Exhibit 3

US007028327B1

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

(10) **Patent No.: US 7,028,327 B1**
(45) **Date of Patent: Apr. 11, 2006**

(54) **USING THE ELECTRONIC PROGRAM GUIDE TO SYNCHRONIZE INTERACTIVITY WITH BROADCAST PROGRAMS**

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(*) 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.: **09/538,602**

(22) Filed: **Mar. 29, 2000**

Related U.S. Application Data

(60) Provisional application No. 60/179,825, filed on Feb. 2, 2000.

(51) **Int. Cl.**
H04N 7/173 (2006.01)

(52) **U.S. Cl.** **725/93**; 725/40; 725/51; 725/109; 725/112

(58) **Field of Classification Search** 725/39–40, 725/51, 109, 112–113
See application file for complete search history.

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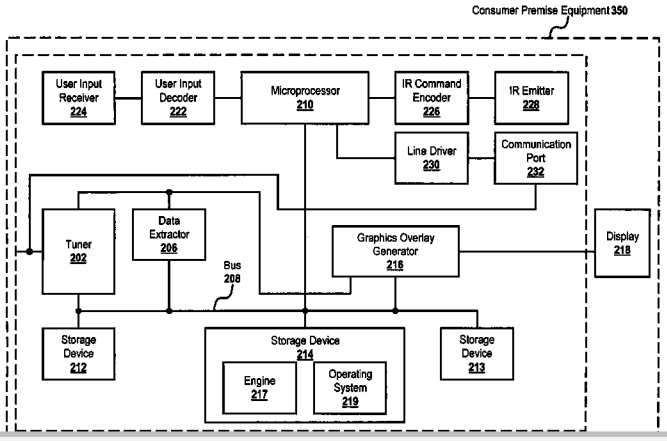
(57) **ABSTRACT**

In a broadcasting system, an electronic program guide (EPG) is used to determine what broadcast program is on a given channel at a given time in a given location. With the particular determined broadcast program as an input, timing offset objects defining interactive content related to the determined broadcast program can be retrieved from a timing offsets database. Each timing offset object specifies a time from the beginning of the program, an act to perform at the time, and a reference to interactive content on which to perform the act at the time. With the reference to the interactive content as an input, an interactive application or other interactive content can be retrieved from an interactive content database. The EPG, the timing offsets database, and the interactive content database may be located logically or physically together or separately, and they may be cached locally or referenced from an external source.

36 Claims, 8 Drawing Sheets



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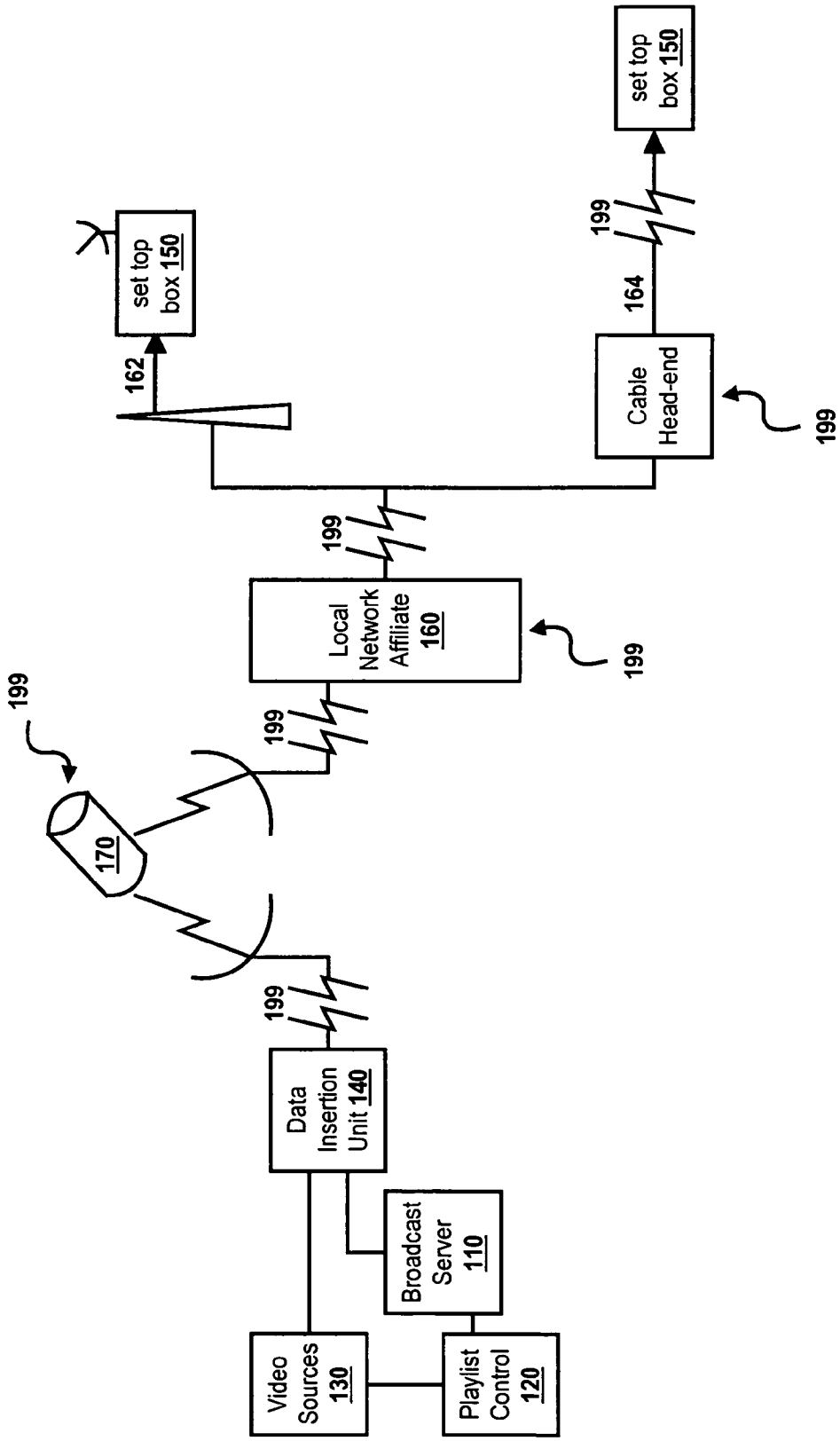

