

## ccs connect (controller)

To configure a common channel signaling (CCS) connection on an interface configured to support CCS frame forwarding, use the **ccs connect** command in controller configuration mode. To disable the CCS connection on the interface, use the **no** form of this command.

```
ccs connect {serial | atm} number [dlci | pvc vpi/vci | pvc name] [cidnumber]
```

```
no ccs connect {serial | atm} number [dlci | pvc vpi/vci | pvc name] [cidnumber]
```

### Syntax Description

<b>serial</b>	Makes a serial CCS connection for Frame Relay.
<b>atm</b>	Makes an Asynchronous Transfer Mode (ATM) CCS connection.
<i>dlci</i>	(Optional) Specifies the data link connection identifier (DLCI) number.
<i>pvc vpi/vci</i>	(Optional) Specifies the permanent virtual circuit (PVC) virtual path identifier or virtual channel identifier. Range is from 0 to 255; the slash is required.
<b>pvc name</b>	(Optional) Specifies the PVC string that names the PVC for recognition.
<i>cidnumber</i>	(Optional) If you have executed the <b>ccs encap frf11</b> command, the <i>cidnumber</i> argument allows you to specify any channel identification (CID) number from 5 to 255.

### Command Default

No CCS connection is made.

### Command Modes

Controller configuration

### Command History

Release	Modification
12.0(2)T	This command was introduced on the Cisco MC3810.
12.0(7)XK	The <i>cidnumber</i> argument was added; the <b>dlci</b> keyword and <b>vcd</b> options were removed.
12.1(2)T	The CID syntax addition and removal of the <b>dlci</b> keyword and <b>vcd</b> options were integrated into Cisco IOS Release 12.1(2)T.
12.1(2)XH	This command was implemented on the Cisco 2600 series, Cisco 3600 series, Cisco 7200 series, and Cisco 7500 series.
12.1(3)T	This command was integrated into Cisco IOS Release 12.1(3)T.

### Usage Guidelines

Use this command to configure a CCS connection. If the CCS connection is over Frame Relay, specify a serial interface and the DLCI. If the CCS connection is over ATM, specify **atm**, the slot number, and the PVC.

If you have executed the **ccs encap frf11** command, the *cidnumber* option allows you to specify any CID from 5 to 255. If you do not issue the **ccs encap frf11** command, Cisco encapsulation is used, and any CID value other than 254 is ignored.

**Note**


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CDP and keepalives are disabled by default on a D-channel interface.

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**Examples**

To configure a Frame Relay CCS frame-forwarding connection on DLCI 100 by using the default CID of 254, enter the following command:

```
ccs connect serial 1 100
```

or:

```
ccs connect serial 1 100 10
```

To configure a CCS frame-forwarding connection over an ATM PVC, enter the following command:

```
ccs connect atm0 pvc 100/10
```

or:

```
ccs connect atm0 pvc 10/100 21
```

or:

```
ccs connect atm0 pvc mypvc_10 21
```

To configure a Frame Relay CCS frame-forwarding connection on DLCI 100 using a CID of 110, enter the following command:

```
ccs connect serial 1 100 110
```

**Related Commands**

Command	Description
<b>ccs encap frf11</b>	Allows the specification of the standard Annex-C FRF.11 format.

## ccs connect (interface)

To configure a common channel signaling (CCS) connection on an interface configured to support CCS frame forwarding, use the **ccs connect** command in interface configuration mode. To disable the CCS connection on the interface, use the **no** form of this command.

```
ccs connect {serial | atm} number [dlci | pvc vpi/vci | pvc name] [cid-number]
```

```
no ccs connect {serial | atm} number [dlci | pvc vpi/vci | pvc name] [cid-number]
```

### Syntax Description

<b>serial</b>	Makes a serial CCS connection for Frame Relay.
<b>atm</b>	Makes an Asynchronous Transfer Mode (ATM) CCS connection.
<i>dlci</i>	(Optional) Data-link connection identifier (DLCI) number.
<i>pvc vpi/vci</i>	(Optional) Permanent virtual circuit (PVC) virtual path identifier or virtual channel identifier. Range is from 0 to 255; the slash is required.
<b>pvc name</b>	(Optional) PVC string that names the PVC for recognition.
<i>cid-number</i>	(Optional) If you have executed the <b>ccs encaps frf11</b> command, the <i>cid-number</i> argument allows you to specify any channel identification (CID) number from 5 to 255.

### Command Default

No CCS connection is made.

### Command Modes

Interface configuration

### Command History

Release	Modification
12.0(2)T	This command was introduced on the Cisco MC3810.
12.0(7)XK	The <i>cid-number</i> argument was added; the <b>dlci</b> keyword and <b>vcd</b> options were removed.
12.1(2)T	This command was integrated into Cisco IOS Release 12.1(2)T.
12.2(2)T	This command was implemented on the Cisco 7200 series router and integrated into Cisco IOS Release 12.2(2)T.

### Usage Guidelines

Use this command to configure a CCS connection. If the CCS connection is over Frame Relay, specify a serial interface and the DLCI. If the CCS connection is over ATM, specify **atm**, the interface number (0), and the PVC. If you have executed the **ccs encaps frf11** command, the *cid-number* option allows you to specify any CID from 5 to 255. If you do not issue the **ccs encaps frf11** command, Cisco encapsulation is used, and any CID value other than 254 is ignored.



#### Note

Cisco Discovery Protocol (CDP) and keepalives are disabled by default on a D-channel interface.

**Examples**

To configure a Frame Relay CCS frame-forwarding connection on DLCI 100 by using the default CID of 254, enter the following command:

```
ccs connect serial 1 100
```

or

```
ccs connect serial 1 100 10
```

To configure a CCS frame-forwarding connection over an ATM PVC, enter the following command:

```
ccs connect atm0 pvc 100/10
```

or

```
ccs connect atm0 pvc 10/100 21
```

or

```
ccs connect atm0 pvc mypvc_10 21
```

To configure a Frame Relay CCS frame-forwarding connection on DLCI 100 using a CID of 110, enter the following command:

```
ccs connect serial 1 100 110
```

**Related Commands**

Command	Description
<b>ccs encap frf11</b>	Allows the specification of the standard Annex-C FRF.11 format.

# ccs encap frf11

To configure the common channel signaling (CCS) packet encapsulation format for FRF.11, use the **ccs encap frf11** command in interface configuration mode. To disable CCS encapsulation for FRF11, use the **no** form of this command.

**ccs encap frf11**

**no ccs encap frf11**

## Syntax Description

This command has no keywords or arguments.

## Command Default

By default, the format is a Cisco packet format, using a channel ID (CID) of 254

## Command Modes

Interface configuration

## Command History

Release	Modification
12.0(7)XK	This command was introduced for the Cisco MC3810.
12.1(2)T	This command was integrated into Cisco IOS Release 12.1(2)T.
12.1(2)XH	This command was implemented on the Cisco 2600 series, Cisco 3600 series, Cisco 7200 series, and Cisco 7500 series.
12.1(3)T	This command was integrated into Cisco IOS Release 12.1(3)T.

## Usage Guidelines

This command allows the specification of the standard Annex-C format. Use this command to define the packet format for the CCS packet; it places the FRF.11 Annex-C (Data Transfer Syntax) standard header on the CCS packets only.

Once the **ccs encap frf11** command is executed, you can use the **ccs connect** command to specify a CID other than 254.

## Examples

The following example shows how to configure a serial interface for Frame Relay:

```
interface Serial1:15
  ccs encap frf11
  ccs connect Serial0 990 100
```

## Related Commands

Command	Description
<b>mode ccs frame-forwarding</b>	Set to forward frames on the controller.

# cdr-format

To select the format of the call detail records (CDRs) generated for file accounting, use the **cdr-format** command in gateway accounting configuration mode. To reset to the default, use the **no** form of this command.

**cdr-format** { **compact** | **detailed** }

**no cdr-format**

## Syntax Description

<b>compact</b>	Compact set of voice attributes is generated in CDRs.
<b>detailed</b>	Full set of voice attributes is generated in CDRs. Default value.

## Command Default

**Detailed** (full version of CDRs is generated).

## Command Modes

Gateway accounting file configuration (config-gw-accounting-file)

## Command History

Release	Modification
12.4(15)XY	This command was introduced.
12.4(20)T	This command was integrated into Cisco IOS Release 12.4(20)T.

## Usage Guidelines

This command determines whether the CDRs generated by the file accounting process contain the complete set of voice attributes or a compact set of 17 voice attributes.

For a list of the complete set of voice attributes generated with the **detailed** keyword, see the [“VSAs Supported by Cisco Voice Products”](#) section in the *RADIUS VSA Voice Implementation Guide*.

The name and order of the attributes generated with the **compact** keyword are: CallLegType, ConnectionId, SetupTime, PeerAddress, PeerSubAddress, DisconnectCause, DisconnectText, ConnectTime, DisconnectTime, CallOrigin, ChargedUnits, InfoType, TransmitPackets, TransmitBytes, ReceivePackets, ReceiveBytes, feature\_vsa.

## Examples

The following example shows the CDR format set to compact:

```
gw-accounting file
 primary ftp server1/cdrtest1 username bob password temp
 maximum buffer-size 60
 maximum fileclose-timer 720
 cdr-format compact
```

**Related Commands**

<b>Command</b>	<b>Description</b>
<b>acct-template</b>	Selects a group of voice vendor-specific attributes to collect in accounting records.
<b>maximum buffer-size</b>	Sets the maximum size of the file accounting buffer.
<b>maximum fileclose-timer</b>	Sets the maximum time for saving records to an accounting file before closing the file and creating a new one.
<b>primary</b>	Sets the primary location for storing the CDRs generated for file accounting.

# ces-clock

To configure the clock for the CES interface, use the **ces-clock** command in controller configuration mode. To disable the ces clock, use the **no** form of this command.

**ces-clock** { **adaptive** | **srts** | **synchronous** }

**no ces-clock** { **adaptive** | **srts** | **synchronous** }

## Syntax Description

<b>adaptive</b>	Adjusts output clock on a received ATM Adaptation Layer 1 (AAL1) on first-in, first-out basis. Use in unstructured mode.
<b>srts</b>	Sets the clocking mode to synchronous residual time stamp.
<b>synchronous</b>	Configures the timing recovery to synchronous for structured mode.

## Command Default

The default setting is synchronous

## Command Modes

Controller configuration

## Command History

Release	Modification
12.1(2)T	This command was introduced.

## Usage Guidelines

This command is used on Cisco 3600 series routers that have OC-3/STM-1 ATM CES network modules.

## Examples

The following example configures the CES clock mode for synchronous residual time stamp:

```
ces-clock srts
```

## Related Commands

Command	Description
<b>controller</b>	Configures the T1 or E1 controller.

# cgma-agent

To enable the Cisco Gateway Management Agent (CGMA) on the Cisco IOS gateway, use the **cgma-agent** command in global configuration mode. To disable the CGMA, use the **no** form of this command.

**cgma-agent** [*tcp-port number*] | [*time-period seconds*]

**no cgma-agent**

## Syntax Description

<b>tcp-port</b> <i>number</i>	(Optional) Specifies the TCP port number for the CGMA to use in communication with a third-party management system. Range is from 5000 to 65535. The default is 5000.
<b>time-period</b> <i>seconds</i>	(Optional) Specifies the maximum time period, in seconds for maintaining the link between the CGMA and the third-party management system during a period of inactivity. If twice the timeout value is met or exceeded with no message received from the client, the TCP connection is closed. Additionally, a 60-second timer is maintained in the CGMA, which closes the connection if no handshake query message is received from the third-party management system for 60 seconds. Range is from 45 to 300. The default is 45.

## Command Default

Default *number* value is 5000.  
Default *seconds* value is 45.

## Command History

Release	Modification
12.2(2)XB	This command was introduced on the Cisco 2600 series, Cisco 3600 series, Cisco AS5300, Cisco AS5350, and Cisco AS5400.
12.2(2)XB1	This command was implemented on the Cisco AS5800 for this Cisco IOS release only.
12.2(8)T	This command was integrated into Cisco IOS Release 12.2(8)T and implemented on the Cisco 2600 series, Cisco 3600 series, and Cisco 7200 series. Support for the Cisco AS5300, Cisco AS5350, Cisco AS5400, and Cisco AS5800 is not included in this release.

## Usage Guidelines

Use this command to enable the CGMA on the Cisco IOS gateway. The CGMA communicates with the third-party management system to provide real-time information for gateway management, including the following:

- Handshake query, status query, and response messages between the CGMA and the third-party management system
- Call information such as start and end of call from call detail records (CDRs) sent using extensible markup language (XML) over TCP/IP
- Shows if T1 or E1 controllers and analog ports are up or down, and are also generated at the removal or addition of a “pri-group” or “ds0-group” under the T1 or E1 controller.

**Examples**

The following example shows that the CGMA is enabled on TCP port 5300 and that the CGMA times out after 300 seconds and closes its connection to the third-party management system because of inactivity in the link:

```
Router(config)# cgma-agent tcp-port 5300 time-period 300
```

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

```
Building configuration...
```

```
Current configuration : 1797 bytes
!
version 12.2
service config
no service single-slot-reload-enable
service timestamps debug uptime
service timestamps log uptime
no service password-encryption
!
hostname gw1
!
.
.
.
resource-pool disable
!
ip subnet-zero
no ip domain-lookup
!
no ip dhcp-client network-discovery
isdn switch-type primary-ni
!
!
!
!
!
cgma-agent tcp-port 5300 time-period 300
fax interface-type modem
mta receive maximum-recipients 2
!
!
controller T1 0
  framing esf
  linecode b8zs
  pri-group timeslots 1-24
!
!
interface Ethernet0
  ip address 209.165.200.225 255.255.255.0
!
interface Serial0:23
  no ip address
  isdn switch-type primary-ni
  isdn protocol-emulate network
  isdn incoming-voice modem
  isdn T310 10000
  no cdp enable
!

voice-port 0:D
!
dial-peer voice 1213 voip
```

```
destination-pattern 12135551000
session target ipv4:209.165.200.229
!
dial-peer voice 1415 pots
destination-pattern 14155551000
direct-inward-dial
port 0:D
!
dial-peer voice 12136 voip
destination-pattern 12136661000
session target ipv4:209.165.200.229
!
dial-peer voice 14156 pots
incoming called-number .
direct-inward-dial
!
gateway
!
end
```

# channel-group

To configure serial WAN on a T1 or E1 interface, use the **channel-group** command in controller configuration mode. To clear a channel group, use the **no** form of this command.

