



US006795848B1

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

(10) **Patent No.:** **US 6,795,848 B1**
(45) **Date of Patent:** **Sep. 21, 2004**

(54) **SYSTEM AND METHOD OF READING
AHEAD OF OBJECTS FOR DELIVERY TO
AN HTTP PROXY SERVER**

(75) Inventors: **John Border**, Germantown, MD (US);
Douglas Dillon, Gaithersburg, MD
(US); **Matt Butehorn**, Mt. Airy, MD
(US)

(73) Assignee: **Hughes Electronics Corporation**, El
Segundo, CA (US)

(*) Notice: Subject to any disclaimer, the term of this
patent is extended or adjusted under 35
U.S.C. 154(b) by 765 days.

(21) Appl. No.: **09/708,134**

(22) Filed: **Nov. 8, 2000**

(51) **Int. Cl.**⁷ **G06F 15/167**

(52) **U.S. Cl.** **709/213; 709/203; 709/201**

(58) **Field of Search** **709/201–203,**
709/238, 225, 226, 229, 213; 711/117,
118, 122, 137

(56) **References Cited**

U.S. PATENT DOCUMENTS

5,995,725	A	*	11/1999	Dillon	709/203
6,112,228	A	*	8/2000	Earl et al.	709/205
6,226,635	B1	*	5/2001	Katariya	707/4
6,282,542	B1	*	8/2001	Carneal et al.	707/10
6,442,651	B2	*	8/2002	Crow et al.	711/118
6,658,463	B1		12/2003	Dillon et al.	709/219

FOREIGN PATENT DOCUMENTS

DE	198 21 876 A	11/1999
WO	WO 98/53410	11/1998
WO	WO 99/08429	2/1999

OTHER PUBLICATIONS

Luotonen A: "Web Proxy Servers", Web Proxy Servers, XX,
XX, 1998 pp. 156–170, XP002928629 p. 170, line 12–p.
170, line 40.

Ari Loutonen, Web Proxy Servers, XP002928629, pp.
156–170, Prentice Hall PTR, Upper Saddle River, NJ.

H. Inoue, et al., "An Adaptive WWW Cache Mechanism in
the AI3 Network", *Proceedings of the INET'97*, www.iso-
c.org/inet97/proceedings/A1/A1_2.HTM, pp. 1–5.

Y. Zhang, et al., "HBX High Bandwidth X for Satellite
Internetworking", 10th Annual X Technical Conference, San
Jose, CA, Feb. 12–14, 1996 (The X Resource, Issue 17, pp.
85–94), pp. 1–10.

T. Baba, et al., "AI³ Satellite Internet Infrastructure and the
Deployment in Asia", *IEICE Trans. Commun.*, vol. E84–B,
No. 8, Aug. 2001, pp. 2048–2057.

H. Inoue, "An Adaptive WWW Cache Mechanism in the
AI3 Network", *INET'97* (Jun. 24–27, 1997), www.ai3.net/
pub/inet97/cache_ppt/foils.html, pp. 1–9.

* cited by examiner

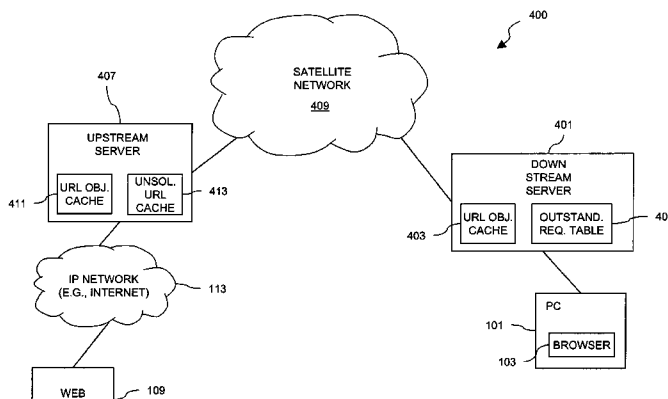
Primary Examiner—Mehmet B. Geckil

(74) *Attorney, Agent, or Firm*—John T. Whelan

(57) **ABSTRACT**

A communication system for retrieving web content is
disclosed. A downstream proxy server receives a URL
request message from a web browser, in which the URL
request message specifies a URL content that has an embed-
ded object. An upstream proxy server receives the URL
request message from the downstream proxy server. The
upstream proxy server selectively forwards the URL request
message to a web server and receives the URL content from
the web server, wherein the upstream proxy server forwards
the URL content to the downstream proxy server and parses
the URL content to obtain the embedded object prior to
receiving a corresponding embedded object request message
initiated by the web browser.