Figure 1 (Prior Art): Locations of potential corruption or loss of signal carrying Interactive Application

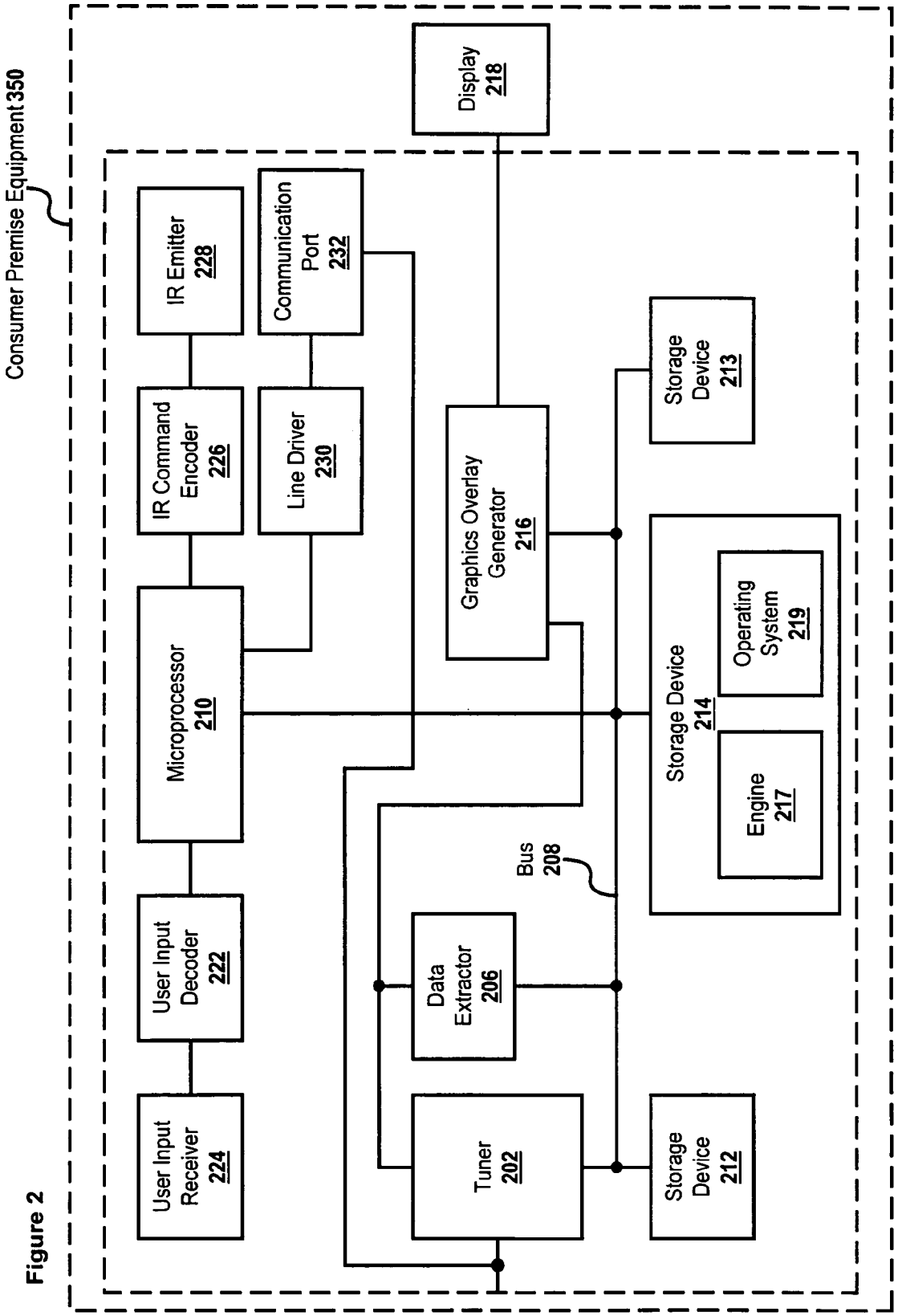

Figure 2

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