



US010015254B1

(12) **United States Patent**
Tsao

(10) **Patent No.:** **US 10,015,254 B1**
(45) **Date of Patent:** ***Jul. 3, 2018**

(54) **SYSTEM AND METHOD FOR WIRELESS DEVICE ACCESS TO EXTERNAL STORAGE**

USPC 711/118, 154, 171; 709/219, 226;
710/36; 712/225, 245
See application file for complete search history.

(71) Applicant: **Sheng Tai (Ted) Tsao**, Fremont, CA (US)

(72) Inventor: **Sheng Tai (Ted) Tsao**, Fremont, CA (US)

(73) Assignee: **Sheng Tai (Ted) Tsao**, Fremont, CA (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 disclaimer.

(21) Appl. No.: **14/977,509**

(22) Filed: **Dec. 21, 2015**

(56) **References Cited**

U.S. PATENT DOCUMENTS

6,292,833	B1 *	9/2001	Liao	.....	H04W 12/08	709/219
6,351,776	B1 *	2/2002	O'Brien	.....	G06F 17/30067	707/999.001
6,356,838	B1 *	3/2002	Paul	.....	G01C 21/3453	701/410
6,754,710	B1 *	6/2004	McAlear	.....	G08C 17/00	709/208
6,757,898	B1 *	6/2004	Ilsen	.....	G06F 19/324	600/300
7,379,990	B2 *	5/2008	Tsao	.....	H04L 41/12	709/220
7,418,702	B2 *	8/2008	Tsao	.....	G06F 9/526	709/229

(Continued)

Related U.S. Application Data

(63) Continuation of application No. 14/036,744, filed on Sep. 25, 2013, now Pat. No. 9,239,686, which is a continuation of application No. 10/726,897, filed on Dec. 4, 2003, now Pat. No. 8,606,880.

Primary Examiner — Reba I Elmore

(51) **Int. Cl.**
G06F 3/00 (2006.01)
H04L 29/08 (2006.01)
G06F 3/06 (2006.01)
H04M 1/725 (2006.01)

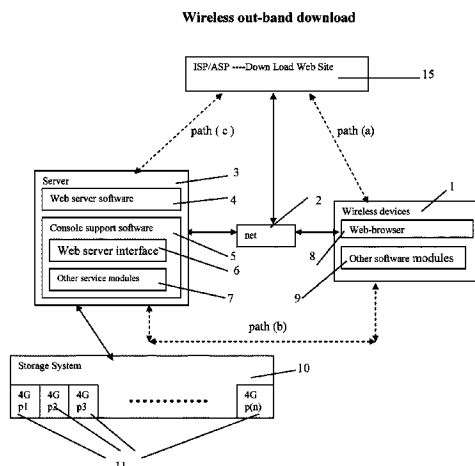
(57) **ABSTRACT**

Traditionally, wireless device, such as cell phone or personal data assistant device (PDA), has relatively smaller storage capacity. Therefore, it is quite often that a user of the wireless device has difficulty to find more storage space for storing ever increased personal data, such as storing message, and multiple Gig bytes of multimedia data including digital video, music, or photo picture etc. Instant application disclosed a system and method for a storage system providing storage service to the wireless device for the wireless device remotely storing personal data into an external storage space allocated exclusively to a user of the wireless device by the storage system.

(52) **U.S. Cl.**
CPC **H04L 67/1097** (2013.01); **G06F 3/0604** (2013.01); **G06F 3/067** (2013.01); **G06F 3/0643** (2013.01); **H04L 67/06** (2013.01); **H04M 1/72522** (2013.01)

(58) **Field of Classification Search**
CPC H04L 67/1097; H04L 67/06; H04M 1/72522; G06F 3/0604; G06F 3/0643; G06F 3/067

20 Claims, 4 Drawing Sheets



(56)

