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(12) United States Patent Gupta

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(54) APPLICATION COMPUTING ENVIRONMENT

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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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(51) Int. Cl.⁷ G06F 15/16

(56) References Cited

U.S. PATENT DOCUMENTS

5,790,789 A * 8/1998 Saurez 709/202

(List continued on next page.)

OTHER PUBLICATIONS

"Servlet Tutorial," Copyright 1997, Sun Microsystems, Inc. "Introduction to Servlets," Copyright 1997, Sun Microsystems, Inc.

"The Java Servlet API," Copyright 1997, Sun Microsystems, Inc.

Fritzinger, J. Steven and Mueller, Marianne, "Java Security," Copyright 1997, Sun Microsystems, Inc.

Erdos, Marlena, Hartman, Bret, and Mueller, Marlena, "Security Reference Model For The Developer's Kit 1.0.2," Dated: Nov. 13, 1996.

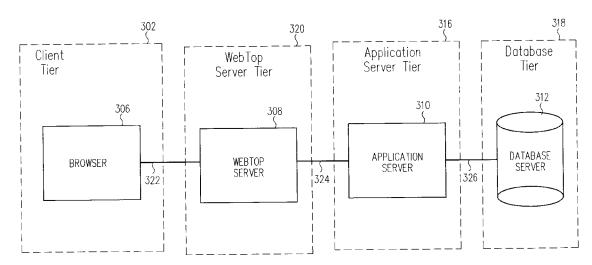
"Secure Computing with Java. Now and the Future," Copyright 1995–98, Sun Microsystems, Inc.

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(57) ABSTRACT

A computing environment that offers a level of decentralization wherein application server code resident on a remote application server can be distributed to a local server. The local server becomes a local application server for a client. A request for information by a client is serviced by the local application server. If the information is available on the local application server, the local application server satisfies the request using this information. If the information is not available locally, the local application server can access the remote application server to obtain the requested information. When the information is copied to the local application server, the local application server retains a copy of the information and forwards a copy to the client. Thus, subsequent requests can be satisfied without accessing the remote application server. Where the information cannot be transferred to the local application server, the local application server can establish a proxy to the remote application server that forwards a client request to the remote application server and a response from the remote application server to the client. The client communicates with the remote application server via the proxy on the local application server and is unaware of the remote application server. During a login process, the client establishes its identity which can be used for multiple applications and information requests. The local server generates a credential for the client that can be used to authorize access to any application server and/or service needed by the client.

19 Claims, 9 Drawing Sheets





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U.S. PATENT DOCUMENTS

5,826,024	Α	*	10/1998	Higashimura et al 709/214	4
5,857,201	Α	*	1/1999	Wright, Jr. et al 707/104	4
5,862,344	Α	*	1/1999	Hart 709/238	8
5,875,322	Α	*	2/1999	House et al 395/563	1
5,878,218	Α	*	3/1999	Maddalozzo, Jr. et al 709/213	3
5,881,230	Α	*	3/1999	Christensen et al 709/203	3
5,883,626	Α	*	3/1999	Glaser 345/342	2
5,889,520	Α	*	3/1999	Glaser 345/349	9
5,919,257	Α	*	7/1999	Trostle 713/200	O
5,922,045	Α	*	7/1999	Hanson 709/200	6
5,930,768	Α	*	7/1999	Hooban 705/27	7
5,958,010	A	*	9/1999	Agarwal et al 709/224	4

5,960,200 A	*	9/1999	Eager et al 395/705
5,961,582 A	*	10/1999	Gaines 709/1
5,987,454 A	*	11/1999	Hobbs 707/4
5,987,608 A	*	11/1999	Roskind 713/200
6,012,067 A	. *	1/2000	Sarkar 707/103
6,012,083 A	*	1/2000	Savitzky et al 709/202
6,025,474 A	*	2/2000	Carter et al 711/202
6,061,738 A	*	5/2000	Osaka et al 709/245
6,073,168 A		6/2000	Mighdol et al 709/217
6,112,228 A			Earl et al 709/205
6,119,247 A			House et al 714/38
6,202,200 B	1 *	3/2001	House et al 345/759

* cited by examiner

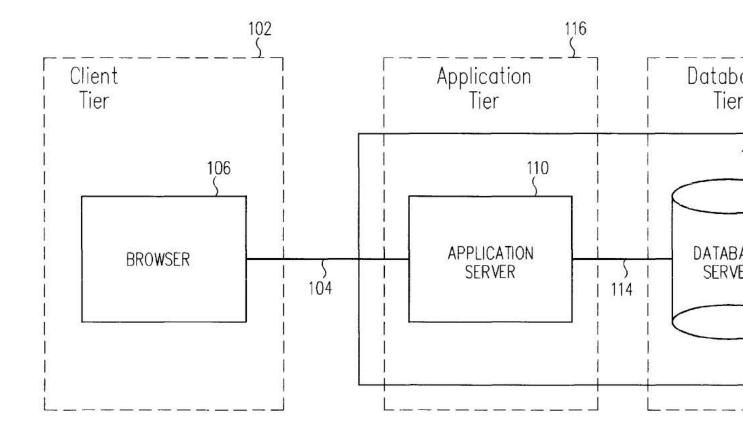


FIG. 1



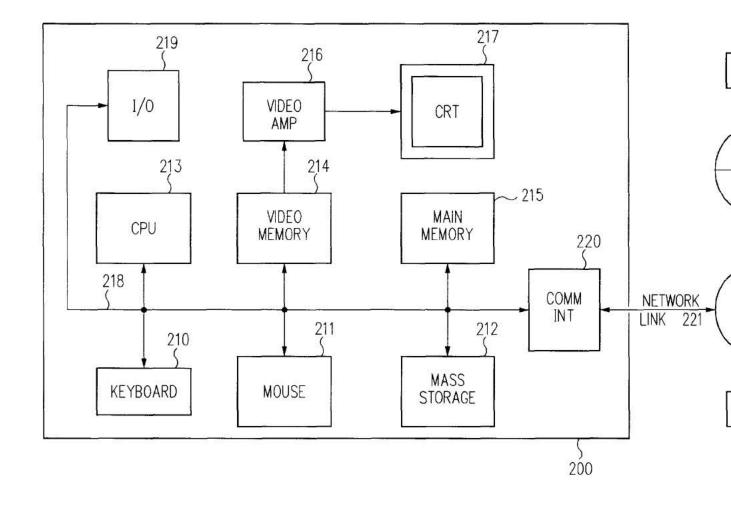


FIG. 2



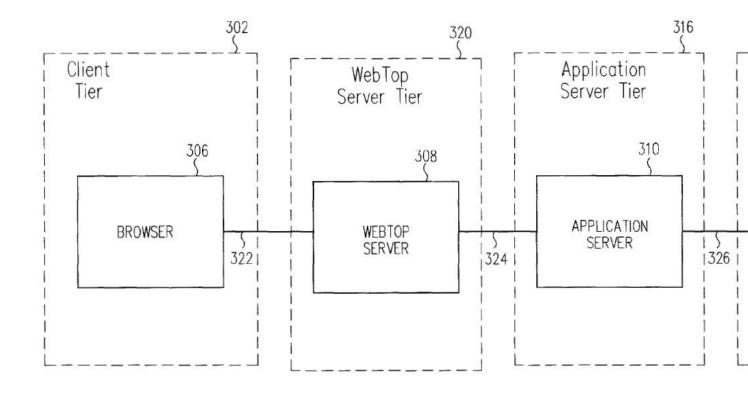


FIG. 3



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