APPENDIX D

SAMI COSLI PPC Commands

The following commands, listed in alphabetical order by mode, are introduced for the Cisco SAMI Common OS Services Linux Infra (COSLI) and are supported at the SAMI PPC console.

clear cores

To clear all of the core dumps stored in the core: file system, use the **clear cores** command.

clear cores

Syntax Description

This command has no keywords or arguments.

Command Modes

EXEC

Command History

Release	Modification
COSLI 1.0	This command was introduced.

Usage Guidelines

To view the list of core files in the core: file system, use the **dir core:** command.

To delete a specific core dump file from the core: file system, use the **delete core:** command.

Note The PPC creates a core dump when it experiences a fatal error. Core dump information is for Cisco Technical Assistance Center (TAC) use only. We recommend that you contact TAC for assistance in interpreting the information in the core dump.

Examples

To clear all core dumps, enter:

```
switch# clear cores
```

Related Commands

delete
dir

clear crashinfo:

To clear crash files, use the **clear crashinfo:** command.

clear crashinfo: [*filename*]

Syntax Description

filename	(Optional) Name of the crash file. Valid value is a file name up to 80 characters.

Command Modes

EXEC

Command History

Release	Modification
COSLI 1.0	This command was introduced.

Usage Guidelines

To delete files containing crash information, use the **clear crashinfo:** command. To clear a specific file, use the **clear crashinfo:** command with a file name specified.

Examples

To clear all crashinfo files, enter:

```
switch# clear crashinfo:
```

Related Commands

delete
dir

clear eventlog

To clear the event log, use the **clear eventlog** command.

clear eventlog

Syntax Description

This command has no keywords or arguments.

Command Modes

EXEC

Command History

Release	Modification
COSLI 1.0	This command was introduced.

Usage Guidelines

Use the **clear eventlog** command to clear the event log.

Examples

To clear the display screen, enter:

```
switch# clear eventlog
```

Related Commands

This command has no related commands.

clear screen

To clear the display screen, use the **clear screen** command.

clear screen

Syntax Description

This command has no keywords or arguments.

Command Modes

EXEC

Command History

Release	Modification
COSLI 1.0	This command was introduced.

Usage Guidelines

Use the **clear screen** command to clear the display screen.

Examples

To clear the display screen, enter:

```
switch# clear screen
```

Related Commands

This command has no related commands.

clock summer-time

To configure a COSLI PPC to change the time automatically to summer time (daylight saving time), use the **clock summer-time** command. Use the **no** form of this command to remove the clock summer-time setting.

clock summer-time {*daylight_timezone_name start_week start_day start_month start_time end_week end_day end_month end_time daylight_offset* | **standard** *time_zone*}

no clock summer-time

Syntax Description

daylight_timezone_name	8-letter name of the time zone (for example, PDT) to be displayed when summer time is in effect.
start_week	Start week for summer time, ranging from 1 through 5.
start_day	Start day for summer time, ranging from Sunday through Saturday.
start_month	Start month for summer time, ranging from January through December.
start_time	Start time (military time) in hours and minutes.
end_week	End week for summer time, ranging from 1 through 5.
end_day	End day for summer time, ranging from Sunday through Saturday.
end_month	End month for summer time, ranging from January through December.
end_time	End time (military format) in hours and minutes.
daylight_offset	Number of minutes to add during summer time. Valid entries are from 1 to 1440. The default is 60.
standard *time_zone*	Sets the daylight time to a standard time zone that includes an applicable daylight time start and end range along with a daylight offset. Enter one of the following well-known time zones: • **ADT**—Atlantic Daylight Time: 2 a.m. first Sunday in April—2 a.m. last Sunday in October, + 60 minutes • **AKDT**—Alaska Standard Daylight Time: 2 a.m. first Sunday in April—2 a.m. last Sunday in October, + 60 minutes • **CDT**—Central Daylight Time: 2 a.m. first Sunday in April—2 a.m. last Sunday in October, + 60 minutes • **EDT**—Eastern Daylight Time: 2 a.m. first Sunday in April—2 a.m. last Sunday in October, + 60 minutes • **MDT**—Mountain Daylight Time: 2 a.m. first Sunday in April—2 a.m. last Sunday in October, + 60 minutes • **PDT**—Pacific Daylight Time: 2 a.m. first Sunday in April—2 a.m. last Sunday in October, + 60 minutes

Command Modes

Configuration mode

Command History

Release	Modification
COSLI 1.0	This command was introduced.

Usage Guidelines

The first part of the command specifies when summer time begins, and the second part of the command specifies when summer time ends. All times are relative to the local time zone; the start time is relative to standard time and the end time is relative to summer time. If the starting month is after the ending month, the COSLI PPC assumes that you are located in the southern hemisphere.

Examples

To specify that summer time begins on the first Sunday in April at 02:00 and ends on the last Sunday in October at 02:00, with a daylight offset of 60 minutes, enter:

```
switch(config)# clock summer-time Pacific 1 Sun Apr 02:00 5 Sun Oct 02:00 60
```

To remove the clock summer-time setting, enter:

```
switch(config)# no clock summer-time
```

Related Commands

show clock
clock timezone

clock timezone

To set the time zone, use the **clock timezone** command. Use the **no** form of this command to configure independent server groups of Terminal Access Controller Access Control System Plus (TACACS+), Remote Authentication Dial-In User Service (RADIUS), or Lightweight Directory Access Protocol (LDAP) servers.

clock timezone {*zone_name* {**+** | **–**} *hours minutes*} | {**standard** *time_zone*}

no clock timezone

Syntax Description

zone_name	8-letter name of the time zone (for example, PDT) to be displayed when the time zone is in effect.
hours	Hours offset from Coordinated Universal Time (UTC).
minutes	Minutes offset from UTC. Range is from 0 to 59 minutes.
standard *time_zone*	Sets the time to a standard time zone that include an applicable UTC hours offset. Enter one of the following well-known time zones: • **ACST**—Australian Central Standard Time as UTC + 9.5 hours • **AKST**—Alaska Standard Time as UTC –9 hours • **AST**—Atlantic Standard Time as UTC –4 hours • **BST**—British Summer Time as UTC + 1 hour • **CEST**—Central Europe Summer Time as UTC + 2 hours • **CET**—Central Europe Time as UTC + 1 hour • **CST**—Central Standard Time as UTC –6 hours • **EEST**—Eastern Europe Summer Time as UTC + 3 hours • **EET**—Eastern Europe Time as UTC + 2 hours • **EST**—Eastern Standard Time as UTC –5 hours • **GMT**—Greenwich Mean Time as UTC • **HST**—Hawaiian Standard Time as UTC –10 hours • **IST**—Irish Summer Time as UTC + 1 hour • **MSD**—Moscow Summer Time as UTC + 4 hours • **MSK**—Moscow Time as UTC + 3 hours • **MST**—Mountain Standard Time as UTC –7 hours • **PST**—Pacific Standard Time as UTC –8 hours • **WEST**—Western Europe Summer Time as UTC + 1 hour • **WST**—Western Standard Time as UTC + 8 hours

Command Modes

Configuration mode

Command History

Release	Modification
COSLI 1.0	This command was introduced.

