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Kimbrough et al.

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- (54) **MULTI-SERVICE ADAPTABLE OPTICAL NETWORK UNIT**
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- (51) **Int. Cl.**⁷ **H04B 10/00; H04J 14/00**
- (52) **U.S. Cl.** **359/163; 359/109; 359/118; 359/119**
- (58) **Field of Search** 359/163, 109, 359/117, 118, 119, 125, 137, 167
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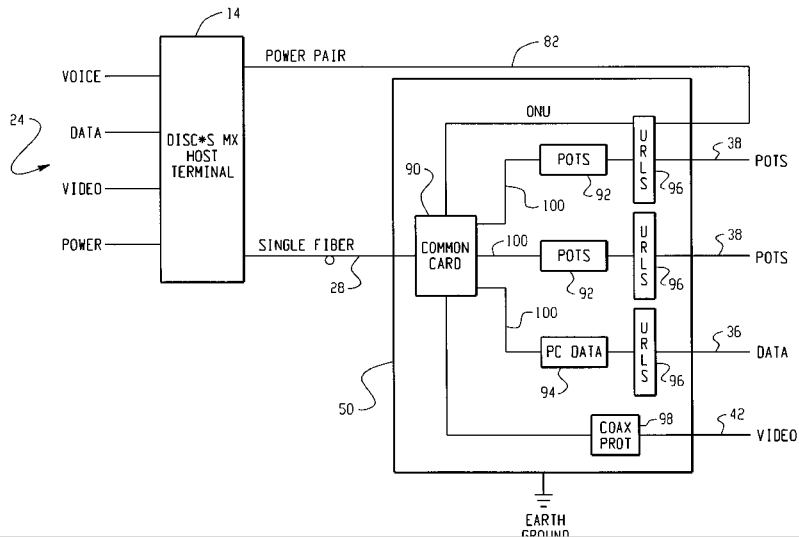
(57) ABSTRACT

A multi-service, adaptable optical network unit (ONU) is disclosed for use in a fiber-to-the-curb (FTTC) digital loop carrier system, including a multi-service common card and a plurality of multi-media service cards that are connected to the common card using a card-link interface. The card-link interface is preferably a high-speed LVDS serial-bus connection that is organized in a star configuration such that each service card is connected to the multi-service common card using a separate point-to-point card-link. By eliminating the traditional backplane structure found in present ONU designs, the present invention provides a scalable, adaptable, future-proof FTTC system that can transport present-day multi-media services as well as yet-to-be-defined future high-bandwidth applications.

36 Claims, 8 Drawing Sheets

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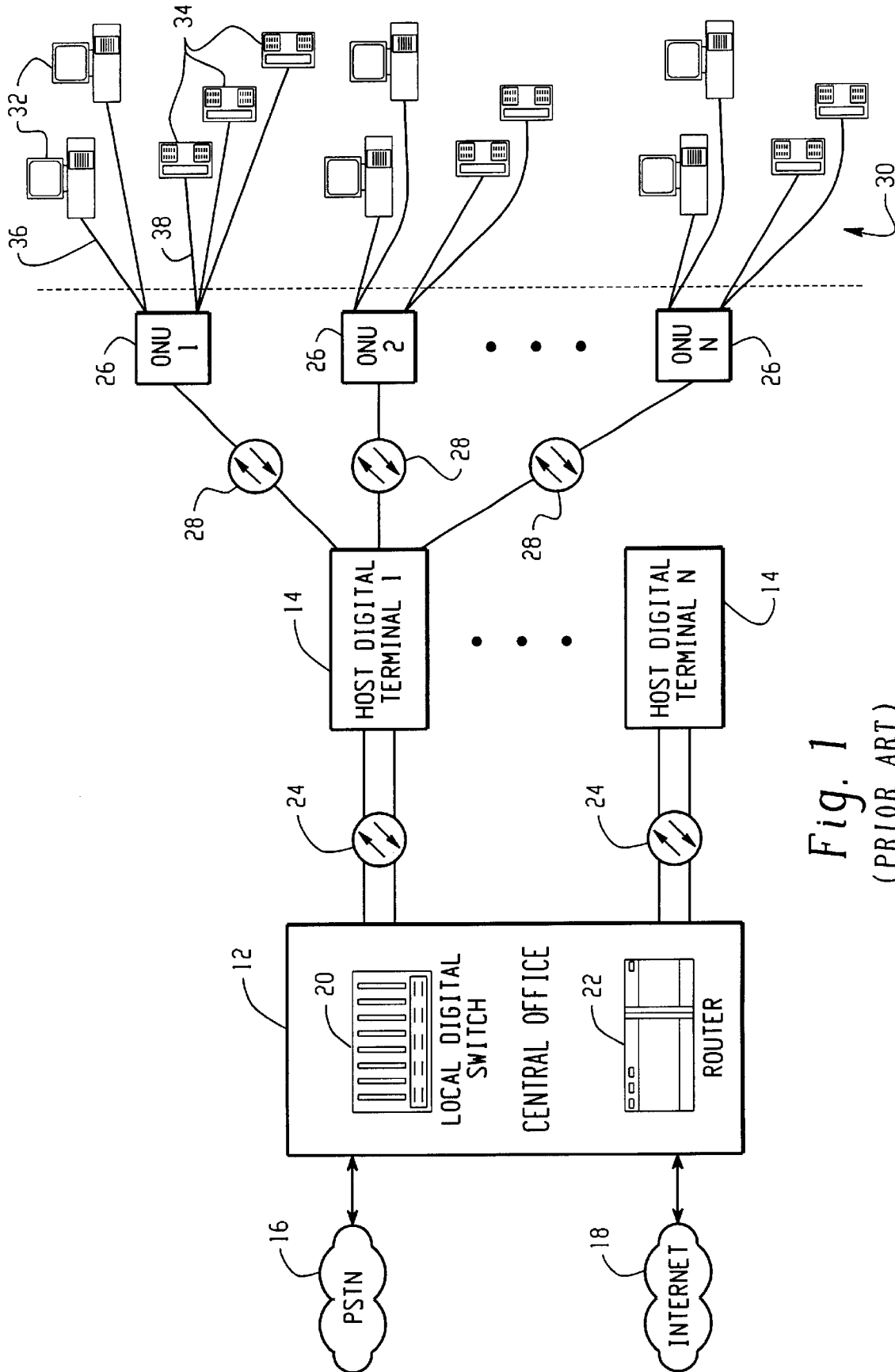


