

MSR路由器
BGP与OSPFv3相互引入路由功能的配置

关键字: 路由引入;IPv6;BGP;OSPFv3;MSR;

一、组网需求

在AS65009内使用OSPFv3作为IGP协议; RouterA和RouterB建立EBGP连接, RouterC为AS65009内部的一台非BGP路由器。实现BGP与IGP之间的路由相互引入。

试验设备: RTA (MSR20-21), RTB (MSR20-20), RTC (MSR30-20)

版本: Version 5.20, Beta 1105P01

二、组网图

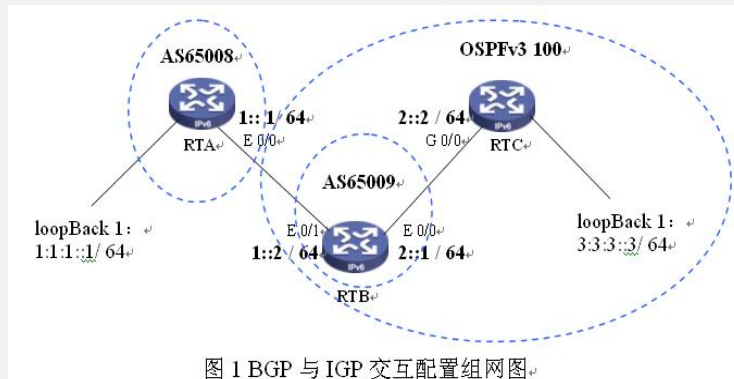


图 1 BGP 与 IGP 交互配置组网图

IP地址列表:

设备	接口	IPv6地址
RTA	E0/0	1::1/64
	E0/1	1:1:1::1/128
RTB	E0/0	2::1/64
	E0/1	2::2/64
RTC	G0/0	2::2/64
	LoopBack1	3:3:3::3/128

三、配置步骤

RTA配置

```
#
router id 1.1.1.1
#
ipv6
#
interface Ethernet0/0
port link-mode route
ipv6 address 1::1/64
#
interface LoopBack1
ipv6 address 1:1:1::1/128
//BGP配置部分
#
bgp 65008
router-id 1.1.1.1
undo synchronization
#
ipv6-family
network 1:: 64
network 1:1:1::1 128
undo synchronization
//指定EBGP对等体
peer 1::2 as-number 65009
```

RTB配置

```

#
ipv6
#
interface Ethernet0/0
port link-mode route
ipv6 address 2::1/64
//在接口下使能ospfv3
ospfv3 100 area 0.0.0.0
#
interface Ethernet0/1
port link-mode route
ipv6 address 1::2/64
//在接口下使能ospfv3
ospfv3 100 area 0.0.0.0
//BGP部分配置
#
bgp 65009
router-id 2.2.2.2
undo synchronization
#
ipv6-family
network 2:: 64
//引入ospfv3的路由
import-route ospfv3 100
undo synchronization
//指定EBGP对等体
peer 1::1 as-number 65008
#
//OSPFv3进程号100
ospfv3 100
router-id 2.2.2.2
//在ospfv3中引入BGP路由
import-route bgp4+

```

RTC配置

```

#
ipv6
#
interface LoopBack1
ipv6 address 3:3:3::3/128
ospfv3 100 area 0.0.0.0
#
interface GigabitEthernet0/0
port link-mode route
ipv6 address 2::2/64
ospfv3 100 area 0.0.0.0
#
//OSPFv3进程号100
ospfv3 100
router-id 3.3.3.3

```

四、结果分析

1. RTC的IPv6路由表

从路由表中可以看出，RTC从RTB上学到了到达RTA的路由，此时RTA与RTC上的Loopback地址是可以相互ping通的。

Routing Table :

Destinations : 7 Routes : 7

Destination: ::1/128 Protocol : Direct

NextHop : ::1 Preference: 0

Interface : InLoop0 Cost : 0

//从OSPFv3中引入的路由

Destination: 1::/64 Protocol : OSPFv3

NextHop : FE80::20F:E2FF:FE3D:59BE Preference: 10

Interface : GE0/1 Cost : 2

Destination: 1:1:1::1/128 Protocol : OSPFv3

NextHop : FE80::20F:E2FF:FE3D:59BE Preference: 150

Interface : GE0/1 Cost : 1

Destination: 2::/64 Protocol : Direct

NextHop : 2::2 Preference: 0

Interface : GE0/1 Cost : 0

Destination: 2::2/128 Protocol : Direct

NextHop : ::1 Preference: 0

Interface : InLoop0 Cost : 0

Destination: 3:3:3::3/128 Protocol : Direct

NextHop : ::1 Preference: 0

Interface : InLoop0 Cost : 0

Destination: FE80::/10 Protocol : Direct

NextHop : :: Preference: 0

Interface : NULL0

Cost : 0