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Eckert et al.

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(54) **URL BASED COMMUNICATION PROTOCOL FROM A CLIENT COMPUTER TO A NETWORK DEVICE**

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(75) Inventors: **Toerless Eckert**, Mountain View, CA (US); **Liming Wei**, Fremont, CA (US); **Dino Farinacci**, San Jose, CA (US)

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(73) Assignee: **Cisco Technology, Inc.**, San Jose, CA (US)

Primary Examiner—Robert B Harrell

(74) *Attorney, Agent, or Firm*—Cesari and McKenna, LLP

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

(57) **ABSTRACT**

(21) Appl. No.: **09/515,941**

A method of signaling in a computer network uses interception by a network device of a message transmitted by a client computer to a server. The message contains a Universal Resource Locator (URL), the URL having a reserved port designation. The network device parses the URL and intercepts the message in response to finding the reserved port designation in the URL. The network device executes a command, where the command is carried in a field of the intercepted message. The client computer receives the URL having the reserved port designation in a HTML file transmitted to the client computer by the server. The message containing the URL is transmitted by the client computer in response to a user requesting a resource displayed in a web page displayed by the client computer. A second web page is transmitted to the client computer by a server receiving a request for services, and the URL containing the port designation is written into the second web page so that the URL is executed automatically as the second web page is received by the client's browser. The method transmits a redirect message by the network device to the client computer, the redirect message redirecting to an address of a web page without the reserved port designation in the URL to carry information to the server.

(22) Filed: **Feb. 29, 2000**

(51) **Int. Cl.**
G06F 13/00 (2006.01)

(52) **U.S. Cl.** **709/203; 709/225; 709/226; 709/238; 709/239**

(58) **Field of Classification Search** **709/203, 709/225, 226, 238, 239**
See application file for complete search history.

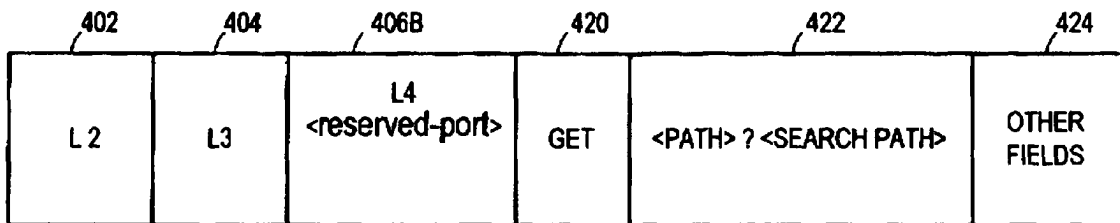
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42 Claims, 10 Drawing Sheets

