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Salama et al.

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(54) **METHOD AND APPARATUS FOR AUTOMATIC INTER-DOMAIN ROUTING OF CALLS**

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Related U.S. Application Data

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(51) **Int. Cl.**[7] **H04L 12/28**
(52) **U.S. Cl.** **370/351**; 370/466
(58) **Field of Search** 370/238.1, 465, 370/466, 467, 469, 389, 392, 351, 352, 353, 354, 355, 356

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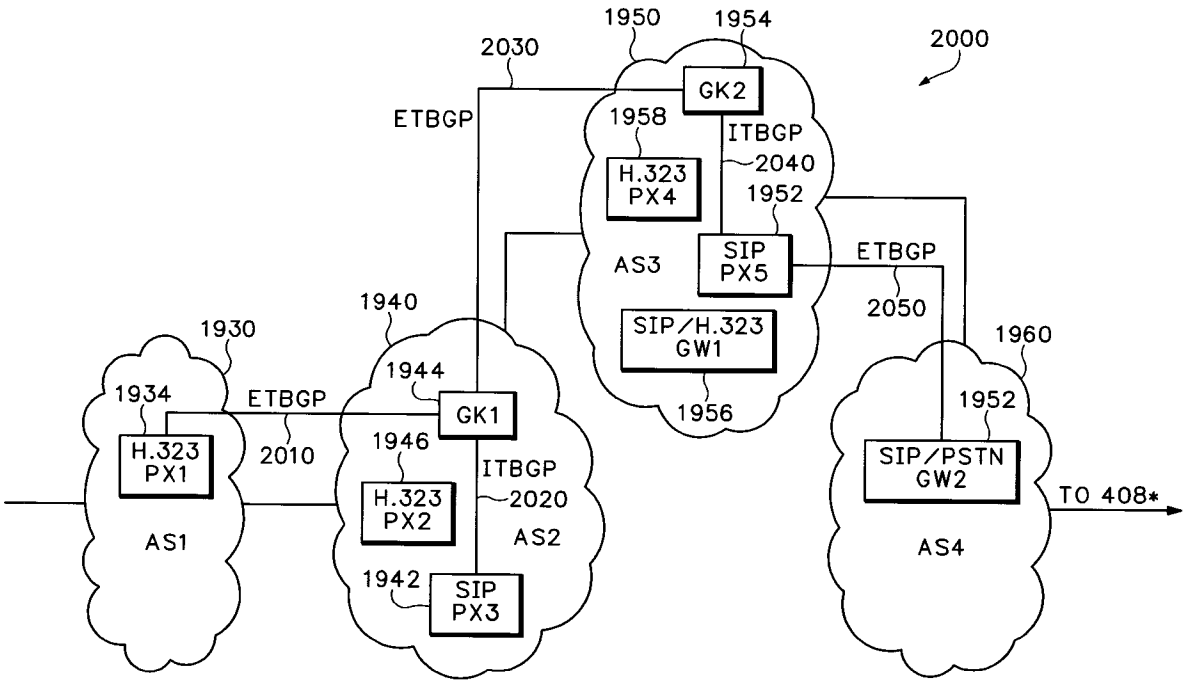
(57) **ABSTRACT**

A method and apparatus for inter-domain routing of calls in a network, where the network represents a first wide area network. A routing node of the network advertises its access to a range of addresses in a second wide area network and a cost for access to the range of addresses to all adjacent nodes in the network. Each of the adjacent nodes inserts an entry in its own routing table associating access to the range of addresses in the second wide area network with the network address of the routing node and the cost for access. Each adjacent node then modifies the cost for access by adding its own cost and advertises its access to the range of addresses in the second wide area network and the modified cost for access to all of its adjacent nodes. When a call addressed to a destination address in the range of address in the second wide area network is received at each node of the network, then the node searches for the entry in its routing table corresponding to the range of addresses in the second wide area network having the lowest cost for access and connects the call to the adjacent node associated with the entry having the lowest cost. The routing node can also advertise one or more protocol types which it can support, where the protocol types are associated with the routing node in the routing table in each adjacent node and a call having a given protocol type is also routed at each node of the network based upon its protocol type.

