

# Exhibit C

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

(10) **Patent No.:** **US 7,631,346 B2**  
 (45) **Date of Patent:** **Dec. 8, 2009**

(54) **METHOD AND SYSTEM FOR A RUNTIME USER ACCOUNT CREATION OPERATION WITHIN A SINGLE-SIGN-ON PROCESS IN A FEDERATED COMPUTING ENVIRONMENT**

2004/0205176 A1*	10/2004	Ting et al.	709/223
2005/0074126 A1*	4/2005	Stanko	380/279
2005/0210270 A1*	9/2005	Rohatgi et al.	713/186
2005/0240763 A9*	10/2005	Bhat et al.	713/169
2005/0257130 A1*	11/2005	Ito	715/500.1
2006/0048213 A1*	3/2006	Cheng et al.	726/5

(75) Inventors: **Heather Maria Hinton**, Austin, TX (US); **Ivan Matthew Milman**, Austin, TX (US); **Venkat Raghavan**, Austin, TX (US); **Shane Bradley Weeden**, Gold Coast (AU)

(Continued)

(73) Assignee: **International Business Machines Corporation**, Armonk, NY (US)

OTHER PUBLICATIONS

(\* ) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 827 days.

Gross, T.; Security analysis of the SAML single sign-on browser/artifact profile; Publication Date: Dec. 8-12, 2003; IBM Zurich Res. Lab; On pp. 298-307.\*

(21) Appl. No.: **11/097,587**

Primary Examiner—Kambiz Zand

Assistant Examiner—Monjour Rahim

(22) Filed: **Apr. 1, 2005**

(74) Attorney, Agent, or Firm—Jeffrey S. LaBaw; David H. Judson

(65) **Prior Publication Data**

(57) **ABSTRACT**

US 2006/0236382 A1 Oct. 19, 2006

(51) **Int. Cl.**

**G06F 7/04** (2006.01)  
**G06F 15/16** (2006.01)  
**G04L 9/32** (2006.01)  
**G06F 17/30** (2006.01)

A method, system, apparatus, and computer program product are presented to support computing systems of different enterprises that interact within a federated computing environment. Federated single-sign-on operations can be initiated at the computing systems of federation partners on behalf of a user even though the user has not established a user account at a federation partner prior to the initiation of the single-sign-on operation. For example, an identity provider can initiate a single-sign-on operation at a service provider while attempting to obtain access to a controlled resource on behalf of a user. When the service provider recognizes that it does not have a linked user account for the user that allows for a single-sign-on operation with the identity provider, the service provider creates a local user account. The service provider can also pull user attributes from the identity provider as necessary to perform the user account creation operation.

(52) **U.S. Cl.** ..... **726/8**; 380/279

(58) **Field of Classification Search** ..... 726/6, 726/5, 4, 8; 709/223, 229, 219; 713/202, 713/186, 169; 380/279; 715/500

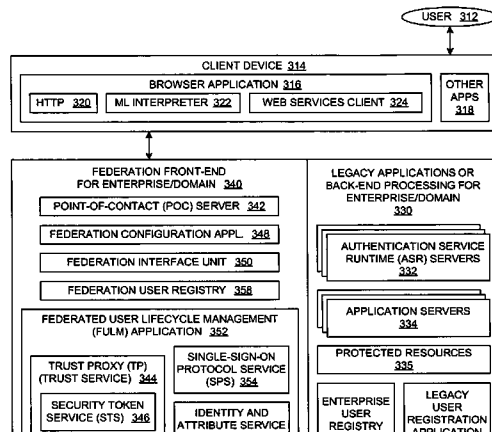
See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

7,290,278 B2*	10/2007	Cahill et al.	726/6
2003/0149781 A1	8/2003	Yared et al.	
2003/0154266 A1*	8/2003	Bobick et al.	709/223
2004/0010607 A1*	1/2004	Lee et al.	709/229
2004/0158746 A1*	8/2004	Hu et al.	713/202

**20 Claims, 14 Drawing Sheets**



**US 7,631,346 B2**

Page 2

---

U.S. PATENT DOCUMENTS		2007/0005730 A1*	1/2007	Torvinen et al. ....	709/219
2006/0059544 A1*	3/2006	Guthrie et al. ....			726/4
2006/0195893 A1*	8/2006	Caceres et al. ....			726/8