4 Claims, 7 Drawing Sheets



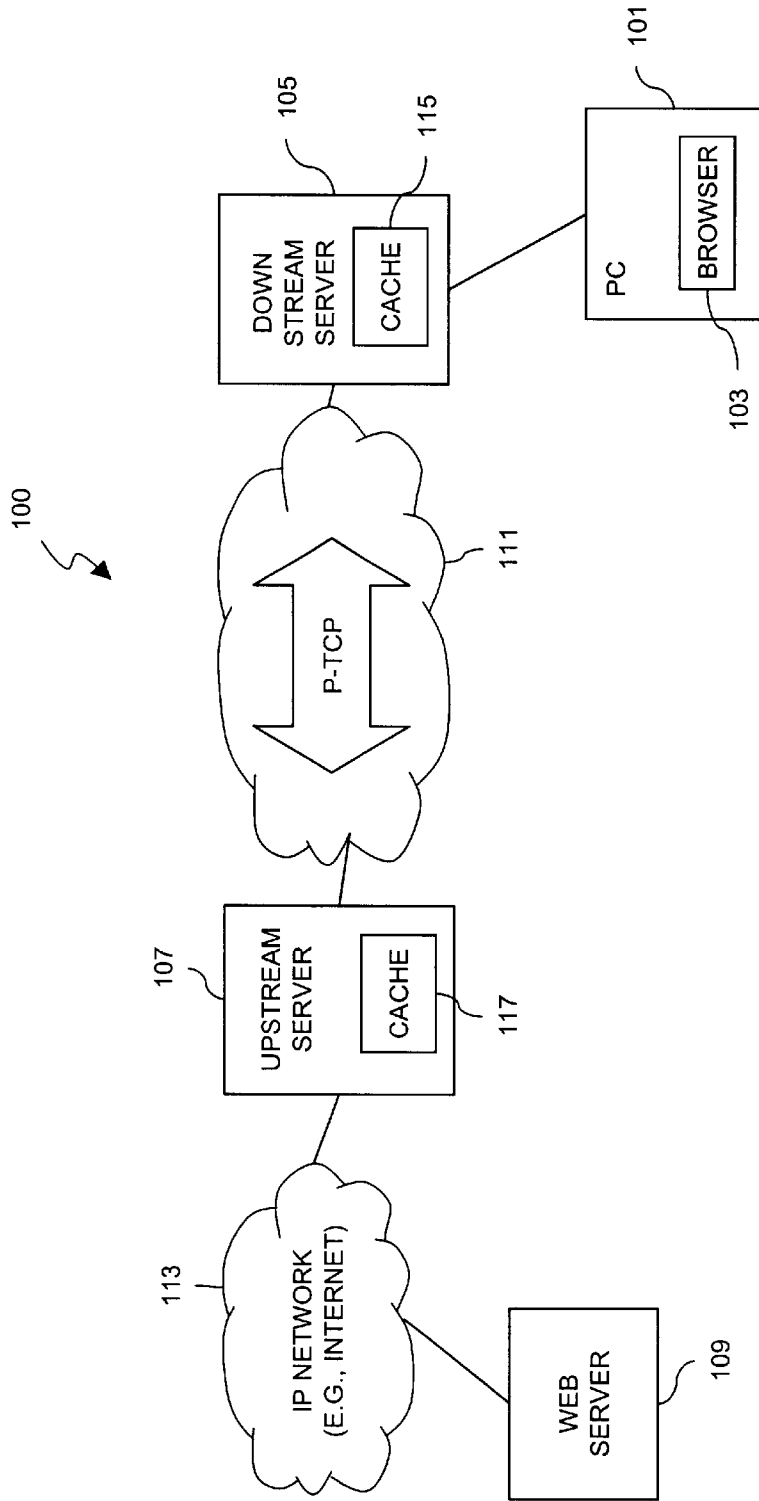


