CLAIMS

1. A method for wireless communications by a user equipment (UE), comprising:

transmitting, to a source base station, a band combination indicator that indicates at least one band combination supported by the UE;

receiving, in response to transmitting the band combination indicator, a target base station configuration to apply during handover execution and a source base station configuration to apply during handover execution, wherein the target base station configuration is based on the source base station configuration;

communicating with the source base station during handover execution using a first band of the at least one band combination indicated in the source base station configuration; and

communicating with a target base station during handover execution using a second band of the at least one band combination indicated in the target base station configuration.

2. The method of claim 1, further comprising:

receiving a capability inquiry, wherein the band combination indicator is transmitted based at least in part on the capability inquiry.

3. The method of claim 1, further comprising:

transmitting capability signaling that indicates the UE supports enhanced make before break (eMBB) handover based on a UE-supported carrier aggregation band combination.

4. The method of claim 1, further comprising:

transmitting at least one control message to indicate one or more of intra-frequency handover support for a given band, inter-frequency handover support for intra-band and inter-band combinations, asynchronous handover support, time division multiplexing support, radio frequency chain capability, or any combination thereof.

5. The method of claim 4, wherein the at least one control message is an information element indicated for a band combination supporting enhanced make before break (eMBB) handover.

6. The method of claim 1, wherein transmitting the band combination indicator comprises:

transmitting the band combination indicator to indicate a single band combination supporting handover from a plurality of different band combinations that is supported by the UE for carrier aggregation.

7. The method of claim 1, wherein transmitting the band combination indicator comprises:

transmitting the band combination indicator to indicate a plurality of different band combinations supported by the UE for carrier aggregation.

8. The method of claim 1, wherein transmitting the band combination indicator comprises:

transmitting the band combination indicator to indicate a first set of one or more band combinations supported by the UE for the source base station and a second set of one or more band combinations supported by the UE for the target base station.

9. The method of claim 8, wherein the first set of one or more band combinations is different than the second set of band combinations.

10. The method of claim 1, wherein transmitting the band combination indicator comprises:

transmitting the band combination indicator to indicate a plurality of band combinations that are interchangeably supported by the UE for the source base station and the target base station.

11. The method of claim 1, wherein transmitting the band combination indicator comprises:

transmitting the band combination indicator to indicate a first band combination supported by the UE for the source base station and a second band combination supported by the UE for the target base station; and

transmitting a pointer to indicate that one or more of the first band combination, the second band combination, or both, are individually supported by the UE.

12. The method of claim 1, wherein transmitting the band combination indicator comprises:

transmitting the band combination indicator that comprises a group identifier to indicate a first band combination that is interchangeably supported by the UE for the source base station and the target base station.

13. The method of claim 1, further comprising:

receiving a handover instruction to handover the UE from the source base station to the target base station; and

communicating with the source base station after handover execution using the first band and communicating with the target base station after handover execution using the second band.

14. The method of claim 1, further comprising:

receiving a time division multiplexing pattern;

receiving a handover instruction to handover the UE from the source base station to the target base station; and

communicating with the source base station after handover execution using the first band and communicating with the target base station after handover execution using the second band based at least in part on the time division multiplexing pattern.

15. The method of claim 1, further comprising:

receiving, based at least in part on the band combination indicator, a second target base station configuration to apply after releasing a connection with the source base station by the UE;

releasing the connection with the source base station; and

communicating with the target base station after releasing the connection using the first band, the second band, or both, based at least in part on the second target base station configuration.

16. The method of claim 1, wherein transmitting the band combination indicator comprises:

transmitting the band combination indicator that indicates a first band combination that is not a fallback of a different band combination.

17. The method of claim 1, wherein transmitting the band combination indicator comprises:

transmitting the band combination indicator that indicates at least one enhanced make before break (eMBB) band combination that is a fallback of a non-eMBB band combination.

18. The method of claim 1, wherein transmitting the band combination indicator comprises:

transmitting the band combination indicator that indicates an enhanced make before break (eMBB) band combination that is a fallback of a different band combination of the at least one band combination.

19. The method of claim 1, further comprising:

receiving a connection reconfiguration message from the source base station.

20. The method of claim 19, further comprising:

maintaining a primary cell connection with the source base station based at least in part on the connection reconfiguration message; and

releasing or deactivating at least one secondary cell connection with the source base station based at least in part on the connection reconfiguration message.

21. The method of claim 19, further comprising:

establishing a primary cell connection with the target base station based at least in part on the connection reconfiguration message.

22. The method of claim 21, further comprising:

establishing at least one secondary cell connection with the target base station based at least in part on the connection reconfiguration message.

23. The method of claim 21, further comprising:

determining that the connection reconfiguration message instructs the UE to establish a number of connections that exceeds a capability of the UE; and

skipping configuring or deactivating at least one secondary cell connection for the target base station to comply with the capability.

24. The method of claim 23, wherein the capability is a carrier aggregation capability, a multiple input multiple output (MIMO) capability of the UE, or both.

25. The method of claim 1, wherein the handover is an enhanced make before break handover.

26. The method of claim 1, wherein the first band and the second band are the same, or the first band and the second band are different, or the first band and the second band at least partially overlap.

27. A method for wireless communications by a source base station, comprising:

receiving a band combination indicator that indicates at least one band combination supported by a user equipment (UE);

transmitting, to the UE, a target base station configuration to apply during handover execution and a source base station configuration to apply during handover execution based at least in part on the band combination indicator, wherein the target base station configuration is based on the source base station configuration; and

communicating with the UE during handover execution using a first band of the at least one band combination indicated in the source base station configuration.

