# Show Commands

This chapter describes the Cisco NX-OS TrustSec **show** commands.

# show cts

To display the global Cisco TrustSec configuration, use the **show cts** command.

> **show cts**

**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. |

**Usage Guidelines**    This command does not require a license.

**Examples**    This example shows how to display the Cisco TrustSec global configuration:

```
switch# show cts
CTS Global Configuration
==============================
  CTS support          : enabled
  CTS device identity  : not configured
  SGT                  : 0
  CTS caching support  : disabled

  Number of CTS interfaces in
    DOT1X mode : 0
    Manual mode : 1

switch#
```

**Related Commands**

| Command | Description |
|---|---|
| **feature cts** | Enables the Cisco TrustSec feature. |

# show cts credentials

To display the Cisco TrustSec device credentials configuration, use the **show cts credentials** command.

**show cts credentials**

**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. |

**Usage Guidelines**   This command does not require a license.

**Examples**   This example shows how to display the Cisco TrustSec credentials configuration:

```
switch# show cts credentials
```

**Related Commands**

| Command | Description |
|---------|-------------|
| **feature cts** | Enables the Cisco TrustSec feature. |

# show cts environment-data

To display the global Cisco TrustSec environment data, use the **show cts environment-data** command.

**show cts environment-data**

**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. |

**Usage Guidelines**   The Cisco NX-OS device downloads the Cisco TrustSec environment data from the ACS after you have configured the Cisco TrustSec credentials for the device and configured authentication, authorization, and accounting (AAA).

This command does not require a license.

**Examples**   This example shows how to display the Cisco TrustSec environment data:

```
switch# show cts environment-data
CTS Environment Data
==============================
  Current State            : CTS_ENV_DNLD_ST_INIT_STATE
  Last Status              : CTS_ENV_INCOMPLETE
  Local Device SGT         : 0x0000
  Transport Type           : CTS_ENV_TRANSPORT_DIRECT
  Data loaded from cache   : FALSE
  Env Data Lifetime        :
  Last Update Time         : Never
  Server List              :
     AID: IP: Port:

switch#
```

**Related Commands**

| Command | Description |
|---|---|
| **feature cts** | Enables the Cisco TrustSec feature. |

# show cts interface

To display the Cisco TrustSec information for interfaces, use the **show cts interface** command.

**show cts interface** {**all** | **ethernet** *slot*/[*QSFP-module/*]*port* | **vethernet** *veth-num*}

| Syntax Description | | |
|---|---|---|
| **all** | | Displays Cisco TrustSec information for all interfaces. |
| **ethernet** *slot*/[*QSFP-module/*]*port* | | Displays Cisco TrustSec information for the specific Ethernet interface. 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. |
| | **Note** | The *QSFP-module* number applies only to the QSFP+ Generic Expansion Module (GEM). |
| **vethernet** *veth-num* | | Displays Cisco TrustSec information for the specific  virtual Ethernet (vEthe) interface. The virtual Ethernet interface number is from 1 to 1048575. |

**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. |

**Usage Guidelines**     You must enable  the Cisco Virtual Machine on the switch by using the **feature-set virtualization** command to see the **vethernet** keyword.

This command does not require a license.

**Examples**     This example shows how to display the Cisco TrustSec configuration for a specific interface:

```
switch# show cts interface ethernet 1/5
CTS Information for Interface Ethernet1/5:
    CTS is enabled, mode:   CTS_MODE_MANUAL
    IFC state:              Unknown
    Authentication Status:  CTS_AUTHC_INIT
      Peer Identity:
      Peer is:              Unknown in manual mode
      802.1X role:          CTS_ROLE_UNKNOWN
      Last Re-Authentication:
    Authorization Status:   CTS_AUTHZ_INIT
      PEER SGT:             3
      Peer SGT assignment:  Not Trusted
    SAP Status:             CTS_SAP_INIT
      Configured pairwise ciphers:
```

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```
        Replay protection:
        Replay protection mode:
        Selected cipher:
        Current receive SPI:
        Current transmit SPI:
     Propagate SGT: Enabled

switch#
```

This example shows how to display the Cisco TrustSec configuration for all interfaces:

