



US007127493B1

(12) **United States Patent**
Gautier

(10) **Patent No.:** **US 7,127,493 B1**
(45) **Date of Patent:** **Oct. 24, 2006**

(54) **OPTIMIZING SERVER DELIVERY OF CONTENT BY SELECTIVE INCLUSION OF OPTIONAL DATA BASED ON OPTIMIZATION CRITERIA**

6,128,668 A * 10/2000 Barber et al. 709/246
6,167,441 A * 12/2000 Himmel 709/217
6,598,075 B1 * 7/2003 Ogdon et al. 709/204

(76) Inventor: **Taylor S. Gautier**, 2237 Trafalgar Pl.,
Oakland, CA (US) 94611

OTHER PUBLICATIONS

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

PCT International Application No. PCT/JP97/03460.*
"Intelligent User Interface Prompt Level", *IBM Technical Disclosure Bulletin*, vol. 35, No. 1A, Jun. 1992, (United States) p. 25-26.
F. Vitali, et al., "Extending HTML in a Principled Way With Displets", *Computer Networks and ISDN Systems*, vol. 29, No. 8-13, Sep. 1, 1997, (United States) pp. 1115-1128.

(21) Appl. No.: **09/312,586**

(Continued)

(22) Filed: **May 14, 1999**

Primary Examiner—William Thomson
Assistant Examiner—Van Nguyen

(51) **Int. Cl.**
G06F 15/16 (2006.01)

(52) **U.S. Cl.** **709/217; 707/1; 707/2;**
707/10; 709/201

(57) **ABSTRACT**

(58) **Field of Classification Search** **715/513,**
715/500.1, 526; 709/201-203, 246, 217-219;
707/10

Optimization constraints are used to select an appropriate content item from an available group of content items which are ordered in a specific manner to facilitate the proper selection of the content item, even if the exact item desired is not present. The server is then able to insert the selected content item into the outgoing content page requested by the client. The optimization constraints can be, but are not limited to, any one of the following: communication channel performance (bandwidth), client operating system, client processor, client display capabilities, client installed software (video or audio codecs for example), and/or user preferences. A software product and method enable selective delivery of content to client devices of varying performance characteristics, including varying bandwidth, by selective filtering and inclusion of markup language content using tags demarcating optional content. The optional content may include a number of alternate items of content. An optimization constraint is used to select one of the items. The server includes the selected item in an item of content requested by a client device. The optimization constraints are associated with varying levels of client/communication channel performance.

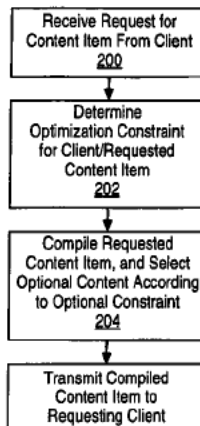
See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

5,179,700 A	1/1993	Aihara et al.	395/650
5,586,244 A	12/1996	Berry et al.	
5,625,781 A	4/1997	Cline et al.	
5,649,131 A *	7/1997	Ackerman et al.	345/744
5,649,186 A	7/1997	Ferguson	
5,706,434 A	1/1998	Kremen et al.	395/200.09
5,740,549 A	4/1998	Reilly et al.	
5,754,774 A	5/1998	Bittinger et al.	
5,761,662 A	6/1998	Dasan	
5,794,230 A	8/1998	Horadan et al.	
5,796,393 A	8/1998	MacNaughton et al.	
5,796,952 A	8/1998	Davis et al.	
5,801,689 A	9/1998	Huntsman	
5,801,702 A	9/1998	Dolan et al.	
5,809,248 A	9/1998	Vidovic	
5,890,172 A	3/1999	Borman et al.	
5,893,091 A	4/1999	Hunt et al.	
5,895,471 A	4/1999	King et al.	

22 Claims, 3 Drawing Sheets



OTHER PUBLICATIONS

"HDML 2.0 Language Reference Version 2.0", Jul. 1997, (United States) pp. 1-56.

D. Atkins, et al., "Integrated Web and Telephone Service Creation", *Bell Labs Technical Journal*, Winter 1997, (United States) vol. 2, No. 1, pp. 19-35.

Shimada, T. et al., *Interactive Scaling Control Mechanism for World-Wide Web Systems*, Computer Networks and ISDN Systems, vol. 29, pp. 1467-1477 (1997).

PCT Preliminary Examination Report, PCT International Application No. PCT/US99/18997.