References Cited

U.S. PATENT DOCUMENTS

8,606,880 B2 * 12/2013 Tsao G06F 17/30067
 455/412.1
 9,098,526 B1 * 8/2015 Tsao G06F 17/30067
 9,219,780 B1 * 12/2015 Tsao G06F 17/30067
 9,239,686 B2 * 1/2016 Tsao G06F 3/0631
 2002/0004855 A1 * 1/2002 Cox G06Q 30/02
 719/328
 2003/0018887 A1 * 1/2003 Fishman H04L 29/06
 713/151
 2003/0046586 A1 * 3/2003 Bheemarasetti H04L 63/0272
 726/15
 2003/0078986 A1 * 4/2003 Ayres H04L 29/06
 709/217
 2003/0194998 A1 * 10/2003 Bhide H04W 4/18
 455/433
 2003/0233329 A1 * 12/2003 Laraki G06Q 20/123
 705/52
 2004/0162876 A1 * 8/2004 Kohavi G06F 17/30943
 709/203
 2004/0192342 A1 * 9/2004 Ranganathan H04L 65/4092
 455/456.1
 2005/0010648 A1 * 1/2005 Ramaswamy H04L 12/5692
 709/217
 2005/0071418 A1 * 3/2005 Kjellberg G06Q 20/123
 709/200
 2005/0091184 A1 * 4/2005 Seshadri G06F 9/4443
 2007/0089110 A1 * 4/2007 Li H04L 67/2847
 717/178
 2008/0235360 A1 * 9/2008 Li G06F 17/30902
 709/223

* cited by examiner

Wireless devices supports in a simple environment

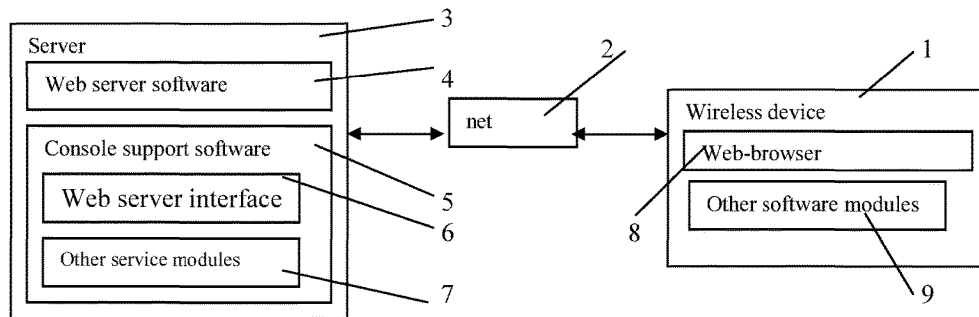


Fig. 1 (Prior Art)

