CLAIMS

WHAT IS CLAIMED IS:

1. A method, ~~for performing network configuration on apparatus,~~ comprising:

connecting, by an apparatus, to a network configuration hotspot provided by a router;

sending first apparatus information of the apparatus to a server through the network configuration hotspot;

receiving a hotspot switching command sent by the server according to the first apparatus information, wherein the hotspot switching command includes hotspot information of an online hotspot; and

connecting to the online hotspot based on the hotspot switching command when a designated network configuration condition is met.

2. The method according to claim 1, wherein connecting, by the apparatus, to the network configuration hotspot provided by the router comprises:

obtaining a network configuration hotspot list, wherein the network configuration hotspot list includes at least one network configuration hotspot and/or signal strength of the network configuration hotspot;

connecting to the network configuration hotspot with the strongest signal strength; and

when the connecting fails, connecting to the network configuration hotspot with a second strongest signal strength until the connecting to the network configuration hotspot succeeds.

3. The method according to claim 2, wherein sending first apparatus information of the apparatus to the server through the network configuration hotspot comprises:

sending a connection request to the server through the network configuration hotspot to establish a secure connection between the apparatus and the server;

obtaining the first apparatus information of the apparatus; and

sending the first apparatus information and the network configuration hotspot list to the server.

4. The method according to claim 1~~ or 2 or 3~~, wherein before receiving the hotspot switching command sent by the server, the method further comprises:

entering a network configuration mode when a touch operation of a user is detected.~~, entering a network configuration mode.~~

5. The method according to claim 4, wherein the designated network configuration condition at least includes the following condition:

the apparatus entering the network configuration mode, and duration of entering the network configuration mode does not exceed a preset duration.

6. The method according to claim 1, further comprising:

generating network configuration error information when the designated network configuration condition is not met; and

sending the network configuration error information to the server.

7. The method according to claim 1, wherein after connecting to the online hotspot based on the hotspot switching command when the designated network configuration condition is met, the method further comprises:

obtaining second apparatus information of the apparatus; and

announcing the second apparatus information to the outside locally, and/or establishing a secure connection with the server based on the online hotspot, and sending the second apparatus information to the server.

8. One or more computer-readable media, stored thereon computer-readable instructions that, when executed by one or more processors, cause the one or more processors to perform acts~~A method for performing network configuration on apparatus,~~ comprising:

determining, by a network configuration application, a target network configuration apparatus, wherein the target network configuration apparatus connects to a network configuration hotspot provided by a router in advance and sends first apparatus information of the target network configuration apparatus to a server;

generating a network configuration request based on the first apparatus information and hotspot information of a currently connected online hotspot; and

sending the network configuration request to the server to request the server to perform network configuration on the apparatus according to the hotspot information of the online hotspot.

9. The one or more computer-readable media~~method~~ according to claim 8, wherein after sending the network configuration request to the server to request the server to perform the network configuration on the apparatus according to the hotspot information of the online hotspot, the ~~method~~acts further comprises:

receiving network configuration response information returned by the server based on the network configuration request, wherein the network configuration response information includes network configuration approval information, and the network configuration approval information includes instruction information of user touch operation;

displaying the network configuration approval information;

upon determining that a user performs a touch operation based on the network configuration approval information, generating network configuration preparation information; and

sending the network configuration preparation information to the server to notify the server to perform the network configuration on the apparatus.

10. The one or more computer-readable media~~method~~ according to claim 9, wherein the network configuration response information further includes network configuration rejection information, and the method further comprises:

displaying the network configuration rejection information to prompt the user to prohibit operating the apparatus.

11. The ~~method~~one or more computer-readable media according to any one of claims 8~~ to 10~~, wherein before determining by the network configuration application the target network configuration apparatus, the method further comprises:

connecting, by the network configuration application, to the online hotspot of the router and establishing a secure connection with the server.

12. The ~~method~~one or more computer-readable media according to claim 11, wherein determining, by the network configuration application, the target network configuration apparatus comprises:

determining the hotspot information of the online hotspot;

obtaining a to-be-network-configured apparatus list from the server side based on the hotspot information, the to-be-network-configured apparatus list including one or more apparatus to be network-configured, and first apparatus information of the apparatus;

displaying the to-be-network-configured apparatus list; and

setting the apparatus selected by a user in the to-be-network-configured apparatus list as the target network configuration apparatus.

13. The ~~method~~one or more computer-readable media according to claim 8, the acts further comprising:

obtaining second apparatus information of the apparatus, wherein the second apparatus information is apparatus information after the network configuration of the apparatus succeeds;

determining that the network configuration of the apparatus succeeds based on the second apparatus information; and

generating network configuration success information, and displaying the network configuration success information.

14. The ~~method~~one or more computer-readable media according to claim 13, wherein obtaining the second apparatus information of the apparatus comprises:

receiving the second apparatus information broadcast by the apparatus; or

~~or~~ broadcasting a query request in local, and receiving the second apparatus information returned by the apparatus based on the query request.

