

in the RRC reconfiguration message is also keeping the state, keeps the activated or deactivated state of the secondary cell unchanged; and, if the secondary cell that participates in the MF-Tx is not a cell that participates in the multi-flow transmission before the terminal receives the RRC reconfiguration message, or the state control indication information carried in the RRC reconfiguration message is not keeping the state, activates the secondary cell, where the cell information is carried in the RRC reconfiguration message.

The radio resource control RRC reconfiguration message received by the receiving unit 810 may further carry cell identification information for serving cell change.

According to the terminal provided in the embodiment of the present invention, a receiving unit receives a radio resource control RRC reconfiguration message, where the RRC reconfiguration message carries state control indication information; according to the RRC configuration message, if a secondary cell that participates in multi-flow transmission is a cell that participates in the multi-flow transmission before the terminal receives the RRC reconfiguration message, and the state control indication information is keeping the state, a control unit keeps an activated or deactivated state of the secondary cell unchanged; and, if the secondary cell that participates in the multi-flow transmission is not a cell that participates in the multi-flow transmission before the terminal receives the RRC reconfiguration message, or the state control indication information is not keeping the state, the control unit activates the secondary cell. This implements activation control for a cell in an MF-Tx work mode. Meanwhile, the state control indication information carried in the RRC reconfiguration message can also flexibly indicate that the secondary cell that participates in the multi-flow transmission should be kept in an original state or should be activated, which makes the activation control for the cell more flexible.

Finally, it should be noted that the foregoing embodiments are merely intended for describing the technical solutions of the present invention other than limiting the present invention. Although the present invention is described in detail with reference to the foregoing embodiments, persons of ordinary skill in the art should understand that they may still make modifications to the technical solutions described in the foregoing embodiments or make equivalent replacements to some or all the technical features thereof, without departing from the spirit and scope of the technical solutions of the embodiments of the present invention.

CLAIMS

What is claimed is:

1. A method for controlling cell activation, comprising:
receiving, by a base station, a radio resource control RRC reconfiguration message; and
according to the RRC reconfiguration message, if a secondary cell served by the base station participates in multi-flow transmission and is a cell that participates in the multi-flow transmission before the base station receives the RRC reconfiguration message, keeping, by the base station, an activated or deactivated state of the secondary cell unchanged; and, if the secondary cell served by the base station participates in the multi-flow transmission but is not a cell that participates in the multi-flow transmission before the base station receives the RRC reconfiguration message, activating the secondary cell.
2. The method for controlling cell activation according to claim 1, wherein the RRC reconfiguration message carries identification information of cells that participate in the multi-flow transmission.
3. The method for controlling cell activation according to claim 1, wherein the RRC reconfiguration message carries cell identification information for serving cell change.
4. A method for controlling cell activation, comprising:
receiving, by a base station, a radio resource control RRC reconfiguration message, wherein the RRC reconfiguration message carries state control indication information; and
according to the RRC reconfiguration message, if a secondary cell served by the base station participates in multi-flow transmission and is a cell that participates in the multi-flow transmission before the base station receives the RRC reconfiguration message, and the state control indication information is keeping the state, keeping, by the base station, an activated or deactivated state of the secondary cell unchanged; and, if the secondary cell served by the base station participates in the multi-flow transmission but is not a cell that participates in the multi-flow transmission before the base station receives the RRC reconfiguration message, or the state control indication information is not keeping the state, activating the secondary cell.
5. The method for controlling cell activation according to claim 4, wherein the RRC reconfiguration message carries identification information of cells that participate in the multi-flow transmission.
6. The method for controlling cell activation according to claim 4, wherein the RRC reconfiguration message carries cell identification information for serving cell change.

7. The method for controlling cell activation according to claim 4, wherein there are multiple pieces of the state control indication information and multiple secondary cells, and each piece of the state control indication information corresponds to one secondary cell.

8. A method for controlling cell activation, comprising:

receiving, by a terminal, a radio resource control RRC reconfiguration message; and

according to the RRC reconfiguration message, if a secondary cell that participates in multi-flow transmission is a cell that participates in the multi-flow transmission before the terminal receives the RRC reconfiguration message, keeping, by the terminal, an activated or deactivated state of the secondary cell unchanged; and, if the secondary cell that participates in the multi-flow transmission is not a cell that participates in the multi-flow transmission before the terminal receives the RRC reconfiguration message, activating the secondary cell.

