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(54) **TRANSMISSION OF MULTIPROTOCOL DATA IN A DISTRIBUTED ANTENNA SYSTEM**

(52) **U.S. Cl. .... 370/338**

(57) **ABSTRACT**

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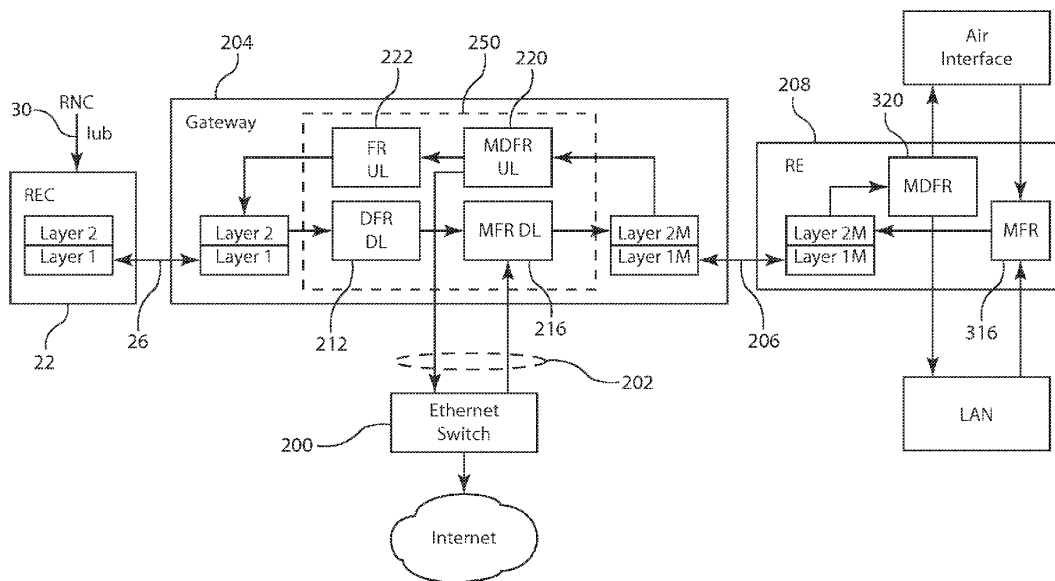
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In a distributed antenna system (DAS) and a local area network (LAN), a common communication infrastructure distributes data from radio-based and Internet-based sources. A radio equipment (RE) of the DAS interfaces to a LAN segment. For the downlink, a gateway maps radio signal data from a radio equipment controller (REC) and data packets from a switch to mixed-data frames using a radio data interface protocol for transmission in the DAS. At the RE, the signal data and data packets are retrieved from the mixed-data frames and provided to the air interface and LAN segment, respectively. For the uplink from the RE, the radio signal data from the air interface and the data packets from the LAN segment are mapped to mixed-data frames and transmitted to the gateway. The gateway retrieves the signal samples and data packets from the mixed-data frames for transfer to the REC and switch, respectively.



