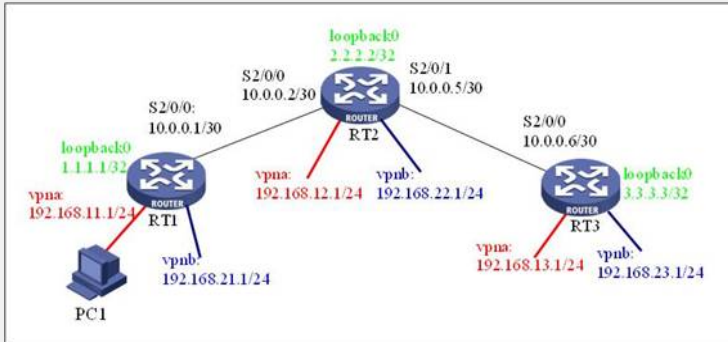


AR28/AR46系列路由器多角色主机典型配置

【需求】

属于vpna的PC1（192.168.11.2）既可以访问vpna又可以访问vpnb。

【组网图】



【配置脚本】

RT1配置脚本

```

#
sysname RT1
#
router id 1.1.1.1
#
mpls lsr-id 1.1.1.1
#
radius scheme system
#
mpls
#
mpls ldp
#
ip vpn-instance vpna
route-distinguisher 100:1
vpn-target 100:1 export-extcommunity
vpn-target 100:1 import-extcommunity
#
ip vpn-instance vpb
route-distinguisher 200:1
vpn-target 200:1 export-extcommunity
vpn-target 200:1 import-extcommunity
#
domain system
#
acl number 3000 /指定多角色主机的地址，用于策略路由中使用/
rule 0 permit ip vpn-instance vpna source 192.168.11.2 0
#
interface Ethernet1/0/0
ip binding vpn-instance vpna
ip address 192.168.11.1 255.255.255.0
ip policy route-policy multi-role
/在接口上应用策略路由，实现多角色主机功能/
#
interface Serial2/0/0
link-protocol ppp
ip address 10.0.0.1 255.255.255.252
mpls
mpls ldp enable
#
interface NULL0
#
interface LoopBack0
ip address 1.1.1.1 255.255.255.255
#
interface LoopBack21
ip binding vpn-instance vpb
ip address 192.168.21.1 255.255.255.0
#
bgp 100
undo synchronization
group inter internal
peer 2.2.2.2 group inter
peer 2.2.2.2 connect-interface LoopBack0
#
ipv4-family vpn-instance vpna
import-route direct
undo synchronization
#
ipv4-family vpn-instance vpb
import-route direct
import-route static /在vpnb中引入静态路由/
undo synchronization
#
ipv4-family vpv4
peer inter enable
peer 2.2.2.2 group inter
#
ospf 1
area 0.0.0.0
network 1.1.1.1 0.0.0.0
network 10.0.0.0 0.0.0.3
#
route-policy multi-role permit node 10
/定义策略路由，实现多角色主机在vpnb中查找路由/
if-match acl 3000 /引用ACL 3000/
apply access-vpn vpn-instance vpb /实现多角色主机在vpnb中查找路由/
#
ip route-static vpn-instance vpb 192.168.11.2 255.255.255.255 vpn-instance vpna 192.168.11.2 preference 60
/在vpnb中添加一条访问PC1的静态路由，保证vpnb的返回报文可以转发给PC1/
#
user-interface con 0
user-interface vty 0 4
#
return