Usage Guidelines

The COSLI PPC keeps time internally in Universal Time Coordinated (UTC) offset, so this command is used only for display purposes and when the time is set manually.

Table 4-1 lists common time zone acronyms used for the *zone_name* argument.

Table 4-1 Time Zone Acronyms

Acronym	Time Zone Name and UTC Offset
Europe	
BST	British Summer Time as UTC + 1 hour
CET	Central Europe Time as UTC + 1 hour
CEST	Central Europe Summer Time as UTC + 2 hours
EET	Eastern Europe Time as UTC + 2 hours
EEST	Eastern Europe Summer Time as UTC + 3 hours
GMT	Greenwich Mean Time as UTC
IST	Irish Summer Time as UTC + 1 hour
MSK	Moscow Time as UTC + 3 hours
MSD	Moscow Summer Time as UTC + 4 hours
WET	Western Europe Time as UTC
WEST	Western Europe Summer Time as UTC + 1 hour
United States and Canada	
AST	Atlantic Standard Time as UTC –4 hours
ADT	Atlantic Daylight Time as UTC –3 hours
CT	Central Time, either as CST or CDT, depending on the place and time of the year
CST	Central Standard Time as UTC –6 hours
CDT	Central Daylight Saving Time as UTC –5 hours
ET	Eastern Time, either as EST or EDT, depending on the place and time of the year
EST	Eastern Standard Time as UTC –5 hours
EDT	Eastern Daylight Saving Time as UTC –4 hours
MT	Mountain Time, either as MST or MDT, depending on the place and time of the year
MDT	Mountain Daylight Saving Time as UTC –6 hours
MST	Mountain Standard Time as UTC –7 hours
PT	Pacific Time, either as PST or PDT, depending on the place and time of the year
PDT	Pacific Daylight Saving Time as UTC –7 hours

Table 4-1 Time Zone Acronyms (continued)

Acronym	Time Zone Name and UTC Offset
PST	Pacific Standard Time as UTC –8 hours
AKST	Alaska Standard Time as UTC –9 hours
AKDT	Alaska Standard Daylight Saving Time as UTC –8 hours
HST	Hawaiian Standard Time as UTC –10 hours
Australia	
CST	Central Standard Time as UTC + 9.5 hours
EST	Eastern Standard/Summer Time as UTC + 10 hours (+11 hours during summer time)
WST	Western Standard Time as UTC + 8 hours

Examples

To set the time zone to PST and to set an UTC offset of –8 hours, enter:

```
switch(config)# clock timezone PST -8 0
```

To remove the clock time-zone setting, enter:

```
switch(config)# no clock timezone PST -8 0
```

Related Commands

show clock
clock summer-time

config

To enter configuration mode while in EXEC mode, use the **configure** command.

config [**terminal**]

Syntax Description

terminal	(Optional) Enables you to configure the system from the terminal.

Defaults

No default behavior or values.

Command Modes

EXEC

Command History

Release	Modification
COSLI 1.0	This command was introduced.

Usage Guidelines

To return to the EXEC mode from the configuration mode, use the **exit** command.

To execute an EXEC mode command from any of the configuration modes, use the **do** version of the command.

Examples

To enter configuration mode from EXEC mode, enter:

```
switch# config
switch(config)#
```

Related Commands

exit

copy core:

To copy a core file to a remote server, use the **copy core:** command.

copy core:*filename* {**disk0:**[*path/*\]*filename* | **tftp://***server*[**:***port*]**/***path*[*/filename*]}

Syntax Description

filename1	Filename of the core dump residing on the PPC in flash memory. Use the **dir core:** command to view the core dump files available in the core: file system.
disk0:[*path/*\]*filename2*	Specifies that the file destination is the disk0: directory of the current context and the filename for the core. If you do not provide the optional path, the PPC copies the file to the root directory on the disk0: file system.
tftp://*server*[**:***port*]**/***path*[*/filename*]	Specifies the Trivial File Transfer Protocol (TFTP) network server and optional renamed core dump.

Command Modes

EXEC

Command History

Release	Modification
COSLI 1.0	This command was introduced.

Usage Guidelines

To display the list of available core files, use the **dir core:** command. Copy the complete filename (for example, 0x401_vsh_log.25256.tar.gz) into the **copy core:** command.

When you select a destination file system using **tftp:**, the PPC does the following:

- Prompts you for your username and password if the destination file system requires user authentication.
- Prompts you for the server information if you do not provide the information with the command.
- Copies the file to the root directory of the destination file system if you do not provide the path information.

Examples

To copy a core file from the PPC to a remote TFTP server, enter:

```
switch# copy core:ppc3_crash.txt tftp://192.168.1.2
Enter the destination filename[]? [ppc3_crash.txt]
Enter username[]? user1
Enter the file transfer mode[bin/ascii]: [bin]
Password:
Passive mode on.
Hash mark printing on (1024 bytes/hash mark).
```

Note The **bin** (binary) file transfer mode is intended for transferring compiled files (executables). The **ascii** file transfer mode is intended for transferring text files, such as config files. The default selection of **bin** should be sufficient in all cases when copying files to a remote FTP server.