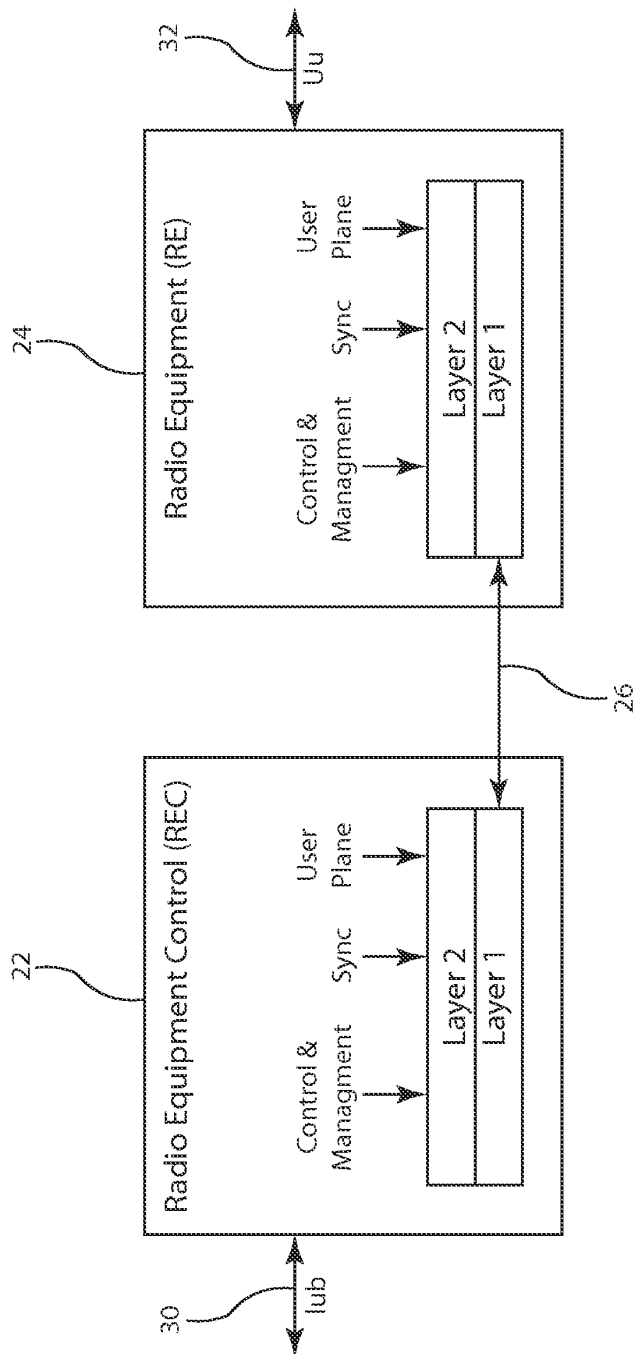


Figure 1  
Prior Art

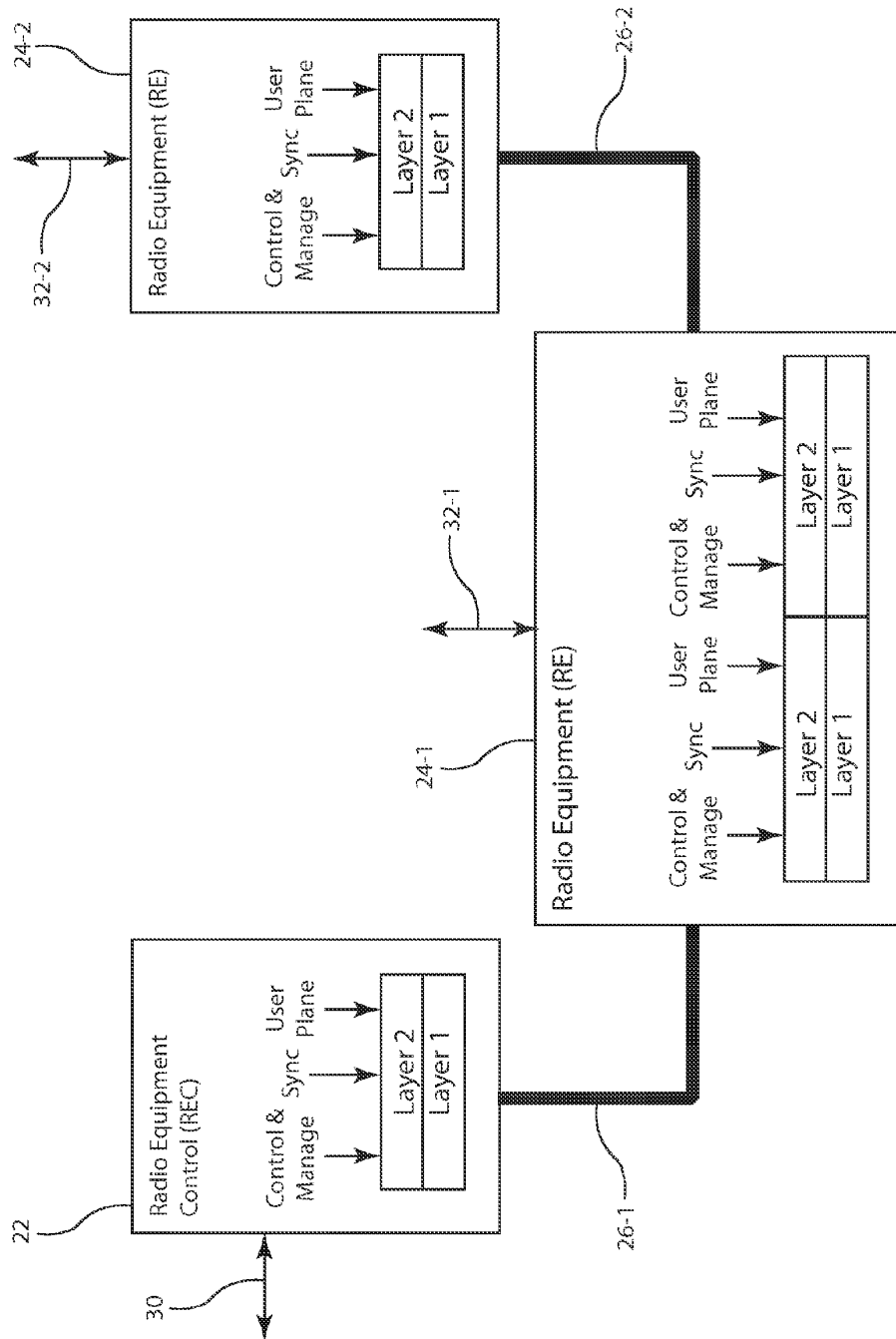


Figure 2  
Prior Art