29 Claims, 17 Drawing Sheets



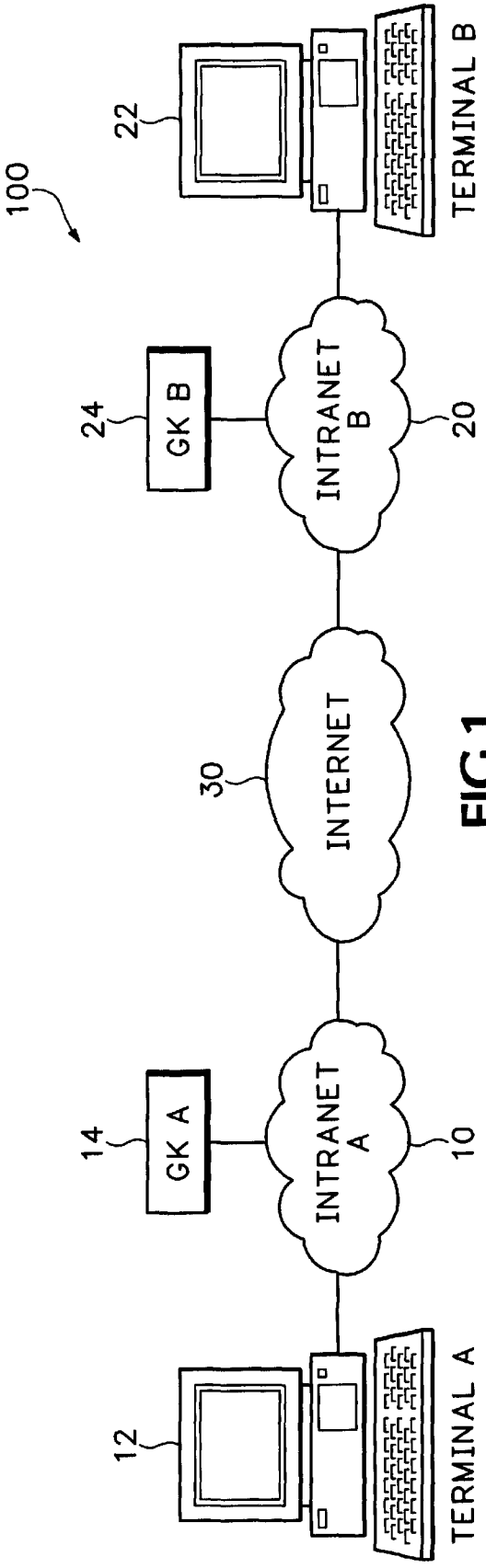


FIG.1
(PRIOR ART)

