

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

**(10) Patent No.: US 6,182,141 B1**  
**(45) Date of Patent: \*Jan. 30, 2001**

- (54) **TRANSPARENT PROXY SERVER**
- (75) Inventors: **Scott B. Blum**, Beaverton; **Jonathan Lueker**, Portland, both of OR (US)
- (73) Assignee: **Intel Corporation**, Santa Clara, CA (US)
- (\*) 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).  
  
Under 35 U.S.C. 154(b), the term of this patent shall be extended for 0 days.

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- (21) Appl. No.: **08/770,918**
- (22) Filed: **Dec. 20, 1996**
- (51) **Int. Cl.**<sup>7</sup> ..... **G06F 15/16**
- (52) **U.S. Cl.** ..... **709/227; 709/230; 709/328**
- (58) **Field of Search** ..... 395/187.01, 188.01, 395/200.55, 200.59, 200.47, 200.49, 684; 370/401; 709/227, 225, 229, 217, 218, 219, 230, 300, 302; 713/201

**(57) ABSTRACT**

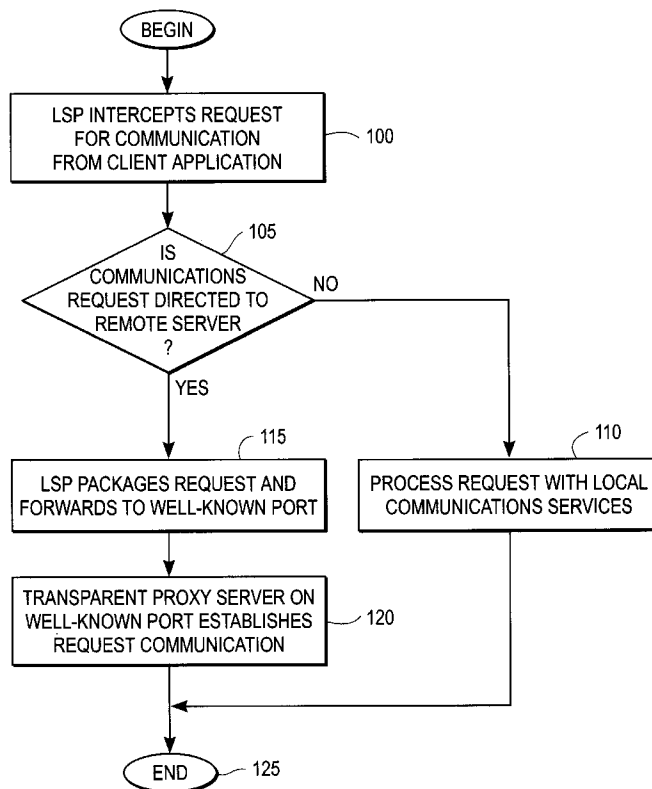
A transparent proxy. In a computer system, a layered service provider intercepts a communications request from a client application in the native protocol of the communications request wherein the communications request requests communication with a remote server. The service provider bundles and passes the communications request to a predetermined port. A transparent proxy application listening on the predetermined port receives the communications request in the native protocol of the request and establishes the requested communication.

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**25 Claims, 5 Drawing Sheets**



