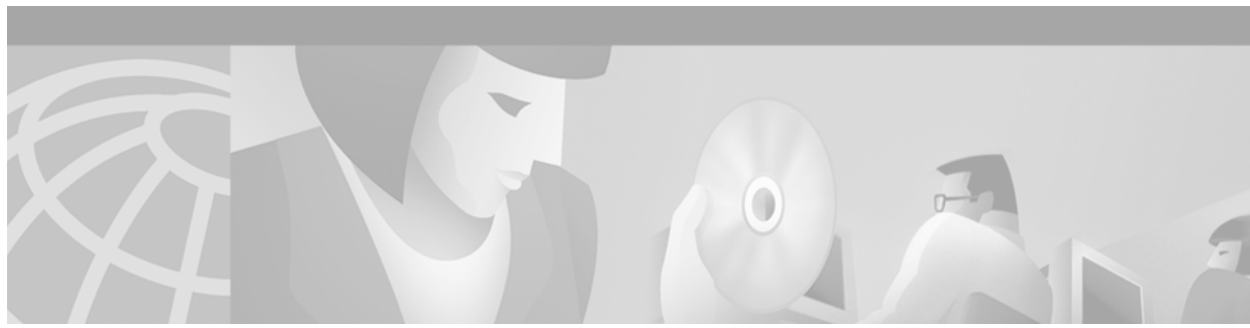




## CDP Commands

---

This chapter describes commands used to monitor the router and network using Cisco Discovery Protocol (CDP).

For system management configuration tasks and examples, refer to the “[Configuring Cisco Discovery Protocol](#)” chapter in the Release 12.2 *Cisco IOS Configuration Fundamentals Configuration Guide*.

# cdp advertise-v2

To enable Cisco Discovery Protocol Version 2 (CDPv2) advertising functionality on a device, use the **cdp advertise-v2** global configuration command. To disable advertising CDPv2 functionality, use the **no** form of the command.

**cdp advertise-v2**

**no cdp advertise-v2**

## Syntax Description

This command has no arguments or keywords.

## Defaults

Enabled

## Command Modes

Global configuration

## Command History

| Release  | Modification                 |
|----------|------------------------------|
| 12.0(3)T | This command was introduced. |

## Usage Guidelines

CDP Version 2 has three additional type-length values (TLVs): they are VTP Management Domain Name, Native VLAN, and full/half-Duplex.

## Examples

In the following example, CDP Version 2 advertisements are disabled on the router:

```
Router#show cdp
Global CDP information:
    Sending CDP packets every 60 seconds
    Sending a holdtime value of 180 seconds
    Sending CDPv2 advertisements is enabled
Router#configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#no cdp advertise-v2
Router(config)#end
Router#show cdp
Global CDP information:
    Sending CDP packets every 60 seconds
    Sending a holdtime value of 180 seconds
    Sending CDPv2 advertisements is not enabled
Router#
```

## Related Commands

| Command                    | Description                           |
|----------------------------|---------------------------------------|
| <a href="#">cdp enable</a> | Enables CDP on a supported interface. |
| <a href="#">cdp run</a>    | Reenables CDP on a Cisco device.      |

# cdp enable

To enable Cisco Discovery Protocol (CDP) on an interface, use the **cdp enable** interface configuration command. To disable CDP on an interface, use the **no** form of this command.

**cdp enable**

**no cdp enable**

## Syntax Description

This command has no arguments or keywords.

## Defaults

Enabled at the global level and on all supported interfaces.

## Command Modes

Interface configuration

## Command History

| Release | Modification                 |
|---------|------------------------------|
| 10.3    | This command was introduced. |

## Usage Guidelines

CDP is enabled by default at the global level and on each supported interface in order to send or receive CDP information. However, some interfaces, such as ATM interfaces, do not support CDP.



### Note

The **cdp enable**, **cdp timer**, and **cdp run** commands affect the operation of the IP on demand routing feature (that is, the **router odr** global configuration command). For more information on the **router odr** command, see the “On-Demand Routing Commands” chapter in the *Cisco IOS IP and IP Routing Command Reference*.

