

MSR 系列路由器 RIPng 互通的典型配置举例

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1 简介

本文档介绍使用 RIPng 的典型配置举例。

1 配置前提

本文档不严格与具体软、硬件版本对应，如果使用过程中与产品实际情况有差异，请参考相关产品手册，或以设备实际情况为准。

本文档中的配置均是在实验室环境下进行的配置和验证，配置前设备的所有参数均采用出厂时的缺省配置。如果您已经对设备进行了配置，为了保证配置效果，请确认现有配置和以下举例中的配置不冲突。

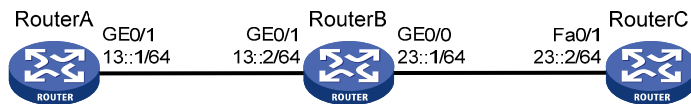
本文档假设您已了解 RIPng 的特性。

2 配置举例

2.1 组网需求

如 [图 1](#) 所示，Router A 和 Router B 为 MSR 路由器，Router C 为 Cisco 路由器，现要求：配置 RIPng 路由协议使 Router A 和 Router C 互通。

图1 MSR 路由器 RIPng 互通组网图



2.2 使用版本

本举例是在 Release 2311 版本上进行配置和验证的。

2.3 配置步骤

2.3.1 Router A 的配置

```
# 全局使能 IPv6。
<RouterA> system-view
[RouterA] ipv6
# 创建 RIPng 进程 1。
[RouterA] ripng 1
[RouterA-ripng-1] quit
# 配置接口 IPv6 地址，并在接口上使能 RIPng。
[RouterA] interface gigabitethernet 0/1
```

```
[RouterA-GigabitEthernet0/1] ipv6 address 13::2 64
[RouterA-GigabitEthernet0/1] ripng 1 enable
[RouterA-GigabitEthernet0/1] quit
```

2.3.2 Router B的配置

全局使能 IPv6 及 RIPng。

```
<RouterB> system-view
[RouterB] ipv6
```

创建 RIPng 进程 1。

```
[RouterB] ripng 1
[RouterB-ripng-1] quit
```

配置接口 IPv6 地址，并在接口上使能 RIPng。

```
[RouterB] interface gigabitethernet 0/0
[RouterB-GigabitEthernet0/0] ipv6 address 23::2 64
[RouterB-GigabitEthernet0/0] ripng 1 enable
[RouterB-GigabitEthernet0/0] quit
[RouterB] interface gigabitethernet 0/1
[RouterB-GigabitEthernet0/1] ipv6 address 13::1 64
[RouterB-GigabitEthernet0/1] ripng 1 enable
[RouterB-GigabitEthernet0/1] quit
```

2.3.3 Router C的配置

全局使能 IPv6 及 RIPng。

```
RouterC> enable
RouterC# configure terminal
RouterC(config)# ipv6 unicast-routing
RouterC(config)# ipv6 router rip ciscoripng
```

配置接口 IPv6 地址，并在接口上使能 RIPng。

```
RouterC(config)# interface FastEthernet 0/1
RouterC(config-if)# ipv6 address 23::1/64
RouterC(config-if)# ipv6 rip ciscoripng enable
RouterC(config-if)# exit
```

2.4 验证结果

查看 Router A 的 RIPng 路由表。

```
<RouterA> display ipv6 routing-table protocol ripng
RIPng Routing Table :
Summary Count : 1
```

```
RIPng Routing Table's Status : < Active >
Summary Count : 1
```

```
Destination: 23::/64
```

```
NextHop      : FE80::20F:E2FF:FE29:AE98
```

```
Protocol    : RIPng
```

```
Preference: 100
```

```
Interface : GE0/1 Cost : 1
```

```
RIPng Routing Table's Status : < Inactive >
```

```
Summary Count : 0
```

查看 Router A 的 RIPng 信息。

```
<RouterA> display ripng 1 route
```

```
Route Flags: A - Aging, S - Suppressed, G - Garbage-collect
```

```
-----
```

```
Peer FE80::20F:E2FF:FE29:AE98 on GigabitEthernet0/1
```

```
Dest 23::/64,
```

```
via FE80::20F:E2FF:FE29:AE98, cost 1, tag 0, A, 8 Sec
```

查看 RouterC RIP 路由表。

```
Router# show ipv6 route rip
```

```
IPv6 Routing Table - 8 entries
```

```
Codes: C - Connected, L - Local, S - Static, R - RIP, B - BGP
```

```
U - Per-user Static route
```

```
I1 - ISIS L1, I2 - ISIS L2, IA - ISIS interarea, IS - ISIS summary
```

```
O - OSPF intra, OI - OSPF inter, OE1 - OSPF ext 1, OE2 - OSPF ext 2
```

```
ON1 - OSPF NSSA ext 1, ON2 - OSPF NSSA ext 2
```

```
R 13::/64 [120/2]
```

```
via FE80::20F:E2FF:FE29:AE97, FastEthernet0/1
```

在 Router A 上 ping Router C 的接口地址，能够 ping 通对方。

```
<RouterA> ping ipv6 23::1
```

```
PING 23::1 : 56 data bytes, press CTRL_C to break
```

```
Reply from 23::1
```

```
bytes=56 Sequence=1 hop limit=63 time = 1 ms
```

```
Reply from 23::1
```

```
bytes=56 Sequence=2 hop limit=63 time = 1 ms
```

```
Reply from 23::1
```

```
bytes=56 Sequence=3 hop limit=63 time = 1 ms
```

```
Reply from 23::1
```

```
bytes=56 Sequence=4 hop limit=63 time = 1 ms
```

```
Reply from 23::1
```

```
bytes=56 Sequence=5 hop limit=63 time = 1 ms
```

```
--- 23::1 ping statistics ---
```

```
5 packet(s) transmitted
```

```
5 packet(s) received
```

```
0.00% packet loss
```

```
round-trip min/avg/max = 1/1/1 ms
```

在 Router C 上 ping Router A 的接口地址，能够 ping 通对方。

```
RouterC# ping ipv6 13::2
```

```
Type escape sequence to abort.
```

```
Sending 5, 100-byte ICMP Echos to 13::2, timeout is 2 seconds:
```

```
!!!!!
```

Success rate is 100 percent (5/5), round-trip min/avg/max = 0/0/4 ms

2.5 配置文件

- Router A:

```
#
sysname RouterA
#
ipv6
#
interface GigabitEthernet0/1
port link-mode route
ipv6 address 13::2/64
ripng 1 enable
#
ripng 1
#
```

- Router B:

```
#
sysname RouterB
#
ipv6
#
interface GigabitEthernet0/0
port link-mode route
ipv6 address 23::2/64
ripng 1 enable
#
interface GigabitEthernet0/1
port link-mode route
ipv6 address 13::1/64
ripng 1 enable
#
ripng 1
#
```

- Router C:

```
!
hostname RouterC
!
boot-start-marker
boot-end-marker
!
ipv6 unicast-routing
!
interface FastEthernet0/1
duplex auto
speed auto
```

```
ipv6 address 23::1/64
ipv6 rip ciscopripng enable
!
ipv6 router rip ciscopripng
!
```

3 相关资料

- H3C MSR 系列路由器 命令参考(V5)-R2311
- H3C MSR 系列路由器 配置指导(V5)-R2311