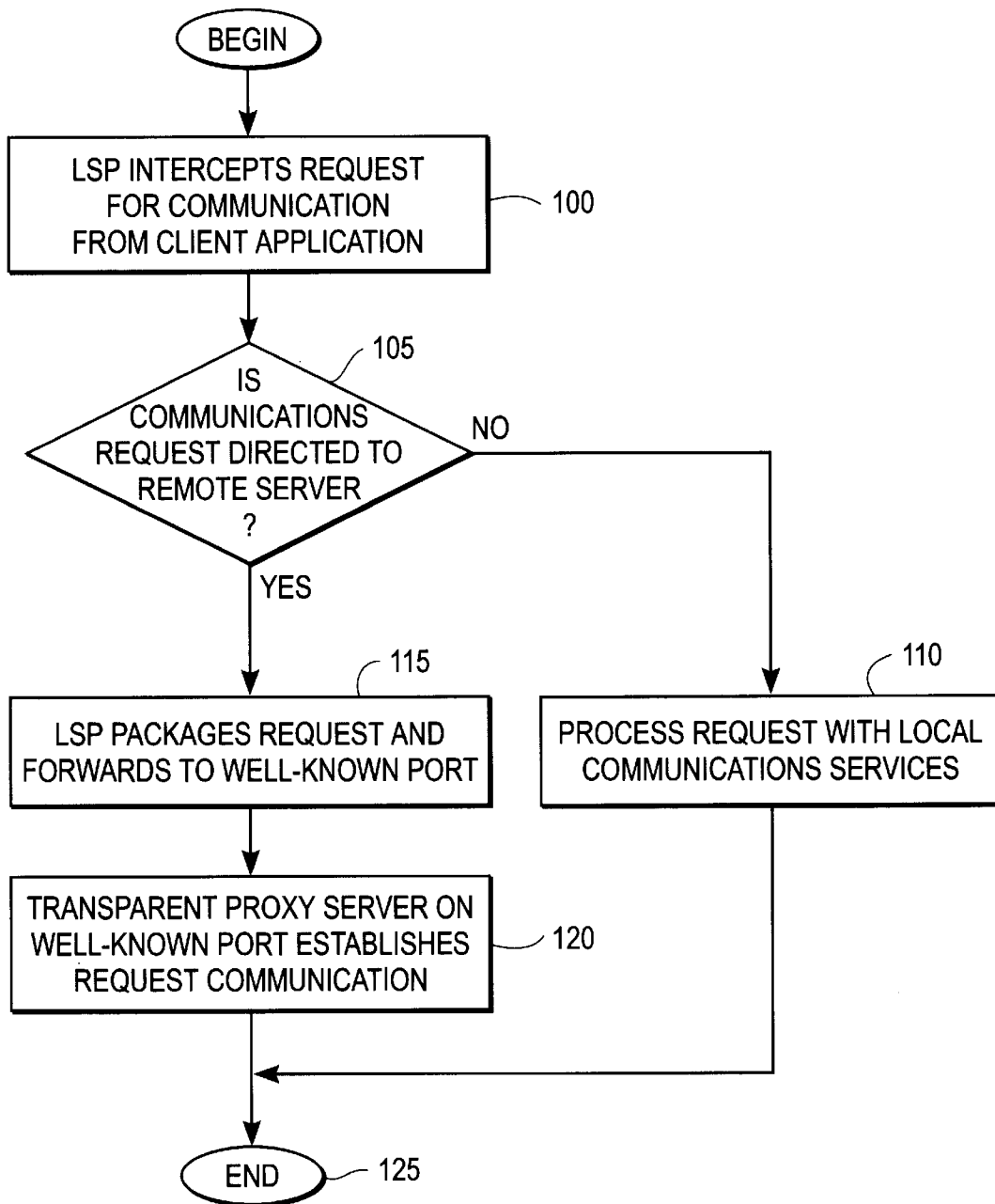


FIG. 1

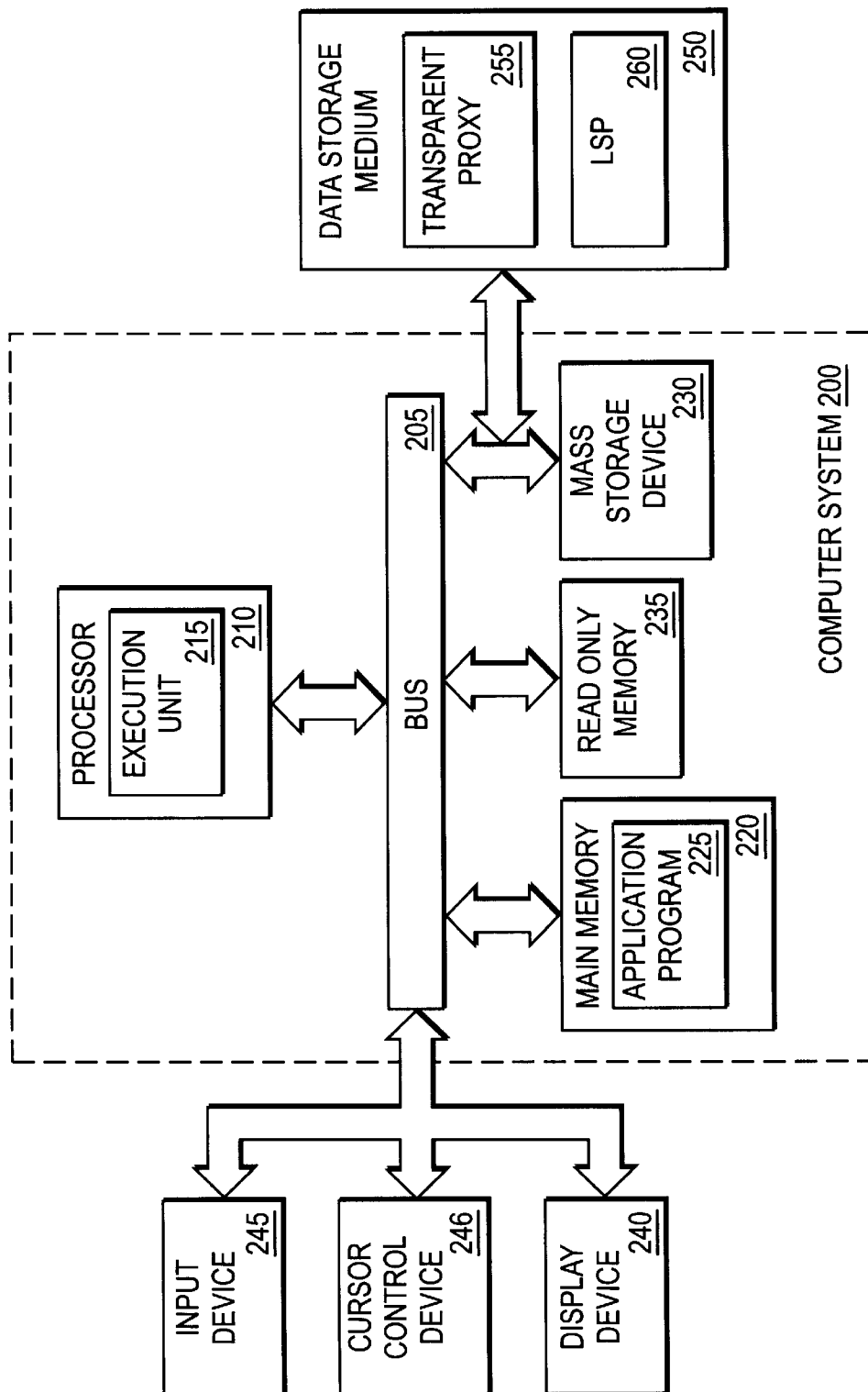


