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Vishwanath et al.

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(54) **METHOD AND APPARATUS FOR A CLIENT-SERVER SYSTEM WITH HETEROGENEOUS CLIENTS**

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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.

This patent is subject to a terminal disclaimer.

(21) Appl. No.: **09/098,670**

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Related U.S. Application Data

(63) Continuation-in-part of application No. 08/970,735, filed on Nov. 14, 1997.

(51) **Int. Cl.**[7] **G06F 13/38**; G06F 15/17

(52) **U.S. Cl.** **709/208**; 709/203

(58) **Field of Search** 709/208, 203, 709/217, 204, 210, 209, 228, 231, 219, 206; 370/352, 400; 379/88.06; 705/37; 345/333, 340

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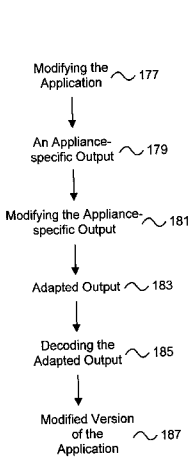
(57) **ABSTRACT**

Method and apparatus to deliver an application to a client through a transmission medium. The application can be an interactive application, and the apparatus includes an appliance-specific transducer and an adaptive-transmission transducer. The appliance-specific transducer, in view of the client's request for the interactive application in the server, is configured to modify the application based on at least one characteristic of the client and at least one characteristic of the application to generate an appliance-specific output. Based on at least one characteristic of the application and at least one characteristic of the medium of transmission, the adaptive-transmission transducer is configured to modify the appliance-specific output to generate an adapted output. The output is delivered through the medium to the client, which includes a decoder and a user-interface. The decoder decodes the adapted output to produce a modified version of the interactive application to be used by a party through the user-interface. In another embodiment, the application can be a push application.

13 Claims, 11 Drawing Sheets



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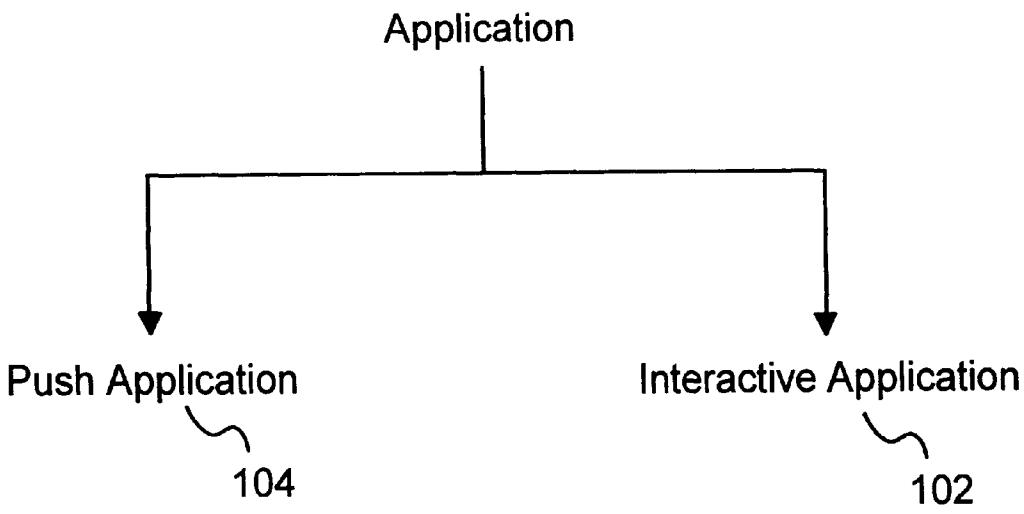

