CLAIMS

1. A method for wireless communication by a peripheral wireless communication device, comprising:

establishing a first connection with a wireless station in accordance with a first wireless communication protocol;

transmitting, to the wireless station, results of a first channel scan of a first set of wireless channels in accordance with establishing the first connection, the results of the first channel scan indicating one or more wireless channels from the first set of wireless channels for a second wireless communication protocol and indicating one or more received signal strength indicators (RSSIs), one or more noise floors, one or more channel occupancy times, or any combination thereof associated with the one or more wireless channels;

establishing, in accordance with the second wireless communication protocol and in accordance with a second channel scan performed by the wireless station, a second connection directly with the wireless station using at least one wireless channel of the one or more wireless channels in accordance with the one or more RSSIs, the one or more noise floors, the one or more channel occupancy times, or any combination thereof associated with the one or more wireless channels, wherein the second channel scan is associated with a second set of wireless channels, and wherein the second connection is established using the at least one wireless channel in accordance with the results of the first channel scan at the peripheral wireless communication device and the second set of wireless channels associated with the second channel scan performed by the wireless station; and

receiving one or more data streams directly from the wireless station in accordance with the second wireless communication protocol.

2. The method of claim 1, wherein the first set of wireless channels and the second set of wireless channels are a same set of wireless channels.

3. The method of claim 1, wherein each respective wireless channel in the first set of wireless channels is different from each respective wireless channel in the second set of wireless channels, and wherein the second connection is established using the at least one wireless channel in accordance with a ranking between the at least one wireless channel and the second set of wireless channels.

4. The method of claim 1, wherein the first wireless communication protocol is a relatively shorter range wireless protocol than the second wireless communication protocol.

5. The method of claim 4, wherein the first wireless communication protocol is a Bluetooth protocol, a Bluetooth Low Energy (BLE) protocol, or a near field communications (NFC) protocol.

6. The method of claim 1, wherein the second wireless communication protocol is a wireless communication protocol in accordance with the Institute of Electrical and Electronics Engineers (IEEE) 802.11 family of standards.

7. A peripheral wireless communication device, comprising:

at least one processor; and

at least one memory communicatively coupled with the at least one processor and storing processor-readable code that, when executed by the at least one processor, is configured to cause the peripheral wireless communication device to:

establish a first connection with a wireless station in accordance with a first wireless communication protocol;

transmit, to the wireless station, results of a first channel scan of a first set of wireless channels in accordance with establishing the first connection, the results of the first channel scan indicating one or more wireless channels from the first set of wireless channels for a second wireless communication protocol and indicating one or more received signal strength indicators (RSSIs), one or more noise floors, one or more channel occupancy times, or any combination thereof associated with the one or more wireless channels;

establish, in accordance with the second wireless communication protocol and in accordance with a second channel scan performed by the wireless station, a second connection directly with the wireless station using at least one wireless channel of the one or more wireless channels in accordance with the one or more RSSIs, the one or more noise floors, the one or more channel occupancy times, or any combination thereof associated with the one or more wireless channels, wherein the second channel scan is associated with a second set of wireless channels, and wherein the second connection is

established using the at least one wireless channel in accordance with the results of the first channel scan at the peripheral wireless communication device and the second set of wireless channels associated with the second channel scan performed by the wireless station; and

receive one or more data streams directly from the wireless station in accordance with the second wireless communication protocol.

8. The peripheral wireless communication device of claim 7, wherein the first set of wireless channels and the second set of wireless channels are a same set of wireless channels.

9. The peripheral wireless communication device of claim 7, wherein each respective wireless channel in the first set of wireless channels is different from each respective wireless channel in the second set of wireless channels, and wherein the second connection is established using the at least one wireless channel in accordance with a ranking between the at least one wireless channel and the second set of wireless channels.

10. The peripheral wireless communication device of claim 7, wherein the first wireless communication protocol is a relatively shorter range wireless protocol than the second wireless communication protocol.

11. The peripheral wireless communication device of claim 10, wherein the first wireless communication protocol is a Bluetooth protocol, a Bluetooth Low Energy (BLE) protocol, or a near field communications (NFC) protocol.

12. The peripheral wireless communication device of claim 7, wherein the second wireless communication protocol is a wireless communication protocol in accordance with the Institute of Electrical and Electronics Engineers (IEEE) 802.11 family of standards.

