

WHAT IS CLAIMED IS:

1. A method of wireless communication, comprising:
receiving, by a first wireless communication device of a multi-hop wireless network, a first transmission timing adjustment command;
communicating, by the first wireless communication device with a second wireless communication device of the multi-hop wireless network based on at least the first transmission timing adjustment command, a first communication signal including backhaul data; and
communicating, by the first wireless communication device with a third wireless communication device of the multi-hop wireless network based on the at least the first transmission timing adjustment command, a second communication signal.
2. The method of claim 1, wherein the communicating the second communication signal includes:
communicating, by the first wireless communication device with the third wireless communication device, the second communication signal including access data.
3. The method of claim 1, wherein the communicating the second communication signal includes:
communicating, by the first wireless communication device with the third wireless communication device, the second communication signal including backhaul data.
4. The method of claim 1, further comprising:
transmitting, by the first wireless communication device to the second wireless communication device, an uplink (UL) communication signal,
wherein the communicating the second communication signal with the third wireless communication device is based on a timing reference determined with respect to a transmission time of the UL communication signal.
5. The method of claim 1, further comprising:
receiving, by the first wireless communication device from the second wireless communication device, a downlink (DL) communication signal,

wherein the communicating the second communication signal with the third wireless communication device is based on a timing reference determined with respect to a transmission time of the DL communication signal.

6. The method of claim 5, further comprising:

determining, by the first wireless communication device, the timing reference based on a reception time of the DL communication signal at the first wireless communication device and the first transmission timing adjustment command.

7. The method of claim 1, further comprising:

receiving, by the first wireless communication device from the second wireless communication device, a downlink (DL) communication signal,

wherein the communicating the second communication signal is based on a timing reference determined with respect to a reception time of the DL communication signal.

8. The method of claim 1, further comprising:

receiving, by the first wireless communication device from the second wireless communication device, a first downlink (DL) communication signal; and

receiving, by the first wireless communication device from a fourth wireless communication device of the multi-hop wireless network, a second DL communication signal,

wherein the communicating the second communication signal is based on at least one of a reception time of the first DL communication signal or a reception time of the second DL communication signal.

9. The method of claim 1, further comprising:

receiving, by the first wireless communication device, a second transmission timing adjustment command for transmitting an uplink (UL) communication signal to a fourth wireless communication device of the multi-hop wireless network; and

transmitting, by the first wireless communication device to the fourth wireless communication device based on the second transmission timing adjustment command, the UL communication signal including backhaul data,

wherein the communicating the second communication signal is based on at least one of the first transmission timing adjustment command or the second transmission timing adjustment command.

10. The method of claim 1, wherein the receiving includes:
receiving, by the first wireless communication device from the second wireless communication device, the first transmission timing adjustment command.
11. The method of claim 1, wherein the receiving includes:
receiving, by the first wireless communication device from a central entity, the first transmission timing adjustment command.
12. The method of claim 1, further comprising:
transmitting, by the first wireless communication device to the third wireless communication device of the multi-hop wireless network, a second transmission adjustment command; and
receiving, by the first wireless communication device from the third wireless communication device based on the second transmission adjustment command, an uplink (UL) communication signal.
13. The method of claim 1, further comprising:
communicating, by the first wireless communication device with the third wireless communication device, a third communication signal based on a first timing reference; and
communicating, by the first wireless communication device with a fourth wireless communication device, a fourth communication signal based on a second timing reference that is different than the first timing reference.
14. A method of wireless communication, comprising:
receiving, by a first wireless communication device from one or more wireless communication devices of a multi-hop wireless network, synchronization information associated with the one or more wireless communication devices;
determining, by the first wireless communication device, a transmission timing adjustment for a second wireless communication device of the one or more wireless communication devices based on at least some of the synchronization information; and

transmitting, by the first wireless communication device, a message instructing the second wireless communication device to communicate with a third wireless communication device of the one or more wireless communication devices based on the transmission timing adjustment.

15. The method of claim 14, wherein the determining includes:

determining, by the first wireless communication device, the transmission timing adjustment to align downlink (DL) transmissions of the one or more wireless communication devices to a common DL transmission timing reference.

16. The method of claim 14, wherein the determining includes:

determining, by the first wireless communication device, the transmission timing adjustment to align a downlink transmission timing reference of the second wireless communication device to an uplink (UL) transmission timing reference of the second wireless communication device.

17. The method of claim 14, wherein the determining includes:

determining, by the first wireless communication device, the transmission timing adjustment to align a downlink (DL) transmission timing reference of the second wireless communication device to a DL reception timing reference of the second wireless communication device.

18. The method of claim 14, wherein the determining includes:

determining, by the first wireless communication device, the transmission timing adjustment based on at least one of a timing reference of the second wireless communication device for receiving a downlink (DL) communication signal from a fourth wireless communication device of the multi-hop wireless network or a timing reference of the second wireless communication device for receiving a DL communication signal from a fifth wireless communication device of the multi-hop wireless network.

