

# Example for Configuring Active-Active VRRPv3 for IPv6

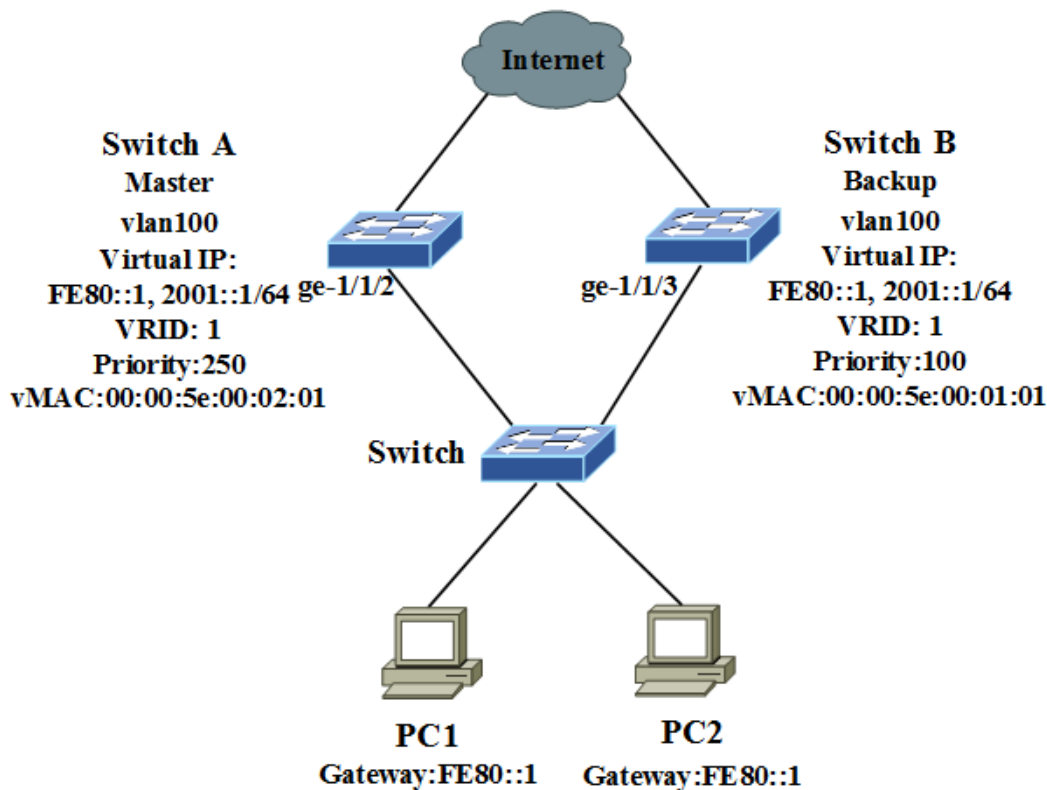
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## Networking Requirements

Figure 1 below depicts an IPv6 network. Switch connects to the internet through gateway switches Switch A and Switch B. To ensure nonstop service availability, a VRRP group in Active-Active mode needs to be configured on Switch A and Switch B.

- Configure the VRRP router ID as 1, Switch A is the master and Switch B is the backup switch of VRRP group.
- Configure the virtual IPv6 address as 2001::1/64 and link-local address FE80::1, virtual MAC on master switch is 00:00:5e:00:02:01 and 00:00:5e:00:01:01 on the backup switch.

Figure 1. Networking of Active-Active VRRPv3 for IPv6



## Procedure

### Switch A

**Step1** Configure VLAN.

```
admin@SwitchA# set vlans vlan-id 100
admin@SwitchA# set interface gigabit-ethernet ge-1/1/2 family ethernet-switching native-vlan-id 100
admin@SwitchA# set l3-interface vlan-interface vlan100 address 2001::2 prefix-length 64
admin@SwitchA# set vlans vlan-id 100 l3-interface vlan100
```

**Step2** Create a VRRP group.

```
admin@SwitchA# set protocols vrrp interface vlan100 vrid 1
```

**Step3** Configure the VRRP version number to v3.

```
admin@SwitchA#set protocols vrrp interface vlan100 vrid 1 version 3
```

By default, the system uses VRRPv2.

**Step4** Enable the VRRP function.

```
admin@SwitchA# set protocols vrrp interface vlan100 vrid 1 disable false
```

By default, the VRRP function is enabled.

**Step5** Enable the Active-Active VRRP function.

```
admin@SwitchA# set protocols vrrp interface vlan100 vrid 1 load-balance disable false
```

By default, the Active-Active VRRP function is enabled.

