

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

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(45) **Date of Patent:** **Dec. 27, 2005**

(54) **MODULAR DATA COMMUNICATION EQUIPMENT SYSTEM**

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* cited by examiner

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(57) **ABSTRACT**

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 811 days.

A network interface unit includes an interface module for translating messages transmitted between one of a family of different types of service delivery units. Each type of service delivery unit provides a network service that is different than the network service provided by the other types of service delivery units in the family. The service delivery unit connected to the network interface unit processes messages received in a first format. The network interface unit thus includes a medium module configured to process data for transmission between the given medium and the service delivery unit, and the interface module. The medium module transmits messages toward the service delivery unit in a second format. The interface module is configured to receive messages transmitted between the medium module and the service delivery unit. The interface module is configured to translate messages from the second format to the first format.

(21) Appl. No.: **09/884,684**

(22) Filed: **Jun. 19, 2001**

Related U.S. Application Data

(63) Continuation of application No. 09/753,014, filed on Jan. 2, 2001, now abandoned.

(51) **Int. Cl.**⁷ **H04J 3/16**

(52) **U.S. Cl.** **370/466; 370/419**

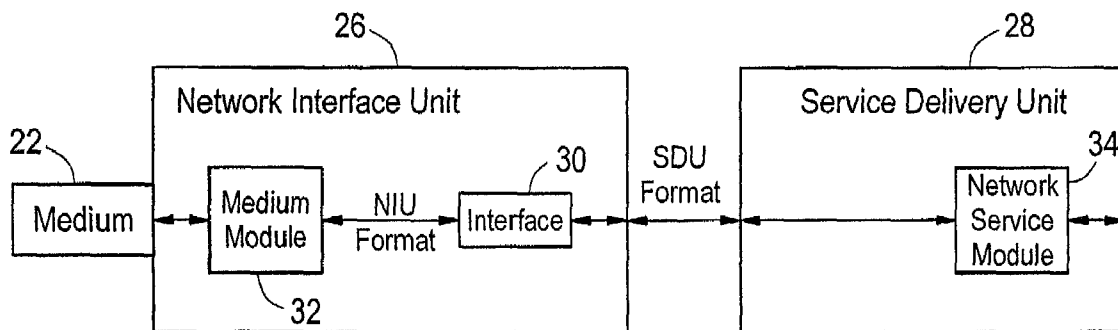
(58) **Field of Search** 370/419, 420, 370/421, 466, 467, 400, 401; 709/249

