US006243754B1

(12) **United States Patent**
Guerin et al.

(10) **Patent No.: US 6,243,754 B1**
(45) **Date of Patent: Jun. 5, 2001**

(54) **DYNAMIC SELECTION OF NETWORK PROVIDERS**

(75) Inventors: **Roch A. Guerin**, Yorktown Heights; **Arvind Krishna**, Somers; **Vinod Gerard John Peris**, Chappaqua; **Dinesh Chandra Verma**, Millwood, all of NY (US)

(73) Assignee: **International Business Machines Corporation**, Armonk, NY (US)

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

(21) Appl. No.: **09/227,769**

(22) Filed: **Jan. 8, 1999**

(51) **Int. Cl.**[7] **G06F 15/16**
(52) **U.S. Cl.** **709/227**; 709/225; 709/228; 709/229; 709/238; 709/239
(58) **Field of Search** 709/225, 227, 709/228, 229, 238, 239

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Primary Examiner—Saleh Najjar
(74) *Attorney, Agent, or Firm*—Louis P. Herzberg

(57) **ABSTRACT**

A method, apparatus and system is provided by which two or more cooperating end-users of the Internet and/or other network can dynamically select and use a single Internet or other network service provider (ISP) from among a multitude of ISPs based on the application requirements. The service provider may be selected in a dynamic fashion. This overcomes the problem wherein traditionally most end-users, whether they are individuals or organizations, are connected to the Internet or other network through a single Internet and/or other network service provider. However, users generally may have more than a single connection to the Internet and/or other network. In such cases the routing of traffic over these multiple connections is handled by IP routers based on the routing information that they exchange with their peers. This information is relatively static in nature and is typically based on the state of links that interconnect the different routers. The invention provides a mechanism for the end-user to take advantage of different rates or services that might be provided by competing Internet and/or other network service providers. Furthermore, there are cases where the choice of which provider to use depends on the application. Thus this invention enables cooperating users (or sites of an organization) to dynamically select different providers on an application by application basis.