**Step6** (Optional) Configure the interval for sending VRRPv3 advertisement packets.

```
admin@SwitchA# set protocols vrrp interface vlan100 vrid 1 interval 1
```

By default, the value is one second.

**Step7** Configure virtual IPv6 addresses for the VRRP group.

```
admin@SwitchA# set protocols vrrp interface vlan100 vrid 1 ip 2001::1
```

```
admin@SwitchA# set protocols vrrp interface vlan100 vrid 1 ip FE80::1
```

**Step8** (Optional) Configure VRRP preemptive mode.

```
admin@SwitchA# set protocols vrrp interface vlan100 vrid 1 preempt enable true
```

By default, the preemptive mode is enabled.

**Step9** (Optional) Configure the interval of updating the virtual MAC.

```
admin@SwitchA# set protocols vrrp interface vlan100 vrid 1 load-balance virtual-MAC time-interval 120
```

By default, the value is 120s.

**Step10** Configure the priority of the device in a VRRP group.

```
admin@SwitchA# set protocols vrrp interface vlan100 vrid 1 priority 250
```

**Step11** (Optional) Enable accept mode.

```
admin@SwitchA# set protocols vrrp interface vlan100 vrid 1 accept disable false
```

**Step12** Commit the configuration.

```
admin@SwitchA# commit
```

## Switch B

**Step1** Configure VLAN.

```
admin@SwitchB# set vlans vlan-id 100
```

```
admin@SwitchB# set interface gigabit-ethernet ge-1/1/3 family ethernet-switching native-vlan-id 100
```

```
admin@SwitchB# set l3-interface vlan-interface vlan100 address 2001::3 prefix-length 64
```

```
admin@SwitchB# set vlans vlan-id 100 l3-interface vlan100
```

**Step2** Create a VRRP group.

```
admin@SwitchB# set protocols vrrp interface vlan100 vrid 1
```

**Step3** Configure the VRRP version number to v3.

```
admin@SwitchB#set protocols vrrp interface vlan100 vrid 1 version 3
```

By default, the system uses VRRPv2.

**Step4** Enable the VRRP function.

```
admin@SwitchB# set protocols vrrp interface vlan100 vrid 1 disable false
```

By default, the VRRP function is enabled.

**Step5** Enable the Active-Active VRRP function.

```
admin@SwitchB# set protocols vrrp interface vlan100 vrid 1 load-balance disable false
```

By default, the Active-Active VRRP function is enabled.

**Step6** (Optional) Configure the interval of sending VRRPv3 advertisement packets.

```
admin@SwitchB# set protocols vrrp interface vlan100 vrid 1 interval 1
```

By default, the value is one second.

**Step7** Configure virtual IPv6 addresses for the VRRP group.

```
admin@SwitchB# set protocols vrrp interface vlan100 vrid 1 ip 2001::1
```

```
admin@SwitchB# set protocols vrrp interface vlan100 vrid 1 ip FE80::1
```

**Step8** (Optional) Configure VRRP preemptive mode.

```
admin@SwitchB# set protocols vrrp interface vlan100 vrid 1 preempt enable true
```

By default, the preemptive mode is enabled.

**Step9** (Optional) Configure the interval of updating the virtual MAC.

```
admin@SwitchB# set protocols vrrp interface vlan100 vrid 1 load-balance virtual-MAC time-interval 120
```

By default, the value is 120s.

**Step10** Configure the priority of the device in a VRRP group.

```
admin@SwitchB# set protocols vrrp interface vlan100 vrid 1 priority 100
```

**Step11** (Optional) Enable accept mode.

```
admin@SwitchB# set protocols vrrp interface vlan100 vrid 1 accept disable false
```

**Step12** Commit the configuration.

```
admin@SwitchB# commit
```

## Verify the Configuration

- After the configuration is completed, run **run show vrrp** command to view the configuration information of VRRP group. The result of show command on master is as follows.

```
admin@SwitchA# run show vrrp
Interface: vlan100
VRID: 1
Version:          3
Accept:           enable
Load-balance: enable
State: Master
Master IP: 2001::2
Virtual MAC: 00:00:5e:00:02:01
Preempt: enable
Adver Interval: 1
Priority: 250
Virtual IP: 2001::1, FE80::1
```

- When showing MAC address table on the downstream switch to check the MAC address of the device, you will see the virtual MAC entries corresponding to the virtual IP address of the VRRP group.
- On PC1 and PC2, ping the virtual IP address FE80::1 to check the connectivity with the devices of VRRP group.