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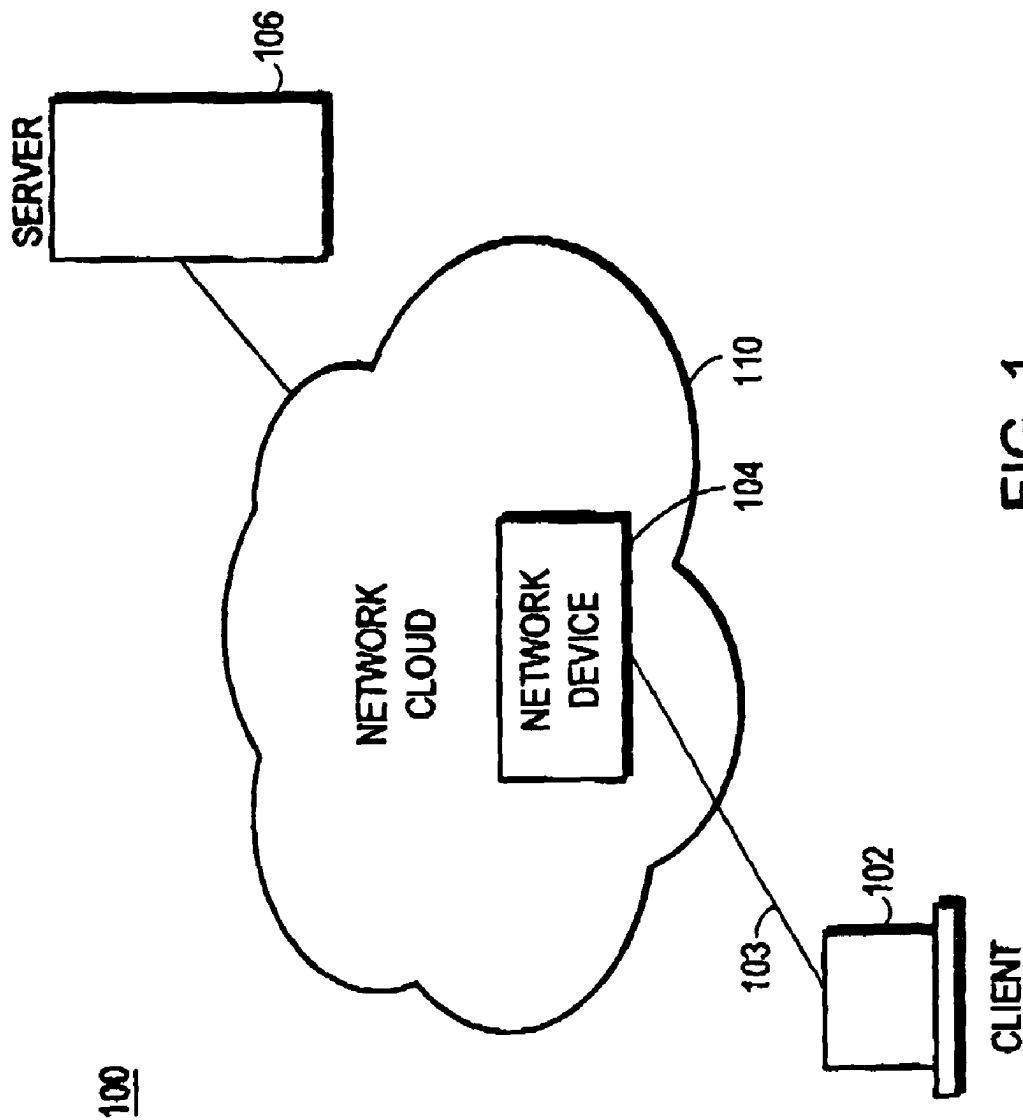