FIG. 2

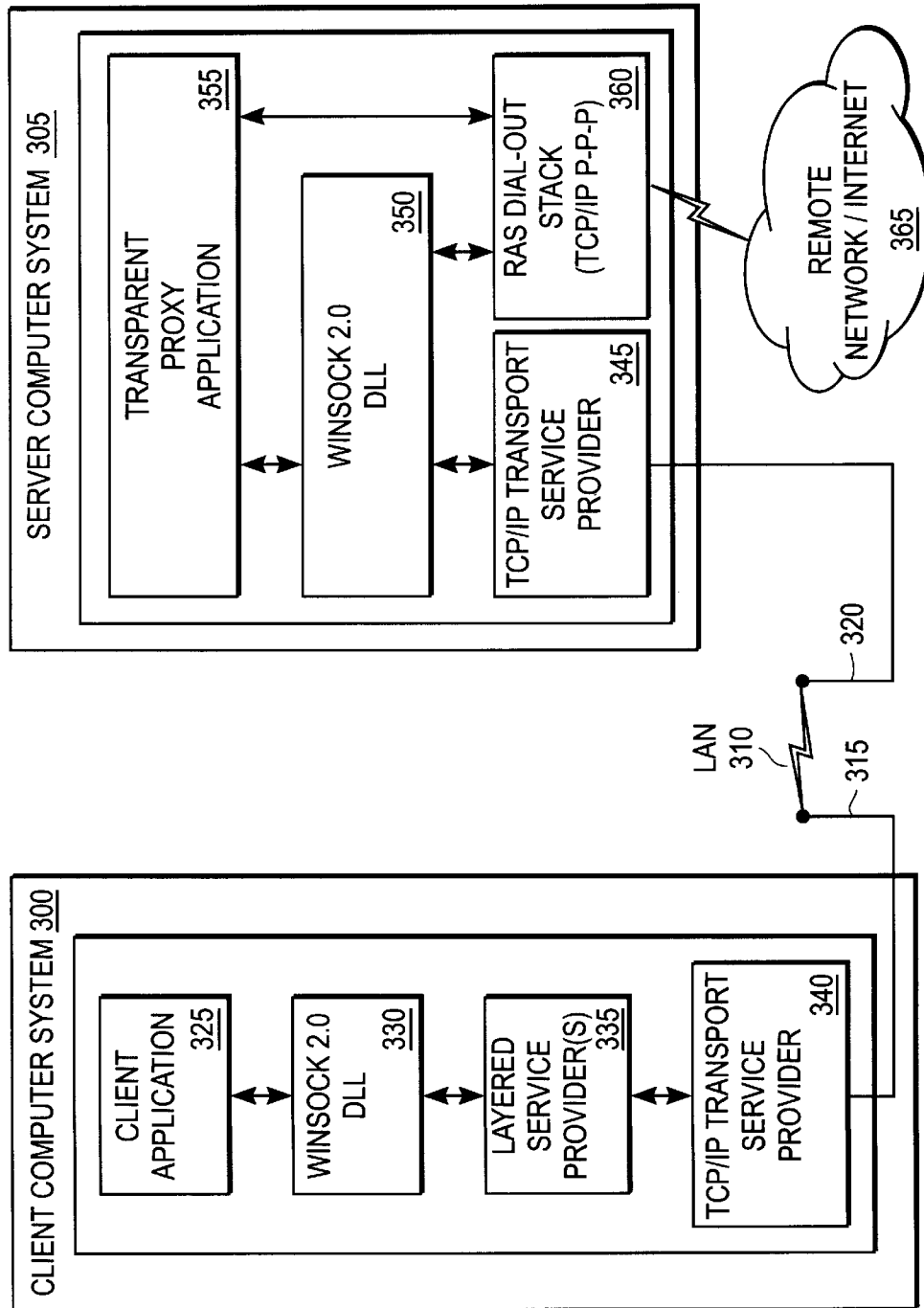


FIG. 3

