



US008577813B2

(12) **United States Patent**
Weiss

(10) **Patent No.:** **US 8,577,813 B2**
(45) **Date of Patent:** ***Nov. 5, 2013**

(54) **UNIVERSAL SECURE REGISTRY**
(75) Inventor: **Kenneth P. Weiss**, Newton, MA (US)
(73) Assignee: **Universal Secure Registry, LLC**,
Newton, MA (US)
(*) Notice: Subject to any disclaimer, the term of this
patent is extended or adjusted under 35
U.S.C. 154(b) by 0 days.

This patent is subject to a terminal dis-
claimer.

(21) Appl. No.: **13/237,184**

(22) Filed: **Sep. 20, 2011**

(65) **Prior Publication Data**

US 2012/0130904 A1 May 24, 2012

Related U.S. Application Data

(63) Continuation of application No. 12/393,586, filed on
Feb. 26, 2009, now Pat. No. 8,234,220, which is a
continuation-in-part of application No. 11/760,732,
filed on Jun. 8, 2007, now Pat. No. 7,809,651, and a
continuation-in-part of application No. 11/760,729,
filed on Jun. 8, 2007, now Pat. No. 7,805,372, and a
continuation-in-part of application No. 11/677,490,
filed on Feb. 21, 2007, now Pat. No. 8,001,055,
application No. 13/237,184, which is a
continuation-in-part of application No. 13/168,556,
filed on Jun. 24, 2011, which is a continuation of
application No. 11/677,490, filed on Feb. 21, 2007,
now Pat. No. 8,001,055.

(60) Provisional application No. 60/812,279, filed on Jun.
9, 2006, provisional application No. 60/859,235, filed
on Nov. 15, 2006, provisional application No.
60/775,046, filed on Feb. 21, 2006, provisional
application No. 61/031,529, filed on Feb. 26, 2008.

(51) **Int. Cl.**
G06Q 20/00 (2012.01)

(52) **U.S. Cl.**
USPC **705/76; 705/64; 705/71; 705/72;**
705/73; 705/74; 705/75; 705/77; 705/78;
705/79

(58) **Field of Classification Search**
USPC **705/64, 71-79**
See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

4,720,860 A 1/1988 Weiss
4,856,062 A 8/1989 Weiss

(Continued)

FOREIGN PATENT DOCUMENTS

EP 0986209 3/2000
EP 1081632 3/2001

(Continued)

OTHER PUBLICATIONS

“Biometrics: Who’s Watching You?”, Electronic Frontier Foundation
(EFF), Sep. 2003, all pages, <http://www.eff.org/wp/biometrics-whos-watching-you>.

(Continued)

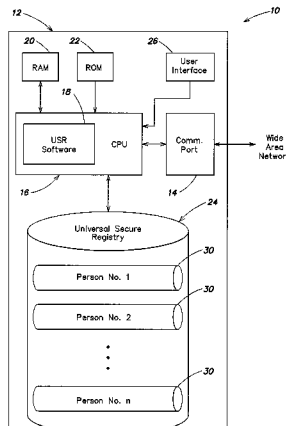
Primary Examiner — Calvin Cheung

(74) *Attorney, Agent, or Firm* — Lando & Anastasi, LLP

(57) **ABSTRACT**

A device is configured to allow a user to select any of a
plurality of accounts to employ in a financial transaction. The
user device includes a biometric sensor configured to receive
a biometric input, a user interface configured to receive a user
input including secret information known to the user and
identifying information concerning an account selected by
the user from the plurality of accounts. The user device
includes a communication link configured to communicate
with a secure registry, and a processor coupled to the biomet-
ric sensor to receive information concerning the biometric
input, the user interface, and the communication link. The
processor is configured to generate a non-predictable value
and encrypted authentication information from the non-pre-
dictable value, the identifying information, and at least one of
the information concerning the biometric input and the secret
information, and communicate the authentication informa-
tion via the communication link to the secure registry.