* cited by examiner

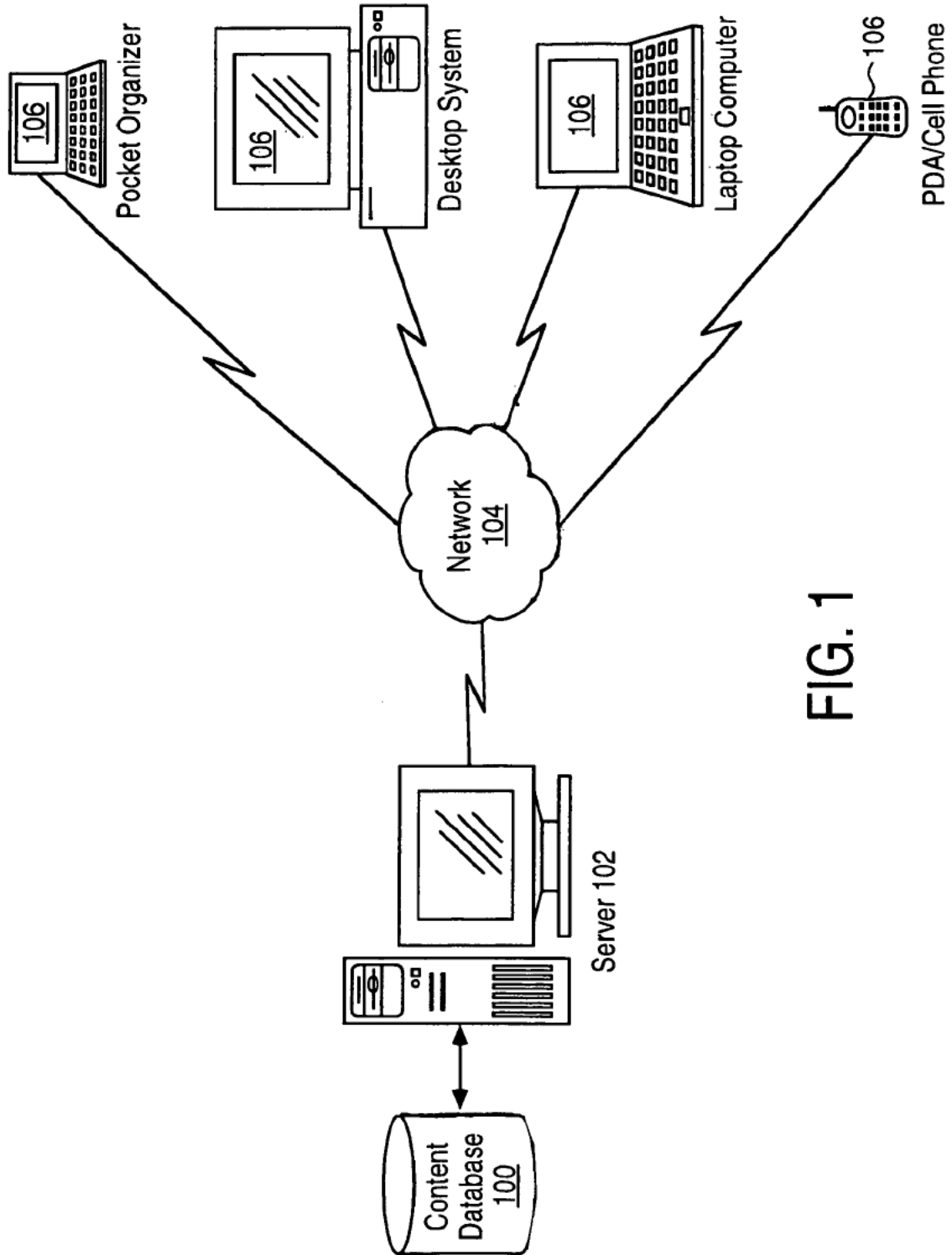
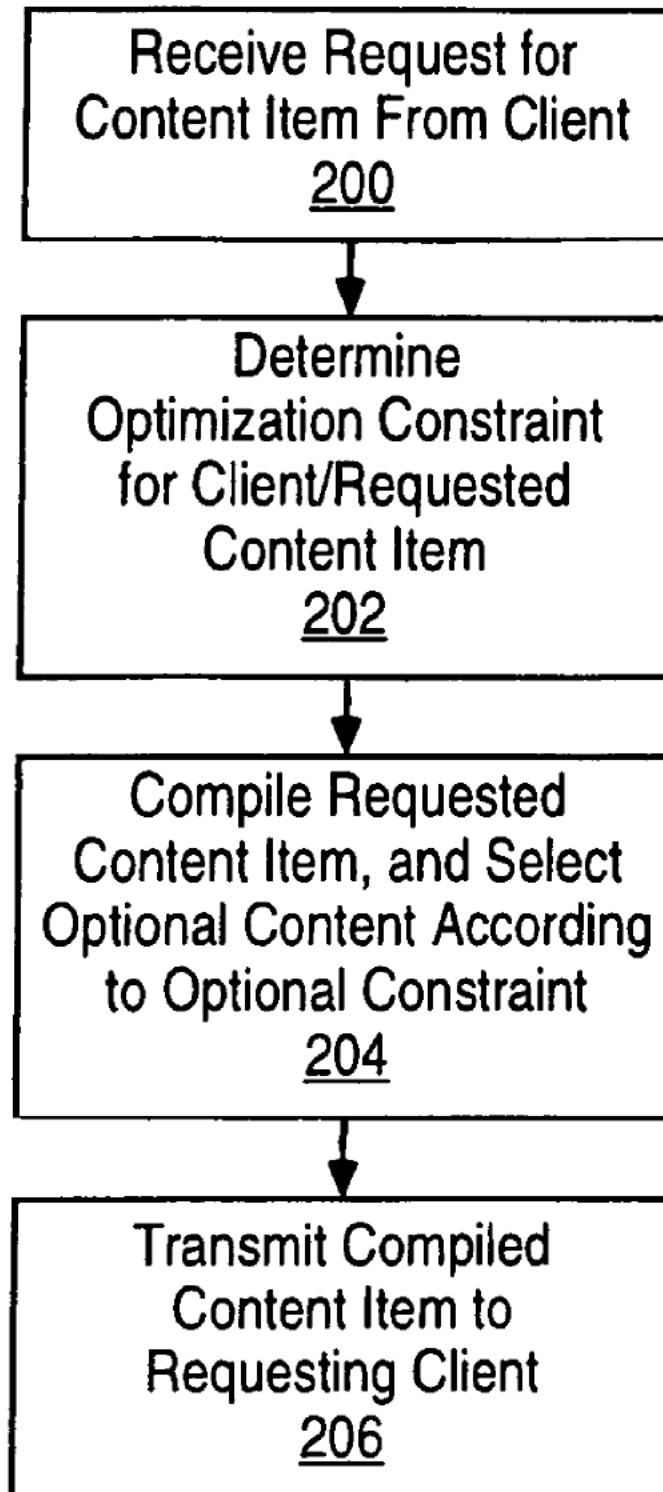


