

Verifying That a Trusted DHCP Server Is Working Correctly

Purpose Verify that a DHCP trusted server is working on the switch. See what happens when the DHCP server is trusted and then untrusted.

Action Send some DHCP requests from network devices (here they are DHCP clients) connected to the switch.

Display the DHCP snooping information when the interface on which the DHCP server connects to the switch is trusted. The following output results when requests are sent from the MAC addresses and the server has provided the IP addresses and leases:

```
user@switch> show dhcp snooping binding
```

DHCP Snooping Information:

MAC Address	IP Address	Lease	Type	VLAN	Interface
00:05:85:3A:82:77	192.0.2.17	600	dynamic	employee-vlan	ge-0/0/1.0
00:05:85:3A:82:79	192.0.2.18	653	dynamic	employee-vlan	ge-0/0/1.0
00:05:85:3A:82:80	192.0.2.19	720	dynamic	employee-vlan	ge-0/0/2.0
00:05:85:3A:82:81	192.0.2.20	932	dynamic	employee-vlan	ge-0/0/2.0
00:05:85:3A:82:83	192.0.2.21	1230	dynamic	employee-vlan	ge-0/0/2.0
00:05:85:27:32:88	192.0.2.22	3200	dynamic	employee-vlan	ge-0/0/2.0

Meaning When the interface on which the DHCP server connects to the switch has been set to trusted, the output (see preceding sample) shows, for each MAC address, the assigned IP address and lease time—that is, the time, in seconds, remaining before the lease expires.

If the DHCP server had been configured as untrusted, the output would look like this:

```
user@switch> show dhcp snooping binding
```

DHCP Snooping Information:

MAC Address	IP Address	Lease	Type	VLAN	Interface
00:05:85:3A:82:77	0.0.0.0	-	dynamic	employee-vlan	ge-0/0/1.0
00:05:85:3A:82:79	0.0.0.0	-	dynamic	employee-vlan	ge-0/0/1.0
00:05:85:3A:82:80	0.0.0.0	-	dynamic	employee-vlan	ge-0/0/2.0
00:05:85:3A:82:81	0.0.0.0	-	dynamic	employee-vlan	ge-0/0/2.0
00:05:85:3A:82:83	0.0.0.0	-	dynamic	employee-vlan	ge-0/0/2.0
00:05:85:27:32:88	0.0.0.0	-	dynamic	employee-vlan	ge-0/0/2.0

In the preceding output sample, IP addresses and lease times are not assigned because the DHCP clients do not have a trusted server to which they can send requests. In the database, the clients' MAC addresses are shown with no assigned IP addresses (hence the 0.0.0.0 content in the IP Address column) and no leases (the lease time is shown as a dash – in the Lease column).

- Related Topics**
- Enabling a Trusted DHCP Server (CLI Procedure)
 - Enabling a Trusted DHCP Server (J-Web Procedure)

- Example: Configuring Port Security, with DHCP Snooping, DAI, MAC Limiting, and MAC Move Limiting, on an EX-series Switch
- Example: Configuring a DHCP Server Interface as Untrusted to Protect the Switch from Rogue DHCP Server Attacks
- Monitoring Port Security
- Troubleshooting Port Security