

WHAT IS CLAIMED IS:

1. A method for requesting a positioning reference signal (PRS) configuration, ~~applicable to~~performed by a first communication node, the method comprising:

sending a message carrying a suggested PRS configuration, wherein the suggested PRS configuration is a PRS configuration suggested by the first communication node for terminal positioning.

2. The method as claimed in claim 1, wherein sending the message carrying the suggested PRS configuration comprises:

sending a request message carrying the suggested PRS configuration, wherein the request message is configured to request to obtain a target PRS configuration for ~~the~~a terminal to perform positioning measurement.

3. The method as claimed in claim 2, wherein the first communication node comprises ~~the~~a terminal; and sending the request message carrying the suggested PRS configuration comprises:

sending a random access request message carrying the suggested PRS configuration to a first base station; or,

sending a radio resource control (RRC) message carrying the suggested PRS configuration to the first base station.

4. The method as claimed in claim 3, further comprising:

receiving a message that is sent by the first base station and carries the target PRS configuration, wherein the target PRS configuration is determined by the first base station based on the suggested PRS configuration.

5. The method as claimed in claim 4, wherein receiving the message that is sent by the first base station and carries the target PRS configuration comprises:

receiving an RRC message that is sent by the first base station and carries the target PRS configuration.

6. The method as claimed in claim 2, wherein the first communication node comprises ~~the~~ a terminal; and sending the request message carrying the suggested PRS configuration comprises:

 sending a long-term-evolution positioning protocol (LPP) message carrying the suggested PRS configuration to a core network element.

7. The method as claimed in claim 6, further comprising:

 receiving a message that is sent by the core network element and carries the target PRS configuration, wherein the target PRS configuration is determined by the core network element based on the suggested PRS configuration.

8. The method as claimed in claim 6, wherein receiving the message that is sent by the core network element and carries the target PRS configuration comprises:

 receiving an LPP message that is sent by the core network element and carries the target PRS configuration.

9. The method as claimed in claim 2, wherein the first communication node comprises a core network element; and sending the request message carrying the suggested PRS configuration comprises:

 sending an NRPPa message carrying the suggested PRS configuration to a first base station.

10. The method as claimed in claim 9, further comprising:

 receiving a message that is sent by the first base station and carries the target PRS configuration, wherein the target PRS configuration is determined by the first base station based on the suggested PRS configuration.

11. The method as claimed in claim 10, wherein receiving the message that is sent by the first base station and carries the target PRS configuration comprises:

 receiving an NRPPa message that is sent by the first base station and carries the target PRS configuration.

12. The method as claimed in claim 11, further comprising:
sending a message carrying the target PRS configuration to the terminal.

13. The method as claimed in claim 12, wherein sending the message carrying the target PRS configuration to the terminal comprises:
sending a long-term-evolution positioning protocol (LPP) message carrying the target PRS configuration to the terminal.

14. The method as claimed in any one of claims 1 to 13, wherein the suggested PRS configuration comprises at least one of the following parameters:
a transmission period of the PRS;
a transmission bandwidth of the PRS; or
a transmission pattern of the PRS.

15. A method for requesting a positioning reference signal (PRS) configuration, ~~applicable to~~ performed by a second communication node, the method comprising:
receiving a message carrying a suggested PRS configuration, wherein the suggested PRS configuration is a PRS configuration suggested for terminal positioning.

16. The method as claimed in claim 15, wherein receiving the message carrying the suggested PRS configuration comprises:
receiving a request message carrying the suggested PRS configuration, wherein the request message is configured to request to obtain a target PRS configuration for the terminal to perform positioning measurement.

17. The method as claimed in claim 15 or 16, further comprising:
determining a target PRS configuration according to the suggested PRS configuration.

~~18. The method as claimed in claim 17, wherein the second communication node comprises a first base station; and receiving the request message carrying the suggested PRS configuration comprises:
receiving a random access request message that is sent by the terminal and carries the~~

~~suggested PRS configuration; or,~~

~~receiving a radio resource control (RRC) message that is sent by the terminal and carries the suggested PRS configuration.~~

~~19. The method as claimed in claim 18, further comprising:~~

~~sending a message carrying the target PRS configuration to the terminal in response to the request message; and/or,~~

~~sending a message carrying the target PRS configuration to a core network element in response to the request message.~~

~~20. The method as claimed in claim 19, wherein sending the message carrying the target PRS configuration to the terminal in response to the request message comprises:~~

~~sending an RRC message carrying the target PRS configuration to the terminal.~~

~~21. The method as claimed in claim 19, wherein sending the message carrying the target PRS configuration to the core network element in response to the request message comprises:~~

~~sending an NRPPa message carrying the target PRS configuration to the core network element.~~

~~22. The method as claimed in claim 17, wherein the second communication node comprises a core network element; and receiving the request message carrying the suggested PRS configuration comprises:~~

~~receiving a long term evolution positioning protocol (LPP) message that is sent by the terminal and carries the suggested PRS configuration.~~

~~23. The method of claim 22, further comprising:~~

~~sending a message carrying the target PRS configuration to the terminal in response to the request message; and/or,~~

~~sending a message carrying the target PRS configuration to a first base station in response to the request message.~~

~~24. The method as claimed in claim 23, wherein sending the message carrying the target~~

PRS configuration to the terminal in response to the request message comprises:

~~sending an LPP message carrying the target PRS configuration to the terminal.~~

~~25. The method as claimed in claim 23, wherein sending the message carrying the target PRS configuration to the first base station in response to the request message comprises:~~

~~sending an NRPPa message carrying the target PRS configuration to the first base station.~~

~~26. The method as claimed in claim 17, wherein the second communication node comprises a first base station; and receiving the request message carrying the suggested PRS configuration comprises:~~

