

CLAIMS

1. A method for wireless communication at a user equipment (UE), comprising: identifying a failure of a serving beam in an active bandwidth part of a carrier utilized by the UE for wireless communication; determining, for the active bandwidth part, a level of support for a random access procedure; determining, based at least in part on the failure of the serving beam and the level of support, a contingency bandwidth part supporting the random access procedure; determining the contingency bandwidth part based at least in part on a prior random access procedure; and performing the random access procedure using the contingency bandwidth part in response to the failure.
2. The method of claim 1, further comprising: receiving, from a network device, an indication via radio resource control (RRC) signaling of the contingency bandwidth part.
3. The method of claim 2, wherein determining the contingency bandwidth part comprises: identifying an initial bandwidth part as used for the prior random access procedure; and determining the contingency bandwidth part as the initial bandwidth part.
4. The method of claim 1, further comprising: determining the contingency bandwidth part based at least in part on a reference signal transmitted in the active bandwidth part.
5. The method of claim 4, further comprising: identifying a mapping between the reference signal and a beam comprising a random access resource; and determining the contingency bandwidth part based at least in part on the mapping.
6. The method of claim 5, further comprising: receiving an indication of the mapping via radio resource control (RRC) signaling.
7. The method of claim 5, wherein the reference signal is quasi-colocated with the beam comprising the random access resource.
8. The method of claim 4, further comprising: identifying a candidate beam based at least in part on the reference signal.
9. The method of claim 4, wherein the reference signal comprises a synchronization signal, a channel state information reference signal (CSI-RS), or a combination thereof.
10. The method of claim 1, wherein performing the random access procedure using the contingency bandwidth part comprises: determining a number of viable candidate beams for the active bandwidth part; and selecting the random access procedure based at least in part on the number of viable candidate beams for the active bandwidth part.
11. The method of claim 10, wherein selecting the random access procedure comprises: selecting the random access procedure as a contention-free random access procedure if the number of viable candidate beams in the active bandwidth part is at least one.
12. The method of claim 10, wherein selecting the random access procedure comprises: selecting the random access procedure as a contention-based random access procedure if the number of viable candidate beams in the active bandwidth part is zero.

13. The method of claim 1, wherein performing the random access procedure using the contingency bandwidth part comprises: determining a number of viable candidate beams for the contingency bandwidth part; and selecting the random access procedure based at least in part on the number of viable candidate beams for the contingency bandwidth part.

14. The method of claim 13, wherein selecting the random access procedure comprises: selecting the random access procedure as a contention-free random access procedure if the number of viable candidate beams in the contingency bandwidth part is at least one.

15. The method of claim 13, wherein selecting the random access procedure comprises: selecting the random access procedure as a contention-based random access procedure if the number of viable candidate beams in the contingency bandwidth part is zero.

16. The method of claim 1, wherein the contingency bandwidth part is the active bandwidth part.

17. The method of claim 1, wherein: the active bandwidth part is a first bandwidth part; and the contingency bandwidth part is a second bandwidth part.

18. A method for wireless communication, comprising: configuring a user equipment (UE) to utilize a first bandwidth part as an active bandwidth part for wireless communication; and transmitting, to the UE, an indication of a contingency bandwidth part in which to perform beam recovery as part of a subsequent random access procedure in response to a failure of a serving beam in an active bandwidth part utilized by the UE for wireless communication, wherein the contingency bandwidth part is based at least in part on a prior random access procedure.

19. The method of claim 18, wherein transmitting the indication of the contingency bandwidth part comprises: transmitting, to the UE, a reference signal in the active bandwidth part; transmitting, to the UE, a beam comprising a random access resource; and transmitting, to the UE, an indication of a mapping between the reference signal and the beam comprising the random access resource.

20. The method of claim 19, wherein transmitting the indication of the mapping comprises: transmitting the indication of the mapping via radio resource control (RRC) signaling.

