

MSR路由器 MPLS 多角色主机功能的配置

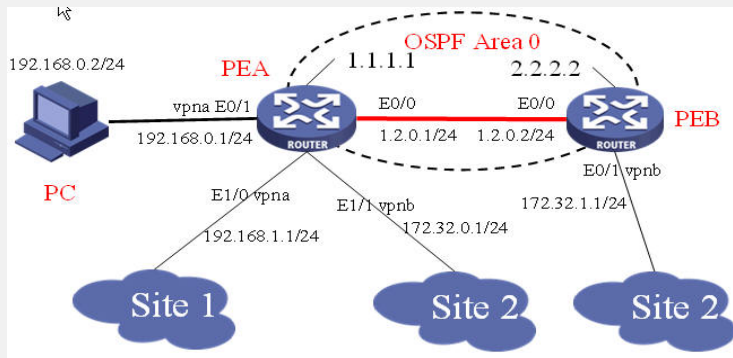
关键词: MSR;MPLS;L3VPN;多角色主机

一、组网需求:

PEA和PEB是VPN站点接入路由器。PEA和PEB建立MP-IBGP连接, 互相为VPN路由分发标签。PC为多角色主机, 可以访问vpna和vpnb。

设备清单: MSR路由器2台, 主机一台

二、组网图:



三、配置步骤:

适用设备和版本: MSR、Version 5.20, Beta 1105后所有版本。

PEA配置

```
#
router id 1.1.1.1
#
ip vpn-instance vpna
route-distinguisher 1:1
vpn-target 1:1 export-extcommunity
vpn-target 1:1 import-extcommunity
#
ip vpn-instance vpb
route-distinguisher 1:2
vpn-target 1:2 export-extcommunity
vpn-target 1:2 import-extcommunity
#
mpls lsr-id 1.1.1.1
#
mpls
#
mpls ldp
#
acl number 2000 //多角色主机的ACL
rule 0 permit vpn-instance vpna source 192.168.0.2 0
rule 5 deny
#
interface Ethernet0/0
port link-mode route
ip address 1.2.0.1 255.255.255.0
mpls
mpls ldp
#
interface Ethernet0/1
port link-mode route
ip binding vpn-instance vpna
ip address 192.168.0.1 255.255.255.0
```

```

ip policy-based-route multirole //绑定多角色策略路由
#
interface Ethernet1/0
port link-mode route
ip binding vpn-instance vpna
ip address 192.168.1.1 255.255.255.0
#
interface Ethernet1/1
port link-mode route
ip binding vpn-instance vpnb
ip address 172.32.0.1 255.255.255.0
#
interface LoopBack0
ip address 1.1.1.1 255.255.255.255
#
bgp 1
undo synchronization
peer 2.2.2.2 as-number 1
peer 2.2.2.2 connect-interface LoopBack0
#
ipv4-family vpnv4
peer 2.2.2.2 enable
#
ipv4-family vpn-instance vpna
import-route direct
#
ipv4-family vpn-instance vpnb
import-route direct
import-route static //引入vpnb的静态路由
#
ospf 1
area 0.0.0.0
network 1.1.1.1 0.0.0.0
network 1.2.0.0 0.0.0.255
#
policy-based-route multirole permit node 0 //多角色策略路由
if-match acl 2000
apply access-vpn vpn-instance vpna vpnb
#
ip route-static vpn-instance vpnb 192.168.0.2 255.255.255.255 vpn-instance vpna 19
2.168.0.2 //vpnb的静态路由
#
PEB配置:
#
router id 2.2.2.2
#
ip vpn-instance vpnb
route-distinguisher 2:2
vpn-target 1:2 export-extcommunity
vpn-target 1:2 import-extcommunity
#
mpls lsr-id 2.2.2.2
#
mpls
#
mpls ldp
#
interface Ethernet0/0
port link-mode route
ip address 1.2.0.2 255.255.255.0
mpls
mpls ldp
#
interface Ethernet0/1

```

```
port link-mode route
ip binding vpn-instance vpb
ip address 172.32.1.1 255.255.255.0
#
interface LoopBack0
ip address 2.2.2.2 255.255.255.255
#
bgp 1
undo synchronization
peer 1.1.1.1 as-number 1
peer 1.1.1.1 connect-interface LoopBack0
#
ipv4-family vpv4
peer 1.1.1.1 enable
#
ipv4-family vpn-instance vpb
import-route direct
#
ospf 1
area 0.0.0.0
network 2.2.2.2 0.0.0.0
network 1.2.0.0 0.0.0.255
#
```

四、配置关键点:

在MPLS L3VPN**正确**的基础上:

1. PEA上的ACL与普通的ACL不同, 需要指定vpn实例;
2. 需要定义策略路由;
3. 需要定义vpnb静态访问多角色主机的静态路由;
4. BGP还要引入静态路由。