

# Chapter 20: ARP



# Contents

|  |   |
|--|---|
| Chapter 20 ARP .....                   | 3 |
| 20.1 ARP Overview .....                | 3 |
| 20.2 Configure ARP .....               | 3 |
| 20.2.1 ARP Configuration List .....    | 3 |
| 20.2.2 Add/Delete ARP .....            | 4 |
| 20.2.3 Bind dynamic Arp to Static..... | 4 |
| 20.2.4 Display ARP Entry .....         | 4 |
| 20.2.5 Configure ARP Aging-time.....   | 4 |

# Chapter 20 ARP

## 20.1 ARP Overview

Address Resolution Protocol (ARP) is used to resolve an IP address into a data link layer address.

An IP address is the address of a host at the network layer. To send a network layer packet to a destination host, the device must know the data link layer address (such as the MAC address) of the destination host. To this end, the IP address must be resolved into the corresponding data link layer address.

Unless otherwise stated, the data link layer addresses that appear in this chapter refer to the 48-bit Ethernet MAC addresses.

## 20.2 Configure ARP

### 20.2.1 ARP Configuration List

| Configuration Task         | Description | Detailed Configuration |
|----------------------------|-------------|------------------------|
| Add/Delete ARP             | Required    | 20.2.2                 |
| Bind dynamic arp to static | Optional    | 20.2.3                 |
| Display ARP entry          | Optional    | 20.2.4                 |

|                          |          |        |
|--------------------------|----------|--------|
| Configure ARP aging-time | Optional | 20.2.5 |
|--------------------------|----------|--------|

### 20.2.2 Add/Delete ARP

| Operation                       | Command  | Remarks |
|---------------------------------|--|---------|
| Enter global configuration mode | <b>system-view</b>   |         |
| Add ARP                         | <b>arp ip-address mac mac-address vid vlan-id</b><br><br><b>port interface-num</b> |         |
| Delete ARP                      | <b>undo arp { all   static   dynamic  </b><br><br><b>ip-address }</b>              |         |

### 20.2.3 Bind dynamic Arp to Static

| Operation                       | Command                                      | Remarks |
|---------------------------------|--|---------|
| Enter global configuration mode | <b>system-view</b>                           |         |
| Bind dynamic arp                | <b>arp bind dynamic { ip-address   all }</b> |         |

### 20.2.4 Display ARP Entry

| Operation         | Command   | Remarks |
|-------------------|---|---------|
| Display arp entry | <b>display arp { all   static   dynamic  </b><br><br><b>ip-address   interface { vlan-interface</b><br><br><b>vlan-id   supervlan-interface vlan-id } }</b> |         |

### 20.2.5 Configure ARP Aging-time

| Operation | Command | Remarks |
|-----------|---------|---------|
|-----------|---------|---------|

|                                  |   |                      |
|----------------------------------|---|----------------------|
| Enter global configuration mode  | <b>system-view</b>                      |                      |
| Configure ARP aging-time         | <b>arp aging-time</b> <i>aging-time</i> |                      |
| Configure default ARP aging-time | <b>undo arp aging-time</b>              | 20minutes by default |
| Display arp aging-time           | <b>display arp aging-time</b>           |                      |