CLAIMS

1. A system comprising:

a first fronthaul interface including a plurality of first digital multiplexing units (DMUs), wherein each first DMU of the plurality of first DMUs is in communication with a plurality of digital remote units (DRUs) that provide radio coverage in a given geographic location associated with the first DMU that is different from one or more geographic locations associated with other first DMUs of the plurality of first DMUs, is in communication with at least one other first DMU of the plurality of first DMUs, and is configured to:

receive a plurality of first signals from a first baseband unit (BBU) and from one or more other first DMUs of the plurality of first DMUs;

extract a first subset of the plurality of first signals associated with the plurality of DRUs associated with the first DMU;

aggregate the first subset of the plurality of first signals into a first stream; and

route the first stream to one or more DRUs of the plurality of DRUs.

2. A system comprising:

a first fronthaul interface including a plurality of first digital multiplexing units (DMUs), wherein each first DMU of the plurality of first DMUs is in communication with a plurality of digital remote units (DRUs) that provide radio coverage in a given geographic location associated with the first DMU that is different from one or more geographic locations associated with other first DMUs of the plurality of first DMUs and is in communication with at least one other first DMU of the plurality of first DMUs, and a first DMU of the plurality of first DMU is configured to:

receive a plurality of first signals from a first baseband unit (BBU) and from one or more other first DMUs of the plurality of first DMUs;

extract a first subset of the plurality of first signals associated with a plurality of DRUs;

aggregate the first subset of the plurality of first signals into a first stream; and

route the first stream to one or more second DMUs.

3. The system of claim 2, further comprising at least a second BBU.

4. The system of claim 3, wherein the first and the second BBUs are in a BBU pool.

5. The system of claim 2, wherein the first BBU is connectable to a core network.

6. The system of claim 2, wherein the one or more second DMUs are connected to the plurality of DRUs.

7. The system of claim 6, wherein each of the plurality of DRUs includes at least one LAN port and at least one physical node.

8. The system of claim 6, wherein each of the plurality of DRUs includes a PEER port.

9. The system of claim 6, wherein each of the plurality of DRUs includes an ethernet port.

10. The system of claim 6, wherein each of the plurality of DRUs includes at least one LAN port coupled to an optical network.

11. The system of claim 6, wherein the plurality of DRUs are collocated with the one or more second DMUs.

12. The system of claim 6, wherein the plurality of DRUs provide support for one or more of cellular service, public safety and WiFi.

13. The system of claim 6, wherein the plurality of first DMUs implement packet based switching and route packets.

14. The system of claim 13, wherein the packets include one or more of payload I/Q data, control and management data, header information, and IP traffic.

15. The system of claim 2, further comprising:

a second fronthaul interface including a second plurality of first digital multiplexing units (DMUs), wherein each first DMU of the second plurality of first DMUs is configured to:

receive a plurality of second signals from a second baseband unit (BBU);

extract a second subset of the plurality of second signals;

aggregate the second subset of the plurality of second signals into a second stream; and

route the second stream to the one or more second DMUs.

16. The system of claim 15, wherein each of the first fronthaul interface and the second fronthaul interface is associated with a different central office operator.

17. The system of claim 2, wherein each first DMU includes at least one LAN port and at least one BBU port.

18. The system of claim 2, wherein each first DMU includes a peer port.

19. The system of claim 2, wherein the plurality of first DMUs and the one or more second DMUs are connected via one or more optical cables.

20. The system of claim 2, wherein the first BBU is included in a BBU pool of a plurality of BBU pools, wherein each BBU pool of the plurality of BBU pools is associated with a different central office operator and a different core network.

21. A system comprising:

a fronthaul interface including a plurality of first digital multiplexing units (DMUs), wherein each first DMU of the plurality of first DMUs is in communication with a plurality of digital remote units (DRUs) that provide radio coverage in a given geographic location associated with the first DMU that is different from one or more geographic locations associated with other first DMUs of the plurality of first DMUs and is in communication with at least one other first DMU of the plurality of first DMUs, and a first DMU of the plurality of first DMU is configured to:

receive a plurality of signals from a baseband unit (BBU) and from one or more other first DMUs of the plurality of first DMUs;

extract a first subset of the plurality of signals associated with a plurality of DRUs;

aggregate the first subset of the plurality of signals into a stream; and

route the stream to one or more DRUs of the plurality of DRUs via a second DMU.