Port Mirroring Configuration
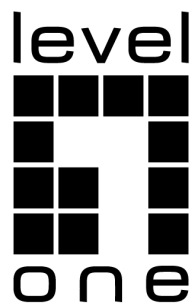
level one

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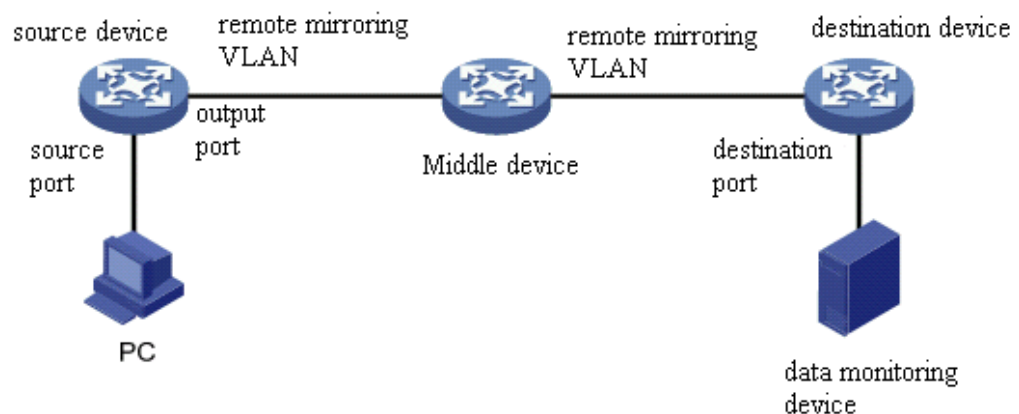## 1.2 Configuring Port Mirroring Task

1.2.1   Configuring Port Mirroring

In order to make switch management easy, you can set port mirror and use a port of the switch to observe the flux that runs through a group of ports.

Port mirroring could be divided like local mirroring and remote mirroring. Local mirroring means copying message to this device's port, and remote mirroring function means transferring message to remote device across multiple network devices. Port mirroring is configured by the way of mirroring group, and relative concepts include port, destination port, remote mirroring VLAN, remote mirroring TPID, VLAN DISABLE-LEARNING and etc.

In the remote mirroring, the local device would add a vlan tag in the mirroring message. Messages from different mirroring's remote groups are detected by setting the tag's vid (remote mirroring vlan) and tpid. In order to achieve remote mirroring function, it is required that the middle device could transfer messages within remote mirroring's vlan to remote device.

Remote mirroring's schematic plot is like following:

Configuring remote mirroring function on source device, and mirroring source port's message to the output port while adding configuring RSPAN TAG on the message. Vlan id in this tag is the remote mirroring VLAN. Middle device transfer mirroring message to the destination port by broadcasting. The destination device

transfer message from destination port to data monitoring device by configuration. If the destination device supports port mirroring function, the message could be transferred from destination port to data monitoring device by configuring local mirroring. If the destination device supports the configuration of mac address learning based on vlan, the message could be transferred to data monitoring device by shutting down remote mirroring vlan address learning. If the destination device's qos policy mapping supports the matching of vlan, the message could be transferred to monitoring device by qos policy mapping.

Enter the EXEC mode and perform the following steps to configure port mirroring:

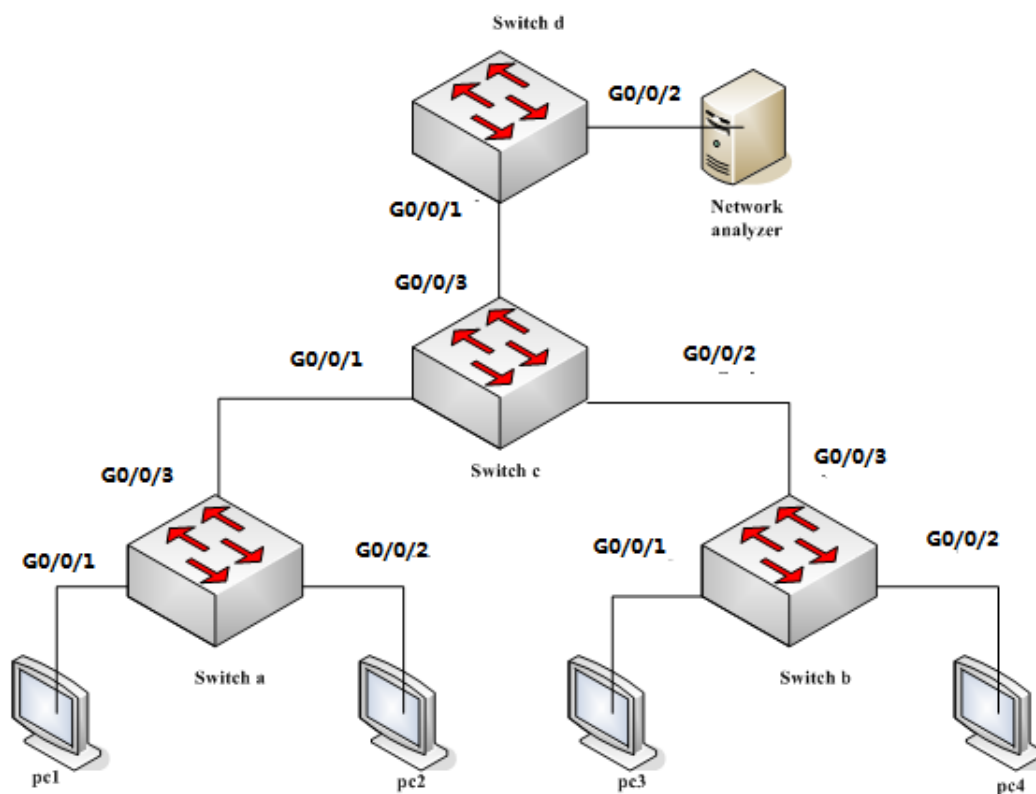| Command	Description
config	Enters the global configuration mode.
mirror session *session_number* {**destination** {**interface** *interface-id*} { **rspan** *vid*} | **source** {**interface** *interface-id* [, | -] [rx | tx | both] } }	Configures port mirroring. **session-number** is the number of the port mirroring. **destination** is the destination port of the mirroring. Vid of the remote mirroring tag. **source** is the source port of mirroring. **rx** means the input data of mirroring. Tx means the output data of mirroring. Both means the input and output data of mirroring.
exit	Enters the management mode again.
write	Saves the configuration.

1.2.2   Displaying Port Mirroring Information

Run show to display the configuration information of port mirroring.

Command	Description
show mirror [session *session_number]*	Displays the configuration information about port mirroring. **session-number** is the number of the port mirroring.

1.3 Remote Mirroring Configuration Example

The network environment is as shown in following figure:

Users need to monitor the flow of the g0/0/1 port in switch a and the g0/0/1 port in switch b at the network analyzer, which can be realize through remote mirroring. The configuration is as follows:

switch a:

mirror session 1 destination interface g0/0/3 rspan 100

mirror session 1 source interface g0/0/1 both

switch b:

mirror session 1 destination interface g0/0/3 rspan 1000

mirror session 1 source interface g0/0/1 both

switch c:

vlan disable-learning 100,1000

!

interface g0/0/1

switchport mode trunk

!

```
interface g0/0/2

  switchport mode trunk

!

interface g0/0/3

  switchport mode trunk

!

!

vlan 1,100,1000

!
```

switch d:

```
mirror session 1 destination interface g0/0/2

mirror session 1 source interface g0/0/1 both
```