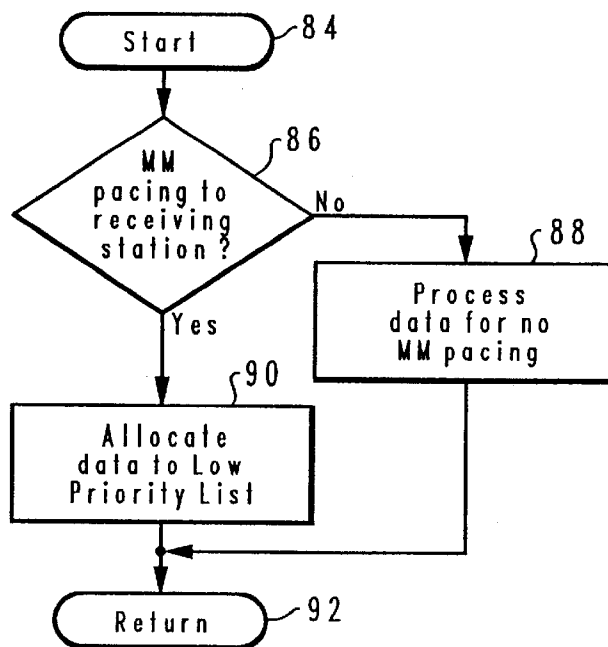


Fig. 5

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