## CLAIMS

amend1. A method for configuring communication between a virtual private cloud ,VPC, and an on-premises data center, wherein a first virtual private cloud VPC and a subnet of the on-premises data center that have a same private network address segment communicate with each other by using an enterprise internal network, and a private network address segment of the enterprise internal network is different from private network address segments of the first VPC and the subnet; and the method comprises:

binding a private network address in the first VPC with a first address, and binding a private network address in the subnet with a second address, wherein the first address and the second address are addresses that belong to the private network address segment of the enterprise internal network, and the first address is different from the second address; and

configuring a source address of a packet sent by the first VPC to the subnet from the private network address in the first VPC to the first address, and configuring a destination address of the packet from the second address to the private network address in the subnet.

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

configuring a remote connection gateway on the enterprise internal network, wherein the remote connection gateway is remotely connected to the subnet; and

configuring a routing rule on the enterprise internal network, wherein the routing rule on the enterprise internal network comprises: forwarding a packet whose destination address is the first address to the first VPC, and forwarding a packet whose destination address is the private network address in the subnet to the remote connection gateway.

3. The method according to claim 2, further comprising:

configuring a network address translation NAT gateway on the first VPC, wherein a private network address of the NAT gateway is configured as the first address, and a private network address of the remote connection gateway is configured as the second address; and

the binding a private network address in the first VPC with a first address, and binding a private network address in the subnet with a second address comprises: configuring a first packet processing rule and a second packet processing rule on the NAT gateway, wherein the first packet processing rule comprises: translating a source address of an outbound packet from the private network address in the first VPC into the first address, translating a destination address of the

outbound packet from the second address into the private network address in the subnet, and sending a modified outbound packet to a router of the enterprise internal network; and the second packet processing rule comprises: modifying a source address of an inbound packet from the private network address in the subnet into the second address, translating a destination address of the inbound packet from the first address into the private network address in the first VPC, and sending a modified inbound packet to a router of the first VPC.

4. The method according to claim 3, further comprising:

configuring a routing rule on the router of the first VPC, wherein the routing rule on the router of the first VPC comprises: forwarding a packet whose destination address is the second address to the NAT gateway, and forwarding a packet whose destination address is the private network address in the first VPC to a subnet of the first VPC.

5. A method for configuring communication between a virtual private cloud VPC and an on-premises data center, wherein a first virtual private cloud VPC and a subnet of the on-premises data center that have a same private network address segment communicate with each other by using an enterprise internal network, and a private network address segment of the enterprise internal network is different from private network address segments of the first VPC and the subnet; and the method comprises:

configuring a network address translation NAT gateway on the first VPC, and configuring a remote connection gateway on the enterprise internal network, wherein a first address is configured for the NAT gateway, a second address is configured for the remote connection gateway, the first address and the second address belong to the private network address segment of the enterprise internal network, and the first address is different from the second address; and

configuring a first packet processing rule and a second packet processing rule on the NAT gateway, wherein the first packet processing rule comprises: translating a source address of an outbound packet from a private network address in the first VPC into the first address, translating a destination address of the outbound packet from the second address into a private network address in the subnet, and sending a modified outbound packet to a router of the enterprise internal network; and the second packet processing rule comprises: modifying a source address of an inbound packet from the private network address in the subnet into the second address, translating a destination address of the inbound packet from the first address into the private network address in the first VPC, and sending a modified inbound packet to a router of the first VPC.

6. The method according to claim 5, further comprising: configuring a connection between the NAT gateway and the enterprise internal network, and configuring a remote connection between the remote connection gateway and the subnet of the on-premises data center.

7. A method for communication between a virtual private cloud VPC and an on-premises data center, wherein a first virtual private cloud VPC and a subnet of the on-premises data center that have a same private network address segment communicate with each other by using an enterprise internal network, and a private network address segment of the enterprise internal network is different from private network address segments of the first VPC and the subnet; and the method comprises:

sending, by the first VPC, a packet, wherein a source address of the packet is a first address, a destination address of the packet is a private network address in the subnet, a private network address in the first VPC is bound with the first address, and the first address is an address that belongs to the private network address segment of the enterprise internal network; and

receiving, by the enterprise internal network, the packet, and forwarding the packet to the private network address in the subnet according to a preset routing rule, wherein a routing rule on the enterprise internal network comprises: forwarding a packet whose destination address is the private network address in the subnet to the subnet, wherein the enterprise internal network is remotely connected to the subnet.

