MSR路由器MPLS L3VPN + OSPF多实例功能的配置
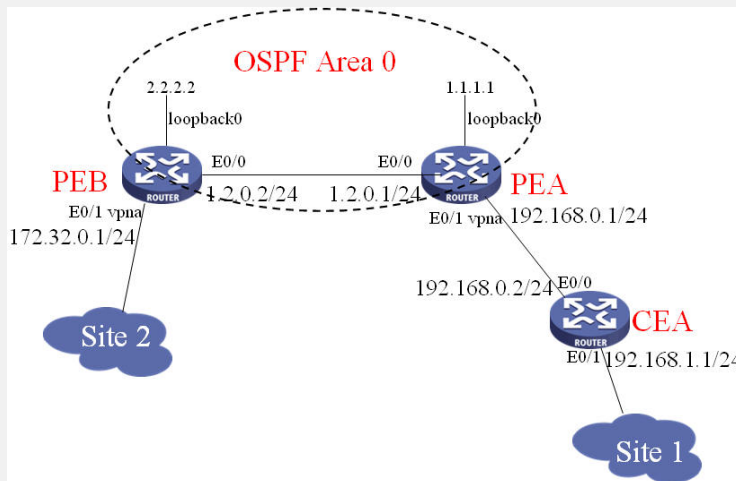
丘子隽   2006-08-29 发表

MSR路由器
MPLS L3VPN + OSPF多实例配置

关键词：MSR;MPLS;L3VPN;OSPF多实例

一、组网需求：
2台PE各接着一个vpna的站点，PEA连接vpna站点1出口CEA，PEA与CEA通过OSPF多实例学习CEA下挂站点路由
设备清单：MSR路由器3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。
CEA配置：
```
interface Ethernet0/0
 port link-mode route
 ip address 192.168.0.2 255.255.255.0
#
interface Ethernet0/1
 port link-mode route
 ip address 192.168.1.1 255.255.255.0
#
ospf 1
 area 0.0.0.0
  network 192.168.0.0 0.0.0.255
  network 192.168.1.0 0.0.0.255
#
```
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
#
mpls lsr-id 1.1.1.1
#
mpls
#
mpls ldp
#
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
#
interface LoopBack0
 ip address 1.1.1.1 255.255.255.255
#
bgp 1
 undo synchronization
 group 1 internal
 peer 1 connect-interface LoopBack0
 peer 2.2.2.2 group 1
 #
 ipv4-family vpnv4
  peer 1 enable
  peer 2.2.2.2 enable
  peer 2.2.2.2 group 1
 #
 ipv4-family vpn-instance vpna
  network 192.168.0.0
  import-route ospf 2
#
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
#
ospf 2 router-id 192.168.0.1 vpn-instance vpna
 import-route bgp
 area 0.0.0.0
  network 192.168.0.0 0.0.0.255
#
```
PEB配置：
```
#
 router id 2.2.2.2
#
ip vpn-instance vpna
 route-distinguisher 2:1
 vpn-target 1:1 export-extcommunity
 vpn-target 1:1 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 vpna
 ip address 172.32.0.1 255.255.255.0
#
```

```
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 vpnv4
  peer 1.1.1.1 enable
 #
 ipv4-family vpn-instance vpna
  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:
1. PEA上配置需要注意OSPF进程2的配置;
2. PEA的BGP和OSPF进程2的vpn路由要互相引入。

五、实验分析
无