```
switch# show cts interface all
```

| Related Commands | Command | Description |
|---|---|---|
| | **feature cts** | Enables the Cisco TrustSec feature. |
| | **feature-set virtualization** | Enables the Cisco Virtual Machine features on the switch. |

# show cts pacs

To display the Cisco TrustSec protect access credentials (PACs) provisioned by EAP-FAST, use the **show cts pacs** command.

**show cts pacs**

**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. |

**Usage Guidelines**    This command does not require a license.

**Examples**    This example shows how to display the Cisco TrustSec global configuration:

```
switch# show cts pacs
```

**Related Commands**

| Command | Description |
|---------|-------------|
| **feature cts** | Enables the Cisco TrustSec feature. |

# show cts role-based access-list

To display the global Cisco TrustSec security group access control list (SGACL) configuration, use the **show cts role-based access-list** command.

**show cts role-based access-list** [*list-name*]

**Syntax Description**

| | |
|---|---|
| *list-name* | (Optional) SGACL name. |

**Command Default**     None

**Command Modes**     Any command 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 display the Cisco TrustSec SGACL configuration:

```
switch# show cts role-based access-list
```

**Related Commands**

| Command | Description |
|---|---|
| **feature cts** | Enables the Cisco TrustSec feature. |

# show cts role-based counters

To display the configuration status of role-based access control list (RBACL) statistics and list the statistics for all RBACL policies, use the **show cts role-based counters** command.

**show cts role-based counters**

**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. |

**Usage Guidelines**    To use this command, you must enable the Cisco TrustSec feature using the **feature cts** command. You must also enable Cisco TrustSec counters using the **cts role-based counters enable** command.

This command does not require a license.

**Examples**    This example shows how to display the configuration status of RBACL statistics:

```
switch# show cts role-based counters

RBACL policy counters enabled
Counters last cleared: Never
rbacl:ACS_1101_15
        permit icmp log                                  [0]
        permit tcp log                                   [0]
        deny udp log                               [0]

switch#
```

**Related Commands**

| Command | Description |
|---------|-------------|
| **feature cts** | Enables the Cisco TrustSec feature on the switch. |
| **clear cts role-based counters** | Clears the RBACL statistics so that all counters are reset to 0. |
| **cts role-based counters enable** | Enables the RBACL statistics. |

# show cts role-based enable

To display the Cisco TrustSec security group access control list (SGACL) enable status for VLANs, use the **show cts role-based enable** command.

**show cts role-based enable**

**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. |

**Usage Guidelines**    This command does not require a license.

**Examples**    This example shows how to display the Cisco TrustSec SGACL enforcement status:

```
switch# show cts role-based enable
vlan:102
switch#
```

**Related Commands**

| Command | Description |
|---------|-------------|
| **feature cts** | Enables the Cisco TrustSec feature. |
| **cts role-based enforcement** | Enables role-based access control list (RBACL) enforcement on VLANs. |

# show cts role-based policy

To display the global Cisco TrustSec security group access control list (SGACL) policies, use the **show cts role-based policy** command.

**show cts role-based policy**

**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. |

**Usage Guidelines**    This command does not require a license.

**Examples**    This example shows how to display the Cisco TrustSec SGACL policies:

```
switch# show cts role-based policy
```

**Related Commands**

| Command | Description |
|---|---|
| **feature cts** | Enables the Cisco TrustSec feature. |

# show cts role-based sgt-map

To display the global Cisco TrustSec Security Group Tag (SGT) mapping configuration, use the **show cts role-based sgt-map** command.

**show cts role-based sgt-map**

**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. |

**Usage Guidelines**     This command does not require a license.

**Examples**     This example shows how to display the Cisco TrustSec SGT mapping configuration:

```
switch# show cts role-based sgt-map
```

**Related Commands**

| Command | Description |
|---------|-------------|
| **feature cts** | Enables the Cisco TrustSec feature. |

# show cts sxp

To display the Cisco TrustSec Security Group Tag (SGT) Exchange Protocol (SXP) configuration, use the **show cts sxp** command.

**show cts sxp**

**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. |

**Usage Guidelines**  This command does not require a license.

**Examples**  This example shows how to display the Cisco TrustSec SXP configuration:

