

EXHIBIT E

(12) **United States Patent**
Del Sesto et al.

(10) **Patent No.: US 6,530,082 B1**
 (45) **Date of Patent: Mar. 4, 2003**

(54) **CONFIGURABLE MONITORING OF PROGRAM VIEWERSHIP AND USAGE OF INTERACTIVE APPLICATIONS**

(75) Inventors: **Eric E. Del Sesto**, Alameda, CA (US);
Timothy V. Travaille, Bellevue, WA (US);
Christopher J. Michel, Burbank, CA (US);
Jana J. Paquette, Oakland, ME (US)

(73) Assignee: **Wink Communications, Inc.**, Alameda, 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.

(21) Appl. No.: **09/071,003**

(22) Filed: **Apr. 30, 1998**

(51) **Int. Cl.**⁷ **H04N 9/00; H04N 7/16**

(52) **U.S. Cl.** **725/9; 725/131; 725/14**

(58) **Field of Search** **725/9, 20, 16, 725/32, 34, 100, 131, 139, 151, 14; 709/224, 310; 713/2; H04N 9/00, 7/16, 7/10, 7/025, 7/173; G06F 15/173, 15/163, 9/00, 9/54, 9/445**

(56) **References Cited**

U.S. PATENT DOCUMENTS

4,484,217	A	11/1984	Block et al.
4,536,791	A	8/1985	Campbell et al.
4,592,546	A	6/1986	Fascenda et al.
4,658,290	A	4/1987	McKenna et al.
4,706,121	A	11/1987	Young
4,745,468	A	5/1988	Von Kohorn
4,876,592	A	10/1989	Von Kohorn
4,926,255	A	5/1990	Von Kohorn
4,965,825	A	10/1990	Harvey et al.

(List continued on next page.)

OTHER PUBLICATIONS

S. Wolf and B. Latane; If Laboratory Research Doesn't Square with You, then Qube It: The Potential of Interactive TV for Social Psychological Research; Personality and Social Psychology Bulletin, vol. 7, No. 2, Jun. 1981; pp. 344-351.*

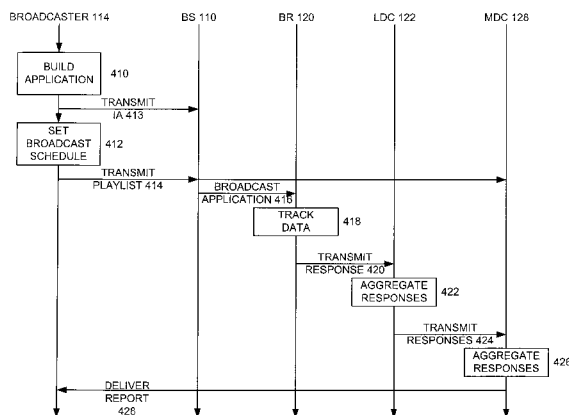
Primary Examiner—Andrew Faile
Assistant Examiner—Andrew Y Koenig

(74) *Attorney, Agent, or Firm*—Fenwick & West LLP

(57) **ABSTRACT**

A system and method provide sophisticated analysis of program viewership by executing interactive applications that generate responses describing the viewers' behavior. A broadcast server maintains a database of interactive applications each preferably associated with a program that will be broadcast. The interactive applications preferably include monitoring interactive applications that are configured to selectively monitor viewership, interactive application usage, and reception terminal usage. When the program is broadcast, the monitoring interactive application is inserted into the broadcast feed and delivered to a broadcast receiver such as a television set-top box. The broadcast receiver includes a processor, memory, and other hardware necessary to execute the interactive application. When executed, the interactive application monitors usage of the broadcast receiver, including, for example, the program watched by the subscriber, the entry and exit paths to the program, whether the volume was changed during the program, and the usage of interactive applications. The monitored data is sent in a response packet to a local data center at, for example, the cable headend. The local data center supplements the response with subscriber information from one or more subscriber databases, including marketing information such as the subscriber's age, race, and income. Information about all of the subscribers is aggregated by the local data center and transmitted to a master data center. The master data center aggregates all of the received information, supplements it if possible with additional subscriber information, and provides reports to the broadcaster indicating the geographic, demographic, and psychographic profiles of the program viewers.

