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

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(54) **METHOD AND DEVICE FOR RECEIVING AND PROVIDING PROGRAMS**

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(52) **U.S. Cl.**
CPC **H04N 21/64792** (2013.01); **H04N 7/17318**

(2013.01); **H04N 21/2221** (2013.01); **H04N 21/235** (2013.01); **H04N 21/23424** (2013.01); **H04N 21/23608** (2013.01); **H04N 21/26275** (2013.01); **H04N 21/435** (2013.01); **H04N 21/44222** (2013.01); **H04N 21/4758** (2013.01); **H04N 21/47202** (2013.01); **H04N 21/6371** (2013.01); **H04N 21/6377** (2013.01);
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USPC 370/486
See application file for complete search history.

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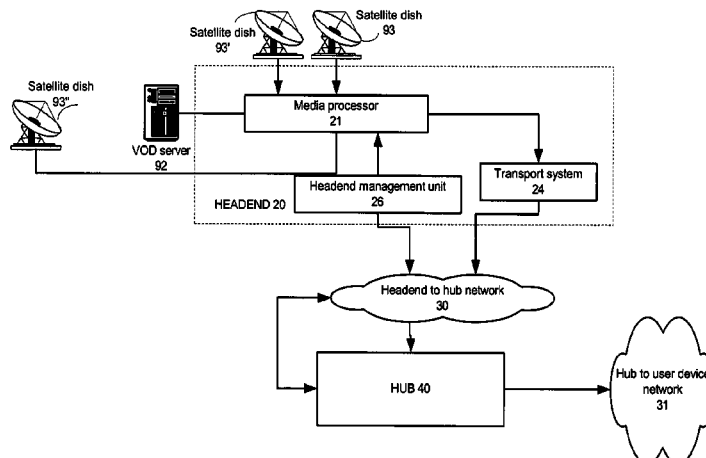
(57) **ABSTRACT**

A method for providing programs, the method includes: (i) providing a program multiplex to multiple users device; (ii) considering a removal of at least one program from the multiplex in response to program viewing parameters; (iii) allowing at least one user to respond to a possible removal of the program; and (iv) determining whether to remove the al least one program in response to received user removal responses. A user device that includes a transceiver unit that is connected to a controller, wherein the device is adapted to receive a program multiplex, to receive an indication that at least one program is to be removed from the multiplex, and to selectively transmit a program removal response.

17 Claims, 13 Drawing Sheets

Related U.S. Application Data

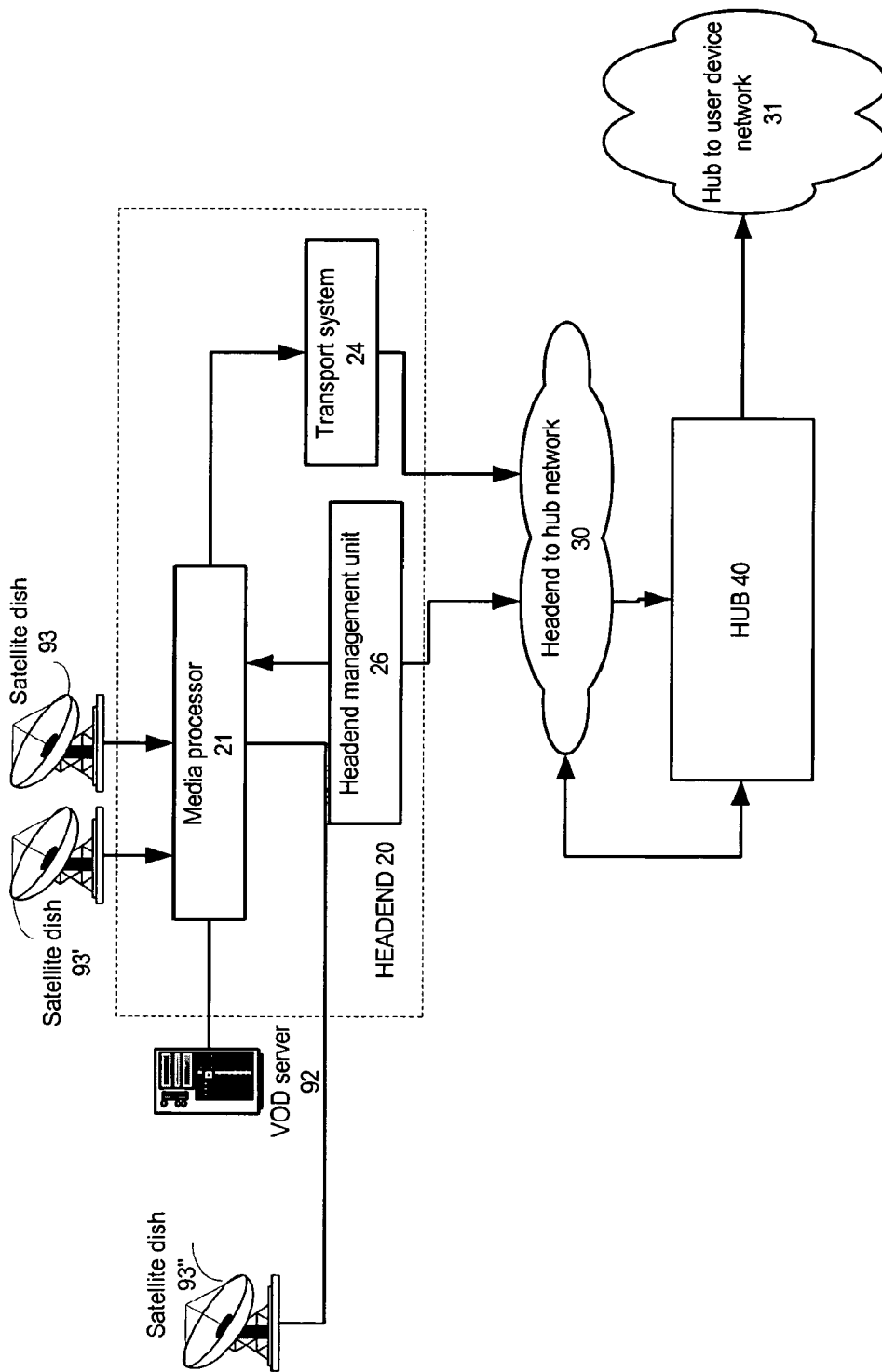continuation of application No. 11/200,754, filed on Aug. 9, 2005, now Pat. No. 8,249,114.

