



US008050652B2

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

(10) **Patent No.:** **US 8,050,652 B2**
(45) **Date of Patent:** ***Nov. 1, 2011**

(54) **METHOD AND DEVICE FOR AN INTERNET RADIO CAPABLE OF OBTAINING PLAYLIST CONTENT FROM A CONTENT SERVER**

(75) Inventors: **Safi Qureshey**, Santa Ana, CA (US);
Daniel D. Sheppard, Brea, CA (US)

(73) Assignee: **Horsham Enterprises, LLC**,
Wilmington, DE (US)

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 1374 days.

This patent is subject to a terminal disclaimer.

(21) Appl. No.: **11/563,232**

(22) Filed: **Nov. 27, 2006**

(65) **Prior Publication Data**

US 2007/0089132 A1 Apr. 19, 2007

Related U.S. Application Data

(63) Continuation of application No. 09/805,470, filed on Mar. 12, 2001, now abandoned, which is a continuation-in-part of application No. 09/096,703, filed on Jun. 12, 1998, now abandoned.

(60) Provisional application No. 60/246,842, filed on Nov. 8, 2000, provisional application No. 60/072,127, filed on Jan. 22, 1998.

(51) **Int. Cl.**

H05K 11/00 (2006.01)

G06F 15/16 (2006.01)

H04N 5/445 (2011.01)

(52) **U.S. Cl.** **455/344**; 455/556.1; 455/557;
455/414.1; 455/414.3; 709/217; 709/219;
725/39; 725/45

(58) **Field of Classification Search** 455/3.02,
455/3.06, 142, 150.1, 151.1, 151.2, 154.1,
455/154.2, 158.1, 158.2, 158.4, 186.1, 344,
455/414.1, 414.3, 456.2, 556.1, 557; 709/217,
709/219; 725/39, 45, 18

See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

3,291,919 A 12/1966 Robitaille
(Continued)

FOREIGN PATENT DOCUMENTS

EP 0984584 A1 3/2000
(Continued)

OTHER PUBLICATIONS

"A Music Revolution . . . SoundServer," *imerge*, 2 pages.

(Continued)

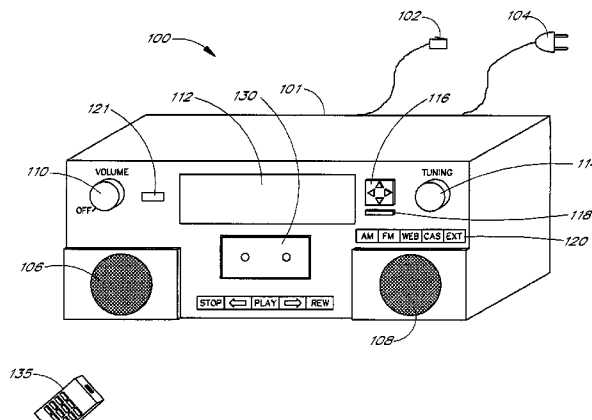
Primary Examiner — Pablo Tran

(74) *Attorney, Agent, or Firm* — Withrow & Terranova, PLLC

(57) **ABSTRACT**

A network-enabled audio device that provides a display device that allows the user to select playlists of music much like a jukebox is disclosed. The user can compose playlists from disk files, CD's, Internet streaming audio broadcasts, online music sites, and other audio sources. The user can also select a desired Web broadcast from a list of available Web broadcasts. In addition, the user can play standard audio CD's and MP3 encoded CD's and have access to local AM/FM stations. Further, the software, the user controls, and the display in the network-enabled audio device are operably configured and connected such that the user can listen to playlists that include CD's and other audio sources just as the user would choose a playlist in a jukebox. The user accesses a server site via a PC and the Internet. From the server site, the user obtains a list of the devices in his or her Internet Personal Audio Network (IPAN) and what songs are on those devices. The IPAN includes an IPAN server, an IPAN client, and IPAN software stored on the network-enabled audio device. Thus, the network-enabled audio device provides people who are or are not comfortable with computers a way of taking music from various sources and putting it into one place for listening pleasure. In one embodiment, the Personal Computer (PC) is used to compose the playlists, but the user is able to listen to playlists and other audio sources without using the PC.