## Cisco 2600 Series

**channel-group** *channel-group-number* **timeslots** *range* [**speed** *kbps*] [**aim** *aim-slot-number*]

**no channel-group** *channel-group-number*

## Cisco 2611 (Cisco Signaling Link Terminal [SLT])

**channel-group** *channel-number*

**no channel-group** *channel-number*

## Cisco 2600XM Series, Cisco 2691, Cisco 3631, Cisco 3660, Cisco 3725, and Cisco 3745

**channel-group** *channel-group-number* {**timeslots** *range* [**speed** {**56** | **64**}] | **unframed**}  
[**aim** *aim-slot-number*]

**no channel-group** [*channel-group-number* **timeslots** *range*]

## Cisco AS5350 and Cisco AS5400 Series

**channel-group** *channel-group-number*

**no channel-group** *channel-group-number*

## Cisco MC3810

**channel-group** *channel-number* **timeslots** *range* [**speed** *kbps*]

**no channel-group** [*channel-number* **timeslots** *range*]

### Syntax Description

<i>channel-group-number</i>	Channel-group number on the Cisco 2600 series, Cisco 2600XM, Cisco 2691, Cisco 3631, Cisco 3660, Cisco 3725, and Cisco 3745 routers. When a T1 data line is configured, channel-group numbers can be values from 0 to 23. When an E1 data line is configured, channel-group numbers can be values from 0 to 30. Valid values can be 0 or 1 on the Cisco AS5350 and Cisco AS5400.
<b>timeslots</b> <i>range</i>	Specifies one or more time slots separated by commas, or ranges of time slots belonging to the channel group separated by a dash. The first time slot is numbered 1. For a T1 controller, the time slots range from 1 to 24. For an E1 controller, the time slots range from 1 to 31. You can specify a time slot range (for example, 1-29), individual time slots separated by commas (for example 1, 3, 5), or a combination of the two (for example 1-14, 15, 17-31). See the “Examples” section for samples of different timeslot ranges.

<b>speed {56   64}</b>	<p>(Optional) Specifies the speed of the underlying DS0s in kilobits per second. Valid values are 56 and 64.</p> <p>The default line speed when configuring a T1 controller is 56 kbps on the Cisco 2600 series, Cisco 2600XM series, Cisco 2691, Cisco 3631, Cisco 3660, Cisco 3725, Cisco 3745, and the Cisco MC3810.</p> <p>The default line speed when configuring an E1 controller is 64 kbps on the Cisco 2600 series, Cisco 2600XM series, Cisco 2691, Cisco 3631, Cisco 3660, Cisco 3725, Cisco 3745, and the Cisco MC3810.</p> <p>The line speed controls real-time (VBR-RT) traffic shaping, and the maximum burst size (MBS) is 255 cells.</p>
<b>aim</b> <i>aim-slot-number</i>	(Optional) Directs HDLC traffic from the T1/E1 interface to the AIM-ATM-VOICE-30 digital signaling processor (DSP) card on the Cisco 2600 series, Cisco 2600XM series, Cisco 2691, Cisco 3631, Cisco 3660, Cisco 3725, and Cisco 3745.
<i>channel-number</i>	Number of the channel. Valid values can be 0 or 1 on the Cisco SLT (Cisco 2611).
<b>unframed</b>	Specifies the use of all 32 time slots for data. None of the 32 time slots are used for framing signals on the Cisco 2600XM series, Cisco 2691, Cisco 3631, Cisco 3660, Cisco 3725, and Cisco 3745. This is applicable to E1 only.

### Command Default

The T1/E1 line is connected to the Motorola MPC-860x processor serial communication controller (SCC) or network module with two voice or WAN interface card (VIC or WIC) slots and 0/1/2 FastEthernet ports DSCC4 by default on Cisco 2600 series, Cisco 2600XM, Cisco 2691, Cisco 3631, Cisco 3660, Cisco 3725, and Cisco 3745 routers.

There is no default behavior or values on the Cisco SLT (Cisco 2611).

The serial interface object encapsulation is set to HDLC on a network access server (NAS) (Cisco AS5350 and Cisco AS5400 series routers).

The default line speed is 56 kbps when a T1 controller is configured on the Cisco 2600 series, Cisco 2600XM series, Cisco 2691, Cisco 3631, Cisco 3660, Cisco 3725, Cisco 3745, and the Cisco MC3810.

The default line speed is 64 kbps when an E1 controller is configured on the Cisco 2600 series, Cisco 2600XM series, Cisco 2691, Cisco 3631, Cisco 3660, Cisco 3725, Cisco 3745, and the Cisco MC3810.

### Command Modes

Controller configuration

### Command History

Release	Modification
11.3 MA	This command was introduced on the Cisco MC3810.
12.0	This command was integrated into Cisco IOS Release 12.0 on the Cisco MC3810.
12.0(7)XE	This command was implemented on the Catalyst 6000 family switches.
12.1(1)E	This command was integrated into Cisco IOS Release 12.1(1)E.

Release	Modification
12.1(1)T	This command was modified to accommodate two channel groups on a port on 1- and 2-port T1/E1 Multiflex voice or WAN interface cards on the Cisco 2600 and Cisco 3600 series routers.
12.1(3a)E3	The number of valid values for <i>kbps</i> was changed on the Cisco MC3810; see the “Usage Guidelines” section for valid values.
12.2(11)T	This command was modified for use on the Cisco AS5350 and Cisco AS5400.
12.2(11)T	The <b>aim</b> keyword was added for use on the Cisco 2600 series (including the Cisco 2691), Cisco 2600XM, Cisco 3660, Cisco 3725, and Cisco 3745.
12.3(1)	The <b>unframed</b> keyword was added for use on the Cisco 2600XM series, Cisco 2691, Cisco 3631, Cisco 3660, Cisco 3725, and Cisco 3745.

### Usage Guidelines

Use this command to direct High-Level Data Link Control (HDLC) traffic from the T1/E1 interface to the AIM-ATM-VOICE-30 DSP card. A channel group is created using Advanced Integration Module (AIM) HDLC resources when a **channel-group** command with the **aim** keyword is parsed during system initialization or when the command is entered during configuration. You must specify the **aim** keyword under a T1/E1 controller port to direct HDLC traffic from the T1/E1 interface to the AIM-ATM-VOICE-30 DSP card on the Cisco 2600 series, Cisco 2600XM series, Cisco 2691, Cisco 3631, Cisco 3660, Cisco 3725, and Cisco 3745.



#### Note

Neither the Cisco AS5400 series NAS nor the Cisco MC3810 is supported with the integrated voice and data WAN on T1/E1 interfaces using the AIM-ATM-VOICE-30 module.

If previous **channel-group** commands are configured with the **aim** keyword, subsequent **channel-group** commands without the **aim** keyword are rejected. Similarly, if a regular **channel-group** command is followed by another **channel-group** command with the **aim** keyword implemented, the second command is rejected on the Cisco 2600 and Cisco 2600XM.

A channel group using AIM HDLC resources is deleted only when a **no channel-group** command is entered.

By default, the **channel-group** command on a NAS sets the serial interface object encapsulation to HDLC. You must override the default by entering the **encapsulation ss7** command for that serial interface object. Once you override the default, encapsulation cannot be changed again for that object. The SS7 encapsulation option is new to the **Integrated Signaling Link Terminal** feature and is available only for interface serial objects created by the **channel-group** command. The Integrated Signaling Link Terminal feature added SLT functionality on Cisco AS5350 and Cisco AS5400 platforms.

A digital SS7 link can be deleted by entering the **no channel-group channel-group-number** command on the associated T1/E1 controller. The link must first be stopped using the **no shutdown** command. It is not necessary to remove the channel ID association first.

Use the **channel-group** command in configurations where the router or access server must communicate with a T1 or E1 fractional data line. The channel group number may be arbitrarily assigned and must be unique for the controller. The time slot range must match the time slots assigned to the channel group. The service provider defines the time slots that comprise a channel group.

**Note**

Channel groups, channel-associated signaling (CAS) voice groups, DS0 groups, and time-division multiplexing (TDM) groups all use group numbers. All group numbers configured for channel groups, CAS voice groups, and TDM groups must be unique on the local Cisco MC3810 concentrator. For example, you cannot use the same group number for a channel group and for a TDM group. Furthermore, on the Cisco MC3810, only one channel group can be configured on a controller.

The channel group number can be 0 or 1 on the Cisco SLT (Cisco 2611).

The **channel-group** command also applies to Voice over Frame Relay, Voice over ATM, and Voice over HDLC on the Cisco MC3810.

**Examples**

The following example shows basic configuration directing HDLC traffic from the T1/E1 interface to the AIM-ATM-VOICE-30 DSP card, starting in global configuration mode:

```
Router(config)# controller e1 1/0
Router(config-controller)# clock source internal
Router(config-controller)# channel-group 0 timeslots 1-31 aim 0
```

The following example explicitly sets the encapsulation type to PPP to override the HDLC default:

```
Router# configure terminal
Router(config)# controller t1 6/0
Router(config-controller)# channel-group 2 timeslots 3 aim 0
Router(config-controller)# exit
Router(config)# interface serial 6/0:2
Router(config-if)# encapsulation ppp
Router(config-if)# ip address 12.0.0.1 255.0.0.0
Router(config-if)# no shutdown
Router(config-if)# end
```

The following example shows how to explicitly set the encapsulation type to SS7 to override the HDLC default using the Integrated Signaling Link Terminal feature. This example uses an 8PRI DFC card inserted into slot 7, and DS0-timeslot 3 on trunk 5 of that card is used as an SS7 link:

```
Router# configure terminal
Router(config)# controller t1 7/5
Router(config-controller)# channel-group 2 timeslots 3
Router(config-controller)# exit
Router(config)# interface serial 7/5:2
Router(config-if)# encapsulation ss7
Router(config-if)# channel-id 0
Router(config-if)# no shutdown
Router(config-if)# end
```

The following example defines three channel groups. Channel-group 0 consists of a single time slot, channel-group 8 consists of seven time slots and runs at a speed of 64 kbps per time slot, and channel-group 12 consists of two time slots.

```
Router(config-controller)# channel-group 0 timeslots 1
Router(config-controller)# channel-group 8 timeslots 5,7,12-15,20 speed 64
Router(config-controller)# channel-group 12 timeslots 2
```

The following example configures a channel group on controller T1 0 on a Cisco MC3810:

```
Router(config)# controller T1 0
Router(config-controller)# channel-group 10 timeslots 10-64
```

## channel-group

The following example configures a channel group on controller E1 1 and specifies that all time slots are used for data:

```
controller e1 1
channel-group 1 unframed
```



### Note

SS7 digital F-link support for the 8PRI line card requires use of a third onboard TDM stream to route trunk DS0 messages to the onboard Media Gateway Controllers (MGCs).

### Related Commands

Command	Description
<b>framing</b>	Specifies the frame type for the T1 or E1 data line.
<b>invert data</b>	Enables channel inversion.
<b>linecode</b>	Specifies the line code type for the T1 or E1 line.
<b>voice-card</b>	Configures a card with voice processing resources and enters voice card configuration mode.

# channel-id

To assign a session channel ID to an SS7 serial link or assign an SS7 link to an SS7 session set on a Cisco AS5350 or Cisco AS5400, use the **channel-id** command in interface configuration mode. To disable a session channel ID link, use the **no** form of this command.

**channel-id** *channel-id* [**session-set** *session-set-id*]

**no channel-id**

## Syntax Description

<i>channel-id</i>	Selects a unique session channel ID. This session channel ID is needed when the link with a Reliable User Datagram Protocol (RUDP) session to the media gateway controller (MGC) is associated.
<b>session-set</b> <i>session-set-id</i>	(Optional) Creates an SS7-link-to-SS7-session-set association on the Cisco AS5350- and Cisco AS5400-based Cisco Signaling Link Terminals (SLTs).  The <i>session-set-id</i> argument represents the SS7 session ID. Valid values are 0 or 1. Default is 0.

## Command Default

No default behavior or values

## Command Modes

Interface configuration

## Command History

Release	Modification
12.2(11)T	This command was introduced on the Cisco AS5350 and Cisco AS5400.
12.2(15)T	The <b>session-set</b> <i>session-set-id</i> keyword and argument were added.

## Usage Guidelines

The **channel-id** command is visible only if the object's encapsulation type is changed to SS7.

Before an SS7 serial link can be enabled using the **no shutdown** command, you must enter the **channel-id** command in interface configuration mode to assign a session channel ID to the SS7 serial link. This ID is unique to the Cisco AS5350 and Cisco AS5400, and the command is visible only for provisioned objects whose encapsulation type is the new SS7 value.

The channel identifier is reserved when you explicitly assign an ID using the **channel-id** command for the associated serial interface object. This fails if the selected channel identifier is currently assigned to another link or if all channel identifiers are already assigned.

A channel identifier is released when the **no channel-id** command is entered. The link must first be shut down to do this. If the **no channel-id** command is used with the Multiple OPC Support for the Cisco Signaling Link Terminal feature, the associated SS7 link has no channel ID. In this state the link is not fully configured and is incapable of supporting signaling traffic.

If the **session-set** keyword is omitted, the command is applied to SS7 session set 0, which is the default. Reissuing the **session-set** keyword with a different SS7 session ID is sufficient to remove the associated SS7 link from its existing SS7 session set and add it to the new one.

**Examples**

The following example shows a unique session channel ID zero being assigned to the Cisco AS5350 or Cisco AS5400:

```
Router(config-if)# channel-id 0
```

The following example assigns an SS7 link to an SS7 session set on a Cisco AS5350 or Cisco AS5400:

```
Router(config-if)# channel-id 0 session-set 1
```

**Related Commands**

Command	Description
<b>channel-group</b>	Assigns a channel group and selects the DS0 timeslot(s) desired for SS7 links.
<b>encapsulation ss7</b>	Sets the encapsulation type to SS7.
<b>no shutdown</b>	Changes the administrative state of a port from out-of-service to in-service.
<b>session-set</b>	Creates a Signaling System 7 (SS7)-link-to-SS7-session-set association or to associate an SS7 link with an SS7 session set on the Cisco 2600-based Signaling Link Terminal (SLT).
<b>ss7 mtp2 variant bellcore</b>	Configures the device for Telcordia (formerly Bellcore) standards. This command is hidden in the running configuration with this feature.

# clear backhaul-session-manager group stats

To reset the statistics or traffic counters for a specified session group, use the **clear backhaul-session-manager group stats** command in privileged EXEC mode.

```
clear backhaul-session-manager group stats {all | name group-name}
```

Syntax Description	all	All available session groups.
	<b>name group-name</b>	A specified session group.

**Command Default** The statistical information accumulates

**Command Modes** Privileged EXEC

Command History	Release	Modification
	12.1(1)T	This command was introduced.
	12.2(2)T	This command was implemented on the Cisco 7200.
	12.2(4)T	This command was implemented on the Cisco 2600 series, Cisco 3600 series, and Cisco MC3810.
	12.2(2)XB1	This command was implemented on the Cisco AS5850.
	12.2(8)T	This command was integrated into Cisco IOS Release 12.2(8)T and implemented on Cisco IAD2420 series.
	12.2(11)T	This command was implemented on the Cisco AS5350, Cisco AS5400, and Cisco AS5850.

**Usage Guidelines** A session is the connection between a client and a server, and a session group is a collection of sessions in a group to implement switchover in case of a session failure. This command clears all statistics that pertain to the backhaul session manager group.

**Examples** The following example clears all statistics for all available session groups:

```
Router(config)# clear backhaul-session-manager group stats all
```

Related Commands	Command	Description
	<b>show backhaul-session-manager group</b>	Displays status, statistics, or configuration of a specified group or all session groups.