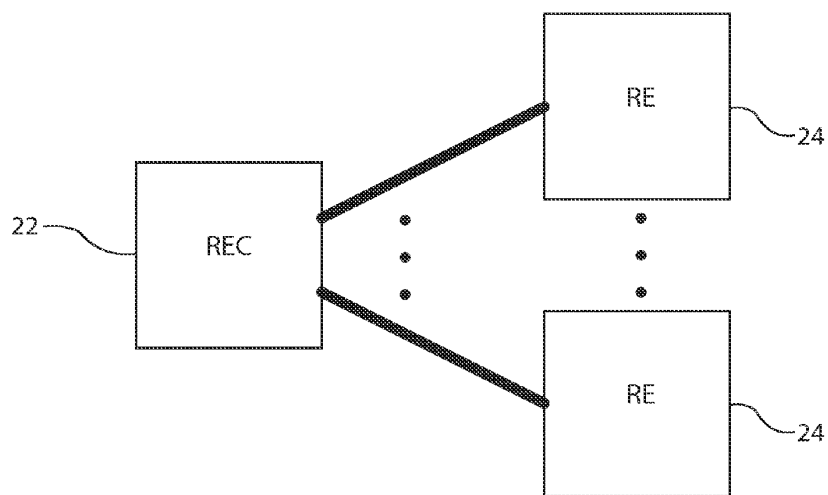


Figure 3  
Prior Art

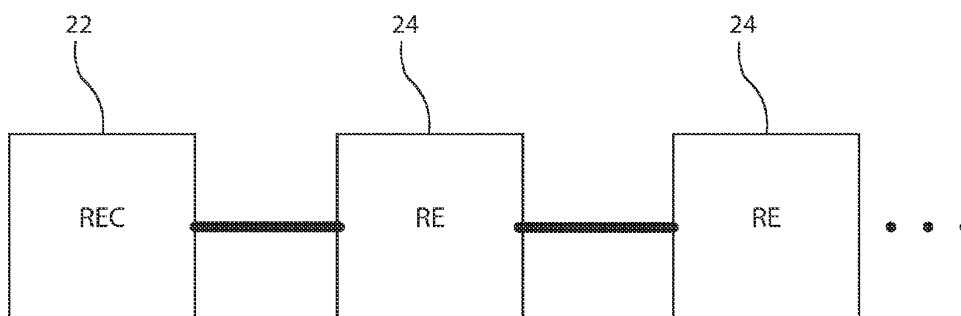


Figure 4  
Prior Art

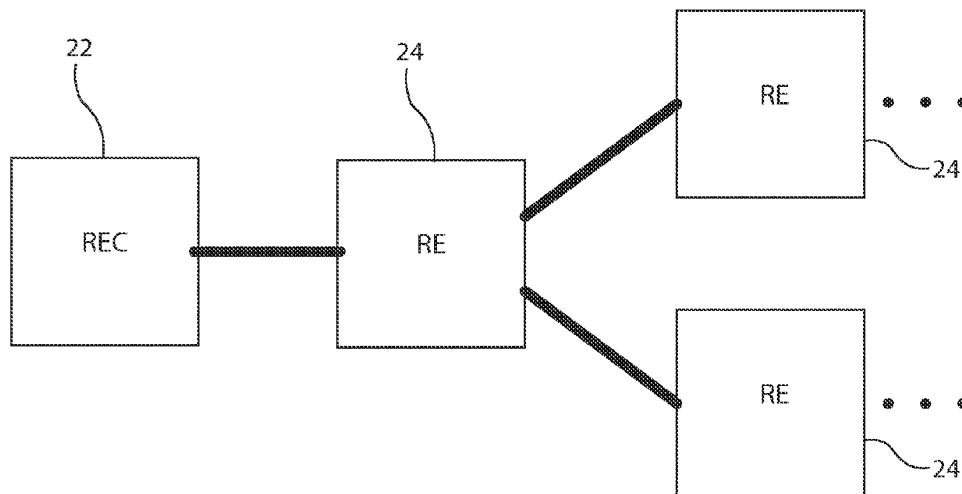


