

Configure Dynamic Host Configuration Protocol (DHCP) Snooping and Relay Settings on your Switch

Objective

Dynamic Host Configuration Protocol (DHCP) is a service that runs at the application layer of the TCP/IP protocol stack to dynamically assign IP addresses to DHCP clients, and to allocate TCP/IP configuration information to DHCP clients. DHCP messages are broadcast messages which cannot cross from one network to another. DHCP Interface setting requires the configuration of the DHCP relay and DHCP snooping which are explained below.

DHCP relay forwards the broadcast messages to a different network. It also adds option 82 to provide additional information of the client to the routing network.

DHCP snooping helps to identify which interfaces are trusted and which are untrusted. It prevents false DHCP responses. In layer 3 switches, DHCP relay and snooping can be enabled on any interface with an IP address and on VLAN with or without an IP address.

The document explains how to configure DHCP Interface settings on Sx500 Series Stackable Switches. The following configurations need to be completed before this configuration is done.

1. Configure VLAN; please refer to the article *VLAN Creation on Sx500 Series Stackable Switches* for this configuration.
2. Configure DHCP Properties, please refer to the article *DHCP Properties Configuration on SX500 Series Stackable Switches* for this configuration.

Applicable Devices

- Sx500 Series Stackable Switches

Software Version

- 1.3.0.62

Configure DHCP Interface settings

Step 1. Log in to the web configuration utility to choose **IP Configuration >DHCP > Interface Settings**. The *Interface Settings* page opens:

Interface Settings

DHCP Interfaces Table			
<input type="checkbox"/>	Interface	Interface IP Address	DHCP Relay
0 results found.			

An * indicates that the corresponding interface configuration is inactive because the associated Interface no longer exists

Add Interface

Interface Settings

DHCP Interfaces Table			
<input type="checkbox"/>	Interface	Interface IP Address	DHCP Relay
0 results found.			

An * indicates that the corresponding interface configuration is inactive because the associated Interface no longer exists

Step 1. Click **Add** to add an interface configuration. A new window appears as follows:

Interface: ☒ Unit/Slot Port ☐ LAG ☐ VLAN

DHCP Relay: ☐ Enable

DHCP Snooping: ☐ Enable

Step 2. Click the radio button in the Interface field that corresponds to the type of interface you wish to configure. The available options are:

- Unit/Slot and Port — The unit identifies the switch, whether it is active or member in the stack. Unit 1 is active and unit 2 is member. The slot identifies which switch is connected to which slot. Slot 1 is SF500 and slot 2 is SG500. Choose the desired option from the Unit/Slot and Port drop-down lists. If you are unfamiliar with the terms used, check out [Cisco Business: Glossary of New Terms](#)
- LAG — Choose the desired LAG from the LAG drop-down list. A Link Aggregate Group (LAG) is used to link multiple ports together. LAGs multiply bandwidth, increase port flexibility, and provide link redundancy between two devices to optimize port usage.
- VLAN — Choose the desired VLAN from the VLAN drop-down list.

A VLAN helps a group of hosts to communicate as if they are on the physical network, regardless of their location.

Interface: ☐ Unit/Slot Port ☐ LAG ☒ VLAN

DHCP Relay: ☒ Enable

DHCP Snooping: ☒ Enable

Step 3. (Optional) Check the **DHCP Relay** check box to enable DHCP relay on the VLAN.

Step 4. (Optional) Check the **DHCP Snooping** check box to enable DHCP snooping on the VLAN.

Step 5. Click **Apply** to save the changes. The changes are shown in the table.

Interface Settings

DHCP Interfaces Table

<input type="checkbox"/>	Interface	Interface IP Address	DHCP Relay	DHCP Snooping
<input type="checkbox"/>	VLAN 1	0.0.0.0	Enabled	Enabled

Add...

Delete

An * indicates that the corresponding interface configuration is inactive because the associated Interface no longer exists.

Delete Interface

Interface Settings

DHCP Interfaces Table

<input checked="" type="checkbox"/>	Interface	Interface IP Address	DHCP Relay	DHCP Snooping
<input checked="" type="checkbox"/>	VLAN 1	0.0.0.0	Enabled	Enabled

Add...

Delete

An * indicates that the corresponding interface configuration is inactive because the associated Interface no longer exists.

Step 1. Check the desired interface that you want to delete from the DHCP Interface Table and click **Delete**.