```
switch# show cts sxp
CTS SXP Configuration:
SXP enabled
SXP retry timeout:60
SXP reconcile timeout:120
switch#
```

**Related Commands**

| Command | Description |
|---------|-------------|
| **feature cts** | Enables the Cisco TrustSec feature. |

# show cts sxp connection

To display the Cisco TrustSec Security Group Tag (SGT) Exchange Protocol (SXP) connections information, use the **show cts sxp connection** command.

**show cts sxp connection**

**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. |

**Usage Guidelines**    This command does not require a license.

**Examples**    This example shows how to display the Cisco TrustSec Security Group Tag (SGT) Exchange Protocol (SXP) connections information:

```
switch# show cts sxp connection
PEER_IP_ADDR    VRF           PEER_SXP_MODE    SELF_SXP_MODE   CONNECTION STATE
192.0.2.1       default       listener         speaker         initializing
switch#
```

**Related Commands**

| Command | Description |
|---------|-------------|
| **cts sxp connection peer** | Configures a SXP peer connection. |
| **feature cts** | Enables the Cisco TrustSec feature. |

# show running-config cts

To display the Cisco TrustSec configuration in the running configuration, use the **show running-config cts** command.

**show running-config cts**

**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. |

**Usage Guidelines**    This command does not require a license.

**Examples**    This example shows how to display the Cisco TrustSec configuration in the running configuration:

```
switch# show running-config cts

!Command: show running-config cts
!Time: Thu Jan  1 05:33:03 2009

version 6.0(0)N1(1)
feature cts
cts role-based counters enable
cts sxp enable
cts sxp connection peer 192.0.2.1 password none mode listener


interface Ethernet1/5
  cts manual
    policy static sgt 0x3

switch#
```

**Related Commands**

| Command | Description |
|---------|-------------|
| **copy running-config startup-config** | Copies the running configuration information to the startup configuration file. |
| **feature cts** | Enables the Cisco TrustSec feature. |

# show running-config dot1x

To display 802.1X configuration information in the running configuration, use the **show running-config dot1x** command.

**show running-config dotx1** [**all**]

| Syntax Description | **all** | (Optional) Displays configured and default information. |
|---|---|---|

**Command Default**    None

**Command Modes**    Any command mode

**Command History**

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

**Usage Guidelines**    You must enable the 802.1X feature by using the **feature dot1x** command before using this command.

This command does not require a license.

**Examples**    This example shows how to display the configured 802.1X information in the running configuration:

```
switch# show running-config dot1x
```

**Related Commands**

| Command | Description |
|---|---|
| **copy running-config startup-config** | Copies the running system configuration information to the startup configuration file. |
| **feature cts** | Enables the Cisco TrustSec feature on the switch. |
| **feature dot1x** | Enables the  802.1X feature on the switch. |

# show startup-config cts

To display the Cisco TrustSec configuration information in the startup configuration, use the **show startup-config cts** command.

**show startup-config cts**

**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. |

**Usage Guidelines**    This command does not require a license.

**Examples**    This example shows how to display the Cisco TrustSec information in the startup configuration:

```
switch# show startup-config cts
```

**Related Commands**

| Command | Description |
| --- | --- |
| **copy running-config startup-config** | Copies the running configuration information to the startup configuration file. |

# show startup-config dot1x

To display 802.1X configuration information in the startup configuration, use the **show startup-config dot1x** command.

**show startup-config dot1x**

**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)5.2(1)N1(1) | This command was introduced. |

**Usage Guidelines**    You must enable the 802.1X feature by using the **feature dot1x** command before using this command.

This command does not require a license.

**Examples**    This example shows how to display the 802.1X information in the startup configuration:

```
switch# show startup-config dot1x
```

**Related Commands**

| Command | Description |
|---------|-------------|
| **copy running-config startup-config** | Copies the running configuration information to the startup configuration file. |