Related Commands

dir

copy crashinfo:

To copy a crash file to a remote server, use the **copy crashinfo:** command.

copy crashinfo:*filename* {**disk0:**[*path/*\]*filename* | **tftp://***server*[**:***port*]**/***path*[**/***filename*]}

Syntax Description

filename1	Filename of the crash file residing on the PPC in flash memory. Use the **dir crashinfo:** command to view the crash files available in the crashinfo: file system.
disk0:[*path/*\]*filename2*	Specifies that the file destination is the disk0: directory of the current context and the filename for the core. If you do not provide the optional path, the PPC copies the file to the root directory on the disk0: file system.
tftp://*server*[**:***port*]**/***path*[**/***filename*]	Specifies the Trivial File Transfer Protocol (TFTP) network server and optional renamed crash file.

Command Modes

EXEC

Command History

Release	Modification
COSLI 1.0	This command was introduced.

Usage Guidelines

To display the list of available crash files, use the **dir crashinfo:** command. Copy the complete filename (for example, 0x401_vsh_log.25256.tar.gz) into the **copy crashinfo:** command.

When you select a destination file system using **tftp:**, the PPC does the following:

- Prompts you for your username and password if the destination file system requires user authentication.
- Prompts you for the server information if you do not provide the information with the command.
- Copies the file to the root directory of the destination file system if you do not provide the path information.

Examples

To copy a crash file from the PPC to a remote TFTP server, enter:

```
switch# copy crashinfo:ppc3_crash.txt tftp://192.168.1.2
Enter the destination filename[]? [ppc3_crash.txt]
Enter username[]? user1
Enter the file transfer mode[bin/ascii]: [bin]
Password:
Passive mode on.
Hash mark printing on (1024 bytes/hash mark).
```

Note The **bin** (binary) file transfer mode is intended for transferring compiled files (executables). The **ascii** file transfer mode is intended for transferring text files, such as config files. The default selection of **bin** should be sufficient in all cases when copying files to a remote FTP server.

Related Commands

dir

copy disk0:

To copy a file from one directory in the disk0: file system of flash memory to another directory in disk0: or a network server, use the **copy disk0:** command.

copy disk0:[*path/*]*filename1* {**disk0:**[*path/*]*filename2* | **tftp://***server*[**:***port*]**/***path*[**/***filename*] | **running-config** | **startup-config**}

Syntax Description

disk0:[*path/*]*filename1*	Specifies the name of the file to copy in the disk0: file system. Use the **dir disk0:** command to view the files available in disk0:. If you do not provide the optional path, the PPC copies the file from the root directory on the disk0: file system.
disk0:[*path/*]*filename2*	Specifies that the file destination is the disk0: directory of the current context and the filename for the core. If you do not provide the optional path, the PPC copies the file to the root directory on the disk0: file system.
tftp://*server*[**:***port*]**/***path*[**/***filename*]	Specifies the Trivial File Transfer Protocol (TFTP) network server and optional renamed file.
running-config	Specifies to replace the running-configuration file that currently resides on the PPC in volatile memory.
startup-config	Specifies to replace the startup-configuration file that currently resides on the PPC in flash memory.

Command Modes

EXEC

Command History

Release	Modification
COSLI 1.0	This command was introduced.

Usage Guidelines

When you select a destination file system using **tftp:**, the PPC does the following:

- Prompts you for your username and password if the destination file system requires user authentication.
- Prompts you for the server information if you do not provide the information with the command.
- Copies the file to the root directory of the destination file system if you do not provide the path information.

Examples

To copy the file called SAMPLEFILE to the MYSTORAGE directory in flash memory, enter:

```
switch# copy disk0:samplefile disk0:MYSTORAGE/SAMPLEFILE
```

Related Commands

dir

copy running-config

To copy the contents of the running configuration file in RAM (volatile memory) to the startup configuration file in flash memory (nonvolatile memory) or a network server, use the **copy running-config** command.

copy running-config {**disk0:**[*path/*]*filename* | **startup-config** |
tftp://*server*[**:***port*]*/path*[*/filename*]}

Syntax Description

disk0:[*path/*]*filename*	Specifies that the running configuration is copied to a file on the disk0: file system. If you do not provide the optional path, the PPC copies the file to the root directory on the disk0: file system.
startup-config	Copies the running configuration file to the startup configuration file.
tftp://*server*[**:***port*]*/path*[*/filename*]	Specifies the Trivial File Transfer Protocol (TFTP) network server and optional renamed file.

Command Modes

EXEC

Command History

Release	Modification
COSLI 1.0	This command was introduced.

Usage Guidelines

When you select a destination file system using **tftp:**, the PPC does the following:

- Prompts you for your username and password if the destination file system requires user authentication.
- Prompts you for the server information if you do not provide the information with the command.
- Copies the file to the root directory of the destination file system if you do not provide the path information.

Examples

To save the running-configuration file to the startup-configuration file in flash memory on the PPC, enter:

```
switch# copy running-config startup-config
```

Related Commands

show running-config
show startup-config

copy startup-config

To merge the contents of the startup configuration file into the running configuration file or copy the startup configuration file to a network server, use the **copy startup-config** command.

copy startup-config {**disk0:**[*path/*]*filename* | **running-config** |
tftp://*server*[**:***port*]**/***path*[*/filename*]}

Syntax Description

disk0:[*path/*]*filename*	Specifies that the startup configuration is copied to a file on the disk0: file system. If you do not provide the optional path, the PPC copies the file to the root directory on the disk0: file system.
running-config	Merges contents of the startup configuration file into the running configuration file.
tftp://*server*[**:***port*]**/***path*[*/filename*]	Specifies the Trivial File Transfer Protocol (TFTP) network server and optional renamed file.

Command Modes

EXEC

Command History

Release	Modification
COSLI 1.0	This command was introduced.

Usage Guidelines

When you select a destination file system using **tftp:**, the PPC does the following:

- Prompts you for your username and password if the destination file system requires user authentication.
- Prompts you for the server information if you do not provide the information with the command.
- Copies the file to the root directory of the destination file system if you do not provide the path information.

Examples

To merge the contents of the startup-configuration file into the running-configuration file in flash memory, enter:

```
switch# copy startup-config running-config
```

Related Commands

show startup-config

copy-sup

To copy files and running configurations to and from the SUP, use the **copy-sup** command in privileged EXEC mode.

copy-sup *src_file dst_file*

Syntax Description

src_file	Specifies the source file.
dst_file	Specifies the destination file.

Command Default

This command is disabled by default.

Command Modes

Privileged EXEC

Command History

Release	Modification
WSG Release 3.0	This command was introduced.

