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(54) AERIAL ACCESS NETWORK SYSTEM

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(57)**ABSTRACT**

A system and methods relate to an aerial access network (AAN). The system comprises multiple control layer units, multiple forwarding layer units, and multiple access layer units. A first control layer unit in the multiple control layer units is configured to administrate the multiple forwarding layer units and the multiple access layer units and perform first data transmissions between the multiple forwarding layer units and a ground base station. A first forwarding layer unit is configured to be associated with at least one access layer unit and perform second data transmissions between the at least one access layer unit and one of the first control layer unit or the ground base station. A first access layer unit is configured to be associated with at least one user equipment (UE) and perform third data transmissions between the first forwarding layer unit and the at least one UE.