## Examples

In the following example, CDP is disabled on the Ethernet 0 interface only:

```
Router#show cdp
Global CDP information:
  Sending CDP packets every 60 seconds
  Sending a holdtime value of 180 seconds
  Sending CDPv2 advertisements is enabled
Router#config terminal
Router(config)#interface ethernet 0
Router(config-if)#no cdp enable
```

## Related Commands

| Command                    | Description                                                   |
|----------------------------|---------------------------------------------------------------|
| <a href="#">cdp run</a>    | Reenables CDP on a Cisco device.                              |
| <a href="#">cdp timer</a>  | Specifies how often the Cisco IOS software sends CDP updates. |
| <a href="#">router odr</a> | Enables on-demand routing on a hub router.                    |

# cdp holdtime

To specify the amount of time the receiving device should hold a Cisco Discovery Protocol (CDP) packet from your router before discarding it, use the **cdp holdtime** global configuration command. To revert to the default setting, use the **no** form of this command.

**cdp holdtime** *seconds*

**no cdp holdtime**

|                           |                |                                                               |
|---------------------------|----------------|---------------------------------------------------------------|
| <b>Syntax Description</b> | <i>seconds</i> | Specifies the hold time to be sent in the CDP update packets. |
|---------------------------|----------------|---------------------------------------------------------------|

|                 |             |
|-----------------|-------------|
| <b>Defaults</b> | 180 seconds |
|-----------------|-------------|

|                      |                      |
|----------------------|----------------------|
| <b>Command Modes</b> | Global configuration |
|----------------------|----------------------|

| <b>Command History</b> | <b>Release</b> | <b>Modification</b>          |
|------------------------|----------------|------------------------------|
|                        | 10.3           | This command was introduced. |

|                         |                                                                                                                                                                         |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Usage Guidelines</b> | CDP packets are sent with a time to live, or hold time, value. The receiving device will discard the CDP information in the CDP packet after the hold time has elapsed. |
|                         | You can set the hold time lower than the default setting of 180 seconds if you want the receiving devices to update their CDP info more rapidly.                        |
|                         | The CDP hold time must be set to a higher number of seconds than the time between CDP transmissions, which is set using the <a href="#">cdp timer</a> command.          |

|                 |                                                                                                                     |
|-----------------|---------------------------------------------------------------------------------------------------------------------|
| <b>Examples</b> | In the following example, the CDP packets being sent from the router are configured with a hold time of 60 seconds. |
|-----------------|---------------------------------------------------------------------------------------------------------------------|

```
Router(config)#cdp holdtime 60
```

| <b>Related Commands</b> | <b>Command</b>            | <b>Description</b>                                                          |
|-------------------------|---------------------------|-----------------------------------------------------------------------------|
|                         | <a href="#">cdp timer</a> | Specifies how often the Cisco IOS software sends CDP updates.               |
|                         | <a href="#">show cdp</a>  | Displays global CDP information, including timer and hold-time information. |

# cdp log mismatch duplex

To display the log of duplex mismatches generated by the Cisco Discovery Protocol (CDP) on Ethernet interfaces on a router, use the **cdp log mismatch duplex** command in global configuration or interface configuration mode. To disable the display of duplex messages on all Ethernet interfaces, use the **no** form of this command.

**cdp log mismatch duplex**

**no cdp log mismatch duplex**

|                           |                                            |
|---------------------------|--------------------------------------------|
| <b>Syntax Description</b> | This command has no arguments or keywords. |
|---------------------------|--------------------------------------------|

|                 |                                                                    |
|-----------------|--------------------------------------------------------------------|
| <b>Defaults</b> | The router reports duplex mismatches from all Ethernet interfaces. |
|-----------------|--------------------------------------------------------------------|

|                      |                                                 |
|----------------------|-------------------------------------------------|
| <b>Command Modes</b> | Global configuration<br>Interface configuration |
|----------------------|-------------------------------------------------|

|                        |                |                              |
|------------------------|----------------|------------------------------|
| <b>Command History</b> | <b>Release</b> | <b>Modification</b>          |
|                        | 12.0           | This command was introduced. |