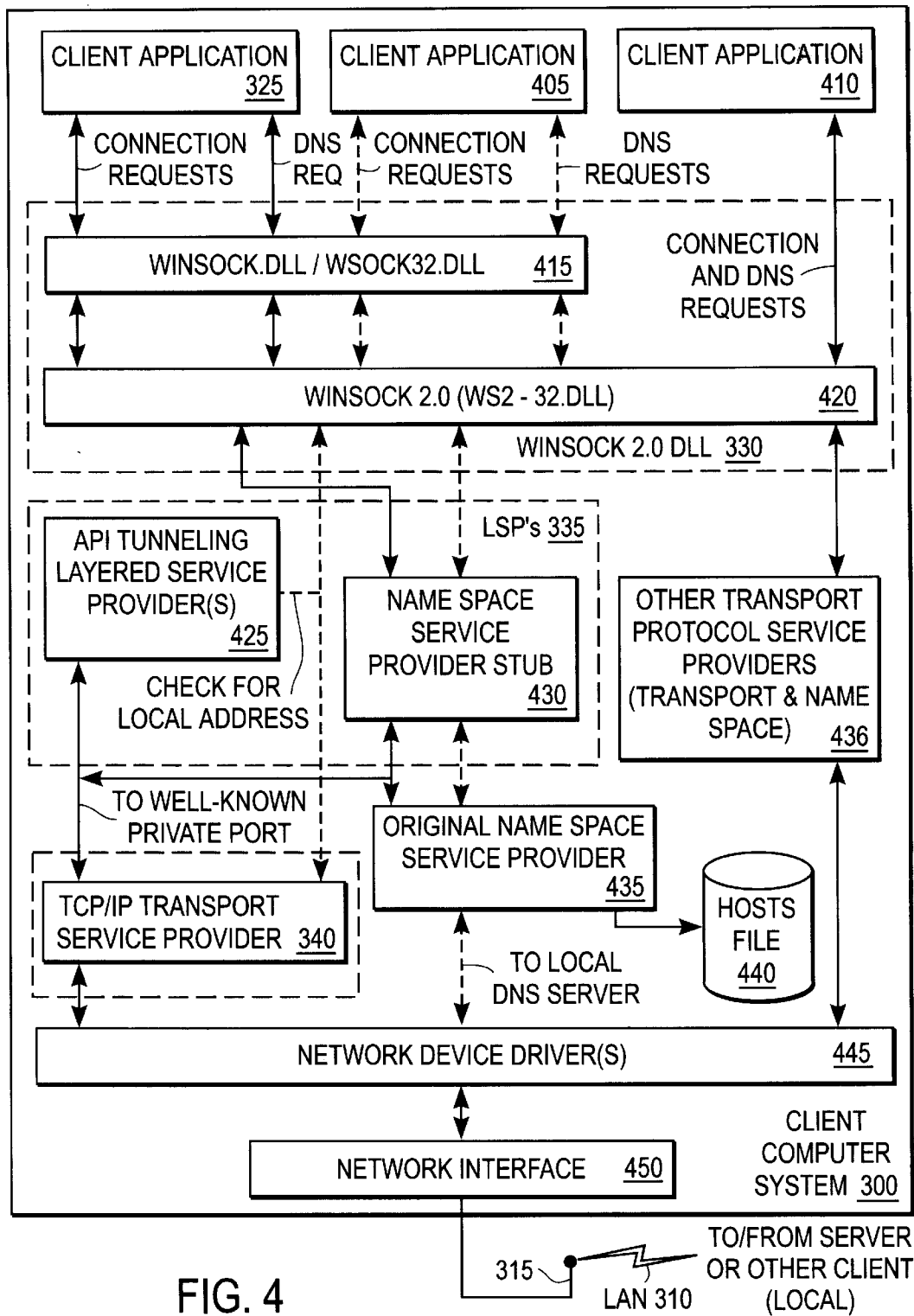


FIG. 4

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