# clear call application interface

To clear application interface statistics and event logs, use the **clear call application interface** command in privileged EXEC mode.

```
clear call application interface [{aaa | asr | flash | http | ram | rtsp | smtp | tftp | tts}
  [server server]] [event-log | stats]]
```

## Syntax Description

<b>event-log</b>	(Optional) Clears event logs.
<b>stats</b>	(Optional) Clears statistic counters.
<b>aaa</b>	Authentication, authorization, and accounting (AAA) interface type.
<b>asr</b>	Automatic speech recognition (ASR) interface type.
<b>flash</b>	Flash memory of the Cisco gateway.
<b>http</b>	Hypertext Transfer Protocol (HTTP) interface type.
<b>ram</b>	Memory of the Cisco gateway.
<b>rtsp</b>	Real-time Streaming Protocol (RTSP) interface type.
<b>smtp</b>	Simple Mail Transfer Protocol (SMTP) interface type.
<b>tftp</b>	Trivial File Transfer Protocol (TFTP) interface type.
<b>tts</b>	Text-to-speech (TTS) interface type.
<b>server <i>server</i></b>	(Optional) Clears statistics or event logs for the specified server.

## Command Modes

Privileged EXEC

## Command History

Release	Modification
12.3(8)T	This command was introduced.

## Usage Guidelines

This command resets statistic counters to zero and clears event logs for application interfaces. If you do not use any keywords or arguments, this command clears statistics and event logs for all application interfaces.

## Examples

The following example clears statistics and event logs for application interfaces:

```
Router# clear call application interface
```

## Related Commands

Command	Description
<b>call application interface</b>	Enables event logging for external interfaces used by voice applications.
<b>event-log</b>	
<b>call application interface</b>	Enables statistics collection for application interfaces.
<b>stats</b>	

<b>Command</b>	<b>Description</b>
<b>clear call application stats</b>	Clears application-level statistics in history and subtracts the statistics from the gateway-level statistics.
<b>show call application interface</b>	Displays event logs and statistics for application interfaces.

# clear call application stats

To clear application-level statistics in history and subtract the statistics from the gateway-level statistics, use the **clear call application stats** command in privileged EXEC mode.

**clear call application** [**app-tag** *application-name*] **stats**

<b>Syntax Description</b>	<b>app-tag</b> <i>application-name</i> (Optional) Clears statistics for the specified voice application.
---------------------------	--

<b>Command Modes</b>	Privileged EXEC
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<b>Command History</b>	<b>Release</b>	<b>Modification</b>
	12.3(8)T	This command was introduced.

<b>Usage Guidelines</b>	This command resets application-level counters in history to zero and subtracts the counters from the gateway-level history. If you do not specify an application name, this command clears statistics for all applications at the application level and gateway level.
-------------------------	---



**Note**

Statistic counters are automatically cleared for an application if the application is deleted with the **no call application voice** command or the script is reloaded with the **call application voice load** command.

<b>Examples</b>	The following example clears statistics for the application named sample_app:
-----------------	---

```
Router# clear call application stats sample_app
```

<b>Related Commands</b>	<b>Command</b>	<b>Description</b>
	<b>call application stats</b>	Enables statistics collection for voice applications.
	<b>clear call application interface</b>	Clears application interface statistics and event logs.
	<b>show call application app-level</b>	Displays application-level statistics for voice applications.
	<b>show call application gateway-level</b>	Displays gateway-level statistics for voice application instances.

# clear call fallback cache

To clear the cache of the current Calculated Planning Impairment Factor (ICPIF) estimates for all IP addresses or a specific IP address, use the **clear call fallback cache** command in EXEC mode.

**clear call fallback cache** [*ip-address*]

<b>Syntax Description</b>	<i>ip-address</i>	(Optional) Specifies the target IP address. If no IP address is specified, all IP addresses are cleared.
---------------------------	-------------------	--

**Command Default** If no IP address is specified, all IP addresses are cleared.

**Command Modes** EXEC

<b>Command History</b>	<b>Release</b>	<b>Modification</b>
	12.1(3)T	This command was introduced on Cisco 2600 series, Cisco 3600 series, and Cisco MC3810.
	12.2(2)XB1	This command was implemented on the Cisco AS5850.
	12.2(4)T	The PSTN Fallback feature and enhancements were implemented on Cisco 7200 series routers and integrated into Cisco IOS Release 12.2(4)T.
	12.2(4)T2	This command was implemented on the Cisco 7500 series.
	12.2(11)T	This command was integrated into Cisco IOS Release 12.2(11)T.

**Usage Guidelines** If no IP address is specified, this command clears the cache of all ICPIF estimates for all IP addresses.

**Examples** The following example clears the cache of the ICPIF estimate for IP address 10.0.0.0:

```
Router# clear call fallback cache 10.0.0.0
```

<b>Related Commands</b>	<b>Command</b>	<b>Description</b>
	<b>show call fallback cache</b>	Displays the current ICPIF estimates for all IP addresses in the call fallback cache.

# clear call fallback stats

To clear the call fallback statistics, use the **clear call fallback stats** command in EXEC mode.

**clear call fallback stats**

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

**Command Modes** EXEC

Command History	Release	Modification
	12.1(3)T	This command was introduced on Cisco 2600 series, Cisco 3600 series, and Cisco MC3810.
	12.2(2)XB1	This command was implemented on the Cisco AS5850 platform.
	12.2(4)T	The PSTN Fallback feature and enhancements were implemented on Cisco 7200 series and integrated into Cisco IOS Release 12.2(4)T.
	12.2(4)T2	This command was implemented on the Cisco 7500 series.
	12.2(11)T	This command was integrated into Cisco IOS Release 12.2(11)T.

**Examples** The following example clears the call fallback statistics:

```
Router# clear call fallback stats
```

Related Commands	Command	Description
	<b>show call fallback stats</b>	Displays the call fallback statistics.

# clear callmon

To clear call monitor logs, use the **clear callmon** command in privileged EXEC mode.

```
clear callmon {dead-memory | trace}
```

Syntax Description	dead-memory	Clears unreleased Communication Media Module (CMM) line card memory.
	trace	Clears CMM trace buffers.

Command Modes	Privileged EXEC (#)
---------------	---------------------

Command History	Release	Modification
	15.0(1)M	This command was introduced in a release earlier than Cisco IOS Release 15.0(1)M.

## Examples

The following example shows how to clear unreleased CMM memory:

```
Router# clear callmon dead-memory
```

The following example shows how to clear CMM trace buffers:

```
Router# clear callmon trace
```

Related Commands	Command	Description
	clear tgrep neighbor	Clears TGREP counters and sessions.

# clear call threshold

To clear enabled call threshold statistics, use the **clear call threshold command in privileged EXEC mode**.

```
clear call threshold {stats | total-calls [value] | interface int-name int-calls [value]}
```

## Syntax Description

<b>stats</b>	Resets all call threshold statistics.
<b>total-calls</b>	Resets the counter when the call volume reaches the specified number.
<i>value</i>	Represents call volume. Range is from 0 to 10000 calls. The default is 0.
<b>interface int-name</b>	Specifies the interface through which calls arrive. Types of interfaces and their numbers depends upon the configured interfaces.
<b>int-calls</b>	Number of calls transmitted through the interface.
<i>value</i>	Clears calls when they reach a specified volume through the interface. Range is from 0 to 10000 calls. The default is 0.

## Command Default

The default setting of 0 for **total-calls** and **int-calls** resets all threshold statistics immediately. **stats** is the default keyword.

## Command Modes

Privileged EXEC

## Command History

Release	Modification
12.2(2)XA	This command was introduced.
12.2(4)T	The command was integrated into Cisco IOS Release 12.2(4)T. Support for the Cisco AS5300, Cisco AS5350, and Cisco AS5400, is not included in this release.
12.2(2)XB1	This command was implemented on the Cisco AS5850.
12.2(4)XM	This command was implemented on Cisco 1750 and Cisco 1751 routers. Support for other Cisco platforms is not included in this release.
12.2(8)T	This command was integrated into Cisco IOS Release 12.2(8)T and implemented on Cisco 7200 series routers. Support for Cisco AS5300, Cisco AS5350, Cisco AS5400, and Cisco AS5850 is not included in this release.
12.2(11)T	This command is supported on the Cisco AS5300, Cisco AS5350, Cisco AS5400, Cisco AS5800, and Cisco AS5850 in this release.

## Examples

The following example resets all call threshold statistics:

```
clear call threshold stats
```

The following example also resets the counter for all call volume in the gateway:

```
clear call threshold total-calls
```

The following example resets the counter when the call volume on Ethernet interface 0/1 reaches 5000 calls:

```
clear call threshold interface ethernet 0/1 int-calls 5000
```

**Related Commands**

<b>Command</b>	<b>Description</b>
<b>call threshold</b>	Enables the global resources of a gateway.
<b>call threshold poll-interval</b>	Enables a polling interval threshold for CPU or memory.
<b>show call treatment</b>	Displays the call treatment configuration and statistics for handling the calls on the basis of resource availability.

# clear call treatment stats

To clear call treatment statistics, use the **clear call treatment stats** command in privileged EXEC mode.

**clear call treatment stats**

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

**Command Modes** Privileged EXEC

Command History	Release	Modification
	12.2(2)XA	This command was introduced.
	12.2(4)T	The command was integrated into Cisco IOS Release 12.2(4)T. Support for the Cisco AS5300, Cisco AS5350, and Cisco AS5400 series is not included in this release.
	12.2(2)XB1	This command was implemented on the Cisco AS5850.
	12.2(4)XM	This command was implemented on Cisco 1750 and Cisco 1751 routers. Support for other Cisco platforms is not included in this release.
	12.2(8)T	This command was integrated into Cisco IOS Release 12.2(8)T and implemented on Cisco 7200 series routers. Support for the Cisco AS5300, Cisco AS5350, Cisco AS5400, and Cisco AS5850 is not included in this release.
	12.2(11)T	This feature was integrated into Cisco IOS Release 12.2(11)T and support was added for Cisco AS5300, Cisco AS5350, Cisco AS5400, and Cisco AS5800.

**Examples** The following example clears the call treatment statistics:

```
clear call treatment stats
```

Related Commands	Command	Description
	<b>call treatment on</b>	Enables call treatment to process calls when local resources are unavailable.
	<b>call treatment action</b>	Configures the action that the router takes when local resources are unavailable.
	<b>call treatment cause-code</b>	Specifies the reason for the disconnection to the caller when local resources are unavailable.
	<b>call treatment isdn-reject</b>	Specifies the rejection cause-code for ISDN calls when local resources are unavailable.
	<b>show call treatment</b>	Displays the call treatment configuration and statistics for handling calls on the basis of resource availability.

# clear call voice

To clear one or more voice calls detected as inactive because there is no RTP or RTCP activity, use the **clear call voice** command in EXEC or privileged EXEC mode.

```
clear call voice causecode identifier{id identifier | media-inactive | calling-number number | called-number number}
```

Syntax Description	Parameter	Description
	<b>causecode</b>	Specifies a Q.850 disconnect cause code.
	<i>identifier</i>	Numeric cause code identifier; a number 1 through 127.
	<b>id</b>	Clears one specific call with the ID specified.
	<i>identifier</i>	Call identifier as shown in brief format.
	<b>media-inactive</b>	Clears calls wherever a status of media inactive is detected and notified.
	<b>calling-number</b>	Clears a call with a specific calling number pattern.
	<b>called-number</b>	Clears a call with a specific called number pattern.
	<i>number</i>	Specific call number pattern of a called number or calling number.

**Command Default** This command is disabled, and no calls are cleared.

**Command Modes** User EXEC  
Privileged EXEC

Command History	Release	Modification
	12.1(3)T	This command was introduced.
	12.2	This command was integrated into Cisco IOS Release 12.2.
	12.3(4)T	The <b>voice</b> keyword was added.
	12.4(4)T	The <b>calling-number</b> and <b>called-number</b> keywords were added.

**Usage Guidelines** This command can be used to clear all voice calls detected as media inactive or it can be used to clear individual voice calls. There is no **no** form of this command.

**Examples** The following example clears inactive voice calls with the cause code ID of 112B:

```
Router# clear call voice causecode 1 id 112B
```

Related Commands	Command	Description
	<b>show call active voice</b>	Displays active voice calls, based on specified parameters.

# clear call-router routes

To remove the dynamic routes cached in the border element (BE), enter the **clear call-router routes** command in privileged EXEC mode.

**clear call-router routes**

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

**Command Modes** Privileged EXEC

Command History	Release	Modification
	12.2(2)XA	This command was introduced.
	12.2(4)T	This command was integrated into Cisco IOS Release 12.2(4)T. Support for the Cisco AS5300, Cisco AS5350, and Cisco AS5400 is not included in this release.
	12.2(2)XB1	This command was implemented on the Cisco AS5850.
	12.2(11)T	This command was integrated into Cisco IOS Release 12.2(11)T. This command is supported on the Cisco AS5300, Cisco AS5350, Cisco AS5400, and Cisco AS5850 in this release.

**Examples** The following example shows how to remove dynamic routes cached in the BE:

```
Router# clear call-router routes
```

Related Commands	Command	Description
	<b>call-router</b>	Enables the Annex G BE configuration commands.
	<b>show call history</b>	Displays the fax history table for a fax transmission.

# clear controller call-counters

To clear the system DS0 high water marks (HWM) and all individual controller statistics, use the **clear controller call-counters** command in privileged EXEC mode.

```
clear controller call-counters {system-hwm | all}
```

## Syntax Description

<b>system-hwm</b>	Clears the system HWMs only.
<b>all</b>	Clears <i>all</i> controller call counters including the individual controller time slots in use and the number of calls on those time slots since the last reset was done. The HWMs are set to 0.

## Command Default

No default behavior or values

## Command Modes

Privileged EXEC

## Command History

Release	Modification
12.0(1)T	This command was introduced.
12.1(1)T	This command was implemented on the voice/WAN interface cards (VWICs) for Cisco 2600 series and Cisco 3600 series.
12.1(2)T	This command was implemented on the Cisco AS5300, Cisco AS5400, and Cisco AS5800.

## Usage Guidelines

The **clear controller call-counters all** command clears the system DS0 HWMs and all individual controller statistics, including Total Calls and Total Duration. The **clear controller call-counters system-hwm** command clears the system DS0 HWMs and leaves all other call-counter statistics untouched.

Refer to the comments below for the meaning of call counters displayed before and after executing **clear controller call-counters** and **clear controller t1 call-counters** related commands.

- The numbers displayed under TotalCalls for each time slot represent *total* calls that were connected successfully. If a call comes into time slot 10, then the **show controllers t1 call-counters** command displays 1 under the TotalCalls column for time slot 10. A value of 20 displayed under TotalCalls for time slot 10 indicates a total of 20 calls connected on time slot 10 since the last time call counters were cleared.
- The DS0s Active field indicates the number of active calls on the specified controller. This number indicates the current number of calls on the controller at any given time.
- The DS0s Active High Water Mark field indicates the peak number of calls on the controller since the last time HWMs or calls were cleared. If the number of active calls “DS0s Active” is less than DS0s HWM, then HWM remains untouched. If new calls come in and the active DS0s are more than the HWM, then the HWM is incremented to reflect the new peak number of calls on that controller.

This value is reset to the current and active DS0s when call counters are cleared. For example, initially the HWM is 0. When a new call comes in, the HWM is 1. When the next call comes in, the HWM is 2.

If 20 calls come in, the HWM is 20 and the active DS0s are 20. If 5 calls get disconnected, the DS0 active is 15, but the HWM is 20. When a **clear controller** command is input for the specified controller, the HWM is reset to 15, which is the current and active DS0s also. If 10 calls get disconnected, the Active DS0s is set to 5 and the HWM remains at 15 until another **clear controller command** is input. If Active DS0s exceed 15, then the HWM is updated.