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27 Claims, 6 Drawing Sheets



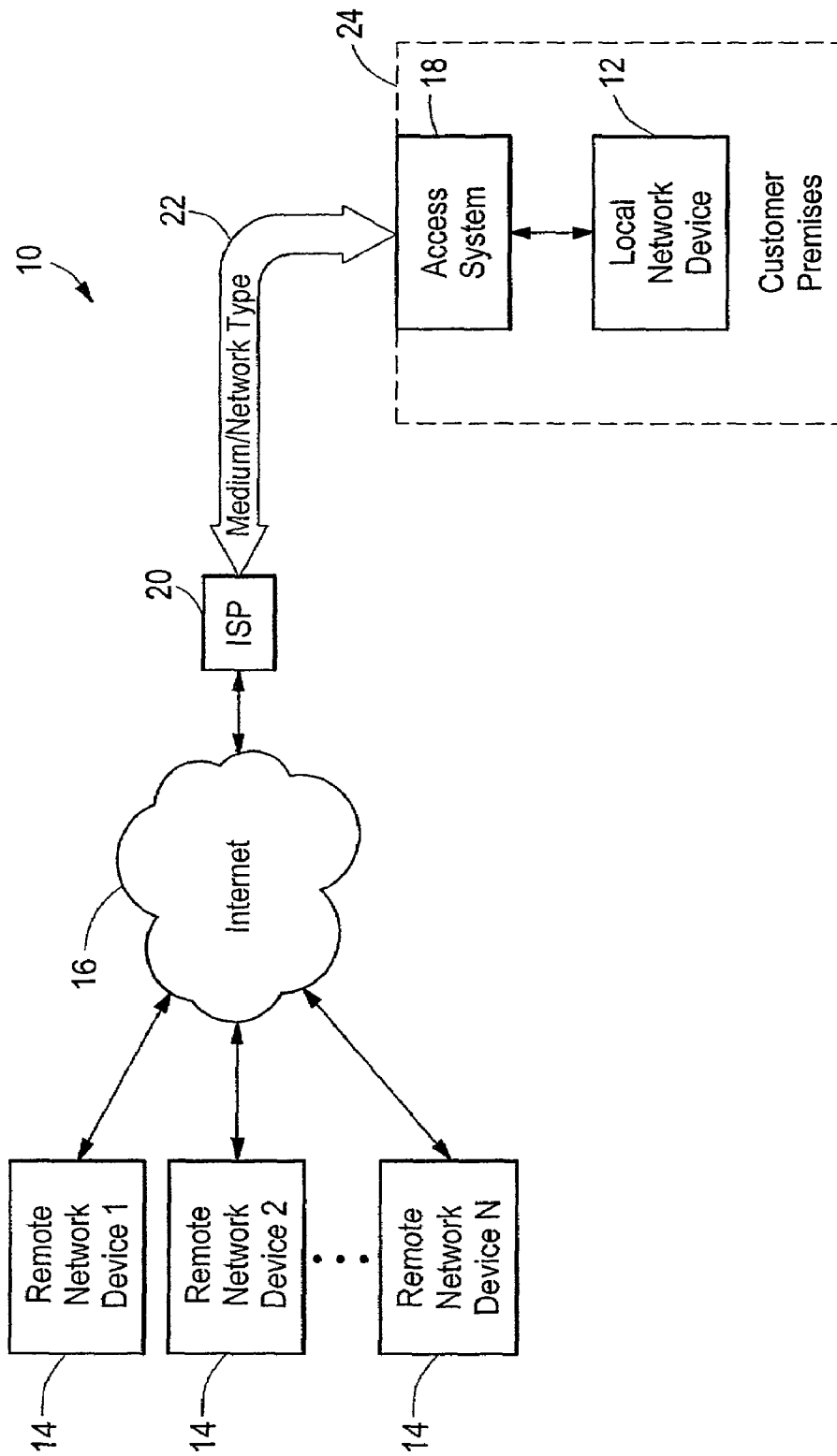


