

clear vtp statistics

Use the **clear vtp statistics** command to delete the VTP statistics.

clear vtp statistics

Syntax Description This command has no arguments or keywords.

Defaults This command has no default settings.

Command Types Switch command.

Command Modes Privileged.

Examples This example shows how to clear the VTP statistics:

```
Console> (enable) clear vtp statistics
vtp statistics cleared.
Console> (enable)
```

Related Commands [set vtp](#)
[show vtp statistics](#)

configure

Use the **configure** command to download a configuration file from an rcp server or the network and execute each command in that file.

configure {*host file*}[**rcp**]

configure network

Syntax Description	<i>host</i>	IP address or IP alias of the host.
	<i>file</i>	Name of the file.
	rcp	(Optional) Keyword to specify rcp as the file transfer method.
	network	Keyword to specify interactive prompting for the host and the file.

Defaults This command has no default settings.

Command Types Switch command.

Command Modes Privileged.

Usage Guidelines Refer to the *Catalyst 5000 Family Software Configuration Guide* for information on how to construct a configuration file to download using the **configure** command.

Examples The following is an example configuration file. Each line contains a command, except for the lines that begin with ! or #. On some servers (NT), the TFTP directory might not be /tftpboot.

```
begin
show time
set ip alias conc7 198.133.219.207
set ip alias montreux 198.133.119.42
set ip alias cres 192.122.174.42
set prompt system5>
set password
# empty string old password

pingpong
pingpong
end
#
```

This example shows how to configure the switch using a configuration file downloaded from a TFTP server:

```
Console> (enable) configure 192.122.174.42 system5.cfg
Configure using system5.cfg from 192.122.174.42 (y/n) [n]? y
/
Done. Finished Network Download. (446 bytes)
```

```
>> show time
Wed Nov 11 1998, 17:42:50
>> set ip alias conc7 198.133.219.207
IP alias added.
>> set ip alias montreux 198.133.219.40
IP alias added.
>> set ip alias cres 192.122.174.42
IP alias added.
>> set prompt system5>
>> set password
Enter old password:
Enter new password: pingpong
Retype new password: pingpong
Password changed.
Console> (enable)
```

This example shows how to configure a Catalyst 5000 family switch with a Supervisor Engine II G or III G using a configuration file downloaded from a rcp server:

```
Console> (enable) configure 172.20.52.3 dns-config.cfg rcp
Finished network download. (134 bytes)
>>
>> set ip dns server 172.16.10.70 primary
172.16.10.70 added to DNS server table as primary server.
>> set ip dns server 172.16.10.140
172.16.10.140 added to DNS server table as backup server.
>> set ip dns enable
DNS is enabled
>> set ip dns domain corp.com
Default DNS domain name set to corp.com
Console> (enable)
```

Related Commands

[copy](#)
[show config](#)

confreg

Use the **confreg** command to set the configuration register value or to modify the configuration register using the configuration register utility.

confreg [*hexvalue*]

Syntax Description	<i>hexvalue</i> (Optional) Hexadecimal value of the configuration register.
---------------------------	---

Defaults	This command has no default settings.
-----------------	---------------------------------------

Command Types	ROM monitor command.
----------------------	----------------------

Command Modes	Normal.
----------------------	---------

Usage Guidelines	<p>If you specify <i>hexvalue</i>, the confreg command changes the configuration register value to the hexadecimal value specified.</p> <p>If you do not specify <i>hexvalue</i>, confreg shows the current configuration register values and prompts you to keep or change the current values.</p> <p>The new configuration register value is written into NVRAM and does not take effect until you reset or power cycle the switch.</p>
-------------------------	---

Examples	This example shows how to use the confreg command:
-----------------	---

```
rommon 1 > confreg

Configuration Summary
enabled are:
console baud:9600
boot:the ROM Monitor

do you wish to change the configuration? y/n [n]: y
enable "diagnostic mode"? y/n [n]:<Return>
enable "use net in IP bcast address"? y/n [n]:<Return>
enable "load rom after netboot fails"? y/n [n]:<Return>
enable "use all zero broadcast"? y/n [n]:<Return>
enable "break/abort has effect"? y/n [n]:<Return>
enable "ignore system config info"? y/n [n]:<Return>
change console baud rate? y/n [n]:<Return>
change the boot characteristics? y/n [n]: y
enter to boot:
 0 = ROM Monitor
 1 = the boot helper image
 2-15 = boot system
 [0]: 2
Configuration Summary
enabled are:
```

```
console baud:9600
boot:image specified by the boot system commands
      or default to:cisco2-Presto

do you wish to change the configuration? y/n [n]:<Return>

You must reset or power cycle for new config to take effect
rommon 2 >
```