Usage Guidelines

You can run the **copy-sup** command in single entity mode.

If the source file is the running-config or a file from one of the following PPC filesystems:

log:
core:
disk0:

Then the destination file is a file at one of the following SUP filesystems:

bootdisk-sup:
bootflash-sup:
disk0-sup:

If the source file is a file from one of the following SUP filesystems:

bootdisk-sup:
bootflash-sup:
disk0-sup:

Then the destination file can be the running-config or a file at one of the following PPC filesystems:

log:
core
disk0:

This command will attach the *slot#ppc#* tag for either entity **all** or entity **none** modes (i.e. SLOT3SAMIC3_) to the front of the file name saved at the SUPs. The commmand will also attach the ".cfg" tag to the end of the file name when you save the running configuration file to the SUPs.

You do not need to type in the tags when you specifiy the source or destination file names for **copy-sup**. The tags are automatically generated by the command.

The directory names used by this command that refer to the SUP filesystems are:

disk0-sup:
bootdisk-sup:
bootflash-sup:

Examples

Here are examples of the **copy-sup** command:

```
copy-sup ?
  bootdisk-sup:   Select source file system at the SUP
  bootflash-sup:  Select source file system at the SUP
  core:           Select source file system
  disk0-sup:      Select source file system at the SUP
  disk0:          Select source file system
  log:            Select source file system
  running-config  Copy running configuration to destination
switch#  copy-sup running-config ?
  bootdisk-sup:   Select destination file system at the SUP
  bootflash-sup:  Select destination file system at the SUP
  disk0-sup:      Select destination file system at the SUP
switch#  copy-sup running-config disk0-sup: ?
  <cr>  Carriage return.
switch#  copy-sup running-config disk0-sup:
```

Copy File to the Sup

A file at the PPC can be copied to the SUP's disk0, bootflash (or bootdisk) directory:

```
switch# copy-sup src_file sup-disk0:filename | sup-bootflash:filename |
sup-bootdisk:filename
```

If the remote filename is not specified, this command will prompt you for the remote file name to be used on the SUP.

Example 1 (entity none mode):

```
switch# copy-sup log:messages sup-disk0:myLogMessages
Copying operation succeeded.
switch#
```

Example 2 (entity node mode):

```
switch# copy-sup log:messages sup-bootflash:
Enter the destination filename[]?myLogMessages
Copying operation succeeded.
switch#
```

The following file on the SUP will be created as the result of above command:

```
bootflash:myLogMessages
```

Example 3 (entity all mode):

```
Switch(mode-all)#copy-sup log:messages sup-bootflash:myLogMessages
```

The following example files are created on the SUP:

```
SLOT3SAMIC3_myLogMessages
SLOT3SAMIC4_myLogMessages
```

```
SLOT3SAMIC5_myLogMessages
SLOT3SAMIC6_myLogMessages
SLOT3SAMIC7_myLogMessages
SLOT3SAMIC8_myLogMessages
```

Copy Running Config File to the Sup

Here are examples of the **copy-sup** command used to copy running configurations to the SUP:

```
switch# copy-sup running-config sup-disk0:filename | sup-bootflash:filename |
sup-bootdisk:filename
```

If the remote filename is not specified, this command prompts you for the remote file name to be used on the SUP. The configuration files at the SUP have the ".cfg." attached.

Example 1 (entity none mode):

```
switch# copy-sup running-config sup-bootflash:myconfig
Copying operation succeeded.
switch#
```

The following file is created on the SUP as the result of the previous command (for example, the command is entered from slot#3/ppc#5):

```
bootflash:SLOT3SAMIC5_myconfig.cfg
```

Example 2 (entity all mode):

```
switch# copy-sup running-config sup-bootflash:myconfig
Copying operation succeeded.
switch#
```

The following files are created on the SUP as the result of the previous command:

```
bootflash:SLOT3SAMIC3_myconfig.cfg
bootflash:SLOT3SAMIC4_myconfig.cfg
bootflash:SLOT3SAMIC5_myconfig.cfg
bootflash:SLOT3SAMIC6_myconfig.cfg
bootflash:SLOT3SAMIC7_myconfig.cfg
bootflash:SLOT3SAMIC8_myconfig.cfg
```

Copy File from the Sup

Here are examples of the **copy-sup** command used to copy files from the SUP:

If the remote or local file names are not specified, this command prompt you for the local and remote file names to be copied.

Example 1 (entity none mode),

```
switch# copy-sup sup-bootflash:myFileAtSup disk0:myFile
Copying operation succeeded.
```

The following file from the SUP is copied as the result of the previous command:

```
bootflash:myFileAtSup
```

Example 2 (entity all mode),

```
switch# copy-sup sup-bootflash:myFileAtSup disk0:myFile
Copying operation succeeded.
```

The following file from the SUP will be copied as the result of above command:

```
bootflash:myFileAtSup
```

Each PPC will have the file disk0:myFile.

Copy Running Config file from the Sup

Here are examples of the **copy-sup** command used to copy running configuration files from the SUP:

```
switch# copy-sup sup-disk0:filename | sup-bootflash:filename | sup-bootdisk:filename
running-config
```

If the remote file name is not specified, this command will prompt the user for the remote config file name to be copied.

Example 1 (entity none mode),

```
switch# copy-sup sup-bootflash:myConfig running-config
Copying operation succeeded.
```

As the result of issuing the previous command, the following file from the SUP is copied (for example, the command is entered from slot#3/ppc#5), and the current running configuration is replaced with it:

```
bootflash:SLOT3SAMIC5_myConfig.cfg
```

Example 2 (entity all mode),

```
switch# copy-sup sup-bootflash:myConfig running-config
Copying operation succeeded.
```

The following files from the SUP will be copied as the result of above command:

```
bootflash:SLOT3SAMIC3_myConfig.cfg
bootflash:SLOT3SAMIC4_myConfig.cfg
bootflash:SLOT3SAMIC5_myConfig.cfg
bootflash:SLOT3SAMIC6_myConfig.cfg
bootflash:SLOT3SAMIC7_myConfig.cfg
bootflash:SLOT3SAMIC8_myConfig.cfg
```

The running configuration of each of the PPCs is replaced by the corresponding file.

copy tftp:

To copy a file, software image, running-configuration file, or startup-configuration file from a remote Trivial File Transfer Protocol (TFTP) server to a location on the PPC, use the **copy tftp:** command.