29 Claims, 7 Drawing Sheets



US 6,530,082 B1

Page 2

U.S. PATENT DOCUMENTS

4,977,455 A	12/1990	Young	5,347,632 A	9/1994	Filepp et al.	
5,013,038 A	5/1991	Luxenberg et al.	5,394,182 A	2/1995	Klappert et al.	
5,034,807 A	7/1991	Von Kohorn	5,404,393 A	4/1995	Remillard	
5,057,915 A	10/1991	Von Kohorn	5,422,674 A	6/1995	Hooper et al.	
5,083,800 A	1/1992	Lockton	5,423,555 A	6/1995	Kidrin	
5,120,076 A	6/1992	Luxenberg et al.	5,585,866 A	12/1996	Miller et al.	
5,128,752 A	7/1992	Von Kohorn	5,600,364 A	* 2/1997	Hendricks et al.	725/9
5,155,591 A	10/1992	Wachob	5,758,257 A	* 5/1998	Herz et al.	725/116
5,227,874 A	7/1993	Von Kohorn	5,771,307 A	* 6/1998	Lu et al.	382/116
5,249,044 A	9/1993	Von Kohorn	5,798,785 A	* 8/1998	Hendricks et al.	725/46
5,251,324 A	10/1993	McMullan, Jr.	5,801,747 A	* 9/1998	Bedard	725/46
5,253,341 A	10/1993	Rozmanith et al.	5,986,650 A	* 11/1999	Ellis et al.	348/327
5,283,734 A	2/1994	Von Kohorn	6,286,140 B1	* 8/2001	Ivanyi	725/14
5,343,239 A	8/1994	Lappington et al.	6,353,929 B1	* 3/2002	Houston	725/20

