perform Msg3 transmission. The at least one memory and the computer program codes are also configured, with the at least one processor, to cause the first device to transmit, to the second device, information of the first device for contention resolution. The at least one memory and the computer program codes are further configured, with the at least one processor, to cause the first device to, in case a configuration of a 4-step random access channel is unavailable in an active bandwidth part for the first device, determine a duration for monitoring a contention resolution message based on one of: a first configuration of a 2-step random access channel in the active bandwidth part, or a second configuration of a 4-step random access channel in a bandwidth part different from the active bandwidth part.

[0006] In a second aspect, there is provided a second device. The second device comprises at least one processor and at least one memory storing computer program codes. The at least one memory and the computer program codes are configured, with the at least one processor, to cause the second device to transmit, to a first device, an indication to perform Msg3 transmission. The at least one memory and the computer program codes are also configured, with the at least one processor, to cause the second device to, in case a configuration of a 4-step random access channel is unavailable in an active bandwidth part for the first device, determine a duration for transmitting a contention resolution message to the first device based on one of: a first configuration of a 2-step random access channel in the active bandwidth part, or a second configuration of a 4-step random access channel in a bandwidth part different from the active bandwidth part. The at least one memory and the computer program codes are further configured, with the at least one processor, to cause the second device to in accordance with a determination that information of the first device for contention resolution is received from the first device, transmit the contention resolution message to the first device within the duration. When the configuration of the 4-step random access channel is unavailable in the active bandwidth part for the first device. The first configuration of the 2-step random access channel in the active bandwidth part indicates a contention resolution timer for determining the duration and when the configuration of the 4-step random access channel is available in the active bandwidth part for the first device. The first configuration of the 2-step random access channel in the active bandwidth part does not indicate a contention resolution timer.

[0007] In a third aspect, there is provided a method. The method comprises receiving,

at a first device from a second device, an indication to perform Msg3 transmission. The method also comprises transmitting, to the second device, information of the first device for contention resolution. The method further comprises in case a configuration of a 4-step random access channel is unavailable in an active bandwidth part for the first device, determining a duration for monitoring a contention resolution message based on one of: a first configuration of a 2-step random access channel in the active bandwidth part, or a second configuration of a 4-step random access channel in a bandwidth part different from the active bandwidth part. When the configuration of the 4-step random access channel is unavailable in the active bandwidth part for the first device. The first configuration of the 2-step random access channel in the active bandwidth part indicates a contention resolution timer for determining the duration and when the configuration of the 4-step random access channel is available in the active bandwidth part for the first device. The first configuration of the 2-step random access channel in the active bandwidth part does not indicate a contention resolution timer.

[0008] In a fourth aspect, there is provided a method. The method comprises transmitting, at a second device to a first device, an indication to perform Msg3 transmission. The method also comprises in case a configuration of a 4-step random access channel is unavailable in an active bandwidth part for the first device, determining a duration for transmitting a contention resolution message to the first device based on one of: a first configuration of a 2-step random access channel in the active bandwidth part, or a second configuration of a 4-step random access channel in a bandwidth part different from the active bandwidth part. The method further comprises in accordance with a determination that information of the first device for contention resolution is received from the first device, transmitting the contention resolution message to the first device within the duration. When the configuration of the 4-step random access channel is unavailable in the active bandwidth part for the first device. The first configuration of the 2-step random access channel in the active bandwidth part indicates a contention resolution timer for determining the duration and when the configuration of the 4-step random access channel is available in the active bandwidth part for the first device. The first configuration of the 2-step random access channel in the active bandwidth part does not indicate a contention resolution timer.

[0009] In a fifth aspect, there is provided an apparatus. The apparatus comprises means for receiving, at a first device from a second device, an indication to perform Msg3 transmission. The apparatus also comprises means for transmitting, to the second device, information of the first device for contention resolution. The apparatus further comprises means for in case a configuration of a 4-step random access channel is unavailable in an active bandwidth part for the first device, determining a duration for monitoring a contention resolution message based on one of: a first configuration of a 2-step random access channel in the active bandwidth part, or a second configuration of a 4-step random access channel in a bandwidth part different from the active bandwidth part.

[0010] In an sixth aspect, there is provided an apparatus. The apparatus comprises means for transmitting, at a second device to a first device, an indication to perform Msg3 transmission. The apparatus also comprises means for in case a configuration of a 4-step random access channel is unavailable in an active bandwidth part for the first device, determining a duration for transmitting a contention resolution message to the first device based on one of: a first configuration of a 2-step random access channel in the active bandwidth part, or a second configuration of a 4-step random access channel in a bandwidth

part different from the active bandwidth part. The apparatus further comprises means for in accordance with a determination that information of the first device for contention resolution is received from the first device, transmitting the contention resolution message to the first device within the duration.

[0011] In a seventh aspect, there is provided a non-transitory computer readable medium storing program instructions for causing an apparatus to perform at least the method

WHAT IS CLAIMED IS:

1. A first device comprising:

means for receiving, from a second device, an indication to perform Msg3 transmission;

means for transmitting, to the second device, information of the first device for contention resolution;

means for, in case a configuration of a 4-step random access channel is unavailable in an active bandwidth part for the first device, determining a duration for monitoring a contention resolution message based on one of:

a first configuration of a 2-step random access channel in the active bandwidth part, or

a second configuration of a 4-step random access channel in a bandwidth part different from the active bandwidth part; and

characterized in that, when the configuration of the 4-step random access channel is unavailable in the active bandwidth part for the first device, the first configuration of the 2-step random access channel in the active bandwidth part indicates a contention resolution timer for determining the duration and when the configuration of the 4-step random access channel is available in the active bandwidth part for the first device, the first configuration of the 2-step random access channel in the active bandwidth part does not indicate a contention resolution timer.