copy tftp://*server*[**:***port*]**/***path*[**/***filename*] {**disk0:**[*path/*\]*filename* | **image:**[*image_name*] | **running-config** | **startup-config**}

Syntax Description

tftp://*server*[**:***port*]**/***path*[**/***filename*]	Specifies the TFTP network server and optional renamed file.
disk0:[*path/*\]*filename*	Specifies that the file destination is the disk0: directory of the current context and the filename. If you do not provide the optional path, the PPC copies the file to the root directory on the disk0: file system.
image: [*image_name*]	Specifies to copy a system software image to flash memory. Use the **boot system** command in configuration mode to specify the BOOT environment variable. The BOOT environment variable specifies a list of image files on various devices from which the PPC can boot at startup. The *image_name* argument is optional. If you do not enter a name, the PPC uses the source filename.
running-config	Specifies to replace the running-configuration file that currently resides on the PPC in RAM (volatile memory).
startup-config	Specifies to replace the startup-configuration file that currently resides on the PPC in flash memory (nonvolatile memory).

Command Modes

EXEC

Command History

Release	Modification
COSLI 1.0	This command was introduced.

Usage Guidelines

Use the **copy tftp:** command to copy a file from a remote TFTP server to a location on the PPC.

Examples

To copy a startup-configuration file from a remote TFTP server to the PPC, enter:

```
switch# copy tftp://192.168.1.2/startup_config_PPC3 startup-config
```

Related Commands

show running-config
show startup-config

debug

To enable syslog debugging functions on a PPC, use the **debug** command.

debug logging level *num*

Syntax Description		
	level *num*	Specifies the level of syslog debugging. Valid value is a number 1 to 9.

Defaults

No default behavior or values.

Command Modes

EXEC

Command History

Release	Modification
COSLI 1.0	This command was introduced.

Usage Guidelines

Because debugging output is assigned high priority in the CPU process, it can diminish the performance of the router or even render it unusable. For this reason, use **debug** commands only to troubleshoot specific problems or during troubleshooting sessions with Cisco technical support staff. Moreover, it is best to use **debug** commands during periods of lower network traffic and fewer users. Debugging during these periods decreases the likelihood that increased **debug** command processing overhead will affect system use.

Examples

To enable syslog debugging to level 5, enter:

```
switch# debug logging level 5
```

Related Commands

show debug

delete

To delete a specified file in the PPC file system, use the **delete** command.

delete {**core:***filename* | **disk0:**[*path/**filename*}

Syntax Description

core:*filename*	Deletes the specified file from the core: file system.
disk0:[*path/**filename*	Deletes the specified file from the disk0: file system. If you do not specify the optional path, the PPC looks for the file in the root directory of the disk0: file system.

Defaults

No default behavior or values.

Command Modes

EXEC

Command History

Release	Modification
COSLI 1.0	This command was introduced.

Usage Guidelines

If you do not specify a filename with the file system keyword, you will be prompted for a filename.

To display the list of files that reside in a file system, use the **dir** command.

Examples

To delete the file 0x401_VSH_LOG.25256.TAR.GZ from the core: file system, enter:

```
switch# delete core:0x401_VSH_LOG.25256.TAR.GZ
```

Related Commands

dir

dir

To display the contents of a specified PPC file system, use the **dir** command.

dir {**core: | crashinfo: | disk0: | log:**}

Syntax Description

core:	Displays the contents of the core: file system.
crashinfo:	Displays the contents of the crashinfo: file system.
disk0:	Displays the contents of the disk0: file system.
log:	Displays the contents of the log: file system.

Defaults

No default behavior or values.

Command Modes

EXEC

Command History

Release	Modification
COSLI 1.0	This command was introduced.

Usage Guidelines

To delete a file from a file system, use the **delete** command.

To delete all core dumps, use the **clear cores** command.

Examples

To display the contents of the drive0: file system, enter:

```
switch# dir disk0:
```

Related Commands

clear cores
delete

dumpcore process

To manually generate a core dump for a PPC process, use the **dumpcore process** command in EXEC mode.

dumpcore process *process-name* **pid** *pid*

Syntax Description

process *process-name*	Name of the process for which you want to manually generate a core dump. Enter the name of a process up to 80 characters.
pid *pid*	Process instance identifier (PID).

Defaults

No default behavior or values.

Command Modes

EXEC

Command History

Release	Modification
COSLI 1.0	This command was introduced.

Usage Guidelines

Use the **dumpcore process** command to manually generate a core dump for PPC process.

Examples

To manually generate a debug core file for PPC processes, enter:

```
switch# dumpcore process bash pid 419
```

Related Commands

clear cores
delete
show processes

end

To exit from configuration mode and return to EXEC mode, use the **end** command.

end

Syntax Description

This command has no keywords or arguments.

Command Modes

Configuration mode

Command History

Release	Modification
COSLI 1.0	This command was introduced.

Usage Guidelines

You can also press **Ctrl-Z** or enter the **exit** command to exit configuration mode.

Examples

To exit from configuration mode and return to EXEC mode, enter:

```
switch(config)# end
switch#
```

Related Commands

This command has no related commands.

exit

To exit from the current mode and return to the previous mode, use the **exit** command.

exit

Syntax Description

This command has no keywords or arguments.

Command Modes

All configuration modes

Command History

Release	Modification
COSLI 1.0	This command was introduced.

Usage Guidelines

In configuration mode, the **exit** command transitions to the EXEC mode.

In EXEC mode, logs out of the CLI session.

In all other configuration modes, the **exit** command transitions to the previous configuration mode.

You can also press **Ctrl-Z**, enter the **end** command, or enter the **exit** command to exit configuration mode.

Examples

To exit from configuration mode and return to EXEC mode, enter:

```
switch(config)# exit
switch#
```

To exit from interface configuration mode and return to configuration mode, enter:

```
switch(config-if)# exit
switch(config)#
```

Related Commands

This command has no related commands.

hostname

To specify a hostname for the COSLI PPC, use the **hostname** command. The hostname is used for the command line prompts and default configuration filenames. If you establish sessions to multiple devices, the hostname helps you track where you enter commands. Use the **no** form of this command to reset the hostname to the default of switch.

hostname *name*

no hostname [*name*]

Syntax Description

name	New hostname for the COSLI PPC. Enter a case-sensitive text string that contains from 1 to 32 alphanumeric characters.