- The System DS0s High Water Mark field reflects the HWM at a system level including all DS0s controllers.

## Examples

The following sample output shows what happens after the HWMs are cleared:

```
Router# clear controller call-counters system-hwm
!
Router# show controllers t1 call-counters
```

```
T1 1/3/0:3:
DS0's Active: 2
DS0's Active High Water Mark: 2
TimeSlot  Type  TotalCalls  TotalDuration
  1         pri         0         00:00:00
  2         pri         0         00:00:00
  3         pri         0         00:00:00
  4         pri         0         00:00:00
  5         pri         0         00:00:00
  6         pri         0         00:00:00
  7         pri         0         00:00:00
  8         pri         0         00:00:00
  9         pri         0         00:00:00
 10         pri         0         00:00:00
 11         pri         0         00:00:00
 12         pri         0         00:00:00
 13         pri         0         00:00:00
 14         pri         0         00:00:00
 15         pri         0         00:00:00
 16         pri         0         00:00:00
 17         pri         0         00:00:00
 18         pri         0         00:00:00
 19         pri         0         00:00:00
 20         pri         0         00:00:00
 21         pri         0         00:00:00
 22         pri         1         00:08:51
 23         pri         1         00:09:21

T1 1/3/0:8:
DS0's Active: 1
DS0's Active High Water Mark: 1
TimeSlot  Type  TotalCalls  TotalDuration
  1         pri         0         00:00:00
  2         pri         0         00:00:00
  3         pri         0         00:00:00
  4         pri         0         00:00:00
  5         pri         0         00:00:00
  6         pri         0         00:00:00
  7         pri         0         00:00:00
  8         pri         0         00:00:00
  9         pri         0         00:00:00
 10         pri         0         00:00:00
 11         pri         0         00:00:00
```

```

12     pri           0      00:00:00
13     pri           0      00:00:00
14     pri           0      00:00:00
15     pri           0      00:00:00
16     pri           0      00:00:00
17     pri           0      00:00:00
18     pri           0      00:00:00
19     pri           0      00:00:00
20     pri           0      00:00:00
21     pri           0      00:00:00
22     pri           0      00:01:39
23     pri           0      00:00:00

```

System's DS0's Active High Water Mark: 3

In the example above, the system HWM is reset to the total number of active calls in the system, which is 3. The number was 4. When a call goes down, HWM values are untouched. Only the DS0 Active value changes. Above, there is only one call on 1/3/0:3. Observe the HWM for individual controllers. Total number of active calls is 1.

The following is sample output when the **clear controller call-counters system-hwm** command is used:

```

Router# clear controller call-counters system-hwm
!
Router# show controllers t1 call-counters
Tl 1/3/0:3:
  DS0's Active: 1
  DS0's Active High Water Mark: 2
  Timeslot  Type  TotalCalls  TotalDuration
    1         pri           0      00:00:00
    2         pri           0      00:00:00
    3         pri           0      00:00:00
    4         pri           0      00:00:00
    5         pri           0      00:00:00
    6         pri           0      00:00:00
    7         pri           0      00:00:00
    8         pri           0      00:00:00
    9         pri           0      00:00:00
   10        pri           0      00:00:00
   11        pri           0      00:00:00
   12        pri           0      00:00:00
   13        pri           0      00:00:00
   14        pri           0      00:00:00
   15        pri           0      00:00:00
   16        pri           0      00:00:00
   17        pri           0      00:00:00
   18        pri           0      00:00:00
   19        pri           0      00:00:00
   20        pri           0      00:00:00
   21        pri           0      00:00:00
   22        pri           1      00:12:16
   23        pri           1      00:10:20
Tl 1/3/0:8:
  DS0's Active: 0
  DS0's Active High Water Mark: 1
  Timeslot  Type  TotalCalls  TotalDuration
    1         pri           0      00:00:00
    2         pri           0      00:00:00
    3         pri           0      00:00:00
    4         pri           0      00:00:00
    5         pri           0      00:00:00
    6         pri           0      00:00:00
    7         pri           0      00:00:00
    8         pri           0      00:00:00

```

## clear controller call-counters

```

    9      pri      0      00:00:00
   10     pri      0      00:00:00
   11     pri      0      00:00:00
   12     pri      0      00:00:00
   13     pri      0      00:00:00
   14     pri      0      00:00:00
   15     pri      0      00:00:00
   16     pri      0      00:00:00
   17     pri      0      00:00:00
   18     pri      0      00:00:00
   19     pri      0      00:00:00
   20     pri      0      00:00:00
   21     pri      0      00:00:00
   22     pri      0      00:02:50
   23     pri      0      00:00:00

```

System's DS0's Active High Water Mark: 1

*In the previous example, only the system HWM is reset to active. For controllers 1/3/0:3 and 1/3/0:8, the HWMs are untouched.*

The following is sample output when the **all** keyword is used, clearing at the system level:

```

Router# clear controller call-counters all
!
Router# show controllers t1 call-counters

T1 1/3/0:3:
DS0's Active: 0
DS0's Active High Water Mark: 0
TimeSlot  Type  TotalCalls  TotalDuration
   1      pri      0      00:00:00
   2      pri      0      00:00:00
   3      pri      0      00:00:00
   4      pri      0      00:00:00
   5      pri      0      00:00:00
   6      pri      0      00:00:00
   7      pri      0      00:00:00
   8      pri      0      00:00:00
   9      pri      0      00:00:00
  10      pri      0      00:00:00
  11      pri      0      00:00:00
  12      pri      0      00:00:00
  13      pri      0      00:00:00
  14      pri      0      00:00:00
  15      pri      0      00:00:00
  16      pri      0      00:00:00
  17      pri      0      00:00:00
  18      pri      0      00:00:00
  19      pri      0      00:00:00
  20      pri      0      00:00:00
  21      pri      0      00:00:00
  22      pri      0      00:00:00
  23      pri      0      00:00:00

T1 1/3/0:8:
DS0's Active: 0
DS0's Active High Water Mark: 0
TimeSlot  Type  TotalCalls  TotalDuration
   1      pri      0      00:00:00
   2      pri      0      00:00:00
   3      pri      0      00:00:00
   4      pri      0      00:00:00
   5      pri      0      00:00:00
   6      pri      0      00:00:00

```

```

 7      pri      0      00:00:00
 8      pri      0      00:00:00
 9      pri      0      00:00:00
10     pri      0      00:00:00
11     pri      0      00:00:00
12     pri      0      00:00:00
13     pri      0      00:00:00
14     pri      0      00:00:00
15     pri      0      00:00:00
16     pri      0      00:00:00
17     pri      0      00:00:00
18     pri      0      00:00:00
19     pri      0      00:00:00
20     pri      0      00:00:00
21     pri      0      00:00:00
22     pri      0      00:00:00
23     pri      0      00:00:00

```

System's DS0's Active High Water Mark: 0

In the previous example, clearing at the system level using the **clear controller call-counters** command clears all DS0 controllers in the system and also clears the system HWMs.

The following is sample output showing four active calls:

#### Related Commands

Command	Description
<b>clear controller t1 call-counters</b>	Clears call statistics on a specific T1 controller.
<b>controller</b>	Enters controller configuration mode.
<b>show controllers t1 call-counters</b>	Displays the total number of calls and call durations on a T1 controller.

# clear controller t1

To clear the system DS0 high water marks (HWM) and all individual controller statistics, use the **clear controller t1** command in privileged EXEC mode.

**clear controller t1** [*slot*] **call-counters** *timeslots* | **firmware-status**

<i>slot</i>	(Optional) Clears an individual T1 controller.
<b>call-counters</b> <i>timeslots</i>	Clears the call counters in the specified T1 time slots.
<b>firmware-status</b>	Clears the Neat crash history.

**Command Default** No default behavior or values

**Command Modes** Privileged EXEC

Command History	Release	Modification
	12.0(1)T	This command was introduced.
	12.1(1)T	This command was implemented on the voice and WAN interface cards (VWICs) for Cisco 2600 series and Cisco 3600 series.
	12.1(2)T	This command was implemented on the Cisco AS5300, Cisco AS5400, and Cisco AS5800.

**Usage Guidelines** Refer to the comments below for the meaning of call counters displayed before and after executing **clear controller t1 call-counters** related commands.

- The numbers displayed under TotalCalls for each time slot represent *total* calls that were connected successfully. If a call comes into time slot 10, then the **show controllers t1 call-counters** command displays 1 under the TotalCalls column for time slot 10. A value of 20 displayed under TotalCalls for time slot 10 indicates a total of 20 calls connected on time slot 10 since *the last time call counters were cleared*.

If a timeslot or timeslot range is specified, only the counters for those channels are cleared. The TotalCalls field shows the time slots that have calls connected since the last clear was done and does not show the number of active calls in the controller. The TotalDuration field shows the same information as the TotalCalls field.

- The DS0s Active field indicates the number of active calls on the specified controller. This number indicates the current number of calls on the controller at any given time.
- The DS0s Active High Water Mark field indicates the peak number of calls on the controller since the last **clear controller t1 1/0/0 call-counters** command was entered. If the number of active calls “DS0s Active” is less than DS0s HWM, then HWM remains untouched. If new calls come in and the active DS0s are more than the HWM, then the HWM is incremented to reflect the new peak number of calls on that controller.

This value is reset to the *current* and active DS0s when the **clear controller t1 1/3/0 call-counters** command is entered. For example, initially the HWM is 0. When a new call comes in, the HWM is 1. When the next call comes in, the HWM is 2.

If 20 calls come in, the HWM is 20 and the active DS0s are 20. If 5 calls get disconnected, the DS0 active is 15, but the HWM is 20. When a **clear controller** command is input for the specified controller, the HWM is reset to 15, which is the current and active DS0s also. If 10 calls get disconnected, the Active DS0s is set to 5 and the HWM remains at 15 until another **clear controller command** is input. If Active DS0s exceed 15, then the HWM is updated.

- The System DS0s High Water Mark field reflects the HWM at a system level including all DS0s controllers.

## Examples

The following is sample output that shows two controllers numbered 1/3/0:3 and 1/3/0:8. Note the differences in the output shown by the **show controllers t1 call-counters** command and how the **clear controller t1 call-counters** command affects the output:

```
Router# show controllers t1 call-counters
T1 1/3/0:3:
DS0's Active: 0
DS0's Active High Water Mark: 0
TimeSlot  Type  TotalCalls  TotalDuration
   1      pri         0      00:00:00
   2      pri         0      00:00:00
   3      pri         0      00:00:00
   4      pri         0      00:00:00
   5      pri         0      00:00:00
   6      pri         0      00:00:00
   7      pri         0      00:00:00
   8      pri         0      00:00:00
   9      pri         0      00:00:00
  10      pri         0      00:00:00
  11      pri         0      00:00:00
  12      pri         0      00:00:00
  13      pri         0      00:00:00
  14      pri         0      00:00:00
  15      pri         0      00:00:00
  16      pri         0      00:00:00
  17      pri         0      00:00:00
  18      pri         0      00:00:00
  19      pri         0      00:00:00
  20      pri         0      00:00:00
  21      pri         0      00:00:00
  22      pri         0      00:00:00
  23      pri         0      00:00:00
T1 1/3/0:8:
DS0's Active: 0
DS0's Active High Water Mark: 0
TimeSlot  Type  TotalCalls  TotalDuration
   1      pri         0      00:00:00
   2      pri         0      00:00:00
   3      pri         0      00:00:00
   4      pri         0      00:00:00
   5      pri         0      00:00:00
   6      pri         0      00:00:00
   7      pri         0      00:00:00
   8      pri         0      00:00:00
   9      pri         0      00:00:00
  10      pri         0      00:00:00
  11      pri         0      00:00:00
  12      pri         0      00:00:00
  13      pri         0      00:00:00
  14      pri         0      00:00:00
  15      pri         0      00:00:00
  16      pri         0      00:00:00
```

## clear controller t1

```

17      pri      0      00:00:00
18      pri      0      00:00:00
19      pri      0      00:00:00
20      pri      0      00:00:00
21      pri      0      00:00:00
22      pri      0      00:00:00
23      pri      0      00:00:00

```

System's DS0's Active High Water Mark: 0

**Note**

In the previous example, all the fields are zero indicating that no calls have come in since system startup or since the last clear was made by the **clear controller** command.

The following is sample output that shows that four calls have been initiated on the 1/5/12, 1/5/13, 1/5/14, and 1/5/15 controllers:

Router# **show users**

```

      Line      User      Host(s)      Idle      Location
* 0 con 0      idle      00:00:00
tty 1/5/12    Router Async interface 00:01:05  PPP: 55.61.1.1
tty 1/5/13    Router Async interface 00:00:48  PPP: 55.62.1.1
tty 1/5/14    Router Async interface 00:00:33  PPP: 55.54.1.1
tty 1/5/15    Router Async interface 00:00:19  PPP: 55.52.1.1

```

```

Interface User      Mode      Idle Peer Address

```

Router# **show controllers t1 call-counters**

```

T1 1/3/0:3:
DS0's Active: 2
DS0's Active High Water Mark: 2
TimeSlot  Type  TotalCalls  TotalDuration
1         pri   0           00:00:00
2         pri   0           00:00:00
3         pri   0           00:00:00
4         pri   0           00:00:00
5         pri   0           00:00:00
6         pri   0           00:00:00
7         pri   0           00:00:00
8         pri   0           00:00:00
9         pri   0           00:00:00
10        pri   0           00:00:00
11        pri   0           00:00:00
12        pri   0           00:00:00
13        pri   0           00:00:00
14        pri   0           00:00:00
15        pri   0           00:00:00
16        pri   0           00:00:00
17        pri   0           00:00:00
18        pri   0           00:00:00
19        pri   0           00:00:00
20        pri   0           00:00:00
21        pri   0           00:00:00
22        pri   1           00:01:58
23        pri   1           00:02:27

```

```

T1 1/3/0:8:
DS0's Active: 2
DS0's Active High Water Mark: 2
TimeSlot  Type  TotalCalls  TotalDuration
1         pri   0           00:00:00

```

2	pri	0	00:00:00
3	pri	0	00:00:00
4	pri	0	00:00:00
5	pri	0	00:00:00
6	pri	0	00:00:00
7	pri	0	00:00:00
8	pri	0	00:00:00
9	pri	0	00:00:00
10	pri	0	00:00:00
11	pri	0	00:00:00
12	pri	0	00:00:00
13	pri	0	00:00:00
14	pri	0	00:00:00
15	pri	0	00:00:00
16	pri	0	00:00:00
17	pri	0	00:00:00
18	pri	0	00:00:00
19	pri	0	00:00:00
20	pri	0	00:00:00
21	pri	0	00:00:00
22	pri	1	00:02:14
23	pri	1	00:02:46

System's DS0's Active High Water Mark: 4

In the example above, if a **clear controller** command is entered for a controller that has active calls, which have been connected during the last 30 minutes, the TotalCalls and TotalDuration fields are reset to zero.

