# C Commands

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

# checkpoint

To take a snapshot of the current running configuration and store the snapshot in the file system in an ASCII format, use the **checkpoint** command.

**checkpoint** [*checkpoint-name* [**description** *descp-text* [...**description** *descp-text*]] | **description** *descp-text* | **file** {**bootflash:** | **volatile:**}[*//server*][*directory/*][*filename*]]

**no checkpoint** [*checkpoint-name* | **description** *descp-text* | **file** {**bootflash:** | **volatile:**}[*//server*][*directory/*][*filename*]]

## Syntax Description

| | |
|---|---|
| *checkpoint-name* | (Optional) Checkpoint name. The name can be a maximum of 32 characters. |
| **description** *descp-text* | (Optional) Specifies a description for the given checkpoint. The text can be a maximum of 80 characters and can contain spaces. |
| **file** | (Optional) Specifies that a file be created to store the configuration rollback checkpoint. |
| **bootflash:** | Specifies the bootflash local writable storage file system. |
| **volatile:** | Specifies the volatile local writable storage file system. |
| *//server* | (Optional) Name of the server. Valid values are **///**, **//module-1/**, **//sup-1/**, **//sup-active/**, or **//sup-local/**. The double slash (//) is required. |
| *directory/* | (Optional) Name of a directory. The directory name is case sensitive. |
| *filename* | (Optional) Name of the checkpoint configuration file. The filename is case sensitive. |

**Note** There can be no spaces in the *filesystem*:*//server/directory/filename* string. Individual elements of this string are separated by colons (:) and slashes (/).

## Command Default

Automatically generates checkpoint name (user-checkpoint-*number*).

## Command Modes

EXEC mode

## Command History

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

## Usage Guidelines

Checkpoints are local to a switch. When you create a checkpoint, a snapshot of the current running configuration is stored in a checkpoint file. If you do not provide a checkpoint name, Cisco NX-OS sets the checkpoint name to **user-checkpoint-***number*, where the *number* is from 1 to 10.

If Fibre Channel over Ethernet (FCoE) is enabled on the switch, you cannot restore the active configuration to the checkpoint state. The following error message appears when you create a checkpoint on a FCoE-enabled switch:

```
switch# checkpoint chkpoint-1
ERROR: ascii-cfg: FCOE is enabled. Disbaling rollback module (err_id 0x405F004C)
switch#
```

On a switch that has FCoE disabled, you see the following message when you create the checkpoint:

```
switch# checkpoint chkpoint-1
...Done
switch#
```

You can create up to ten checkpoints of your configuration per switch. When the number of checkpoints reaches the maximum limit, the oldest entry is removed.

You cannot apply the checkpoint file of one switch into another switch. You cannot start a checkpoint filename with the word *system*.

The checkpoint files are stored as text files that you cannot directly access or modify. When a checkpoint is cleared from the system, the associated checkpoint configuration file is deleted.

## Examples

This example shows how to create a checkpoint:

```
switch# checkpoint
...
user-checkpoint-4 created Successfully

Done
switch#
```

This example shows how to create a checkpoint, named chkpnt-1, and define its purpose:

```
switch# checkpoint chkpnt-1 description Checkpoint to save current configuration, Sep 9
10:02 A.M.
switch#
```

This example shows how to create a checkpoint configuration file named chkpnt_configSep9-1.txt in the bootflash storage system:

```
switch# checkpoint file bootflash:///chkpnt_configSep9-1.txt
switch#
```

This example shows how to delete a checkpoint named chkpnt-1:

```
switch# no checkpoint chkpnt-1
switch#
```

## Related Commands

| Command | Description |
|---|---|
| **clear checkpoint** | Clears the checkpoints on the switch. |
| **rollback** | Rolls back the switch to any of the saved checkpoints. |
| **show checkpoint all** | Displays all checkpoints configured in the switch. |
| **show checkpoint summary** | Displays a summary of all checkpoints configured in the switch. |
| **show checkpoint summary user** | Displays all checkpoints created by an user. |
| **show checkpoint system** | Displays all checkpoints that were automatically created in the system. |

# clear access-list counters

To clear the counters for all IPv4 access control lists (ACLs) or a single IPv4 ACL, use the **clear access-list counters** command.

