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## **Unicast Router Commands-2**

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## Chapter 1 Unicast Router Commands

### 1.1 ip default-gateway

#### [Function]

Use **ip default-gateway** command to set default gateway, **no ip default-gateway** to delete default gateway.

#### [Command format]

**ip default-gateway** *A.B.C.D*

**no ip default-gateway**

#### [Parameter]

*A.B.C.D*: the ip address of default gateway.

#### [Default]

No setting for gateway by default.

#### [Command Modes]

Global configuration mode; Privileged user

#### [Executing Command Instruction]

When a packet does not find the router of the network, use this command can let the system transfer all the packets to the default gateway.

#### [Explanation of command execution echo]

*Invalid next-hop IP address.*

*Can't Set gateway for cluster member.*

*Set successfully*

#### [Example]

Set the default gateway to 10.0.0.1:

Raisecom(config)# **ip default-gateway** *10.0.0.1*

Delete the configuration of default gateway:

Raisecom(config)# **no ip default-gateway**

#### [Related commands]

Commands	Description
<b>show ip route</b>	Show the system routing information.

## 1.2 ip route

### [Function]

Use **ip route** to add static route, use **no ip route** to delete static route.

### [Command format]

**ip route** *A.B.C.D<sub>1</sub>* *A.B.C.D<sub>2</sub>* *A.B.C.D<sub>3</sub>*

**no ip route** *A.B.C.D<sub>1</sub>* [*A.B.C.D<sub>2</sub>*]

### [Parameter]

*A.B.C.D<sub>1</sub>*: network prefix;

*A.B.C.D<sub>2</sub>*: mask;

*A.B.C.D<sub>3</sub>*: next hop IP address;

*A.B.C.D<sub>1</sub>*: network prefix;

*A.B.C.D<sub>2</sub>*: mask.

### [Default]

If command of **no** form has no network prefix, then delete all static routes.

If command of **no** form has no network mask, then delete all static routes that match to the prefix.

### [Command Modes]

Global configuration mode; Privileged user

### [Executing Command Instruction]

Static route is configured by network administrator, this route path will change with network topology, next-hop route must be direct route when use **ip route** to add route.

### [Explanation of command execution echo]

*Invalid destination IP address.*

*Invalid destination MASK.*

*Invalid next-hop IP address.*

*Can not set Connected Route to Static.*

*The total number of IP subnet and static routes has exceed the max value(14).*

*Can't add static route for cluster member*

*Inconsitent prifix and mask*

*No such static route !*

*Set successfully.*

### [Example]

Add a route that its destination network is 10.0.0.0, through interface of local 4.0.0.1 transmit:

Raisecom(config)#**ip route** 10.0.0.0 255.0.0.0 4.0.0.1

Delete all static routes:

Raisecom(config)#**no ip route**

**[Related commands]**

Commands	Description
<b>show ip route</b>	Show information of route.

## 1.3 show ip route

**[Function]**

Use **show ip route** to show the route of system route table.

**[Command format]**

**show ip route** [A.B.C.D<sub>1</sub> [ A.B.C.D<sub>2</sub> / longer-prefixes ]]

**[Parameter]**

A.B.C.D<sub>1</sub>: IP network prefix;

A.B.C.D<sub>2</sub>: network mask;

longer-prefixes: long network prefix matching.

**[Default]**

Show all the routers.

**[Command Modes]**

Privileged EXEC; privileged user

**[Executing Command Instruction]**

Use this command to show IP router information, can show different route information based on their types, also can show route information for particular network prefix. Also can use this command to show the route information in hardware transmit table.

**[Example]**

Raisecom#**show ip route 10.0.0.0 longer-prefixes**

*Codes: C - connected, H-HardWare S - static, R - RIP, O - OSPF*

```
-----
C  8.1.0.0[255.255.0.0],is directly connected , Interface 0
C  8.2.0.0[255.255.0.0],is directly connected , Interface 1
Total route count: 2
```

Raisecom#**show ip route**

*Codes: C - connected, H-HardWare S - static, R - RIP, O - OSPF*

```
-----
C  8.1.0.0[255.255.0.0],is directly connected , Interface 0
C  8.2.0.0[255.255.0.0],is directly connected , Interface 1
S  10.0.0.0[255.0.0.0],via 8.1.0.2
```

*Total route count: 3*

**[Related commands]**

Commands	Description
<b>ip route</b>	Configure static IP route



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