64 Claims, 49 Drawing Sheets



U.S. PATENT DOCUMENTS

4,682,370 A	7/1987	Matthews	6,014,569 A	1/2000	Bottum
4,720,873 A	1/1988	Goodman et al.	6,035,350 A	3/2000	Swamy et al.
4,920,432 A	4/1990	Eggers et al.	6,064,379 A	5/2000	DeMoney
5,035,438 A	7/1991	Cronquist	6,067,562 A	5/2000	Goldman
5,119,188 A	6/1992	McCalley et al.	6,088,455 A	7/2000	Logan et al.
5,127,003 A	6/1992	Doll, Jr. et al.	6,105,060 A	8/2000	Rothblatt
5,129,036 A	7/1992	Dean et al.	6,108,686 A	8/2000	Williams, Jr.
5,168,481 A	12/1992	Culbertson et al.	6,182,128 B1	1/2001	Kelkar et al.
5,189,630 A	2/1993	Barstow et al.	6,192,340 B1	2/2001	Abecassis
5,191,573 A	3/1993	Hair	6,199,076 B1	3/2001	Logan et al.
5,192,999 A	3/1993	Graczyk et al.	6,204,885 B1	3/2001	Kwoh
5,215,466 A	6/1993	Rubio	6,226,672 B1	5/2001	DeMartin et al.
5,262,875 A	11/1993	Mincer et al.	6,229,621 B1	5/2001	Kulakowski et al.
5,282,028 A	1/1994	Johnson et al.	6,233,430 B1	5/2001	Helferich
5,305,438 A	4/1994	MacKay et al.	6,233,682 B1	5/2001	Fritsch
5,349,678 A	9/1994	Morris et al.	6,248,946 B1	6/2001	Dwek
5,351,276 A	9/1994	Doll, Jr. et al.	6,253,069 B1	6/2001	Mankovitz
5,414,455 A	5/1995	Hooper et al.	6,295,093 B1	9/2001	Park et al.
5,440,334 A	8/1995	Walters et al.	6,295,555 B1	9/2001	Goldman
5,440,336 A	8/1995	Buhro et al.	6,349,329 B1	2/2002	Mackintosh et al.
5,455,570 A	10/1995	Cook et al.	6,349,339 B1	2/2002	Williams
5,475,835 A	12/1995	Hickey	6,389,467 B1	5/2002	Eyal
5,481,535 A	1/1996	Hershey	6,473,792 B1	10/2002	Yavitz et al.
5,512,935 A	4/1996	Majeti et al.	6,484,199 B2	11/2002	Eyal
5,526,284 A	6/1996	Mankovitz	6,502,194 B1	12/2002	Berman et al.
5,534,913 A	7/1996	Majeti et al.	6,505,160 B1	1/2003	Levy et al.
5,539,635 A	7/1996	Larson, Jr.	6,507,727 B1	1/2003	Henrick
5,544,161 A	8/1996	Bigham et al.	6,519,648 B1	2/2003	Eyal
5,557,541 A	9/1996	Schulhof et al.	6,587,127 B1	7/2003	Leeke et al.
5,568,645 A	10/1996	Morris et al.	6,600,898 B1	7/2003	De Bonet et al.
5,570,134 A	10/1996	Hong	6,609,096 B1	8/2003	De Bonet et al.
5,572,442 A	11/1996	Schulhof et al.	6,628,928 B1	9/2003	Crosby et al.
5,583,763 A	12/1996	Atcheson et al.	6,647,389 B1	11/2003	Fitch et al.
5,592,511 A	1/1997	Schoen et al.	6,657,116 B1	12/2003	Gunnerson
5,594,779 A	1/1997	Goodman	6,662,231 B1	12/2003	Drosset et al.
5,617,565 A	4/1997	Augenbraun et al.	6,701,355 B1	3/2004	Brandt et al.
5,625,608 A	4/1997	Grewe et al.	6,711,622 B1	3/2004	Fuller et al.
5,629,867 A	5/1997	Goldman	6,721,403 B1	4/2004	Mandalia