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|-------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Usage Guidelines</b> | <p>When you enter the <b>cdp log mismatch duplex</b> command in global configuration mode, duplex mismatches are displayed on all Ethernet interfaces on the router. When you enter this command in interface configuration mode, only duplex mismatches for the specified Ethernet interface are displayed.</p> <p>If the <b>cdp log mismatch duplex</b> command is disabled in global configuration mode, it cannot be configured per interface using interface configuration mode.</p> <p>Duplex mismatch can occur only on Ethernet interfaces.</p> |
|-------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

|                 |                                                                                                                                                                                            |
|-----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Examples</b> | <p>The following example of the <b>cdp log mismatch duplex</b> command in global configuration mode enables the display of duplex messages from all Ethernet interfaces on the router:</p> |
|-----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

```
Router(config)# cdp log mismatch duplex
```

The following example of the **cdp log mismatch duplex** command in interface configuration mode enables only the display of duplex messages that may be generated from Ethernet interface 2/1:

```
Router(config-if)# interface ethernet2/1
```

```
Router(config-if)# cdp log mismatch duplex
```

The following is sample output from the **show running-config** command. The bold text shows that the **cdp log mismatch duplex** command is disabled globally.

```
Router# show running-config
```

```
Building configuration...
```

```
Current configuration : 1395 bytes
!
version 12.2
!
hostname 7200_C
!
!
interface Ethernet2/1
  no ip address
  duplex half
  no cdp log mismatch duplex
!
!
!
!
!
no cdp log mismatch duplex
cdp timer 5
!
!
!
!
line con 0
line aux 0
line vty 0 4
  password lab
```

---

**Related Commands**

| Command                    | Description                                                        |
|----------------------------|--------------------------------------------------------------------|
| <b>show running-config</b> | Displays the contents of the currently running configuration file. |

---

# cdp run

To enable Cisco Discovery Protocol (CDP), use the **cdp run** global configuration command. To disable CDP, use the **no** form of this command.

**cdp run**

**no cdp run**

|                           |                                            |
|---------------------------|--------------------------------------------|
| <b>Syntax Description</b> | This command has no arguments or keywords. |
|---------------------------|--------------------------------------------|

|                 |         |
|-----------------|---------|
| <b>Defaults</b> | Enabled |
|-----------------|---------|

|                      |                      |
|----------------------|----------------------|
| <b>Command Modes</b> | Global configuration |
|----------------------|----------------------|

| Command History | Release | Modification                 |
|-----------------|---------|------------------------------|
|                 | 10.3    | This command was introduced. |

|                         |                                                                                                                                                                                                                                                                  |
|-------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Usage Guidelines</b> | CDP is enabled on your router by default, which means the Cisco IOS software will receive CDP information. CDP also is enabled on supported interfaces by default. To disable CDP on an interface, use the <b>no cdp enable</b> interface configuration command. |
|-------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

**Note**

Because ODR (on demand routing) uses CDP, the **cdp enable**, **cdp timer**, and **cdp run** commands affect the operation of the **router odr** global configuration command. For more information on the **router odr** command, see the Release 12.2 *Cisco IOS IP Command Reference, Volume 2 of 3: Routing Protocols* document.

|                 |                                                                                                                       |
|-----------------|-----------------------------------------------------------------------------------------------------------------------|
| <b>Examples</b> | In the following example, CDP is disabled globally, then the user attempts to enable CDP on the Ethernet 0 interface: |
|-----------------|-----------------------------------------------------------------------------------------------------------------------|

```
Router(config)#no cdp run
Router(config)#end
Router#show cdp
% CDP is not enabled
Router#configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#int eth0
Router(config-if)#cdp enable
% Cannot enable CDP on this interface, since CDP is not running
Router(config-if)#
```

**Related Commands**

| Command                    | Description                                                   |
|----------------------------|---------------------------------------------------------------|
| <a href="#">cdp enable</a> | Enables CDP on a supported interface.                         |
| <a href="#">cdp timer</a>  | Specifies how often the Cisco IOS software sends CDP updates. |
| <a href="#">router odr</a> | Enables ODR on the hub router.                                |

# cdp timer

To specify how often the Cisco IOS software sends Cisco Discovery Protocol (CDP) updates, use the **cdp timer** global configuration command. To revert to the default setting, use the **no** form of this command.

