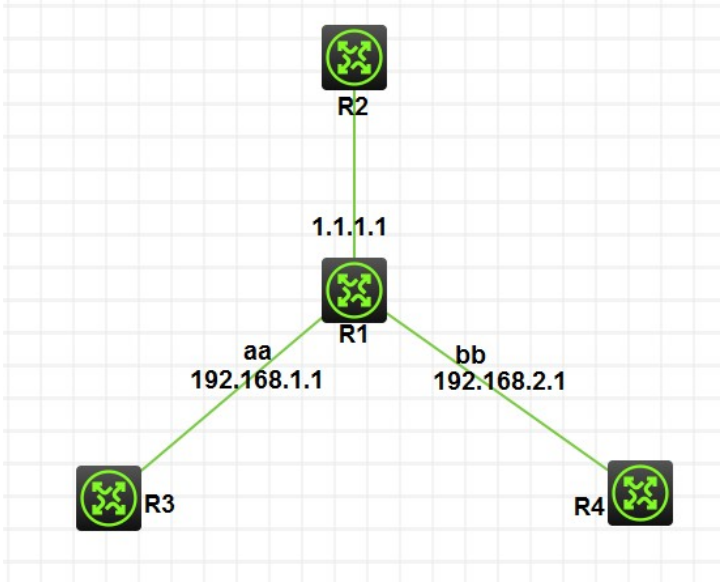
VPN实例间引入路由的配置方法

MPLS L3VPN　王渊博　2017-08-07 发表

不同VPN实例的路由互相引入，以及将VPN实例的路由添加到默认的路由表中。
此案例要求默认路由表中添加进到aa的路由表中，aa和bb之间互通。
如图所示，R1各接口所在VPN实例及ip地址如图，R2、R3、R4各接口都是.1的ip地址，配置默认路由



。

R1关键配置：

```
#
 sysname R1
#
ip vpn-instance aa
 route-distinguisher 1:1
 vpn-target 1:1 import-extcommunity
 vpn-target 1:1 export-extcommunity
#
ip vpn-instance bb
 route-distinguisher 2:2
 vpn-target 2:2 import-extcommunity
 vpn-target 2:2 export-extcommunity
#
interface GigabitEthernet0/0
 ip address 1.1.1.1 255.255.255.0
#
interface GigabitEthernet0/1
 ip binding vpn-instance aa
 ip address 192.168.1.1 255.255.255.0
#
interface GigabitEthernet0/2
 ip binding vpn-instance bb
 ip address 192.168.2.1 255.255.255.0
#
```

```
   ip route-static 192.168.1.0 24 vpn-instance aa 192.168.1.2
 ip route-static vpn-instance aa 1.1.1.0 24 1.1.1.1 public  //关键配置
 ip route-static vpn-instance aa 192.168.2.0 24 vpn-instance bb 192.168.2.2
 ip route-static vpn-instance bb 192.168.1.0 24 vpn-instance aa 192.168.1.2
```

查看默认路由表及VPN路由表：

```
[R1]display ip routing-table
```

Destinations : 13 Routes : 13

Destination/Mask Proto Pre Cost NextHop Interface
0.0.0.0/32 Direct 0 0 127.0.0.1 InLoop0
1.1.1.0/24 Direct 0 0 1.1.1.1 GE0/0
1.1.1.0/32 Direct 0 0 1.1.1.1 GE0/0
1.1.1.1/32 Direct 0 0 127.0.0.1 InLoop0
1.1.1.255/32 Direct 0 0 1.1.1.1 GE0/0
127.0.0.0/8 Direct 0 0 127.0.0.1 InLoop0
127.0.0.0/32 Direct 0 0 127.0.0.1 InLoop0
127.0.0.1/32 Direct 0 0 127.0.0.1 InLoop0
127.255.255.255/32 Direct 0 0 127.0.0.1 InLoop0
192.168.1.0/24 Static 60 0 192.168.1.2 GE0/1
224.0.0.0/4 Direct 0 0 0.0.0.0 NULL0
224.0.0.0/24 Direct 0 0 0.0.0.0 NULL0
255.255.255.255/32 Direct 0 0 127.0.0.1 InLoop0

[R1]display ip routing-table vpn-instance aa

Destinations : 13 Routes : 13

Destination/Mask Proto Pre Cost NextHop Interface
0.0.0.0/32 Direct 0 0 127.0.0.1 InLoop0
127.0.0.0/8 Direct 0 0 127.0.0.1 InLoop0
127.0.0.0/32 Direct 0 0 127.0.0.1 InLoop0
127.0.0.1/32 Direct 0 0 127.0.0.1 InLoop0
127.255.255.255/32 Direct 0 0 127.0.0.1 InLoop0
192.168.1.0/24 Direct 0 0 192.168.1.1 GE0/1
192.168.1.0/32 Direct 0 0 192.168.1.1 GE0/1
192.168.1.1/32 Direct 0 0 127.0.0.1 InLoop0
192.168.1.255/32 Direct 0 0 192.168.1.1 GE0/1
192.168.2.0/24 Static 60 0 192.168.2.2 GE0/2
224.0.0.0/4 Direct 0 0 0.0.0.0 NULL0
224.0.0.0/24 Direct 0 0 0.0.0.0 NULL0
255.255.255.255/32 Direct 0 0 127.0.0.1 InLoop0

[R1]display ip routing-table vpn-instance bb

Destinations : 13 Routes : 13

Destination/Mask Proto Pre Cost NextHop Interface
0.0.0.0/32 Direct 0 0 127.0.0.1 InLoop0
127.0.0.0/8 Direct 0 0 127.0.0.1 InLoop0
127.0.0.0/32 Direct 0 0 127.0.0.1 InLoop0
127.0.0.1/32 Direct 0 0 127.0.0.1 InLoop0
127.255.255.255/32 Direct 0 0 127.0.0.1 InLoop0
192.168.1.0/24 Static 60 0 192.168.1.2 GE0/1
192.168.2.0/24 Direct 0 0 192.168.2.1 GE0/2
192.168.2.0/32 Direct 0 0 192.168.2.1 GE0/2
192.168.2.1/32 Direct 0 0 127.0.0.1 InLoop0
192.168.2.255/32 Direct 0 0 192.168.2.1 GE0/2
224.0.0.0/4 Direct 0 0 0.0.0.0 NULL0
224.0.0.0/24 Direct 0 0 0.0.0.0 NULL0
255.255.255.255/32 Direct 0 0 127.0.0.1 InLoop0

ip route-static vpn-instance aa 1.1.1.0 24 1.1.1.1 **public //关键配置**
这一条的public是关键配置，命令解释如下
public：指定静态路由下一跳处于公网实例。