19. The method of claim 14, further comprising:

receiving, by the first wireless communication device, one or more reports including at least one of capability information of one of the one or more wireless communication devices, scheduling information of one of the one or more wireless communication devices,

transmit-receive switching requirements of one of the one or more wireless communication devices, or synchronization reference switching requirements of one of the one or more wireless communication devices,

wherein the determining is based on the one or more reports.

20. An apparatus comprising:
a transceiver configured to:
receive a first transmission timing adjustment command, wherein the apparatus is associated with a multi-hop wireless network;
communicate, with a first wireless communication device of the multi-hop wireless network based on at least the first transmission timing adjustment command, a first communication signal including backhaul data; and
communicate, with a second wireless communication device of the multi-hop wireless network based on the at least the first transmission timing adjustment command, a second communication signal.
21. The apparatus of claim 20, wherein the second communication signal includes access data.
22. The apparatus of claim 20, wherein the second communication signal includes backhaul data.
23. The apparatus of claim 20, wherein the transceiver is further configured to:
transmit, to the first wireless communication device, an uplink (UL) communication signal,
wherein the second communication signal is communicated based on a timing reference determined with respect to a transmission time of the UL communication signal.
24. The apparatus of claim 20, wherein the transceiver is further configured to:
receive, from the first wireless communication device, a DL communication signal,
wherein the second communication signal is communicated based on a timing reference determined with respect to a transmission time of the DL communication signal.
25. The apparatus of claim 24, further comprising a processor configured to:

determine the timing reference based on a reception time of the DL communication signal at the apparatus and the first transmission timing adjustment command.

26. The apparatus of claim 20, wherein the transceiver is further configured to:
receive, from the first wireless communication device, a DL communication signal,
wherein the second communication signal is communicated based on a timing reference determined with respect to a reception time of the DL communication signal.
27. The apparatus of claim 20, wherein the transceiver is further configured to:
receive, from the first wireless communication device, a first DL communication signal; and
receive, from a third wireless communication device of the multi-hop wireless network, a second DL communication signal,
wherein the second communication signal is communicated based on at least one of a reception time of the first DL communication signal or a reception time of the second DL communication signal.
28. The apparatus of claim 20, wherein the transceiver is further configured to:
receive a second transmission timing adjustment command; and
transmit, to a third wireless communication device of the multi-hop wireless network based on the second transmission timing adjustment command, an uplink (UL) communication signal including backhaul data,
wherein the second communication signal is communicated based on at least one of the first transmission timing adjustment command or the second transmission timing adjustment command.
29. The apparatus of claim 20, wherein the first transmission timing adjustment command is received from the first wireless communication device.
30. The apparatus of claim 20, wherein the first transmission timing adjustment command is received from a central entity.
31. The apparatus of claim 20, wherein the transceiver is further configured to:

transmit, to the second wireless communication device of the multi-hop wireless network, a second transmission adjustment command; and

receive, from the second wireless communication device based on the second transmission adjustment command, an uplink (UL) communication signal.

32. The apparatus of claim 20, wherein the transceiver is further configured to:
- communicate, with the second wireless communication device, a third communication signal based on a first timing reference; and
 - communicate, with a third wireless communication device, a fourth communication signal based on a second timing reference that is different than the first timing reference.

33. An apparatus comprising:
- a transceiver configured to receive, from one or more wireless communication devices of a multi-hop wireless network, synchronization information associated with the one or more wireless communication devices; and
 - a processor configured to determine a transmission timing adjustment for a first wireless communication device of the one or more wireless communication devices based on at least some of the synchronization information,
- wherein the transceiver is further configured to transmit a message instructing the first wireless communication device to communicate with a second wireless communication device of the one or more wireless communication devices based on the transmission timing adjustment.

34. The apparatus of claim 33, wherein the processor is further configured to determine the transmission timing adjustment by:
- determining the transmission timing adjustment to align downlink (DL) transmissions of the one or more wireless communication devices to a common DL transmission timing reference.

35. The apparatus of claim 33, wherein the processor is further configured to determine the transmission timing adjustment by:
- determining the transmission timing adjustment to align a downlink (DL) transmission timing reference of the first wireless communication device to a UL transmission timing reference of the first wireless communication device.

36. The apparatus of claim 33, wherein the processor is further configured to determine the transmission timing adjustment by:

determining the transmission timing adjustment to align a downlink (DL) transmission timing reference of the first wireless communication device to a DL reception timing reference of the first wireless communication device.

37. The apparatus of claim 33, wherein the processor is further configured to determine the transmission timing adjustment by:

determining the transmission timing adjustment based on at least one of a timing reference of the first wireless communication device for receiving a downlink (DL) communication signal from a third wireless communication device of the multi-hop wireless network or a timing reference of the first wireless communication device for receiving a DL communication signal from a fourth wireless communication device of the multi-hop wireless network.

38. The apparatus of claim 33, wherein the transceiver is further configured to:

receive one or more reports including at least one of capability information of one of the one or more wireless communication devices, scheduling information of one of the one or more wireless communication devices, transmit-receive switching requirements of one of the one or more wireless communication devices, or synchronization reference switching requirements of one of the one or more wireless communication devices, wherein the transmission timing adjustment is determined based on the one or more reports.