**cdp timer** *seconds*

**no cdp timer**

| Syntax Description | <i>seconds</i> | Specifies how often the Cisco IOS software sends CDP updates. |
|--------------------|----------------|---------------------------------------------------------------|
|--------------------|----------------|---------------------------------------------------------------|

| Defaults | 60 seconds |
|----------|------------|
|----------|------------|

| Command Modes | Global configuration |
|---------------|----------------------|
|---------------|----------------------|

| Command History | Release | Modification                 |
|-----------------|---------|------------------------------|
|                 | 10.3    | This command was introduced. |

| Usage Guidelines | The trade-off with sending more frequent transmissions is providing up-to-date information versus using bandwidth more often. |
|------------------|-------------------------------------------------------------------------------------------------------------------------------|
|------------------|-------------------------------------------------------------------------------------------------------------------------------|

**Note**

The **cdp enable**, **cdp timer**, and **cdp run** commands affect the operation of the IP on demand routing feature (that is, the **router odr** global configuration command). For more information on the **router odr** command, see the “On-Demand Routing Commands” chapter in the *Cisco IOS IP and IP Routing Command Reference*.

| Examples | <p>In the following example, CDP updates are sent every 80 seconds, less frequently than the default setting of 60 seconds. You might want to make this change if you are concerned about preserving bandwidth.</p> <pre>cdp timer 80</pre> |
|----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

| Related Commands | Command                      | Description                                                                                                       |
|------------------|------------------------------|-------------------------------------------------------------------------------------------------------------------|
|                  | <a href="#">cdp enable</a>   | Enables CDP on a supported interface.                                                                             |
|                  | <a href="#">cdp holdtime</a> | Specifies the amount of time the receiving device should hold a CDP packet from your router before discarding it. |
|                  | <b>cdp timer</b>             | Specifies how often the Cisco IOS software sends CDP updates.                                                     |

| Command           | Description                                                                 |
|-------------------|-----------------------------------------------------------------------------|
| <b>router odr</b> | Enables ODR on the hub router.                                              |
| <b>show cdp</b>   | Displays global CDP information, including timer and hold-time information. |

# clear cdp counters

To reset Cisco Discovery Protocol (CDP) traffic counters to zero, use the **clear cdp counters** privileged EXEC command.

## clear cdp counters

|                           |                                            |
|---------------------------|--------------------------------------------|
| <b>Syntax Description</b> | This command has no arguments or keywords. |
|---------------------------|--------------------------------------------|

|                      |                 |
|----------------------|-----------------|
| <b>Command Modes</b> | Privileged EXEC |
|----------------------|-----------------|

|                        |                |                              |
|------------------------|----------------|------------------------------|
| <b>Command History</b> | <b>Release</b> | <b>Modification</b>          |
|                        | 10.3           | This command was introduced. |

|                 |                                                                                                                                                   |
|-----------------|---------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Examples</b> | The following example clears the CDP counters. The <b>show cdp traffic</b> output shows that all of the traffic counters have been reset to zero. |
|-----------------|---------------------------------------------------------------------------------------------------------------------------------------------------|

```
Router# clear cdp counters
Router# show cdp traffic

CDP counters:
  Packets output: 0, Input: 0
  Hdr syntax: 0, Chksum error: 0, Encaps failed: 0
  No memory: 0, Invalid packet: 0, Fragmented: 0
```

|                         |                                  |                                                                 |
|-------------------------|----------------------------------|-----------------------------------------------------------------|
| <b>Related Commands</b> | <b>Command</b>                   | <b>Description</b>                                              |
|                         | <a href="#">clear cdp table</a>  | Clears the table that contains CDP information about neighbors. |
|                         | <a href="#">show cdp traffic</a> | Displays traffic information from the CDP table.                |

# clear cdp table

To clear the table that contains Cisco Discovery Protocol (CDP) information about neighbors, use the **clear cdp table** privileged EXEC command.

**clear cdp table**

**Syntax Description** This command has no arguments or keywords.

**Command Modes** Privileged EXEC

| Command History | Release | Modification                 |
|-----------------|---------|------------------------------|
|                 | 10.3    | This command was introduced. |

**Examples** The following example clears the CDP table. The output of the [show cdp neighbors](#) command shows that all information has been deleted from the table.

```
Router# clear cdp table
```

```
CDP-AD: Deleted table entry for neon.cisco.com, interface Ethernet0
CDP-AD: Deleted table entry for neon.cisco.com, interface Serial0
```

```
Router# show cdp neighbors
```

```
Capability Codes: R - Router, T - Trans Bridge, B - Source Route Bridge
                  S - Switch, H - Host, I - IGMP
```

```
Device ID      Local Intrfce    Holdtme    Capability  Platform  Port ID
```

| Related Commands | Command                            | Description                           |
|------------------|------------------------------------|---------------------------------------|
|                  | <a href="#">show cdp neighbors</a> | Displays information about neighbors. |

# show cdp

To display global Cisco Discovery Protocol (CDP) information, including timer and hold-time information, use the **show cdp** privileged EXEC command.

