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United States Patent [19]

Rothschild et al.

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[54] **SERVER-GROUP MESSAGING SYSTEM FOR INTERACTIVE APPLICATIONS**

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[51] **Int. Cl.**^o **H04H 1/02**

[52] **U.S. Cl.** **395/200.17; 395/200.1; 395/200.09**

[58] **Field of Search** 395/200.1, 200.01, 395/200.09, 200.17, 200.05, 793; 370/85.13, 60

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Primary Examiner—William M. Treat

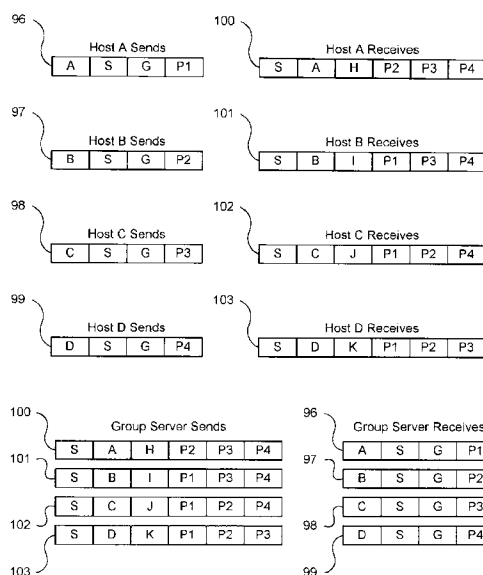
Assistant Examiner—Zarni Maung

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[57] ABSTRACT

A method for deploying interactive applications over a network containing host computers and group messaging servers is disclosed. The method operates in a conventional unicast network architecture comprised of conventional network links and unicast gateways and routers. The hosts send messages containing destination group addresses by unicast to the group messaging servers. The group addresses select message groups maintained by the group messaging servers. For each message group, the group messaging servers also maintain a list of all of the hosts that are members of the particular group. In its most simple implementation, the method consists of the group server receiving a message from a host containing a destination group address. Using the group address, the group messaging server then selects a message group which lists all of the host members of the group which are the targets of messages to the group. The group messaging server then forwards the message to each of the target hosts. In an interactive application, many messages will be arriving at the group server close to one another in time. Rather than simply forward each message to its targeted hosts, the group messaging server aggregates the contents of each of messages received during a specified time period and then sends an aggregated message to the targeted hosts. The time period can be defined in a number of ways. This method reduces the message traffic between hosts in a networked interactive application and contributes to reducing the latency in the communications between the hosts.

