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(54) Title: BRIDGE PORT MAC ADDRESS DISCOVERY MECHANISM IN ETHERNET NETWORKS

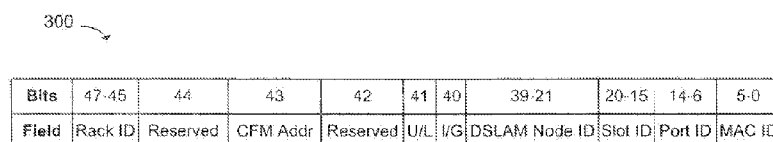


FIG. 3

(57) Abstract: Various exemplary embodiments are a method and of discovering medium access control (MAC) addresses in a network and a related access node including one or more of the following: receiving, at an access node, a diagnostic message from an operator, the diagnostic message comprising physical port information and indicating that at least a portion of a MAC address of a destination bridge port is unknown to the operator; forwarding the diagnostic message to a respective bridge port of the access node; determining whether the physical port information specified in the diagnostic message corresponds to a physical port of the respective bridge port; and sending a reply message to the operator specifying a MAC address of the respective bridge port.

# INTERNATIONAL SEARCH REPORT

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## A. CLASSIFICATION OF SUBJECT MATTER

INV. H04L29/12

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## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)  
H04L

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, INSPEC, IBM-TDB

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

| Category* | Citation of document, with indication, where appropriate, of the relevant passages                                                                                                                           | Relevant to claim No. |
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☐ Further documents are listed in the continuation of Box C.

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