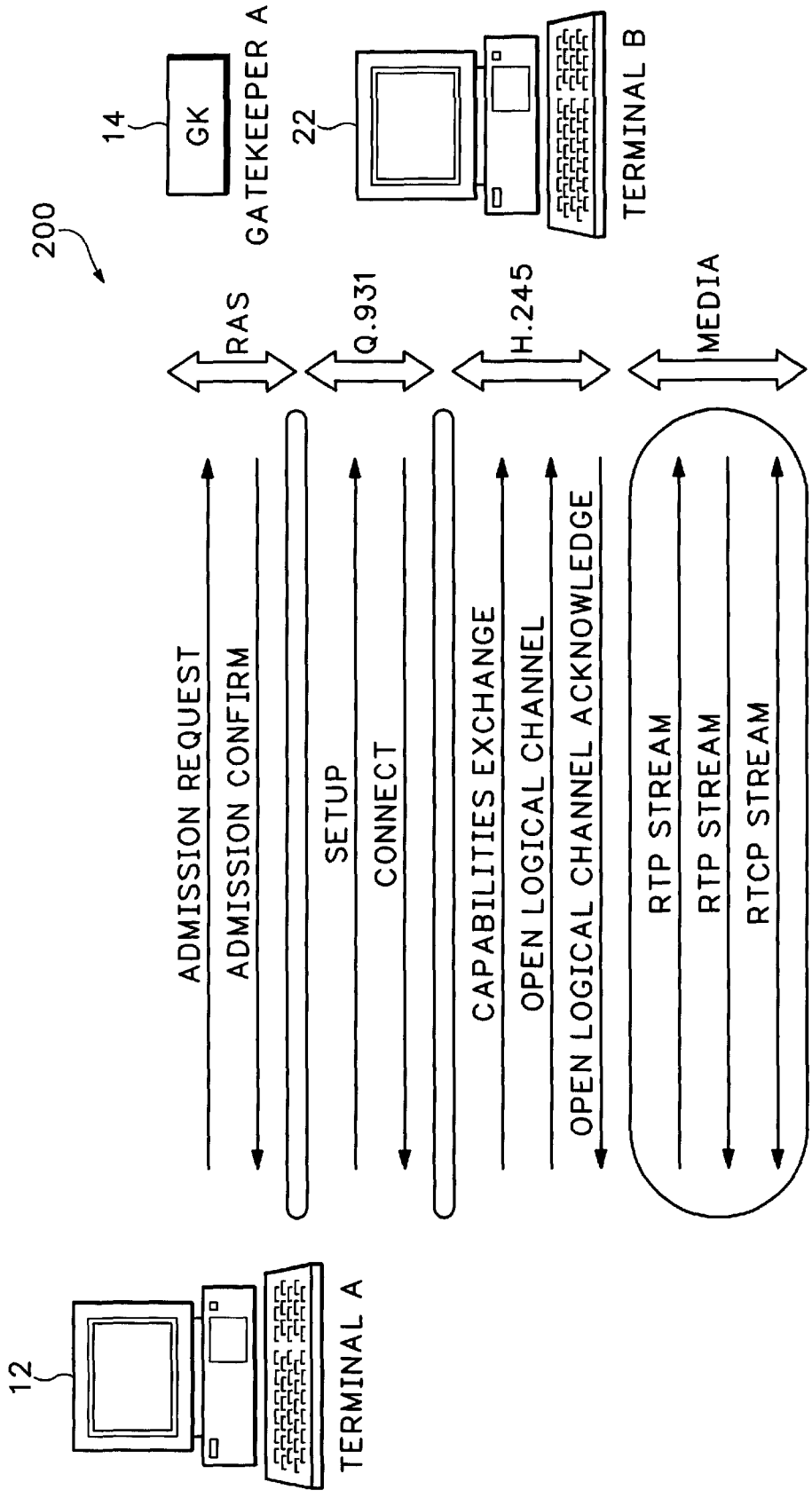


FIG.2
(PRIOR ART)

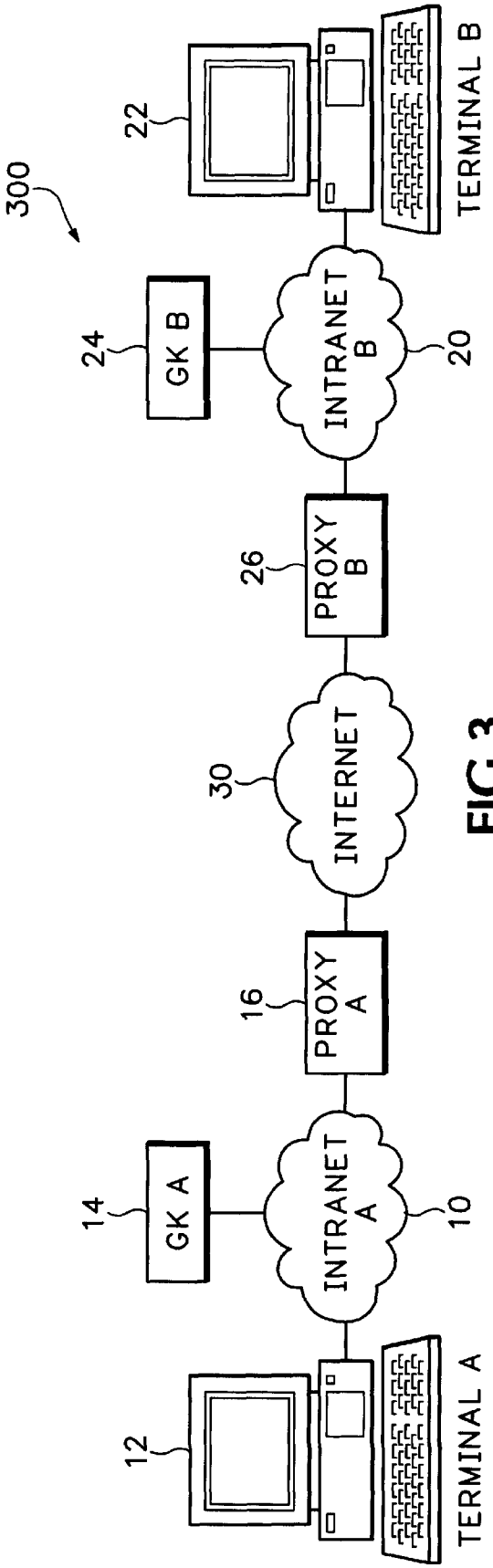


FIG.3
(PRIOR ART)