FIG. 1

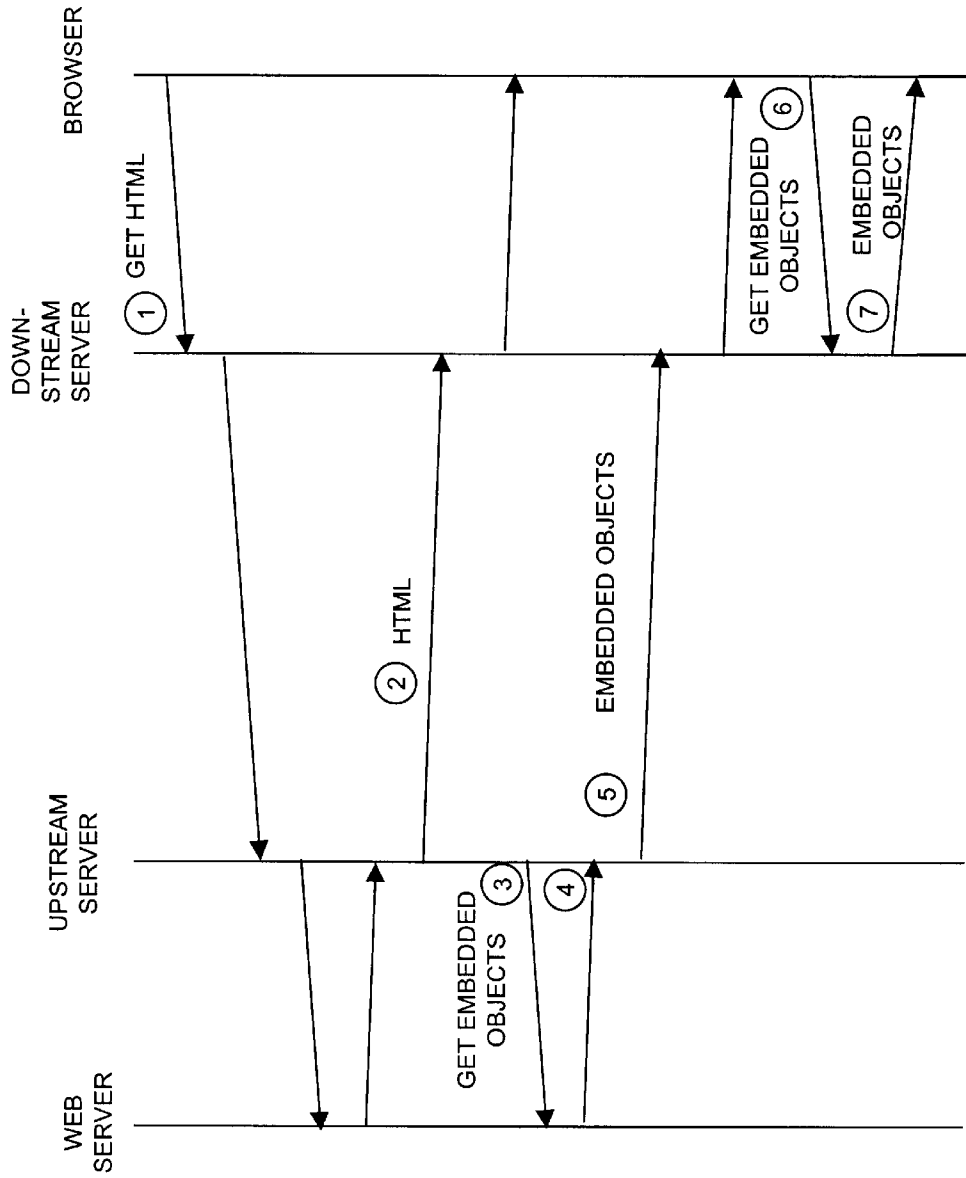
