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Devarakonda et al.

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(54) **VIRTUAL ENVIRONMENT MANAGER FOR NETWORK COMPUTERS**

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(*) Notice: This patent issued on a continued prosecution application filed under 37 CFR 1.53(d), and is subject to the twenty year patent term provisions of 35 U.S.C. 154(a)(2).

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

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(22) Filed: **Oct. 7, 1996**

(51) **Int. Cl.**[7] **G06F 15/173**; G06F 15/16; G06F 9/00

(52) **U.S. Cl.** **709/226**; 709/229; 718/104

(58) **Field of Search** 395/200.02, 200.06, 395/200.09, 200.2, 694, 680, 682, 683; 718/100, 104; 719/330, 310, 315; 709/200–226, 229

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(74) *Attorney, Agent, or Firm*—Gail H. Zarich; Anne Vachon Dougherty

(57) **ABSTRACT**

A system and method for a downloadable just-in-time middleware called VEM that provides access to network services, including system services such as printing and local storage, to applications that run on Network Computers. The VEM configures the default client services and stores information about these services. When an application executing on the Network Computer wishes to use one of the services, it communicates with its local VEM. The VEM returns a handle to the appropriate service to complete the service request.

17 Claims, 5 Drawing Sheets

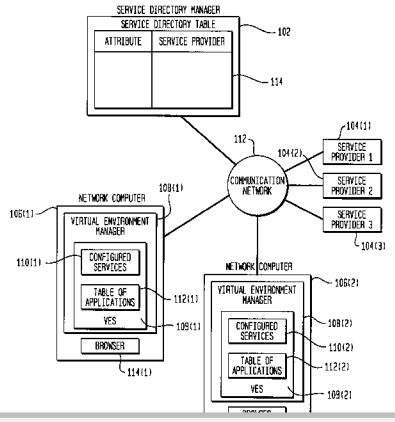

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FIG. 1

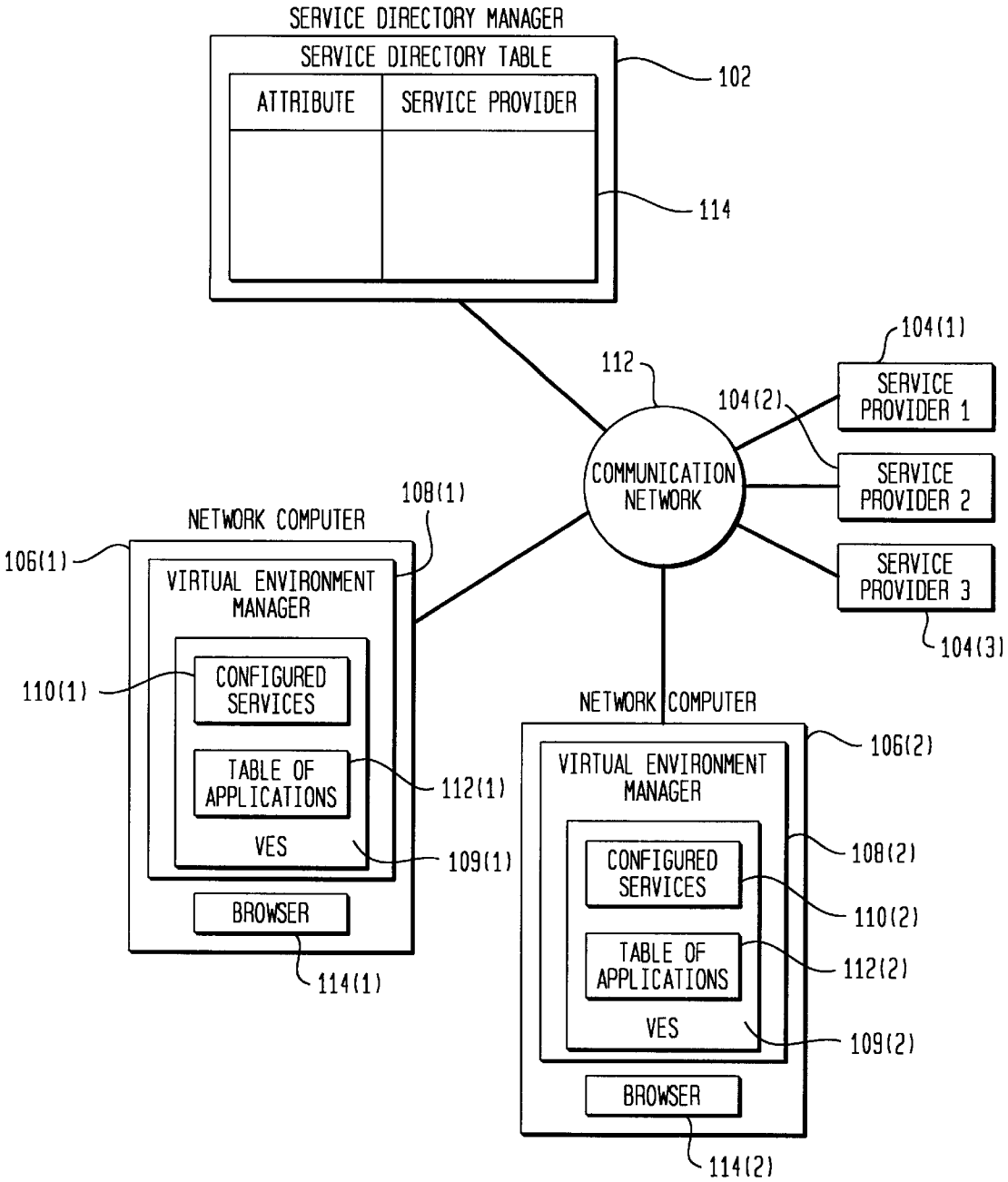

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FIG. 2

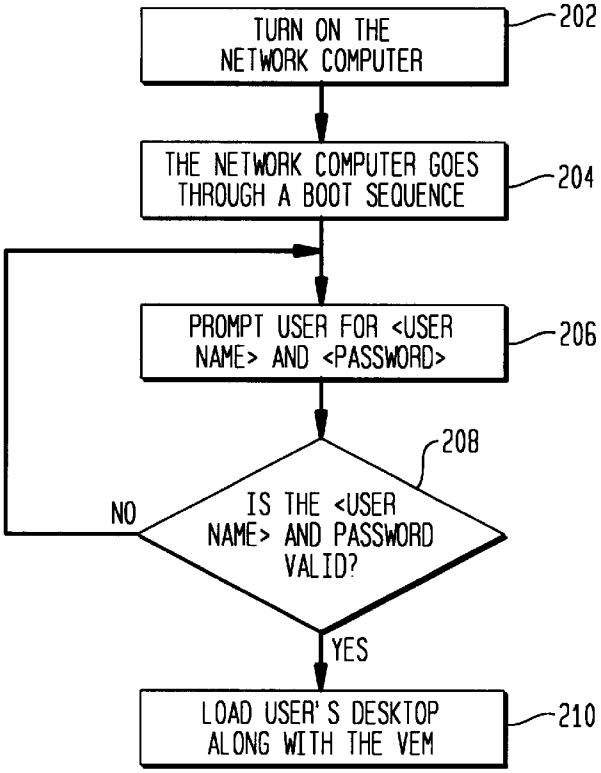

FIG. 3

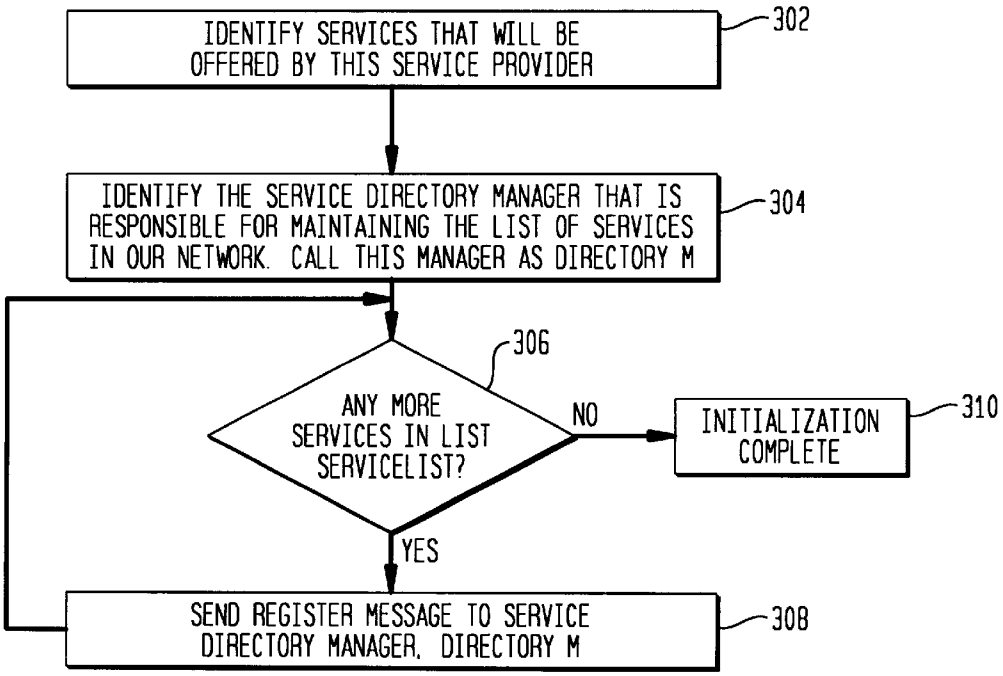

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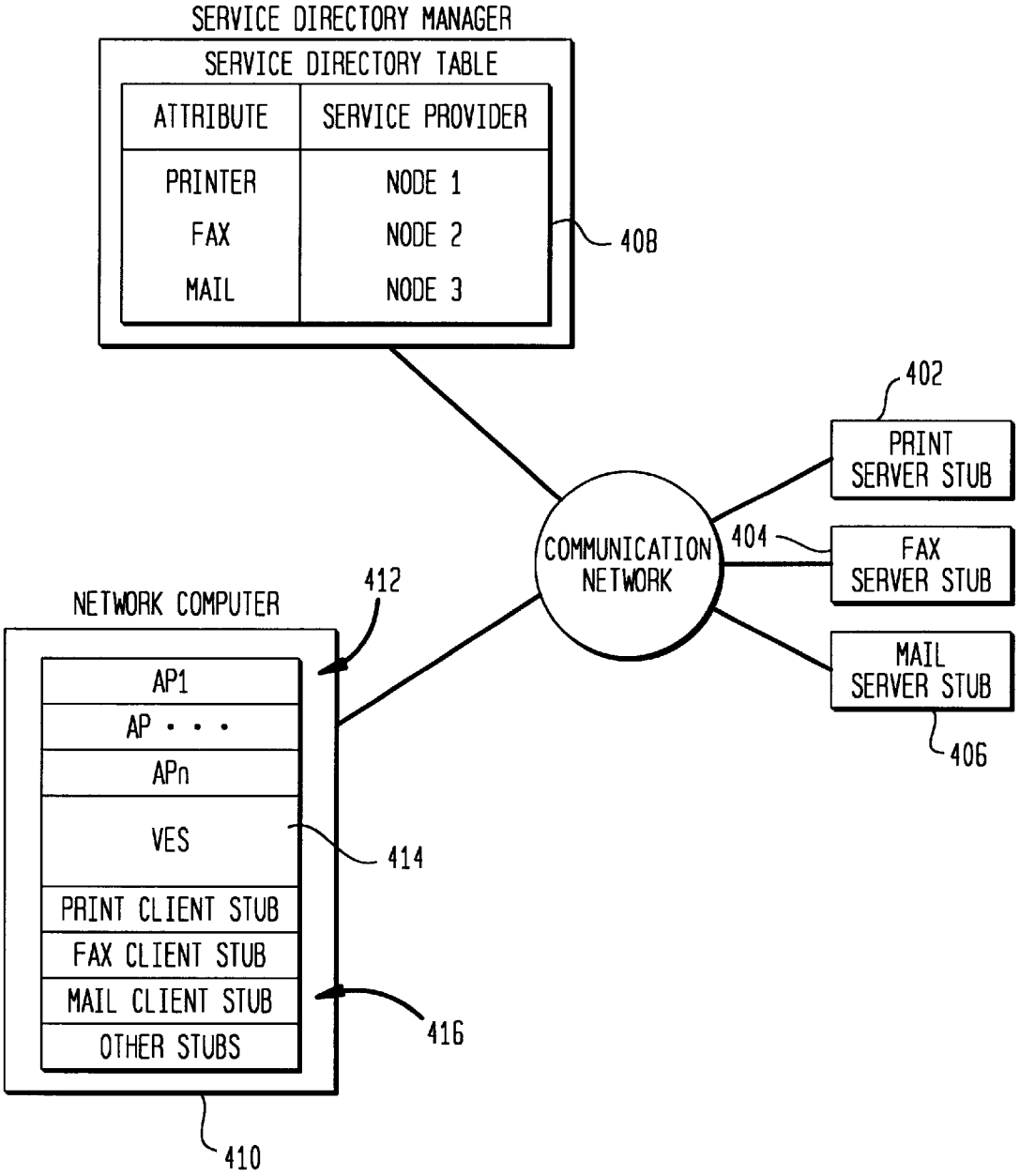
FIG. 4



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