5,636,211 A	6/1997	Newlin et al.	6,721,741 B1	4/2004	Eyal et al.
5,640,193 A	6/1997	Wellner	6,725,275 B2	4/2004	Eyal
5,652,841 A	7/1997	Nemirovsky et al.	6,735,628 B2	5/2004	Eyal
5,654,886 A	8/1997	Zereski, Jr. et al.	6,741,869 B1	5/2004	Lehr
5,671,436 A	9/1997	Morris et al.	6,782,253 B1	8/2004	Shteyn et al.
5,673,322 A	9/1997	Pepe et al.	6,793,142 B2	9/2004	Yap
5,682,525 A	10/1997	Bouve et al.	6,826,283 B1	11/2004	Wheeler et al.
5,684,799 A	11/1997	Bigham et al.	6,829,475 B1	12/2004	Lee et al.
5,710,970 A	1/1998	Walters et al.	6,925,489 B1	8/2005	Curtin
5,727,048 A	3/1998	Hiroshima et al.	6,933,433 B1	8/2005	Porteus et al.
5,740,035 A	4/1998	Cohen et al.	6,982,780 B2	1/2006	Morley et al.
5,768,527 A	6/1998	Zhu et al.	6,985,694 B1	1/2006	De Bonet et al.
5,809,246 A	9/1998	Goldman	7,010,263 B1	3/2006	Patsiokas
5,812,937 A	9/1998	Takahisa et al.	7,010,537 B2	3/2006	Eyal et al.
5,818,512 A	10/1998	Fuller	7,028,082 B1	4/2006	Rosenberg et al.
5,819,160 A	10/1998	Foladare et al.	7,058,694 B1	6/2006	De Bonet et al.
5,844,893 A	12/1998	Gollnick et al.	7,139,770 B2	11/2006	Nakase et al.
5,850,340 A	12/1998	York	7,187,947 B1	3/2007	White et al.
5,852,610 A	12/1998	Olaniyan	7,212,830 B2	5/2007	Tamaki et
5,857,149 A	1/1999	Suzuki	7,277,955 B2	10/2007	Elliott
5,862,171 A	1/1999	Mahany	7,468,934 B1	12/2008	Janik
5,870,390 A	2/1999	Campanella	7,469,283 B2	12/2008	Eyal et al.
5,873,045 A	2/1999	Lee et al.	7,472,353 B1	12/2008	Wolff et al.
5,880,721 A	3/1999	Yen	7,525,289 B2	4/2009	Janik et al.
5,890,152 A	3/1999	Rapaport et al.	7,652,844 B2	1/2010	Edwards et al.
5,892,536 A	4/1999	Logan et al.	7,660,601 B2	2/2010	Janik et al.
5,905,865 A	5/1999	Palmer et al.	7,711,838 B1	5/2010	Boulter et al.
5,907,831 A	5/1999	Lotvin et al.	7,768,234 B2	8/2010	Janik et al.
5,914,941 A	6/1999	Janky	7,783,722 B1	8/2010	Rosenberg et al.
5,918,223 A	6/1999	Blum et al.	7,786,705 B2	8/2010	Janik et al.
5,930,765 A	7/1999	Martin	7,797,272 B2	9/2010	Picker et al.
5,943,398 A	8/1999	Klein et al.	7,797,321 B2	9/2010	Martin et al.
5,948,084 A	9/1999	Ha	7,840,691 B1	11/2010	De Bonet et al.
5,949,492 A *	9/1999	Mankovitz 348/473	7,856,485 B2 *	12/2010	Prager et al. 709/219
5,949,877 A	9/1999	Traw et al.	7,870,088 B1	1/2011	Chen et al.
5,990,868 A	11/1999	Frederick	7,904,579 B2	3/2011	Janik et al.
5,991,693 A	11/1999	Zalewski	7,917,645 B2 *	3/2011	Ikezoye et al. 709/231
5,991,737 A	11/1999	Chen	7,917,932 B2 *	3/2011	Krikorian 725/88
			7,920,824 B2	4/2011	Janik et al.