Figure 5  
Prior Art

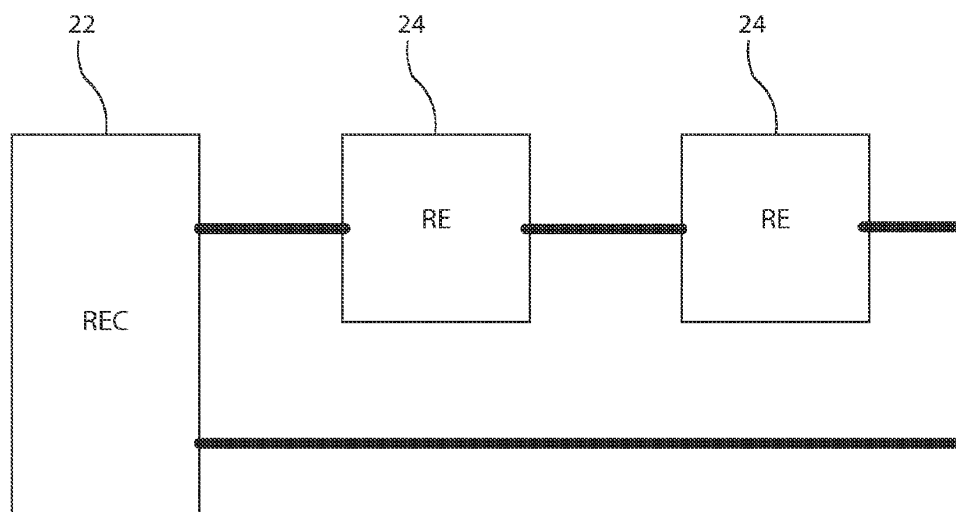


Figure 6  
Prior Art

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