CLAIMS

1. An apparatus for wireless communication, comprising: a processing system configured to generate a first frame including an indication of whether resources of a first basic service set (BSS) are available to be shared with a plurality of wireless nodes that are part of at least a second BSS; a first interface configured to output the first frame for transmission; and a second interface configured to obtain simultaneous transmissions from a plurality of devices using one or more spatial streams in the first BSS; wherein: the processing system is configured to determine a priority order for the wireless nodes, wherein the first frame comprises an indication of the priority order; and the determination of the priority order is based on at least one of interference conditions, a distance from the apparatus to the plurality of wireless nodes, or a reciprocal agreement of priority between the apparatus and the plurality of wireless nodes.

2. The apparatus of claim 1, wherein the apparatus is part of the first BSS.

3. The apparatus of claim 1, wherein: the simultaneous transmissions are obtained at the same time as devices in the second BSS are transmitting frames using the resources; and the processing system is configured to decode the plurality of frames based only on samples obtained by the apparatus in the first BSS.

4. The apparatus of claim 1, wherein the second interface is further configured to: obtain a second frame, from at least one of the wireless nodes, the second frame including another indication of an intention to use at least a portion of the resources.

5. The apparatus of claim 4, wherein: the processing system is configured to generate a third frame allocating one or more spatial dimensions to the plurality of wireless nodes; and the first interface is configured to output the third frame for transmission.

6. The apparatus of claim 5, wherein; the processor is configured to null interference from transmissions from the plurality of wireless nodes.

7. The apparatus of claim 5, wherein: the second frame comprises an indication of a spatial stream capability of at least one of the wireless nodes; and the processing system

is configured to determine the one or more spatial dimensions based on the spatial stream capability.

8. The apparatus of claim 5, wherein: the processing system is further configured to determine a maximum receive signal strength corresponding to the one or more transmissions from the plurality of wireless nodes; and the third frame further comprises an indication of the maximum receive signal strength.

9. The apparatus of claim 5, wherein: the third frame further comprises an indication of a modulation and coding scheme.

10. The apparatus of claim 1, wherein: the processing system is further configured to determine a maximum receive signal strength corresponding to one or more transmissions from the plurality of wireless nodes; and the first frame comprises an indication of the maximum receive signal strength.

11. The apparatus of claim 1, further comprising at least one antenna via which the first frame is output for transmission, wherein the apparatus is configured as a wireless station.

12. An apparatus for wireless communication, comprising: a first interface configured to obtain, from a first wireless node, a first frame including an indication of whether resources of a first basic service set (BSS) are available to be shared with a second BSS; a processing system configured to generate a second frame indicating an intention of the apparatus to use at least a portion of the resources; and a second interface configured to output the second frame for transmission and configured to obtain simultaneous transmissions from a plurality of devices using the resources in the second BSS; wherein: the first interface is further configured to obtain, from the first wireless node, a priority order of the apparatus with respect to one or more other wireless nodes; and the processing system is configured to determine whether the at least the portion of the resources should be used by the apparatus based on the priority order; wherein the priority order indicates that at least one of the other wireless nodes has a higher priority than the apparatus; and the determination comprises: determining whether the at least one of the other wireless nodes has accepted the resources; and determining that the at

least the portion of the resources should be used if the at least one of the other wireless nodes has not indicated an intention to use the resources.

13. The apparatus of claim 12, wherein the apparatus is part of the second BSS.

14. The apparatus of claim 12, wherein: the simultaneous transmissions are obtained at the same time as devices in the first BSS are transmitting frames using one or more spatial streams; and the processing system is configured to decode the plurality of frames based only on samples obtained by the apparatus in the second BSS.

15. The apparatus of claim 12, wherein the first frame is obtained from a wireless node that is part of the first BSS.

16. The apparatus of claim 12, wherein: the processing system is configured to: determine one or more parameters, the one or more parameters comprising at least one of: a first parameter indicating a target receive signal strength corresponding to one or more transmissions from wireless nodes of the second BSS; or a second parameter indicating at least one of a modulation and coding scheme; and include the one or more parameters in the second frame or a fourth frame.

17. The apparatus of claim 12, wherein the second frame further comprises an indication of a spatial stream capability of the apparatus.

18. The apparatus of claim 12, further comprising at least one antenna via which the first frame is obtained and the second frame is output for transmission, wherein the apparatus is configured as a wireless station.