Fig. 1
(PRIOR ART)

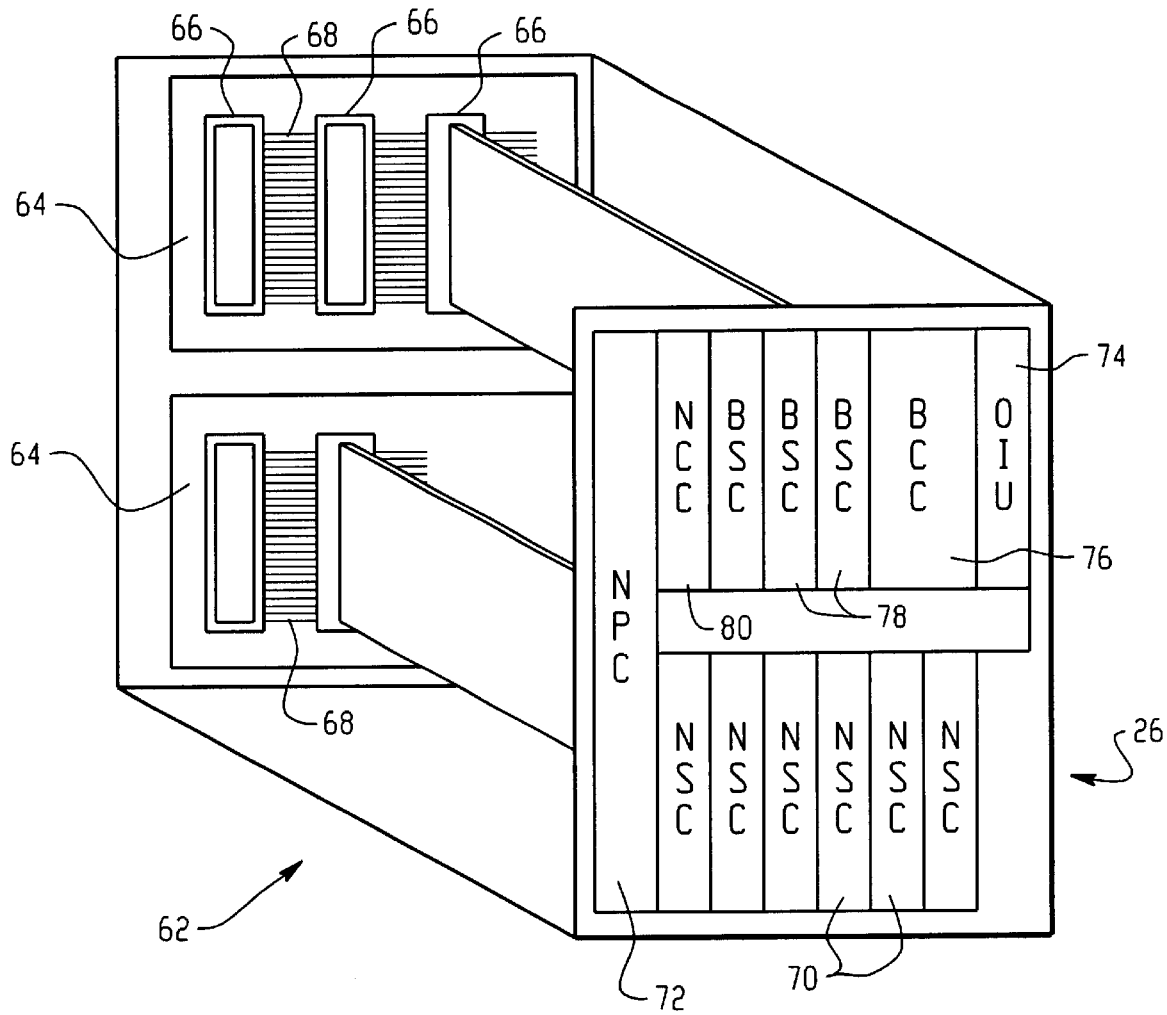


Fig. 2A
