8 - Configuring VRRP Tracking Uplink Interface

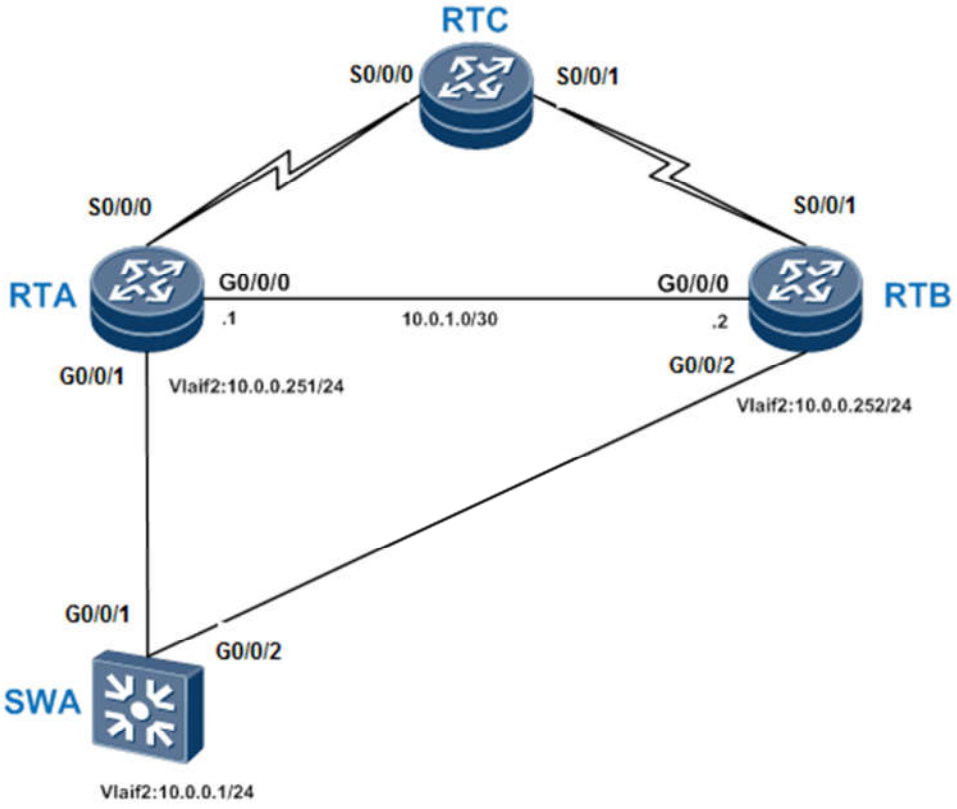
8.1 Objectives

Upon completion of this task, you will be able to:

- Describe the application scenario for VRRP tracking uplink interface.
- Comprehend the implementation principle for VRRP tracking uplink interface.
- Configure VRRP tracking uplink interface.

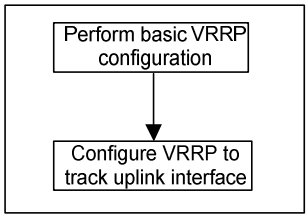
8.1 Networking and Service Description

Figure 1-1 Networking for VRRP tracking uplink interface configuration



In the lab, RTA and RTB are core switches; SWA is an access switch; VRRP runs on RTA and RTB to implement gateway redundancy. RTA and RTB connect to RTC through serial interfaces to simulate two uplinks.

1.1 Configuration Roadmap



1.2 Configuration Procedure

1.2.1 Performing Basic Configuration

Perform basic configuration according to **Erro! Fonte de referência não encontrada."Erro! Fonte de referência não encontrada.**."You do not need to configure interfaces between RTA and RTC, and between RTB and RTC.

```
<Huawei>sys
```

Enter system view, return user view with Ctrl+Z.

```
[Huawei]sysname RTA
[RTA]vlan 2
[RTA-vlan2]quit
[RTA]interface Vlanif 2
[RTA-Vlanif2]ip address 10.0.0.251 24
[RTA-Vlanif2]quit
[RTA]interface GigabitEthernet 0/0/0
[RTA-GigabitEthernet0/0/0]ip address 10.0.1.1 30
[RTA-GigabitEthernet0/0/0]quit
[RTA]interface GigabitEthernet 0/0/1
[RTA- GigabitEthernet0/0/1]portswitch
[RTA- GigabitEthernet0/0/1]port link-type trunk
[RTA- GigabitEthernet0/0/1]port trunk allow-pass vlan 2
[RTA- GigabitEthernet0/0/1]]quit
[RTA]interface Vlanif 2
[RTA-Vlanif2]vrrp vrid 1 virtual-ip 10.0.0.254
[RTA-Vlanif2]vrrp vrid 1 priority 150

<Huawei>sys
Enter system view, return user view with Ctrl+Z.
[Huawei]sysname RTB
[RTB]vlan 2
[RTB-vlan2]quit
[RTB]interface Vlanif 2
[RTB-Vlanif2]ip address 10.0.0.252 24
```

```
[RTB-Vlanif2]quit
[RTB]interface GigabitEthernet 0/0/0
[RTB-GigabitEthernet0/0/0]ip address 10.0.1.2 30
[RTB-GigabitEthernet0/0/0]quit
[RTA]interface GigabitEthernet 0/0/1
[RTB- GigabitEthernet0/0/1]portswitch
[RTB- GigabitEthernet0/0/1]port link-type trunk
[RTB- GigabitEthernet0/0/1]port trunk allow-pass vlan 2
[RTB- GigabitEthernet0/0/1]]quit
[RTB]interface Vlanif 2
[RTB-Vlanif2]vrrp vrid 1 virtual-ip 10.0.0.254

<Huawei>sys
Enter system view, return user view with Ctrl+Z.
[Huawei]sysname SWA
[SWA]vlan 2
[SWA-vlan2]quit
[SWA]interface Vlanif 2
[SWA-Vlanif2]ip address 10.0.0.1 255.255.255.0
[SWA-Vlanif2]quit
[SWA]interface GigabitEthernet 0/0/1
[SWA- GigabitEthernet0/0/1]port link-type trunk
[SWA- GigabitEthernet0/0/1]port trunk allow-pass vlan 2
[SWA- GigabitEthernet0/0/1]]quit
[SWA]interface GigabitEthernet 0/0/2
[SWA- GigabitEthernet0/0/2]port link-type trunk
[SWA- GigabitEthernet0/0/2]port trunk allow-pass vlan 2
[SWA- GigabitEthernet0/0/2]]quit
```

