C Commands

This chapter describes the Cisco NX-OS interface commands that begin with C.

carrier-delay

To set the carrier delay on a serial interface, use the **carrier-delay** command. To return to the default carrier delay value, use the **no** form of this command.

carrier-delay {*delay-seconds* | **msec** *milliseconds*}

no carrier-delay

Syntax Description

delay-seconds	Time, in seconds, to wait for the system to change states. Enter an integer in the range 0 to 60.
msec	Specifies the delay time in milliseconds.
milliseconds	Time, in milliseconds, to wait for the system to change states. Enter an integer in the range 0 to 1000.

Command Default

The default carrier-delay value is 100 milliseconds.

Command Modes

Interface VLAN configuration mode

Command History

Release	Modification
5.2(1)N1(1)	This command was introduced.

Usage Guidelines

You can use this command on a VLAN interface.

If a link goes down and comes back up before the carrier delay timer expires, the down state is effectively filtered, and the rest of the software on the switch is not aware that a link-down event occurred. Therefore, a large carrier delay timer results in fewer link-up/link-down events being detected. Setting the carrier delay time to 0 means that every link-up/link-down event is detected.

This command does not require a license.

Examples

This example shows how to change the carrier delay to 10 seconds:

```
switch# configure terminal
switch(config)# interface vlan 5
switch(config-if)# carrier-delay 10
switch(config-if)#
```

This example shows how to revert to the default carrier delay value:

```
switch# configure terminal
switch(config)# interface vlan 5
switch(config-if)# no carrier-delay
switch(config-if)#
```

Related Commands

Command	Description
show running-config interface	Displays the running configuration information for an interface.

cdp

To enable the Cisco Discovery Protocol (CDP) and configure CDP attributes, use the **cdp** command. To disable CDP or reset CDP attributes, use the **no** form of this command.

cdp {**advertise** {**v1** | **v2**} | **enable** | **format device-id** {**mac-address** | **serial-number** | **system-name**} | **holdtime** *seconds* | **timer** *seconds*}

no cdp {**advertise** | **enable** | **format device-id** {**mac-address** | **serial-number** | **system-name**} | **holdtime** *seconds* | **timer** *seconds*}

Syntax Description

advertise {**v1** | **v2**}	Configures the version to use to send CDP advertisements. Version-2 is the default state.
enable	Enables CDP for all Ethernet interfaces.
format device-id	Configures the format of the CDP device ID.
mac-address	Uses the MAC address as the CDP device ID.
serial-number	Uses the serial number as the CDP device ID.
system-name	Uses the system name, which can be expressed as a fully qualified domain name, as the CDP device ID. This is the default.
holdtime *seconds*	Specifies the amount of time a receiver should hold CDP information before discarding it. The range is from 10 to 255 seconds; the default is 180 seconds.
timer *seconds*	Sets the transmission frequency of CDP updates in seconds. The range is from 5 to 254; the default is 60 seconds.

Command Default

None

Command Modes

Global configuration mode

Command History

Release	Modification
5.2(1)N1(1)	This command was introduced.

Examples

This example shows how to enable CDP on all Ethernet interfaces:

```
switch# configure terminal
switch(config)# cdp enable
```

This example shows how to configure the MAC address as the CDP device ID:

```
switch# configure terminal
switch(config)# cdp format device-id mac-address
```

This example shows how to disable CDP on all Ethernet interfaces:

```
switch# configure terminal
switch(config)# no cdp enable
```

Related Commands

Command	Description
show cdp	Displays Cisco Discovery Protocol (CDP) information.

cdp enable

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

cdp enable

no cdp enable

Syntax Description

This command has no arguments or keywords.

Command Default

None

Command Modes

Interface configuration mode
Virtual Ethernet interface configuration mode

Command History

Release	Modification
5.2(1)N1(1)	This command was introduced.

Usage Guidelines

You can use this command on the following interfaces:

- Ethernet interface
- Management interface
- Virtual Ethernet interface

Examples

This example shows how to enable CDP on an Ethernet interface:

```
switch# configure terminal
switch(config)# interface ethernet 1/1
switch(config-if)# cdp enable
```

This example shows how to enable CDP on a specific virtual Ethernet interface:

```
switch# configure terminal
switch(config)# interface vethernet 1
switch(config-if)# cdp enable
```

This example shows how to disable CDP on a specific virtual Ethernet interface:

```
switch# configure terminal
switch(config)# interface vethernet 1
switch(config-if)# no cdp enable
```

Related Commands

Command	Description
show cdp	Displays Cisco Discovery Protocol (CDP) information.
show interface	Displays the interface configuration information.

channel-group (Ethernet)

To assign and configure a physical interface to an EtherChannel, use the **channel-group** command. To remove the channel group configuration from the interface, use the **no** form of this command.

channel-group *number* [**force**] [**mode** {**active** | **on** | **passive**}]

no channel-group [*number*]

Syntax Description

number	Number of channel group. The *number* range is from 1 to 4096. Cisco NX-OS creates the EtherChannel associated with this channel group if the EtherChannel does not already exist.
force	(Optional) Specifies that the LAN port be forcefully added to the channel group.
mode	(Optional) Specifies the EtherChannel mode of the interface.
active	Specifies that when you enable the Link Aggregation Control Protocol (LACP), this command enables LACP on the specified interface. The interface is in an active negotiating state, in which the port initiates negotiations with other ports by sending LACP packets.
on	This is the default channel mode. Specifies that all EtherChannels that are not running LACP remain in this mode. If you attempt to change the channel mode to active or passive before enabling LACP, the switch returns an error message. After you enable LACP globally, by using the **feature lacp** command, you enable LACP on each channel by configuring the channel mode as either active or passive. An interface in this mode does not initiate or respond to LACP packets. When an LACP attempts to negotiate with an interface in the on state, it does not receive any LACP packets and becomes an individual link with that interface; it does not join the channel group. The default mode is **on**.
passive	Specifies that when you enable LACP, this command enables LACP only if an LACP device is detected. The interface is in a passive negotiation state, in which the port responds to LACP packets that it receives but does not initiate LACP negotiation.

