

DHCP Relay Configuration on 300 Series Managed Switch

Objective

Dynamic Host Configuration Protocol (DHCP) is a technology that automatically configures IP addresses to hosts on a network. DHCP relay is a feature that is used by a switch (referred to as a relay agent) to allow DHCP communication between hosts and remote DHCP servers that are not on the same network. When a client sends out a DHCP broadcast for an IP address, the relay agent forwards the request to the subnet at which the remote DHCP server resides. The *Properties* page is used to globally enable DHCP relay and establish a connection between the switch and a remote DHCP server. The *Interface Settings* page is used to enable DHCP relay on specified interfaces.

The objective of this article is to explain how to configure DHCP Relay on the 300 Series Managed Switches.

Applicable Devices

- SF/SG 300 Series Managed Switches

Software Version

- v1.2.7.76

DHCP Relay Configuration

Properties

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

Properties

Option 82, if enabled, applies to DHCP Relay interface with IP address and DHCP Snooping. The switch always insert option 82 in DHCP Relay interface without an IP address regardless.

Option 82:	<input checked="" type="checkbox"/> Enable
<hr/>	
DHCP Relay:	<input checked="" type="checkbox"/> Enable
<hr/>	
DHCP Snooping	
DHCP Snooping Status:	<input type="checkbox"/> Enable
Option 82 Pass Through:	<input type="checkbox"/> Enable
Verify MAC Address:	<input checked="" type="checkbox"/> Enable
Backup Database:	<input type="checkbox"/> Enable
* Backup Database Update Interval: <input type="text" value="1200"/> sec. (Range: 600 - 86400, Default: 1200)	

DHCP Relay Server Table	
<input type="checkbox"/>	DHCP Server IP Address
0 results found.	
<input type="button" value="Add..."/>	<input type="button" value="Delete"/>

Step 2. (Optional) Check **Enable** in the *Option 82* field to enable option 82 for DHCP packets. Option 82 is used to protect the switch from attacks such as IP and MAC address spoofing. Option 82 provides information about the location of the DHCP client through the insertion of the circuit ID (interface name at which the DHCP client is connected and the VLAN name that corresponds to the interface) and the remote ID (MAC address of the switch) in the packet header of the DHCP packet. The DHCP server then uses this information to assign an IP address.

Step 3. Check **Enable** in the *DHCP Relay* field to globally enable DHCP relay on the switch.

Step 4. Click **Save**. DHCP Relay is configured on the switch.

Step 5. Click **Add** to establish a path from the switch to the DHCP server. The *Add DHCP Server* window appears.

IP Version:	Version 4
* DHCP Server IP Address:	<input type="text" value="192.168.1.150"/>

The *IP Version* field displays the IP version of the DHCP server. The 300 switches currently only supports DHCP relay to IPv4 DHCP servers.

Step 6. Enter the IP address of the DHCP server in the *DHCP Server IP Address* field.

Step 7. Click **Apply**. The DHCP server is configured to use the *DHCP Relay Server Table*.

Properties

Option 82, if enabled, applies to DHCP Relay interface with IP address and DHCP Snooping. The switch always insert option 82 in DHCP Relay interface without an IP address regardless.

Option 82:

☒ Enable

DHCP Relay:

☒ Enable

DHCP Snooping

DHCP Snooping Status:

☐ Enable

Option 82 Pass Through:

☐ Enable

Verify MAC Address:

☒ Enable

Backup Database:

☐ Enable

* Backup Database Update Interval:

sec. (Range: 600 - 86400, Default: 1200)

Apply

Cancel

DHCP Relay Server Table

<input type="checkbox"/>	DHCP Server IP Address
<input type="checkbox"/>	192.168.1.150

Add...

Delete

DHCP Relay Interfaces

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

Step 2. Click **Add** to configure an Interface to allow DHCP relay. The *Add DHCP Snooping VLAN* window appears.

Interface: VLAN 1 ▾

DHCP Relay: ☒ Enable

DHCP Snooping: ☐ Enable

Apply Close

Step 3. Choose an interface from the *Interface* drop-down list.

Step 4. Check **Enable** in the *DHCP Relay* field to enable DHCP relay on the specified interface. In Layer 2 mode, the switch only supports DHCP relay on VLANs. In Layer 3 mode, the switch supports DHCP relay on ports, LAGs, and VLANs.

Step 5. Click **Apply**. DHCP relay is enabled on the interface.