**clear access-list counters** [*access-list-name*]

## Syntax Description

| | |
|---|---|
| *access-list-name* | (Optional) Name of the IPv4 ACL whose counters the switch clears. The name can be a maximum of 64 alphanumeric 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 counters for all IPv4 ACLs:

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

This example shows how to clear counters for an IPv4 ACL named acl-ipv4-01:

```
switch# clear access-list counters acl-ipv4-01
```

## Related Commands

| Command | Description |
|---|---|
| **access-class** | Applies an IPv4 ACL to a VTY line. |
| **ip access-group** | Applies an IPv4 ACL to an interface. |
| **ip access-list** | Configures an IPv4 ACL. |
| **show access-lists** | Displays information about one or all IPv4, IPv6, and MAC ACLs. |
| **show ip access-lists** | Displays information about one or all IPv4 ACLs. |

# clear accounting log

To clear the accounting log, use the **clear accounting log** command.

**clear accounting log**

## Syntax Description

This command has no arguments or keywords.

## 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 the accounting log:

```
switch# clear accounting log
```

## Related Commands

| Command | Description |
|---|---|
| **show accounting log** | Displays the accounting log contents. |

# clear checkpoint database

To clear the checkpoints configured on the switch, use the **clear checkpoint database** command.

**clear checkpoint database** [**system** | **user**]

## Syntax Description

| | |
|---|---|
| **system** | Clears the configuration rollback checkpoint database for system checkpoints. |
| **user** | Clears the configuration rollback checkpoint database for user checkpoints. |

## 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 the configured checkpoints:

```
switch# clear checkpoint database
.Done
switch#
```

## Related Commands

| Command | Description |
|---|---|
| **checkpoint** | Creates a checkpoint. |
| **show checkpoint** | Displays all configured checkpoints. |

# clear ip arp

To clear the Address Resolution Protocol (ARP) table and statistics, use the **clear ip arp** command.

**clear ip arp** [**vlan** *vlan-id* [**force-delete** | **vrf** {*vrf-name* | **all** | **default** | **management**}]]

## Syntax Description

| | |
|---|---|
| **vlan** *vlan-id* | (Optional) Clears the ARP information for a specified VLAN. The range is from 1 to 4094, except for the VLANs reserved for internal use. |
| **force-delete** | (Optional) Clears the entries from ARP table without refresh. |
| **vrf** | (Optional) Specifies the virtual routing and forwarding (VRF) to clear from the ARP table. |
| *vrf-name* | VRF name. The name can be a maximum of 32 alphanumeric characters and is case sensitive. |
| **all** | Specifies that all VRF entries be cleared from the ARP table. |
| **default** | Specifies that the default VRF entry be cleared from the ARP table. |
| **management** | Specifies that the management VRF entry be cleared from the ARP table. |

## Command Default

None

## Command Modes

Any command mode

## Command History

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

## Examples

This example shows how to clear the ARP table statistics:

```
switch# clear ip arp
switch#
```

This example shows how to clear the ARP table statistics for VLAN 10 with the VRF vlan-vrf:

```
switch# clear ip arp vlan 10 vrf vlan-vrf
switch#
```

## Related Commands

| Command | Description |
|---|---|
| **show ip arp** | Displays the ARP configuration status. |

# clear ip arp inspection log

To clear the Dynamic ARP Inspection (DAI) logging buffer, use the **clear ip arp inspection log** command.

**clear ip arp inspection log**

## Syntax Description

This command has no arguments or keywords.

## Command Default

None

## Command Modes

Any command mode

## Command History

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

## Examples

This example shows how to clear the DAI logging buffer:

```
switch# clear ip arp inspection log
switch#
```

## Related Commands

| Command | Description |
|---|---|
| **ip arp inspection log-buffer entries** | Configures the DAI logging buffer size. |
| **show ip arp inspection** | Displays the DAI configuration status. |
| **show ip arp inspection log** | Displays the DAI log configuration. |
| **show ip arp inspection statistics** | Displays the DAI statistics. |

# clear ip arp inspection statistics vlan

To clear the Dynamic ARP Inspection (DAI) statistics for a specified VLAN, use the **clear ip arp inspection statistics vlan** command.

**clear ip arp inspection statistics vlan** *vlan-list*

## Syntax Description

| | |
|---|---|
| **vlan** *vlan-list* | Specifies the VLANs whose DAI statistics this command clears. The *vlan-list* argument allows you to specify a single VLAN ID, a range of VLAN IDs, or comma-separated IDs and ranges. Valid VLAN IDs are from 1 to 4094, except for the VLANs reserved for the internal switch use. |

## Command Default

None

## Command Modes

Any command mode

## Command History

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

## Examples

This example shows how to clear the DAI statistics for VLAN 2:

```
switch# clear ip arp inspection statistics vlan 2
switch#
```

This example shows how to clear the DAI statistics for VLANs 5 through 12:

```
switch# clear ip arp inspection statistics vlan 5-12
switch#
```