**show cdp**

## Syntax Description

This command has no arguments or keywords.

## Command Modes

Privileged EXEC

## Command History

| Release  | Modification                                                                  |
|----------|-------------------------------------------------------------------------------|
| 10.3     | This command was introduced.                                                  |
| 12.0(3)T | The output of this command was modified to include CDP Version 2 information. |

## Examples

The following example shows that the current router is sending CDP advertisements every 1 minute (the default setting for the **cdp timer** global configuration command). Also shown is that the current router directs its neighbors to hold its CDP advertisements for 3 minutes (the default for the **cdp holdtime** global configuration command), and that the router is enabled to send CDP Version 2 advertisements:

```
router# show cdp
```

```
Global CDP information:
Sending CDP packets every 60 seconds
Sending a holdtime value of 180 seconds
Sending CDPv2 advertisements is enabled
```

[Table 114](#) describes the significant fields shown in the display.

**Table 114** *show cdp Field Descriptions*

| Field                                  | Definition                                                                                                                                                                                                    |
|----------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Sending CDP packets every XX seconds   | The interval (in seconds) between transmissions of CDP advertisements. This field is controlled by the <b>cdp timer</b> command.                                                                              |
| Sending a holdtime value of XX seconds | The amount of time (in seconds) the device directs the neighbor to hold a CDP advertisement before discarding it. This field is controlled by the <b>cdp holdtime</b> command.                                |
| Sending CDPv2 advertisements is XX     | The state of whether CDP Version-2 type advertisements are enabled to be sent. Possible states are enabled or disabled. This field is controlled by the <b>cdp advertise v2</b> global configuration command. |

| Related Commands | Command                   | Description                                                                                                       |
|------------------|---------------------------|-------------------------------------------------------------------------------------------------------------------|
|                  | <b>cdp advertise-v2</b>   | Enables CDP Version 2 advertising functionality on a device.                                                      |
|                  | <b>cdp holdtime</b>       | Specifies the amount of time the receiving device should hold a CDP packet from your router before discarding it. |
|                  | <b>cdp timer</b>          | Specifies how often the Cisco IOS software sends CDP updates.                                                     |
|                  | <b>show cdp entry</b>     | Displays information about a specific neighbor device listed in the CDP table.                                    |
|                  | <b>show cdp interface</b> | Displays information about the interfaces on which CDP is enabled.                                                |
|                  | <b>show cdp neighbors</b> | Displays detailed information about neighboring devices discovered using CDP.                                     |
|                  | <b>show cdp traffic</b>   | Displays information about traffic between devices gathered using CDP.                                            |

# show cdp entry

To display information about a specific neighboring device discovered using Cisco Discovery Protocol (CDP), use the **show cdp entry** privileged EXEC command.

**show cdp entry** { \* | *device-name* [\*] [**protocol** | **version**] }

## Syntax Description

|                      |                                                                                                                                                                                       |
|----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>*</b>             | Displays all of the CDP neighbors.                                                                                                                                                    |
| <i>device-name</i>   | Name of the neighbor about which you want information.                                                                                                                                |
| <i>device-name</i> * | You can enter an asterisk (*) at the end of an <i>entry-name</i> as a wildcard. For example, entering <b>show cdp entry dev*</b> will match all entries which begin with <b>dev</b> . |
| <b>protocol</b>      | (Optional) Limits the display to information about the protocols enabled on a router.                                                                                                 |
| <b>version</b>       | (Optional) Limits the display to information about the version of software running on the router.                                                                                     |

## Command Modes

Privileged EXEC

## Command History

| Release | Modification                 |
|---------|------------------------------|
| 10.3    | This command was introduced. |