The following is sample output that shows controller 1/3/0:3, with time slots 22 and 23 connected and active. When the **clear controller t1 1/3/0:3 call-counters** command is entered, the corresponding fields are set to zero.

```
Router# clear controller t1 1/3/0:3 call-counters
!
Router# show controllers t1 call-counters
```

```
T1 1/3/0:3:
DS0's Active: 2
DS0's Active High Water Mark: 2
TimeSlot  Type  TotalCalls  TotalDuration
  1         pri         0         00:00:00
  2         pri         0         00:00:00
  3         pri         0         00:00:00
  4         pri         0         00:00:00
  5         pri         0         00:00:00
  6         pri         0         00:00:00
  7         pri         0         00:00:00
  8         pri         0         00:00:00
  9         pri         0         00:00:00
 10        pri         0         00:00:00
 11        pri         0         00:00:00
 12        pri         0         00:00:00
 13        pri         0         00:00:00
 14        pri         0         00:00:00
 15        pri         0         00:00:00
 16        pri         0         00:00:00
 17        pri         0         00:00:00
 18        pri         0         00:00:00
 19        pri         0         00:00:00
 20        pri         0         00:00:00
 21        pri         0         00:00:00
 22        pri         1         00:29:14
```

## clear controller t1

```
23      pri      1      00:29:47
```

```
Router# clear controller t1 1/3/0:3 call-counters
```

```
Router# show controllers t1 call-counters
```

```
T1 1/3/0:3:
```

```
DS0's Active: 2
```

```
DS0's Active High Water Mark: 2
```

TimeSlot	Type	TotalCalls	TotalDuration	
1	pri	0	00:00:00	
2	pri	0	00:00:00	
3	pri	0	00:00:00	
4	pri	0	00:00:00	
5	pri	0	00:00:00	
6	pri	0	00:00:00	
7	pri	0	00:00:00	
8	pri	0	00:00:00	
9	pri	0	00:00:00	
10	pri	0	00:00:00	
11	pri	0	00:00:00	
12	pri	0	00:00:00	
13	pri	0	00:00:00	
14	pri	0	00:00:00	
15	pri	0	00:00:00	
16	pri	0	00:00:00	
17	pri	0	00:00:00	
18	pri	0	00:00:00	
19	pri	0	00:00:00	
20	pri	0	00:00:00	
21	pri	0	00:00:00	
22	pri	0	00:00:10	<<<<<<
23	pri	0	00:00:10	<<<<<<

The following is sample output when a call is cleared on 1/5/12:

```
Router# clear line 1/5/12
```

```
[confirm]
```

```
[OK]
```

```
!
```

```
Router# show users
```

Line	User	Host(s)	Idle	Location
* 0 con 0		idle	00:00:00	
tty 1/5/13	Router Async	interface	00:03:04	PPP: 55.62.1.1
tty 1/5/14	Router Async	interface	00:02:49	PPP: 55.54.1.1
tty 1/5/15	Router Async	interface	00:02:35	PPP: 55.52.1.1

Interface	User	Mode	Idle Peer	Address

```
Router# show controllers t1 call-counters
```

```
T1 1/3/0:3:
```

```
DS0's Active: 2
```

```
DS0's Active High Water Mark: 2
```

TimeSlot	Type	TotalCalls	TotalDuration
1	pri	0	00:00:00
2	pri	0	00:00:00
3	pri	0	00:00:00
4	pri	0	00:00:00
5	pri	0	00:00:00
6	pri	0	00:00:00
7	pri	0	00:00:00
8	pri	0	00:00:00

```

    9      pri      0      00:00:00
   10     pri      0      00:00:00
   11     pri      0      00:00:00
   12     pri      0      00:00:00
   13     pri      0      00:00:00
   14     pri      0      00:00:00
   15     pri      0      00:00:00
   16     pri      0      00:00:00
   17     pri      0      00:00:00
   18     pri      0      00:00:00
   19     pri      0      00:00:00
   20     pri      0      00:00:00
   21     pri      0      00:00:00
   22     pri      1      00:03:44
   23     pri      1      00:04:14
T1 1/3/0:8:
DS0's Active: 1
DS0's Active High Water Mark: 2
TimeSlot  Type  TotalCalls  TotalDuration
    1      pri      0      00:00:00
    2      pri      0      00:00:00
    3      pri      0      00:00:00
    4      pri      0      00:00:00
    5      pri      0      00:00:00
    6      pri      0      00:00:00
    7      pri      0      00:00:00
    8      pri      0      00:00:00
    9      pri      0      00:00:00
   10     pri      0      00:00:00
   11     pri      0      00:00:00
   12     pri      0      00:00:00
   13     pri      0      00:00:00
   14     pri      0      00:00:00
   15     pri      0      00:00:00
   16     pri      0      00:00:00
   17     pri      0      00:00:00
   18     pri      0      00:00:00
   19     pri      0      00:00:00
   20     pri      0      00:00:00
   21     pri      0      00:00:00
   22     pri      1      00:04:00
   23     pri      1      00:03:34

```

System's DS0's Active High Water Mark: 4

After a call gets disconnected, only the DS0 Active field changes to reflect the current active call on the controller. In the above example, 1/3/0:8 DS0 Active is changed to 1.

The following is sample output that shows call counters are cleared for an individual controller on 1/3/0:8:

```

Router# clear controller t1 1/3/0:8 call-counters
!
Router# show controllers t1 call-counters

T1 1/3/0:3:
DS0's Active: 2
DS0's Active High Water Mark: 2
TimeSlot  Type  TotalCalls  TotalDuration
    1      pri      0      00:00:00
    2      pri      0      00:00:00
    3      pri      0      00:00:00
    4      pri      0      00:00:00
    5      pri      0      00:00:00

```

## clear controller t1

```

        6      pri      0      00:00:00
        7      pri      0      00:00:00
        8      pri      0      00:00:00
        9      pri      0      00:00:00
       10      pri      0      00:00:00
       11      pri      0      00:00:00
       12      pri      0      00:00:00
       13      pri      0      00:00:00
       14      pri      0      00:00:00
       15      pri      0      00:00:00
       16      pri      0      00:00:00
       17      pri      0      00:00:00
       18      pri      0      00:00:00
       19      pri      0      00:00:00
       20      pri      0      00:00:00
       21      pri      0      00:00:00
       22      pri      1      00:07:46
       23      pri      1      00:08:15
Tl 1/3/0:8:
  DS0's Active: 1
  DS0's Active High Water Mark: 1
  TimeSlot  Type  TotalCalls  TotalDuration
    1      pri      0      00:00:00
    2      pri      0      00:00:00
    3      pri      0      00:00:00
    4      pri      0      00:00:00
    5      pri      0      00:00:00
    6      pri      0      00:00:00
    7      pri      0      00:00:00
    8      pri      0      00:00:00
    9      pri      0      00:00:00
   10      pri      0      00:00:00
   11      pri      0      00:00:00
   12      pri      0      00:00:00
   13      pri      0      00:00:00
   14      pri      0      00:00:00
   15      pri      0      00:00:00
   16      pri      0      00:00:00
   17      pri      0      00:00:00
   18      pri      0      00:00:00
   19      pri      0      00:00:00
   20      pri      0      00:00:00
   21      pri      0      00:00:00
   22      pri      0      00:00:35
   23      pri      0      00:00:00

```

```
System's DS0's Active High Water Mark: 4
```

In the previous example, after clearing call counters for controller 1/3/0:8, TotalCalls and TotalDuration reset. In addition the DS0 HWM is also *cleared* to the number of active DS0s. Whenever the DS0 HWM is cleared, it does not reset to zero, but rather it is set to Active DS0s. For 1/3/0:8, the HWM is 1 after clearing because DS0 Active is 1 (1 active call). TotalDuration is 35 seconds for time slot 22, and TotalCall is 0 because they got reset when the **clear controller call-counters** command was entered. Total calls on this time slot is incremented when a new call comes in on this time slot.

The following is sample output when controller 1/5/15 is cleared:

```

Router# clear line 1/5/15
[confirm]
[OK]
Router# show controllers t1 call-counters

```

```
Tl 1/3/0:3:
```

```

DS0's Active: 0
DS0's Active High Water Mark: 2
TimeSlot  Type  TotalCalls  TotalDuration
   1      pri         0      00:00:00
   2      pri         0      00:00:00
   3      pri         0      00:00:00
   4      pri         0      00:00:00
   5      pri         0      00:00:00
   6      pri         0      00:00:00
   7      pri         0      00:00:00
   8      pri         0      00:00:00
   9      pri         0      00:00:00
  10      pri         0      00:00:00
  11      pri         0      00:00:00
  12      pri         0      00:00:00
  13      pri         0      00:00:00
  14      pri         0      00:00:00
  15      pri         0      00:00:00
  16      pri         0      00:00:00
  17      pri         0      00:00:00
  18      pri         0      00:00:00
  19      pri         0      00:00:00
  20      pri         0      00:00:00
  21      pri         0      00:00:00
  22      pri         1      00:12:40
  23      pri         1      00:10:20

```

T1 1/3/0:8:

```

DS0's Active: 0
DS0's Active High Water Mark: 1
TimeSlot  Type  TotalCalls  TotalDuration
   1      pri         0      00:00:00
   2      pri         0      00:00:00
   3      pri         0      00:00:00
   4      pri         0      00:00:00
   5      pri         0      00:00:00
   6      pri         0      00:00:00
   7      pri         0      00:00:00
   8      pri         0      00:00:00
   9      pri         0      00:00:00
  10      pri         0      00:00:00
  11      pri         0      00:00:00
  12      pri         0      00:00:00
  13      pri         0      00:00:00
  14      pri         0      00:00:00
  15      pri         0      00:00:00
  16      pri         0      00:00:00
  17      pri         0      00:00:00
  18      pri         0      00:00:00
  19      pri         0      00:00:00
  20      pri         0      00:00:00
  21      pri         0      00:00:00
  22      pri         0      00:02:50
  23      pri         0      00:00:00

```

System's DS0's Active High Water Mark: 1

The following is sample output showing four active calls:

Router# **show users**

```

Line      User      Host(s)      Idle      Location
*  0 con 0      idle      00:00:00
  tty 1/5/16  Router Async interface  00:01:01  PPP: 55.1.1.1
  tty 1/5/17  Router Async interface  00:00:47  PPP: 55.2.1.1

```

## clear controller t1

```
tty 1/5/18 Router Async interface 00:00:28 PPP: 55.3.1.1
tty 1/5/19 Router Async interface 00:00:14 PPP: 55.4.1.1
```

```
Interface User Mode Idle Peer Address
```

```
Router# show controllers t1 call-counters
```

```
T1 1/3/0:3:
```

```
DS0's Active: 2
```

```
DS0's Active High Water Mark: 2
```

TimeSlot	Type	TotalCalls	TotalDuration
1	pri	0	00:00:00
2	pri	0	00:00:00
3	pri	0	00:00:00
4	pri	0	00:00:00
5	pri	0	00:00:00
6	pri	0	00:00:00
7	pri	0	00:00:00
8	pri	0	00:00:00
9	pri	0	00:00:00
10	pri	0	00:00:00
11	pri	0	00:00:00
12	pri	0	00:00:00
13	pri	0	00:00:00
14	pri	0	00:00:00
15	pri	0	00:00:00
16	pri	0	00:00:00
17	pri	0	00:00:00
18	pri	0	00:00:00
19	pri	0	00:00:00
20	pri	0	00:00:00
21	pri	0	00:00:00
22	pri	1	00:00:57
23	pri	1	00:01:30

```
T1 1/3/0:8:
```

```
DS0's Active: 2
```

```
DS0's Active High Water Mark: 2
```

TimeSlot	Type	TotalCalls	TotalDuration
1	pri	0	00:00:00
2	pri	0	00:00:00
3	pri	0	00:00:00
4	pri	0	00:00:00
5	pri	0	00:00:00
6	pri	0	00:00:00
7	pri	0	00:00:00
8	pri	0	00:00:00
9	pri	0	00:00:00
10	pri	0	00:00:00
11	pri	0	00:00:00
12	pri	0	00:00:00
13	pri	0	00:00:00
14	pri	0	00:00:00
15	pri	0	00:00:00
16	pri	0	00:00:00
17	pri	0	00:00:00
18	pri	0	00:00:00
19	pri	0	00:00:00
20	pri	0	00:00:00
21	pri	0	00:00:00
22	pri	1	00:01:12
23	pri	1	00:01:45

```
System's DS0's Active High Water Mark: 4
```

Related Commands	Command	Description
	clear controller call-counters	Clears all call statistics or system HWMs on a router.
	controller	Enters controller configuration mode.
	show controllers t1 call-counters	Displays the total number of calls and call durations on a T1 controller.

# clear csm-statistics modem

To clear the call switching module (CSM) statistics for a modem or group of modems, use the **clear csm-statistics modem** command in privileged EXEC mode.

**clear csm-statistics modem** [*slot/port* | *modem-group-number*]

<b>Syntax Description</b>	<i>slot/port</i>	(Optional) Identifies the location (and thereby the identity) of a specific modem.
	<i>modem-group-number</i>	(Optional) Designates a defined modem group.

**Command Default** No default behaviors or values

**Command Modes** Privileged EXEC

<b>Command History</b>	<b>Release</b>	<b>Modification</b>
	11.3 NA	This command was introduced.

**Usage Guidelines** Use the **clear csm-statistics modem** command to clear CSM statistics for a particular modem or group of modems. If the *slot/port* argument is specified, the CSM call statistics for calls using the identified modem is cleared. If a modem group number is specified, then the CSM call statistics for calls using the modems associated with that group are cleared. If no argument is specified, all CSM call statistics for all modems are cleared.

**Examples** The following example clears CSM call statistics for calls coming in on modems associated with modem group 2:

```
Router# clear csm-statistics modem 2
```

<b>Related Commands</b>	<b>Command</b>	<b>Description</b>
	<b>clear csm-statistics voice</b>	Clears the CSM statistics for a particular or for all DSP channels.

# clear csm-statistics voice

To clear the call switching module (CSM) statistics for a particular or for all digital signal processor (DSP) channels, use the **clear csm-statistics voice** command in privileged EXEC mode.

**clear csm-statistics voice** [*slot/dspm/dsp/dsp-channel*]

<b>Syntax Description</b>	<i>slot/dspm/dsp/dsp-channel</i> (Optional) Identifies the location of a particular DSP channel.
---------------------------	--

<b>Command Default</b>	No default behaviors or values
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<b>Command Modes</b>	Privileged EXEC
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<b>Command History</b>	<b>Release</b>	<b>Modification</b>
	11.3 NA	This command was introduced.

<b>Usage Guidelines</b>	Use the <b>clear csm-statistics voice</b> command to clear CSM statistics for a particular DSP channel. If the <i>slot/dspm/dsp/dsp-channel</i> argument is specified, the CSM call statistics for calls using the identified DSP channel are cleared. If no argument is specified, all CSM call statistics for all DSP channels are cleared.
-------------------------	---

<b>Examples</b>	The following example clears CSM call statistics for calls coming in on all DSP channels:
-----------------	---

```
Router# clear csm-statistics voice
```

<b>Related Commands</b>	<b>Command</b>	<b>Description</b>
	<b>clear csm-statistics modem</b>	Clears the CSM statistics for a modem or group of modems.

# clear h323 gatekeeper call

To force the disconnection of a specific call or of all calls active on a particular gatekeeper, use the **clear h323 gatekeeper call** command in privileged EXEC mode.

```
clear h323 gatekeeper call {all | local-callID local-callID}
```

Syntax Description	all	Forces all active calls currently associated with this gatekeeper to be disconnected.
	<b>local-callID</b>	Forces a single active call associated with this gatekeeper to be disconnected.
	<i>local-callID</i>	Specifies the local call identification number (CallID) that identifies the call to be disconnected.

