

### H3C万兆核心路由器SR8800 BFD for 静态路由 (control方式) 典型配置

#### 1 组网需求

Router A与Router B之间通过二层交换机连接，并存在2条物理路径。配置2条静态路由，要求：

- | 稳定情况下，Router A到Router B的路径选择其中1条静态路由转发；
- | 当生效的路径故障时，能快速切换到另一静态路由所在路径。

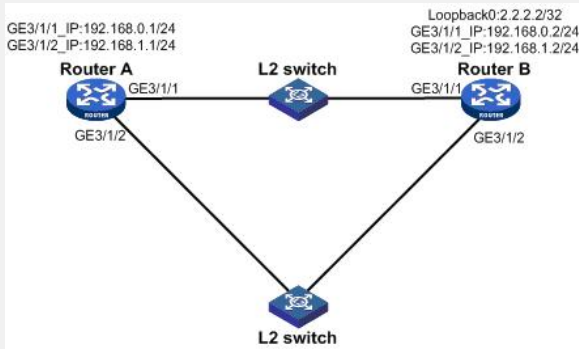


图1 BFD for静态路由组网图 (双向检测)

#### 2 配置思路

- | 配置各接口IP地址
- | Router A配置静态路由，并把优选的静态路由绑定BFD control报文方式。
- | Router B配置静态路由，与Router A优选的静态路由反向，并绑定BFD control报文方式。

#### 3 配置步骤

##### 3.1 路由器A的配置

##### 1. 配置步骤

```
# 配置各接口IP
<RouterA> system-view
[RouterA] interface gigabitEthernet 3/1/1
[RouterA-GigabitEthernet3/1/1] ip address 192.168.0.1 24
[RouterA-GigabitEthernet3/1/1] interface GigabitEthernet 3/1/2
[RouterA-GigabitEthernet3/1/1] ip address 192.168.1.1 24
# 配置2条静态路由,目的IP相同， preference不同， 优选的静态路由绑定BFD Control
报文方式。
<RouterA> system-view
[RouterA] ip route-static 2.2.2.2 32 192.168.0.2 bfd control-packet preference 40
[RouterA] ip route-static 2.2.2.2 32 192.168.1.2 preference 50
[RouterA] interface GigabitEthernet 3/1/1
[RouterA-GigabitEthernet3/1/1] bfd min-transmit-interval 10
[RouterA-GigabitEthernet3/1/1] bfd min-receive-interval 10
[RouterA-GigabitEthernet3/1/1] bfd detect-multiplier 3
```

##### 2. 配置文件

```
#
interface GigabitEthernet3/1/1
port link-mode route
ip address 192.168.0.1 255.255.255.0
bfd min-transmit-interval 10
bfd min-receive-interval 10
bfd detect-multiplier 3
#
interface GigabitEthernet3/1/2
port link-mode route
ip address 192.168.1.1 255.255.255.0
#
ip route-static 2.2.2.2 255.255.255.255 192.168.0.2 bfd control-packet preference 40
ip route-static 2.2.2.2 255.255.255.255 192.168.1.2 preference 50
```

```

#
3.2 路由器B的配置
1. 配置步骤
# 配置各接口IP
<RouterB> system-view
[RouterB] interface LoopBack 0
[RouterB--LoopBack0] ip address 2.2.2.2 32
[RouterB--LoopBack0] interface gigabitEthernet 3/1/1
[RouterB-GigabitEthernet3/1/1] ip address 192.168.0.2 24
[RouterB-GigabitEthernet3/1/1] interface gigabitEthernet 3/1/2
[RouterB-GigabitEthernet3/1/1] ip address 192.168.1.2 24

# 对应Router A优选静态路由，配置反向的静态路由，并绑定BFD control报文方式。
[RouterB] ip route-static 192.168.0.1 24 192.168.0.1 bfd control-packet
[RouterB] interface gigabitEthernet 3/1/1
[RouterB-GigabitEthernet3/1/1] bfd min-transmit-interval 10
[RouterB-GigabitEthernet3/1/1] bfd min-receive-interval 10
[RouterB-GigabitEthernet3/1/1] bfd detect-multiplier 3

2. 配置文件
#
interface LoopBack0
ip address 2.2.2.2 255.255.255.255
#
interface GigabitEthernet3/1/1
port link-mode route
ip address 192.168.0.2 255.255.255.0
bfd min-transmit-interval 10
bfd min-receive-interval 10
bfd detect-multiplier 3
#
interface GigabitEthernet3/1/2
port link-mode route
ip address 192.168.1.2 255.255.255.0
#
ip route-static 192.168.0.1 255.255.255.0 192.168.0.1 bfd control-packet
#
3.3 验证结果
可通过以下方式验证上述配置：
#查看静态路由，可看到preference值低的被优选。
[RouterA] display ip routing-table protocol static
Public Routing Table : Static
Summary Count : 2

Static Routing table Status : < Active>
Summary Count : 1

Destination/Mask  Proto  Pre  Cost    NextHop    Interface
-----
2.2.2.2/32        Static  40   0        192.168.0.2  GE3/1/1

Static Routing table Status : < Inactive>
Summary Count : 1

Destination/Mask  Proto  Pre  Cost    NextHop    Interface
-----
2.2.2.2/32        Static  50   0        192.168.1.2  GE3/1/2

#查看Router A上的BFD会话信息，可以看到设备之间已经建立起了相应的session：
[RouterA] display bfd session verbose

Total Session Num: 1          Init Mode: Active

```

Session Working Under Ctrl Mode:

Local Discr: 21                    Remote Discr: 37  
Source IP: 192.168.0.1        Destination IP: 192.168.0.2  
Session State: Up                Interface: GigabitEthernet3/1/1  
Min Trans Inter: 10ms        Act Trans Inter: 10ms  
Min Recv Inter: 10ms        Act Detect Inter: 30ms  
Establish Time: 03:41:33        Last Down Time: 03:41:33  
Last Up Time: 03:41:33        Auth mode: None  
Connect Type: Direct        Board Num: 3  
Protocol: STATIC  
Diag Info: No Diagnostic

# 查看Router B上的BFD会话信息，可以看到已经建立了相应的session:

[RouterB] display bfd session verbose

Total Session Num: 1        Init Mode: Active

Session Working Under Ctrl Mode:

Local Discr: 37                    Remote Discr: 21  
Source IP: 192.168.0.2        Destination IP: 192.168.0.1  
Session State: Up                Interface: GigabitEthernet3/1/1  
Min Trans Inter: 10ms        Act Trans Inter: 10ms  
Min Recv Inter: 10ms        Act Detect Inter: 30ms  
Establish Time: 03:41:33        Last Down Time: 03:41:33  
Last Up Time: 03:41:33        Auth mode: None  
Connect Type: Direct        Board Num: 3  
Protocol: STATIC  
Diag Info: No Diagnostic