9. The method for controlling cell activation according to claim 8, wherein the RRC reconfiguration message carries identification information of cells that participate in the multi-flow transmission.

10. The method for controlling cell activation according to claim 8, wherein the RRC reconfiguration message carries cell identification information for serving cell change.

11. A method for controlling cell activation, comprising:

receiving, by a terminal, a radio resource control RRC reconfiguration message, wherein the RRC reconfiguration message carries state control indication information; and

according to the RRC reconfiguration message, if a secondary cell that participates in multi-flow transmission is a cell that participates in the multi-flow transmission before the terminal receives the RRC reconfiguration message, and the state control indication information is keeping the state, keeping, by the terminal, an activated or deactivated state of the secondary cell unchanged; and, if the secondary cell that participates in the multi-flow transmission is not a cell that participates in the multi-flow transmission before the terminal receives the RRC reconfiguration message, or the state control indication information is not keeping the state, activating the secondary cell.

12. The method for controlling cell activation according to claim 11, wherein the RRC reconfiguration message carries identification information of cells that participate in the multi-flow transmission.

13. The method for controlling cell activation according to claim 11, wherein the RRC reconfiguration message carries cell identification information for serving cell change.

14. The method for controlling cell activation according to claim 11, wherein there are multiple pieces of the state control indication information and multiple secondary cells, and each piece of the

state control indication information corresponds to one secondary cell.

15. A base station, comprising:

a receiving unit, configured to receive a radio resource control RRC reconfiguration message;
and

a control unit, connected to the receiving unit and configured to: according to the RRC reconfiguration message, if a secondary cell served by the base station participates in multi-flow transmission and is a cell that participates in the multi-flow transmission before the base station receives the RRC reconfiguration message, keep an activated or deactivated state of the secondary cell unchanged; and, if the secondary cell served by the base station participates in the multi-flow transmission but is not a cell that participates in the multi-flow transmission before the base station receives the RRC reconfiguration message, activate the secondary cell.

16. The base station according to claim 15, wherein the RRC reconfiguration message carries identification information of cells that participate in the multi-flow transmission.

17. The base station according to claim 15, wherein the RRC reconfiguration message carries cell identification information for serving cell change.

18. A base station, comprising:

a receiving unit, configured to receive a radio resource control RRC reconfiguration message, wherein the RRC reconfiguration message carries state control indication information; and

a control unit, connected to the receiving unit and configured to: according to the RRC reconfiguration message, if a secondary cell served by the base station participates in multi-flow transmission and is a cell that participates in the multi-flow transmission before the base station receives the RRC reconfiguration message, and the state control indication information is keeping the state, keep an activated or deactivated state of the secondary cell unchanged; and, if the secondary cell served by the base station participates in the multi-flow transmission but is not a cell that participates in the multi-flow transmission before the base station receives the RRC reconfiguration message, or the state control indication information is not keeping the state, activate the secondary cell.

19. The base station according to claim 18, wherein the RRC reconfiguration message carries identification information of cells that participate in the multi-flow transmission.

20. The base station according to claim 18, wherein the RRC reconfiguration message carries cell identification information for serving cell change.

21. The method for controlling cell activation according to claim 18, wherein there are multiple pieces of the state control indication information and multiple secondary cells, and each piece of the state control indication information corresponds to one secondary cell.

22. A terminal, comprising:

a receiving unit, configured to receive a radio resource control RRC reconfiguration message;
and

a control unit, connected to the receiving unit and configured to: according to the RRC reconfiguration message, if a secondary cell that participates in multi-flow transmission is a cell that participates in the multi-flow transmission before the terminal receives the RRC reconfiguration message, keep an activated or deactivated state of the secondary cell unchanged; and, if the secondary cell that participates in the multi-flow transmission is not a cell that participates in the multi-flow transmission before the terminal receives the RRC reconfiguration message, activate the secondary cell.

23. The terminal according to claim 22, wherein the RRC reconfiguration message carries identification information of cells that participate in the multi-flow transmission.

24. The terminal according to claim 22, wherein the RRC reconfiguration message carries cell identification information for serving cell change.