25 Claims, 4 Drawing Sheets

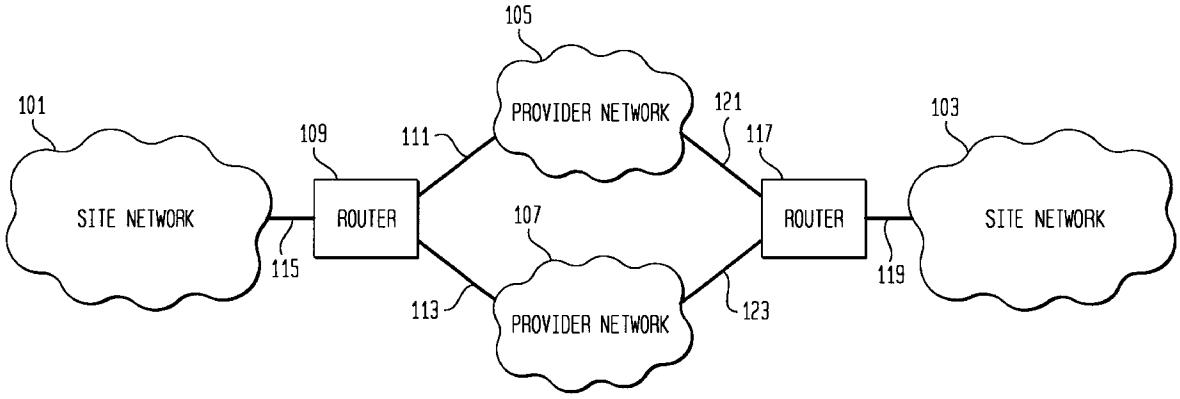

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FIG. 1

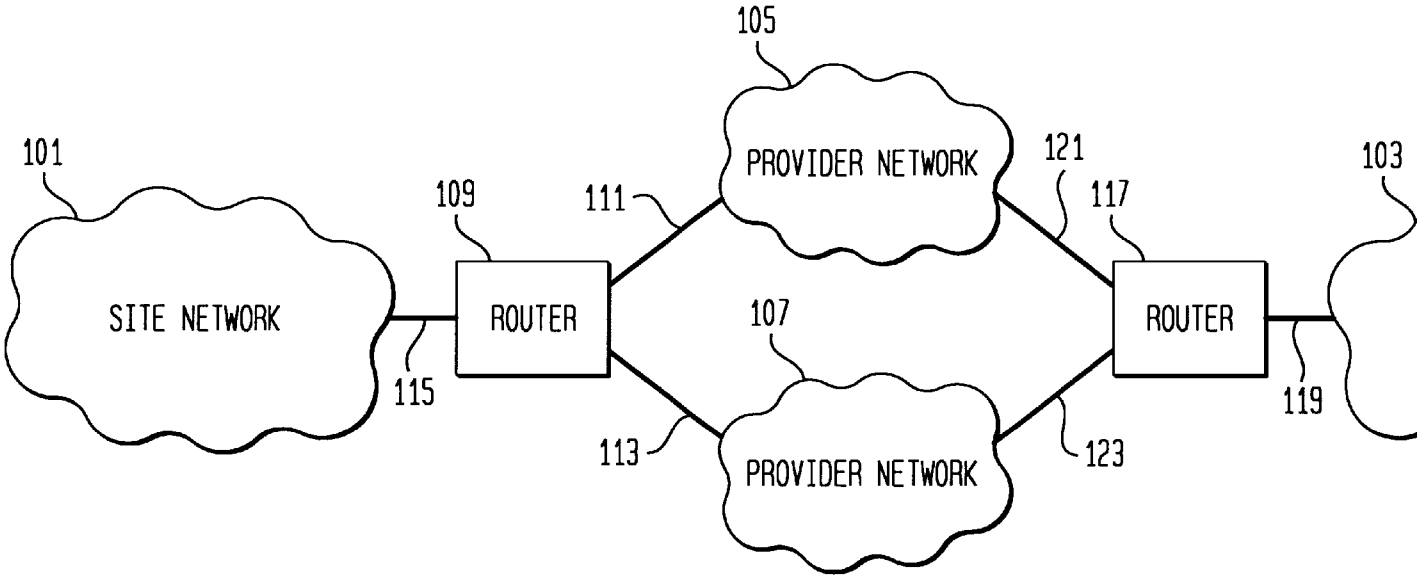