Command Modes

Configuration mode

Command History

Release	Modification
COSLI 1.0	This command was introduced.

Usage Guidelines

By default, the hostname for the COSLI PPC is switch.

The hostname is used for the command line prompts and default configuration filenames. If you establish sessions to multiple devices, the hostname helps you track where you enter commands.

Examples

To change the hostname of the COSLI PPC from switch to PPC_5, enter:

```
switch(config)# hostname PPC_5
PPC_5(config)#
```

Related Commands

This command has no related commands.

interface

To create a VLAN interface, use the **interface** command. The CLI prompt changes to (config-if). Use the **no** form of this command to remove the interface.

interface vlan *number*

no interface vlan *number*

Syntax Description

number	Assigns the VLAN to the context and accesses interface configuration mode commands for the VLAN. The *number* argument is the number for a VLAN assigned to the PPC. Valid value is a number between 2 and 4094.

Command Modes

Global configuration

Command History

Release	Modification
COSLI 1.0	This command was introduced.
WSG Release 3.0	The **ipv6 address** and **alias** keywords were added.

Usage Guidelines

Use the **interface vlan** command to configure a VLAN interface on a PPC.

Cisco WSG Release 3.0 and above allows you to configure an IPv6 address and alias on the interface. Each interface is allowed to have one or both IPv4 address/alias and IPv6 address/alias.

While in interface configuration mode, you can use the following commands:

- **alias**—Alias IPv4 address for the interface
- **do**—Issue EXEC mode command from configuration mode
- **end**—Exit configuration mode
- **description**—Description for the interface
- **ip address**—IPv4 address for the interface
- **ipv6 address**—IPv6 address for the interface
- **ipv6 alias**—Alias IPv6 address for the interface
- **mtu**—Maximum Transmission Unit (MTU) for the interface
- **no**—Negate an interface configuration command or return it to its default value
- **shutdown**—Shut down the interface
- **vrf**—Specify the VRF for the interface

Note This CLI is a node-specific command and cannot be executed under entity-all mode.

Examples

To create VLAN interface 100 and access interface configuration mode, enter:

```
switch(config)# interface vlan 100
switch(config-if)# ipv6 ?
        address    IPv6 address of interface
        alias         IPv6 alias address of interface

wsg(config-if)# ipv6 address ?
        <X:X:X::X/n> Enter an IPv6 prefix

wsg(config-if)# ipv6 address 2001:88:88:94::/96 ?
        <cr>            Carriage return
        autoconfig   Obtain address using auto configuration

wsg(config-if)# ipv6 alias ?
        <X:X:X::X/n> Enter an IPv6 prefix
```

Each interface is allowed to have one or both IPv4 address/alias and IPv6 address/alias. For example,

```
interface vlan 10
        ip address 10.10.10.3 255.255.255.0
        alias 10.10.10.1 255.255.255.0
        ipv6 address 2001:88:88:94::4/96
        ipv6 alias   2001:88:88:94::1/96
```

Related Commands

show interface

ip address

To set or modify an IP address for an interface, use the **ip address** command in interface configuration mode. To remove an IP address or disable IP processing, use the **no** form of this command.

ip address *ip-address mask*

no ip address

Syntax Description

ip-address	IPv4 address.
mask	Mask for the associated IP subnet.

Defaults

No IP address is defined for the interface.

Command Modes

Interface configuration

Command History

Release	Modification
COSLI 1.0	This command was introduced.

Usage Guidelines

To configure an IPv4 address for the VLAN interface on a PPC, use the **ip address** interface configuration command.

Examples

To configure an IP address for interface VLAN 100, enter the following commands:

```
switch(config)# interface vlan 100
switch(config-if)# ip address ip address
```

Related Commands

show interface

ip default gateway

To define or change a default gateway (router), use the **ip default gateway** command. To disable this function, use the **no** form of this command.

ip default gateway *ip-address*

no ip default gateway *ip-address*

Syntax Description

ip-address	IPv4 address of the default gateway.

Command Modes

Configuration mode

Command History

Release	Modification
COSLI 1.0	This command was introduced.

Usage Guidelines

Define default gateway using the **ip default gateway** command.

Examples

For example, to configure a default gateway with 192.31.7.18 as its IP address, enter:

```
switch(config)# ip default gateway 192.31.7.18
```

Related Commands

show running-config

ip domain-list

To configure a domain name search list, use the **ip domain-list** command. The domain name list can contain a maximum of three domain names. Use the **no** form of this command to remove a domain name from the list.

ip domain-list *name*

no ip domain-list *name*

Syntax Description

name	Domain name. Enter an unquoted text string with no spaces and a maximum of 85 alphanumeric characters.

Command Modes

Configuration mode

Command History

Release	Modification
COSLI 1.0	This command was introduced.

Usage Guidelines

You can configure a Domain Name System (DNS) client on the SAMI COSLI PPC to communicate with a DNS server to provide hostname-to-IP-address translation for hostnames in CRLs for the client authentication feature. For unqualified hostnames (hostnames that do not contain a domain name), you can configure a default domain name or a list of domain names that the PPC can use to:

- Complete the hostname
- Attempt a hostname-to-IP-address resolution with a DNS server

If you configure both a domain name list and a default domain name, the PPC uses only the domain name list and not the single default name. After you have enabled domain name lookups and configured a domain name list, the PPC uses each domain name in turn until it can resolve a single domain name into an IP address.

Examples

For example, to configure a domain name list, enter:

```
switch(config)# ip domain-list cisco.com
switch(config)# ip domain-list abc.com
switch(config)# ip domain-list xyz.com
```

To remove a domain name from the list, enter:

```
switch(config)# no ip domain-list xyz.com
```

Related Commands

show running-config
ip domain-lookup
ip domain-name

ip domain-lookup

To enable the PPC to perform a domain lookup (host-to-address translation) with a DNS server, use the **ip domain-lookup** command. By default, this command is disabled. Use the **no** form of this command to return the state of domain lookups to the default value of disabled.

ip domain-lookup

no ip domain-lookup

Syntax Description

This command has no keywords or arguments.

Command Modes

Configuration mode

Command History

Release	Modification
COSLI 1.0	This command was introduced.