## Examples

The following is sample output from the **show cdp entry** command with no limits. Information about the neighbor device.cisco.com is displayed, including device ID, address and protocol, platform, interface, hold time, and version.

```
Router# show cdp entry device.cisco.com

-----
Device ID: device.cisco.com
Entry address(es):
  IP address: 192.168.68.18
  CLNS address: 490001.1111.1111.1111.00
  DECnet address: 10.1
Platform: cisco 4500, Capabilities: Router
Interface: Ethernet0/1, Port ID (outgoing port): Ethernet0
Holdtime : 125 sec

Version :
Cisco IOS Software
Cisco IOS (tm) 4500 Software (C4500-J-M), Version 12.1(2)
Copyright (c) 1986-2000 by cisco Systems, Inc.
Compiled Mon 07-Apr-00 19:51 by joeuser
```

The following is sample output from the **show cdp entry protocol** command. Only information about the protocols enabled on device.cisco.com is displayed.

```
Router# show cdp entry device.cisco.com protocol
```

```
Protocol information for device.cisco.com:
  IP address: 192.168.68.18
  CLNS address: 490001.1111.1111.1111.00
  DECnet address: 10.1
```

The following is sample output from the **show cdp entry version** command. Only information about the version of software running on device.cisco.com is displayed.

```
Router# show cdp entry device.cisco.com version
```

```
Version information for device.cisco.com:
  Cisco IOS Software
  Cisco IOS (tm) 4500 Software (C4500-J-M), Version 12.1(2)
  Copyright (c) 1986-2000 by cisco Systems, Inc.
  Compiled Mon 07-Apr-00 19:51 by joeuser
```

#### Related Commands

| Command                            | Description                                                                   |
|------------------------------------|-------------------------------------------------------------------------------|
| <a href="#">show cdp</a>           | Displays global CDP information, including timer and hold-time information.   |
| <a href="#">show cdp interface</a> | Displays information about the interfaces on which CDP is enabled.            |
| <a href="#">show cdp neighbors</a> | Displays detailed information about neighboring devices discovered using CDP. |
| <a href="#">show cdp traffic</a>   | Displays traffic information from the CDP table.                              |

# show cdp interface

To display information about the interfaces on which Cisco Discovery Protocol (CDP) is enabled, use the **show cdp interface** privileged EXEC command.

**show cdp interface** [*type number*]

## Syntax Description

|               |                                                                      |
|---------------|----------------------------------------------------------------------|
| <i>type</i>   | (Optional) Type of interface about which you want information.       |
| <i>number</i> | (Optional) Number of the interface about which you want information. |

## Command Modes

Privileged EXEC

## Command History

| Release | Modification                 |
|---------|------------------------------|
| 10.3    | This command was introduced. |

## Examples

The following is sample output from the **show cdp interface** command. Status information and information about CDP timer and hold-time settings is displayed for all interfaces on which CDP is enabled.

```
Router# show cdp interface
```

```
Serial0 is up, line protocol is up, encapsulation is SMDS
  Sending CDP packets every 60 seconds
  Holdtime is 180 seconds
Ethernet0 is up, line protocol is up, encapsulation is ARPA
  Sending CDP packets every 60 seconds
  Holdtime is 180 seconds
```

The following is sample output from the **show cdp interface** command with an interface specified. Status information and information about CDP timer and hold-time settings is displayed for Ethernet interface 0 only.

```
Router# show cdp interface ethernet 0
```

```
Ethernet0 is up, line protocol is up, encapsulation is ARPA
  Sending CDP packets every 60 seconds
  Holdtime is 180 seconds
```

## Related Commands

| Command                        | Description                                                                                            |
|--------------------------------|--------------------------------------------------------------------------------------------------------|
| <a href="#">show cdp</a>       | Displays global CDP information, including timer and hold-time information.                            |
| <a href="#">show cdp entry</a> | Displays information about a specific neighbor device or all neighboring devices discovered using CDP. |

| Command                            | Description                                                                   |
|------------------------------------|-------------------------------------------------------------------------------|
| <a href="#">show cdp neighbors</a> | Displays detailed information about neighboring devices discovered using CDP. |
| <a href="#">show cdp traffic</a>   | Displays traffic information from the CDP table.                              |

# show cdp neighbors

To display detailed information about neighboring devices discovered using Cisco Discovery Protocol (CDP), use the **show cdp neighbors** privileged EXEC command.