(PRIOR ART)

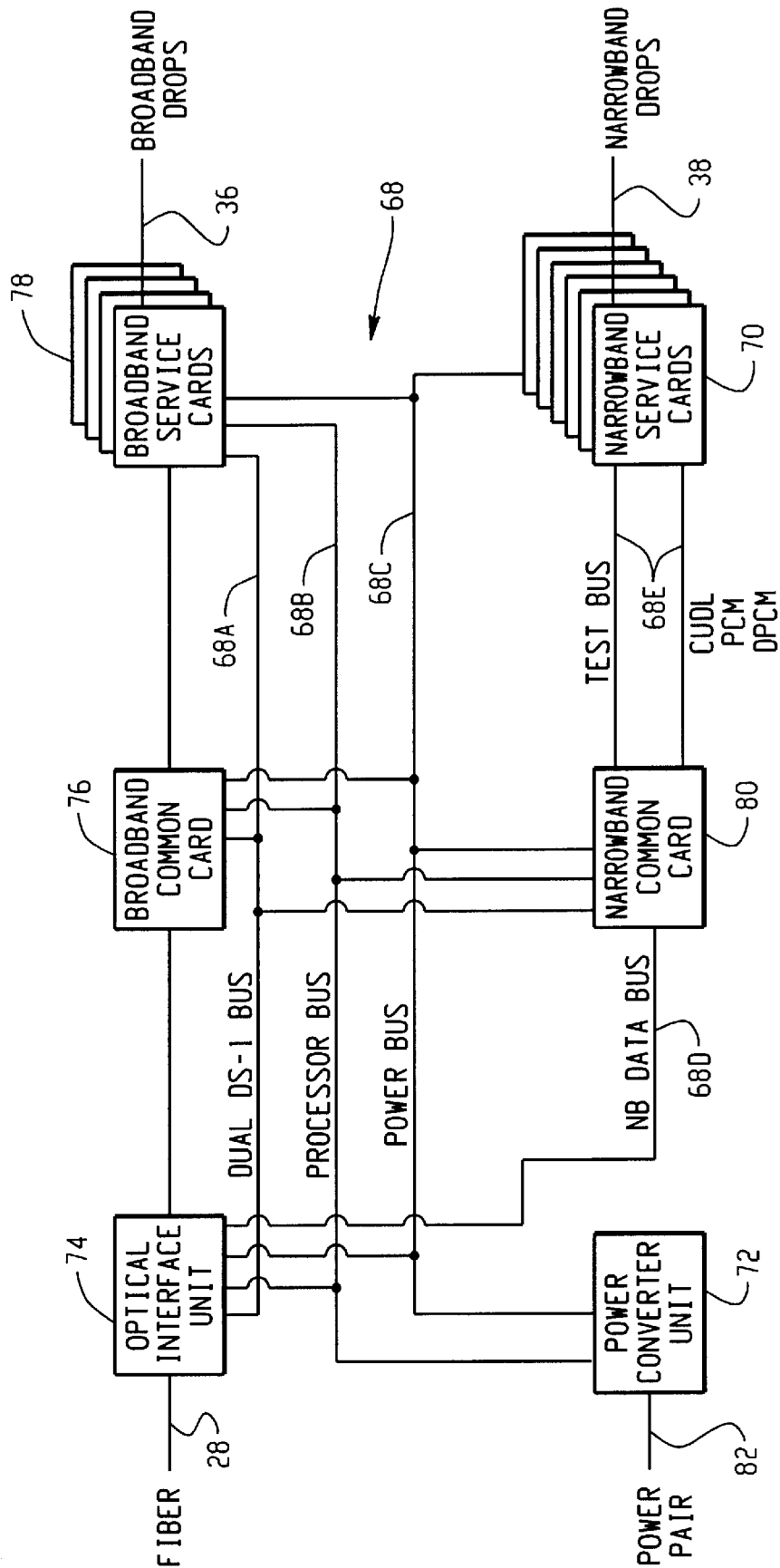


Fig. 2B
(PRIOR ART)

