

CLAIMS

1. A method for selecting a random access procedure, comprising:

when both a first random access procedure and a second random access procedure are configured for a system, selecting, by a terminal device based on a preset condition, to initiate a random access through the first random access procedure or the second random access procedure, wherein

the first random access procedure comprises a two-step random access procedure; and
the second random access procedure comprises a four-step random access procedure.

2. The method of claim 1, wherein

the preset condition comprises a measurement result of a reference signal received power (RSRP).

3. The method of claim 2, wherein

the selecting, by the terminal device, based on the preset condition, to initiate the random access through the first random access procedure or the second random access procedure comprises:

selecting to initiate the random access through the two-step random access procedure when the measurement result of the RSRP is greater than a preset first threshold value; otherwise, selecting to initiate the random access through the four-step random access procedure.

4. The method of any one of claims 2 to 3, further comprising:

acquiring, by the terminal device, based on a measurement for a primary cell (Pcell), a primary secondary cell (Pscell) or a target handover cell, the measurement result of the RSRP.

5. The method of claim 3, wherein

the threshold value is notified to the terminal device by a network side through a system message or radio resource control (RRC) signaling; or

the threshold value is agreed upon in advance between the terminal device and the network side.

6. A method for selecting a random access procedure, comprising:

configuring, by a network side, both a first random access procedure and a second random access procedure for a terminal device, such that when the terminal device is to initiate a random access, the terminal device selects, based on a preset condition, to initiate the random access through the first random access procedure or the second random access procedure, wherein

the first random access procedure comprises a two-step random access procedure; and
the second random access procedure comprises a four-step random access procedure.

7. The method of claim 6, wherein

the preset condition comprises a measurement result of a reference signal received power (RSRP).

8. The method of claim 7, further comprising:

transmitting, by the network side, a first threshold value corresponding to the preset condition to the terminal device through a system message or radio resource control (RRC) signaling, such that the terminal device selects, based on the first threshold value, to initiate the random access through the first random access procedure or the second random access procedure.

9. The method of claim 8, wherein when the measurement result of the RSRP is greater than the first threshold value, the terminal device selects to initiate the random access through the two-step random access procedure; otherwise, the terminal device selects to initiate the random access through the four-step random access procedure.

10. The method of claim 7, wherein the measurement result of the RSRP is acquired based on a measurement for a primary cell (Pcell), a primary secondary cell (Pscell) or a target handover cell.

11. A terminal device, comprising:

a selecting unit, configured to, when both a first random access procedure and a second random access procedure are configured for a system, select based on a preset

condition to initiate a random access through the first random access procedure or the second random access procedure, wherein

the first random access procedure comprises a two-step random access procedure; and
the second random access procedure comprises a four-step random access procedure.

12. The terminal device of claim 11, wherein

the preset condition comprises a measurement result of a reference signal received power (RSRP).

13. The terminal device of claim 12, wherein

the selecting unit selects to initiate the random access through the two-step random access procedure when the measurement result of the RSRP is greater than a preset first threshold value, otherwise, selects to initiate the random access through the four-step random access procedure.

14. The terminal device of any one of claims 12 to 13, further comprising an acquiring unit, wherein the acquiring unit is configured to acquire the measurement result of the RSRP based on a measurement for a primary cell (Pcell), a primary secondary cell (Pscell) or a target handover cell.

15. The terminal device of claim 13, wherein

the threshold value is notified to the acquiring unit by a network side through a system message or radio resource control (RRC) signaling; or

the threshold value is agreed upon in advance between the terminal device and a network side.

16. A network device, comprising:

a configuring unit, configured to configure both a first random access procedure and a second random access procedure for a terminal device, such that when the terminal device is to initiate a random access, the terminal device selects, based on a preset condition, to initiate the random access through the first random access procedure or the second random access procedure, wherein

the first random access procedure comprises a two-step random access procedure; and

the second random access procedure comprises a four-step random access procedure.

17. The network device of claim 16, wherein

the preset condition comprises a measurement result of a reference signal received power (RSRP).

18. The network device of claim 17, further comprising a transmitting unit, wherein the transmitting unit is configured to transmit a first threshold value corresponding to the preset condition to the terminal device through a system message or radio resource control (RRC) signaling, such that the terminal device selects, based on the first threshold value, to initiate the random access through the first random access procedure or the second random access procedure.

19. The network device of claim 18, wherein when the measurement result of the RSRP is greater than the first threshold value, the terminal device selects to initiate the random access through the two-step random access procedure; otherwise, the terminal device selects to initiate the random access through the four-step random access procedure.

20. The network device of claim 17, wherein the measurement result of the RSRP is acquired based on a measurement for a primary cell (Pcell), a primary secondary cell (Pscell) or a target handover cell.