

FSOS
VPRB Configuration

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1. VPRB Configuration

1.1 VPRB Overview

VPRB (vlan port redundancy backup) is a VLAN port backup function. If there are multiple ports in VLAN, you can specify one port as the master port and the other port as the backup port of the master port. If the master and backup ports are normal, the master port is in the forwarding state and the backup port is in the discarding state. All the packets of the vlan are sent from the master port. When the master port fails and packets cannot be forwarded, the backup port is immediately set to the forwarding state. The packets forwarded on the master port are switched to the backup port. If the master port returns to normal, the service packets are immediately switched back to the master port, so as to achieve the purpose of vlan port backup.

Reasonably planning the master and backup ports of different VLANs can achieve link load balancing.

To implement port backup and link load balancing for multiple VLANs, VPRB needs to be used with MSTP. First, add the VLAN to be backed up to the MSTP instance, and then configure the master port and backup port of the MSTP instance.

1.2 Configure Basic MSTP

Configure Basic MSTP

Operation	Command	Remarks
Enter global configuration mode	configure terminal	-
Configure the MSTP instance	[no] spanning-tree mstp instance <i>in-id</i> [vlan <i>vlan-id</i> priority <i>value</i>]	required
Run MSTP mode	spanning-tree mode mstp	required

 Note:

Only MSTP instance 1 and 2 are supported for VPRB.

1.3 Configure vprb

Configure vprb

Operation	Command	Remarks
		s

Enter global configuration mode	configure terminal	-
Configure vprb	[no] vprb major-port ethernet <i>port-id</i> bak-port ethernet <i>port-id</i> instance <i>inst-id</i>	required
View the configuration information	show vprb	optional

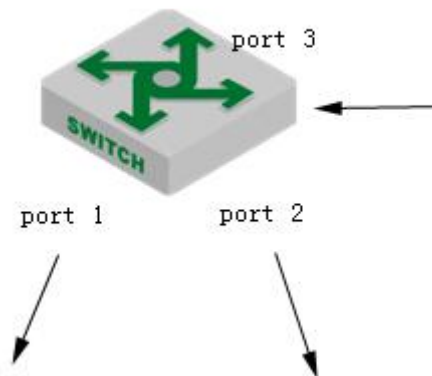
1.4 Configuration Example

1. Network requirements

The traffic of Vlan 1-200 enters from port 3.

Normally, the traffic of vlan 1-100 is forwarded from port1. When port 1 fails to become linkdown, the traffic of vlan 1-100 is forwarded from port 2; when port 1 recovers linkup, it is forwarded from port 1.

Normally, the traffic of vlan 101-200 is forwarded from port2. When port 2 fails to become linkdown, the traffic of vlan 101-200 is forwarded from port 1; when port 2 recovers linkup, it is forwarded from port 2.



sketch map of VPRB

2. Configuration steps

Configure the vlan

```
SW(config)#vlan 1-200
```

```
SW(config-if-vlan)#switchport range ethernet 0/0/1 to ethernet 0/0/3
```

```
SW(config-if-vlan)#exit
```

Configure the mstp instance for vprb

```
SW(config)#spanning-tree mst instance 1 vlan 1-100
```

```
SW(config)#spanning-tree mst instance 2 vlan 101-200
```

Configure stgp to run mstp mode

```
SW(config)# spanning-tree mode mstp
```

```
# Configure the vprb function
```

```
SW(config)#vprb major-port ethernet 0/0/1 bak-port ethernet 0/0/2 instance 1
```

```
SW(config)#vprb major-port ethernet 0/0/2 bak-port ethernet 0/0/1 instance 2
```

```
3.Result validation
```

```
# View the vprb information
```

```
SW(config)#s vprb
```

major-port	bak-port	instance
e0/0/1	e0/0/2	1
e0/0/2	e0/0/1	2

```
Total entries: 2 .
```