FIG. 1

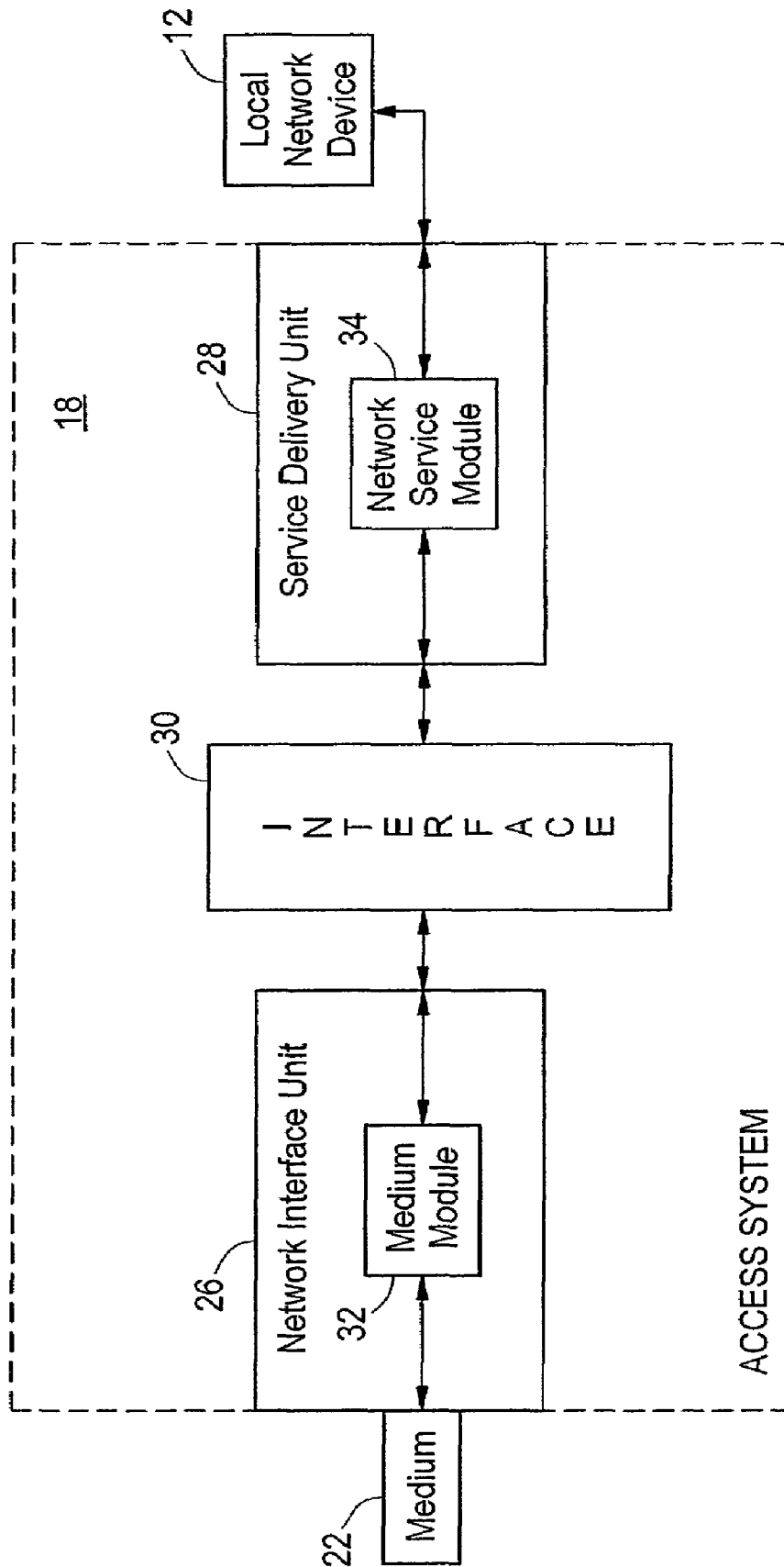


FIG. 2

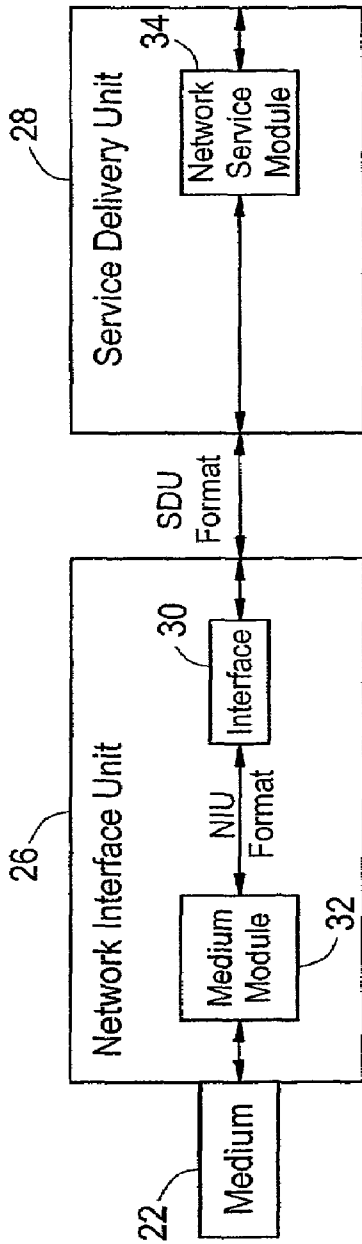


FIG. 3

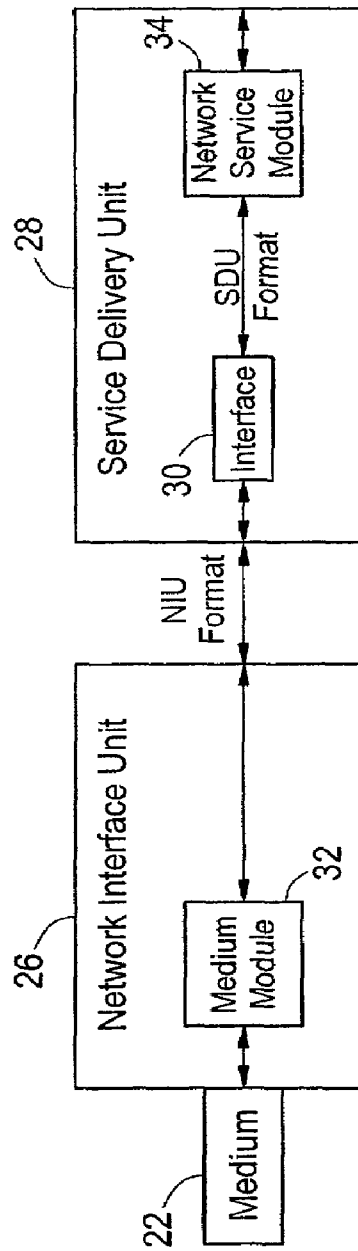