\* cited by examiner

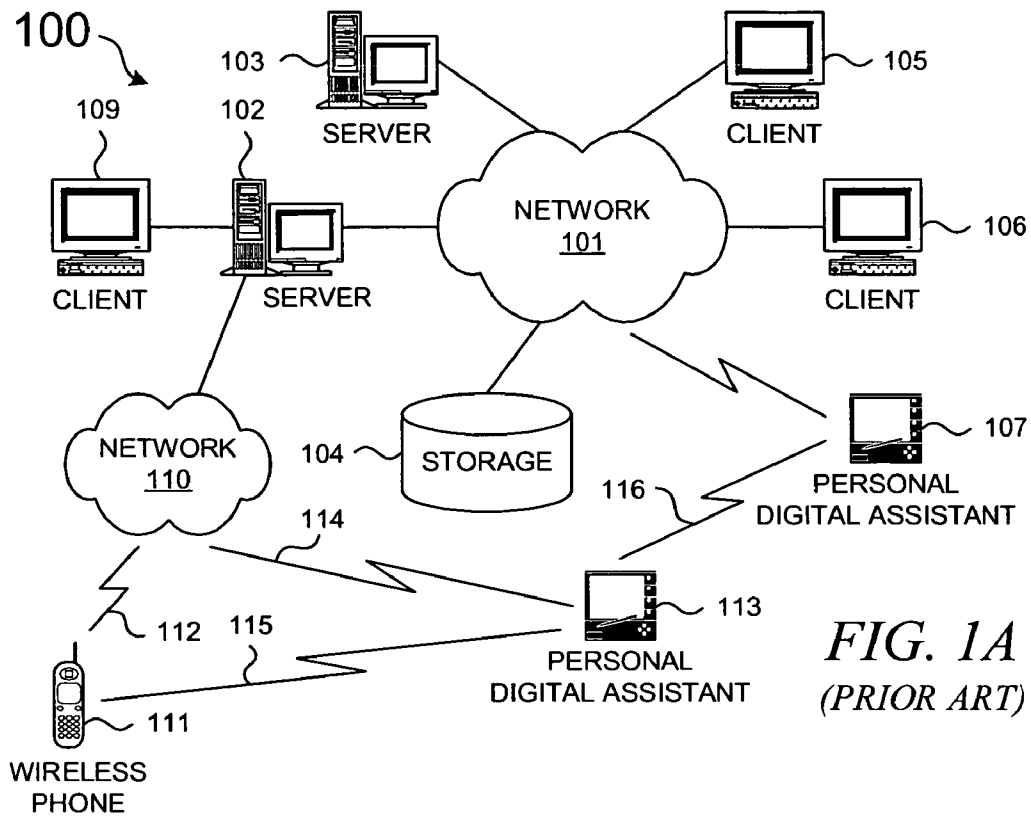


FIG. 1A  
(PRIOR ART)