FIG. 1

FIG. 2



Directions<OPT> to our offices<OPT>:

 <OPT>CONTINUE<DOPT>C</OPT><OPT> onto</OPT> HARRISON ST<OPT>
 --></OPT> <OPT>Go </OPT><OPT>a short distance<DOPT>short
 distance</OPT><OPT> and then</OPT>
<OPT>TURN
 RIGHT<DOPT>R</OPT><OPT> onto</OPT> 2ND ST<OPT> --></OPT>
 <OPT>Go
 </OPT>0.1 <OPT>miles<DOPT>m</OPT><OPT> and
 then</OPT>
<OPT>TURN LEFT<DOPT>L</OPT><OPT> onto</OPT>
 WEBSTER
 ST
<OPT>CONTINUE<DOPT>C</OPT> <OPT>a short
 distance<DOPT>short
 distance<OPT>

<OPT>Total distance is<DOPT>Total:</OPT>0.2
 <OPT>miles<DOPT>m</OPT><OPT>
Estimated driving
 time<DOPT>,</OPT> 0.9 <OPT>minutes<DOPT>min</OPT>

300

FIG. 3A

Compiled for Low
Constraint/High
Performance Device
(e.g., HTML)

Compiled For High
Constraint/Low
Performance Device
(e.g., TTML)

Directions to our offices:
 CONTINUE onto HARRISON ST --> Go a short distance and then
 TURN RIGHT onto 2ND ST --> Go 0.1 miles and then
 TURN LEFT onto WEBSTER ST
 CONTINUE a short distance

Total distance is 0.2 miles
 Estimated driving time 0.9 minutes

FIG. 3B

Directions
 C HARRISON ST short distance
 R 2ND ST 0.1 m
 L WEBSTER ST
 C short distance

Total: 0.2 m, 0.9 min.

FIG. 3C

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.