**Command Default** No default behaviors or values

**Command Modes** Privileged EXEC

Command History	Release	Modification
	12.0(5)T	This command was introduced on the Cisco 2600 series, Cisco 3600 series, and on the Cisco MC3810.
	12.1(5)XM2	The command was introduced for the Cisco AS5350 and Cisco AS5400.
	12.2(4)T	This command was integrated into Cisco IOS Release 12.2(4)T and implemented on the Cisco AS5300. Support for the Cisco AS5350, and Cisco AS5400 is not included in this release.
	12.2(2)XB1	This command was implemented on the Cisco AS5850.

**Usage Guidelines** If you want to force a particular call to be disconnected (as opposed to all active calls on the gatekeeper), use the CallID number to identify that specific call. You can find the local CallID number for a specific call by using the **show gatekeeper calls** command; the ID number is displayed in the LocalCallID column.

**Examples** The following example shows that an active call on the gatekeeper is being forced to disconnect. The local ID number of the active call is 12-3339.

```
Router# clear h323 gatekeeper call local-callID 12-3339
```

The following example shows that all active calls on the gatekeeper are being forced to disconnect:

```
Router# clear h323 gatekeeper call all
```

The following sample output from the **show gatekeeper calls** command displays information about a specific active call having a call ID of 12-3339:

```
Router# show gatekeeper calls
```

```

Total number of active calls =1
                        Gatekeeper Call Info
                        =====
LocalCallID           Age (secs)      BW
12-3339                94              768 (Kbps)
Endpt(s): Alias      E.164Addr      CallSignalAddr  Port  RASSignalAddr  Port
  src EP: epA         10.0.0.11      1720            10.0.0.11    1700
  dst EP: epB2zoneB.com
  src PX: pxA         10.0.0.1       1720            10.0.0.11    24999
  dst PX: pxB         172.21.139.90  1720            172.21.139.90 24999

```

**Related Commands**

Command	Description
<b>show gatekeeper calls</b>	Displays the status of each ongoing call of which a gatekeeper is aware.

# clear h323 gatekeeper endpoint

To unregister endpoints, use the **clear h323 gatekeeper endpoint** command in privileged EXEC mode.

```
clear h323 gatekeeper endpoint {alias e164 digits | alias h323id name | all | id number | ipaddr
address [port]}
```

## Syntax Description

<b>alias e164 <i>digits</i></b>	E.164 alphanumeric address that is specified in the local alias table.
<b>alias h323id <i>name</i></b>	H.323 ID name that is specified in the local alias table and is an alternate way to reach an endpoint.
<b>all</b>	All endpoints.
<b>id <i>number</i></b>	ID of the endpoint.
<b>ipaddr <i>address</i> [<i>port</i>]</b>	Call signaling address and port (optional) of the endpoint. If a value for the <i>port</i> argument is not specified, the default is 1720.

## Command Default

Default for the *port* argument is 1720.

## Command Modes

Privileged EXEC

## Command History

Release	Modification
12.2(11)T	This command was integrated into Cisco IOS Release 12.2(11)T and implemented on the Cisco 3660 and Cisco MC3810.

## Usage Guidelines

Using this command forces the gatekeeper to send an unregistration request (URQ) message to the specified endpoint or all endpoints and removes the endpoint from the gatekeeper registration database.

For gatekeeper cluster configurations, this command must be entered on the gatekeeper where the endpoint is registered. Use the **show gatekeeper endpoints** command to locate the endpoint in a gatekeeper cluster.



### Note

The endpoint that was unregistered using this command can come back if it sends the registration request (RRQ) back to the gatekeeper after the unregistration.

## Examples

The following example shows how to unregister all endpoints:

```
GK# clear h323 gatekeeper endpoint all
GK# show gatekeeper endpoints
```

```

GATEKEEPER ENDPOINT REGISTRATION
=====
CallSignalAddr  Port  RASignalAddr  Port  Zone Name           Type  Flags
-----
Total number of active registrations = 0
```

**Related Commands**

<b>Command</b>	<b>Description</b>
<b>show gatekeeper endpoints</b>	Locates the endpoint in a gatekeeper cluster.

# clear h323 gatekeeper stats

To clear statistics about gatekeeper performance, use the **clear h323 gatekeeper stats** command in privileged EXEC mode.

## clear h323 gatekeeper stats

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

**Command Modes** Privileged EXEC (#)

Command History	Release	Modification
	12.1(5)XM	This command was introduced.
	12.2(2)T	This command was integrated into Cisco IOS Release 12.2(2)T.
	12.2(2)XB1	This command was implemented on the Cisco AS5850.

**Usage Guidelines** The **clear h323 gatekeeper stats** command resets the gatekeeper performance counters to zero and records the time at which the last clear was performed.

**Examples** The following is sample output from the **show gatekeeper performance stats** command that shows the counters have been reset to zero after entering the **clear h323 gatekeeper stats** command.

```
clear h323 gatekeeper stats
show gatekeeper performance stats

RAS inbound message counters:
Originating ARQ: 0 Terminating ARQ: 0 LRQ: 0
RAS outbound message counters:
ACF: 2 ARJ: 0 LCF: 2 LRJ: 0
ARJ due to overload: 0
LRJ due to overload: 0
Load balancing events: 0
Real endpoints: 2
```

Related Commands	Command	Description
	<b>show gatekeeper performance statistics</b>	Displays information about the number of calls accepted and rejected by the gatekeeper.

# clear h323 gateway

To clear the H.323 gateway counters, use the **clear h323 gateway** command in privileged EXEC mode.

```
clear h323 gateway [cause-code stats | h225 | ras]
```

Syntax Description	Parameter	Description
	<b>cause-code stats</b>	(Optional) Clears only the disconnect cause-code statistics counters.
	<b>h225</b>	(Optional) Clears only the H.225 counters.
	<b>ras</b>	(Optional) Clears only the Registration, Admission, and Status (RAS) counters.

**Command Modes** Privileged EXEC

Command History	Release	Modification
	12.2(4)T	This command was introduced on all Cisco H.323 platforms except for the Cisco AS5300, Cisco AS5350, and Cisco AS5400.

**Usage Guidelines** To clear all H.323 counters, use the **clear h323 gateway** command without any of the optional keywords. After you have used the **clear h323 gateway** command, the respective counters are set to zero.

**Examples** In the following example from a Cisco 3640 router, the **clear h323 gateway** command is used without keywords to clear all H.323 counters:

```
Router# clear h323 gateway

All H.323 stats cleared at 01:54:38
```

In the following example from a Cisco 3640 router, the **clear h323 gateway** command is used with the **cause-code stats** keyword to clear the disconnect cause-code stats counters:

```
Router# clear h323 gateway cause-code stats

Cause code stats cleared at 01:54:08
```

In the following example from a Cisco 3640 router, the **clear h323 gateway** command is used with the **h225** keyword to clear the H.225 counters:

```
Router# show h323 gateway h225

H.225 stats cleared at 01:53:18
```

In the following example from a Cisco 3640 router, the **clear h323 gateway** command is used with the **ras** keyword to clear the RAS counters:

```
Router# clear h323 gateway ras

RAS stats cleared at 01:53:25
```

**clear h323 gateway****Related Commands**

<b>Command</b>	<b>Description</b>
<b>debug cch323</b>	Provides debug output for various components within the H.323 subsystem.
<b>show h323 gateway</b>	Displays the statistics for H.323 gateway messages that have been sent and received and displays the reasons for which H.323 calls have been disconnected.

# clear http client statistics

To reset to zero all the counters that collect the information about the communication between the HTTP server and the client displayed in the output from the **show http client statistics** command, use the **clear http client statistics** command in user EXEC or privileged EXEC mode.

**clear http client statistics**

## Syntax Description

This command has no arguments or keywords.

## Command Modes

User EXEC (>)  
Privileged EXEC (#)

## Command History

Release	Modification
12.4(15)T	This command was introduced.

## Usage Guidelines

Use the **show http client statistics** command to display the data collected by the counters the **clear http client statistics** command resets to zero.

## Examples

The following example resets the counters to zero:

```
Router# clear http client statistics
```

## Related Commands

Command	Description
<b>show http client statistics</b>	Displays information about the communication between the HTTP server and the client.

# clear interface cable-modem

To reset the controller for a specified cable modem daughter card, use the **clear interface cable-modem** command in privileged EXEC mode. This command does not have a **no** version.

**clear interface cable-modem**

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

**Command Modes** Privileged EXEC

Command History	Release	Modification
	12.4(11)T	This command was introduced.

**Examples** The following example shows how the **clear interface cable-modem** command clears the interface on the selected slot and port:

```
Router# clear interface cable-modem
```

```
*May 17 16:36:57.344: %CABLE_MODEM_HWIC-6-RESET: Interface Cable-Modem0/2/0 has been
reset: clear command
```

```
*May 17 16:37:05.348: %LINK-3-UPDOWN: Interface Cable-Modem0/2/0, changed state to down
```

```
*May 17 16:37:06.348: %LINEPROTO-5-UPDOWN: Line protocol on Interface Cable-Modem0/2/0,
changed state to down
```

```
*May 17 16:37:19.740: %LINK-3-UPDOWN: Interface Cable-Modem0/2/0, changed state to up
```

```
*May 17 16:37:27.996: %LINEPROTO-5-UPDOWN: Line protocol on Interface Cable-Modem0/2/0,
changed state to up
```

Related Commands	Command	Description
	<b>show interfaces</b>	Displays statistics for all interfaces configured.
	<b>show interfaces cable-modem</b>	Displays statistics for all interfaces configured on the port.

# clear mgcp src-stats

To clear the statistics gathered for Media Gateway Control Protocol (MGCP) System Resource Check (SRC) Call Admission Control (CAC) on an MGCP gateway, use the **clear mgcp src-stats** command in privileged EXEC mode.

**clear mgcp src-stats**

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

**Command Modes** Privileged EXEC

Command History	Release	Modification
	12.2(2)XB	This command was introduced.
	12.2(8)T	This command was integrated into Cisco IOS Release 12.2(8)T.
	12.2(11)T	This command was implemented on the Cisco AS5350, Cisco AS5400, and Cisco AS5850.

**Usage Guidelines** Use the **clear mgcp src-stats** command to clear the MGCP gateway buffer that holds SRC CAC statistics gathered during the most recent inspection interval.

**Examples** The following example clears MGCP VoIP SRC CAC statistics:

```
Router# clear mgcp src-stats
```

Related Commands	Command	Description
	<b>show mgcp statistics</b>	Displays MGCP statistics regarding received and transmitted network messages.

# clear mgcp statistics

To reset the Media Gateway Control Protocol (MGCP) statistical counters, use the **clear mgcp statistics** command in privileged EXEC mode.

**clear mgcp statistics**

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

**Command Modes** Privileged EXEC

Command History	Release	Modification
	12.1(1)T	This command was introduced for the Cisco AS5300.
	12.1(3)T	This command was implemented on the Cisco 3660, Cisco UBR924, and Cisco 2600 series.
	12.2(11)T	This command was implemented on the Cisco AS5850.

**Usage Guidelines** None

**Examples** The following is an example of how to enter the command:

```
Router# clear mgcp statistics
```

Related Commands	Command	Description
	<b>mgcp</b>	Starts the MGCP daemon.
	<b>show mgcp statistics</b>	Displays statistics for received and transmitted packets.

# clear mrcp client statistics

To clear all Media Resource Control Protocol (MRCP) statistics, use the **clear mrcp client statistics** command in privileged EXEC mode.

```
clear mrcp client statistics {all | hostname {hostname | ip-address}}
```

Syntax Description	all	Clears the accumulated MRCP session statistics for all hosts.
	<b>hostname</b>	Clears the accumulated MRCP session statistics for the specified host.
	<i>hostname</i>	Host name of the MRCP server. Format uses host name only or <i>hostname:port</i> .
	<i>ip-address</i>	IP address of the MRCP server.

**Command Modes** Privileged EXEC

Command History	Release	Modification
	12.2(11)T	This command was introduced on the Cisco 3640, Cisco 3660, Cisco AS5300, Cisco AS5350, and Cisco AS5400.

**Usage Guidelines** This command resets all MRCP session statistics to 0. Use the **show mrcp client statistics hostname** command to display the current statistics.

**Examples** The following example resets the statistics for the host called “asr\_server”:

```
Router# clear mrcp client statistics hostname asr_server
```

Related Commands	Command	Description
	<b>show mrcp client statistics hostname</b>	Displays cumulative information about MRCP sessions.

# clear rlm group

To reset all Redundant Link Manager (RLM) time stamps to zero, use the **clear rlm group** command in privileged EXEC mode.

**clear rlm group** [*group-number*] [**link** | **statistics**]

Syntax Description	
<i>group-number</i>	(Optional) RLM group number. Range is from 0 to 255. There is no default value.
<b>link</b>	(Optional) Specifies the RLM group link.
<b>statistics</b>	(Optional) Specifies the RLM group statistics.

**Command Modes** Privileged EXEC (#)

Command History	Release	Modification
	11.3(7)	This command was introduced.
	15.0(1)M	This command was modified in a release earlier than Cisco IOS Release 15.0(1)M. The <b>statistics</b> keyword was added.

## Examples

The following example resets the time stamps on RLM group 1:

```
Router# clear rlm group 1 link
!
02:48:17: rlm 1: [State_Up, rx ACTIVE_LINK_BROKEN] over link [10.1.1.1(Loopback1),
10.1.4.1]
02:48:17: rlm 1: link [10.1.1.2(Loopback2), 10.1.4.2] requests activation
02:48:17: rlm 1: link [10.1.1.1(Loopback1), 10.1.4.1] is deactivated
02:48:17: rlm 1: [State_Recover, rx LINK_BROKEN] over link [10.1.1.2(Loopback2), 10.1.4.2]
02:48:17: rlm 1: link [10.1.1.1(Loopback1), 10.1.4.1] = socket[10.1.1.1, 10.1.4.1]
02:48:17: rlm 1: [State_Recover, rx USER_SOCKET_OPENED] over link [10.1.1.1(Loopback1),
10.1.4.1] for user RLM_MGR
02:48:17: rlm 1: link [10.1.1.1(Loopback1), 10.1.4.1] is opened
02:48:17: rlm 1: link [10.1.1.2(Loopback2), 10.1.4.2] = socket[10.1.1.2, 10.1.4.2]
02:48:17: rlm 1: [State_Recover, rx USER_SOCKET_OPENED] over link [10.1.1.2(Loopback2),
10.1.4.2] for user RLM_MGR
02:48:17: rlm 1: link [10.1.1.2(Loopback2), 10.1.4.2] is opened
02:48:17: rlm 1: link [10.1.1.1(Loopback1), 10.1.5.1] = socket[10.1.1.1, 10.1.5.1]
02:48:17: rlm 1: [State_Recover, rx USER_SOCKET_OPENED] over link [10.1.1.1(Loopback1),
10.1.5.1] for user RLM_MGR
02:48:17: rlm 1: link [10.1.1.1(Loopback1), 10.1.5.1] is opened
02:48:17: rlm 1: link [10.1.1.2(Loopback2), 10.1.5.2] = socket[10.1.1.2, 10.1.5.2]
02:48:17: rlm 1: [State_Recover, rx USER_SOCKET_OPENED] over link [10.1.1.2(Loopback2),
10.1.5.2] for user RLM_MGR
02:48:17: rlm 1: link [10.1.1.2(Loopback2), 10.1.5.2] is opened
02:48:17: rlm 1: [State_Recover, rx LINK_OPENED] over link [10.1.1.1(Loopback1), 10.1.4.1]
02:48:17: rlm 1: link [10.1.1.1(Loopback1), 10.1.4.1] requests activation
02:48:17: rlm 1: [State_Recover, rx LINK_OPENED] over link [10.1.1.2(Loopback2), 10.1.4.2]
02:48:17: rlm 1: [State_Recover, rx START_ACK] over link [10.1.1.1(Loopback1), 10.1.4.1]
02:48:17: rlm 1: link [10.1.1.1(Loopback1), 10.1.4.1] is activated
```

<b>Related Commands</b>	<b>Command</b>	<b>Description</b>
	<b>clear interface</b>	Resets the hardware logic on an interface.
	<b>interface</b>	Defines the IP addresses of the server, configures an interface type, and enters interface configuration mode.
	<b>link (RLM)</b>	Specifies the link preference.
	<b>protocol rlm port</b>	Reconfigures the port number for the basic RLM connection for the whole RLM group.
	<b>retry keepalive</b>	Allows consecutive keepalive failures a certain amount of time before the link is declared down.
	<b>server (RLM)</b>	Defines the IP addresses of the server.
	<b>show rlm group statistics</b>	Displays the network latency of the RLM group.
	<b>show rlm group status</b>	Displays the status of the RLM group.
	<b>show rlm group timer</b>	Displays the current RLM group timer values.
	<b>timer</b>	Overwrites the default setting of timeout values.