6 Claims, 11 Drawing Sheets



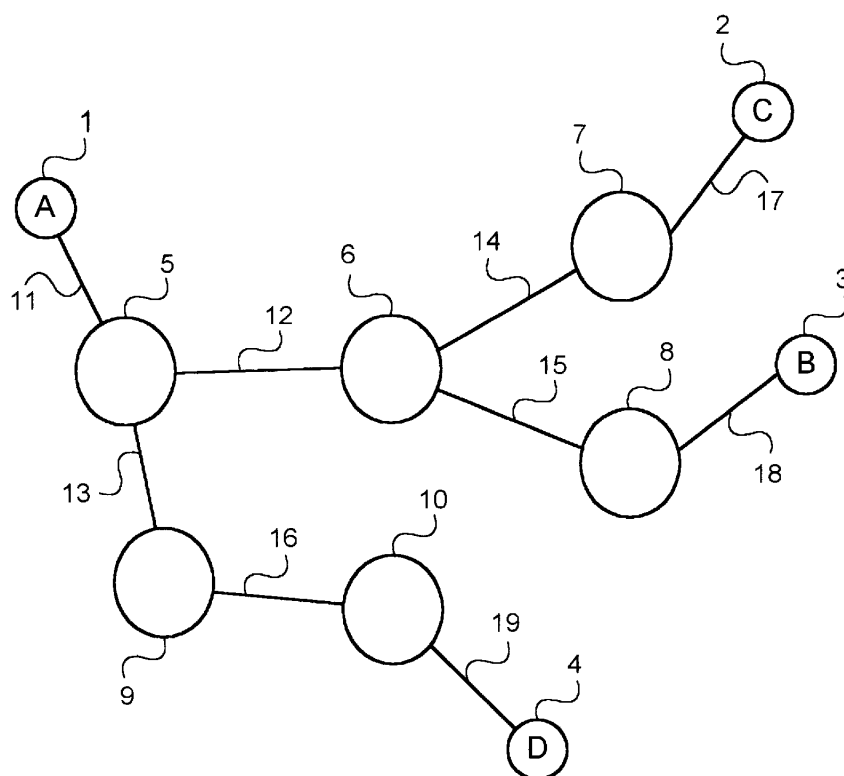


Figure 1
Prior Art

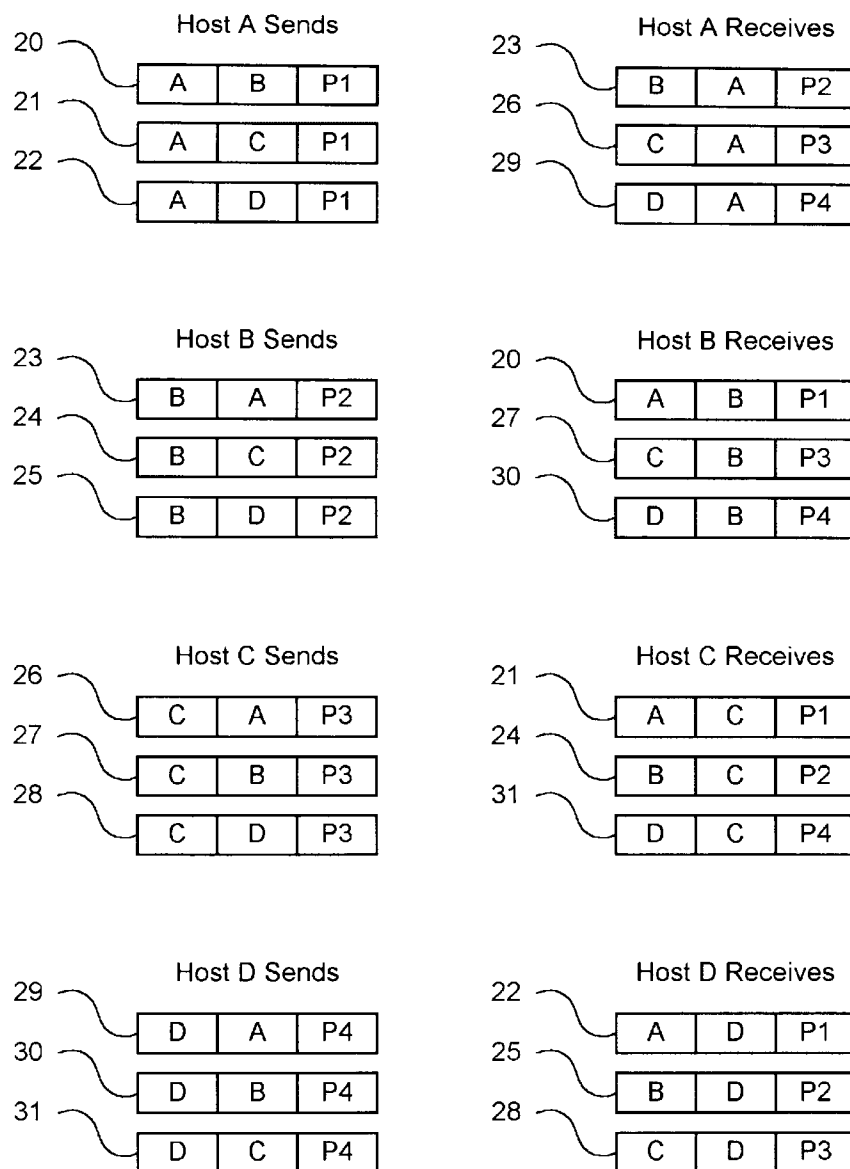


Figure 2
Prior Art