8. The method according to claim 7, wherein the routing rule further comprises: forwarding a packet whose destination address is the first address to the first VPC; and

the method further comprises:

sending, by the subnet, a response packet to the enterprise internal network, wherein a source address of the response packet is the private network address in the subnet, and a destination address of the response packet is the first address; and

receiving, by the enterprise internal network, the response packet, and forwarding the response packet to the first VPC according to the routing rule.

9. A method for communication between a virtual private cloud VPC and an on-premises data center, wherein a first virtual private cloud VPC and a subnet of the on-premises data center that have a same private network address segment communicate with each other by using a enterprise internal network, a private network address segment of the enterprise internal network is different from private network address segments of the first VPC and the subnet, a network address

translation NAT gateway is configured on the first VPC, a remote connection gateway is configured on the enterprise internal network, a first address is configured for the NAT gateway, a second address is configured for the remote connection gateway, both the first address and the second address belong to the private network address segment of the enterprise internal network, the first address is different from the second address, and the remote connection gateway is remotely connected to the subnet; and the method comprises:

receiving, by a router of the first VPC, a packet sent by a first virtual machine of the first VPC, wherein a source address of the packet is a private network address of the first virtual machine, and a destination address of the packet is the second address;

forwarding, by the router of the first VPC, the packet to the NAT gateway according to a first routing rule; and

modifying, by the NAT gateway, the source address of the packet into the first address, modifying the destination address of the packet into a private network address of a second device in the subnet, and forwarding a modified packet to a router of the enterprise internal network, wherein a second routing rule is configured on the router of the enterprise internal network, the first routing rule comprises: a packet whose destination address belongs to the private network address segment of the enterprise internal network needs to be forwarded to the NAT gateway, and the second routing rule comprises: a packet whose destination address belongs to the private network address segment of the subnet needs to be forwarded to the remote connection gateway of the enterprise internal network.

10. The method according to claim 9, further comprising:

sending, by the router of the enterprise internal network, the received packet to the remote connection gateway according to the second routing rule; and

receiving, by the remote connection gateway, the packet, and sending the packet to the subnet.

11. An apparatus for configuring communication between a virtual private cloud VPC and an on-premises data center, wherein a first virtual private cloud ,VPC, and a subnet of the on-premises data center that have a same private network address segment communicate with each other by using an enterprise internal network, and a private network address segment of the enterprise internal network is different from private network address segments of the first VPC and the subnet; and the apparatus comprises:

an address binding module(601), configured to: bind a private network address in the first

VPC with a first address, and bind a private network address in the subnet with a second address, wherein the first address and the second address are addresses that belong to the private network address segment of the enterprise internal network, and the first address is different from the second address; and

an address configuration module(603), configured to: configure a source address of a packet sent by the first VPC to the subnet from the private network address in the first VPC to the first address, and configure a destination address of the packet from the second address to the private network address in the subnet.

12. The apparatus according to claim 11, further comprising a gateway configuration module(602) and a routing rule configuration module(604), wherein

the gateway configuration module(602) is configured to configure a remote connection gateway on the enterprise internal network, wherein the remote connection gateway is remotely connected to the subnet; and

the routing rule configuration module(604) is configured to configure a routing rule on the enterprise internal network, wherein the routing rule on the enterprise internal network comprises: forwarding a packet whose destination address is the first address to the first VPC, and forwarding a packet whose destination address is the private network address in the subnet to the remote connection gateway.

13. The apparatus according to claim 12, wherein

the gateway configuration module is further configured to configure a network address translation NAT gateway on the first VPC, wherein a private network address of the NAT gateway is configured as the first address, and a private network address of the remote connection gateway is configured as the second address; and

the address binding module is further configured to configure a first packet processing rule and a second packet processing rule on the NAT gateway, wherein the first packet processing rule comprises: translating a source address of an outbound packet from a private network address in the first VPC into the first address, translating a destination address of the outbound packet from the second address into a private network address in the subnet, and sending a modified outbound packet to a router of the enterprise internal network; and the second packet processing rule comprises: modifying a source address of an inbound packet from the private network address in the subnet into the second address, translating a destination address of the inbound packet from

the first address into the private network address in the first VPC, and sending a modified inbound packet to a router of the first VPC.

14. The apparatus according to claim 13, wherein

the routing rule configuration module is further configured to configure a routing rule on the router of the first VPC, wherein the routing rule on the router of the first VPC comprises: forwarding a packet whose destination address is the second address to the NAT gateway, and forwarding a packet whose destination address is the private network address in the first VPC to a subnet of the first VPC.