15. The one or more computer-readable media~~method~~ according to claim 13, further comprising:

generating a binding request based on the second apparatus information;

sending the binding request to the server to request the server to bind the second apparatus information and a corresponding apparatus; and

receiving a binding result returned by the server based on the binding request.

~~16. A method for performing network configuration on apparatus, comprising:~~

~~receiving a network configuration request sent by a network configuration application, wherein the network configuration request includes hotspot information of an online hotspot;~~

~~generating a hotspot switching command based on the network configuration request; and~~

~~sending the hotspot switching command to an apparatus needing network configuration through a network configuration hotspot, to make the apparatus switch a hotspot that the apparatus currently connects to from the network configuration hotspot to the online hotspot.~~

~~17. The method according to claim 16, wherein before sending the hotspot switching command to the apparatus needing network configuration through the network configuration hotspot, the method further comprises:~~

~~establishing, by a server, a secure connection with the apparatus needing network configuration through the network configuration hotspot of a router;~~

~~receiving first apparatus information sent by the apparatus and a network configuration hotspot list obtained by the apparatus;~~

generating an association relationship between the first apparatus information and the network configuration hotspot list; and

saving the first apparatus information, the network configuration hotspot list, and the association relationship.

18. The method according to claim 16 or 17, wherein each network configuration hotspot in the network configuration hotspot list includes a basic service set identifier BSSID;

before receiving the network configuration request sent by the network configuration application, the method further comprises:

establishing a secure connection with the network configuration application through the online hotspot of a router;

receiving the hotspot information of the online hotspot sent by the network configuration application, wherein the hotspot information of the online hotspot includes the BSSID of the online hotspot;

matching the BSSID of the online hotspot with BSSIDs in the network configuration hotspot list corresponding to all apparatuses stored in the server to obtain a to-be-network-configured apparatus list; and

sending the to-be-network-configured apparatus list to be configured to the network configuration application.

19. The method according to claim 16, wherein after receiving the network configuration request sent by the network configuration application, the method further comprises:

~~serializing all network configuration requests received for the same apparatus;~~

~~processing the network configuration requests for the same apparatus one by one according to a preset processing sequence; and~~

~~during the processing, when a certain network configuration request is approved, temporarily storing or rejecting other network configuration requests for the same apparatus within a preset duration for processing the network configuration request until the approved network configuration request is processed or timed out.~~

~~20. The method according to claim 19, wherein generating the hotspot switching command based on the network configuration request comprises:~~

~~generating network configuration approval information when the network configuration request is approved, wherein the network configuration approval information includes instruction information of user touch operation, and the network configuration approval information is configured to prompt the user to perform a touch operation on the apparatus;~~

~~generating a network configuration rejection information when the network configuration request is rejected, wherein the network configuration rejection information is configured to prompt the user to prohibit operating the apparatus;~~

~~generating network configuration response information based on the network configuration approval information or the network configuration~~

~~rejection information, and sending the network configuration response information to the network configuration application;~~

~~receiving network configuration preparation information sent by the network configuration application based on the network configuration approval information, wherein the network configuration preparation information is information generated after the network configuration application determining that the user performs the touch operation based on the network configuration approval information; and~~

~~generating the hotspot switching command according to the network configuration preparation information.~~

~~21. The method according to claim 16, wherein after sending the hotspot switching command to the apparatus, the method further comprises:~~

~~receiving network configuration error information sent by the apparatus, wherein the network configuration error information is information generated when the apparatus determines that a designated network configuration condition is not met after receiving the hotspot switching command.~~

~~22. The method according to claim 16, wherein after sending the hotspot switching command to the apparatus, the method further comprises:~~

~~determining that the network configuration of apparatus succeeds when second apparatus information sent by the apparatus is received;~~

~~receiving a binding request sent by the network configuration application, wherein the binding request includes second apparatus information of the apparatus; and~~

upon determining that the second apparatus information sent by the apparatus is consistent with the second apparatus information sent by the network configuration application, generating a binding relationship between the second apparatus information and the apparatus, and returning a binding result to the network configuration application.

23. A method for performing network configuration on apparatus, comprising:

intercepting a connection request sent by an apparatus to a corresponding server when a router detects that the apparatus is connected to a network configuration hotspot of the router;

determining whether a server corresponding to the connection request meets a preset condition; and

when the server meets the preset condition, sending the connection request to the server to make the server establish a secure connection with the apparatus and perform network configuration on the apparatus.

24. The method according to claim 23, further comprising:

discarding the connection request when the server does not meet the preset condition.