26 Claims, 29 Drawing Sheets



(56)

References Cited

U.S. PATENT DOCUMENTS

4,885,778 A 12/1989 Weiss
 4,998,279 A 3/1991 Weiss
 5,023,908 A 6/1991 Weiss
 5,058,161 A 10/1991 Weiss
 5,097,505 A 3/1992 Weiss
 5,168,520 A 12/1992 Weiss
 5,237,614 A 8/1993 Weiss
 5,361,062 A 11/1994 Weiss
 5,367,572 A 11/1994 Weiss
 5,398,285 A 3/1995 Borgelt
 5,457,747 A * 10/1995 Drexler et al. 713/186
 5,479,512 A 12/1995 Weiss
 5,485,519 A 1/1996 Weiss
 5,657,388 A 8/1997 Weiss
 5,664,109 A 9/1997 Johnson
 5,813,006 A 9/1998 Polnerow
 5,870,723 A * 2/1999 Pare, Jr. et al. 705/39
 5,915,023 A 6/1999 Bernstein
 5,971,272 A 10/1999 Hsiao
 6,073,106 A 6/2000 Rozen et al.
 6,088,450 A 7/2000 Davis et al.
 6,130,621 A 10/2000 Weiss
 6,202,055 B1 3/2001 Houvener et al.
 6,253,202 B1 6/2001 Gilmour
 6,253,203 B1 6/2001 O'Flaherty et al.
 6,260,039 B1 7/2001 Schneck et al.
 6,308,203 B1 10/2001 Itabashi et al.
 6,309,342 B1 10/2001 Blazey et al.
 6,393,421 B1 5/2002 Paglin
 6,498,861 B1 12/2002 Hamid et al.
 6,516,315 B1 2/2003 Gupta
 6,546,005 B1 4/2003 Berkley et al.
 6,581,059 B1 6/2003 Barrett et al.
 6,640,211 B1 10/2003 Holden
 6,658,400 B2 12/2003 Perell et al.
 6,819,219 B1 11/2004 Bolle et al.
 6,845,448 B1 1/2005 Chaganti et al.
 6,941,271 B1 9/2005 Soong
 6,950,521 B1 9/2005 Marcovici et al.
 7,007,298 B1 2/2006 Shinzaki et al.
 7,237,117 B2 6/2007 Weiss
 7,249,112 B2 7/2007 Berardi et al.
 7,278,026 B2 10/2007 McGowan
 7,412,604 B1 8/2008 Doyle
 7,489,781 B2 2/2009 Klassen et al.
 7,502,459 B1 3/2009 Moseley
 7,548,981 B1 6/2009 Taylor et al.
 7,552,333 B2 * 6/2009 Wheeler et al. 713/176
 7,571,139 B1 8/2009 Giordano et al.
 7,657,639 B2 2/2010 Hinton
 7,705,732 B2 4/2010 Bishop et al.
 7,766,223 B1 8/2010 Mello et al.
 7,805,372 B2 9/2010 Weiss
 7,809,651 B2 10/2010 Weiss
 8,001,055 B2 8/2011 Weiss
 8,079,079 B2 12/2011 Zhang et al.
 8,234,220 B2 7/2012 Weiss
 2001/0032100 A1 10/2001 Mahmud et al.
 2001/0044900 A1 11/2001 Uchida
 2002/0046061 A1 4/2002 Wright et al.
 2002/0090930 A1 7/2002 Fujiwara et al.
 2002/0176610 A1 11/2002 Okazaki et al.
 2002/0178364 A1 11/2002 Weiss
 2002/0184538 A1 12/2002 Sugimura et al.
 2003/0014372 A1 * 1/2003 Wheeler et al. 705/71
 2003/0028481 A1 * 2/2003 Flitcroft et al. 705/39
 2003/0046540 A1 3/2003 Nakamura et al.
 2003/0084332 A1 * 5/2003 Krasinski et al. 713/200
 2003/0085808 A1 5/2003 Goldberg
 2003/0115490 A1 6/2003 Russo et al.
 2003/0123713 A1 7/2003 Geng
 2003/0129965 A1 7/2003 Siegel
 2003/0163710 A1 8/2003 Ortiz et al.