21. The method of claim 18, wherein transmitting the indication of the contingency bandwidth part comprises: transmitting an explicit indication of the contingency bandwidth part via radio resource control (RRC) signaling.

22. The method of claim 18, wherein the contingency bandwidth part is the active bandwidth part.

23. The method of claim 18, wherein the contingency bandwidth part is a second bandwidth part.

24. An apparatus for wireless communication at a user equipment (UE), comprising: means for identifying a failure of a serving beam in an active bandwidth part utilized by the UE for wireless communication; means for determining, for the active bandwidth part, a level of

support for a random access procedure; means for determining, based at least in part on the failure of the serving beam and the level of support, a contingency bandwidth part supporting the random access procedure, wherein the contingency bandwidth part is based at least in part on a prior random access procedure; and means for performing the random access procedure using the contingency bandwidth part in response to the failure.

25. An apparatus for wireless communication, comprising: means for configuring a user equipment (UE) to utilize a first bandwidth part as an active bandwidth part for wireless communication; and means for transmitting, to the UE, an indication of a contingency bandwidth part in which to perform beam recovery as part of a subsequent random access procedure in response to a failure of a serving beam in an active bandwidth part utilized by the UE for wireless communication, wherein the contingency bandwidth part is based at least in part on a prior random access procedure.

26. An apparatus for wireless communication at a user equipment (UE), comprising: a processor; memory in electronic communication with the processor; and instructions stored in the memory and executable by the processor to cause the apparatus to: identify a failure of a serving beam in an active bandwidth part of a carrier utilized by the UE for wireless communication; determine, for the active bandwidth part, a level of support for a random access procedure; determine, based at least in part on the failure of the serving beam and the level of support, a contingency bandwidth part supporting the random access procedure, wherein the contingency bandwidth part is based at least in part on a prior random access procedure; and perform the random access procedure using the contingency bandwidth part in response to the failure.

27. The apparatus of claim 26, further comprising: a receiver; a transmitter; and instructions stored in the memory and executable by the processor to cause the apparatus to: receive, via the receiver, configuration information from a network device; and configure, based at least in part on the configuration information, the receiver or the transmitter to use the active bandwidth part.

28. The apparatus of claim 26, further comprising: a receiver; a transmitter; and instructions stored in the memory and executable by the processor to cause the apparatus to: configure, based at least in part on determining the contingency bandwidth part, the receiver or the transmitter to use the contingency bandwidth part.

29. An apparatus for wireless communication, comprising: a processor; memory in electronic communication with the processor; and instructions stored in the memory and executable by the processor to cause the apparatus to: configure a user equipment (UE) to utilize a first bandwidth part as an active bandwidth part for wireless communication; and transmit, to the UE, an indication of a contingency bandwidth part in which to perform beam recovery as part of a subsequent random access procedure in response to a failure of a serving beam in an active bandwidth part utilized by the UE for wireless communication, wherein the contingency bandwidth part is based at least in part on a prior random access procedure.

30. A non-transitory computer-readable medium storing code for wireless communication at a user equipment (UE), the code comprising instructions executable by a processor to: identify a failure of a serving beam in an active bandwidth part utilized by the UE for wireless communication; determine, for the active bandwidth part, a level of support for a random access procedure; determine, based at least in part on the failure of the serving beam

and the level of support, a contingency bandwidth part supporting the random access procedure, wherein the contingency bandwidth part based at least in part on a prior random access procedure; and perform the random access procedure using the contingency bandwidth part in response to the failure.

31. A non-transitory computer-readable medium storing code for wireless communication, the code comprising instructions executable by a processor to: configure a user equipment (UE) to utilize a first bandwidth part as an active bandwidth part for wireless communication; and transmit, to the UE, an indication of a contingency bandwidth part in which to perform beam recovery as part of a subsequent random access procedure in response to a failure of a serving beam in an active bandwidth part utilized by the UE for wireless communication, wherein the contingency bandwidth part is based at least in part on a prior random access procedure.