28. The method of claim 27, further comprising:

identifying a maximum UE capability associated with the at least one band combination supported by the UE; and

identifying the source base station configuration that is an updated source base station configuration, wherein a combination of the updated source base station configuration and the target base station configuration does not exceed the maximum UE capability, and wherein the source base station configuration is transmitted to the UE based at least in part on the determining.

29. The method of claim 28 further comprising:

transmitting, to the target base station, the updated source base station configuration, a power sharing configuration for handover, and one or more UE capabilities including an indication that the UE supports enhanced make before break (eMBB) handover; and

receiving the target base station configuration in response to transmitting the source base station configuration and the indication.

30. The method of claim 27, wherein receiving the band combination indicator comprises:

receiving the band combination indicator that indicates a single band combination supporting handover from a plurality of different band combinations that is supported by the UE for carrier aggregation.

31. The method of claim 27, further comprising:

receiving, from the UE, at least one control message to indicate one or more of intra-frequency handover support for a given band, inter-frequency handover support for intra-band and inter-band combinations, asynchronous handover support, time division multiplexing support, radio frequency chain capability, or any combination thereof.

32. The method of claim 31, wherein the at least one control message is an information element indicated for a band combination supporting enhanced make before break (eMBB) handover.

33. The method of claim 27, wherein receiving the band combination indicator comprises:

receiving the band combination indicator that indicates a plurality of different band combinations supported by the UE.

34. The method of claim 27, further comprising:

transmitting a capability inquiry to the UE, wherein the band combination indicator is received based at least in part on the capability inquiry.

35. The method of claim 27, wherein transmitting the target base station configuration to apply during handover execution comprises:

transmitting the target base station configuration to apply during handover execution and a modified source base station configuration to apply during handover execution.

36. The method of claim 27, further comprising:

transmitting, to the UE, a second target base station configuration to apply after handover of the UE and after release of the source base station by the UE.

37. The method of claim 27, wherein the first band is the same as, at least partially overlaps with, or is different than a second band of the at least one band combination indicated in the target base station configuration.

38. The method of claim 27, wherein receiving the band combination indicator comprises:

receiving the band combination indicator that indicates a first set of one or more band combinations supported by the UE for the source base station and a second set of one or more band combinations supported by the UE for a target base station.

39. The method of claim 38, wherein the first set of one or more band combinations is different than the second set of band combinations.

40. The method of claim 27, wherein receiving the band combination indicator comprises:

receiving the band combination indicator that indicates a plurality of band combinations that are interchangeably supported by the UE for the source base station and a target base station.

41. The method of claim 27, wherein receiving the band combination indicator comprises:

receiving the band combination indicator that indicates a first band combination supported by the UE for the source base station and a second band combination supported by the UE for a target base station; and

receiving a pointer to indicate that one or more of the first band combination, the second band combination, or both, are individually supported by the UE.

42. The method of claim 27, wherein receiving the band combination indicator comprises:

receiving the band combination indicator that comprises a group identifier to indicate a first band combination that is interchangeably supported by the UE for the source base station and a target base station.

43. The method of claim 27, further comprising:

transmitting a handover instruction to the UE; and

communicating with the UE during and after handover execution using the first band.

44. The method of claim 27, further comprising:

transmitting a time division multiplexing pattern;

transmitting a handover instruction to the UE; and

communicating with the UE during and after handover execution using the first band based at least in part on the time division multiplexing pattern.

45. The method of claim 27, further comprising:

transmitting, based at least in part on the band combination indicator, a second target base station configuration for the UE to apply after releasing a connection with the source base station.

46. The method of claim 27, further comprising:

receiving at least one control message to indicate one or more of intra-frequency handover support for a given band, inter-frequency handover support for intra-band and inter-band combinations, asynchronous handover support, time division multiplexing support, radio frequency chain capability, or any combination thereof.

47. The method of claim 46, wherein the at least one control message is an information element indicated for a band combination supporting enhanced make before break (eMBB) handover.

48. The method of claim 27, wherein receiving the band combination indicator comprises:

receiving the band combination indicator that indicates a first band combination that is not a fallback of a different band combination.

49. The method of claim 27, wherein receiving the band combination indicator comprises:

receiving the band combination indicator that indicates at least one enhanced make before break (eMBB) band combination that is a fallback of a non-eMBB band combination.

50. The method of claim 27, wherein receiving the band combination indicator comprises:

receiving the band combination indicator that indicates at least one band combination that is a fallback of a different band combination and is a supported band combination in enhanced make before break (eMBB).

51. The method of claim 27, further comprising:
transmitting a connection reconfiguration message to the UE.

52. The method of claim 27, wherein the handover is an enhanced make before break (eMBB) handover.

53. An apparatus for wireless communications by a user equipment (UE), comprising:
a processor,
memory coupled with the processor; and
instructions stored in the memory and executable by the processor to cause the apparatus to:
transmit, to a source base station, a band combination indicator that indicates at least one band combination supported by the UE;
receive, in response to transmitting the band combination indicator, a target base station configuration to apply during handover execution and a source base station configuration to apply during handover execution, wherein the target base station configuration is based on the source base station configuration;
communicate with the source base station during handover execution using a first band of the at least one band combination indicated in the source base station configuration; and
communicate with a target base station during handover execution using a second band of the at least one band combination indicated in the target base station configuration.

54. An apparatus for wireless communications by a source base station, comprising:
a processor,
memory coupled with the processor; and
instructions stored in the memory and executable by the processor to cause the apparatus to:
receive a band combination indicator that indicates at least one band combination supported by a user equipment (UE);
transmit, to the UE, a target base station configuration to apply during handover execution and a source base station configuration to apply during handover execution based at least in part on the band combination indicator, wherein the target base station configuration is based on the source base station configuration; and
communicate with the UE during handover execution using a first band of the at least one band combination indicated in the source base station configuration.