(60) Provisional application No. 60/600,473, filed on Aug. 10, 2004, provisional application No. 60/662,844, filed on Mar. 16, 2005.

(51) **Int. Cl.**

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CPC *H04N 21/64738* (2013.01); *H04N 21/654* (2013.01); *H04N 21/6581* (2013.01); *H04N 21/6582* (2013.01); *H04N 21/6587* (2013.01)
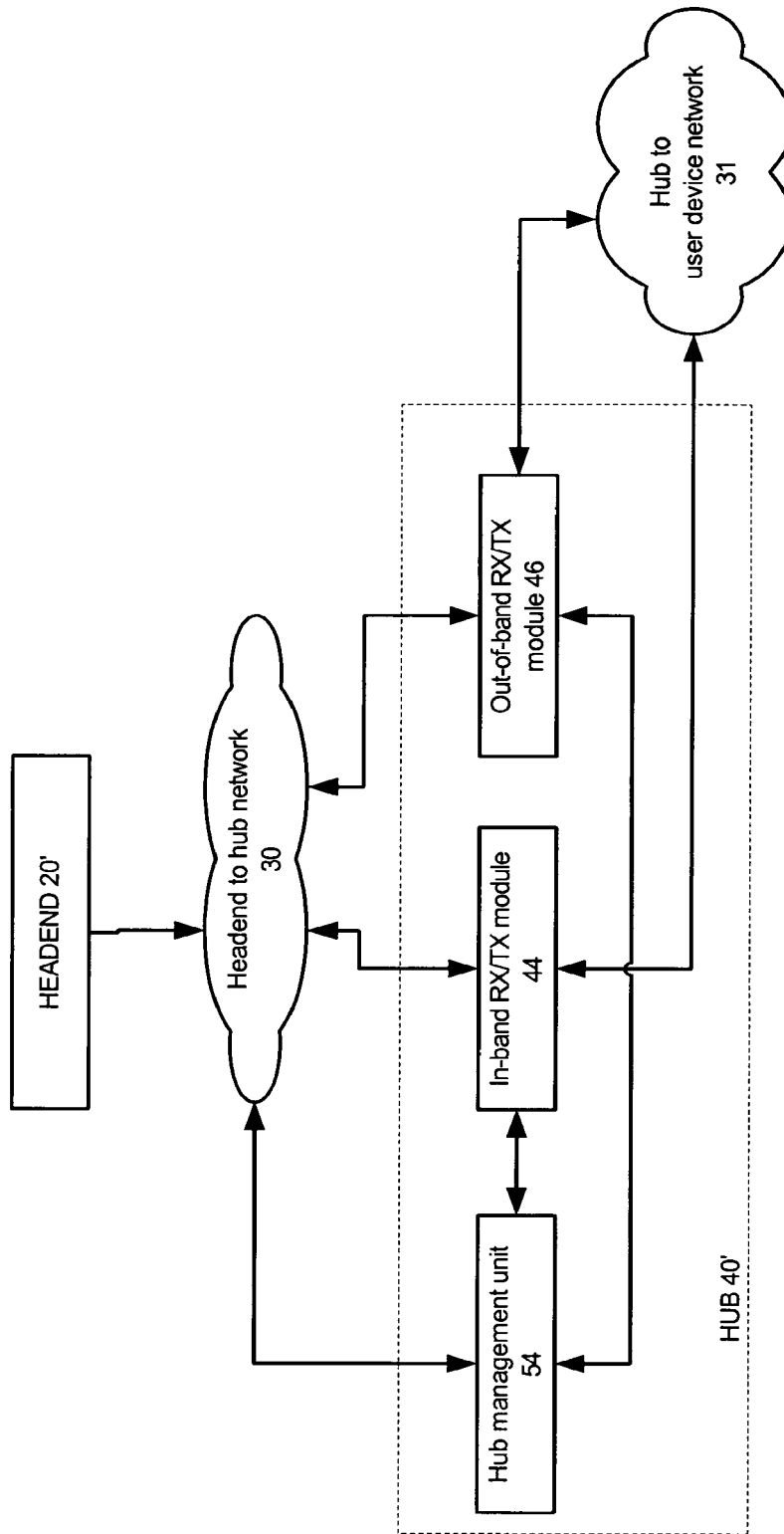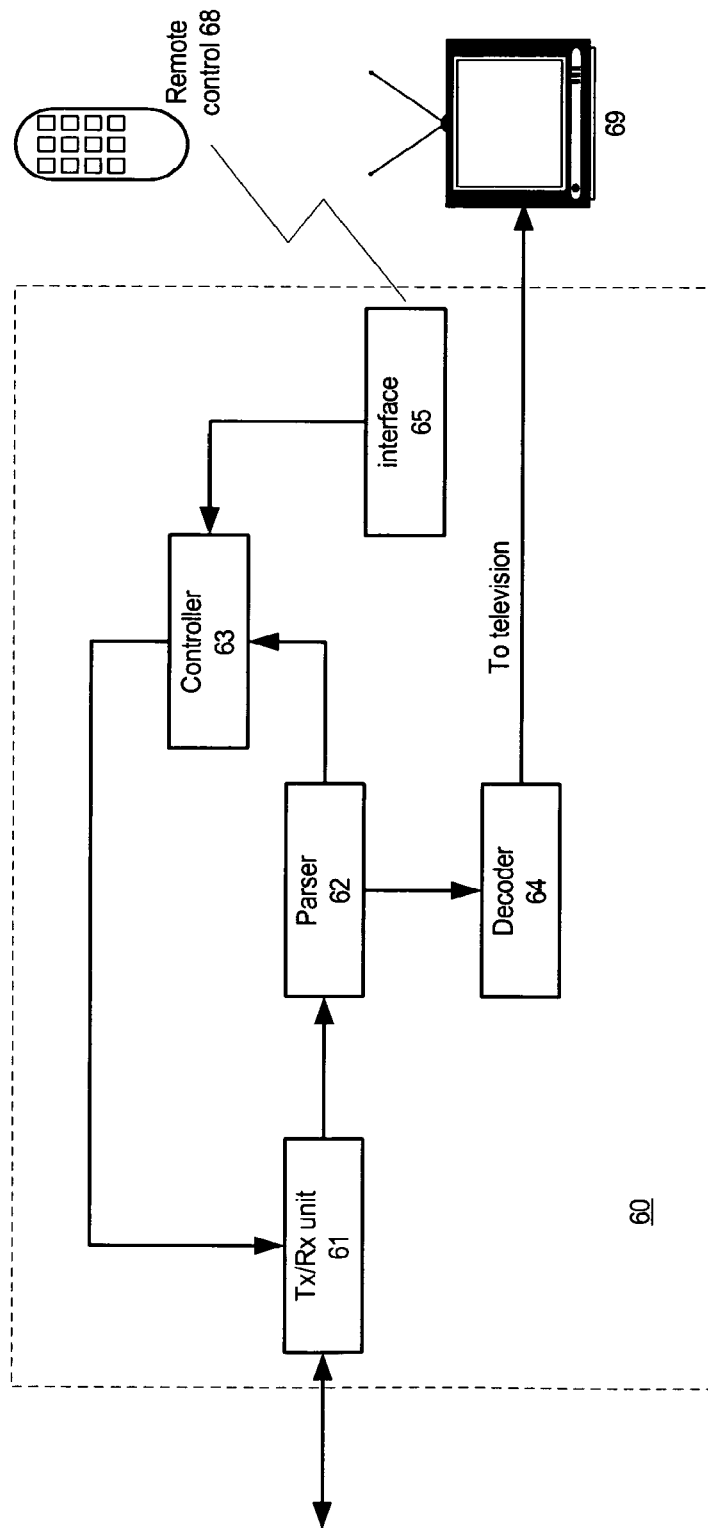
FIGURE 1

FIGURE 2

Hub to user device network 31

Headend to hub network 30

HEADEND 20'

Out-of-band RX/TX module 46

In-band RX/TX module 44

Hub management unit 54

HUB 40'

10'

Remote
control 68

interface
65

Controller
63

Parser
62

Decoder
64

To television

Tx/Rx unit
61

69

60

FIGURE 3

DOCKET ALARM

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