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Systems And Method To Deliver Addressable Advertisements

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SYSTEMS AND METHOD TO DELIVER ADDRESSABLE ADVERTISEMENTS

ABSTRACT

System and method are disclosed for customizable ad delivery to targeted clients with efficient bandwidth usage. The system includes an ad server, asynchronous ad delivery server and an ad client. The ad client in a set top box (STB) device periodically requests for a set of possible ads from the asynchronous ad delivery server. The asynchronous ad delivery server is directly interfaced to the ad server and communicates with the ad server to determine a set of possible ads. The ad delivery server responds to the client request for possible ads by generating the customized ads. The asynchronous ad delivery server delivers customized ads to STB client storage. The STB client shows the customized ads from storage. The ad content cache is limited only by the size of the storage on the STB, which may be used effectively to minimize bandwidth demand by scheduling ad requests during lean usage periods.

BACKGROUND

Digital cable systems commonly use a signal modulation scheme, known as quadrature amplitude modulation (QAM), to deliver video and data services on a hybrid fiber coaxial (HFC) network. In these systems, linear television is compressed using a suitable data compression format, such as a MPEG2 or an h.264 encoded at bitrates ranging from 3Mbps to 15Mbps, and is delivered within the pre-allocated 6Mhz channels of the coaxial spectrum. These systems are termed as broadcast delivery system. The data in these systems originate from a single source and many clients receive the data. Broadcast to multiple clients is inherently more efficient than unicast transmission. However, all clients of a single source receive the same data.

In a traditional addressable advertising workflow, the client makes an ad request to the server, the client receives an ad response from the server that contains the location of the

creative, and the client fetches the creative. This workflow is untenable in most HFC networks because of bandwidth constraints. Currently, there is no practical way to deliver unique content, such as addressable or customized advertisements, to targeted clients.

<u>DESCRIPTION</u>

System and method are disclosed that enable addressable or customizable ad delivery to targeted clients. System for addressable or customized ad delivery to targeted clients is illustrated in FIG. 1. The system includes an ad server, asynchronous ad delivery server and an ad client. The asynchronous ad delivery server is at network operator's site. The asynchronous ad delivery server communicates with the ad server and ad client. The ad client resides in a set top box (STB) device connected to a display system which includes a television unit. The asynchronous ad delivery server is directly interfaced to the ad server.
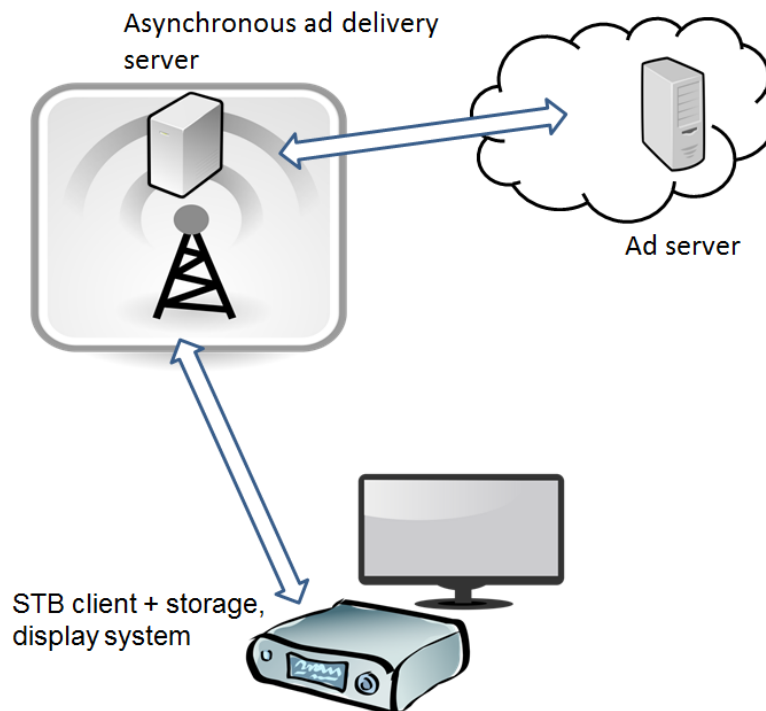

FIG. 1: System for addressable ad delivery to media clients

A method for addressable or customized ad delivery to targeted clients is depicted by

FIG. 2. The ad client periodically requests for a set of possible ads from the asynchronous ad delivery server. The asynchronous ad delivery server communicates with the ad server to determine a set of possible ads. The ad delivery server responds to the client request for the possible ads. The asynchronous ad delivery server processes and delivers the addressable ads to the targeted clients if they meet the client request criteria. The client receives the ads and caches them on the local storage of the STB. When STB client decides to display the ad, it delivers the ad from storage.

```
┌─────────────────────────────────────┐
│ STB client sends periodical requests to │
│ async ad delivery server for possible ads │
└─────────────────────────────────────┘
                  ↓
┌─────────────────────────────────────┐
│ Requests are communicated to ad server │
│        by ad delivery server          │
└─────────────────────────────────────┘
                  ↓
┌─────────────────────────────────────┐
│  Ad delivery server interfaces with ad │
│ server and determines list of possible ads │
└─────────────────────────────────────┘
                  ↓
┌─────────────────────────────────────┐
│ Ad delivery server receives customize ads │
│ from ad server and sends to STB storage │
└─────────────────────────────────────┘
                  ↓
┌─────────────────────────────────────┐
│       STB client decides to show ad     │
└─────────────────────────────────────┘
                  ↓
┌─────────────────────────────────────┐
│ STB client retrieves ad from storage and │
│         delivers customized ad          │
└─────────────────────────────────────┘
```
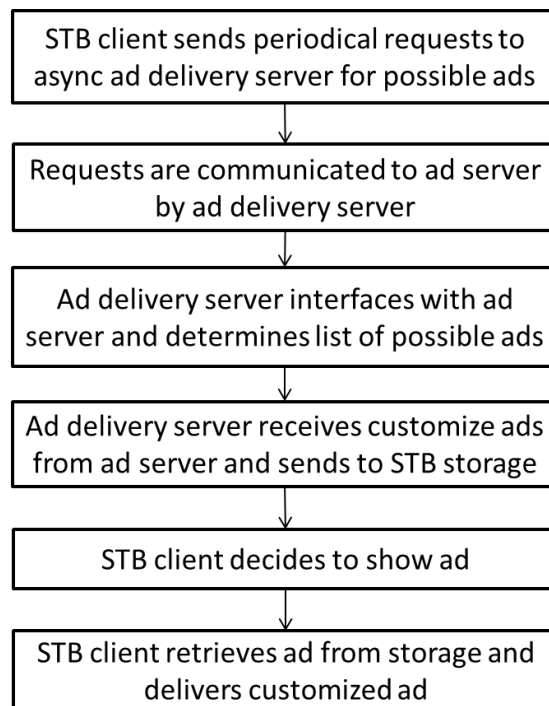
FIG. 2: Method of delivering customized ads to a media client

The systems and method to deliver addressable ads may also include more than one ad client communicating with the asynchronous ad delivery server. The ad content cache is limited only by the size of the storage on the STB, which may be used effectively to minimize bandwidth demand by scheduling ad requests during lean usage periods.

This system and method allows delivery of unique content, such as addressable or

customized advertised to targeted clients by separation of ad decisions from creative delivery. The workflow is useful in HFC networks where traditional advertising workflows are untenable because of bandwidth constraints.