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HAMILTON, BROOK, SMITH & REYNOLDS, P.C.

PROVISIONAL APPLICATION FOR PATENT COVER SHEET

This is a request for filing a PROVISIONAL APPLICATION FOR PATENT under 37 C.F.R. 1.53(e)

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INVENTOR(S)

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Additional inventors are being named on the separately numbered sheet(s) attached hereto

TITLE OF THE INVENTION (280 characters max)

USING VIEWERSHIP PROFILES FOR TARGETED PROMOTION DEPLOYMENT

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ENCLOSED APPLICATION PARTS (check all that apply)

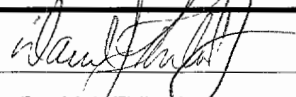
- Specification Number of Pages [18] [] Other (specify) _____
- Drawing(s) Number of Sheets [6] _____

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The invention was made by an agency of the United States Government or under a contract with an agency of the United States Government.

- No
- Yes, the name of the U.S. Government agency and the Government contract number are: _____

Signature		Date	NOVEMBER 28, 2000
Submitted by Typed or Printed Name	David J. Thibodeau, Jr.	Reg. Number	31,671

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Date: 11-28-00 Express Mail Label No. EL552571191 US

Inventor(s): Felix Yen, Kirk Cameron, and Mark Fagnani

Attorney's Docket No.: 2657.2003-000

USING VIEWERSHIP PROFILES
FOR TARGETED PROMOTION DEPLOYMENT

BACKGROUND OF THE INVENTION

At the present time, most data network devices located in the residences include
5 some type of personal computer. Typically, these personal computers are used to
connect to Internet Service Providers over dial-up connections to execute application
programs such as email clients and Web browsers that utilize the global Internet to
access text and graphic content. Increasingly, the demand is for multimedia content,
including audio and video, to be delivered over such networks. However, the backbone
10 architecture of purely data networks, especially those designed for use with the
telephone network, were not originally designed to handle such high data rates.

The trend is towards a more ubiquitous model where the network devices in the
home will be embedded systems designed for a particular function or purpose. This has
already occurred to some degree. Today, for example, cable television (CATV) network
15 set-top boxes typically have limited data communication capabilities. The main
function of the data devices is to handle channel access between residential users and a
head end or server on the cable TV network.

However, it is estimated that the worldwide market for Internet appliances such
as digital set-top boxes and Web-connected terminals will reach \$17.8 billion in 2004,
20 and millions of such digital set-top boxes have already been deployed. Increasingly,
advertisers and content providers view the cable set-top as the first platform of choice

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for widespread delivery of a suite of intelligent content management and distribution services.

In the future, the functionality offered by these set-top boxes or other embedded platforms, such as a game system, will be expanded. For example, they may offer
5 Internet browsing capabilities and e-commerce serving capabilities. Moreover, it is anticipated that common-household appliances will also have network functionality, in which they will be attached to the network to automate various tasks.

SUMMARY OF THE INVENTION

10 The digital set top box provides certain interesting functionalities, such as the ability to collect data, such as a log of the channels watched over time, and other events. The set top box can be designed and programed to report this information to a central location. At the central location, this data can be aggregated for many hundreds of thousands of users. This information, when coupled with other information such as
15 demographics, can then be used by advertisers and service providers to target individuals or blanket defined market segments with promotions, advertisements, and content. The digital delivery of promotions can then allow for impulse responses yielding immediate increases in revenues.

However, to effectively target specific set top boxes with promotions, the
20 viewership profiles of the set top boxes must be generated. These profiles characterize the viewing behavior of the viewers associated with the individual set top boxes.

The present invention implements a system for generating viewership profiles to facilitate distributing promotions based on the profiles to multiple network devices, such as set top boxes.

25 Specifically, the system includes a promotion agent associated with each network device which collects viewing activity data of the network device. For example, the viewing activity data may include a channel the network device was tuned to, a time when the network device was tuned to the channel, and a time the network device was tuned away from the channel.

The collected viewing activity data is then transmitted, for example, every twenty-four hours, to a life-cycle manager server, which also periodically receives a program schedule. The program schedule typically specifies the channel on which a particular program was displayed, as well as the time the program was shown.

5 The life-cycle manager server correlates the viewing activity data with the program schedule to generate the viewership profile of the network device. The life cycle manager server determines the viewing behavior for four, eight, and twelve week periods, for example, or for a time period specified by a user.

10 The implementation of a system for generating viewership profiles in this manner assists network operators to cost effectively support the advanced features of the set top box, such as to provide targeted promotion and digital content distribution services. This enables network operators to generate new revenues and provide a richer interactive environment for consumers.

15 BRIEF DESCRIPTION OF THE DRAWINGS

The foregoing and other objects, features and advantages of the invention will be apparent from the following more particular description of preferred embodiments of the invention, as illustrated in the accompanying drawings in which like reference characters refer to the same parts throughout the different views. The drawings are not necessarily to scale, emphasis instead being placed upon illustrating the principles of the invention.

20 Fig. 1A is a block diagram illustrating a set top box attached to a television displaying a promotion in a full-screen electronic program guide according to one embodiment of the present invention.

25 Fig. 1B is a block diagram illustrating the television of Fig. 1A displaying a promotion in a partial-screen electronic program guide.

Fig. 2 is a schematic diagram illustrating the interaction between a server system and an embedded client system according to the invention.

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