

ABSTRACT

SYSTEMS AND METHODS FOR MAPPING VIRTUAL RADIO INSTANCES INTO PHYSICAL VOLUMES OF COHERENCE IN DISTRIBUTED ANTENNA SYSTEMS

Systems and methods are described for mapping Virtual Radio Instances (VRIs) into physical volumes of coherence in a Multiple Antenna System (MAS) with Multi-User (MU) transmissions ("MU-MAS"). These mapping methods enable communications through simultaneous non-interfering data streams in the same frequency band between the MU-MAS and multiple users, within their own volume of coherence. As the users move, their VRIs follow their respective volumes of coherence via teleportation to adjacent MU-MAS networks, thereby eliminating the need for handoffs as in conventional cellular systems and unnecessary control data overhead.

Fig. 1