

(12) United States Patent

Chou

(10) Patent No.: (45) Date of Patent:

US 8,977,258 B2 Mar. 10, 2015

(54) SYSTEM AND METHOD FOR COMMUNICATING WITH FIXED AND MOBILE SUBSCRIBER STATIONS IN BROADBAND WIRELESS ACCESS NETWORKS

(75) Inventor: Joey Chou, Scottsdale, AZ (US)

Assignee: Intel Corporation, Santa Clara, CA

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35

U.S.C. 154(b) by 1596 days.

(21) Appl. No.: 11/222,675

(22) Filed: Sep. 9, 2005

(65)**Prior Publication Data** US 2007/0076639 A1 Apr. 5, 2007

(51) Int. Cl. H04W 4/00 (2009.01)H04L 12/24 (2006.01)H04W 84/04 (2009.01)H04W 88/10 (2009.01)H04W 92/02 (2009.01)

(52) U.S. Cl. CPC H04L 41/0213 (2013.01); H04L 41/0226 (2013.01); H04W 84/04 (2013.01); H04W 88/10 (2013.01); H04W 92/02 (2013.01)

USPC 455/435.1; 455/435.2; 455/435.3

(58) Field of Classification Search USPC 455/435.1-435.3 See application file for complete search history.

(56)References Cited

U.S. PATENT DOCUMENTS

6,404,754	B1*	6/2002	Lim 370/338
7,437,157	B1*	10/2008	Satapathy 455/435.1
2003/0076837	A1*	4/2003	Whitehill et al 370/395.4
2004/0018839	A1*	1/2004	Andric et al 455/433
2004/0233838	A1*	11/2004	Sudo et al 370/208
2005/0068915	A1*	3/2005	Atad et al 370/316
2005/0201304	A1*	9/2005	Olshansky 370/282
2005/0250498	A1*	11/2005	Lim et al 455/436
2005/0286451	A1*	12/2005	Kim et al 370/310
2006/0030322	A1*	2/2006	Kim et al 455/436
2006/0034397	A1*	2/2006	Lee et al 375/340
2007/0025390	A1*	2/2007	Jain 370/458

FOREIGN PATENT DOCUMENTS

WO WO-2006/083897 A2 8/2006

OTHER PUBLICATIONS

"IEEE Standard 802.16aTM-IEEE Standard for Local and Metropolitan Area Networks, Part 16: Air Interface for Fixed Broadband Wireless Access Systems-Amendment 2: Medium Access Control Modifications and Additional Physical Layer Specifications for 2-11 GHz", IEEE Std. 802.16aTM-2003, The Institute Electrical and Electronics Engineers, Inc., New York, NY, (2003), 318 pgs.

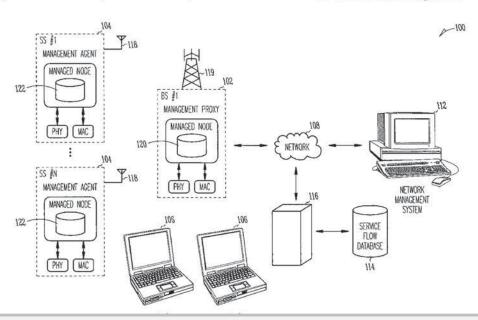
(Continued)

Primary Examiner — Olumide T Ajibade Akonai Assistant Examiner - Shantell L Heiber (74) Attorney, Agent, or Firm - Kacvinsky Daisak Bluni PLLC

(57)ABSTRACT

Embodiments of System and Method for Communicating within Broadband Wireless Networks are generally described herein. Other embodiments may be described and claimed.

21 Claims, 7 Drawing Sheets





(56) References Cited

OTHER PUBLICATIONS

"IEEE Standard 802.16e™—IEEE Standard for Local and Metropolitan Area Networks, Part 16: Air Interface for Fixed and Mobile Broadband Wireless Access Systems, Amendment 2: Physical and Medium Access Control Layers for Combined Fixed and Mobile Operation in Licensed Bands and Corrigendum 1", IEEE Std. 802. 16e™—2005 and IEEE Std. 802.16™—2004/Cor1—2005 (Amendment and Corrigendum to IEEE 802.16—2004), The Institute of Electrical and Electronics Engineers, Inc., New York, NY, (2006), 864 pgs.