2. The first device of claim 1, wherein the bandwidth part comprises one of the following:

an initial bandwidth part for the first device,

a default bandwidth part for the first device,

a first active bandwidth part for the first device, or

a predetermined bandwidth part indicated by the second device.

3. The first device of claim 1 or 2, wherein the first device is caused to determine the duration by one of:

in accordance with a determination that the first configuration indicates a contention resolution timer, determining the duration as a time length of the contention resolution timer,

in case the first configuration does not indicate a contention resolution timer, determining the duration as a time length of a contention resolution timer indicated in the second configuration, or

in case the first configuration does not indicate a contention resolution timer, determining the duration as a time length for monitoring a MSGB from the second device, the MSGB being monitored by the first device in response to a MSGA being transmitted over the 2-step random access channel.

4. The first device of claim 3, wherein the time length for monitoring the MSGB is a time length of an MSGB response window.

5. The first device of any of claims 1-4, wherein the information of the first device for contention resolution is transmitted via a Msg3 of a random access procedure.

6. The first device of any of claims 1-5, further comprising:

means for receiving at least one of the first configuration and the second configuration from the second device.

7. The first device of any of claims 1-6, wherein the first device comprises a terminal device, and the second device comprises a network device.

8. A second device comprising:

means for transmitting, to a first device, an indication to perform Msg3 transmission;

means for, in case a configuration of a 4-step random access channel is unavailable in an active bandwidth part for the first device, determining a duration for transmitting a contention resolution message to the first device based on one of:

a first configuration of a 2-step random access channel in the active bandwidth part, or

a second configuration of a 4-step random access channel in a bandwidth part different from the active bandwidth part;

means for, in accordance with a determination that information of the first device for contention resolution is received from the first device, transmitting the contention resolution message to the first device within the duration; and

characterized in that, when the configuration of the 4-step random access channel is unavailable in the active bandwidth part for the first device, the first configuration of the 2-step random access channel in the active bandwidth part indicates a contention resolution timer for determining the duration and when the configuration of the 4-step random access channel is available in the active bandwidth part for the first device, the first configuration of the 2-step random access channel in the active bandwidth part does not indicate a contention resolution timer.

9. The second device of claim 8, wherein the bandwidth part comprises one of the following:

an initial bandwidth part for the first device,

a default bandwidth part for the first device,

a first active bandwidth part for the first device, or

a predetermined bandwidth part indicated by the second device.

10. The second device of claim 8 or claim 9, wherein the second device is caused to determine the duration by one of:

in accordance with a determination that the first configuration indicates a contention resolution timer, determining the duration as a time length of the contention resolution timer,

in case the first configuration does not indicate a contention resolution timer, determining the duration as a time length of a contention resolution timer indicated in the second configuration, or

in case the first configuration does not indicate a contention resolution timer, determine the duration as a time length for the first device to monitor a MSGB from the second device, the MSGB being transmitted by the second device in response to a MSGA being received over the 2-step random access channel.

11. The second device of any of claims 8-10, wherein the information of the first device for contention resolution is received via a Msg3 of a random access procedure.

12. The second device of any of claims 8-11, further comprising:

Means for determining at least one of the first configuration and the second configuration; and

means for transmitting at least one of the first configuration and the second configuration to the first device.

13. The second device of claim 12, wherein the second device is caused to determine the first configuration by:

in accordance with a determination that the configuration of the 4-step random access channel is unavailable in the active bandwidth part, determining the first configuration to indicate a contention resolution timer for the active bandwidth part.

14. A method comprising:

receiving, at a first device from a second device, an indication to perform Msg3 transmission;

transmitting, to the second device, information of the first device for contention resolution;

in case a configuration of a 4-step random access channel is unavailable in an active bandwidth part for the first device, determining a duration for monitoring a contention resolution message based on one of:

a first configuration of a 2-step random access channel in the active bandwidth part, or

a second configuration of a 4-step random access channel in a bandwidth part different from the active bandwidth part; and

characterized in that, when the configuration of the 4-step random access channel is unavailable in the active bandwidth part for the first device the first configuration of the 2-step random access channel in the active bandwidth part indicates a contention resolution timer for determining the duration and when the configuration of the 4-step random access channel is available in the active bandwidth part for the first device, the first configuration of the 2-step random access channel in the active bandwidth part does not indicate a contention resolution timer.

15. A method comprising:

transmitting, at a second device to a first device, an indication to perform Msg3 transmission;

in case a configuration of a 4-step random access channel is unavailable in an active bandwidth part for the first device, determining a duration for transmitting a contention

resolution message to the first device based on one of:

a first configuration of a 2-step random access channel in the active bandwidth part, or

a second configuration of a 4-step random access channel in a bandwidth part different from the active bandwidth part;

in accordance with a determination that information of the first device for contention resolution is received from the first device, transmitting the contention resolution message to the first device within the duration; and

characterized in that, when the configuration of the 4-step random access channel is unavailable in the active bandwidth part for the first device, the first configuration of the 2-step random access channel in the active bandwidth part indicates a contention resolution timer for determining the duration and when the configuration of the 4-step random access channel is available in the active bandwidth part for the first device, the first configuration of the 2-step random access channel in the active bandwidth part does not indicate a contention resolution timer.