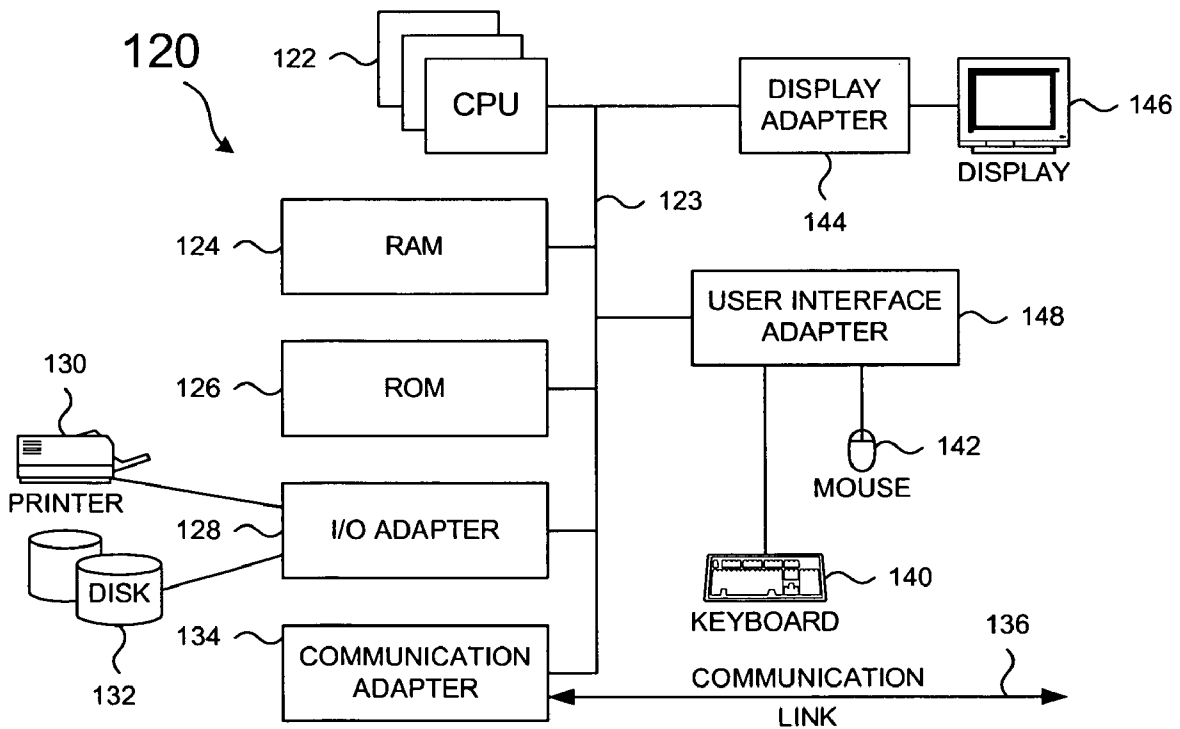
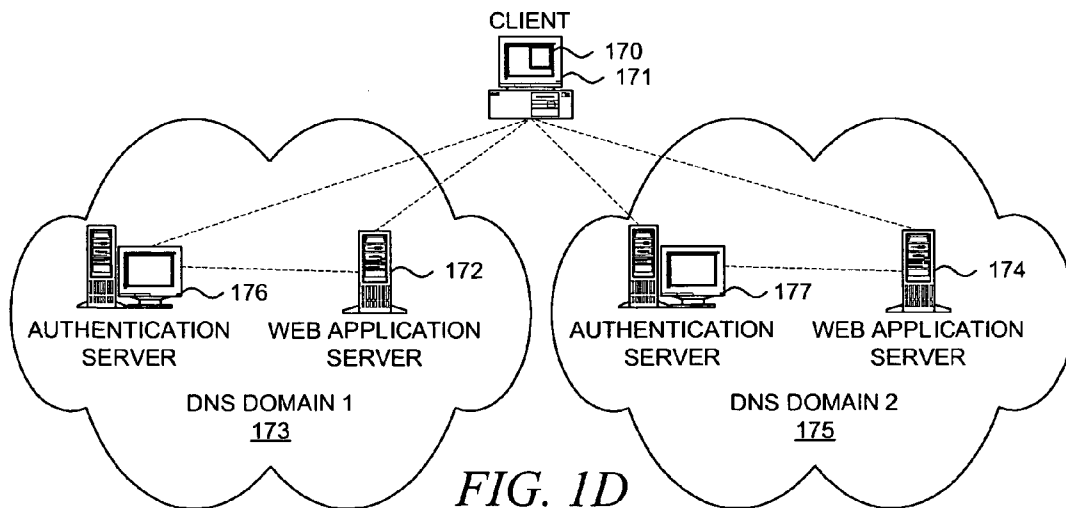
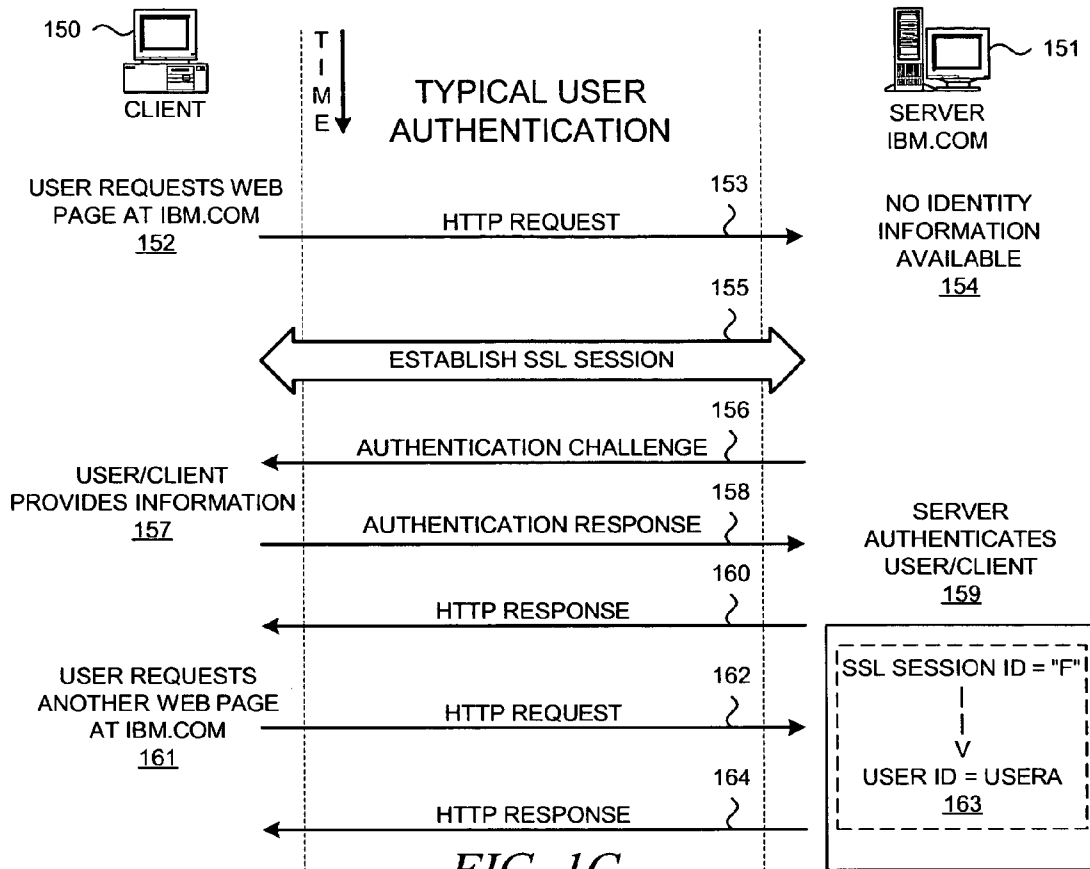


FIG. 1B  
(PRIOR ART)



# 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.