Related Commands [sync](#)

copy

Use the **copy** command to perform these tasks:

- Download a system image or configuration file from a TFTP or rcp server to a Flash device
- Upload a system image or configuration file from a Flash device to a TFTP or rcp server
- Configure the switch using a configuration file on a Flash device or on a TFTP or rcp server
- Copy the current configuration to a Flash device or to a TFTP or rcp server

```
copy file-id {file-id | tftp | rcp | flash | config}
```

```
copy cfg1 {tftp | rcp | flash | config | cfg2} [all]
```

```
copy cfg2 {tftp | rcp | flash | config | cfg1} [all]
```

```
copy config {file-id | flash | tftp | rcp} [all]
```

```
copy tftp {file-id | flash | config | cfg1 | cfg2}
```

```
copy rcp {file-id | flash | config | cfg1 | cfg2}
```

```
copy flash {file-id | tftp | rcp | config}
```

Syntax Description	<i>file-id</i>
	The file on which to perform the copy action, where <i>file-id</i> is of the format <code>[[m/]device:][filename]</code> . <i>m/</i> = The module where the Flash device is located (such as the standby supervisor engine, an FDDI module, or an ATM module). Module 1 is assumed if no module is specified. <i>device:</i> = Device where the file is located. Valid Flash devices are <code>bootflash:</code> , <code>slot0:</code> , and <code>slot1:</code> . You can also specify <code>tftp:</code> as the device name. The colon (<code>:</code>) is required after the device name. <i>filename</i> = Name of the system image or configuration file.
	tftp Keyword to copy the file to or from a TFTP server.
	rcp Keyword to copy the file to or from an rcp server.
	flash Keyword to copy the file to or from the Flash file system.
	config Keyword to copy the switch configuration file to the specified file, or use the specified file to configure the switch.
	cfg1 Keyword to specify the first startup configuration file on the Supervisor Engine II G and III G.
	cfg2 Keyword to specify the second startup configuration file on the Supervisor Engine II G and III G.
	all (Optional) Keyword to copy the entire configuration to the specified destination configuration file. If you do not use the all keyword, only non-default commands are copied to the destination configuration file.

Defaults

By default, the **copy config**, **copy cfg1**, and **copy cfg2** commands will copy only non-default commands to the destination configuration file. Use the keyword **all** to copy both default and non-default configurations.

If a source or destination Flash device is not specified, the default Flash device (specified by the **cd** command) is used. Use the **pwd** command to display the current default Flash device. If the destination filename is omitted, the system uses the source filename.

The system stores image and configuration files in the *sysname.cfg* file when the user has defined a system name using the **set system name** command; otherwise, it uses the default *myswitch.cfg* file.

Command Types

Switch command.

Command Modes

Privileged.

Usage Guidelines**Caution**

Always back up the switch configuration file before upgrading or downgrading the switch software to avoid losing all or part of the configuration stored in NVRAM. Use the **write network** command (Supervisor Engine II G or III G) or the **copy config tftp** command (Supervisor Engine III) to back up your configuration to a TFTP server. Use the **copy config flash** command on a Supervisor Engine III to back up the configuration to a Flash device.

The **cfg1** and **cfg2** startup configuration files are present only on the Supervisor Engine II G and III G. These files are limited to 256 KB in size.

If you use the **flash** keyword as the copy source or destination, you are prompted for the Flash device name.

If you are copying a software image to multiple intelligent switching modules of the same type, use the **flash** keyword as the copy destination. The switch automatically determines which modules to copy the image to based on the header in the source image file. If you want to copy a software image to a single intelligent switching module in a switch with multiple modules of the same type, you must specify the destination *file-id* as **m/bootflash:** (do not specify a filename).

