Chapter 24: DHCP-Server

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Chapter 24 DHCP-Server

24.1 DHCP-Server Overview

In the following cases, the DHCP server is usually used to complete the IP address allocation:

Due to the large scale of the network, manual configuration requires a lot of work and it is difficult to centrally manage the entire network.

Since the number of hosts in the network is larger than the number of IP addresses supported by the network, it is impossible to allocate a fixed IP address to each host. Moreover, there are also restrictions on the number of users accessing the network(for example, service providers of Internet access). Therefore, a large number of users must obtain their own IP address through the DHCP.

Only a few hosts on the network need fixed IP addresses. Most hosts do not have a fixed IP address.

24.2 Configure DHCP-Server

24.2.1 DHCP-Server Configuration List

Configuration Task	Description	Detailed Configuration
Configure IP pool	Required	24.2.2

Configure IP Pool Gateway	Required	24.2.3
Configure IP Pool Range	Optional	24.2.4
Enable/Disable IP Address	Optional	24.2.5
Configure IP Pool Lease	Optional	24.2.6
Configure the DHCP Server to Allocate the DNS Server Address	Optional	24.2.7
Configure the DHCP Server to Assign WINS server Addresses	Optional	24.2.8
Display IP Pool configuration	Optional	24.2.9
Configure dhcp-client bind	Optional	24.2.10

24.2.2 Configure IP Pool

Operation	Command	Remarks
Enter global configuration mode	**system-view**	
Enter IP pool configuration mode	**ip pool** *ippoolname*	
Delete IP Pool	**undo ip pool** *ippoolname*	

24.2.3 Configure IP Pool Gateway

Operation	Command	Remarks

Enter global configuration mode	**system-view**	
Enter ip pool configuration mode	**ip pool** *ippoolname*	
Configure gateway	**gateway** *ip-address mask*	

24.2.4 Configure IP Pool Range

Operation	Command	Remarks
Enter global configuration mode	**system-view**	
Enter IP pool configuration mode	**ip pool** *ippoolname*	
Configure IP pool range	**section** *section-id from-ip to-ip*	
Delete IP pool range	**undo section** *section-id*	

24.2.5 Enable/Disable IP Address

Operation	Command	Remarks
Enter global configuration mode	**system-view**	
enter IP pool configuration mode	**ip pool** *ippoolname*	
Enable/disable IP address	**ip** { **disable** | **enable** } *ip-address*	

24.2.6 Configure IP Pool Lease

Operation	Command	Remarks
Enter global configuration mode	**system-view**	
Enter IP pool configuration mode	**ip pool** *ippoolname*	
Configure IP Pool Lease	**lease** *day:hour:min*	

24.2.7 Configure the DNS Server Address of DHCP Server

Operation	Command	Remarks
Enter global configuration mode	**system-view**	
Enter IP pool configuration mode	**ip pool** *ippoolname*	
Configure the DNS server address	**dns** { **primary-ip** | **second-ip** | **third-ip** | **fourth-ip** } *ip-address*	
Delete the DNS server address assigned for the DHCP client	**undo dns** { **primary-ip** | **second-ip** | **third-ip** | **fourth-ip** }	
Configure the domain name	**dns suffix** *suffix-name*	
Delete the domain name	**undo dns suffix**	

24.2.8 Configure the DHCP Server to Assign WINS Server Addresses

Operation	Command	Remarks
Enter global configuration mode	**system-view**	
Enter IP pool configuration mode	**ip pool** *ippoolname*	
Configure the WINS server address	**wins** { **primary-ip** | **second-ip** } *ip-address*	
Delete the WINS server address	**undo wins** { **primary-ip** | **second-ip** }	

24.2.9 Display IP Pool Configuration

Operation	Command	Remarks
Display IP Pool configuration	**display ip pool** [*ippool-name* [*section-num*]]	

24.2.10 Configure Dhcp-client Bind

Some clients (FTP servers, Web servers, etc.) need fixed IP addresses, which can be implemented by binding the MAC address of the client to the IP address. When a client with this MAC address requests an IP address, the DHCP server searches for the corresponding IPaddress based on the MAC address of the client and assigns that IP address to the client.

Operation	Command	Remarks
Enter global configuration mode	**system-view**	
Enable dhcp-client bind	**dhcp-client bind**	
Disable dhcp-client bind	**undo dhcp-client bind**	
Display dhcp-client bind	**display dhcp-client bind**	
Add dhcp-client	**dhcp-client** *mac-address* *ip-address vlan-id username*	
Delete dhcp-client	**undo dhcp-client** { *mac-address* *vlan-id* | **all** }	
Display dhcp-client	**display dhcp-client** [	
	ip-address] | [**mac** *mac-address*]	