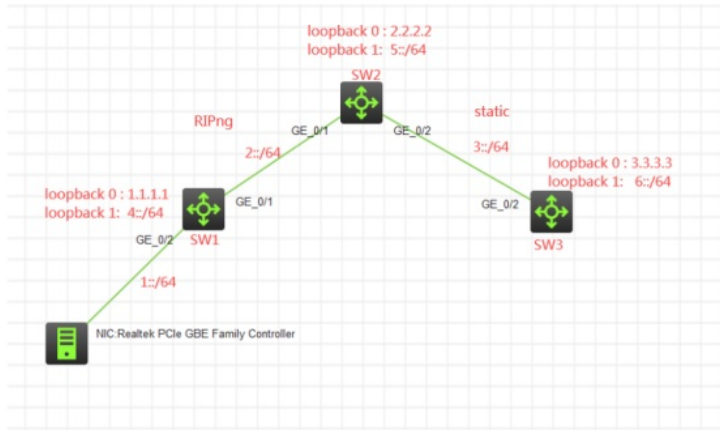


# 知 S5820 IPv6 RIPng与静态路由重分布典型组网配置案例

IPv6 RIPng 静态路由 H3C模拟器 韦家宁 2020-03-14 发表

## 组网及说明



### 组网说明:

本案例采用H3C HCL模拟器的S5820来模拟IPv6 RIPng与静态路由重分布的典型组网配置。SW1与SW2运行RIPng路由协议，SW2与SW3运行静态路由协议，为了实现物理机能够PING通SW3，因此需要在SW2配置RIPng与静态路由重分布。

## 配置步骤

- 1、按照网络拓扑图正确配置IP地址
- 2、SW1与SW2运行RIPng路由协议
- 3、SW2与SW3运行静态路由协议
- 4、SW2配置RIPng与静态路由重分布

## 配置关键点

SW1:

```
<H3C>sys
System View: return to User View with Ctrl+Z.
[H3C]sysname SW1
[SW1]int gi 1/0/2
[SW1-GigabitEthernet1/0/2]port link-mode route
[SW1-GigabitEthernet1/0/2]ipv6 address 1::1 64
[SW1-GigabitEthernet1/0/2]quit
[SW1]int gi 1/0/1
[SW1-GigabitEthernet1/0/1]port link-mode route
[SW1-GigabitEthernet1/0/1]description <connect to SW2>
[SW1-GigabitEthernet1/0/1]ipv6 address 2::1 64
[SW1-GigabitEthernet1/0/1]quit
[SW1]int loopback 0
[SW1-LoopBack0]ip address 1.1.1.1 32
[SW1-LoopBack0]quit
[SW1]int loopback 1
[SW1-LoopBack1]ipv6 address 4::1 64
[SW1-LoopBack1]quit
```

SW1 RIPng关键配置点:

```
[SW1]ripng 1
[SW1-ripng-1]import-route direct
[SW1-ripng-1]quit
[SW1]int loopback 1
[SW1-LoopBack1]ripng 1 enable
[SW1-LoopBack1]quit
[SW1]int gi 1/0/1
[SW1-GigabitEthernet1/0/1]ripng 1 enable
[SW1-GigabitEthernet1/0/1]quit
[SW1]int gi 1/0/2
```

```
[SW1-GigabitEthernet1/0/2]ripng 1 enable
[SW1-GigabitEthernet1/0/2]quit
```

SW2:

```
<H3C>sys
System View: return to User View with Ctrl+Z.
[H3C]sysname SW2
[SW2]int loopback 0
[SW2-LoopBack0]ip address 2.2.2.2 32
[SW2-LoopBack0]quit
[SW2]int loopback 1
[SW2-LoopBack1]ipv6 address 5::1 64
[SW2-LoopBack1]quit
[SW2]int gi 1/0/1
[SW2-GigabitEthernet1/0/1]port link-mode route
[SW2-GigabitEthernet1/0/1]des <connect to SW1>
[SW2-GigabitEthernet1/0/1]ipv6 address 2::2 64
[SW2-GigabitEthernet1/0/1]quit
[SW2]int gi 1/0/2
[SW2-GigabitEthernet1/0/2]port link-mode route
[SW2-GigabitEthernet1/0/2]des <connect to SW3>
[SW2-GigabitEthernet1/0/2]ipv6 address 3::2 64
[SW2-GigabitEthernet1/0/2]quit
```