**show cdp neighbors** [*type number*] [**detail**]

| Syntax Description |                                                                                                                                                         |  |
|--------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| <i>type</i>        | (Optional) Type of the interface connected to the neighbors about which you want information.                                                           |  |
| <i>number</i>      | (Optional) Number of the interface connected to the neighbors about which you want information.                                                         |  |
| <b>detail</b>      | (Optional) Displays detailed information about a neighbor (or neighbors) including network address, enabled protocols, hold time, and software version. |  |

| Command Modes | Privileged EXEC |
|---------------|-----------------|
|---------------|-----------------|

| Command History | Release  | Modification                                                                                             |
|-----------------|----------|----------------------------------------------------------------------------------------------------------|
|                 | 10.3     | This command was introduced.                                                                             |
|                 | 12.0(3)T | The output for the <b>detail</b> form of this command was expanded to include CDP Version 2 information. |

**Examples** The following is sample output for the **show cdp neighbors** command:

```
Router#show cdp neighbors
Capability Codes: R - Router, T - Trans Bridge, B - Source Route Bridge
                  S - Switch, H - Host, I - IGMP, r - Repeater

Device ID         Local Intrfce   Holdtme    Capability Platform  Port ID
lab-7206          Eth 0           157        R           7206VXR   Fas 0/0/0
lab-as5300-1      Eth 0           163        R           AS5300    Eth 0
lab-as5300-2      Eth 0           159        R           AS5300    Eth 0
lab-as5300-3      Eth 0           122        R           AS5300    Eth 0
lab-as5300-4      Eth 0           132        R           AS5300    Fas 0/0
lab-3621          Eth 0           140        R S         3631-telcoFas 0/0
008024 2758E0     Eth 0           132        T           CAT3000   1/2
```

[Table 115](#) describes the fields shown in this example.

**Table 115** *show cdp neighbors Field Descriptions*

| Field         | Definition                                                                                                                                                                                                                                               |
|---------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Device ID     | The configured ID (name), MAC address, or serial number of the neighbor device.                                                                                                                                                                          |
| Local Intrfce | (Local Interface) The protocol being used by the connectivity media.                                                                                                                                                                                     |
| Holdtme       | (Holdtime) The remaining amount of time, in seconds, the current device will hold the CDP advertisement from a transmitting router before discarding it.                                                                                                 |
| Capability    | The capability code discovered on the device. This is the type of the device listed in the CDP Neighbors table. Possible values are:<br>R—Router<br>T—Transparent bridge<br>B—Source-routing bridge<br>S—Switch<br>H—Host<br>I—IGMP device<br>r—Repeater |
| Platform      | The product number of the device.                                                                                                                                                                                                                        |
| Port ID       | The protocol and port number of the device.                                                                                                                                                                                                              |

The following is sample output for the **show cdp neighbors detail** command.

```

router#show cdp neighbors detail
-----
Device ID: lab-7206
Entry address(es):
  IP address: 172.19.169.83
Platform: cisco 7206VXR, Capabilities: Router
Interface: Ethernet0, Port ID (outgoing port): FastEthernet0/0/0
Holdtime : 123 sec

Version :
Cisco Internetwork Operating System Software
IOS (tm) 5800 Software (C5800-P4-M), Version 12.1(2)
Copyright (c) 1986-2002 by Cisco Systems, Inc.

advertisement version: 2
Duplex: half

-----
Device ID: lab-as5300-1
Entry address(es):
  IP address: 172.19.169.87
Platform: cisco AS5300, Capabilities: Router
--More--
.
.
.

```

Table 116 describes the fields displayed in the **show cdp neighbors** output.

**Table 116** *show cdp neighbors detail Field Descriptions*

| Field                      | Definition                                                                                                                                                              |
|----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Device ID                  | The name of the neighbor device and either the MAC address or the serial number of this device.                                                                         |
| Entry address(es)          | A list of network addresses of neighbor devices.                                                                                                                        |
| [network protocol] address | The network address of the neighbor device. The address can be in IP, IPX, AppleTalk, DECnet, or CLNS protocol conventions.                                             |
| Platform                   | The product name and number of the neighbor device.                                                                                                                     |
| Capabilities               | The device type of the neighbor. This device can be a router, a bridge, a transparent bridge, a source-routing bridge, a switch, a host, an IGMP device, or a repeater. |
| Interface                  | The protocol and port number of the port on the current device.                                                                                                         |
| Holdtime                   | The remaining amount of time, in seconds, the current device will hold the CDP advertisement from a transmitting router before discarding it.                           |
| Version:                   | The software version running on the neighbor device.                                                                                                                    |
| advertisement version:     | The version of CDP being used for CDP advertisements.                                                                                                                   |
| Duplex:                    | The duplex state of connection between the current device and the neighbor device.                                                                                      |
| Native VLAN                | The ID number of the VLAN on the neighbor device.                                                                                                                       |
| VTP Management Domain      | A string that is the name of the collective group of VLANs associated with the neighbor device.                                                                         |