Examples

This example shows how to upload the non-default switch configuration to a file named *cat.cfg* on the slot0: Flash device:

```
Console> (enable) copy config slot0:cat.cfg
Upload configuration to slot0:cat.cfg
649324 bytes available on device slot0, proceed (y/n) [n]? y
.....
.
/
Configuration has been copied successfully. (10200 bytes)
Console> (enable)
```



```

/
Finished network download. (134 bytes)
>>
>> set ip dns server 172.16.10.70 primary
172.16.10.70 added to DNS server table as primary server.
>> set ip dns server 172.16.10.140
172.16.10.140 added to DNS server table as backup server.
>> set ip dns enable
DNS is enabled
>> set ip dns domain corp.com
Default DNS domain name set to corp.com
Console> (enable)

```

This example shows how to configure the switch using a configuration file on a Flash device:

```

Console> (enable) copy flash config
Flash device [bootflash]?
Name of configuration file? test.cfg
Configure using bootflash:test.cfg (y/n) [n]? y
/
Finished download. (10900 bytes)
>> set password $1$FMFQ$HfZR5DUzVHIRhrz4h6V70
Password changed.
>> set enablepass $1$FMFQ$HfZR5DUzVHIRhrz4h6V70
Password changed.
>> set prompt Console>
>> set length 24 default
Screen length set to 24.
>> set logout 20
.....
Console> (enable)

```

This example shows how to copy a file from a TFTP server to a Flash device:

```

Console> (enable) copy tftp bootflash:
Address or name of remote host [172.20.22.7]?
Enter source file name [cat4000-sup.4-5-1.bin]?
Enter destination file name [cat4000-sup.4-5-1.bin]?
6942528 bytes available in flash, proceed (y/n) [n]?y
Console> (enable)

```

This example shows how to download a configuration to the first startup configuration file (cfg1) on a Supervisor Engine II G or III G:

```

Console> (enable) copy tftp cfg1
IP address or name of remote host [172.20.32.10]?
Name of file to copy from [/tftpboot/my.cfg]?
Download config file from /tftpboot/my.cfg to cfg1 (y/n) [n]?
.....
File has been copied to cfg1.
Console> (enable)

```

Related Commands

[configure](#)
[write](#)

delete

Use the **delete** command to delete a configuration file.

delete *[[m/]device:]filename*

Syntax Description	<i>m/</i>	(Optional) Module number of the supervisor engine containing the Flash device.
	<i>device:</i>	(Optional) Device where the file is located. Valid Flash devices are bootflash: , slot0: , and slot1: . You can also specify tftp: as the device name. The colon (:) is required after the device name.
	<i>filename</i>	Name of the configuration file.

Defaults This command has no default settings.

Command Types Switch command.

Command Modes Privileged.

Usage Guidelines A colon (:) is required after the specified device.

Use the **undelete** command to recover a deleted file.

A file cannot be undeleted if a valid file with the same name exists. Instead, you must delete the existing one first and then undelete the desired file. A file can be deleted or undeleted up to 15 times. To permanently remove all deleted files on a device, use the **squeeze** command.

Examples This example shows how to delete a file from a Flash device:

```
Console> (enable) delete bootflash:switch_config.cfg
Console> (enable)
```

Related Commands

- dir—switch**
- show flash**
- squeeze**
- undelete**

dev

Use the **dev** command to list the device IDs available on a switch.

dev

Syntax Description This command has no arguments or keywords.

Defaults This command has no default settings.

Command Types ROM monitor command.

Command Modes Normal.

Examples This example shows how to use the **dev** command:

```
rommon 4 > dev
Devices in device table:
      id  name
bootflash: boot flash
      slot0: PCMCIA slot 0
      slot1: PCMCIA slot 1
      eprom: eprom
rommon 5 >
```

dir—ROM monitor

Use the **dir** command to list the files on a Flash device.

dir *device*

Syntax Description	<i>device</i> Name of the Flash device.
---------------------------	---

Defaults	This command has no default settings.
-----------------	---------------------------------------

Command Types	ROM monitor command.
----------------------	----------------------

Command Modes	Normal.
----------------------	---------

Examples	This example shows how to list the files on a Flash device:
-----------------	---

```
rommon 6 > dir bootflash:
      File size      Checksum  File name
  14086 bytes (0x3706)  0xa6a84c93  switch_config.cfg (deleted)
   5415 bytes (0x1527)  0x53bbccda  5509_config.cfg
  446464 bytes (0x6d000)  0x8503219d  cat5000-sup3.5-1-1.bin (deleted)
  4231861 bytes (0x4092b5)  0x1d6092f4  cat5000-sup3.5-2-1.bin
rommon 7 >
```

dir—switch

Use the **dir** command to display a list of files on a Flash device.

```
dir [[m/]device:]filename [all | deleted | long]
```