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FIG. 2A

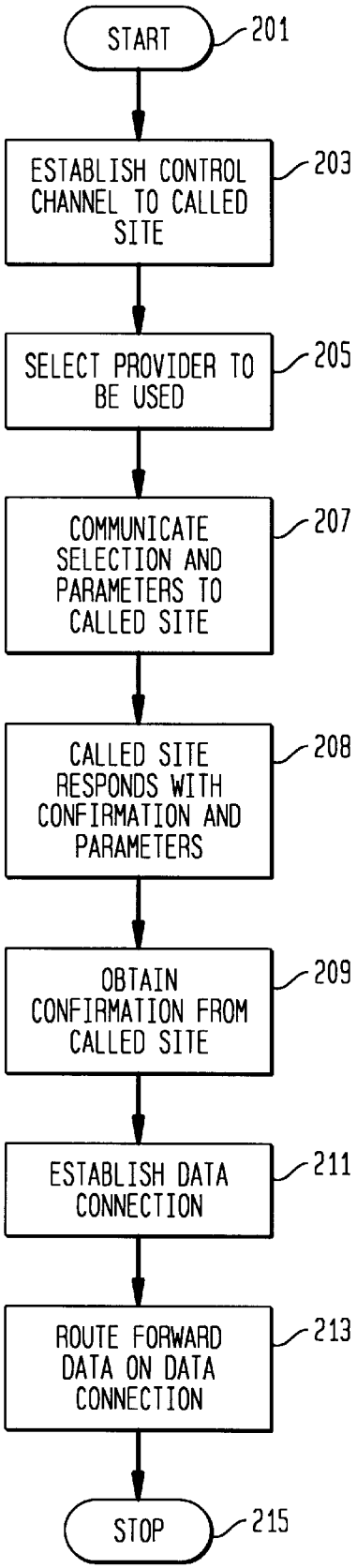

FIG. 2B

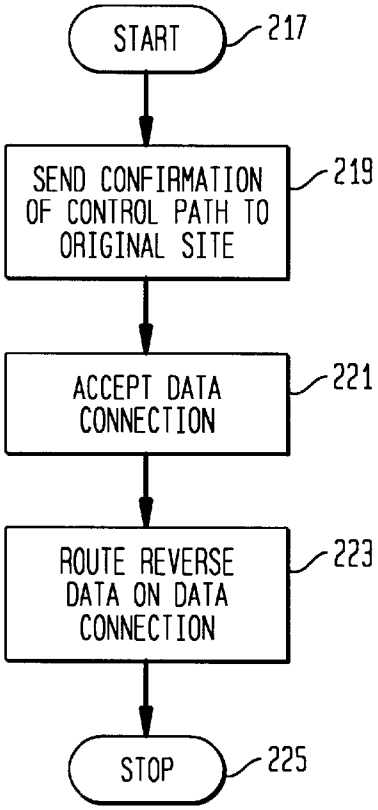

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FIG. 3