SW2 RIPng与静态路由重分布关键配置点:

```
[SW2]ripng 1
[SW2-ripng-1]import-route direct
[SW2-ripng-1]import-route static
[SW2-ripng-1]quit
[SW2]int loopback 1
[SW2-LoopBack1]ripng 1 enable
[SW2-LoopBack1]quit
[SW2]int gi 1/0/1
[SW2-GigabitEthernet1/0/1]ripng 1 enable
[SW2-GigabitEthernet1/0/1]quit
[SW2]int gi 1/0/2
[SW2-GigabitEthernet1/0/2]ripng 1 enable
[SW2-GigabitEthernet1/0/2]quit
```

```
[SW2]ipv6 route-static 6:: 64 3::1
```

SW3:

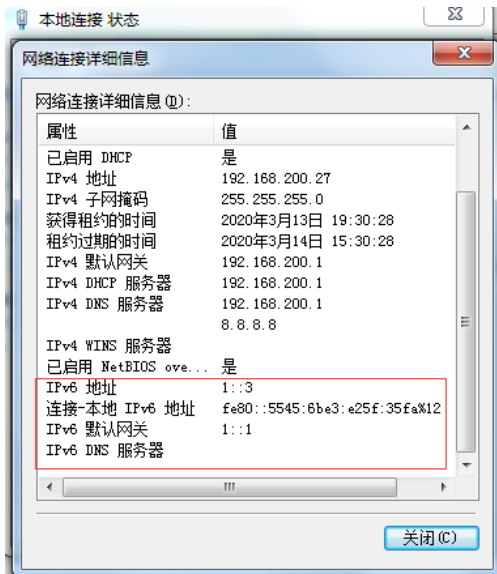
```
<H3C>sys
System View: return to User View with Ctrl+Z.
[H3C]sysname SW3
[SW3]int loopback 0
[SW3-LoopBack0]ip address 3.3.3.3 32
[SW3-LoopBack0]quit
[SW3]int loopback 1
[SW3-LoopBack1]ipv6 address 6::1 64
[SW3-LoopBack1]quit
[SW3]int gi 1/0/2
[SW3-GigabitEthernet1/0/2]port link-mode route
[SW3-GigabitEthernet1/0/2]des <connect to SW2>
[SW3-GigabitEthernet1/0/2]ipv6 address 3::1 64
[SW3-GigabitEthernet1/0/2]quit
```

SW3 静态路由关键配置点:

```
[SW3]ipv6 route-static 1:: 64 3::2
[SW3]ipv6 route-static 2:: 64 3::2
[SW3]ipv6 route-static 4:: 64 3::2
[SW3]ipv6 route-static 5:: 64 3::2
```

测试:

物理机填写IPv6地址:



物理机能PING通SW3的loopback 1:



分别查看SW1、SW2、SW3的IPv6路由表:

[SW1]dis ipv6 routing-table

Destinations : 12      Routes : 12

```
Destination: ::1/128                      Protocol : Direct
NextHop : ::1                              Preference: 0
Interface : InLoop0                        Cost : 0

Destination: 1::/64                        Protocol : Direct
NextHop : ::                                Preference: 0
Interface : GE1/0/2                        Cost : 0

Destination: 1::1/128                      Protocol : Direct
NextHop : ::1                              Preference: 0
Interface : InLoop0                        Cost : 0

Destination: 2::/64                        Protocol : Direct
NextHop : ::                                Preference: 0
Interface : GE1/0/1                        Cost : 0

Destination: 2::1/128                      Protocol : Direct
NextHop : ::1                              Preference: 0
Interface : InLoop0                        Cost : 0

Destination: 3::/64                        Protocol : RIPng
NextHop : FE80::52DB:69FF:FE05:206        Preference: 100
Interface : GE1/0/1                        Cost : 1
```

```
Destination: 4::/64          Protocol : Direct
NextHop   : ::              Preference: 0
Interface : Loop1           Cost     : 0

Destination: 4::1/128       Protocol : Direct
NextHop   : ::1            Preference: 0
Interface : InLoop0         Cost     : 0

Destination: 5::/64         Protocol : RIPng
NextHop   : FE80::52DB:69FF:FE05:206 Preference: 100
Interface : GE1/0/1         Cost     : 1

Destination: 6::/64         Protocol : RIPng
NextHop   : FE80::52DB:69FF:FE05:206 Preference: 100
Interface : GE1/0/1         Cost     : 1

Destination: FE80::/10      Protocol : Direct
NextHop   : ::              Preference: 0
Interface : InLoop0         Cost     : 0

Destination: FF00::/8       Protocol : Direct
NextHop   : ::              Preference: 0
Interface : NULL0           Cost     : 0
[SW1]
```