This example shows how to clear the DAI statistics for VLAN 2 and VLANs 5 through 12:

```
switch# clear ip arp inspection statistics vlan 2,5-12
switch#
```

## Related Commands

| Command | Description |
|---|---|
| **clear ip arp inspection log** | Clears the DAI logging buffer. |
| **ip arp inspection log-buffer** | Configures the DAI logging buffer size. |
| **show ip arp inspection** | Displays the DAI configuration status. |
| **show ip arp inspection vlan** | Displays DAI status for a specified list of VLANs. |

# clear ip dhcp snooping binding

To clear the Dynamic Host Configuration Protocol (DHCP) snooping binding database, use the **clear ip dhcp snooping binding** command.

**clear ip dhcp snooping binding** [**vlan** *vlan-id* [**mac** *mac-address* **ip** *ip-address*] [**interface** {**ethernet** *slot*/[*QSFP-module/*]*port* | **port-channel** *channel-number*}]]

## Syntax Description

| | |
|---|---|
| **vlan** *vlan-id* | (Optional) Specifies the VLAN ID of the DHCP snooping binding database entry to be cleared. Valid VLAN IDs are from 1 to 4094, except for the VLANs reserved for the internal switch use. |
| **mac-address** *mac-address* | (Optional) Specifies the MAC address of the binding database entry to be cleared. Enter the *mac-address* argument in dotted hexadecimal format. |
| **ip** *ip-address* | (Optional) Specifies the IPv4 address of the binding database entry to be cleared. Enter the *ip-address* argument in dotted decimal format. |
| **interface** | (Optional) Specifies the Ethernet or EtherChannel interface. |
| **ethernet** *slot*/[*QSFP-module/*]*port* | (Optional) Specifies the Ethernet interface and its slot number and port number. The slot number is from 1 to 255. The *QSFP-module* number is from 1 to 4. The port number is from 1 to 128.<br>**Note** The *QSFP-module* number applies only to the QSFP+ Generic Expansion Module (GEM). |
| **port-channel** *channel-number* | (Optional) Specifies the Ethernet port channel of the binding database entry to be cleared. |

## Command Default

None

## Command Modes

Any command mode

## Command History

| Release | Modification |
|---|---|
| 6.0(2)N1(2) | Support for the QSFP+ GEM was added. |
| 5.2(1)N1(1) | This command was introduced. |

## Examples

This example shows how to clear the DHCP snooping binding database:

```
switch# clear ip dhcp snooping binding
switch#
```

This example shows how to clear a specific entry from the DHCP snooping binding database:

```
switch# clear ip dhcp snooping binding vlan 23 mac 0060.3aeb.54f0 ip 10.34.54.9 interface
ethernet 2/11
switch#
```

## Related Commands

| Command | Description |
|---|---|
| **copy running-config startup-config** | Copies the running configuration to the startup configuration. |
| **show ip dhcp snooping binding** | Displays IP-MAC address bindings, including the static IP source entries. |
| **show running-config dhcp** | Displays DHCP snooping configuration, including the IP Source Guard configuration. |

# clear ip dhcp snooping statistics

To clear the Dynamic Host Configuration Protocol (DHCP) snooping statistics, use the **clear ip dhcp snooping statistics** command.

**clear ip dhcp snooping statistics**

## Syntax Description

This command has no arguments or keywords.

## Command Default

None

## Command Modes

Any command mode

## Command History

| Release | Modification |
|---|---|
| 5.2(1)N2(1) | This command was introduced. |

## Examples

This example shows how to clear the DHCP snooping statistics:

```
switch# clear ip dhcp snooping statistics
switch#
```

## Related Commands

| Command | Description |
|---|---|
| **copy running-config startup-config** | Copies the running configuration to the startup configuration. |
| **show ip dhcp snooping statistics** | Displays DHCP snooping statistics. |
| **show running-config dhcp** | Displays DHCP snooping configuration, including the IP Source Guard configuration. |

# cts role-based batched-programming

To enable CTS batched programming, use the **cts role-based batched-programming** command.

**cts role-based batched-programming**

**no cts role-based batched-programming**

## Syntax Description

This command has no arguments or keywords.

## Command Default

None

## Command Modes

Configuration mode

## Command History

| Release | Modification |
|---|---|
| 6.0(2)N2(2) | This command was introduced. |

## Examples

This example shows how to enable CTS batched programming:

```
switch# configure terminal
switch(config)# cts role-based batched-programming
```

## Related Commands

| Command | Description |
|---|---|