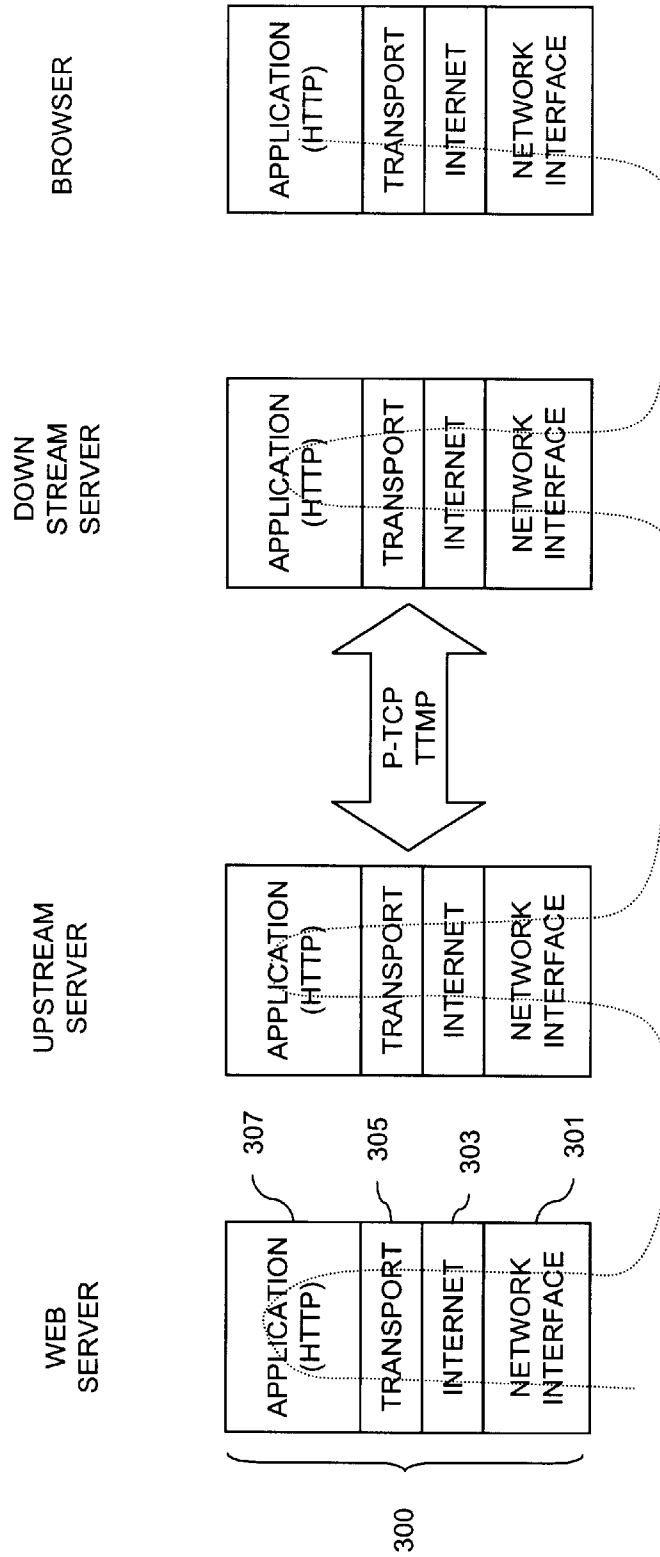


