CLAIMS

1. A method for wireless communications, comprising:

performing a clear channel assessment (CCA) at a base station associated with a first radio access technology (RAT) to determine availability of a shared spectrum;

transmitting a first waveform to user equipments (UEs) associated with the first RAT over the shared spectrum when a determination is made that the shared spectrum is available, the first waveform comprising a first component configured to be readable by a first device associated with a second RAT different from the first RAT and a second component configured to be readable by a second device associated with the first RAT; and

receiving, a second waveform, from one or more of the UEs, the second waveform being received over the shared spectrum and being configured to indicate that the respective UE has channel access over the shared spectrum to receive data from the base station.

2. The method of claim 1, further comprising transmitting data to the one or more of the UEs over the shared spectrum.

3. The method of claim 2, further comprising transmitting a synchronization waveform or a training waveform to the one or more of the UEs over the shared spectrum.

4. The method of claim 1, wherein the first RAT includes a cellular RAT.

5. The method of claim 1, wherein the second RAT includes a wireless local area network (WLAN).

6. The method of claim 5, wherein the first component comprises a physical layer convergence procedure (PLCP) header and a WiFi-readable data field.

7. The method of claim 1, wherein the same first component is used by a set of base stations operating in the shared spectrum.

8. The method of claim 7, wherein the set includes base stations of a same type or same deployment.

9. The method of claim 1, wherein a different second component is used by a set of base stations in an operator deployment.

10. The method of claim 1, wherein the first waveform is configured to indicate a first time period and a second time period during which the base station has channel access over the shared spectrum.

11. The method of claim 10, wherein:

performing a CCA comprises performing the CCA during a subframe;

the first time period indicates that the base station has channel access over the shared spectrum until the end of the subframe or until a time during a next subframe; and

the second time period indicates that the base station has channel access over the shared spectrum for a specified period of time after the subframe or after a time during a next subframe.

12. A base station for wireless communications, comprising:

a processor;

memory in electronic communication with the processor; and

instructions stored in the memory, the instructions being executable by the processor to:

perform a clear channel assessment (CCA) at the base station associated with a first radio access technology (RAT) to determine availability of a shared spectrum,

transmit, by the base station, a first waveform to user equipments (UEs) associated with the first RAT over the shared spectrum when a determination is made that the shared spectrum is available, the first waveform comprising a first component configured to be readable by a first device associated with a second RAT different from the first RAT and a second component configured to be readable by a second device associated with the first RAT, and

receive responsive to the first waveform, a second waveform, from one or more of the UEs, the second waveform being received over the shared spectrum and being

configured to indicate that the respective UE has channel access over the shared spectrum to receive data from the base station.

13. The base station of claim 12, wherein the instructions are executable by the processor to transmit data to the one or more of the set of UEs over the shared spectrum.

14. The base station of claim 13, wherein the instructions are executable by the processor to transmit a synchronization waveform or a training waveform to the one or more of the UEs over the shared spectrum.

15. The base station of claim 12, wherein the first RAT includes a cellular RAT.

16. The base station of claim 12, wherein the second RAT includes a wireless local area network (WLAN).

17. The base station of claim 16, wherein the first component comprises a physical layer convergence procedure (PLCP) header and a WiFi-readable data field.

18. The base station of claim 12, wherein the same first component is used by a set of base stations operating in the shared spectrum.

19. The base station of claim 18, wherein the set includes base stations of a same type or same deployment.

20. The base station of claim 12, wherein a different second component is used by a set of base stations in an operator deployment.

21. The base station of claim 12, wherein the first waveform is configured to indicate a first time period and a second time period during which the base station has channel access over the shared spectrum.

22. The base station of claim 21, wherein:

the instructions executable by the processor to perform a CCA comprise instructions executable by the processor to perform the CCA during a subframe;

the first time period indicates that the base station has channel access over the shared spectrum until the end of the subframe or until a time during a next subframe; and

the second time period indicates that the base station has channel access over the shared spectrum for a specified period of time after the subframe or after a time during a next subframe.

23. A method for wireless communications, comprising:

receiving, at a user equipment (UE) associated with a first radio access technology (RAT), a first waveform over a shared spectrum, the first waveform comprising a first component configured to be readable by a first device associated with a second RAT different from the first RAT and a second component configured to be readable by a second device associated with the first RAT; and

performing responsive to the first waveform, a clear channel assessment (CCA) to determine availability of the shared spectrum for the UE.

24. The method of claim 23, further comprising transmitting a second waveform over the shared spectrum when a determination is made that the shared spectrum is available, the second waveform being configured to indicate that a base station has channel access over the shared spectrum.

25. The method of claim 24, further comprising:

identifying one of a set of second waveform slots; and

transmitting the second waveform during the identified second waveform slot.

26. The method of claim 25, wherein the identifying comprises identifying the second waveform slot to stagger the second waveform slot relative to a second waveform slot identified by another UE in a same operator deployment.

27. The method of claim 24, further comprising transmitting a third waveform over the shared spectrum, the third waveform being configured to provide information to the base station for data transmission to the UE.

28. The method of claim 23, wherein the first RAT includes a cellular RAT.

29. The method of claim 23, wherein the second RAT includes a wireless local area network (WLAN).

30. A user equipment (UE) for wireless communications, comprising:

a processor;

memory in electronic communication with the processor; and

instructions stored in the memory, the instructions being executable by the processor to:

receiving, at the UE associated with a first radio access technology (RAT), a first waveform over a shared spectrum, the first waveform comprising a first component configured to be readable by a first device associated with a second RAT different from the first RAT and a second component configured to be readable by a second device associated with the first RAT; and

perform responsive to the first waveform, a clear channel assessment (CCA) to determine availability of the shared spectrum for the UE.

31. The UE of claim 30, wherein the instructions are executable by the processor to transmit a second waveform over the shared spectrum when a determination is made that the shared spectrum is available, the second waveform being configured to indicate that a base station has channel access over the shared spectrum.

32. The UE of claim 31, wherein the instructions are executable by the processor to:

identify one of a set of second waveform slots; and

transmit the second waveform during the identified second waveform slot.

33. The UE of claim 32, wherein the instructions are executable by the processor to identify the second waveform slot to stagger the second waveform slot relative to a second waveform slot identified by another UE in a same operator deployment.

34. The UE of claim 31, wherein the instructions are executable by the processor to transmit a third waveform over the shared spectrum, the third waveform being configured to provide information to the base station for data transmission to the UE.

35. The UE of claim 30, wherein the first RAT includes a cellular RAT.

36. The UE of claim 30, wherein the second RAT includes a wireless local area network (WLAN).