2002/0013852	A1	1/2002	Janik	
2002/0023084	A1	2/2002	Eyal et al.	
2002/0049037	A1	4/2002	Christensen et al.	
2002/0072326	A1	6/2002	Qureshey et al.	
2002/0116476	A1	8/2002	Eyal et al.	
2002/0138630	A1	9/2002	Solomon et al.	
2002/0161858	A1	10/2002	Goldman	
2002/0194260	A1	12/2002	Headley et al.	
2003/0018799	A1	1/2003	Eyal	
2003/0033420	A1	2/2003	Eyal et al.	
2003/0060157	A1	3/2003	Henrick	
2004/0121723	A1	6/2004	Poltorak	
2004/0255340	A1*	12/2004	Logan	725/145
2005/0044561	A1*	2/2005	McDonald	725/18
2006/0074808	A1	4/2006	Boesen	
2006/0141962	A1	6/2006	Forbes et al.	
2006/0156346	A1	7/2006	Kulakowski	
2006/0161621	A1	7/2006	Rosenberg	
2006/0171395	A1	8/2006	Deshpande	
2006/0173825	A1	8/2006	Hess et al.	
2006/0174348	A1	8/2006	Rhoads et al.	
2006/0184960	A1	8/2006	Horton et al.	
2006/0218613	A1	9/2006	Bushnell	
2006/0224971	A1	10/2006	Paulin et al.	
2006/0288074	A1	12/2006	Rosenberg	
2007/0088804	A1	4/2007	Qureshey et al.	
2007/0089135	A1	4/2007	Qureshey et al.	
2007/0180063	A1	8/2007	Qureshey et al.	
2007/0220100	A1	9/2007	Rosenberg	
2007/0265979	A1	11/2007	Hangartner	
2007/0283268	A1	12/2007	Berger et al.	
2009/0070267	A9	3/2009	Hangartner	