[SW2]dis ipv6 routing-table

Destinations : 12 Routes : 12

```
Destination: ::1/128        Protocol : Direct
NextHop   : ::1            Preference: 0
Interface : InLoop0         Cost     : 0

Destination: 1::/64         Protocol : RIPng
NextHop   : FE80::52DB:61FF:FE71:106 Preference: 100
Interface : GE1/0/1         Cost     : 1

Destination: 2::/64         Protocol : Direct
NextHop   : ::              Preference: 0
Interface : GE1/0/1         Cost     : 0

Destination: 2::2/128       Protocol : Direct
NextHop   : ::1            Preference: 0
Interface : InLoop0         Cost     : 0

Destination: 3::/64         Protocol : Direct
NextHop   : ::              Preference: 0
Interface : GE1/0/2         Cost     : 0

Destination: 3::2/128       Protocol : Direct
NextHop   : ::1            Preference: 0
Interface : InLoop0         Cost     : 0

Destination: 4::/64         Protocol : RIPng
NextHop   : FE80::52DB:61FF:FE71:106 Preference: 100
Interface : GE1/0/1         Cost     : 1

Destination: 5::/64         Protocol : Direct
NextHop   : ::              Preference: 0
Interface : Loop1           Cost     : 0

Destination: 5::1/128       Protocol : Direct
NextHop   : ::1            Preference: 0
```

```

Interface : InLoop0          Cost : 0

Destination: 6::/64          Protocol : Static
NextHop : 3::1              Preference: 60
Interface : GE1/0/2          Cost : 0

Destination: FE80::/10      Protocol : Direct
NextHop : ::                 Preference: 0
Interface : InLoop0          Cost : 0

Destination: FF00::/8        Protocol : Direct
NextHop : ::                 Preference: 0
Interface : NULL0            Cost : 0
[SW2]

```

<SW3>dis ipv6 routing-table

Destinations : 11 Routes : 11

```

Destination: ::1/128        Protocol : Direct
NextHop : ::1              Preference: 0
Interface : InLoop0          Cost : 0

Destination: 1::/64         Protocol : Static
NextHop : 3::2              Preference: 60
Interface : GE1/0/2          Cost : 0

Destination: 2::/64         Protocol : Static
NextHop : 3::2              Preference: 60
Interface : GE1/0/2          Cost : 0

Destination: 3::/64         Protocol : Direct
NextHop : ::                 Preference: 0
Interface : GE1/0/2          Cost : 0

Destination: 3::1/128       Protocol : Direct
NextHop : ::1              Preference: 0
Interface : InLoop0          Cost : 0

Destination: 4::/64         Protocol : Static
NextHop : 3::2              Preference: 60
Interface : GE1/0/2          Cost : 0

Destination: 5::/64         Protocol : Static
NextHop : 3::2              Preference: 60
Interface : GE1/0/2          Cost : 0

Destination: 6::/64         Protocol : Direct
NextHop : ::                 Preference: 0
Interface : Loop1            Cost : 0

Destination: 6::1/128       Protocol : Direct
NextHop : ::1              Preference: 0
Interface : InLoop0          Cost : 0

Destination: FE80::/10      Protocol : Direct
NextHop : ::                 Preference: 0
Interface : InLoop0          Cost : 0

Destination: FF00::/8        Protocol : Direct
NextHop : ::                 Preference: 0
Interface : NULL0            Cost : 0
<SW3>

```

至此，S5820 IPV6 RIPng与静态路由重分布典型组网配置案例已完成!