#### Related Commands

| Command                   | Description                                                                    |
|---------------------------|--------------------------------------------------------------------------------|
| <b>show cdp</b>           | Displays global CDP information, including timer and hold-time information.    |
| <b>show cdp entry</b>     | Displays information about a specific neighbor device listed in the CDP table. |
| <b>show cdp interface</b> | Displays information about the interfaces on which CDP is enabled.             |
| <b>show cdp traffic</b>   | Displays information about traffic between devices gathered using CDP.         |

# show cdp traffic

To display information about traffic between devices gathered using Cisco Discovery Protocol (CDP), use the **show cdp traffic** privileged EXEC command.

**show cdp traffic**

**Syntax Description** This command has no arguments or keywords.

**Command Modes** Privileged EXEC

| Command History | Release | Modification                 |
|-----------------|---------|------------------------------|
|                 | 10.3    | This command was introduced. |

**Examples** The following example specifies information associated with the **show cdp traffic** command:

```
router# show cdp traffic

Total packets output: 543, Input: 333
Hdr syntax: 0, Chksum error: 0, Encaps failed: 0
No memory: 0, Invalid: 0, Fragmented: 0
CDP version 1 advertisements output: 191, Input: 187
CDP version 2 advertisements output: 352, Input: 146
```

[Table 117](#) describes the significant fields shown in the display.

**Table 117** *show cdp traffic Field Descriptions*

| Field                | Definition                                                                                                                                                                              |
|----------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Total packets output | The number of CDP advertisements sent by the local device. Note that this value is the sum of the CDP Version 1 advertisements output and CDP Version 2 advertisements output fields.   |
| Input                | The number of CDP advertisements received by the local device. Note that this value is the sum of the CDP Version 1 advertisements input and CDP Version 2 advertisements input fields. |
| Hdr syntax           | The number of CDP advertisements with bad headers, received by the local device.                                                                                                        |
| Chksum error         | The number of times the checksum (verifying) operation failed on incoming CDP advertisements.                                                                                           |
| Encaps failed        | The number of times CDP failed to send advertisements on an interface because of a failure caused by the bridge port of the local device.                                               |

**Table 117** *show cdp traffic Field Descriptions (continued)*

| Field                               | Definition                                                                                                                                                                                                                                             |
|-------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| No memory                           | The number of times the local device did not have enough memory to store the CDP advertisements in the advertisement cache table when the device was attempting to assemble advertisement packets for transmission and parse them when receiving them. |
| Invalid                             | The number of invalid CDP advertisements received and sent by the local device.                                                                                                                                                                        |
| Fragmented                          | The number of times fragments or portions of a single CDP advertisement were received by the local device instead of the complete advertisement.                                                                                                       |
| CDP version 1 advertisements output | The number of CDP Version 1 advertisements sent by the local device.                                                                                                                                                                                   |
| Input                               | The number of CDP Version 1 advertisements received by the local device.                                                                                                                                                                               |
| CDP version 2 advertisements output | The number of CDP Version 2 advertisements sent by the local device.                                                                                                                                                                                   |
| Input                               | The number of CDP Version 2 advertisements received by the local device.                                                                                                                                                                               |

**Related Commands**

| Command                            | Description                                                                    |
|------------------------------------|--------------------------------------------------------------------------------|
| <a href="#">show cdp</a>           | Displays global CDP information, including timer and hold-time information.    |
| <a href="#">show cdp entry</a>     | Displays information about a specific neighbor device listed in the CDP table. |
| <a href="#">show cdp interface</a> | Displays information about the interfaces on which CDP is enabled.             |
| <a href="#">show cdp neighbors</a> | Displays detailed information about neighboring devices discovered using CDP.  |

■ show cdp traffic