13. A method for wireless communication by a wireless station, comprising:

establishing a first connection with a peripheral wireless communication device in accordance with a first wireless communication protocol;

receiving, from the peripheral wireless communication device and in accordance with the first wireless communication protocol, results of a first channel scan of a first set of

wireless channels, the first channel scan being associated with a second wireless communication protocol, the results of the first channel scan indicating one or more wireless channels from the first set of wireless channels for the second wireless communication protocol and indicating one or more received signal strength indicators (RSSIs), one or more noise floors, one or more channel occupancy times, or any combination thereof associated with the one or more wireless channels;

performing a second channel scan of a second set of wireless channels;

configuring the wireless station to operate as an access point associated with the second wireless communication protocol in accordance with receiving the results of the first channel scan indicating the one or more wireless channels;

establishing, in accordance with the second wireless communication protocol and in accordance with performing the second channel scan, a second connection directly with the peripheral wireless communication device using at least one wireless channel of the one or more wireless channels in accordance with the one or more RSSIs, the one or more noise floors, the one or more channel occupancy times, or any combination thereof associated with the one or more wireless channels, wherein the second connection is established using the at least one wireless channel in accordance with the results of the first channel scan from the peripheral wireless communication device and the second set of wireless channels associated with the second channel scan performed by the wireless station; and

transmitting one or more data streams directly to the peripheral wireless communication device in accordance with the second wireless communication protocol.

14. The method of claim 13, wherein the first set of wireless channels and the second set of wireless channels are a same set of wireless channels.

15. The method of claim 13, wherein each respective wireless channel in the first set of wireless channels is different from each respective wireless channel in the second set of wireless channels, and wherein the second connection is established using the at least one wireless channel in accordance with a ranking between the at least one wireless channel and the second set of wireless channels.

16. The method of claim 13, wherein the first wireless communication protocol is a relatively shorter range wireless protocol than the second wireless communication protocol.

17. The method of claim 16, wherein the first wireless communication protocol is a Bluetooth Low Energy (BLE) protocol, a Bluetooth protocol, or a near field communications (NFC) protocol.

18. The method of claim 13, wherein the second wireless communication protocol is a wireless communication protocol in accordance with the Institute of Electrical and Electronics Engineers (IEEE) 802.11 family of standards.

19. A wireless station, comprising:

at least one processor; and

at least one memory communicatively coupled with the at least one processor and storing processor-readable code that, when executed by the at least one processor, is configured to cause the wireless station to:

establish a first connection with a peripheral wireless communication device in accordance with a first wireless communication protocol;

receive, from the peripheral wireless communication device and in accordance with the first wireless communication protocol, results of a first channel scan of a first set of wireless channels, the first channel scan being associated with a second wireless communication protocol, the results of the first channel scan indicating one or more wireless channels from the first set of wireless channels for the second wireless communication protocol and indicating one or more received signal strength indicators (RSSIs), one or more noise floors, one or more channel occupancy times, or any combination thereof associated with the one or more wireless channels;

perform a second channel scan of a second set of wireless channels;

configure the wireless station to operate as an access point associated with the second wireless communication protocol in accordance with receiving the results of the first channel scan indicating the one or more wireless channels;

establish, in accordance with the second wireless communication protocol and in accordance with performing the second channel scan, a second connection directly with the peripheral wireless communication device using at least one wireless channel of the one or more wireless channels in accordance with the one or more RSSIs, the one or more noise floors, the one or more channel occupancy times, or any combination thereof associated with the one or more wireless channels, wherein the second connection is established using the at least one wireless channel in accordance with the results of the first channel scan from the peripheral wireless communication device and the second set of wireless channels associated with the second channel scan performed by the wireless station; and

transmit one or more data streams directly to the peripheral wireless communication device in accordance with the second wireless communication protocol.

20. The wireless station of claim 19, wherein the first set of wireless channels and the second set of wireless channels are a same set of wireless channels.

21. The wireless station of claim 19, wherein each respective wireless channel in the first set of wireless channels is different from each respective wireless channel in the second set of wireless channels, and wherein the second connection is established using the at least one wireless channel in accordance with a ranking between the at least one wireless channel and the second set of wireless channels.

22. The wireless station of claim 19, wherein the first wireless communication protocol is a relatively shorter range wireless protocol than the second wireless communication protocol.

23. The wireless station of claim 22, wherein the first wireless communication protocol is a Bluetooth Low Energy (BLE) protocol, a Bluetooth protocol, or a near field communications (NFC) protocol.

24. The wireless station of claim 19, wherein the second wireless communication protocol is a wireless communication protocol in accordance with the Institute of Electrical and Electronics Engineers (IEEE) 802.11 family of standards.