1.2.2 Configuring VRRP Tracking Uplink Interface

The VRRP priority of RTA is set to 150 and the VRRP priority of RTB remains the default value of 100. RTA is the master router. Configure VRRP to track the status of Serial1/0/0 connecting RTA to RTC. When S1/0/0 fails, the VRRP priority of RTA reduces to 100.

```
[RTA]interface Vlanif 2
[RTA-Vlanif2]vrrp vrid 1 track interface Serial 0/0/0 reduced 100
```

1.3 Verifying the Configuration

1.4 Viewing the Configuration for VRRP Tracking Uplink Interface

Run the **display vrrp** command on RTA to view the VRRP status. The command output shows that both the **PriorityRun** and **PriorityConfig** fields display 150.

```
<RTA>display vrrp
  Vlanif2 | Virtual Router 1
    State : Master
    Virtual IP : 10.0.0.254
    Master IP : 10.0.0.251
```

```
    PriorityRun : 150
    PriorityConfig : 150
    MasterPriority : 150
    Preempt : YES   Delay time : 0
    TimerRun : 1
    TimerConfig : 1
    Auth type : NONE
    Virtual MAC :  0000-5e00-0101
    Check TTL : YES
    Config type : normal-vrrp
    Track IF : GigabitEthernet1/0/0  Priority reduced : 100
    IF state : UP
    Config track link-bfd down-number : 0
```

Shut down Serial0/0/0. Run the **display vrrp** command on RTA. The command output shows that the **PriorityRun** field displays 50. RTA becomes the backup router, and RTB becomes the master router.

```
<RTA>sys
Enter system view, return user view with Ctrl+Z.
[RTA]interface Serial A/0/0
[RTA-Serial0/0/0]shutdown
[RTA-GigabitEthernet1/0/0]return
<RTA>display vrrp
  Vlanif2 | Virtual Router 1
    State : Backup
    Virtual IP : 10.0.0.254
    Master IP : 10.0.0.252
    PriorityRun : 50
    PriorityConfig : 150
    MasterPriority : 100
    Preempt : YES   Delay time : 0
    TimerRun : 1
    TimerConfig : 1
    Auth type : NONE
    Virtual MAC :  0000-5e00-0101
    Check TTL : YES
    Config type : normal-vrrp
    Track IF : GigabitEthernet1/0/0  Priority reduced : 100
    IF state : DOWN
    Config track link-bfd down-number : 0

<RTB>display vrrp
  Vlanif2 | Virtual Router 1
    State : Master
    Virtual IP : 10.0.0.254
    Master IP : 10.0.0.252
    PriorityRun : 100
    PriorityConfig : 100
    MasterPriority : 100
    Preempt : YES   Delay time : 0
    TimerRun : 1
    TimerConfig : 1
    Auth type : NONE
    Virtual MAC :  0000-5e00-0101
    Check TTL : YES
    Config type : normal-vrrp
    Config track link-bfd down-number : 0
```

1.5 Configuration Reference

1.5.1 RTA Configuration

```
#
vlan batch 2
#
interface Vlanif2
 ip address 10.0.0.251 255.255.255.0
 vrrp vrid 1 virtual-ip 10.0.0.254
 vrrp vrid 1 priority 150
vrrp vrid 1 track interface Serial0/0/0 reduced 100
#
interface GigabitEthernet0/0/1
 switchport
 port link-type trunk
 port trunk allow-pass vlan 2
 stp disable
#
interface GigabitEthernet0/0/0
 ip address 10.0.1.1 255.255.255.252
#
```

1.5.2 RTB Configuration

```
#
vlan batch 2
#
interface Vlanif2
 ip address 10.0.0.252 255.255.255.0
 vrrp vrid 1 virtual-ip 10.0.0.254
#
interface GigabitEthernet0/0/2
 switchport
 port link-type trunk
 port trunk allow-pass vlan 2
#
interface GigabitEthernet0/0/0
 ip address 10.0.1.2 255.255.255.252
#
```

1.5.3 SWA Configuration

```
vlan batch 2
#
interface Vlanif2
 ip address 10.0.0.1 255.255.255.0
#
interface GigabitEthernet0/0/1
 port link-type trunk
 port trunk allow-pass vlan 2
#
interface GigabitEthernet0/0/2
 port link-type trunk
 port trunk allow-pass vlan 2
#
```

1.6 FAQ

1.6.1 Question 1

Q: In this lab, VRRP tracking interface is configured on a master router. Can VRRP tracking interface be configured on a backup router?

A: No, VRRP tracking interface cannot be configured on a backup router.