FIG. 2

FIG. 3



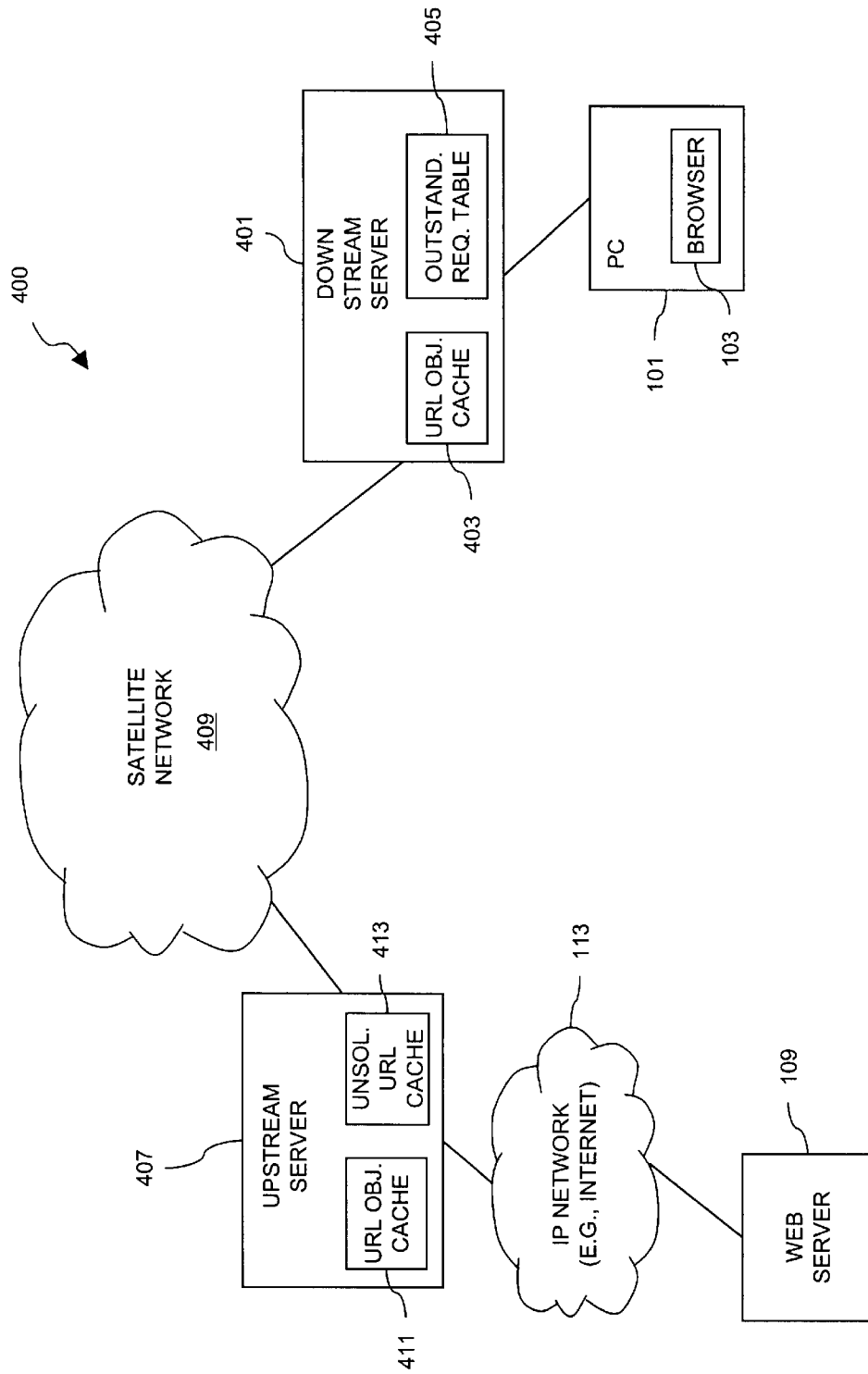


FIG. 4

Explore Litigation Insights

Docket Alarm provides insights to develop a more informed litigation strategy and the peace of mind of knowing you're on top of things.

Real-Time Litigation Alerts



Keep your litigation team up-to-date with **real-time alerts** and advanced team management tools built for the enterprise, all while greatly reducing PACER spend.

Our comprehensive service means we can handle Federal, State, and Administrative courts across the country.

Advanced Docket Research



With over 230 million records, Docket Alarm's cloud-native docket research platform finds what other services can't. Coverage includes Federal, State, plus PTAB, TTAB, ITC and NLRB decisions, all in one place.

Identify arguments that have been successful in the past with full text, pinpoint searching. Link to case law cited within any court document via Fastcase.

Analytics At Your Fingertips



Learn what happened the last time a particular judge, opposing counsel or company faced cases similar to yours.

Advanced out-of-the-box PTAB and TTAB analytics are always at your fingertips.

API

Docket Alarm offers a powerful API (application programming interface) to developers that want to integrate case filings into their apps.

LAW FIRMS

Build custom dashboards for your attorneys and clients with live data direct from the court.

Automate many repetitive legal tasks like conflict checks, document management, and marketing.

FINANCIAL INSTITUTIONS

Litigation and bankruptcy checks for companies and debtors.

E-DISCOVERY AND LEGAL VENDORS

Sync your system to PACER to automate legal marketing.