FOREIGN PATENT DOCUMENTS

GB	2306869	A	7/1997
WO	97/26601	A2	7/1997

OTHER PUBLICATIONS

"Imerge Multi-room SoundServer Application note," Issue 1.1, Aug. 2000, 9 pages.
 Veronica Hendricks, "Imerge SoundServer," Techonline, http://www.techonline.com/scripts/tol.exe?TEMPLATE,top.ops&AREA,1&CONTENT,8988&NET,13&USER,todd_

Bergeson@3com.com, Copyright 1999-2000 TechOnLine, Inc., printed Sep. 22, 2000, 2 pages.
 "NPR : National Public Radio : News & Analysis, World, US, Music & Arts," <http://www.npr.org>, Copyright 2007 NPR, printed Oct. 16, 2007, 7 pages.
 "Webradio Com," <http://www.webradio.com/eflp/web+radio/pid73231/D284974/C2243539>, Copyright 2007 www.webradio.com, printed Oct. 16, 2007, 1 page.
 "RCS Acquires Decision Inc.; Offers Complete Software Solution for Radio Station Programming Operations," Businesswire, Feb. 9, 1993, Copyright 1995 Reuters Info. Svcs., 2 pages.
 Mary Weller, "Radio Station Software: Programmes That Meet Your Stations Needs," Music & Media, Nov. 28, 1992, p. 11, Copyright 1995 Information Access Co., 3 pages.
 Chris McConnell, "The tapeless revolution comes to radio (disk-based radio broadcasting storage, production and editing systems)," Broadcasting & Cable, v124, n41, p. 77, Oct. 10, 1994, Copyright 1995 Info Access Co., 4 pages.
 "Blockbuster and IBM Announce New Multimedia Ventures," May 11, 1993, 2 pages.
 "IBM Launches Business to Deploy Multimedia Applications and Services," Jan. 20, 1993, 3 pages.
 "The Not So Hard Disk," Wheatstone Corporation, 5 pages.
 "Audio Switcher Model CCSW84-01," Computer Concepts Corp. Digital Commercial System, Feb. 1991, 3 pages.
 "DCS Live! Live Radio Just Got Easier," Computer Concepts Corporation, 1 page.
 "DCS Overview," Computer Concepts Corporation, 1 page.
 "The Computer Concepts Traffic System. You'll wonder how you managed without it," Computer Concepts Corporation, 1 page.
 "Digital On-Air Studio System," Jan. 31, 1994, Copyright format only 1997 Knight-Ridder Info., 1 page.
 "Relatable's Open Source Audio Signature Solution, TRM," <http://web.archive.org/web/20001117082600/http://www.relatable.com/tech/trm.html>, copyright Relatable 2000, printed Nov. 28, 2007, 2 pages.
 Kevin C. Almeroth et al., "An Alternative Paradigm for Scalable On-Demand Applications: Evaluating and Deploying the Interactive Multimedia Jukebox," IEEE Transactions on Knowledge and Data Engineering, vol. 11, No. 4, Jul./Aug. 1999, pp. 658-672, copyright 1999 IEEE, 15 pages.