# clear rpms-proc counters

To clear statistics counters for the number of leg 3 authentication, authorization, and accounting (AAA) preauthentication requests, successes, and rejects, use the **clear rpms-proc counters** command in privileged EXEC mode.

**clear rpms-proc counters**

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

**Command Modes** Privileged EXEC

Command History	Release	Modification
	12.2(11)T	This command was introduced.

**Examples** The following example clears statistics counters for leg 3 AAA preauthentication requests, successes, and rejects:

```
Router# clear rpms-proc counters
```

Related Commands	Command	Description
	<b>show rpms-proc counters</b>	Displays statistics for the number of leg 3 AAA preauthentication requests, successes, and rejects.

# clear rudpv0 statistics

To clear the counters that track RUDP statistics, enter the **clear rudpv0 statistics** command in privileged EXEC mode.

**clear rudpv0 statistics**

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

**Command Default** The statistical information accumulates.

**Command Modes** Privileged EXEC

Command History	Release	Modification
	12.0(7)XR	This command was introduced.
	12.1(1)T	This command was integrated into Cisco IOS Release 12.1(1)T.

**Examples** The following example shows how to clear RUDP statistics on a Cisco 2611 (Cisco SLT):

```
clear rudpv0 statistics
```

Related Commands	Command	Description
	<b>show rudpv0 failures</b>	Displays RUDP information about failed connections and the reasons for them.
	<b>show rudpv0 statistics</b>	Displays RUDP information about number of packets sent, received, and so forth.

# clear rudpv1 statistics

To clear the counters that track Reliable User Datagram Protocol (RUDP) statistics, use the **clear rudpv1 statistics** command in privileged EXEC mode.

**clear rudpv1 statistics**

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

**Command Default** The statistical information accumulates.

**Command Modes** Privileged EXEC

Command History	Release	Modification
	12.1(1)T	This command was introduced.
	12.2(2)T	This command was implemented on Cisco 7200.
	12.2(4)T	This command was implemented on the Cisco 2600 series, Cisco 3600 series, and Cisco MC3810.
	12.2(2)XB1	This command was implemented on the Cisco AS5850.
	12.2(8)T	This command was integrated into Cisco IOS Release 12.2(8)T and implemented on Cisco IAD2420 series.
	12.2(11)T	This command is supported on the Cisco AS5300, Cisco AS5350, Cisco AS5400, Cisco AS5800, and Cisco AS5850 in this release.

**Examples** The following example clears all RUDP statistics for all available session groups:

```
Router# clear rudpv1 statistics
```

Related Commands	Command	Description
	<b>debug rudpv1</b>	Displays debugging information for RUDP.
	<b>show rudpv1</b>	Displays RUDP information.

# clear sccp server statistics

To clear the counts displayed under the **show sccp server statistics** command, use the **clear sccp server statistics** command in privileged EXEC mode.

**clear sccp server statistics**

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

**Command Modes** Privileged EXEC (#)

Command History	Release	Modification
	12.4(15)XY	This command was introduced.
	15.0(1)M	This command was integrated into a release earlier than Cisco IOS Release 15.0(1)M.

**Examples** The following example shows the Skinny Client Control Protocol (SCCP) server statistics counts being cleared, followed by verification that the counters are reset to zero with the **show sccp server statistics** command. The field descriptions are self-explanatory.

```
Router# show sccp server statistics

Failure type          Error count
-----
Send queue enqueue   0
Socket send          0
Msg discarded upon error 0
```

Related Commands	Command	Description
	<b>show sccp server statistics</b>	Displays the number of SCCP messages sent and received by the SCCP server.

# clear sdspfarm counters

To reset the server counts of the digital signal processor farms that are registered to the Skinny Client Control Protocol (sdspfarm) displayed under the **server show sdspfarm message statistics** command to zero, use the **clear sdspfarm counters** command in privileged EXEC mode.

**clear sdspfarm counters**

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

**Command Modes** Privileged EXEC (#)

Command History	Release	Modification
	12.4(15)XY	This command was introduced.

**Examples** The following example shows the sdspfarm counters being cleared and verification that the counters are reset to zero with the **show sdspfarm sessions state** command:

```
Router# clear sdspfarm counters
```

```
Router# show sdspfarm sessions state
```

```
Call state      Num of sessions
-----
IDLE            1022
ALERTING        0
SEIZE           0
PROGRESS        0
CONNECTED       0
DIGITS          0
BUSY            0
RINGING         0
ERROR           0
HOLD            0
END             0
STOP            0
START           2
RESTART         0
UNKNOWN         0
DELAYED-SMT     0
```

Field descriptions should be self-explanatory.

Related Commands	Command	Description
	<b>show sdspfarm message statistics</b>	Displays the number of SCCP messages sent and received by the SCCP server.
	<b>show sdspfarm sessions state</b>	Displays the number of sessions in each SCCP call state.

# clear sgcp statistics

To clear all Simple Gateway Control Protocol (SGCP) statistics, use the **clear sgcp statistics** command in privileged EXEC mode.

**clear sgcp statistics**

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

**Command Default** No default behavior or values

**Command Modes** Privileged EXEC

Command History	Release	Modification
	12.0(5)T	This command was introduced in a private release on the Cisco AS5300 only and was not generally available.
	12.0(7)XK	This command was implemented on the Cisco MC3810 and the Cisco 3600 series (except for the Cisco 3620) in a private release that was not generally available.
	12.1(2)T	This command was integrated into Cisco IOS Release 12.1(2)T.

**Usage Guidelines** None

**Examples** The following example shows all SGCP statistics being cleared:

```
Router# clear sgcp statistics
```

Related Commands	Command	Description
	<b>show sgcp statistics</b>	Displays global statistics for SGCP packet counts.

# clear sip-ua statistics

To reset the Session Initiation Protocol (SIP) user-agent (UA) statistical counters, use the **clear sip-ua statistics** command in privileged EXEC mode.

**clear sip-ua statistics**

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

**Command Modes** Privileged EXEC

Command History	Release	Modification
	12.2(13)T	This command was introduced.

**Usage Guidelines** Use this command to clear all SIP statistics counters that are displayed by the **show sip-ua statistics** command.

**Examples** The following example shows all SIP-UA statistics being cleared:

```
Router# clear sip-ua statistics
```

Related Commands	Command	Description
	<b>show sip-ua statistics</b>	Displays response, traffic, and retry SIP statistics.

# clear sip-ua tcp connection

To clear a session initiation protocol (SIP) TCP connection, use the **clear sip-ua tcp connection** command in privileged EXEC mode.

```
clear sip-ua tcp connection { id connection-id [target ipv4:address:port] | [id connection-id]
target ipv4:address:port }
```

Syntax Description		
<b>id</b> <i>connection-id</i>		Specifies the ID of the connection that needs to be closed in the SIP TCP process. The <i>connection-id</i> argument represents the connection ID. The range is from 1 to 2048.
<b>target ipv4:address:port</b>		Specifies the target address for the connection that needs to be closed in the SIP transport layer.

Command Modes	
	Privileged EXEC

Command History	Release	Modification
	12.3(8)T	This command was introduced.
	12.4(6)T	This command was replaced by the <b>clear sip-ua tcp tls connection</b> command.

Usage Guidelines	
	Inappropriate usage of the <b>clear sip-ua tcp connection</b> command can lead to erroneous call behavior, inappropriate usage of connections, and failure of calls.

Examples	
	To clear the connection entry only at the upper transport layer, assign the target IP address and port: <pre>Router# <b>clear sip-ua tcp connection target ipv4:172.18.194.183:5060</b></pre>
	To clear the connection entry only at the lower TCP or User Datagram Protocol (UDP) layer, specify the connection: <pre>Router# <b>clear sip-ua tcp connection id 1</b></pre>
	To completely clear a valid connection to target 172.18.194.183, port 5060, consider the following output example from the <b>show sip-ua connections</b> command: <pre>Router# <b>show sip-ua connections tcp detail</b></pre> <pre>Total active connections : 1 No. of send failures : 0 No. of remote closures : 0 No. of conn. failures : 0 No. of inactive conn. ageouts : 0 Max. tcp send msg queue size of 1, recorded for 172.18.194.183:5060 -----Printing Detailed Connection Report----- Note: ** Tuples with no matching socket entry - Do 'clear sip &lt;tcp/udp&gt; conn t ipv4:&lt;addr&gt;:&lt;port&gt;' to overcome this error condition ++ Tuples with mismatched address/port entry</pre>

**clear sip-ua tcp connection**

```
- Do 'clear sip <tcp/udp> conn t ipv4:<addr>:<port> id <connid>'
to overcome this error condition
Remote-Agent:172.18.194.183, Connections-Count:1
Remote-Port Conn-Id Conn-State WriteQ-Size
=====
5060 1 Established 0
```

Then execute the **clear sip-ua tcp connection** command:

```
Router# clear sip-ua tcp connection id 1 target ipv4:172.18.194.183:5060
```

```
Purging the entry from sip tcp process
Purging the entry from reusable global connection table
```

The result is that all connections are cleared after inputting the **clear sip-ua tcp connection** command:

```
Router# show sip-ua connections tcp detail
```

```
Total active connections : 0
No. of send failures : 0
No. of remote closures : 0
No. of conn. failures : 0
No. of inactive conn. ageouts : 0
Max. tcp send msg queue size of 1, recorded for 172.18.194.183:5060
-----Printing Detailed Connection Report-----
Note:
** Tuples with no matching socket entry
- Do 'clear sip <tcp/udp> conn t ipv4:<addr>:<port>'
to overcome this error condition
++ Tuples with mismatched address/port entry
- Do 'clear sip <tcp/udp> conn t ipv4:<addr>:<port> id <connid>'
to overcome this error condition
Remote-Agent:172.18.194.183, Connections-Count:0
```

**Related Commands**

<b>Command</b>	<b>Description</b>
<b>clear sip-ua udp connection</b>	Clears a SIP UDP connection.
<b>show sip-ua connections</b>	Displays SIP UA transport connection tables.
<b>timers connection aging</b>	Sets the time before the SIP UA ages out a TCP and UDP connection.

# clear sip-ua tcp tls connection

To clear a session initiation protocol (SIP) TCP connection, use the **clear sip-ua tcp tls connection** command in privileged EXEC mode.

```
clear sip-ua tcp tls connection {id connection-id [target ipv4:address:port] | [id connection-id]  
target ipv4:address:port}
```

## Syntax Description

<b>id</b> <i>connection-id</i>	Specifies the ID of the connection that needs to be closed in the SIP TCP process. The <i>connection-id</i> argument represents the connection ID. The range is from 1 to 2048.
<b>target ipv4:address:port</b>	Specifies the target address for the connection that needs to be closed in the SIP transport layer.

## Command Modes

Privileged EXEC

## Command History

Release	Modification
12.4(6)T	This command was introduced to replace the <b>clear sip-ua tcp connection</b> command.

## Usage Guidelines

Inappropriate usage of the **clear sip-ua tcp tls connection** command can lead to erroneous call behavior, inappropriate usage of connections, and failure of calls.

## Examples

To clear the connection entry only at the upper transport layer, assign the target IP address and port:

```
Router# clear sip-ua tcp tls connection target ipv4:172.18.194.183:5060
```

To clear the connection entry only at the lower TCP or User Datagram Protocol (UDP) layer, specify the connection:

```
Router# clear sip-ua tcp tls connection id 1
```

To completely clear a valid connection to target 172.18.194.183, port 5060, consider the following output example from the **show sip-ua connections** command:

```
Router# show sip-ua connections tcp tls detail
```

```
Total active connections : 1  
No. of send failures : 0  
No. of remote closures : 0  
No. of conn. failures : 0  
No. of inactive conn. ageouts : 0  
Max. tcp send msg queue size of 1, recorded for 172.18.194.183:5060  
-----Printing Detailed Connection Report-----  
Note:  
** Tuples with no matching socket entry  
- Do 'clear sip <tcp/udp> conn t ipv4:<addr>:<port>'  
to overcome this error condition  
++ Tuples with mismatched address/port entry
```

**clear sip-ua tcp tls connection**

```
- Do 'clear sip <tcp/udp> conn t ipv4:<addr>:<port> id <connid>'
to overcome this error condition
Remote-Agent:172.18.194.183, Connections-Count:1
Remote-Port Conn-Id Conn-State WriteQ-Size
=====
5060 1 Established 0
```

Then execute the **clear sip-ua tcp connection** command:

```
Router# clear sip-ua tcp tls connection id 1 target ipv4:172.18.194.183:5060
```

```
Purging the entry from sip tcp process
Purging the entry from reusable global connection table
```

The result is that all connections are cleared after inputting the **clear sip-ua tcp connection** command:

```
Router# show sip-ua connections tcp tls detail

Total active connections : 0
No. of send failures : 0
No. of remote closures : 0
No. of conn. failures : 0
No. of inactive conn. ageouts : 0
Max. tcp send msg queue size of 1, recorded for 172.18.194.183:5060
-----Printing Detailed Connection Report-----
Note:
** Tuples with no matching socket entry
- Do 'clear sip <tcp/udp> conn t ipv4:<addr>:<port>'
to overcome this error condition
++ Tuples with mismatched address/port entry
- Do 'clear sip <tcp/udp> conn t ipv4:<addr>:<port> id <connid>'
to overcome this error condition
Remote-Agent:172.18.194.183, Connections-Count:0
```

**Related Commands**

Command	Description
<b>clear sip-ua udp connection</b>	Clears a SIP UDP connection.
<b>show sip-ua connections</b>	Displays SIP UA transport connection tables.
<b>timers connection aging</b>	Sets the time before the SIP UA ages out a TCP and UDP connection.

