

## CLAIMS

1. An apparatus for communication, the apparatus comprising: a memory device; and a processing circuit coupled to the memory device and configured to: identify, for each of a plurality of other wireless communication apparatuses, a performance requirement comprising one or more of a latency, an overhead, a bandwidth, multiplexing nominal traffic with low-latency traffic, or a data rate; determine, based on the performance requirement for each of the plurality of other wireless communication apparatuses, different structures within a unified frame structure for communication with the other wireless communication apparatuses, wherein the different structures comprise different control structures including a time division multiplexing control channel structure and a frequency division multiplexing control channel structure; and communicate an indication of the unified frame structure identifying the different structures via a communication interface, to the plurality of other wireless communication apparatuses.
2. The apparatus of claim 1, wherein the different structures further comprise at least one of: different transmission time intervals (TTIs) or different frequency bands.
3. The apparatus of claim 1, wherein the time division multiplexing control channel structure is for at least one of low power access or dynamic bandwidth switching.
4. The apparatus of claim 1, wherein the frequency division multiplexing control channel structure is for at least one of narrowband access or low latency access.
5. The apparatus of claim 1, wherein the processing circuit is further configured to: initiate communication, via the communication interface, with a particular apparatus of the plurality of other wireless communication apparatuses; identify a particular structure within the unified frame structure for the communication with the particular apparatus based on the performance requirement for the particular apparatus; and communicate, via the communication interface, with the particular apparatus according to the identified structure within the unified frame structure.
6. The apparatus of claim 5, wherein: the performance requirement for the particular apparatus comprises mission critical access; and the processing circuit is further configured to communicate, via the communication interface, a code block-level acknowledgement of a nominal access terminal that is in coexistence with the particular apparatus.
7. The apparatus of claim 5, wherein: the performance requirement for the particular apparatus comprises low overhead access; and the processing circuit is further configured to communicate, via the communication interface, an indication that pilots from different transmission time intervals (TTIs) are to be used for channel estimation for the communication with the particular apparatus.
8. The apparatus of claim 5, wherein: the performance requirement for the particular apparatus comprises low overhead access; and the identified structure comprises a lengthened transmission time interval (TTI).

9. The apparatus of claim 5, wherein: the performance requirement for the particular apparatus comprises low power access; and the identified structure comprises at least one of a time division multiplexed (TDM) control channel or a narrowband control channel.

10. The apparatus of claim 5, wherein: the performance requirement for the particular apparatus comprises low latency access; and the identified structure comprises at least one of a shortened transmission time interval (TTI) or a control channel spread across TTIs.

11. The apparatus of claim 5, wherein: the performance requirement for the particular apparatus comprises dynamic bandwidth switching; and the identified structure comprises a narrowband control channel.

12. The apparatus of claim 1, wherein the processing circuit is further configured to determine the different structures within the unified frame structure based on at least one of: different applications associated with the other wireless communication apparatuses, different bandwidth modes associated with the other wireless communication apparatuses, narrowband capability in a wideband environment associated with the other wireless communication apparatuses, micro-sleep mode associated with the other wireless communication apparatuses, or dynamic bandwidth switching associated with the other wireless communication apparatuses.

13. A method of communication, the method comprising: identifying, for each of a plurality of wireless communication apparatuses, a performance requirement comprising one or more of a latency, an overhead, a bandwidth, multiplexing nominal traffic with low-latency traffic, or a data rate; determining, based on the performance requirement for each of the plurality of wireless communication apparatuses, different structures comprising different control structures including a time division multiplexing control channel structure and a frequency division multiplexing control channel structure, within a unified frame structure for communication with the wireless communication apparatuses; and communicating an indication of the unified frame structure identifying the different structures, to the plurality of wireless communication apparatuses.

14. The method of claim 13, further comprising: initiating communication with a particular apparatus of the plurality of wireless communication apparatuses; identifying a particular structure within the unified frame structure for the communication with the particular apparatus based on the performance requirement for the particular apparatus; and communicating with the particular apparatus according to the identified structure within the unified frame structure.

15. The method of claim 13, wherein the different structures further comprise at least one of: different transmission time intervals (TTIs) or different frequency bands.

16. The method of claim 13, wherein the time division multiplexing control channel structure is for at least one of low power access or dynamic bandwidth switching.

17. The method of claim 13, wherein the frequency division multiplexing control channel structure is for at least one of narrowband access or low latency access.

18. The method of claim 13, further comprising: communicating a code block-level acknowledgement of a nominal access terminal that is in coexistence with a mission critical access terminal if the performance requirement comprises mission critical access.

19. The method of claim 13, further comprising: communicating an indication that pilots from different transmission time intervals (TTIs) are to be used for channel estimation for communication with at least one of the plurality of wireless communication apparatuses if the performance requirement comprises low overhead access.

20. The method of claim 13, wherein the determined structure for a particular apparatus of the plurality of wireless communication apparatuses comprises a lengthened transmission time interval (TTI) if the performance requirement for the particular apparatus comprises low overhead access.

21. The method of claim 13, wherein, if the performance requirement for a particular apparatus of the plurality of wireless communication apparatuses comprises low power access, the determined structure for the particular apparatus comprises at least one of a time division multiplexed (TDM) control channel or a narrowband control channel.

22. The method of claim 13, wherein, if the performance requirement for a particular apparatus of the plurality of wireless communication apparatuses comprises low latency access, the determined structure for the particular apparatus comprises at least one of a shortened transmission time interval (TTI) or a control channel spread across TTIs.

