CLAIMS

1. A method implemented in a wireless transmit/receive unit (WTRU), the method comprising:

reading a first set of system information of a neighbor closed subscriber group (CSG) cell including a cell global identity (CGI) and a physical cell identity (PCI);

storing the first set of system information;

starting a timer;

reading a second set of system information of the neighbor CSG cell on a condition that the timer has expired; and

identifying the CGI of the neighbor CSG cell on a condition that the second set of system information is same as the first set of system information.

2. The method as in claim 1, further comprising:

transmitting a message to a network indicating that PCI confusion has been resolved.

3. The method as in claim 2, wherein the message includes the PCI of the neighbor CSG cell.

4. The method as in claim 2, wherein the message includes the CGI of the neighbor CSG cell.

5. The method as in claim 1, further comprising:

autonomously determining a required gap duration for reading the first set of system information and the second set of system information based on channel reception quality of a signal from the neighbor CSG cell; and

signaling the required gap duration to a network.

6. The method as in claim 1, further comprising:

monitoring a signal strength and a signal quality of a current serving cell for comparison to a predefined threshold.

7. The method as in claim 6, wherein on a condition that the signal strength and signal quality of the current serving cell is below the predefined threshold, the method further comprises reading system information of the neighbor CSG cell.

8. A wireless transmit/receive unit (WTRU) comprising:

a processor configured to:

read a first set of system information of a neighbor closed subscriber group (CSG) cell including a cell global identity (CGI) and a physical cell identity (PCI);

store the first set of system information;

start a timer;

read a second set of system information of the neighbor CSG cell on a condition that the timer has expired; and

identify the CGI of the neighbor CSG cell on a condition that the second set of system information is same as the first set of system information.

9. The WTRU as in claim 8, further comprising:

a transmitter configured to transmit a message to a network indicating that PCI confusion has been resolved.

10. The WTRU as in claim 9, wherein the message includes the PCI of the neighbor CSG cell.

11. The WTRU as in claim 9, wherein the message includes the CGI of the neighbor CSG cell.

12. The WTRU as in claim 8, further comprising:

the processor configured to autonomously determine a required gap duration for reading the first set of system information and the second set of system information based on channel reception quality of a signal from the neighbor CSG cell; and

a transmitter configured to signal the required gap duration to a network.

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

reading a physical cell identity (PCI) of a neighbor closed subscriber group (CSG) cell;

determining whether the PCI corresponds to a predefined CSG cell range;

reporting information to network indicating that the PCI corresponds to the predefined CSG cell range of which the WTRU is a member; and

receiving a measurement that indicates that the WTRU is now able to read system information of the PCI.

14. The method as in claim 13, wherein on a condition that the PCI does not correspond to the predefined CSG cell range, the neighbor CSG cell is in closed cell range.

15. The method as in claim 14, wherein on a condition that the neighbor CSG cell is in closed cell range, the method further comprises reporting information to the network indicating that the PCI is used with a high probability by a CSG cell that is in closed cell range.

CLEAN CLAIMS

What is claimed is:

1. A method implemented in a wireless transmit/receive unit (WTRU), the method comprising:

reading a first set of system information of a neighbor closed subscriber group (CSG) cell including cell global identity (CGI) and physical cell identity (PCI);

storing the first set of system information;

starting a timer;

reading a second set of system information of the neighbor CSG cell on a condition that the timer has expired; and

identifying the CGI of the neighbor CSG cell on a condition that the second set of system information is same as the first set of system information.

2. The method as in claim 1, further comprising:

transmitting a message to a network indicating that PCI confusion has been resolved.

3. The method as in claim 2 wherein the message includes a PCI of the neighbor CSG cell.

4. The method as in claim 2 wherein the message includes CGI of the neighbor CSG cell.

5. The method as in claim 1, further comprising:

autonomously determining a required gap duration for reading the first set of system information and the second set of system information based on channel reception quality of a signal from the neighbor CSG cell; and

signaling the required gap duration to a network.

6. The method as in claim 1 wherein a signal strength and signal quality of a current serving cell is monitored in order to compare to a predefined threshold.

7. The method as in claim 6 wherein on a condition that the signal strength and signal quality of the current serving cell is below the predefined threshold, read system information of the neighbor CSG cell.

8. A wireless transmit/receive unit (WTRU) comprising:

a processor configured to read a first set of system information of a neighbor closed subscriber group (CSG) cell including cell global identity (CGI) and physical cell identity (PCI); store the first set of system information, start a timer, read a second set of system information of the neighbor CSG cell on a condition that the timer has expired, and identify the CGI of the neighbor CSG cell on a condition that the second set of system information is same as the first set of system information.

9. The WTRU as in claim 8, further comprising:

a transmitter configured to transmit a message to a network indicating that PCI confusion has been resolved.

10. The WTRU as in claim 9 wherein the message includes a PCI of the neighbor CSG cell.

11. The WTRU as in claim 9 wherein the message includes CGI of the neighbor CSG cell.

12. The WTRU as in claim 8, further comprising:

the processor configured to autonomously determine a required gap duration for reading the first set of system information and the second set of system information based on channel reception quality of a signal from the neighbor CSG cell; and

a transmitter configured to signal the required gap duration to a network.

13. The WTRU as in claim 8 wherein a signal strength and signal quality of a current serving cell is monitored in order to compare to a predefined threshold.

14. The WTRU as in claim 13 wherein on a condition that the signal strength and signal quality of the current serving cell is below the predefined threshold, read the system information of the neighbor CSG cell.