* cited by examiner

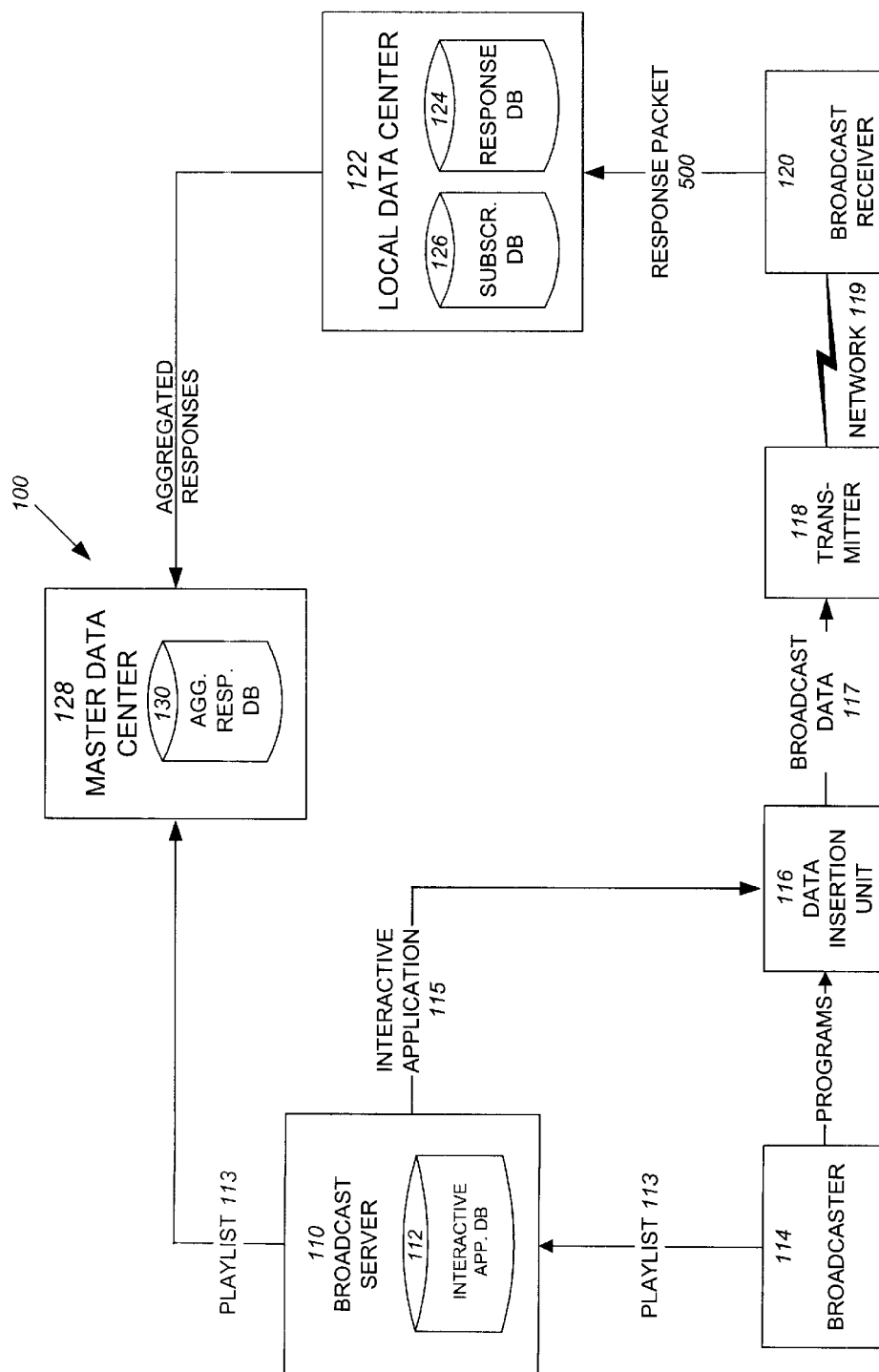
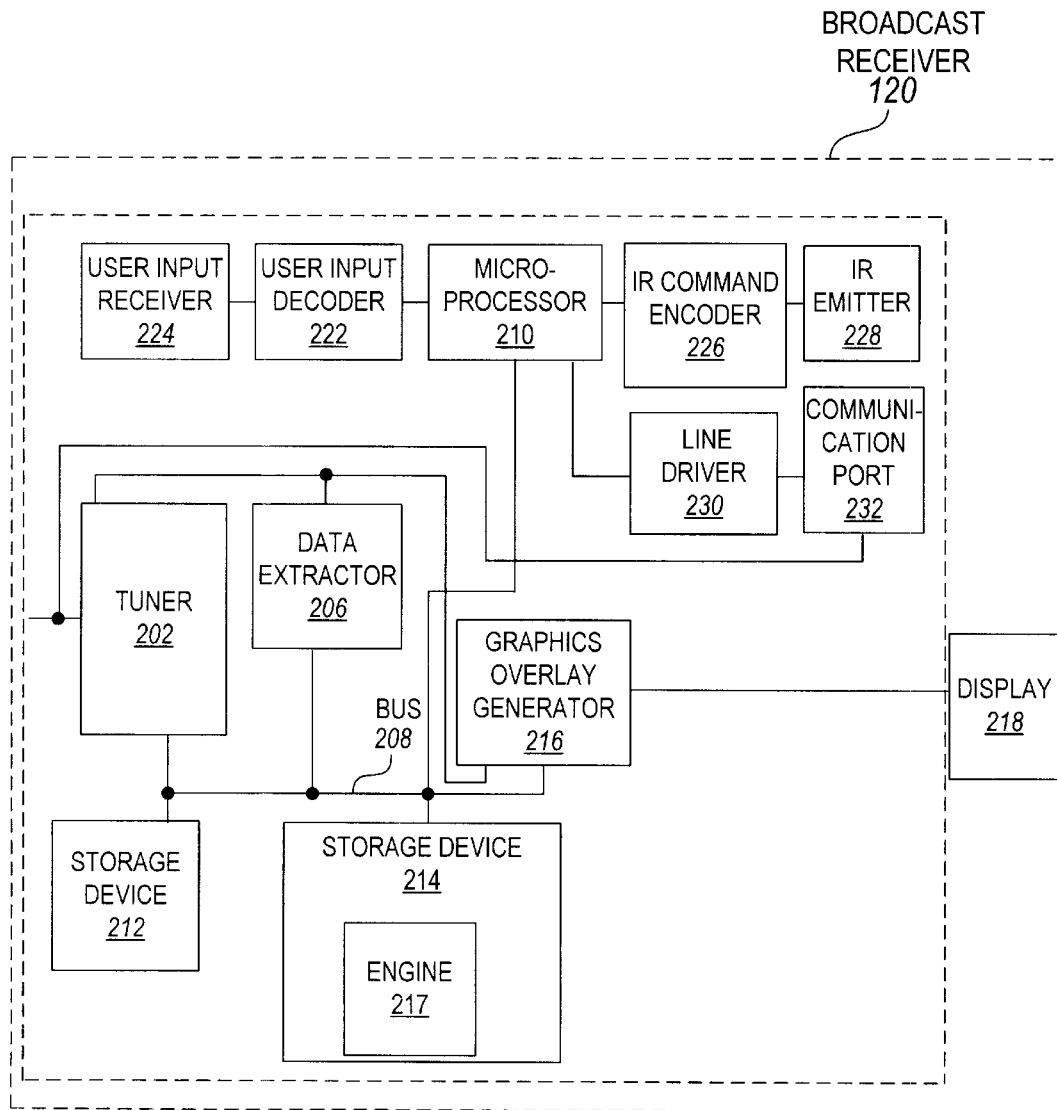


FIG. 1

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.