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# Chapter 1 DHCP Client Configuration Commands

## 1.1 DHCP Client Configuration Commands

The dhcp client configuration commands include:

- ip address dhcp
- ip dhcp client
- ip dhcp-server
- show dhcp lease
- show dhcp server
- debug dhcp

### 1.1.1 ip address dhcp

To obtain an IP address for an interface through DHCP (Dynamic Host Configuration Protocol), run **ip address dhcp**. To delete the obtained IP address, run **no ip address dhcp**.

**ip address dhcp**

**no ip address dhcp**

#### Parameter

None

#### Default value

None

#### Command mode

Interface configuration mode

#### Instruction

The **ip address dhcp** command allows an interface to obtain an IP address through DHCP, which is very useful to dynamically connecting ISP through the Ethernet interface. Once a dynamic IP address is obtained, this Ethernet interface can realize NAT through PAT.

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If the **ip address dhcp** command is set on EOLT, EOLT will transmit the DHCP Discover message to the DHCP server.

If the **no ip address dhcp** command is set on EOLT, EOLT will transmit the DHCP Release message.

## Example

The following example shows how to enable the vlan1 interface to obtain an IP address through DHCP.

```
!  
interface vlan 1  
ip address dhcp  
!
```

## Related command

**ip dhcp client**

**ip dhcp-server**

**show dhcp lease**

**show dhcp server**

### 1. 1. 2 ip dhcp client

To configure the parameters of the local EOLT DHCP client, run the following command:

```
ip dhcp client { minlease seconds | retransmit count | retry_interval | select seconds }
```

```
no ip dhcp client { minlease | retransmit | retry_interval | select }
```

## Parameter

Parameter	Description
<i>minlease seconds</i>	Stands for the acceptable minimum lease time, which ranges from 60 to 86400 seconds and an optional parameter.
<i>retransmit count</i>	Stands for the retransmission times of the protocol packets, which ranges from 1 to 10 and is an optional parameter.
<i>retry_interval</i>	Stands for the interval of retransmitting DHCP requests, which ranges from 1 to 1440 minutes and is an optional parameter.
<i>select seconds</i>	Stands for the interval of SELECT, which ranges from 0 to 30 and is an optional parameter.

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## Default value

The default value of the **minlease** parameter is 60 seconds.

The default value of the **retransmit** parameter is 4.

The default value of the **retry\_interval** parameter is 5 minutes.

The default value of the **select** parameter is 0 second.

## Command mode

Global configuration mode.

## Instruction

You can adjust these parameters according the requirements of the network structure and the DHCP server.

If the negative forms of these commands are set, these parameter will resume their default values.

## Example

The following example shows how to set on the DHCP client of EOLT the acceptable minimum lease time to 100 seconds:

```
ip dhcp client minlease 100
```

The following example shows how to set the retransmission times of the protocol packets on the DHCP client of EOLT to 3:

```
ip dhcp client retransmit 3
```

The following example shows, on the DHCP client of EOLT, how to set the interval of retransmitting the DHCP request to 10 minutes:

```
ip dhcp client retry_interval 10
```

The following example shows, on the DHCP client of EOLT, how to set the interval of SELECT to 10 seconds:

```
ip dhcp client select 10
```

## Related command

**ip address dhcp**

**ip dhcp-server**

**show dhcp lease**

**show dhcp server**

---

### 1. 1. 3 ip dhcp-server

To specify a familiar DHCP server, you can use **ip dhcp-server** to designate the IP address of the DHCP server.

**ip dhcp-server** *ip-address*

**no ip dhcp-server** *ip-address*

#### Parameter

Parameter	Description
<i>ip-address</i>	IP address of the DHCP server

#### Default value

There is no default IP address of the DHCP server.

#### Command mode

Global configuration mode.

#### Instruction

You can designate an IP address for a DHCP server by using this command, which will not replace the previously designated IP address of the DHCP server.

But the previously designated IP address of the DHCP server can be removed by the negative form of this command.

#### Example

The following example shows how to specify on EOLT a server, whose IP address is 192.168.20.1, to be the DHCP server:

```
ip dhcp-server 192.168.20.1
```

#### Related command

**ip address dhcp**

**ip dhcp client**

**show dhcp lease**

**show dhcp server**

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