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United States Patent [19]

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Houde et al.

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- [54] **HARDWARE AND DATA REDUNDANT ARCHITECTURE FOR NODES IN A COMMUNICATIONS SYSTEM**
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- [73] Assignee: **Telefonaktiebolaget LM Ericsson, Stockholm, Sweden**
- [21] Appl. No.: **372,074**
- [22] Filed: **Jan. 12, 1995**
- [51] Int. Cl.⁶ **H04Q 7/24; H04Q 7/34**
- [52] U.S. Cl. **379/58; 379/59; 379/60; 455/33.1**
- [58] Field of Search **379/58, 59, 60, 379/221, 207, 317; 455/33.1, 33.2; 395/441, 439, 200.05, 200.15; 364/228.3**

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[57] ABSTRACT

A mobile switching center including multiple home location register platforms presented in varying configurations and connected to a network through a set of signal transfer points. In a master/slave configuration, a master platform is given primary responsibility for handling network service request messages, and dynamic data affecting messages are copied to a slave platform in order to maintain data integrity therein in the event the master fails and the slave must take over for the master. In a load sharing configuration, each platform is given primary responsibility for handling network service request messages of its "own" subscribers, and dynamic data affecting messages are copied between the platforms in order to maintain data integrity therein in the event one of the platforms fails and the remaining functional platforms must take over for the failed platform in addition to serving its own subscribers. The signal transfer points function to automatically and transparently route service requests to the platforms for handling in accordance with the configurations and platform operating status. The disclosed platform configurations are applicable to data base systems in particular and, in general, to any node of a data communications system.

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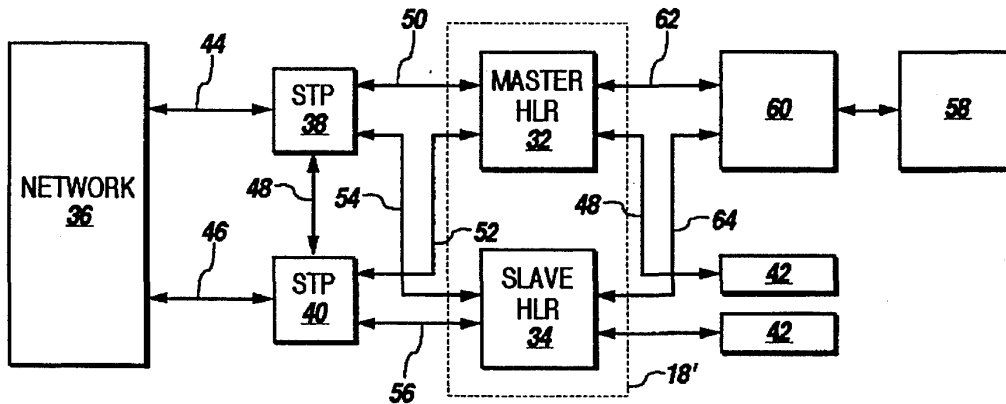
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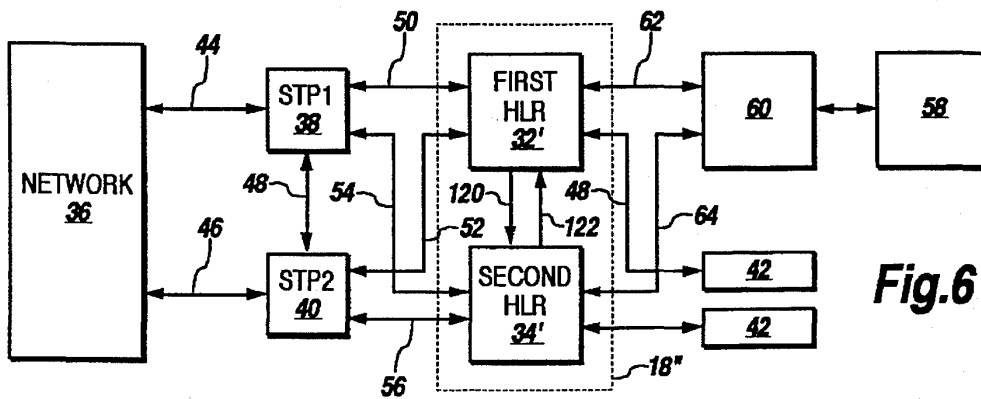
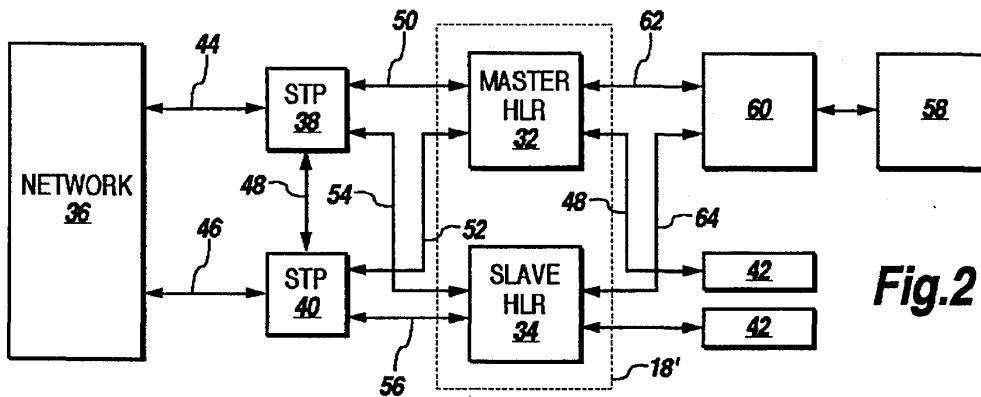
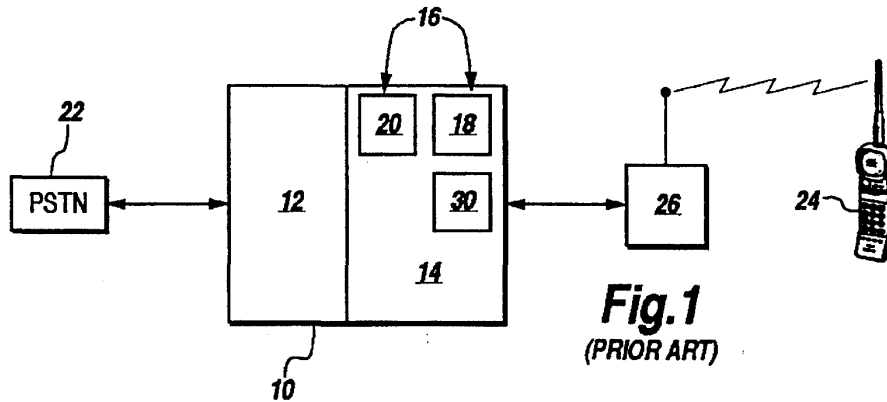
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40 Claims, 5 Drawing Sheets