23. The method of claim 13, wherein the determined structure for a particular apparatus of the plurality of wireless communication apparatuses comprises a narrowband control channel if the performance requirement for the particular apparatus comprises dynamic bandwidth switching.

24. A non-transitory computer-readable medium storing computer-executable code, the computer-executable code configured to: identify, for each of a plurality of wireless communication apparatuses, a performance requirement comprising one or more of a latency, an overhead, a bandwidth, multiplexing nominal traffic with low-latency traffic, or a data rate; determine, based on the performance requirement for each of the plurality of wireless communication apparatuses, different structures within a unified frame structure for communication with the wireless communication apparatuses, wherein the different structures comprise different control structures including a time division multiplexing control channel structure and a frequency division multiplexing control channel structure; and communicate an indication of the unified frame structure identifying the different structures, to the plurality of wireless communication apparatuses.

25. The non-transitory computer-readable medium of claim 24, wherein the computer-executable code is further configured to: initiate communication with a particular apparatus of the plurality of wireless communication apparatuses; identify a particular structure within the unified frame structure for the communication with the particular apparatus based on the performance requirement for the particular apparatus; and communicate with the particular apparatus according to the identified structure within the unified frame structure.

26. An apparatus for communication, the apparatus comprising: a memory device; and a processing circuit coupled to the memory device and configured to: receive, at the apparatus, an indication of a unified frame structure identifying different structures for different access requirements from an access point, wherein the different structures are multiplexed within the unified frame structure, wherein the different structures comprise different control structures including a time division multiplexing control channel structure and a frequency division multiplexing control channel structure; identify a particular structure among the different structures within the unified frame structure, wherein the identification is based on a performance requirement for the apparatus, the performance requirement comprising one or more of a latency, an overhead, a bandwidth, multiplexing nominal traffic with low-latency traffic, or a data rate; and communicate with the access point via a communication interface according to the identified structure within the unified frame structure.
27. The apparatus of claim 26, wherein the different structures further comprise at least one of different transmission time intervals (TTIs) or different frequency bands.
28. The apparatus of claim 26, wherein the time division multiplexing control channel structure is for at least one of low power access or dynamic bandwidth switching.
29. The apparatus of claim 26, wherein the frequency division multiplexing control channel structure is for at least one of narrowband access or low latency access.
30. The apparatus of claim 26, wherein the processing circuit is further configured to: use pilots from different transmission time intervals (TTIs) for channel estimation for the communication if the performance requirement comprises low overhead access.
31. The apparatus of claim 26, wherein: the identified structure comprises a lengthened transmission time interval (TTI) if the performance requirement comprises low overhead access.
32. The apparatus of claim 26, wherein, if the performance requirement comprises low power access, the identified structure comprises at least one of a time division multiplexed (TDM) control channel or a narrowband control channel.
33. The apparatus of claim 26, wherein, if the performance requirement comprises low latency access: the identified structure comprises at least one of a shortened transmission time interval (TTI) or a control channel spread across transmission time intervals (TTIs).
34. The apparatus of claim 26, wherein: the identified structure comprises a narrowband control channel if the performance requirement comprises dynamic bandwidth switching.
35. A method of communication for a wireless communication apparatus, the method comprising: receiving an indication of a unified frame structure identifying different structures comprising different control structures including a time division multiplexing control channel structure and a frequency division multiplexing control channel structure, for different access requirements, wherein the different structures are multiplexed within the unified frame structure; identifying a particular structure among

the different structures within the unified frame structure, wherein the identification is based on a performance requirement for the wireless communication apparatus, the performance requirement comprising one or more of a latency, an overhead, a bandwidth, multiplexing nominal traffic with low-latency traffic, or a data rate; and communicating according to the identified structure within the unified frame structure.

36. The method of claim 35, wherein the different structures further comprise at least one of: different transmission time intervals (TTIs) or different frequency bands.

37. The method of claim 35, wherein the time division multiplexing control channel structure is for at least one of low power access or dynamic bandwidth switching.

38. The method of claim 35, wherein the frequency division multiplexing control channel structure is for at least one of narrowband access or low latency access.

39. The method of claim 35, further comprising: using pilots from different transmission time intervals (TTIs) for channel estimation for the communication if the performance requirement comprises low overhead access.

40. The method of claim 35, wherein: the identified structure comprises a lengthened transmission time interval (TTI) if the performance requirement comprises low overhead access.

41. The method of claim 35, wherein, if the performance requirement comprises low power access, the identified structure comprises at least one of a time division multiplexed (TDM) control channel or a narrowband control channel.

42. The method of claim 35, wherein, if the performance requirement comprises low latency access, the identified structure comprises a shortened transmission time interval (TTI) or a control channel spread across TTIs.

43. The method of claim 35, wherein: the identified structure comprises a narrowband control channel if the performance requirement comprises dynamic bandwidth switching.

44. A non-transitory computer-readable medium storing computer-executable code for a wireless communication apparatus, the computer-executable code configured to: receive an indication of a unified frame structure identifying different structures for different access requirements, wherein the different structures are multiplexed within the unified frame structure, wherein the different structures comprise different control structures including a time division multiplexing control channel structure and a frequency division multiplexing control channel structure; identify a particular structure among the different structures within the unified frame structure, wherein the identification is based on a performance requirement for the wireless communication apparatus, the performance requirement comprising one or more of a latency, an overhead, a bandwidth, multiplexing nominal traffic with low-latency traffic, or a data rate; and communicate according to the identified structure within the unified frame structure.