25. The method according to claim 23 or 24, wherein determining whether the server corresponding to the connection request meets the preset condition comprises:

determining vendor information of the server corresponding to the connection request;

~~determining whether a vendor corresponding to the vendor information pays for a current network configuration service;~~

~~if yes, determining that the server corresponding to the connection request meets the preset condition; and~~

~~if not, determining that the server corresponding to the connection request does not meet the preset condition.~~

~~26. The method according to claim 23, wherein before intercepting the connection request sent by the apparatus to the corresponding server when the router detects that the apparatus is connected to the network configuration hotspot of the router, the method further comprises:~~

~~after the router is powered on, turning on the network configuration hotspot, and setting the network configuration hotspot as a hidden hotspot.~~

~~27~~16. An apparatus ~~for network configuration,~~ comprising:

one or more processors; and

memory communicatively coupled to the one or more processors, the memory storing computer-executable modules executable by the one or more processors, the computer-executable modules including:

a network configuration hotspot connection module, configured to connect to a network configuration hotspot provided by a router;

a first apparatus information sending module, configured to send a first apparatus information of the apparatus to a server through the network configuration hotspot;

a hotspot switching command receiving module, configured to receive a hotspot switching command sent by the server according to the first apparatus information, the hotspot switching command including hotspot information of an online hotspot; and

a hotspot switching module, configured to connect to the online hotspot based on the hotspot switching command when a designated network configuration condition is met.

17. The apparatus according to claim 16, wherein the network configuration hotspot connection module includes:

a network configuration hotspot list obtaining sub-module, configured to obtain a network configuration hotspot list, wherein the network configuration hotspot list includes at least one network configuration hotspot and/or signal strength of the network configuration hotspot; and

a network configuration hotspot connection sub-module, configured to connect to the network configuration hotspot with the strongest signal strength; and when the connecting fails, connect to the network configuration hotspot with a second strongest signal strength until the connecting to the network configuration hotspot succeeds.

18. The apparatus according to claim 17, the first apparatus information sending module includes:

a secure connection establishment sub-module, configured to send a connection request to the server through the network configuration hotspot to establish a secure connection with the apparatus and the server;

a first apparatus information obtaining sub-module, configured to obtain the first apparatus information of the apparatus; and

a first apparatus information sending sub-module, configured to send the first apparatus information and the network configuration hotspot list to the server.

19. The apparatus according to claim 16, the computer-executable modules further comprising:

a network configuration mode module, configured to enter a network configuration mode when a touch operation of a user is detected.

20. The apparatus according to claim 19, wherein the designated network configuration conditions include at least the following condition:

the apparatus entering the network configuration mode, and duration of entering the network configuration mode does not exceed a preset duration.

~~28. A terminal for performing network configuration on apparatus, comprising:~~

~~a target network configuration apparatus determining module, configured to determine a target network configuration apparatus by using a network configuration application, wherein the target network configuration apparatus connects to a network configuration hotspot provided by a router in advance and sends first apparatus information of the target network configuration apparatus to a server;~~

~~a network configuration request generating module, configured to generate a network configuration request based on the first apparatus information and hotspot information of a currently connected online hotspot; and~~

~~a network configuration request sending module, configured to send a network configuration request to the server to request the server to perform network configuration on the apparatus according to the hotspot information of the online hotspot.~~

~~29. A server for performing network configuration on apparatus, comprising:~~

~~a network configuration request receiving module, configured to receive a network configuration request sent by a network configuration application, wherein the network configuration request includes hotspot information of an online hotspot;~~

~~a hotspot switching command generating module, configured to generate a hotspot switching command based on the network configuration request; and~~

~~a hotspot switching command sending module, configured to send the hotspot switching command to an apparatus needing network configuration through a network configuration hotspot to make the apparatus switch a hotspot that the apparatus connects to from the network configuration hotspot to the online hotspot.~~

~~30. A router that performs network configuration on apparatus, comprising:~~

~~a connection request interception module, configured to intercept a connection request sent by an apparatus to a corresponding server when a router detects that the apparatus connects to a network configuration hotspot of the router;~~

~~a determining module, configured to determine whether a server corresponding to the connection request meets a preset condition; and~~

~~a connection request sending module, configured to send the connection request to the server when the server meets the preset condition to make the server establish a secure connection with the apparatus, and perform network configuration on the apparatus.~~

~~31. A network configuration system, comprising: the apparatus according to claim 27, the terminal according to claim 28, the server according to claim 29, and the router according to claim 30.~~

~~32. A system, comprising:~~

~~one or more processors; and~~

~~one or more machine-readable media with instructions stored thereon, when executed by the one or more processors, causing the system to execute the method for performing network configuration on apparatus according to one or more of claims 1-7 and/or claims 8-15 and/or claims 16-22 and/or claims 23-26.~~

~~33. One or more machine-readable media having instructions stored thereon, when executed by one or more processors, causing the one or more processors to execute the method for performing network configuration on apparatus according to one or more of claims 1-7 and/or claims 8-15 and/or claims 16-22 and/or claims 23-26.~~