

## Table of Contents

<b>Chapter 1 Gratuitous ARP Configuration .....</b>	<b>1-1</b>
1.1 Introduction to Gratuitous ARP .....	1-1
1.2 Gratuitous ARP Packet Learning Configuration .....	1-1
1.2.1 Configuring Gratuitous ARP Packet Sending .....	1-1
1.2.2 Configuring the Gratuitous ARP Packet Learning.....	1-1
<b>Chapter 2 Gratuitous ARP Configuration Commands.....</b>	<b>2-1</b>
2.1 Gratuitous ARP Configuration Commands .....	2-1
2.1.1 gratuitous-arp-learning enable .....	2-1

# Chapter 1 Gratuitous ARP Configuration

## 1.1 Introduction to Gratuitous ARP

The following are the characteristics of gratuitous ARP packets:

- Both source and destination IP addresses carried in a gratuitous ARP packet are the local IP address, and the source MAC address carried in the packet is the local MAC address.
- If a device finds that the IP address carried in a received gratuitous packet conflict with that of its own, it returns an ARP response to the sending device to notify of the IP address conflict.

By sending gratuitous ARP packets, a network device can:

- Determine whether or not IP address conflicts exist between it and other network devices.
- Trigger other network devices to update its hardware address stored in their caches.

When the gratuitous ARP packet learning function is enabled on a device and the device receives a gratuitous ARP packet, the device updates the corresponding ARP entry (if available in the cache of the switch) using the hardware address of the sender carried in the gratuitous ARP packet. A device operates like this whenever it receives a gratuitous ARP packet.

## 1.2 Gratuitous ARP Packet Learning Configuration

### 1.2.1 Configuring Gratuitous ARP Packet Sending

Gratuitous ARP packet sending is enabled as long as an S5600 series switch operates. And no command is for this function.

### 1.2.2 Configuring the Gratuitous ARP Packet Learning

[Table 1-1](#) describes the procedure to configure the gratuitous ARP packet learning function.

**Table 1-1** Configure the gratuitous ARP packet learning function

Operation	Command	Description
Enter system view	<b>system-view</b>	—
Enable the gratuitous ARP packet learning function	<b>gratuitous-arp-learning enable</b>	Required By default, the gratuitous ARP packet learning function is enabled.

## Chapter 2 Gratuitous ARP Configuration Commands

### 2.1 Gratuitous ARP Configuration Commands

#### 2.1.1 gratuitous-arp-learning enable

##### Syntax

```
gratuitous-arp-learning enable
undo gratuitous-arp-learning enable
```

##### View

System view

##### Parameter

None

##### Description

Use the **gratuitous-arp-learning enable** command to enable the gratuitous ARP packet learning function.

Use the **undo gratuitous-arp-learning enable** command to disable the gratuitous ARP packet learning function.

By default, the gratuitous ARP packet learning function is enabled.

When the gratuitous ARP packet learning function is enabled on a switch and the switch receives a gratuitous ARP packet, the switch updates the corresponding ARP entry (if available in the cache of the switch) using the hardware address of the sender carried in the gratuitous ARP packet. A switch operates like this whenever it receives a gratuitous ARP packet.

##### Example

# Enable the gratuitous ARP packet learning function on the switch named QuidwayA.

```
<QuidwayA> system-view
System View: return to User View with Ctrl+Z.
[QuidwayA] gratuitous-arp-learning enable
```