```

```

#
sysname RT2
#
router id 2.2.2.2
#
mpls lsr-id 2.2.2.2
#
radius scheme system
#
mpls
#
mpls ldp
#
ip vpn-instance vpna
route-distinguisher 100:1
vpn-target 100:1 export-extcommunity
vpn-target 100:1 import-extcommunity
#
ip vpn-instance vpnb
route-distinguisher 200:1
vpn-target 200:1 export-extcommunity
vpn-target 200:1 import-extcommunity
#
domain system
#
interface Serial2/0/0
link-protocol ppp
ip address 10.0.0.2 255.255.255.252
mpls
mpls ldp enable
#
interface Serial2/0/1
link-protocol ppp
ip address 10.0.0.5 255.255.255.252
mpls
mpls ldp enable
#
interface NULL0
#
interface LoopBack0
ip address 2.2.2.2 255.255.255.255
#
interface LoopBack12
ip binding vpn-instance vpna
ip address 192.168.12.1 255.255.255.0
#
interface LoopBack22
ip binding vpn-instance vpnb
ip address 192.168.22.1 255.255.255.0
#
bgp 100
undo synchronization
group inter internal
peer inter reflect-client
peer 1.1.1.1 group inter
peer 1.1.1.1 connect-interface LoopBack0
peer 3.3.3.3 group inter
peer 3.3.3.3 connect-interface LoopBack0
#
ipv4-family vpn-instance vpna
import-route direct
undo synchronization
#
ipv4-family vpn-instance vpnb
import-route direct
undo synchronization
#
ipv4-family vpv4
peer inter enable
peer inter reflect-client
peer 1.1.1.1 group inter
peer 3.3.3.3 group inter
#
ospf 1
area 0.0.0.0
network 2.2.2.2 0.0.0.0
network 10.0.0.0 0.0.0.3
network 10.0.0.4 0.0.0.3
#
user-interface con 0
user-interface vty 0 4
#
return

```

```

#
sysname RT3
#
router id 3.3.3.3
#
mpls lsr-id 3.3.3.3
#
radius scheme system
#
mpls
#
mpls ldp
#
ip vpn-instance vpna
route-distinguisher 100:1
vpn-target 100:1 export-extcommunity
vpn-target 100:1 import-extcommunity
#
ip vpn-instance vpnb
route-distinguisher 200:1
vpn-target 200:1 export-extcommunity
vpn-target 200:1 import-extcommunity
#
domain system
#
interface Serial2/0/0
link-protocol ppp
ip address 10.0.0.6 255.255.255.252
mpls
mpls ldp enable
#
interface NULL0
#
interface LoopBack0
ip address 3.3.3.3 255.255.255.255
#
interface LoopBack13
ip binding vpn-instance vpna
ip address 192.168.13.1 255.255.255.0
#
interface LoopBack23
ip binding vpn-instance vpnb
ip address 192.168.23.1 255.255.255.0
#
bgp 100
undo synchronization
group inter internal
peer 2.2.2.2 group inter
peer 2.2.2.2 connect-interface LoopBack0
#
ipv4-family vpn-instance vpna
import-route direct
undo synchronization
#
ipv4-family vpn-instance vpnb
import-route direct
undo synchronization
#
ipv4-family vpnv4
peer inter enable
peer 2.2.2.2 group inter
#
ospf 1
area 0.0.0.0
network 3.3.3.3 0.0.0.0
network 10.0.0.4 0.0.0.3
#
user-interface con 0
user-interface vty 0 4
#
return

```

【验证】

RT1上vpnb的私网路由表：

```

disp ip rout vpn vpnb
vpnb Route Information

```

Routing Table: vpnb Route-Distinguisher: 200:1

Destination/Mask	Protocol	Pre	Cost	NextHop	Interface
192.168.11.2/32	STATIC	60	0	192.168.11.2	Ethernet1/0/0
192.168.21.0/24	DIRECT	0	0	192.168.21.1	LoopBack21
192.168.21.1/32	DIRECT	0	0	127.0.0.1	InLoopBack0
192.168.22.0/24	BGP	256	0	2.2.2.2	InLoopBack0
192.168.23.0/24	BGP	256	0	3.3.3.3	InLoopBack0

RT3上vpn的私网路由表:

```
disp ip rout vpn vpnb
```

```
vpn Route Information
```

```
Routing Table: vpn Route-Distinguisher: 200:1
```

Destination/Mask	Protocol	Pre	Cost	NextHop	Interface
192.168.11.2/32	BGP	256	0	1.1.1.1	InLoopBack0
192.168.21.0/24	BGP	256	0	1.1.1.1	InLoopBack0
192.168.22.0/24	BGP	256	0	2.2.2.2	InLoopBack0
192.168.23.0/24	DIRECT	0	0	192.168.23.1	LoopBack23
192.168.23.1/32	DIRECT	0	0	127.0.0.1	InLoopBack0

【提示】

- 1、多角色主机的配置都在和该主机相连的PE上完成。
- 2、当存在多个VPN时，可以使用apply access-vpn vpn-instance指定多个VPN，但是最多可以指定6个VPN。
- 3、通过配置静态路由和路由策略，使PC1访问不同VPN的报文在不同的VPN-instance中查找路由。