Command Default

None

Command Modes

Interface configuration mode

Command History

Release	Modification
5.2(1)N1(1)	This command was introduced.

Usage Guidelines

Use this command to create a channel group that includes the interface that you are working on and to add or remove specific interfaces from the channel group. Use this command to move a port from one channel group to another. You enter the channel group that you want the port to move to; the switch automatically removes the specified port from its present channel group and adds it to the specified channel group.

Use the **force** keyword to force the addition of the interface into the specified channel group.

After you enable LACP globally, by using the **feature lacp** command, you enable LACP on each channel by configuring the channel mode as either **active** or **passive**. An EtherChannel in the **on** channel mode is a pure EtherChannel and can aggregate a maximum of eight ports. The EtherChannel does not run LACP.

You cannot change the mode for an existing EtherChannel or any of its interfaces if that EtherChannel is not running LACP; the channel mode remains as **on**. The system returns an error message if you attempt to change the mode.

Use the **no** form of this command to remove the physical interface from the EtherChannel. When you delete the last physical interface from an EtherChannel, the EtherChannel remains. To delete the EtherChannel completely, use the **no** form of the **interface port-channel** command.

The compatibility check includes the following operational attributes:

- Port mode
- Access VLAN
- Trunk native VLAN
- Tagged or untagged
- Allowed VLAN list
- Switched Port Analyzer (SPAN) (cannot be SPAN source or destination port)
- Storm control

Use the **show port-channel compatibility-parameters** command to see the full list of compatibility checks that Cisco NX-OS uses.

You can only add interfaces configured with the channel mode set to **on** for static EtherChannels, that is, without a configured aggregation protocol. You can only add interfaces configured with the channel mode as **active** or **passive** to EtherChannels that are running LACP.

You can configure these attributes on an individual member port. If you configure a member port with an incompatible attribute, Cisco NX-OS suspends that port in the EtherChannel.

When the interface joins an EtherChannel, some of its individual parameters are overridden with the values on the EtherChannel, as follows:

- MAC address
- Spanning Tree Protocol (STP)
- Service policy
- Quality of service (QoS)
- Access control lists (ACLs)

Interface parameters, such as the following, remain unaffected when the interface joins or leaves a EtherChannel:

- Description
- Cisco Discovery Protocol (CDP)

- LACP port priority
- Debounce
- Rate mode
- Shutdown
- SNMP trap

If interfaces are configured for the EtherChannel interface and a member port is removed from the EtherChannel, the configuration of the EtherChannel interface is not propagated to the member ports.

Any configuration changes that you make in any of the compatibility parameters to the EtherChannel interface are propagated to all interfaces within the same channel group as the EtherChannel (for example, configuration changes are also propagated to the physical interfaces that are not part of the EtherChannel but are part of the channel group).

Examples

This example shows how to add an interface to LACP channel group 5 in active mode:

```
switch(config)# interface ethernet 1/1
switch(config-if)# channel-group 5 mode active
switch(config-if)#
```

This example shows how to forcefully add an interface to the channel group 5:

```
switch(config)# interface ethernet 1/1
switch(config-if)# channel-group 5 force
switch(config-if)#
```

Related Commands

Command	Description
show interface port-channel	Displays information about the traffic on the specified EtherChannel interface.
show lacp	Displays LACP information.
show port-channel summary	Displays information on the EtherChannels.

clear lacp counters

To clear the Link Aggregation Control Protocol (LACP) counters, use the **clear lacp counters** command.

clear lacp counters [**interface port-channel** *channel-num*]

Syntax Description

interface	(Optional) Clears the LACP counters of a specific interface.
port-channel *channel-num*	(Optional) Specifies a port channel interface. The range is from 1 to 4096.

Command Default

None

Command Modes

EXEC mode

Command History

Release	Modification
5.2(1)N1(1)	This command was introduced.

Usage Guidelines

This command does not require a license.

Examples

This example shows how to clear all LACP counters:

```
switch# clear lacp counters
```

This example shows how to clear the LACP on a port channel:

```
switch# clear lacp counters interface port-channel 100
```

Related Commands

Command	Description
show lacp	Displays LACP information.

clear mac access-list counters

To clear statistical information from the access list, use the **clear mac access-list counters** command.

clear mac access-list counters [*name*]

Syntax Description

name	(Optional) Name of a specific counter to clear. The name can be a maximum of 64 characters.

Command Default None

Command Modes EXEC mode

Command History

Release	Modification
5.2(1)N1(1)	This command was introduced.

Examples This example shows how to clear statistical information from the access list:

```
switch# clear mac access-list counters
```

Related Commands

Command	Description
show mac access-lists	Displays the information about the MAC address table.