Wireless devices access external storage through web browser

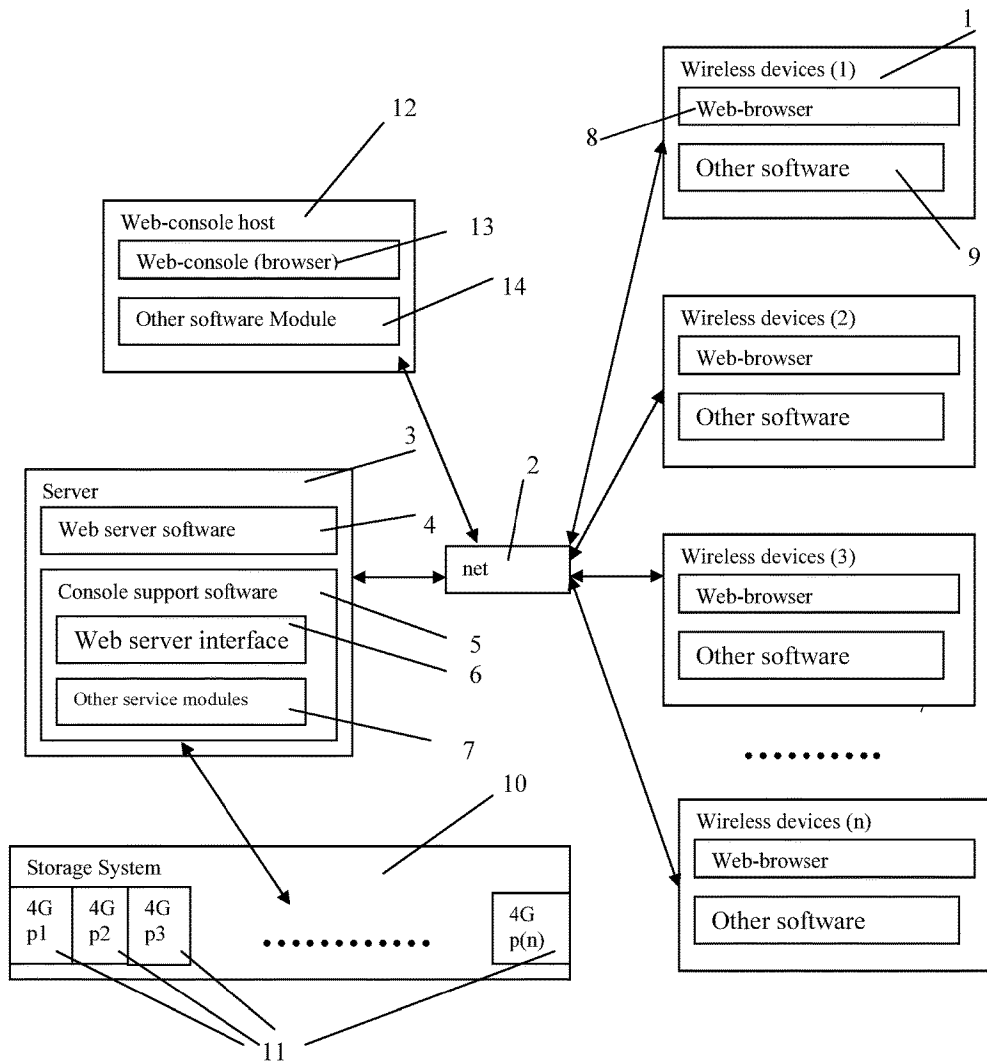


Fig. 2

Wireless out-band download

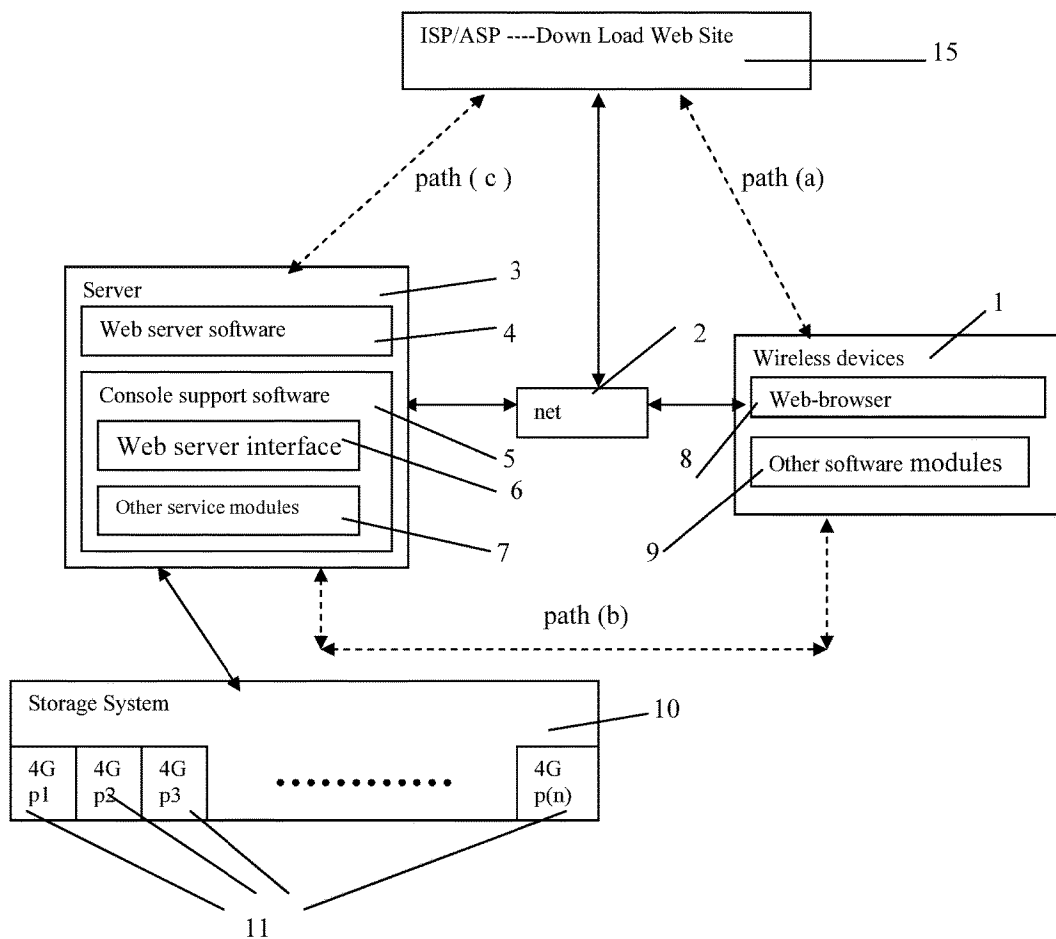


Fig. 3

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.