Usage Guidelines

You can configure a Domain Name System (DNS) client on the PPC to communicate with a DNS server to provide hostname-to-IP-address translation for hostnames in CRLs for the client authentication feature.

Before you configure a DNS client on the PPC, ensure that one or more DNS name servers are properly configured and are reachable. Otherwise, translation requests (domain lookups) from the DNS client will be discarded. You can configure a maximum of three name servers. The PPC attempts to resolve the hostnames with the configured name servers in order until the translation succeeds. If the translation fails, the PPC reports an error.

For unqualified hostnames (hostnames that do not contain a domain name), you can configure a default domain name or a list of domain names that the PPC can use to do the following:

- Complete the hostname
- Attempt a hostname-to-IP-address resolution with a DNS server

Examples

For example, to enable domain lookups, enter:

```
switch(config)# ip domain-lookup
```

To return the state of domain lookups to the default value of disabled, enter:

```
switch(config)# no ip domain-lookup
```

Related Commands

show running-config
ip domain-list
ip domain-name
ip name-server

ip domain-name

To configure a default domain name, use the **ip domain-name** command. The domain name list can contain a maximum of three domain names. Use the **no** form of this command to remove a domain name from the list.

ip domain-name *name*

no ip domain-name *name*

Syntax Description

name	Default domain name. Enter an unquoted text string with no spaces and a maximum of 85 alphanumeric characters.

Command Modes

Configuration mode

Command History

Release	Modification
COSLI 1.0	This command was introduced.

Usage Guidelines

The DNS client feature allows you to configure a default domain name that the PPC uses to complete unqualified hostnames. An unqualified hostname does not contain a domain name (any name without a dot). When domain lookups are enabled and a default domain name is configured, the PPC appends a dot (.) and the configured default domain name to the unqualified host name and attempts a domain lookup.

Examples

For example, to specify a default domain name of cisco.com, enter:

```
switch(config)# ip domain-name cisco.com
```

In the above example, the PPC appends cisco.com to any unqualified host name in a CRL before the PPC attempts to resolve the host name to an IP address using a DNS name server.

To remove the default domain from the configuration, enter:

```
switch(config)# no ip domain-name cisco.com
```

Related Commands

show running-config
ip domain-list
ip domain-lookup

ip name-server

To configure a DNS name server on the PPC, use the **ip name-server** command. You can configure a maximum of three DNS name servers. Use the **no** form of this command to remove a name server from the list.

ip name-server *ip_address*

no ip name-server *ip_address*

Syntax Description

ip_address	IPv4 address of a name server. Enter the address in dotted decimal notation (for example, 192.168.12.15). You can enter up to three name server IP addresses in one command line.

Command Modes

Configuration mode

Command History

Release	Modification
COSLI 1.0	This command was introduced.

Usage Guidelines

To translate a hostname to an IP address, you must configure one or more (maximum of three) existing DNS name servers on the PPC. Ping the IP address of each name server before you configure it to ensure that the server is reachable.

Examples

For example, to configure three name servers for the DNS client feature, enter:

```
switch(config)# ip name-server 192.168.12.15 192.168.12.16 192.168.12.17
```

To remove a name server from the list, enter:

```
switch(config)# no ip name-server 192.168.12.15
```

Related Commands

show running-config
(config) ip domain-lookup

logging

To configure the IP address of the external logging server, use the **logging** command in global configuration mode. Use the **no** form of the command to remove the IP address.

logging {ip *A.B.C.D* **| ipv6** *X:X:X::X* **| lineread}**

no logging {ip *A.B.C.D* **| ipv6** *X:X:X::X* **| lineread}**

Syntax Description

A.B.C.D	Specifies the IPv4 address of the external logging server.
X:X:X::X	Specifies the IPv6 address of the external logging server.
lineread	Configures the number of lines to read from the log. Value between 1 to 100000.

Defaults

By default, this command is not configured.

Command Modes

Global configuration

Command History

Release	Modification
COSLI 1.0	This command was introduced.
WSG Release 3.0	Added support for IPv6.

Usage Guidelines

None.

Examples

The following example configures 5000 lines to be read:

```
switch(config)# logging lineread 5000
```

Related Commands

show logging

mkdir

To create a new directory in disk0:, use the **mkdir disk0:** command.

mkdir disk0:[*path/*]*directory_name*

Syntax Description		
	[*path/*]*directory_name*	Name that you assign to the new directory. Specify the optional path if you want to create a directory within an existing directory.

Defaults No default behavior or values.

Command Modes EXEC

Command History	Release	Modification
	COSLI 1.0	This command was introduced.

Usage Guidelines If a directory with the same name already exists, the PPC does not create the new directory and a "Directory already exists" message appears.

Examples To create a directory in disk0: called TEST_DIRECTORY, enter:

```
switch# mkdir disk0:TEST_DIRECTORY
```

Related Commands **dir**
rmdir

move

To move a file between directories in the disk0: file system, use the **move disk0:** command.

move disk0:[*/file_path/*][*filename*] **disk0:**[*/destination_path/*][*filename*]

Syntax Description

disk0:	Indicates the disk0: file system of the current context.
file_path	(Optional) Path of the source directory.
filename	(Optional) Name of the file to move in the disk0: file system.
destination_path	(Optional) Path of the destination directory.
filename	(Optional) Name of the file in the destination directory.

Defaults

No default behavior or values.

Command Modes

EXEC

Command History

Release	Modification
COSLI 1.0	This command was introduced.

Usage Guidelines

If a file with the same name already exists in the destination directory, that file is overwritten by the file that you move.

Examples

To move the file called SAMPLEFILE in the root directory of disk0: to the MYSTORAGE directory in disk0:, enter:

```
switch# move disk0:SAMPLEFILE disk0:MYSTORAGE/SAMPLEFILE
```

Related Commands

dir

mtu

To adjust the maximum packet size or maximum transmission unit (MTU) size, use the **mtu** command in interface configuration mode. To restore the MTU value to its original default value, use the **no** form of this command.

mtu *bytes*

no mtu

Syntax Description

mtu	MTU size, in bytes. Configures the MTU size, in bytes. The valid values are from 64 to 9216.

Defaults

1500

Command Modes

Interface configuration

Command History

Release	Modification
COSLI 1.0	This command was introduced.

Usage Guidelines

To configure am MTU size for the VLAN interface on a PPC, use the **mtu** interface configuration command.

