

MSR路由器 BGP4+联盟功能的配置

关键字: MSR;IPv6;BGP4+;联盟

试验设备: RouterA (MSR20-21) , RouterB (MSR20-20) ,RouterC (MSR30-20) ,RouterD (MSR30-20)

一、组网需求

将自治系统100划分为3个子自治系统1001, 1002, 1003, 配置EBGP和IBGP。使各自治系统可以互通。

二、组网图

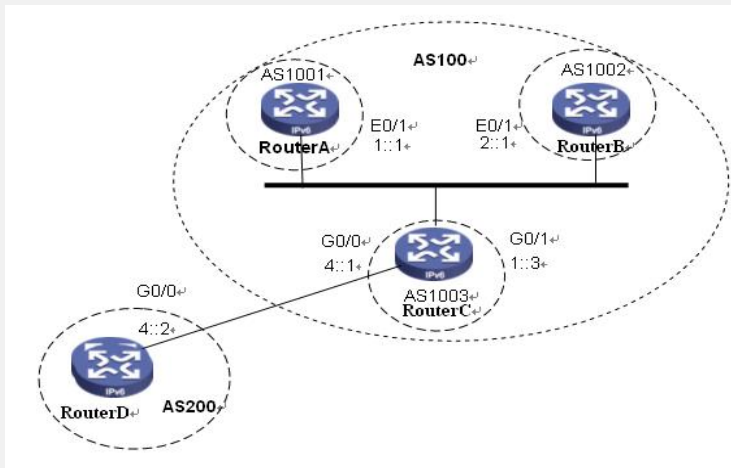


图1 BGP联盟组网示意图

三、配置步骤

1. RouterA配置:

注: 只列出新配置的所有命令, 省略了系统默认已有的命令

```
<RouterA-2021>dis cu
#
ipv6
#
interface Ethernet0/1
port link-mode route
ipv6 address 1::1/64
#
interface NULL0
#
interface LoopBack0
ipv6 address 1:1:1::1/128
#
bgp 1001
//配置联盟id
confederation id 100
//指定联盟的其它peer
confederation peer-as 1002 1003
undo synchronization
#
ipv6-family
network 1:1:1::1 128
undo synchronization
peer 1::2 as-number 1002
peer 1::3 as-number 1003
#
return
```

2. 配置RouterB:

```
<RouterB-2020>dis cu
```

```
#
ipv6
#
vlan 1
#
interface Ethernet0/0
port link-mode route
#
interface Ethernet0/1
port link-mode route
ipv6 address 1::2/64
ipv6 address 2::2/64
#
interface LoopBack0
ipv6 address 2:2:2::2/128
#
bgp 1002
confederation id 100
confederation peer-as 1001 1003
undo synchronization
#
ipv6-family
network 2:2:2::2 128
undo synchronization
peer 1::1 as-number 1001
peer 1::3 as-number 1003
#
return
```

3. 配置RouterC:

```
<RouterC-3020>dis cu
```

```
#
ipv6
#
interface LoopBack0
ipv6 address 3:3:3::3/128
#
interface GigabitEthernet0/0
port link-mode route
ipv6 address 4::1/64
#
interface GigabitEthernet0/1
port link-mode route
ipv6 address 1::3/64
#
bgp 1003
confederation id 100
confederation peer-as 1001 1002
import-route direct
undo synchronization
#
ipv6-family
network 1::1 128
network 1::2 128
//引如该网络环境下的直连路由,
//否则RouterA、RouterB与RouterD无法互通
import-route direct
undo synchronization
peer 1::1 as-number 1001
peer 1::2 as-number 1002
peer 4::2 as-number 200
#
return
```

4. 配置RouterD:

```
<RouterD-3020>dis cu

#
ipv6
#
interface LoopBack0
ipv6 address 4:4:4::4/128
#
interface GigabitEthernet0/0
port link-mode route
ipv6 address 4::2/64
ip address 4.0.0.2 255.255.255.0
#
bgp 200
undo synchronization
#
ipv6-family
network 4:4:4::4 128
undo synchronization
peer 4::1 as-number 100
#
return
```

四、配置关键点

1. 该实验环境中RouterA、B、C互联接口使用了相同前缀的IPv6地址，在实际网络中可使用其它地址，只需保证IGP内路由是连通的就可以。
2. 在配置的最后需要在RouterC上引入直连路由，否则RouterA、B均无法ping通RouterD的loopback地址，因为RouterC只发布自己本地路由表中已有的路由。