

SR6600路由器MPLS L3VPN 及 BGP配置

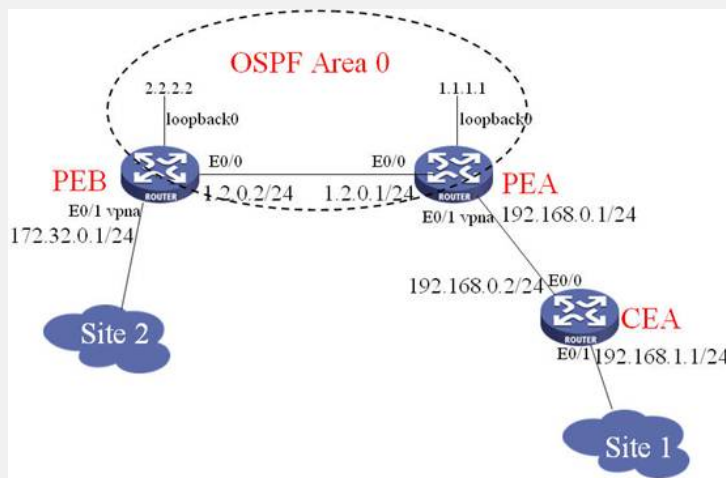
关键词: SR66;MPLS;BGP;VPN

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BGP扩散vpna路由

设备清单: SR6600路由器3台

二、组网图:



三、配置步骤:

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
#
```

bgp 3

//将私网路由通过BGP发布给邻居

```
network 192.168.1.0
```

```
undo synchronization
```

//和PEA建立邻居关系

```
peer 192.168.0.1 as-number 1
```

```
#
```

PEA配置:

```
router id 1.1.1.1
```

```
#
```

//建立VPN实例

```
ip vpn-instance vpna
```

```
route-distinguisher 1:1
```

```
vpn-target 1:1 export-extcommunity
```

```
vpn-target 1:1 import-extcommunity
```

```
#
```

//指定MPLS LSR-ID, 这是启动MPLS的前提

```
mpls lsr-id 1.1.1.1
```

```

#
//使能MPLS
mpls
#
//使能MPLS LDP
mpls ldp
#
//连接PEB的接口， 要使能MPLS和LDP
interface Ethernet0/0
port link-mode route
ip address 1.2.0.1 255.255.255.0
mpls
mpls ldp
#
//连接CEA的接口， 要绑定VPN实例vpna
interface Ethernet0/1
port link-mode route
ip binding vpn-instance vpna
ip address 192.168.0.1 255.255.255.0
#
//用于建立BGP连接的环回接口， 也是router id/LSR-ID所使用的地址
interface LoopBack0
ip address 1.1.1.1 255.255.255.255
#
//使能BGP， AS号为1
bgp 1
undo synchronization
//建立一个IGP组1
group 1 internal
//组1的邻居都是用环回接口0建立连接
peer 1 connect-interface LoopBack0
//邻居2.2.2.2属于组1
peer 2.2.2.2 group 1
#
//使能2.2.2.2及组1的VPN路由互学习能力
ipv4-family vpnv4
peer 1 enable
peer 2.2.2.2 enable
peer 2.2.2.2 group 1
#
//和CEA建立VPN的BGP连接
ipv4-family vpn-instance vpna
peer 192.168.0.2 as-number 3
network 192.168.0.0
#
//OSPF部分配置， 保证公网路由可达
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
#
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 vpv4
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. CEA上需要配置BGP；
2. PEA上需要配置CEA的EBGP连接，注意配置到bgp的vpn实例视图下。