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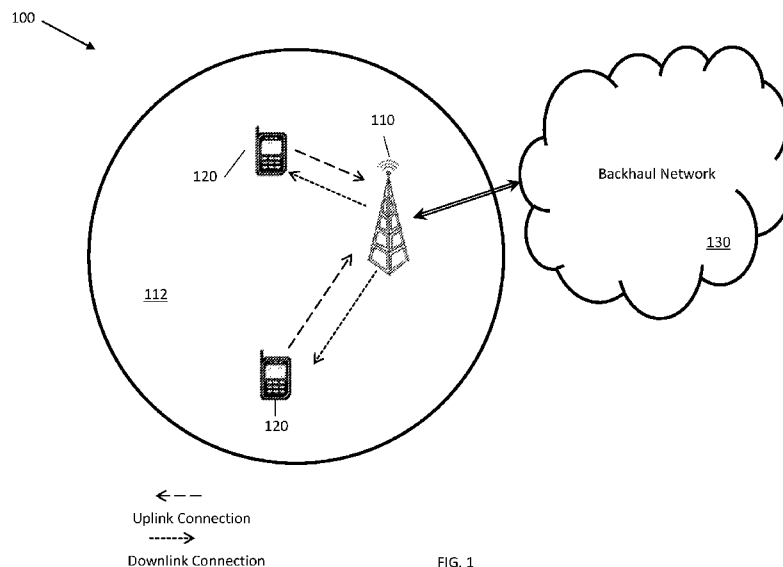


FIG. 1

(57) **Abstract:** Diverse traffic types can be efficiently communicated in a simultaneous manner by dynamically selecting between contention-based and scheduling-based media access control (MAC) communication schemes. Such a mechanism may be particularly beneficial in networks having a contention-based access resources and scheduling based access resources. Contention-based resources and scheduling based resources may occur over a common period, and may be orthogonal in the frequency domain and/or in the code domain. The dynamic selection may be based on a traffic characteristic or a network characteristic, and may be performed on a packet-by-packet basis. The selection criteria may be updated dynamically to adapt to changing network conditions, and may be communicated to the various transmitters via control channels or higher layer signaling.