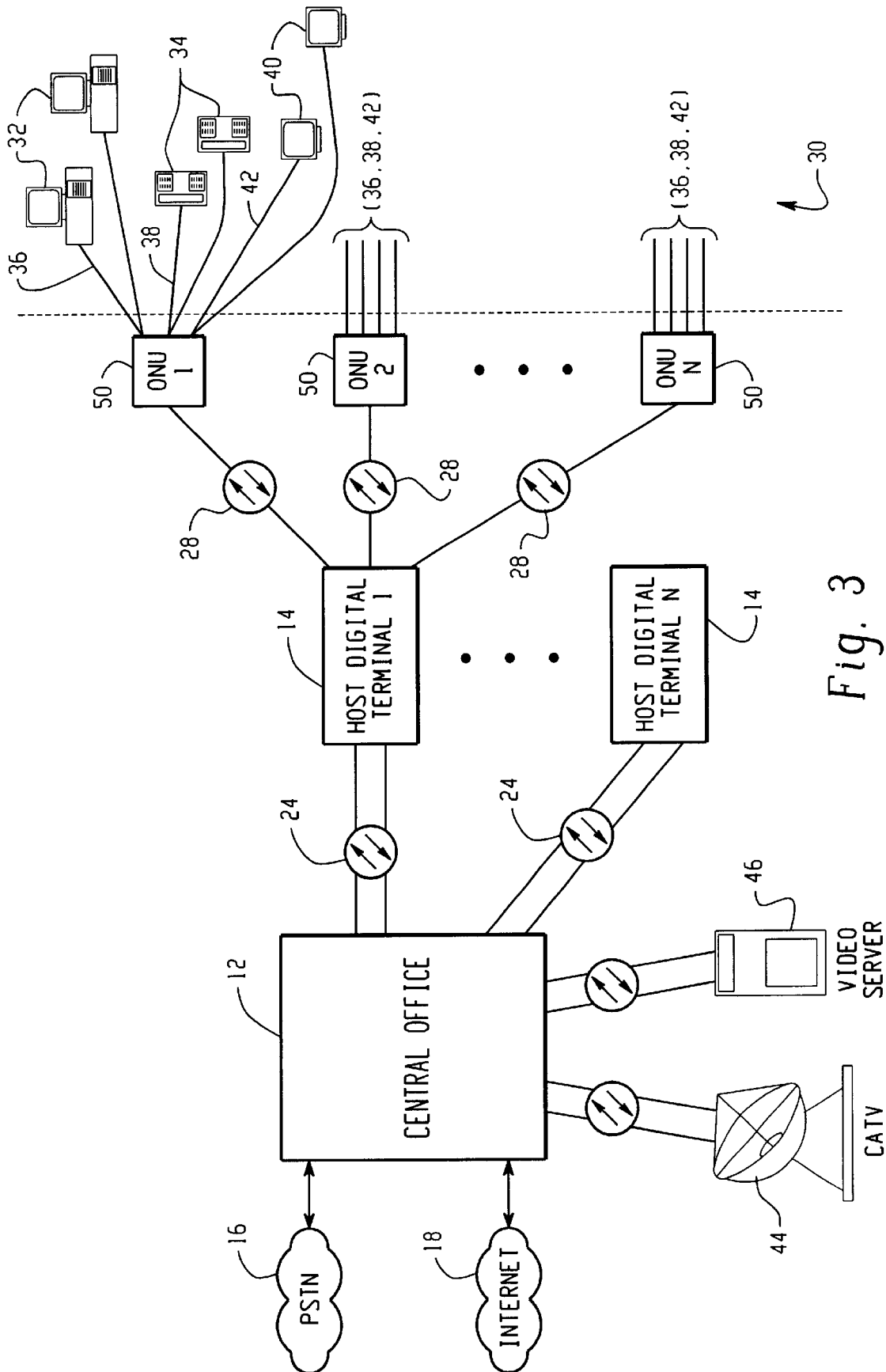


Fig. 3

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