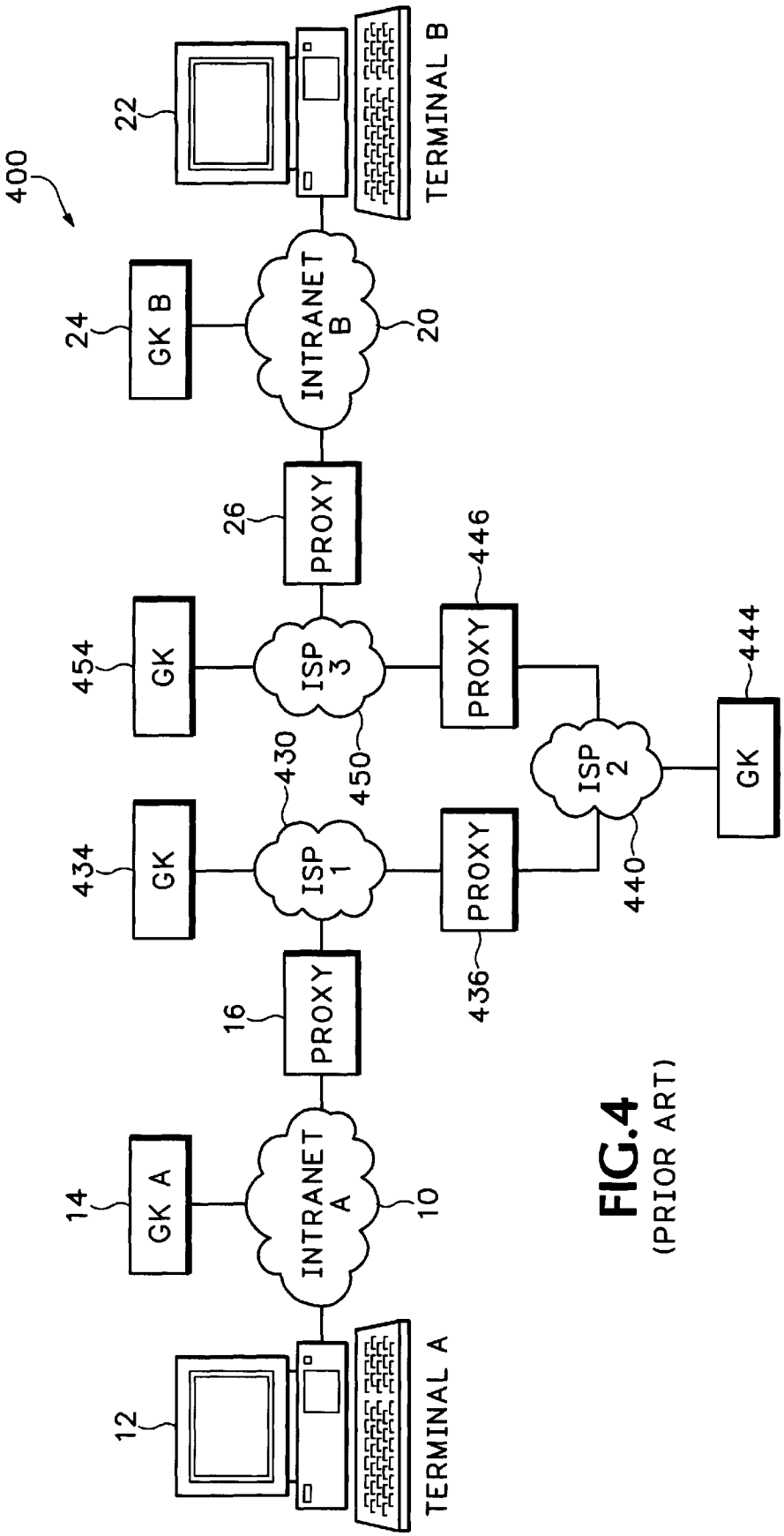


FIG.4
(PRIOR ART)

DOCKET ALARM

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