Syntax Description		
<i>m/</i>	(Optional) Module number of the supervisor engine containing the Flash device.	
<i>device:</i>	(Optional) Device where the file is located; valid values are bootflash: , slot0: , and slot1: . You can also specify tftp: as the device name. The colon (:) is required after the device name.	
<i>filename</i>	Name of the configuration file.	
all	(Optional) Keyword to display all files on the device, including deleted files.	
deleted	(Optional) Keyword to display only deleted files.	
long	(Optional) Keyword to display files that have not been deleted, in long format.	

Defaults This command has no default settings.

Command Types Switch command.

Command Modes Normal and privileged.

Usage Guidelines When you omit all keywords (**all**, **deleted**, or **long**), the system displays file information in short format. Short format output is explained in [Table 2-2](#).

Table 2-2 Short Format File Information

Column Heading	Description
#	File index number
length	File length
date/time	Date and time the file was created
name	Filename

When you use one of the keywords, the system displays file information in long format. The long format is shown in [Table 2-3](#).

Table 2-3 Long Format File Information

Column Heading	Description
#	File index number
ED	Letter to indicate whether the file contains an error (E) or is deleted (D)
type	File type (1 = configuration file, 2 = image file); when the file type is unknown, the system displays a zero or FFFFFFFF in this field
crc	File cyclic redundancy check
seek	Offset into the file system of the next file
nlen	Filename length
length	File length
date/time	Date and time the file was created
name	Filename

Examples

This example shows how to display the file information in short format:

```
Console> (enable) dir
-#- -length- ----date/time----- name
  1   20429 Apr 01 1999 15:38:42 5500.cfg
  2  4868557 Mar 02 2000 12:06:18 cat5000-sup3.6-1-0-30-FTL.bin

2712928 bytes available (4889248 bytes used)
Console> (enable)
```

This example shows how to display the file information in long format:

```
Console> (enable) dir long
-#- ED --type-- --crc--- -seek-- nlen -length- ----date/time----- name
  1 .. ffffffff 1f65a4dd  45050   8   20429 Apr 01 1999 15:38:42 5500.cfg
  2 .. ffffffff 13c368fe  4e9aa0  29  4868557 Mar 02 2000 12:06:18 cat5000-sup3
.6-1-0-30-FTL.bin

2712928 bytes available (4889248 bytes used)
Console> (enable)
```

This example shows the file with index number 1 deleted:

```
Console> (enable) dir all
-#- ED --type-- --crc--- -seek-- nlen -length- ----date/time----- name
  1 .. ffffffff 1f65a4dd  45050   8   20429 Apr 01 1999 15:38:42 5500.cfg
  2 .. ffffffff 13c368fe  4e9aa0  29  4868557 Mar 02 2000 12:06:18 cat5000-sup3
.6-1-0-30-FTL.bin

2712928 bytes available (4889248 bytes used)
Console> (enable)
```

Related Commands [show flash](#)

disable

Use the **disable** command to return to normal mode from privileged mode.

disable

Syntax Description This command has no arguments or keywords.

Defaults This command has no default settings.

Command Types Switch command.

Command Modes Privileged.

Examples This example shows how to return to normal mode:

```
Console> (enable) disable
Console>
```

Related Commands [enable](#)

disconnect

Use the **disconnect** command to close an active console port or Telnet session.

disconnect {*ip_addr* | **console**}

Syntax Description		
<i>ip_addr</i>	Source IP address or IP alias of the session to disconnect; in dot notation, for example, 101.102.103.104.	
console	Keyword to clear an active session on the console port.	

Defaults This command has no default settings.

Command Types Switch command.

Command Modes Privileged.

Usage Guidelines If multiple sessions from the same IP address exist, the system checks if the current session originated from the specified IP address. If the session did not originate from the specified IP address, all Telnet sessions from the address are disconnected. If the session does originate from the specified address, all sessions, other than the current session, are disconnected. The system prompts whether to disconnect the current Telnet session. You can answer **n** and remain connected or answer **y** and be disconnected.