* cited by examiner

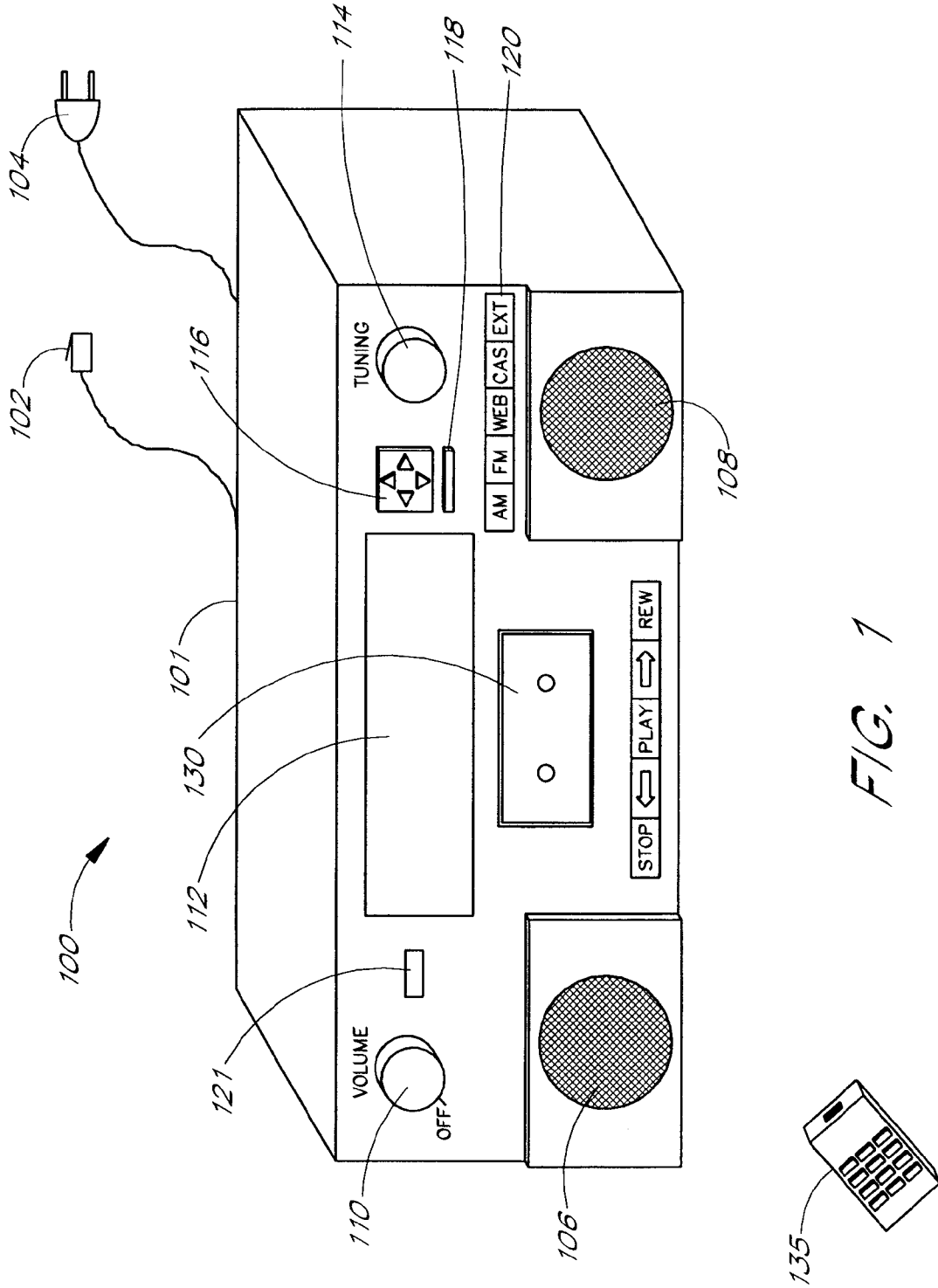


FIG. 1

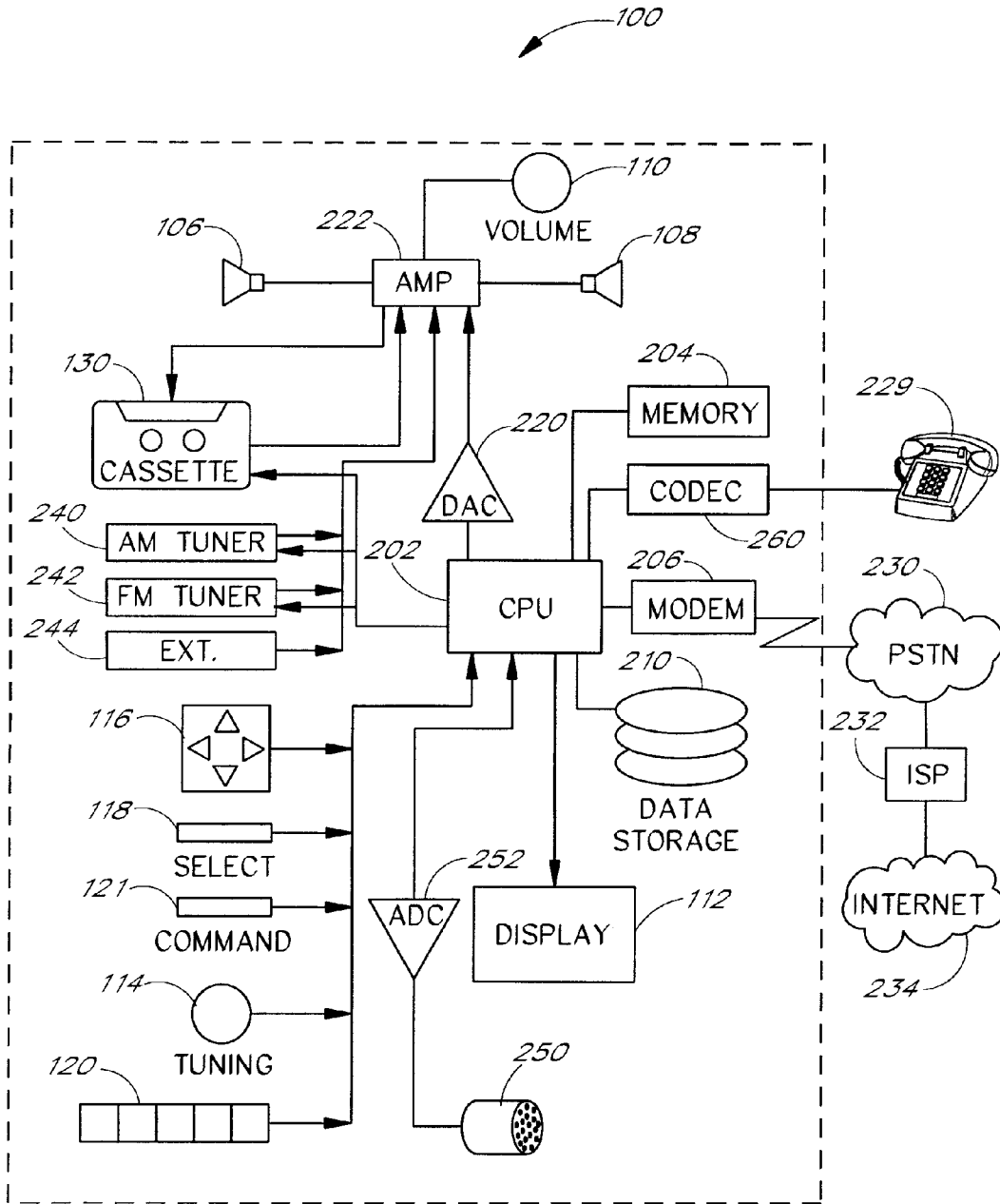


FIG. 2

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.