CLAIMS

What is claimed is:

1. A method carried out by an 802.11 access point (AP) for minimizing interference, the method comprising:

generating a high efficiency signal-B (HE-SIG-B) field for an orthogonal frequency division multiple access (OFDMA) signal to be transmitted to a plurality of wireless transmit/receive units (WTRUs), wherein the HE-SIG-B field includes an identifier (WTRU-ID) associated with a WTRU, of the plurality of WTRUs, corresponding to a predetermined value that indicates an associated RU is silenced; and

transmitting the OFDMA signal, which includes the HE-SIG-B field that indicates the silenced RU, to the plurality of WTRUs.

2. The method of claim 1, further comprising:

determining padding for timing adjustment information of the plurality of WTRUs; and

sending padding and timing adjustment information to the plurality of WTRUs.

3. The method of claim 1, further comprising determining to silence the RU of one or more RUs of the OFDMA signal by coordinating with one or more neighboring APs, or by analyzing conditions of one or more channels associated with the AP.

4. The method of claim 3, wherein the determining further includes:

incrementing at least one storage bucket associated with a packet failure of one or more RUs; and

silencing the one or more RUs associated with the at least one incremented storage bucket.

5. The method of claim 3, wherein the determining further includes:

assessing whether a packet failure rate on a 26 tone RU granularity meets a threshold; and

silencing, on a condition that the threshold is met, an RU of the one or more RUs associated with the packet failure rate.

6. The method of claim 3, wherein coordinating with the neighboring AP includes:

receiving a message indicating of one or more preferred RUs of the one or more neighboring APs; and

silencing the one or more preferred RUs based on the received message.

7. An access point (AP) for minimizing interference, comprising:

a transceiver;

a processor operatively connected to the transceiver, the processor and transceiver configured to generate a high efficiency signal-B (HE-SIG-B) field for an orthogonal frequency division multiple access (OFDMA) signal to be transmitted to a plurality of wireless transmit/receive units (WTRUs), wherein the HE-SIG-B field includes an identifier (WTRU-ID) field associated with a WTRU of the plurality of WTRUs corresponding to a predetermined value that indicates an associated RU is silenced; and

the processor and transceiver further configured to transmit the OFDMA signal, which includes the HE-SIG-B field that indicates the silenced RU, to the plurality of WTRUs.

8. The AP of claim 7, wherein the processor and transceiver are further configured to:

determine padding for timing adjustment information of the plurality of WTRUs; and

send padding and timing adjustment information to the plurality of WTRUs.

9. The AP of claim 7, wherein the processor and transceiver are further configured to determine to silence the RU of one or more RUs of the OFDMA signal by coordinating with one or more neighboring APs or by analyzing conditions of one or more channels associated with the AP.

10. The AP of claim 9, wherein the processor and transceiver are further configured to:

increment at least one storage bucket associated with a packet failure of one or more RUs; and

silence the one or more RUs associated with the at least one incremented storage bucket.

11. The AP of claim 9, wherein the processor and transceiver are further configured to:

assess whether a packet failure rate on a 26 tone RU granularity meets a threshold; and

silence, on a condition that the threshold is met, an RU of the one or more RUs associated with the packet failure rate.

12. The AP of claim 9, wherein the processor and transceiver are further configured to:

receive from the one or more neighboring APs an indication of one or more preferred RUs of the one or more neighboring APs; and

silence the one or more preferred RUs based on the received message.

13. A method for use in a wireless transmit/receive unit (WTRU), the method comprising:

receiving, from an 802.11 access point (AP), an orthogonal frequency division multiple access (OFDMA) signal including a preamble with a WTRU specific high efficiency common signal-B (HE-SIG-B) field, wherein the HE-SIG-B field includes at least one WTRU-ID field indicating one or more resource units (RUs); and

determining from the OFDMA signal whether a value in the WTRU-ID field corresponds to a predetermined value that indicates a corresponding RU is silenced.