```
Raisecom#show loopback-detection
Interface  pktVlan  detect-vlanlist    hellotime  restoretime  loop-act
log-interval  Status  loop-srcMAC     loop-srcPort  loop-Duration  loop-
vlanlist
-------------------------------------------------------------------------
-------------------------------------------------------------------------
-----------------
TGE1/1/1   3      --              1        5         block     0
no     --             --           --          --

TGE1/1/2   3      --              1        5         block     0
no     --             --           --          --
```

3.11 Interface protection

3.11.1 Introduction

With interface protection, you can add an interface, which needs to be controlled, to an interface protection group, isolating Layer 2/Layer 3 data in the interface protection group. This can provide physical isolation between interfaces, enhance network security, and provide flexible networking scheme for users.

After being configured with interface protection, interfaces in an interface protection group cannot transmit packets to each other. Interfaces in and out of the interface protection group can communicate with each other.

3.11.2 Preparing for configurations

Scenario

Interface protection can mutually isolate interfaces in the same VLAN, enhance network security, and provide flexible networking solutions for you.

Prerequisite

N/A

3.11.3 Default configurations of interface protection

Default configurations of interface protection are as below.

Function	Default value
Interface protection status of each interface	Disable

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3.11.4 Configuring interface protection



Interface protection is unrelated with the VLAN to which the interface belongs.

Configure interface protection for the ISCOM3000X series switch as below.

Step	Command	Description
1	Raisecom#**config**	Enter global configuration mode.
2	Raisecom(config)#**interface** *interface-type interface-number*	Enter physical layer interface configuration mode.
3	Raisecom(config-tengigabitethernet1/1/1)#**switchport protect**	Enable interface protection. Interface isolation is supported across devices in the ISF. Interface isolation can be implemented based on LAG interface, namely, between LAG interfaces, and between a LAG interface and common interface.

3.11.5 Configuring interface isolation

Configure interface isolation for the ISCOM3000X series switch as below.

Step	Command	Description
1	Raisecom#**config**	Enter global configuration mode.
2	Raisecom(config)#**protect-group** *group-id* **vlan** *vlan-id interface-type interface-number*	Create an interface isolation group. Configure isolation VLANs associated with the group and the list of isolated interfaces.

3.11.6 Checking configurations

Use the following commands to check configuration results.

No.	Command	Description
1	Raisecom#**show switchport protect**	Show configurations of interface protection.
2	Raisecom#**show protect-group** { **all** | *group-id* }	Show configurations of interface isolation.

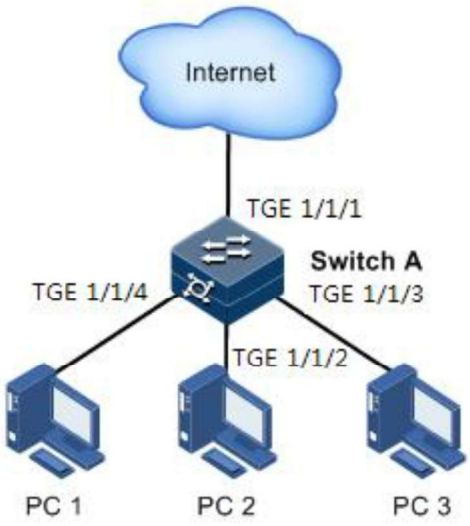
Copyright © Raisecom Technology Co., Ltd.

3.11.7 Example for configuring interface protection

Networking requirements

As shown in Figure 3-24, to prevent PC 1 and PC 2 from interconnecting with each other and to enable them to interconnect with PC 3 respectively, enable interface protection on TGE 1/1/1 and TGE 1/1/2 on Switch A.

Figure 3-24 Interface protection networking



Configuration steps

Step 1 Enable interface protection on the TGE 1/1/1.

```
Raisecom#config
Raisecom(config)#interface tengigabitethernet 1/1/1
Raisecom(config-tengigabitethernet1/1/1)#switchport protect
Raisecom(config-tengigabitethernet1/1/1)#exit
```

Step 2 Enable interface protection on the TGE 1/1/2.

```
Raisecom(config)#interface tengigabitethernet 1/1/2
Raisecom(config-tengigabitethernet1/1/2)#switchport protect
```

Checking results

Use the **show switchport protect** command to show configurations of interface protection.

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```
Raisecom#show switchport protect
Port             Protected State
-------------------------
tengigabitethernet1/1/1   enable
tengigabitethernet1/1/2   enable
tengigabitethernet1/1/3   disable
tengigabitethernet1/1/4   disable
tengigabitethernet1/1/5   disable
tengigabitethernet1/1/6   disable
……
```

Check whether PC 1 and PC 2 can ping PC 3 successfully.

- PC 1 can ping PC 3 successfully.
- PC 2 can ping PC 3 successfully.

Check whether PC 1 can ping PC 2 successfully.

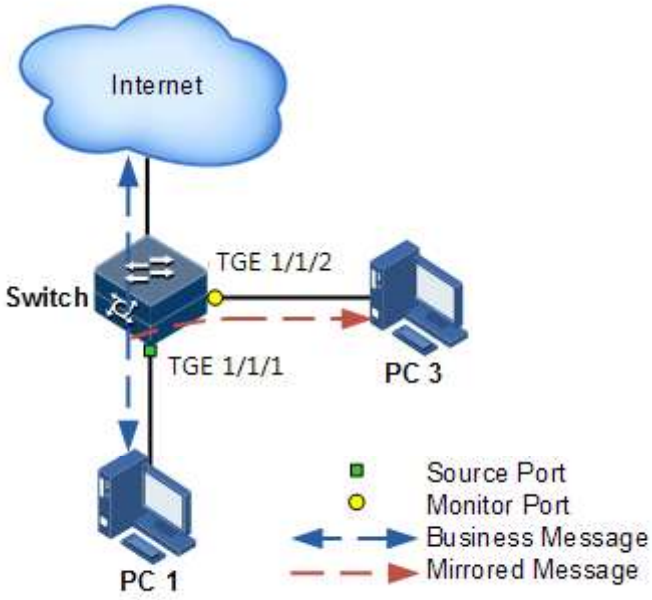
PC 1 fails to ping PC 3, so interface protection has taken effect.

3.12 Port mirroring

3.12.1 Introduction

Port mirroring refers to assigning some packets mirrored from the source port to the destination port, such as from the monitor port without affecting the normal packet forwarding. You can monitor sending and receiving status for packets on a port through this function and analyze the related network conditions.

Figure 3-25 Principles of port mirroring



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