25. A terminal, comprising:

a receiving unit, configured to receive a radio resource control RRC reconfiguration message, wherein the RRC reconfiguration message carries state control indication information; and

a control unit, connected to the receiving unit and configured to: according to the RRC reconfiguration message, if a secondary cell that participates in multi-flow transmission is a cell that participates in the multi-flow transmission before the terminal receives the RRC reconfiguration message, and the state control indication information is keeping the state, keep an activated or deactivated state of the secondary cell unchanged; and, if the secondary cell that participates in the multi-flow transmission is not a cell that participates in the multi-flow transmission before the terminal receives the RRC reconfiguration message, or the state control indication information is not keeping the state, activate the secondary cell.

26. The terminal according to claim 25, wherein the RRC reconfiguration message carries identification information of cells that participate in the multi-flow transmission.

27. The terminal according to claim 25, wherein the RRC reconfiguration message carries cell identification information for serving cell change.

28. The terminal according to claim 25, wherein there are multiple pieces of the state control indication information and multiple secondary cells, and each piece of the state control indication information corresponds to one secondary cell.

CLAIMS

1. A method for controlling cell activation, comprising:
receiving, by a base station, a radio resource control, RRC, reconfiguration message; and
according to the RRC reconfiguration message, if a secondary cell served by the base station participates in multi-flow transmission and is a cell that participates in the multi-flow transmission before the base station receives the RRC reconfiguration message, keeping, by the base station, an activated or deactivated state of the secondary cell unchanged; and, if the secondary cell served by the base station participates in the multi-flow transmission but is not a cell that participates in the multi-flow transmission before the base station receives the RRC reconfiguration message, activating the secondary cell.
2. The method for controlling cell activation according to claim 1, wherein the RRC reconfiguration message carries identification information of cells that participate in the multi-flow transmission.
3. The method for controlling cell activation according to claim 1, wherein the RRC reconfiguration message carries cell identification information for serving cell change.
4. A method for controlling cell activation, comprising:
receiving, by a terminal, a radio resource control, RRC, reconfiguration message; and
according to the RRC reconfiguration message, if a secondary cell that participates in multi-flow transmission is a cell that participates in the multi-flow transmission before the terminal receives the RRC reconfiguration message, keeping, by the terminal, an activated or deactivated state of the secondary cell unchanged; and, if the secondary cell that participates in the multi-flow transmission is not a cell that participates in the multi-flow transmission before the terminal receives the RRC reconfiguration message, activating the secondary cell.
5. The method for controlling cell activation according to claim 4, wherein the RRC reconfiguration message carries identification information of cells that participate in the multi-flow transmission.
6. The method for controlling cell activation according to claim 4, wherein the RRC reconfiguration message carries cell identification information for serving cell change.
7. A base station, comprising:
a receiving unit, configured to receive a radio resource control, RRC, reconfiguration message;
and
a control unit, connected to the receiving unit and configured to: according to the RRC

reconfiguration message, if a secondary cell served by the base station participates in multi-flow transmission and is a cell that participates in the multi-flow transmission before the base station receives the RRC reconfiguration message, keep an activated or deactivated state of the secondary cell unchanged; and, if the secondary cell served by the base station participates in the multi-flow transmission but is not a cell that participates in the multi-flow transmission before the base station receives the RRC reconfiguration message, activate the secondary cell.

8. The base station according to claim 7, wherein the RRC reconfiguration message carries identification information of cells that participate in the multi-flow transmission.

9. The base station according to claim 7, wherein the RRC reconfiguration message carries cell identification information for serving cell change.

10. A terminal, comprising:

a receiving unit, configured to receive a radio resource control, RRC, reconfiguration message; and

a control unit, connected to the receiving unit and configured to: according to the RRC reconfiguration message, if a secondary cell that participates in multi-flow transmission is a cell that participates in the multi-flow transmission before the terminal receives the RRC reconfiguration message, keep an activated or deactivated state of the secondary cell unchanged; and, if the secondary cell that participates in the multi-flow transmission is not a cell that participates in the multi-flow transmission before the terminal receives the RRC reconfiguration message, activate the secondary cell.

11. The terminal according to claim 10, wherein the RRC reconfiguration message carries identification information of cells that participate in the multi-flow transmission.

12. The terminal according to claim 10, wherein the RRC reconfiguration message carries cell identification information for serving cell change.