

FSOS

Port Isolation Configuration

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## 1. Port Isolation

### 1.1 Introduction to Port Isolation

Through the port isolation feature, users can control the ports will be required to join a group in isolation. Different depending on the type of isolation group to implement layer 2 and layer 3 isolation between ports group, that enhances the security of the network, but also provides users with a flexible networking solution.

There is no limit to the number of ports that can be added to the isolation group.

### 1.2 Configuring Port Isolation

#### 1.2.1 Configuring port-isolation

If you configure the port after the isolation group, you can only forwarding data from downlink ports to uplink ports. By no port-isolation uplink ethernet interface-list command, the port will leave the isolation group.

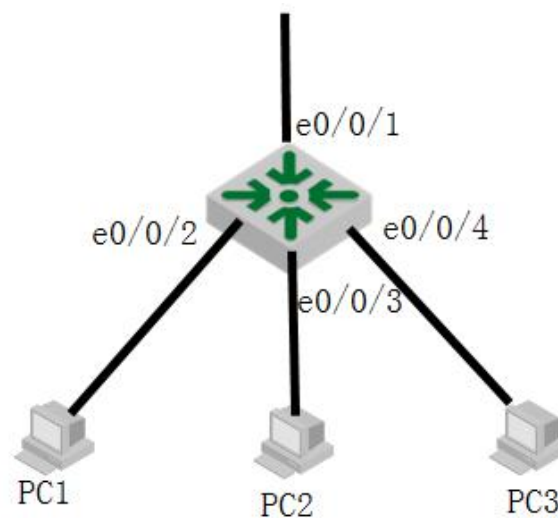
Table 1-1 Configure port isolation based on port

Operation	Command	Remark
Enter into the interface mode	<b>interface</b> <i>interface-list</i>	Required
Specify the particular port	<b>port-isolation -port uplink ethernet</b> <i>interface-list</i>	Required
Check the configured port isolation	<b>show port-isolation</b>	Executable under all the modes
Check the decompilation of port isolation	<b>show running-config isolate-port</b>	Executable under all the modes

### 1.2.1 Example of port isolation configuration

PC1, PC2, PC3 connected to the switch e0/0/2, e0/0/3, e0/0/4 ports. Switch by e0/0/1 is connected to the external network. PC1 and PC2, PC3 need to isolate the communication between each other.

Network Diagram:



Configuration Steps:

```
Switch#configure terminal
```

```
# Join the ports to isolation group
```

```
Switch(config)#interface ethernet 0/0/2
```

```
Switch(config-if-ethernet-0/0/2)#port-isolation uplink ethernet 0/0/1
```

Add uplink port successfully.

```
Switch(config-if-ethernet-0/0/2)#interface ethernet 0/0/3
```

```
Switch(config-if-ethernet-0/0/3)# port-isolation uplink ethernet 0/0/1
```

Add uplink port successfully.

```
Switch(config-if-ethernet-0/0/3)#interface ethernet 0/0/4
```

```
Switch(config-if-ethernet-0/0/4)# port-isolation uplink ethernet 0/0/1
```

Add uplink port successfully.

Or you can enter the port group mode to config,it will be faster.

```
Switch(config)#interface range ethernet 0/0/2 to ethernet 0/0/4
```

```
Switch(config-if-range)#port-isolation uplink ethernet 0/0/1
```

Add uplink port successfully

Add uplink port successfully

Add uplink port successfully

# View of the port isolation group

downlink port :uplink port

e0/0/2. : e0/0/1.

e0/0/3. : e0/0/1.

e0/0/4. : e0/0/1.

### 1.2.3 Configure port isolation (S3800-BCM)

Port isolation of S3800-BCM is different from previous practice, the device defaults that all the ports are uplink ports. So if you want to specify a particular uplink port, you can first delete all the uplink ports and then specify the particular port.

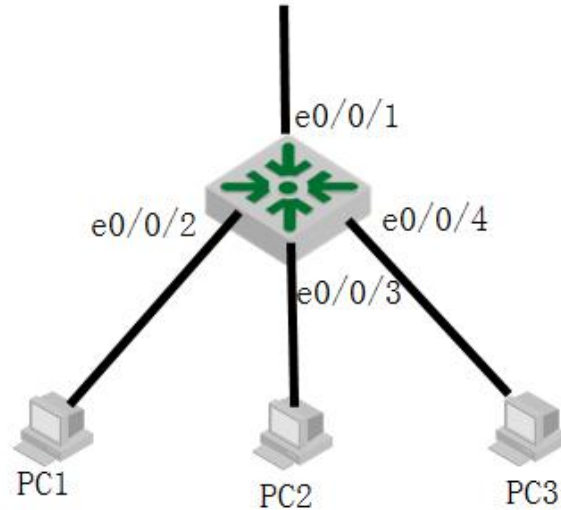
Table1-2 Configure port isolation based on port

Operation	Command	Remark
Enter into the interface mode	<b>interface</b> <i>interface-list</i>	required
Delete all the uplink ports	<b>no port-isolation uplink all</b>	optional
Specify the particular port	<b>port-isolation uplink ethernet</b> <i>device/slot/port</i>	required
Check the configured port isolation	<b>show port-isolation</b>	Executable under all the modes
Check the decompilation of port isolation	<b>show running-config port_isolation</b>	Executable under all the modes

### 1.2.4 Examples of port isolation (S3800-BCM)

PC1, PC2, PC3 connected to the switch e0/0/2, e0/0/3, e0/0/4 ports. Switch by e0/0/1 is connected to the external network. PC1 and PC2, PC3 need to isolate the communication between each other.

Network Diagram:



```
Switch(config)#interface range ethernet 0/0/2 to ethernet 0/0/4
```

```
Switch(config-if-range)#no port-isolation uplink all
```

```
Remove port isolation uplink port successfully.
```

```
Remove port isolation uplink port successfully.
```

```
Remove port isolation uplink port successfully.
```

```
Switch(config-if-range)#sh run port_isolation
```

```
![PORT_ISOLATION]
```

```
interface ethernet 0/0/2
```

```
no port-isolation uplink all
```

```
exit
```

```
interface ethernet 0/0/3
```

```
no port-isolation uplink all
```

```
exit
```

```
interface ethernet 0/0/4

no port-isolation uplink all

exit

Switch(config-if-range)#sh port-isolation

downlink port : uplink port

e0/0/2.    : NULL

e0/0/3.    : NULL

e0/0/4.    : NULL
```

```
Switch(config-if-range)#port-isolation uplink ethernet 0/0/1
```

```
Add uplink port successfully.
```

```
Add uplink port successfully.
```

```
Add uplink port successfully.
```

```
Switch(config-if-range)#sh port-isolation
```

```
downlink port : uplink port
```

```
e0/0/2.    : e0/0/1.
```

```
e0/0/3.    : e0/0/1.
```

```
e0/0/4.    : e0/0/1.
```