# clear sip-ua udp connection

To clear a SIP UDP connection, use the **clear sip-ua udp connection** command in privileged EXEC mode.

```
clear sip-ua udp connection {id value [target ip-address] | [id value] target ip-address}
```

## Syntax Description

<b>id value</b>	Specifies the ID of the connection that needs to be closed in the SIP UDP process. The <i>value</i> argument represents the value of the connection ID. The range is from 1 to 2048.
<b>target ip-address</b>	Specifies the target address for the connection that needs to be closed in the SIP transport layer. The <i>ip-address</i> argument is the target address in the form of <b>ipv4:address:port</b> .

## Command Modes

Privileged EXEC

## Command History

Release	Modification
12.3(8)T	This command was introduced.

## Usage Guidelines

Inappropriate usage of the **clear sip-ua udp connection** command without understanding the issue or the implications can lead to erroneous call behavior, inappropriate usage of connections, and failure of calls.

## Examples

To purge the connection entry only at the upper transport layer, assign the target IP address and port.

```
Router# clear sip-ua udp connection target ipv4:172.18.194.183:5060
```

To purge the connection entry only at the lower TCP/UDP layer, assign the connection ID.

```
Router# clear sip-ua udp connection id 1
```



### Note

Inappropriate usage of the **clear** command without understanding the issue or the implications would lead to erroneous call behavior, inappropriate usage of connections, and failure of calls.

To completely purge a valid connection to target 172.18.194.183, port 5060, consider the following example.

Before executing the **clear sip-ua udp connection** command, running the **show sip-ua connections** command gave the following output.

```
Router# show sip-ua connections udp detail
```

```
Total active connections : 1
No. of send failures : 0
No. of remote closures : 0
No. of conn. failures : 0
No. of inactive conn. ageouts : 0
Max. udp send msg queue size of 1, recorded for 172.18.194.183:5060
```

## clear sip-ua udp connection

```

-----Printing Detailed Connection Report-----
Note:
** Tuples with no matching socket entry
- Do 'clear sip <tcp/udp> conn t ipv4:<addr>:<port>'
to overcome this error condition
++ Tuples with mismatched address/port entry
- Do 'clear sip <tcp/udp> conn t ipv4:<addr>:<port> id <connid>'
to overcome this error condition
Remote-Agent:172.18.194.183, Connections-Count:1
Remote-Port Conn-Id Conn-State WriteQ-Size
=====
5060 1 Established 0

```

Then execute the **clear sip-ua udp connection** command:

```
Router# clear sip-ua udp connection id 1 target ipv4:172.18.194.183:5060
```

```
Purging the entry from sip udp process
Purging the entry from reusable global connection table
```

The final result is that all connections are cleared after executing the **clear sip-ua udp connection** command:

```

Router# show sip-ua connections udp detail

Total active connections : 0
No. of send failures : 0
No. of remote closures : 0
No. of conn. failures : 0
No. of inactive conn. ageouts : 0
Max. udp send msg queue size of 1, recorded for 172.18.194.183:5060
-----Printing Detailed Connection Report-----
Note:
** Tuples with no matching socket entry
- Do 'clear sip <tcp/udp> conn t ipv4:<addr>:<port>'
to overcome this error condition
++ Tuples with mismatched address/port entry
- Do 'clear sip <tcp/udp> conn t ipv4:<addr>:<port> id <connid>'
to overcome this error condition
Remote-Agent:172.18.194.183, Connections-Count:0

```

### Related Commands

Command	Description
<b>clear sip-ua tcp connection</b>	Clears a SIP TCP connection.
<b>show sip-ua connections</b>	Displays SIP UA transport connections.
<b>timers connection aging</b>	Sets the time before the SIP UA ages out a TCP and UDP connection.

# clear ss7 sm-stats

To clear the counters that track session manager statistics, use the **clear ss7 sm-stats** command in privileged EXEC mode.

```
clear ss7 sm-stats [session-set number]
```

## Syntax Description

<b>session-set</b>	(Optional) Specifies the session set.
<b>number</b>	(Optional) Specifies the session-set number. The range is from 0 to 3.

## Command Default

The statistical information accumulates.

## Command Modes

Privileged EXEC (#)

## Command History

Release	Modification
12.0(7)XR	This command was introduced.
12.1(1)T	This command was integrated into Cisco IOS Release 12.1(1)T.
15.0(1)M	This command was modified in a release earlier than Cisco IOS Release 15.0(1)M. The <b>session-set</b> keyword and <i>number</i> argument were added.

## Examples

The following example shows how to clear session manager statistics:

```
Router# clear ss7 sm-stats session-set 2
```

## Related Commands

Command	Description
<b>show ss7 sm stats</b>	Displays session manager information about number of packets queued, received, and so forth.

# clear statistics dial-peer voice

To reset voice call counters and recent call details stored in a dial peer, use the **clear statistics dial-peer voice** command in privileged EXEC mode.

**clear statistics dial-peer voice** [*tag*] **busy-trigger-counter**

<b>Syntax Description</b>	<i>tag</i>	(Optional) Identification tag number of a specific dial peer. A valid entry is any integer that identifies a specific dial peer. Range is from 1 to 2147483647.
	<b>busy-trigger-counter</b>	(Optional) Specifies to clear the dial peer busy trigger call counter.

**Command Default** If the *tag* argument is not used, counters in all the configured voice dial peers are cleared.

**Command Modes** Privileged EXEC (#)

<b>Command History</b>	<b>Release</b>	<b>Modification</b>
	12.2(8)T	This command was introduced on the Cisco AS5300.
	15.0(1)M	This command was modified in a release earlier than Cisco IOS Release 15.0(1)M. The <b>busy-trigger-counter</b> keyword was added.
	Cisco IOS XE Release 2.1	This command was integrated into Cisco IOS XE Release 2.1 and implemented on the Cisco ASR 1000 Series Aggregation Services Routers.

**Usage Guidelines** The **clear statistics dial-peer voice** command resets the following statistical information about calls:

- Time elapsed since last clearing of statistics
- Connect time
- Charged units
- Accepted calls
- Refused calls
- Successful calls
- Failed calls
- Incomplete calls
- Last disconnect cause
- Last disconnect text
- Last setup time

---

**Examples**

The following example shows how to clear voice dial peer statistics using tag 1234:

```
Router# clear statistics dial-peer voice 1234  
Clear voice call statistics stored in this voice dial-peer [confirm]y
```

The following example shows how to clear statistics in all the configured voice dial peers:

```
Router# clear statistics dial-peer voice  
Clear voice call statistics stored in all voice dial-peers [confirm]y
```

---

**Related Commands**

<b>Command</b>	<b>Description</b>
<b>dial-peer voice</b>	Enters dial peer configuration mode and specifies the method of voice encapsulation.
<b>show call history voice record</b>	Displays CDR events in the call history table.
<b>show dial-peer voice</b>	Displays configuration information for dial peers.

# clear stcapp statistics

To clear SCCP Telephony Control Application (STCAPP) statistics, use the **clear stcapp statistics** command in privileged EXEC mode.

**clear stcapp statistics** {**all** | **port** *slot-number*}

Syntax Description	all	Clears all STCAPP statistics.
	<b>port</b>	Clears port-level STCAPP statistics.
	<i>slot-number</i>	Voice interface slot number. The range is from 0 to 2147483647.

**Command Modes** Privileged EXEC (#)

Command History	Release	Modification
	15.0(1)M	This command was introduced in a release earlier than Cisco IOS Release 15.0(1)M.

## Examples

The following example show how to clear all STCAPP statistics:

```
Router# clear stcapp statistics all
```

Related Commands	Command	Description
	<b>stcapp</b>	Enables the STCAPP.

# clear subscription

To clear all active subscriptions or a specific subscription, use the **clear subscription** command in privileged EXEC mode.

```
clear subscription {all | session-id session-id | statistics}
```

Syntax Description	all	All active subscriptions.
	<b>session-id</b> <i>session-id</i>	Subscription session to be cleared.
	<b>statistics</b>	Global subscription statistics and all subscription history records.

**Command Default** No default behavior or values

**Command Modes** Privileged EXEC

Command History	Release	Modification
	12.3(4)T	This command was introduced.

**Usage Guidelines** To cancel a specific subscription, use the *session-id* argument. You can obtain the session ID by viewing **show subscriptions** output. When this command is used, the applications associated with subscriptions receive the ev\_subscribe\_cleanup event. On receiving this event, the script closes the subscription.

**Examples** The following example shows global statistics and history records being cleared:

```
Router# clear subscription statistics
```

Related Commands	Command	Description
	<b>retry subscribe</b>	Configures the number of retries for SUBSCRIBE messages.
	<b>show subscription sip</b>	Displays active SIP subscriptions.
	<b>subscription maximum</b>	Specifies the maximum number of outstanding subscriptions to be accepted or originated by the gateway.

# clear tgrep counters

To clear Telephony Gateway Registration Protocol (TGREP) counters, use the **clear tgrep counters** command in privileged EXEC mode.

```
clear tgrep counters { * | carrier string | csr | dial-peer tag | trunk-group label } [csr] [ac]
```

Syntax Description		
*		Clears all TGREP counters.
<b>carrier</b>		Clears available circuit counters.
<i>string</i>		Carrier ID.
<b>dial-peer</b>		Clears dial-peer.
<i>tag</i>		Dial peer tag. The range is from 1 to 2147483647.
<b>trunk-group</b> <i>label</i>		Clears the trunk-group counters.
<b>csr</b>		(Optional) Clears the call success rate counters.
<b>ac</b>		(Optional) Clears all the available circuit counters.

**Command Modes** Privileged EXEC (#)

Command History	Release	Modification
	15.0(1)M	This command was introduced in a release earlier than Cisco IOS Release 15.0(1)M.

**Examples** The following example show how to clear all tgrep counter information:

```
Router# clear tgrep counters *
```

Related Commands	Command	Description
	<b>clear tgrep neighbor</b>	Clears all neighbor sessions.

# clear tgrep neighbor

To clear Telephony Gateway Registration Protocol (TGREP) neighbor sessions, use the **clear tgrep neighbor** command in privileged EXEC mode.

```
clear tgrep neighbor { * | ip-address }
```

## Syntax Description

<b>*</b>	Clears all neighbor sessions.
<i>ip-address</i>	IP addresses of neighbor sessions.

## Command Modes

Privileged EXEC (#)

## Command History

Release	Modification
15.0(1)M	This command was introduced in a release earlier than Cisco IOS Release 15.0(1)M.

## Examples

The following example shows how to clear neighbor sessions:

```
Router# clear tgrep neighbor *
```

## Related Commands

Command	Description
<b>clear tgrep counters</b>	Clears TGREP counters.

# clear voice accounting method

To clear VoIP AAA accounting statistics for a specific accounting method on the gateway, use the **clear voice accounting method** command in privileged EXEC mode.

**clear voice accounting method** *method-list-name*

Syntax Description	method-list-name	Name of the method list.
--------------------	------------------	--------------------------

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

Command History	Release	Modification
	12.3(4)T	This command was introduced.

**Examples** The following example clears accounting statistics for method list “h323”:

```
Router# clear voice accounting method h323
```

Related Commands	Command	Description
	<b>voice statistics type csr</b>	Configures the collection of signaling and VoIP AAA accounting statistics.

# clear voice dsp

To “cold-start” one or more digital signal processor (DSP) voice channels, use the **clear voice dsp** command in privileged EXEC mode.

```
clear voice dsp { channels | error } [slot[/dsp][/channel]] [slot[/dsp][/channel]]
```

Syntax Description	channels	Clears DSP calls on a specific channel or a range of channels.
	error	Clears DSP error statistics.
	slot	(Optional) Specifies either a single slot or the first slot in a range. To specify a range of slots, you can enter a <b>second slot in the syntax of this argument. The second slot specifies the end of the range.</b> All slots in the range are affected by the command.
	ldsp	(Optional) Specifies either a single DSP on the slot or the first DSP in a range. To specify a range of DSPs, you can enter a <b>second DSP in the syntax of this argument. The second DSP specifies the end of the range.</b> All DSPs in the range are affected by the command.
	lchannel	(Optional) Specifies either a single channel on the DSP or the first channel in a range. To specify a range of channels, you can enter a <b>second channel in the syntax of this argument. The second channel specifies the end of the range.</b> All channels in the range are affected by the command.

**Command Default** If this command is not used, active calls continue on the DSP voice channels.

**Command Modes** Privileged EXEC

Command History	Release	Modification
	12.4(4)XC	This command was introduced.
	12.4(9)T	This command was integrated into Cisco IOS Release 12.4(9)T.

**Usage Guidelines** The **clear voice dsp** command allows you to cold-start DSPs. Execution of this command causes the configured firmware to be downloaded to the specified DSP or a range of DSPs. This command can be executed irrespective of the state of the DSPs. All the active channels of the DSPs are prematurely terminated.

**Examples** The following example clears all active calls on slot 2, DSP 1:

```
Router# clear voice dsp 2/1
```

The following example clears the active calls on slot 2, DSP 1, channel 1:

```
Router# clear voice dsp 2/1/1
```

**■** clear voice dsp

<b>Related Commands</b>	<b>Command</b>	<b>Description</b>
	<b>show voice dsp</b>	Displays the current status or selective statistics of DSP voice channels

# clear voice statistics

To clear voice-statistic collection settings on the gateway to reset the statistics collection, use the **clear voice statistics** command in privileged EXEC mode.

```
clear voice statistics [csr [accounting | signaling]] | [iec]
```

## Syntax Description

<b>csr</b>	(Optional) All accounting and signaling statistics are cleared, but Cisco VoIP internal error codes (IECs) are not cleared.
<b>accounting</b>	(Optional) Only accounting statistics are cleared.
<b>signaling</b>	(Optional) Only signaling statistics are cleared.
<b>iec</b>	(Optional) Only Cisco VoIP IECs are cleared.

## Command Default

If no keywords are specified, all accounting and signaling statistics, and all IECs are cleared.

## Command Modes

Privileged EXEC

## Command History

Release	Modification
12.3(4)T	This command was introduced.

## Examples

The following example clears all accounting and signaling statistics, and all Cisco VoIP IECs:

```
Router# clear voice statistics
```

The following example clears all accounting and signaling statistics:

```
Router# clear voice statistics csr
```

The following example clears only accounting statistics:

```
Router# clear voice statistics csr accounting
```

The following example clears only signaling statistics:

```
Router# clear voice statistics csr signaling
```

The following example clears only Cisco VoIP IECs:

```
Router# clear voice statistics iec
```

## Related Commands

Command	Description
<b>voice statistics type csr</b>	Configures the collection of signaling and VoIP AAA accounting statistics.

# clear vsp statistics

To clear all Voice Streaming Processing (VSP) statistics that are displayed when using the **show vsp** command is used, use the **clear vsp statistics** command in privileged EXEC mode.

**clear vsp statistics**

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

**Command Default** No default behavior or values

**Command Modes** Privileged EXEC

Command History	Release	Modification
	12.2(11)T	This command was introduced on the Cisco 3640, Cisco 3660, Cisco AS5300, Cisco AS5350, and Cisco AS5400.

**Usage Guidelines** This command resets all cumulative VSP statistics to 0. Use the **show vsp statistics** command to display the current statistics.

**Examples** The following example resets the statistics for VSP sessions:

```
Router# clear vsp statistics
```

Related Commands	Command	Description
	<b>show vsp</b>	Displays cumulative information about VSP sessions.