~~receiving an NRPPa message that is sent by the core network element and carries the suggested PRS configuration.~~

~~27. The method as claimed in claim 26, further comprising:~~

~~sending a message carrying the target PRS configuration to the core network element in response to the request message; and/or,~~

~~sending a message carrying the target PRS configuration to the terminal in response to the request message.~~

~~28. The method as claimed in claim 27, wherein sending the message carrying the target PRS configuration to the core network element in response to the request message comprises:~~

~~sending an NRPPa message carrying the target PRS configuration to the core network element.~~

~~29. The method as claimed in claim 27, wherein sending the message carrying the target PRS configuration to the terminal in response to the request message comprises:~~

~~sending a radio resource control (RRC) message carrying the target PRS configuration to the terminal.~~

~~30. The method as claimed in claim 15, wherein the suggested PRS configuration comprises at least one of the following parameters:~~

~~a transmission period of the PRS;~~

~~a transmission bandwidth of the PRS; or
a transmission pattern of the PRS.~~

~~3118. A method for requesting a positioning reference signal (PRS) configuration, applicable to performed by a third communication node, the method comprising:~~

~~receiving a message carrying a target PRS configuration for a terminal to perform positioning measurement, wherein the target PRS configuration is determined according to a suggested PRS configuration.~~

~~32. The method as claimed in claim 31, wherein the third communication node comprises a core network element; and receiving the message carrying the target PRS configuration for the terminal to perform positioning measurement comprises:~~

~~receiving a message that is sent by a first base station and carries the target PRS configuration; wherein the target PRS configuration is determined by the first base station based on the suggested PRS configuration carried in a request message sent by the terminal.~~

~~33. The method as claimed in claim 32, wherein receiving the message carrying the target PRS configuration for the terminal to perform positioning measurement comprises:~~

~~receiving an NRPPa message that is sent by the first base station and carries the target PRS configuration.~~

~~34. The method as claimed in claim 33, further comprising:~~

~~in response to transmission and reception points (TRPs) for the terminal to perform positioning belonging to multiple different base stations, sending a message carrying the target PRS configuration to a second base station; wherein the multiple different base stations comprise the first base station and the second base station.~~

~~35. The method as claimed in claim 34, wherein sending the message carrying the target PRS configuration to the second base station comprises:~~

~~sending an NRPPa message carrying the target PRS configuration to the second base station.~~

~~36. The method as claimed in claim 31, wherein the third communication node comprises a first base station; and receiving the message carrying the target PRS configuration for the terminal to perform positioning measurement comprises:~~

~~receiving a message that is sent by a core network element and carries the target PRS configuration; wherein the target PRS configuration is determined by the core network element based on the suggested PRS configuration carried in a request message sent by the terminal.~~

~~37. The method as claimed in claim 36, wherein receiving the message that is sent by the core network element and carries the target PRS configuration comprises:~~

~~receiving an NRPPa message that is sent by the core network element and carries the target PRS configuration.~~

~~38. The method as claimed in claim 31, wherein the third communication node comprises the terminal; and receiving the message carrying the target PRS configuration for the terminal to perform positioning measurement comprises:~~

~~receiving a message that is sent by a first base station and carries the target PRS configuration; or,~~

~~receiving a message that is sent by a core network element and carries the target PRS configuration; wherein the target PRS configuration is determined by the first base station based on the suggested PRS configuration carried in a request message sent by the core network element.~~

~~39. The method as claimed in claim 38, wherein receiving the message that is sent by the first base station and carries the target PRS configuration comprises:~~

~~receiving a radio resource control (RRC) message that is sent by the first base station and carries the target PRS configuration.~~

~~40. The method as claimed in claim 38, wherein receiving the message that is sent by the first base station and carries the target PRS configuration comprises:~~

~~receiving a long term evolution positioning protocol (LPP) message that is sent by the core network element and carries the target PRS configuration.~~

~~41. The method as claimed in claim 31, wherein the suggested PRS configuration comprises at least one of the following parameters:~~

~~a transmission period of the PRS;~~

~~a transmission bandwidth of the PRS; or~~

~~a transmission pattern of the PRS.~~

~~42. An apparatus for requesting a positioning reference signal (PRS) configuration, applicable to a first communication node, the apparatus comprising a reporting module, wherein,~~

~~the reporting module is configured to send a message carrying a suggested PRS configuration, wherein the suggested PRS configuration is a PRS configuration suggested by the first communication node for terminal positioning.~~

~~43. An apparatus for requesting a positioning reference signal (PRS) configuration, applicable to a second communication node, the apparatus comprising a first receiving module, wherein,~~

~~the first receiving module is configured to receive a message carrying a suggested PRS configuration, wherein the suggested PRS configuration is a PRS configuration suggested for terminal positioning.~~

~~44. An apparatus for requesting a positioning reference signal (PRS) configuration, applicable to a third communication node, the apparatus comprising a second receiving module, wherein,~~

~~the second receiving module is configured to receive a message carrying a target PRS configuration for a terminal to perform positioning measurement, wherein the target PRS configuration is determined according to a suggested PRS configuration.~~

~~45~~19. A communication device, comprising:

an antenna;

a memory; and

a processor, connected to the antenna and the memory respectively, configured to, by executing computer-executable instructions stored on the memory, control transmission and

reception of the antenna and perform the method in any one of claims 1 to 14, 15 to ~~30~~17, or ~~31 to 41~~18.

~~46~~20. A computer storage medium storing computer-executable instructions, wherein the computer-executable instructions are executed by a processor, the method in any one of claims 1 to 14, 15 to ~~30~~17, or ~~31 to 41~~18 is performed.