15. An apparatus for configuring communication between a virtual private cloud VPC and an on-premises data center, wherein a first virtual private cloud ,VPC, and a subnet of the on-premises data center that have a same private network address segment communicate with each other by using a enterprise internal network, and a private network address segment of the enterprise internal network is different from private network address segments of the first VPC and the enterprise internal network; and the apparatus comprises:

a gateway configuration module, configured to: configure a NAT gateway on the first VPC, and configure a remote connection gateway on the enterprise internal network;

an address configuration module, configured to: configure a first address for the NAT gateway, and configure a second address for the remote connection gateway, wherein the first address and the second address belong to the private network address segment of the enterprise internal network, and the first address is different from the second address; and

an address binding module, configured to configure a first packet processing rule and a second packet processing rule on the NAT gateway, wherein the first packet processing rule comprises: translating a source address of an outbound packet from a private network address in the first VPC into the first address, translating a destination address of the outbound packet from the second address into a private network address in the subnet, and sending a modified outbound packet to a router of the enterprise internal network; and the second packet processing rule comprises: modifying a source address of an inbound packet from the private network address in the subnet into the second address, translating a destination address of the inbound packet from the first address into the private network address in the first VPC, and sending a modified inbound packet to a router of the first VPC.

16. The apparatus according to claim 15, wherein

the gateway configuration module is further configured to: configure a connection between the NAT gateway and the enterprise internal network, and configure a remote connection between the remote connection gateway and the subnet of the on-premises data center.

17. A system for communication between a virtual private cloud VPC and an on-premises data center, comprising a first VPC and a enterprise internal network, wherein the first VPC and a subnet of the on-premises data center that have a same private network address segment communicate with each other by using the enterprise internal network, and a private network address segment of the enterprise internal network is different from private network address segments of the first VPC and the subnet, wherein

the first VPC sends a packet, wherein a source address of the packet is a first address, a destination address of the packet is a private network address in the subnet, a private network address in the first VPC is bound with the first address, and the first address is an address that belongs to the private network address segment of the enterprise internal network; and

the enterprise internal network receives the packet, and forwards the packet to the private network address in the subnet according to a preset routing rule, wherein a routing rule on the enterprise internal network comprises: forwarding a packet whose destination address is the private network address in the subnet to the subnet, wherein the enterprise internal network is remotely connected to the subnet.

18. The system according to claim 17, wherein the routing rule further comprises: forwarding a packet whose destination address is the first address to the first VPC;

the enterprise internal network receives a response packet sent by the subnet, wherein a source address of the response packet is the private network address in the subnet, and a destination address of the response packet is the first address; and

the enterprise internal network forwards the response packet to the first VPC according to the routing rule.

19. A system for communication between a virtual private cloud VPC and an on-premises data center, comprising a first VPC and a enterprise internal network, wherein the first VPC and a subnet of the on-premises data center that have a same private network address segment communicate with each other by using the enterprise internal network, a private network address segment of the enterprise internal network is different from private network address segments of the first VPC and the subnet, a network address translation NAT gateway is configured on the first

VPC, a remote connection gateway is configured on the enterprise internal network, a first address is configured for the NAT gateway, a second address is configured for the remote connection gateway, both the first address and the second address belong to the private network address segment of the enterprise internal network, the first address is different from the second address, and the remote connection gateway is remotely connected to the subnet, wherein

a router of the first VPC receives a packet sent by a first virtual machine of the first VPC, wherein a source address of the packet is a private network address of the first virtual machine, and a destination address of the packet is the second address;

the router of the first VPC forwards the packet to the NAT gateway according to a first routing rule; and

the NAT gateway modifies the source address of the packet into the first address, modifies the destination address of the packet into a private network address of a second device in the subnet, and forwards a modified packet to a router of the enterprise internal network, wherein a second routing rule is configured on the router of the enterprise internal network, the first routing rule comprises: a packet whose destination address belongs to the private network address segment of the enterprise internal network needs to be forwarded to the NAT gateway, and the second routing rule comprises: a packet whose destination address belongs to the private network address segment of the subnet needs to be forwarded to the remote connection gateway of the enterprise internal network.

20. The system according to claim 19, wherein

the router of the enterprise internal network further sends the received packet to the remote connection gateway according to the second routing rule; and

the remote connection gateway receives the packet, and sends the packet to the subnet.