Examples This example shows how to close a Telnet session to host 192.168.255.255 (the 1 in parenthesis indicates the number of active sessions disconnected):

```
Console> (enable) disconnect 192.168.255.255
Telnet session from 192.168.255.255 disconnected. (1)
Console> (enable)
```

This example shows how to close the current console session:

```
Console> (enable) disconnect console
Console session disconnected.
Console> (enable)
```

Related Commands [telnet](#)

download

Use the **download** command to copy a software image from a specified host to the Flash memory of the supervisor engine or a designated module.

download *host file* [*mod*] [**rcp**]

download serial [*mod*]

Syntax Description		
<i>host</i>	Name or IP address of host.	
<i>file</i>	Name of file to be downloaded.	
<i>mod</i>	(Optional) Number of the module to receive downloaded image.	
rcp	(Optional) Keyword to copy an image from a specified host to Flash using rcp.	
serial	Keyword to download through the serial (console) port.	

Defaults If a module number is not specified, the image is downloaded to all modules for which the image is valid.

Command Types Switch command.

Command Modes Privileged.

Usage Guidelines Two methods are supported to download software images to the switch:

- TFTP network download through any network port
- Kermit serial download through the EIA/TIA-232 console port

You can only download supervisor engine software using the Kermit method.

If you are performing a serial download, you can only download a software image to the supervisor engine. You cannot download a software image to a switching module using the serial download method.

If the module number is specified, the system attempts to download the file to the specified module. If the module is a different type from the type indicated by the download header, the download fails. If the module number is not specified, the file is downloaded to all modules of the type specified in the download header.

To download a software image to the RSM, you must session to the router and use the **copy** command to download the software.

You can download a software image to the RSFC by specifying the RSFC module number in the **download** command. However, when you download a system image to the RSFC from the switch CLI, the image is stored in RAM only. To permanently store the system image on the RSFC, you must session to the RSFC and use the **copy** command to copy the software.

In software release 5.2 and later, the **download** command performs the following actions automatically on switches that support the Flash file system:

- If necessary, deletes the oldest image file on the bootflash: Flash device and performs a **squeeze** on the bootflash: device. The process is repeated until there is space sufficient for copying the new software image.
- Copies the new software image to the bootflash: device.
- Prepends the new image name to the BOOT variable.

**Note**

You can use the **download** command as part of a minimal downtime software upgrade. For complete information on performing a minimal downtime software upgrade, refer to the *Catalyst 5000 Family Software Configuration Guide* for your switch.

The **download serial** command uses the Kermit protocol through the serial EIA/TIA-232 console port. The **download serial** command is not allowed from a console session (the console port must be available for the serial download).

**Caution**

After starting the serial download using Kermit, do not attempt to abort the serial download by pressing **Ctrl-C**. Pressing **Ctrl-C** interrupts the download process and might leave the switch in a problematic state. If this occurs, reboot the switch.

Examples

This example shows how to download the c5000_spv11.bin file from the mercury host to the supervisor engine module (by default):

```

Console> (enable) download mercury c5000_spv11.bin
Download image c5000_spv11.bin from mercury to module 1FLASH (y/n) [n]? y
\
Finished network single module download. (2418396 bytes)
FLASH on Catalyst:

Type           Address           Location
Intel 28F008    20000000          NMP (P3) 4MB SIM

Erasing flash sector...done.
Programming flash sector...done.
Erasing flash sector...done.
Programming flash sector...done.
The system needs to be reset to run the new image.
Console> (enable)

```

This example shows how to download the fddi_1113.cpi file from the mercury host to module 4:

```

Console> (enable) download mercury fddi_1113.cpi 4
This command will reset Module 4.
Download image fddi_1113.cbi from mercury to Module 4 FLASH (y/n) [n]? y
|
Finished network download. (1064876 bytes)
.....n
Console> (enable)

```



```

Waiting for DOWNLOAD!!
Return to your local Machine by typing its escape sequence
Issue Kermit send command from there[ Send 'Filename']

^\\c
[Back at Local System]
C-Kermit> send c5000_xx.bin
                               SF
c5000_xx.bin => C5000_XX.BIN, Size: 1233266

X to cancel file, CR to resend current packet
Z to cancel group, A for status report
E to send Error packet, Ctrl-C to quit immediately:.....
..... [OK]
ZB
C-Kermit> quit
host%

```

Related Commands

reset—switch
show flash
upload