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(54) Title: NON-GEOSTATIONARY SATELLITE COMMUNICATIONS NETWORK ARCHITECTURES WITH MESH NETWORK EDGE DATA CENTERS

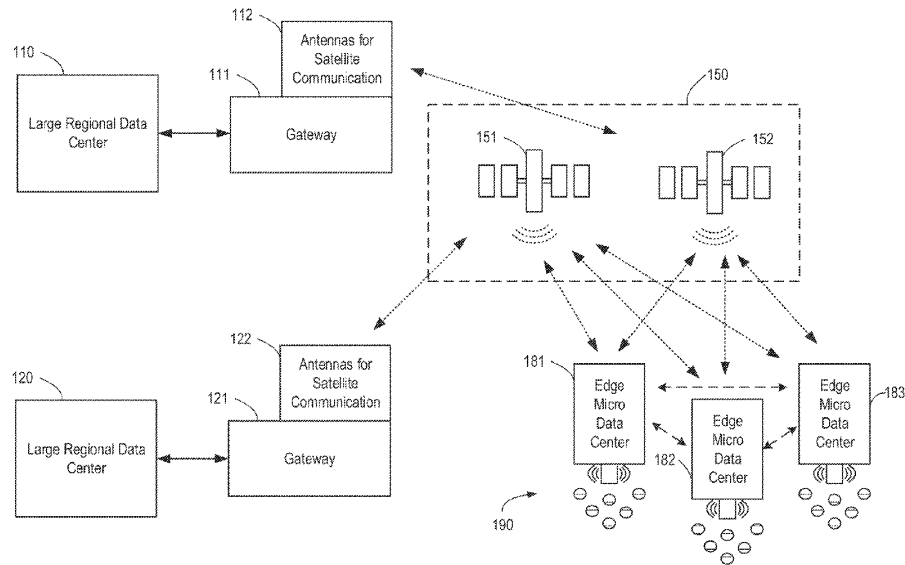


FIG. 1A

(57) Abstract: This disclosure includes various examples and variations of communications networks that employ a satellite network with a plurality of HEO and/or MEO satellites. Regional data centers may be connected to the satellite via gateways. Edge devices may connect to the network through a plurality of edge micro data centers configured in a mesh network to provide distributed and dynamically allocatable compute and storage resources. Each edge micro data center may include a RAN controller to implement an O-RAN network (e.g., via a 5G Node B cell site) to provide end-user devices direct access to the distributed compute and storage resources of the mesh network of edge micro data centers without intermediary backhaul transport layers. Microwave links or other terrestrial network types may be employed to facilitate the mesh network of edge micro data centers.

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