CLAIMS

What is Claimed:

1. A first wireless transmit/receive unit (WTRU), the first WTRU comprising:

a processor, the processor configured to:

send a first message to a second WTRU, wherein the first message indicates a request to communicate with the second WTRU;

receive a second message from the second WTRU, the second message indicating a first set of least significant bits (LSBs) that is associated with the second WTRU;

determine that a conflict exists between the first set of LSBs that is associated with the second WTRU and a second set of LSBs that is associated with a third WTRU;

send a third message to the second WTUR indicating the conflict between the first set of LSBs and the second set of LSBs;

receive a fourth message from the second WTRU, wherein the fourth message indicating a third set of LSBs that is associated with the second WTRU; and

send a fifth message to the second WTRU using a secure communication link based on a first security key identifier, the first security key identifier based on a set of generated most significant bits (MSBs) associated with the first WTRU and the third set of LSBs associated with the second WTRU.

2. The first WTRU of claim 1, wherein the first message comprises a list of supported vehicle to everything (V2X) services.

3. The first WTRU of claim 1, wherein the processor is further configured to send a sixth message to the third WTRU using a second secure communication link, wherein the second secure communication link is associated with a second security key identifier.

4. A method performed by a first wireless transmit/receive unit (WTRU) for establishing a communication link, the method comprising:

sending a first message to a second WTRU, wherein the first message indicates a request to communicate with the second WTRU;

receiving a second message from the second WTRU, the second message indicating a first set of least significant bits (LSBs) that is associated with the second WTRU;

determining that a conflict exists between the first set of LSBs that is associated with the second WTRU and a second set of LSBs associated with a third WTRU;

sending a third message to the second WTRU indicating the conflict between the first set of LSBs and the second set of LSBs;

receiving a fourth message from the second WTRU, wherein the fourth message indicates a third set of LSBs that is associated with the second WTRU; and

sending a fifth message to the second WTRU using a secure communication link based on a first security key identifier, the first security key identifier based on a set of generated most significant bits (MSBs) associated with the first WTRU and the third set of LSBs associated with the second WTRU.

5. The method of claim 4, wherein the first message comprises a list of supported vehicle to everything (V2X) services.

6. The method of claim 4, wherein the third message to the second WTRU indicates that the first set of LSBs is the same as the second set of LSBs.

7. A first wireless transmit/receive unit (WTRU) for establishing a communication link, the first WTRU comprising:

a processor, the processor configured to:

send a first message to a second WTRU, wherein the first message indicates a request to communicate with the second WTRU;

receive a second message from the second WTRU, the second message indicating a first set of least significant bits (LSBs) associated with the second WTRU;

determine whether a conflict exists between the first set of LSBs that is associated with the second WTRU and a second set of LSBs that is associated with a third WTRU; and wherein

if a conflict is determined to not exist, generate a security key identifier using a set of generated most significant bits (MSBs) associated with the first WTRU and the first set of LSBs associated with the second WTRU and send a third message to the second WTRU using a secure communication link associated with the security

key identifier, or

if a conflict is determined to exist, send a fourth message indicating the conflict between the first set of LSBs and the second set of LSBs.

8. The first WTRU of claim 7, wherein the first message comprises a list of supported vehicle to everything (V2X) services.

9. The first WTRU of claim 7, wherein, if a conflict is determined to exist, the processor is further configured to receive a fifth message from the second WTRU, the fifth message indicating a third set of LSBs that are associated with the second WTRU.

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

generate a second security key identifier using the set of MSBs associated with the first WTRU and the third set of LSBs associated with the second WTRU, and

send a sixth message to the second WTRU using a second secure communication link, wherein the second secure communication link is associated with the second security key identifier.