Figure 1

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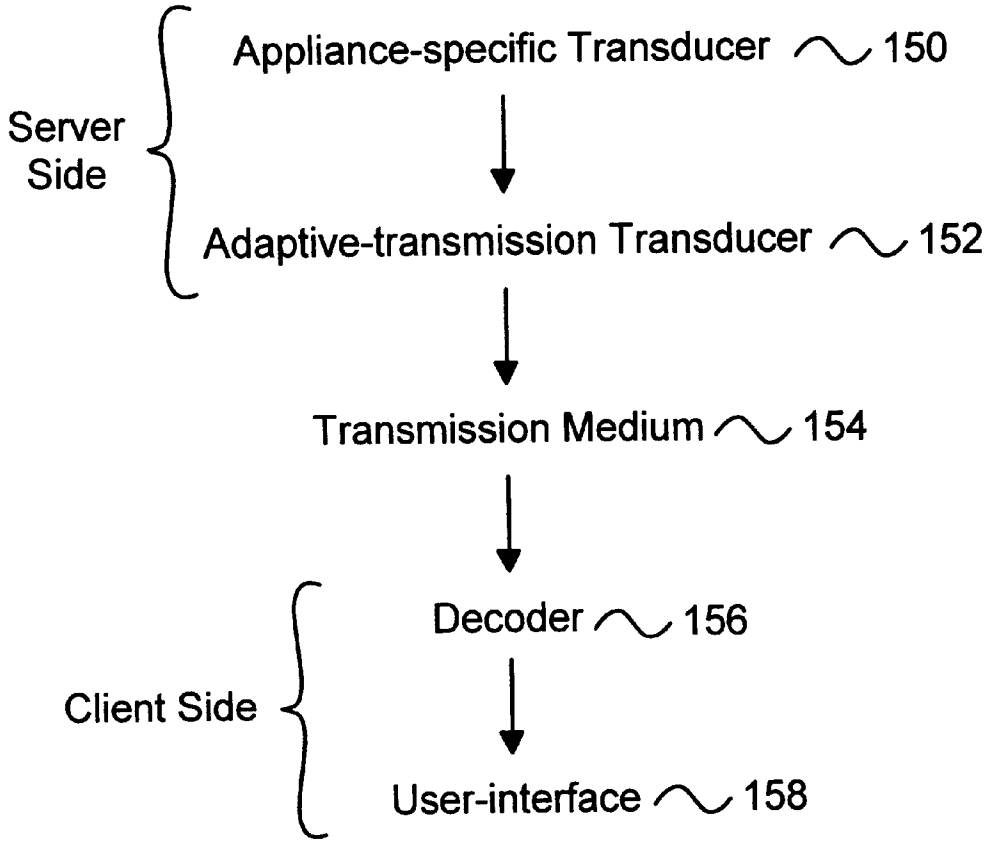

Figure 2

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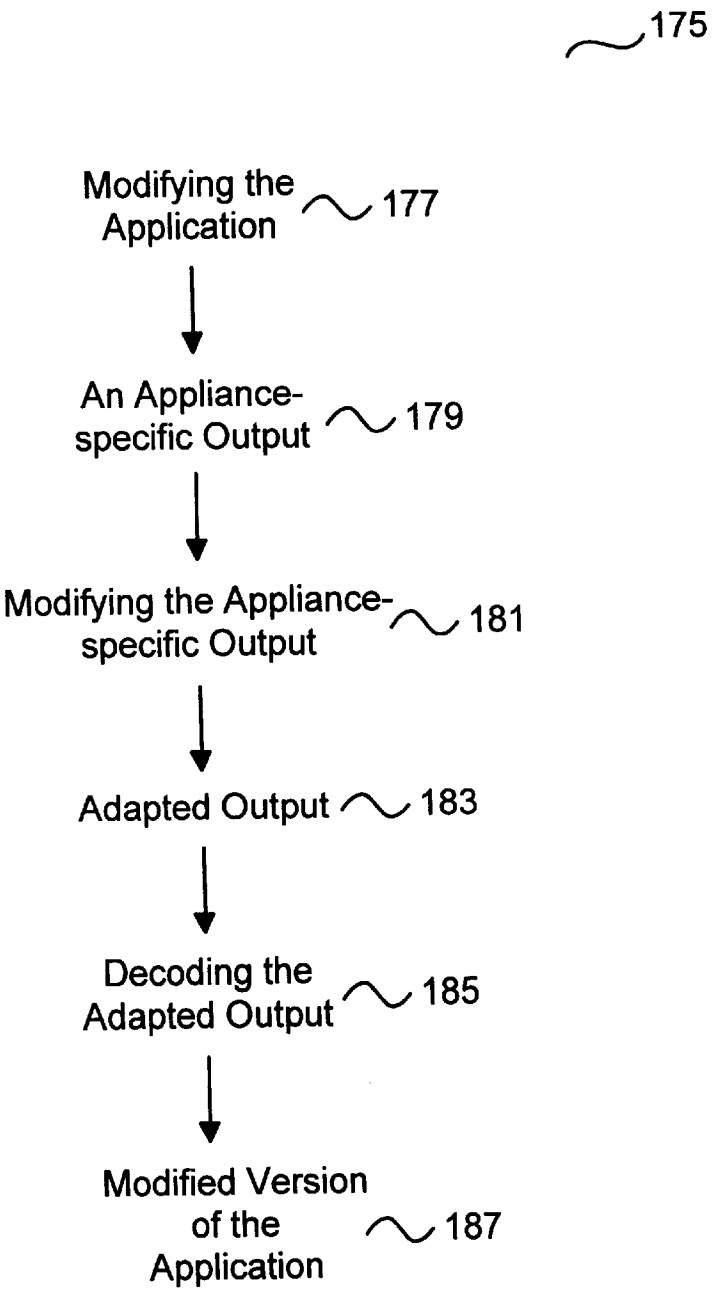

Figure 3

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