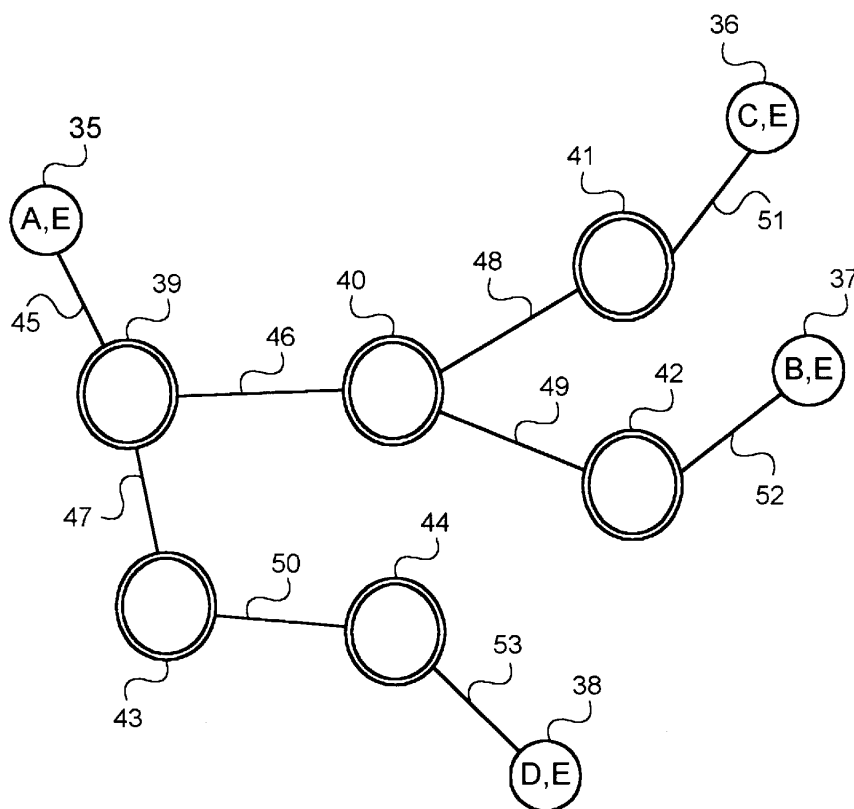


Figure 3
Prior Art

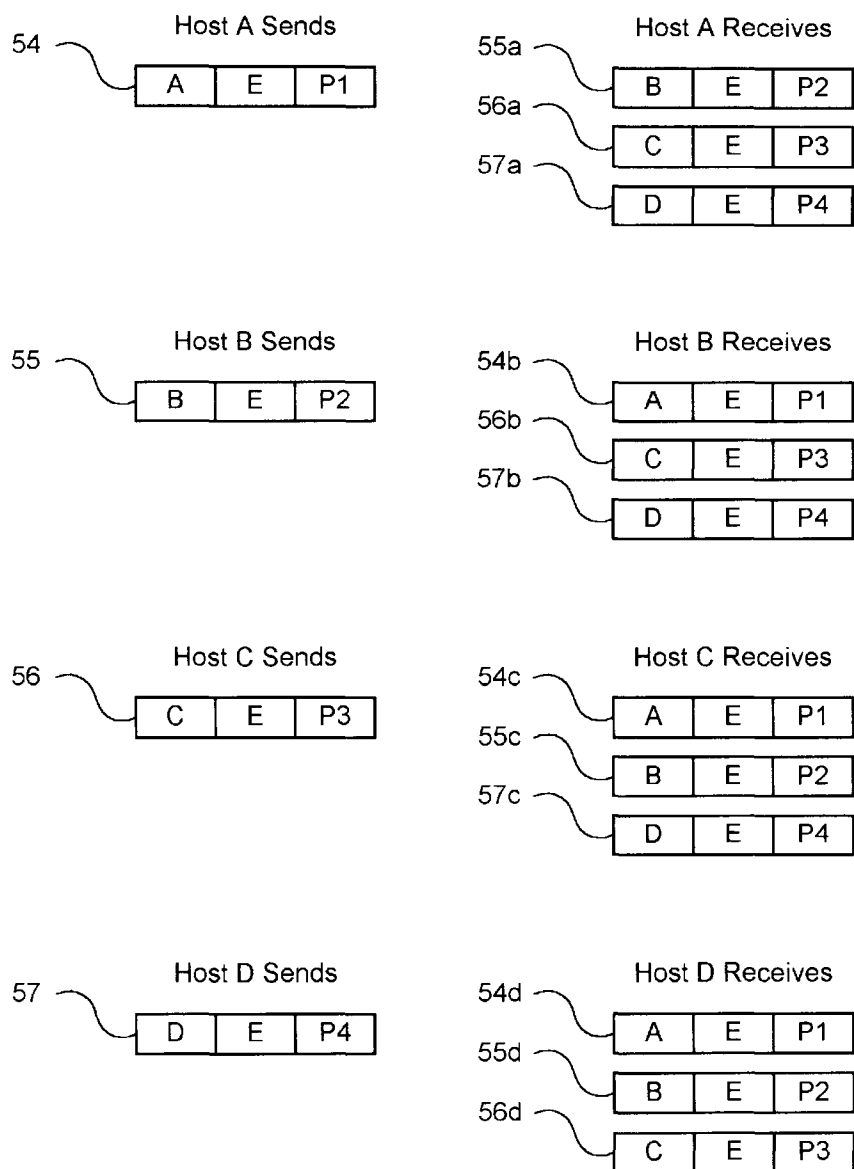


Figure 4
Prior Art

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