CLAIMS

1. A method of coordinating simultaneous transmission over a single channel of a wireless medium, the method comprising: performing, by a first access point associated with a first basic service set (BSS), a countdown procedure simultaneously with a second access point associated with a second BSS, wherein the first and second access points are each capable of initiating a simultaneous transmission of a distributed multiple-input and multiple-output (MIMO) communication from the first and second access points, the distributed MIMO communication comprising the first access point transmitting, to the second access point, first communications configured to facilitate second communications between the second access point and one or more wireless stations included in the second BSS; in response to completing the countdown procedure before the second access point, transmitting, from the first access point to the second access point, a first frame indicating that the simultaneous transmission will occur at a predetermined amount of time after a receipt of the first frame; determining, by the first access point, that the single channel is idle; and after the predetermined amount of time, transmitting over the single channel, from the first access point, and simultaneously with the second access point, data for the distributed MIMO communication.

2. The method of claim 1, further comprising: generating, by the first access point, the first frame.

3. The method of claim 2, wherein the predetermined amount of time is at least one of set by the first access point and the at second access point or a short interframe space (SIFS).

4. The method of claim 1, further comprising: generating, by the first access point, the first frame.

5. The method of claim 1, further comprising: generating the first frame, by the first access point, to include information indicative of at least one of a set of wireless devices responsive to the first frame, an access category, a channel bandwidth, or a duration of a downlink physical layer convergence procedure (PLCP) protocol data unit (PPDU).

6. The method of claim 1, further comprising: establishing, based on one or more communications between the first and second access points, that the first access point will transmit the first frame.

7. The method of claim 1, further comprising: determining, by the first access point, a time when the first and second access points will simultaneously transmit over the single channel.

8. The method of claim 7, further comprising: generating the first frame to identify the first and second access points via corresponding identifiers that are at least one of basic service set (BSS) identifiers or station addresses.

9. An apparatus for coordinating simultaneous transmissions over a single channel of a wireless medium, the apparatus being associated with a first basic service set (BSS) and comprising: one or more processors; and a memory comprising instructions that, when executed by the one or more processors, cause the apparatus to: perform a countdown procedure simultaneously with an access point associated with a second BSS, wherein the apparatus and the access point are each capable of initiating a simultaneous transmission of a distributed multiple-input and multiple-output (MIMO) communication from the apparatus and the second access point, the distributed MIMO communication comprising the apparatus transmittinq, to the access point, first communications configured to facilitate second communications between the access point and one or more wireless stations included in the second BSS; in response to completing the countdown procedure before the access point, transmit, to the access point, a first frame indicating that the simultaneous transmission will occur at a predetermined amount of time after a receipt of the first frame; determine that the single channel is idle; and after the predetermined amount of time, transmit over the single channel, simultaneously with the access point, data for the distributed MIMO communication.

10. The apparatus of claim 9, wherein execution of the instructions further causes the apparatus to: generate the first frame.

11. The apparatus of claim 10, wherein the predetermined amount of time is at least one of set by the apparatus and the access point or a short interframe space (SIFS).

12. The apparatus of claim 9, wherein execution of the instructions further causes the apparatus to: generate the first frame.

13. The apparatus of claim 9, wherein execution of the instructions further causes the apparatus to: generate the first frame to include information indicative of at least one of a set of wireless devices responsive to the first frame, an access category, a channel bandwidth, or a duration of a downlink physical layer convergence procedure (PLCP) protocol data unit (PPDU).

14. The apparatus of claim 9, wherein execution of the instructions further causes the apparatus to: establish, based on one or more communications between the apparatus and the access point, that the apparatus will transmit the first frame.

15. The apparatus of claim 9, wherein execution of the instructions further causes the apparatus to: determine a time when the apparatus and the access point will simultaneously transmit over the single channel.

16. The apparatus of claim 9, wherein execution of the instructions further causes the apparatus to: generate the first message to identify the apparatus and the access point via corresponding identifiers that are at least one of basic service set (BSS) identifiers or station addresses.