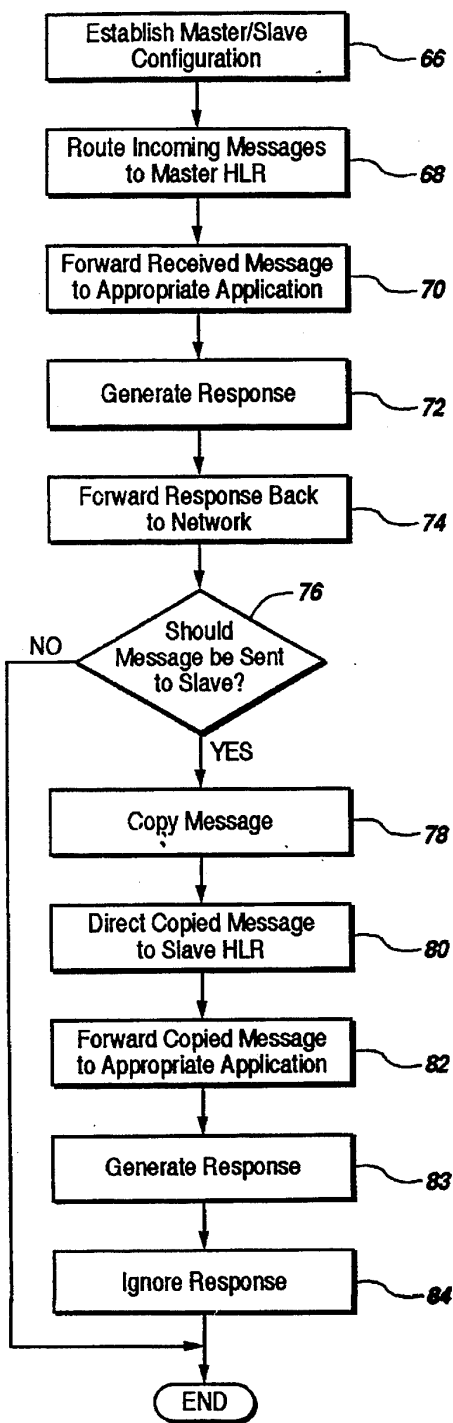


Fig.3

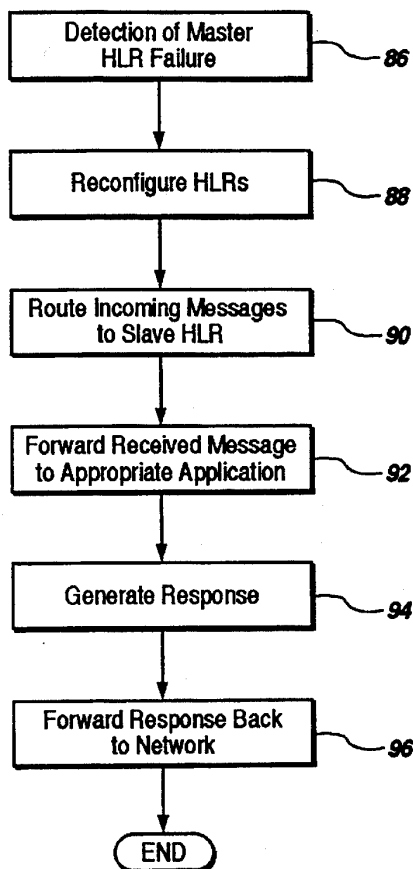


Fig.4

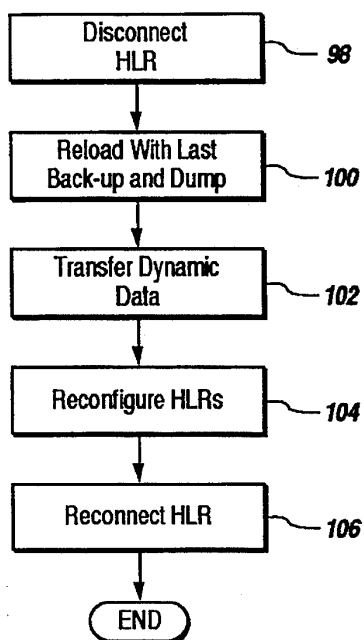


Fig.5A

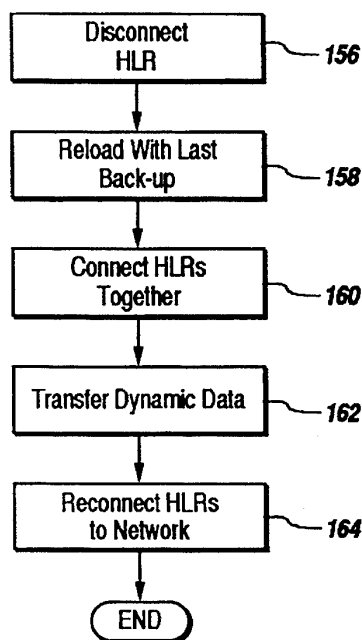


Fig.9A

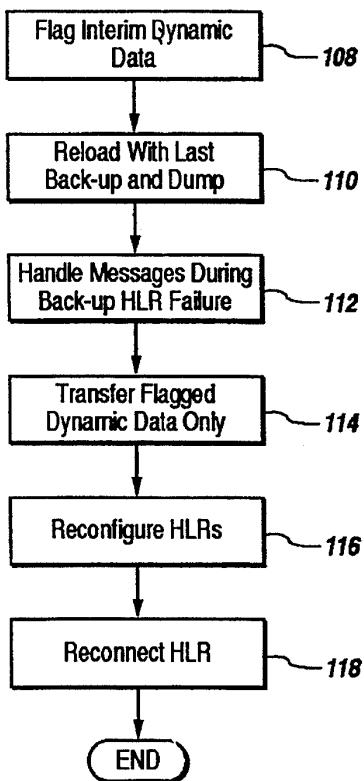