FIG. 1

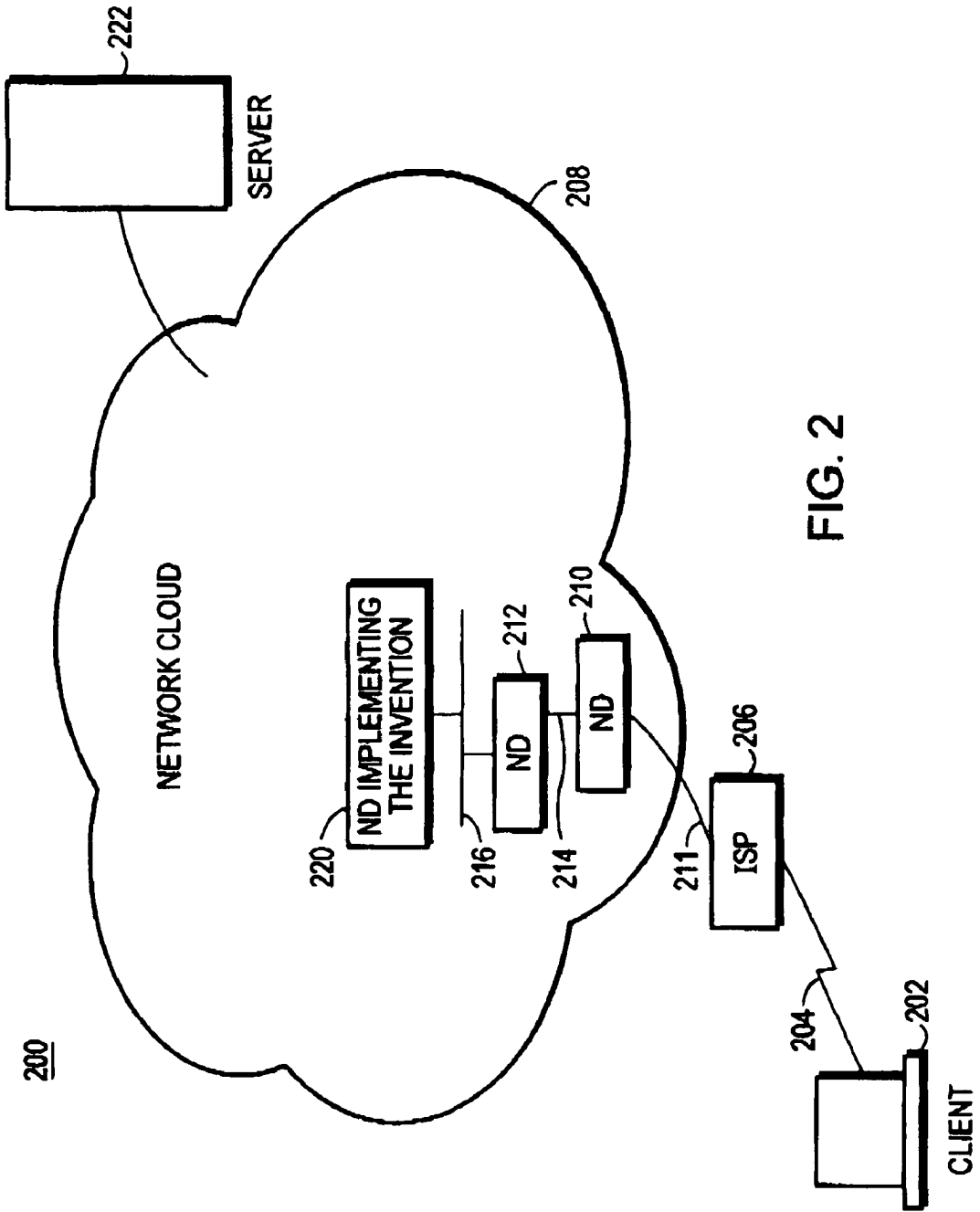


FIG. 2

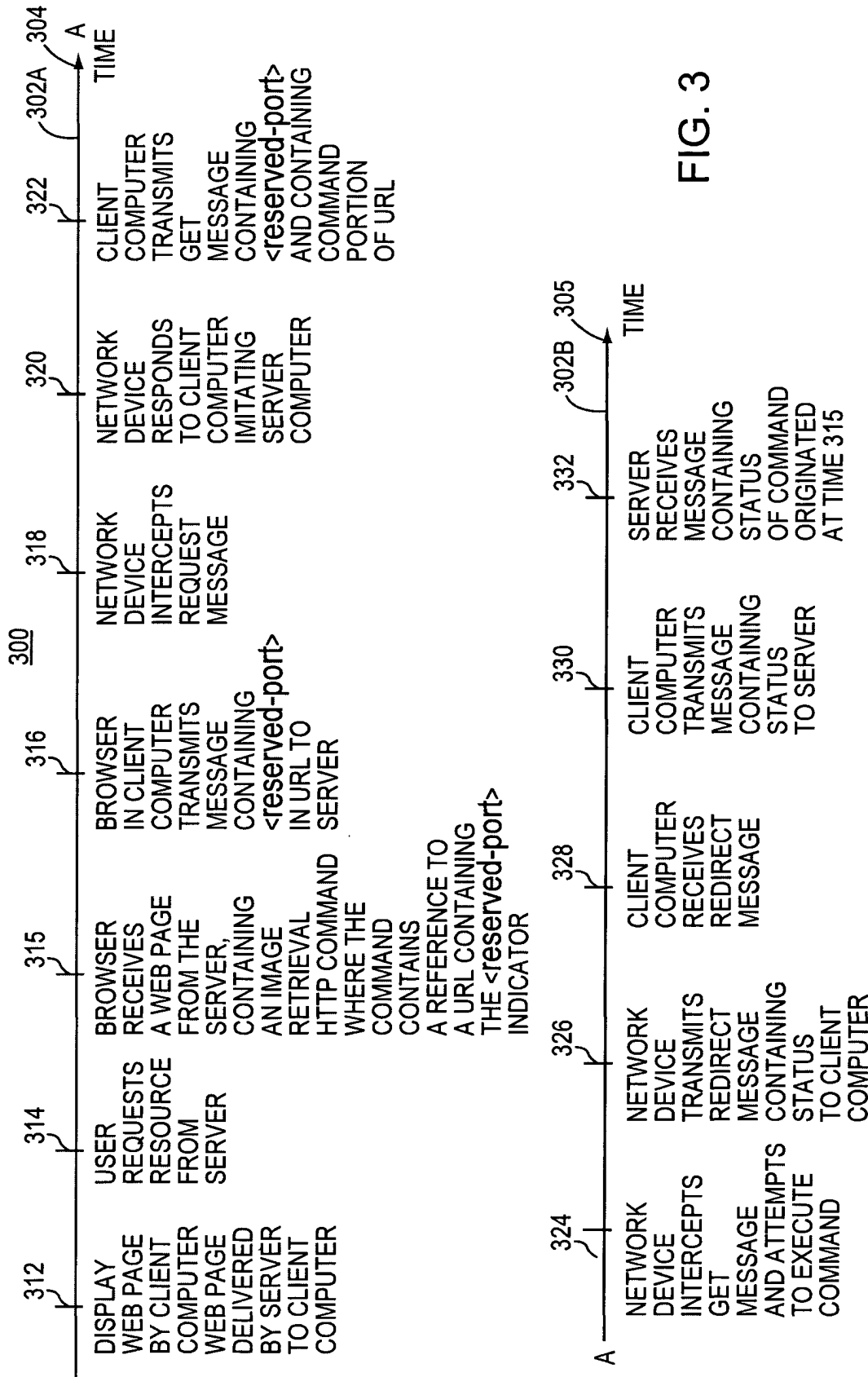


FIG. 3

