

# Configuring DHCP Relay and DHCP Snooping together

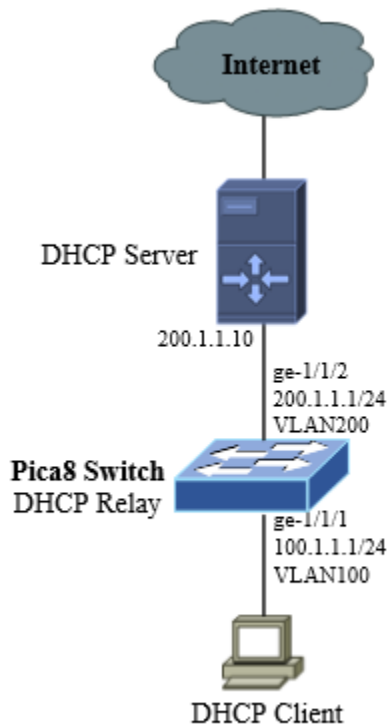
By configuring DHCP relay and DHCP snooping together for ARP snooping defense, about DHCP relay configuration please refer to [Configuring DHCP Relay](#), about DHCP snooping configuration please refer to [Configuring DHCP Snooping](#).

If we configure the DHCP relay and DHCP snooping together, the mapping table of DHCP snooping will be synchronized to ARP inspection table to validate ARP packets in a network, please refer to [Dynamic ARP Inspection](#) for detail of ARP inspection table .

## Configuration example

### Networking Requirements

- The IP address of the ge-1/1/1 interface of Pica8 Switch is 100.1.1.1/24 and belongs to VLAN 100, and enable DHCP relay function on VLAN 100.
- The IP address of the ge-1/1/2 interface of Pica8 Switch is 200.1.1.1/24 and belongs to VLAN 200, and configure the interface as the DHCP snooping trusted interface.
- Enable DHCP snooping on VLAN 100.
- The IP address of DHCP server is 200.1.1.10.



### Procedure

Step 1. Configure VLAN.

```
admin@XorPlus#set vlans vlan-id 100
admin@XorPlus#set vlans vlan-id 200
admin@XorPlus#set interface gigabit-ethernet ge-1/1/1 family ethernet-switching native-vlan-id 100
admin@XorPlus#set interface gigabit-ethernet ge-1/1/2 family ethernet-switching native-vlan-id 200
admin@XorPlus#set vlan-interface interface vlan-100 vif vlan-100 address 100.1.1.1 prefix-length 24
admin@XorPlus#set vlan-interface interface vlan-200 vif vlan-200 address 200.1.1.1 prefix-length 24
admin@XorPlus#set vlans vlan-id 100 i3-interface vlan-100
admin@XorPlus#set vlans vlan-id 200 i3-interface vlan-200
```

Step 2. Enable DHCP relay on VLAN 100.

```
admin@XorPlus#set protocols dhcp relay vlan-interface vlan-100 disable false
```

Step 3. Configure the IP address of DHCP server as 200.1.1.10.

```
admin@XorPlus#set protocols dhcp relay vlan-interface vlan-100 dhcp-server-address1 200.1.1.10
```

Step 4. Enable DHCP snooping.

```
admin@XorPlus# set protocols dhcp snooping disable false
```

Step 5. Configure DHCP snooping on VLAN 100.

```
admin@XorPlus#set protocols dhcp snooping vlan 100
```

**NOTE:**

The VLAN that enabling DHCP snooping needs to be configured as the VLAN to which the interface connected to the host.

Step 6. Configure the interface ge-1/1/2 as DHCP snooping trusted interface.

```
admin@XorPlus#set protocols dhcp snooping port ge-1/1/2 trust true
```

Step 7. Commit the configuration.

```
admin@XorPlus# commit
```

Step 8. Verify the configuration.

- After the configuration is complete, run the **show protocols dhcp** command to view the configuration.

```
admin@Xorplus# show protocols dhcp

relay {
  vlan-interface vlan-100 {
    dhcp-server-address1: 200.1.1.10
  }
}

snooping {
  disable: false
}
```

- Run the **run show dhcp snooping** command to view the information of DHCP snooping binding table.

```
admin@XorPlus# run show dhcp snooping
Total count: 1
MAC Address      IP Address      Port      VLAN ID  VLAN Interface
-----
00:1d:09:fa:a1:b4  100.1.1.11     ge-1/1/1   100     vlan-100
```