FIG. 4

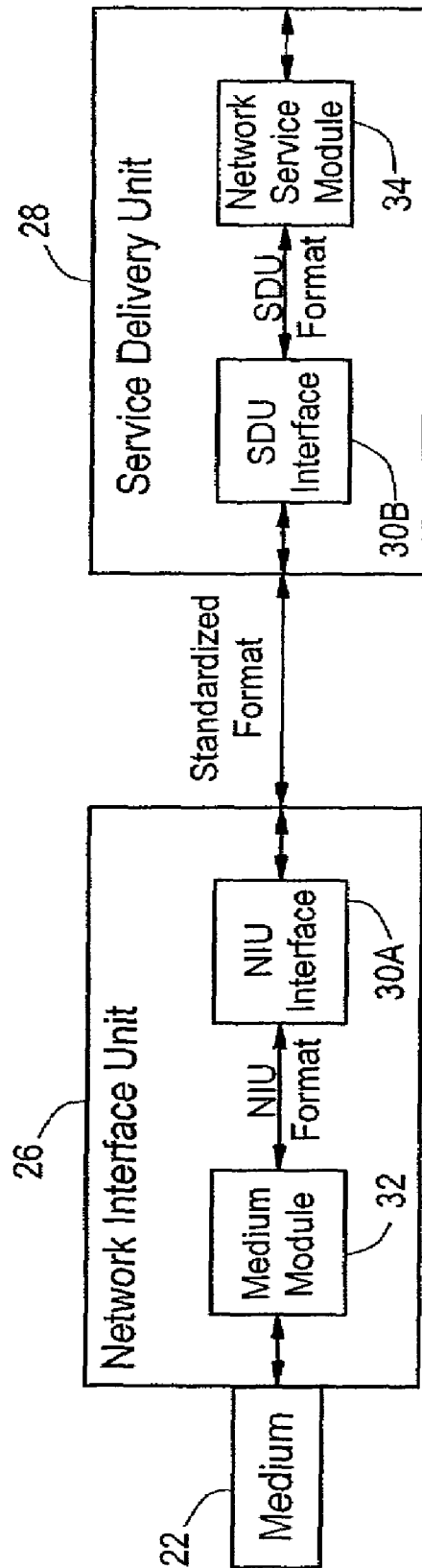


FIG. 5

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