400

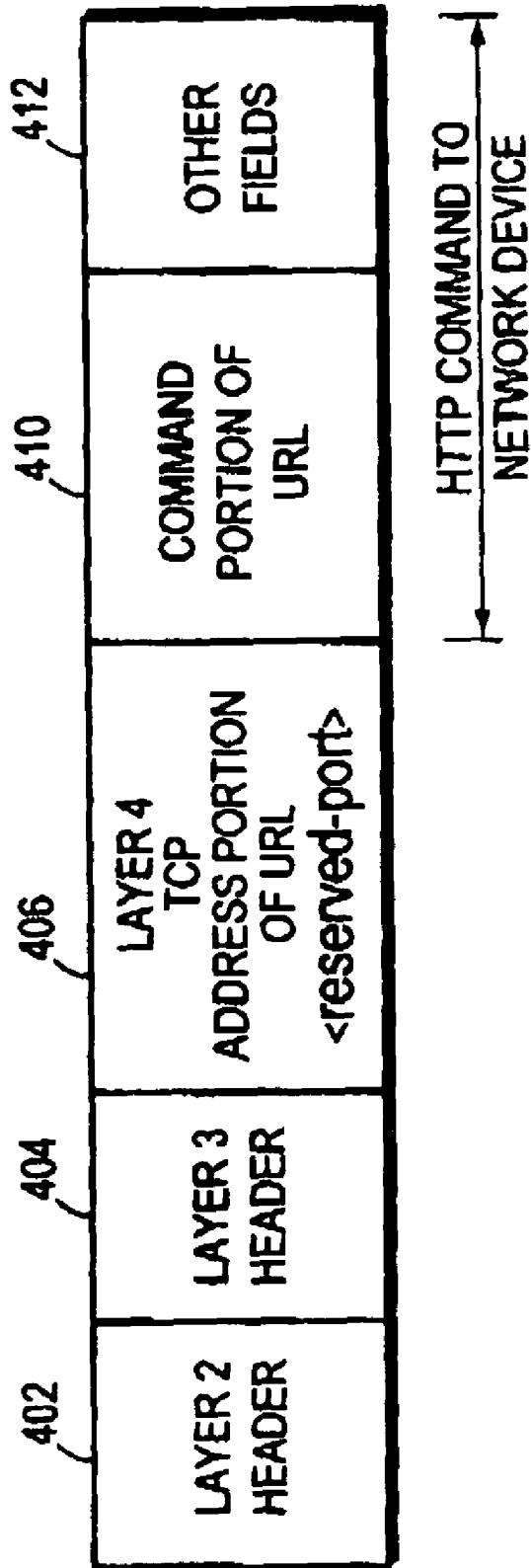


FIG. 4

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