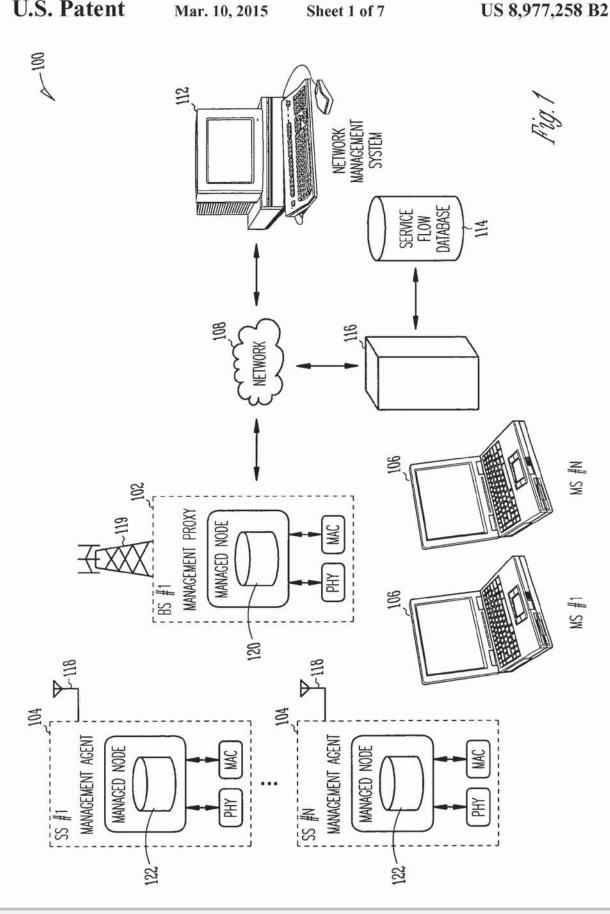
"IEEE Standard 802.16fTM—IEEE Standard for Local and Metropolitan Area Networks, Part 16: Air Interface for Fixed Broadband Wireless Access Systems—Amendment 1: Management Information Base", *IEEE Std. 802.16fTM—2005*, IEEE, New York, NY, (2005), 257 pgs.

Chou, J., et al., "MAC and PHY MIB for WirelessMAN and WirelessHuman BS and SS", (Jul. 9, 2004),1-120.

Liang, C., "Wireless awareness for wireless intelligent network", Communications, 2003, APCC 2003, 2, The 9th Asia-Pacific Conference, (Sep. 21.2003), 561-564.

* cited by examiner







002

IFOPERSTATUS	OPERATIONAL STATUS	OPERATIONAL STATUS	OPERATIONAL STATUS	OPERATIONAL STATUS	OPERATIONAL STATUS
IFADMINSTATUS	ADMINISTRATION STATUS	ADMINISTRATION STATUS	ADMINISTRATION STATUS	ADMINISTRATION STATUS	ADMINISTRATION STATUS
IFPHYSADDRESS	MAC ADDRESS OF BS SECTOR				
IFDESCR	OFDM	OFDMA 2048	OFDMA 1024	OFDMA 512	OFDMA 128
IFTYPE(IANA)	PROPBWAP2MP	PROPBWAP2MP	PROPBWAP2MP	PROPBWAP2MP	PROPBWAP2MP
IFINDEX	-	2	3	4	5
IFTABLE	BS SECTOR 1	BS SECTOR 2	BS SECTOR 3	BS SECTOR 4	BS SECTOR 5





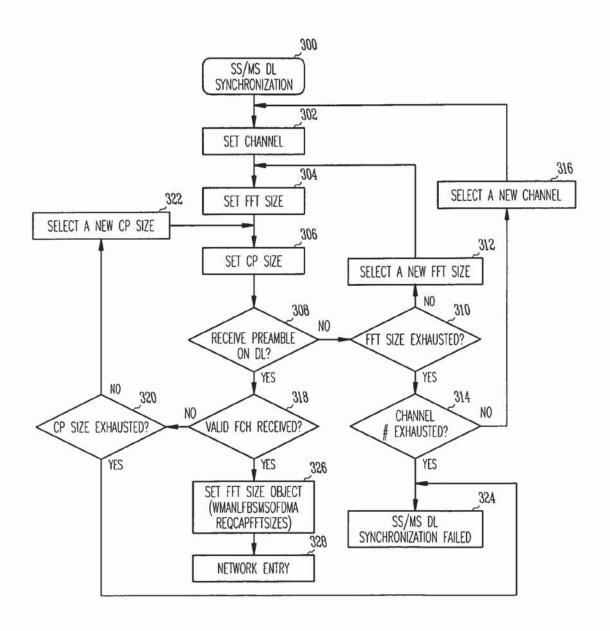


Fig. 3



DOCKET

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.

