CLAIMS

1. A wireless transmit/receive unit (WTRU) configured to perform a handover from a first cell to a second cell, the WTRU comprising:

a processor configured to:

receive configuration information from the first cell, wherein the configuration information indicates both a plurality of synchronization signal block (SSBs) and a plurality of channel state information reference signals (CSI-RSs);

initiate the handover to the second cell;

determine, based on the handover being initiated, to measure a subset of the plurality of CSI-RSs, wherein the subset of the plurality of CSI-RSs is associated with the second cell;

measure the subset of the plurality of CSI-RSs;

transmit, to the second cell, the measurement information for the subset of the plurality of CSI-RSs using uplink resources corresponding to a configured grant associated with an SSB of the plurality of SSBs; and

receive a scheduling grant from the second cell.

2. The WTRU of claim 1, wherein the processor is configured to:

receive a medium access control (MAC) control element (CE) that indicates the second cell; and

determine to initiate the handover to the second cell based on the MAC CE.

3. The WTRU of claim 1, wherein the processor is configured to:

determine one or more reference signal received power (RSRP) measurements for the subset of the plurality of CSI-RSs.

4. The WTRU of claim 1, wherein the processor is configured to:

receive the scheduling grant from the second cell based on the measurement information.

5. The WTRU of claim 1, wherein the configuration information comprises an association of the SSB with the subset of the plurality of CSI-RSs.

6. The WTRU of claim 1, wherein the processor is configured to:

transmit, to the second cell, the measurement information for the subset of the plurality of CSI-RSs via an uplink transmission that uses a beam derived from at least one of the SSB or a CSI-RS associated with the SSB.

7. The WTRU of claim 1, wherein the processor is configured to:

determine, based on the handover being initiated and based on a measurement of the SSB being greater than one or more thresholds associated with the SSB, to measure the subset of the plurality of CSI-RSs.

8. The WTRU of claim 1, wherein the configuration information comprises the configured grant associated with the SSB.

9. The WTRU of claim 1, wherein the processor is configured to:

measure the SSB of the second cell; and

transmit, to the first cell, measurements of the SSB.

10. The WTRU of claim 9, wherein the processor is configured to:

transmit a channel state information (CSI) report to the first cell, the CSI report comprising the measurements of the SSB.

11. A method comprising:

receiving configuration information from a first cell, wherein the configuration information indicates both a plurality of synchronization signal block (SSBs) and a plurality of channel state information reference signals (CSI-RSs);

initiating a handover to a second cell;

determining, based on the handover being initiated, to measure a subset of the plurality of CSI-RSs, wherein the subset of the plurality of CSI-RSs is associated with the second cell;

measuring the subset of the plurality of CSI-RSs;

transmitting, to the second cell, the measurement information for the subset of the plurality of CSI-RSs using uplink resources corresponding to a configured grant associated with an SSB of the plurality of

SSBs; and

receiving a scheduling grant from the second cell.

12. The method of claim 11, comprising:

receiving a medium access control (MAC) control element (CE) that indicates the second cell; and

determining to initiate the handover to the second cell based on the MAC CE.

13. The method of claim 11, comprising:

determining one or more reference signal received power (RSRP) measurements for the subset of the plurality of CSI-RSs.

14. The method of claim 11, comprising:

receiving the scheduling grant from the second cell based on the measurement information.

15. The method of claim 11, wherein the configuration information comprises an association of the SSB with the subset of the plurality of CSI-RSs.

16. The method of claim 11, comprising:

transmitting, to the second cell, the measurement information for the subset of the plurality of CSI-RSs via an uplink transmission that uses a beam derived from at least one of the SSB or a CSI-RS associated with the SSB.

17. The method of claim 11, comprising:

determining, based on the handover being initiated and based on a measurement of the SSB being greater than one or more thresholds associated with the SSB, to measure the subset of the plurality of CSI-RSs.

18. The method of claim 11, wherein the configuration information comprises the configured grant associated with the SSB.

19. The method of claim 11, comprising:

measuring the SSB of the second cell; and

transmitting, to the first cell, measurements of the SSB.

20. The method of claim 19, comprising:

transmitting a channel state information (CSI) report to the first cell, the CSI report comprising the measurements of the SSB.