Fig.5B

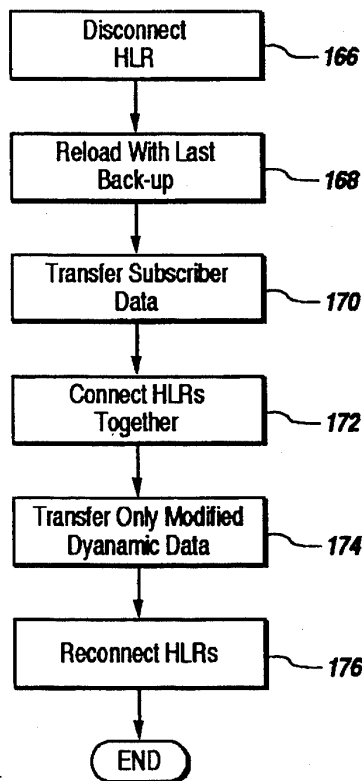


Fig.9B

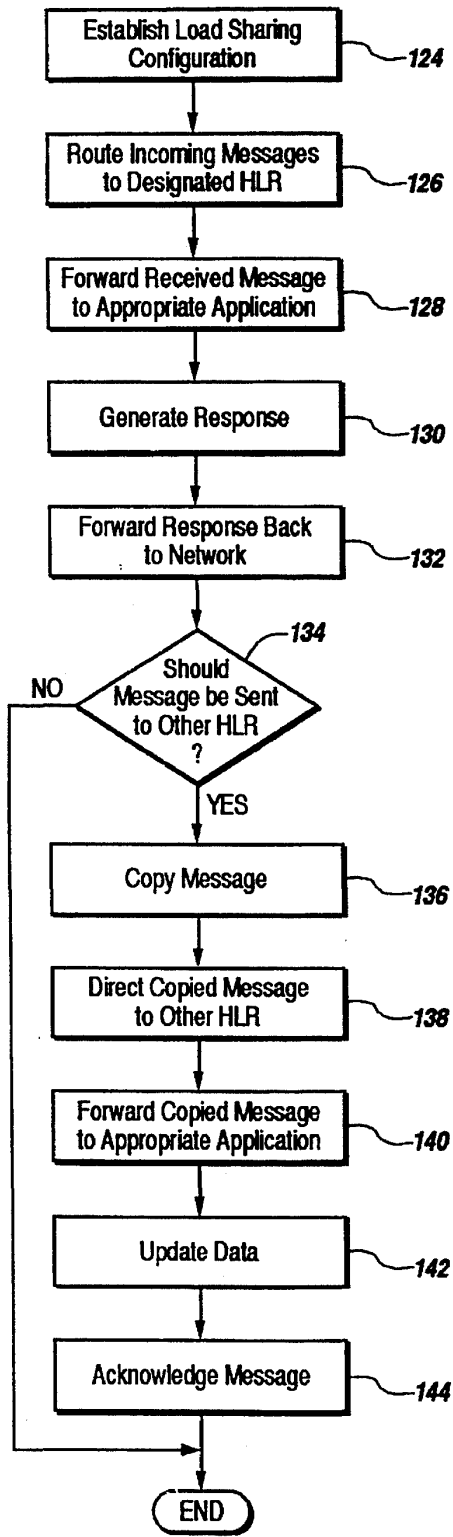


Fig.7

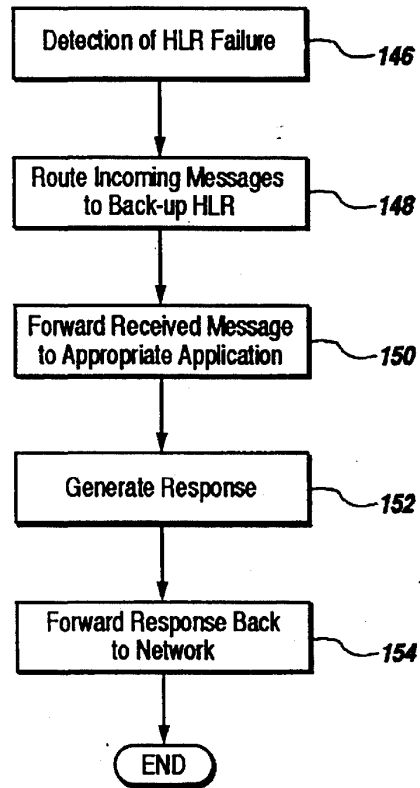


Fig.8

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