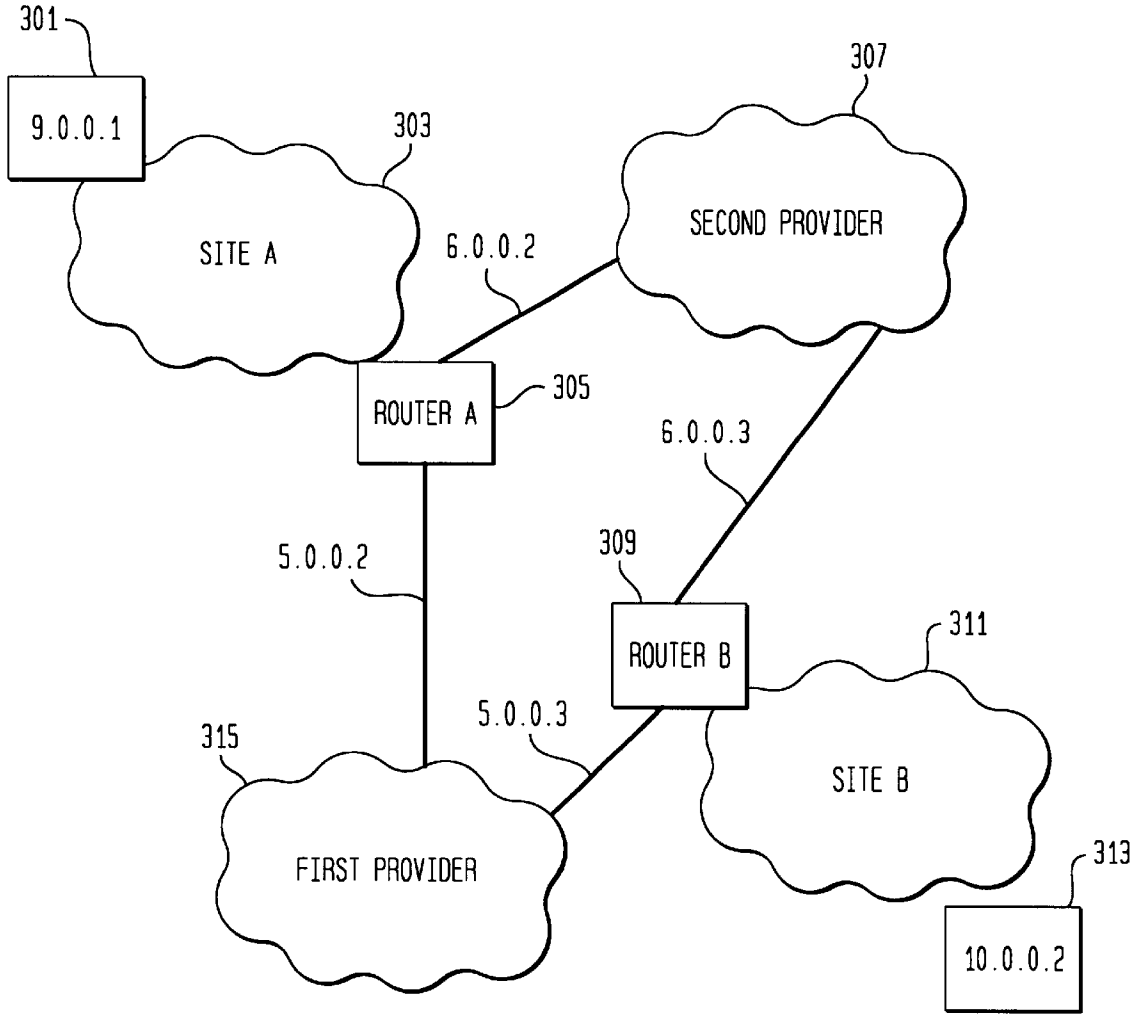

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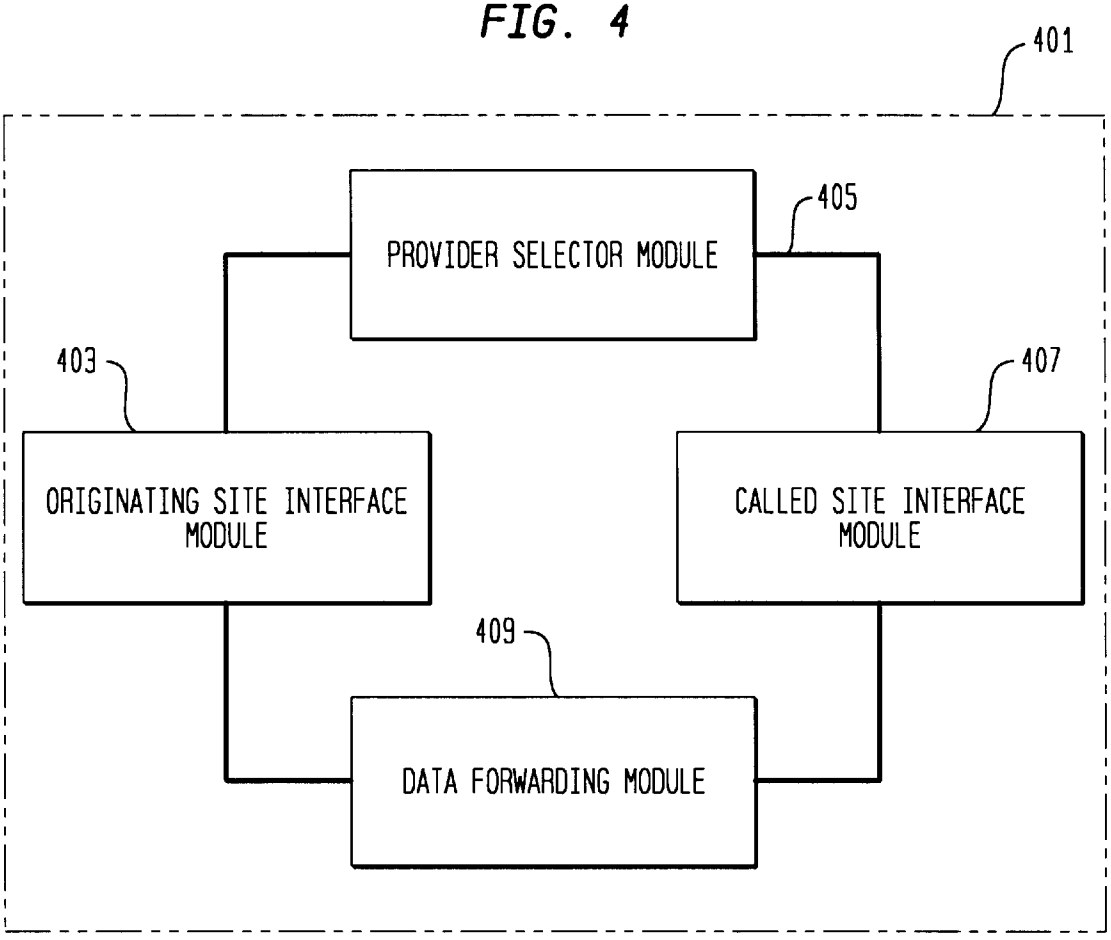
FIG. 4



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