2004/0017934 A1 1/2004 Kocher
 2004/0034771 A1 2/2004 Edgett
 2004/0059923 A1 3/2004 ShamRao
 2004/0111625 A1 6/2004 Duffy et al.
 2004/0117215 A1 6/2004 Marchosky
 2004/0117302 A1 6/2004 Weichert et al.
 2004/0133787 A1 7/2004 Doughty
 2004/0151351 A1 8/2004 Ito
 2004/0188519 A1 9/2004 Cassone
 2004/0236699 A1 11/2004 Beenau et al.
 2005/0001711 A1 1/2005 Doughty et al.
 2005/0039027 A1 2/2005 Shapiro
 2005/0113070 A1 5/2005 Okabe
 2005/0187843 A1 8/2005 Lapsley et al.
 2005/0187873 A1 8/2005 Labrou et al.
 2005/0210270 A1 9/2005 Rohatgi et al.
 2005/0235148 A1 10/2005 Scheidt et al.
 2005/0238147 A1 10/2005 Carro
 2005/0238208 A1 10/2005 Sim
 2006/0000900 A1 1/2006 Fernandes et al.
 2006/0016884 A1 1/2006 Block et al.
 2006/0104486 A1 5/2006 Le Saint et al.
 2006/0122939 A1 6/2006 Cohen et al.
 2006/0165060 A1 7/2006 Dua
 2006/0206724 A1 9/2006 Schaufele et al.
 2006/0256961 A1 11/2006 Brainard et al.
 2007/0005988 A1 1/2007 Zhang et al.
 2007/0040017 A1 2/2007 Kozlay
 2007/0079136 A1 4/2007 Vishik et al.
 2007/0124597 A1 5/2007 Bedingfield, Sr.
 2007/0140145 A1 6/2007 Kumar et al.
 2007/0186105 A1 8/2007 Bailey et al.
 2007/0186115 A1 8/2007 Gao et al.
 2007/0198436 A1 8/2007 Weiss
 2007/0245152 A1 10/2007 Pizano et al.
 2007/0256120 A1 11/2007 Shatzkammer et al.
 2008/0005576 A1 1/2008 Weiss
 2008/0021997 A1 1/2008 Hinton
 2008/0040274 A1 * 2/2008 Uzo 705/44
 2008/0127311 A1 5/2008 Yasaki et al.
 2008/0212848 A1 9/2008 Doyle
 2008/0275819 A1 11/2008 Rifai
 2009/0083544 A1 * 3/2009 Scholnick et al. 713/186
 2009/0144814 A1 6/2009 Sacco
 2009/0175507 A1 7/2009 Schaffner
 2009/0203355 A1 8/2009 Clark
 2009/0292641 A1 11/2009 Weiss
 2010/0046443 A1 2/2010 Jia et al.
 2011/0258120 A1 10/2011 Weiss
 2012/0240195 A1 9/2012 Weiss
 2013/0024374 A1 1/2013 Weiss

FOREIGN PATENT DOCUMENTS

GB 2 382 006 5/2003
 WO 9207436 4/1992
 WO 9207436 A1 4/1992
 WO 9636934 11/1996
 WO 9636934 A1 11/1996
 WO 0214985 2/2002
 WO 0214985 A2 2/2002
 WO 2010000455 A1 1/2010
 WO 2012/037479 A9 7/2012

OTHER PUBLICATIONS

International Search Report from PCT Application No. PCT/US2007/004646 mailed Nov. 27, 2007.
 International Search Report from PCT Application No. PCT/US2007/070701 mailed Mar. 11, 2008.
 International Search Report from PCT Application No. PCT/US2009/035282 mailed Jul. 10, 2009.
 Kessler G. "An Overview of Cryptography." Aug. 22, 2002. All pages. Retrieved via Wayback Machine on Jan. 19, 2010. <http://www.garykessler.net/library/crypto.html>.
 "FIPS PUB 46-3." Oct. 25, 1999. National Institute of Science and

(56)

References Cited

OTHER PUBLICATIONS

Pabrai, U. "Biometrics for PC-User Authentication: A Primer" Feb. 1, 2001, Access Controls & Security Systems. All pages, <http://www.securitysolutions.com/mag/security_biometrics_pcuser_authentication/index.html>.

"Information Security: Challenges in Using Biometrics" Sep. 9, 2003. All pages. <<http://www.gao.gov/new.items/d031137t.pdf>>.

Huntington, G. "101 Things to Know About Single Sign On." 2006. Authentication World. All pages. <<http://www.authenticationworld.com/Single-Sign-On-Authentication/101ThingsToKnowAboutSingleSignOn.pdf>>.

"Single Sign on Authentication" Mar. 13, 2007. Authentication World. All pages. Retrieved Jul. 9, 2010 via Wayback Machine. <<http://web.archive.org/web/20070313200434/http://www.authenticationworld.com/Single-Sign-On-Authentication/>>.

Pabrai, U. "Biometrics for PC-User Authentication: A Primer" Feb. 1, 2001. Access Controls & Security Systems. All pages. <http://www.securitysolutions.com/mag/security_biometrics_pcuser_authentication/index.html>.

Huntington, G. "101 Things to Know About Single Sign On." 2006. Authentication World. All pages. <<http://www.authenticationworld.com/Single-Sign-On-Authentication/101ThingsToKnowAboutSingleSignOn.pdf>>.

Kessler, G. "An Overview of Cryptography." 22 Aug. 22, 2002. All pages. Retrived via Wayback Machine on Jan. 19, 2010. <http://www.garykessler.net/library/crypto.html>.

Treasury Board of Canada Secretariat, PKI for Beginners Glossary, <http://www.tbs-sct.gc.ca/pki-icp/beginners/glossary-eng.asp>.

International Search Report from PCT/US2007/004646 mailed Nov. 27, 2007.

International Search Report from corresponding PCT/US2007/070701 mailed Mar. 11, 2008.

International Search Report from PCT/US2009/035282 mailed Jul. 10, 2009.

"Bluetooth Technology FAQ", Mobileinfo.com, Jan. 21, 2001, all pages, <http://www.web.archive.org/web/200101211551/http://www.mobileinfo.com/Bluetooth/FAQ.htm>.

International Search Report and Written Opinion for International Application No. PCT/US2011/051966, 49 pages.

* cited by examiner

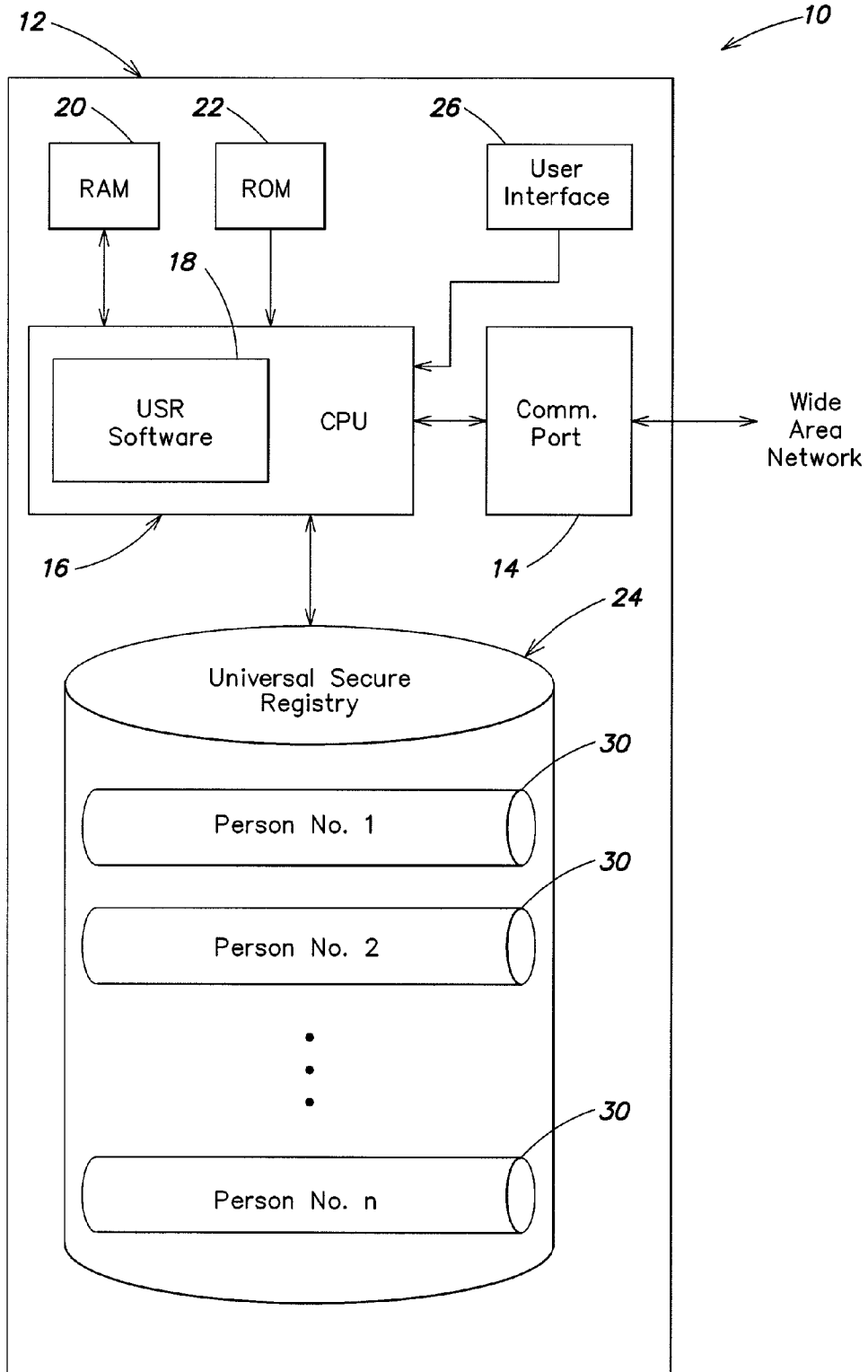


FIG. 1

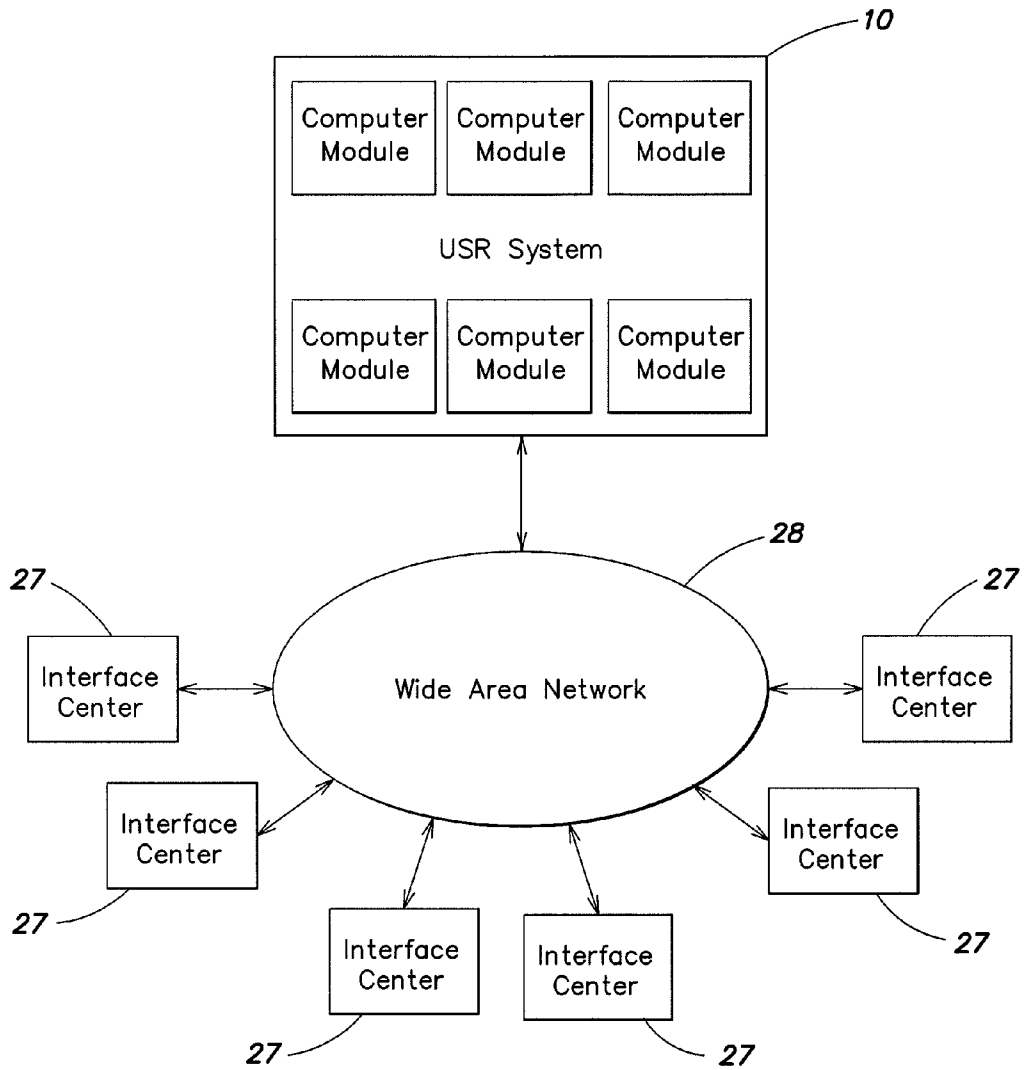


FIG. 2

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.