Examples

The following example specifies an MTU of 1976 for VLAN 100:

```
switch(config)# interface vlan 100
switch(config-if)# mtu 1976
```

Related Commands

show interface

ping

To verify the connectivity of a remote host or server by sending echo messages from the PPC, use the **ping** command.

ping [*A.B.C.D* [**vrf** *vrfname*] | *X:X:X::X*] [**count** *count*] [**size** *size*]

Syntax Description

A.B.C.D	IPv4 address of the remote host to ping.
vrfname	Specifies the name of the VRF to ping.
X:X:X::X	IPv6 address of the remote host to ping.
count	Specifies the number of echo messages to sent from the PPC.
size	Specifies the size of the messages sent.

Defaults

None.

Command Modes

EXEC

Command History

Release	Modification
COSLI 1.0	This command was introduced.
WSG Release 3.0	Added support IPv6 and VRF.

Usage Guidelines

The **ping** command sends an echo request packet to an address from the PPC and then awaits a reply. The ping output can help you evaluate path-to-host reliability, delays over displaying the name of the current directory and the path, and whether the host can be reached or is functioning.

To terminate a ping session before it reaches its timeout value, press **Ctrl-C**.

Enter the **ping** command without specifying an IP address to customize the ping session by entering values such as the repeat count, datagram size, etc.

Examples

To ping a server with an IP address of 196.168.1.2 using the default ping session values, enter:

```
switch# ping 196.168.1.2
```

To ping a server and change the ping session values, enter:

```
switch# ping
Target IP address: 172.5.31.152
Repeat count [5]:
Datagram size [100]:
PING 1.5.31.152 (1.5.31.152): 100 data bytes
ping: sendto: Network is unreachable
```

In WSG Release 3.0 and above, you can ping an IPv4 or IPv6 address:

```
switch# ping ?
            <A.B.C.D>|<X:X:X::X>  Enter an IP address

switch# ping 2001:88:88:94::1 count 3
     PING 2001:88:88:94::1 (2001:88:88:94::1): 56 data bytes
     64 bytes from 2001:88:88:94::1: seq=0 ttl=64 time=0.7 ms
     64 bytes from 2001:88:88:94::1: seq=1 ttl=64 time=0.5 ms
     64 bytes from 2001:88:88:94::1: seq=2 ttl=64 time=0.6 ms
```

You can also ping a specific IPv4 VRF:

```
switch# ping 196.168.1.2 vrf red
```

Related Commands There are no related commands.

show arp

To display the current active IP address-to-MAC address mapping in the Address Resolution Protocol (ARP) table, statistics, or inspection or timeout configuration, use the **show arp** command.

show arp [|] [>]

Syntax Description

|	(Optional) Pipe character (|) for enabling an output modifier that filters the command output. For a complete description of the options available for filtering the command output, see the **show** command.
>	(Optional) Greater-than character (>) for enabling an output modifier that redirects the command output to a file. For a complete description of the options available for redirecting the command output, see the **show** command.

Defaults

No default behavior or values.

Command Modes

EXEC

Command History

Release	Modification
COSLI 1.0	This command was introduced.

Usage Guidelines

The **show arp** command without options displays the active IP address-to-MAC address mapping in the ARP table.

Examples

To display the current active IP address-to-MAC address mapping in the ARP table, enter:

```
switch# show arp

Context Admin
================================================================================
IP ADDRESS               HWTYPE  MAC-ADDRESS         FLAG  MASK            InterfaceType
================================================================================
127.0.0.28               ether   00:01:02:03:04:05   CM                    eth0
127.0.0.27               ether   00:01:02:03:04:05   CM                    eth0
127.0.0.51               ether   00:01:02:03:04:05   CM                    eth0
127.0.0.24               ether   00:01:02:03:04:05   CM                    eth0
127.0.0.26               ether   00:01:02:03:04:05   CM                    eth0
127.0.0.25               ether   00:01:02:03:04:05   CM                    eth0
================================================================================
```

Table 2 describes the fields in the **show arp** command output.

Table 2 show arp Command Field Descriptions

Field	Description
Context	The current context—Admin.
IP ADDRESS	The IP address of the system for ARP mapping
HWTYPE	
MAC-ADDRESS	The MAC address of the system mapped to the IP address.
FLAG	
MASK	
InterfaceType	The type of ARP entry. The possible types are LEARNED, GATEWAY, INTERFACE, VSERVER, RSERVER, and NAT.

Related Commands

There are no related commands.

show buffer

To display the contents of the trace buffer, use the **show buffer** command.

show buffer *name*

Syntax Description		
	name	Name of the trace buffer to display.

Defaults No default behavior or values.

Command Modes EXEC

Command History	Release	Modification
	COSLI 1.0	This command was introduced.

Usage Guidelines The **show buffer** command is intended for use by trained Cisco personnel for troubleshooting purposes only.

Examples To display the control plane buffer event history, enter:

```
switch# show buffer
```

Related Commands This command has no related commands.

show bufferlist

To displays the names of all trace buffers, use the **show buffer** command.

show bufferlist [|] [>]

Syntax Description

|	(Optional) Pipe character (|) for enabling an output modifier that filters the command output. For a complete description of the options available for filtering the command output, see the **show** command.
>	(Optional) Greater-than character (>) for enabling an output modifier that redirects the command output to a file. For a complete description of the options available for redirecting the command output, see the **show** command.

Defaults

No default behavior or values.

Command Modes

EXEC

Command History

Release	Modification
COSLI 1.0	This command was introduced.

Usage Guidelines

The **show bufferlist** command is intended for use by trained Cisco personnel for troubleshooting purposes only.

Examples

To display the control plane buffer event history, enter:

```
switch# show bufferlist
======================
   Buffer Name List
======================
```

Related Commands

This command has no related commands.

show clock

To display the current date and time settings of the system clock, use the **show clock** command.

show clock [|] [>]

Syntax Description

|	(Optional) Pipe character (|) for enabling an output modifier that filters the command output. For a complete description of the options available for filtering the command output, see the **show** command.
>	(Optional) Greater-than character (>) for enabling an output modifier that redirects the command output to a file. For a complete description of the options available for redirecting the command output, see the **show** command.

Defaults

No default behavior or values.

Command Modes

EXEC

Command History

Release	Modification
COSLI 1.0	This command was introduced.

Usage Guidelines

To configure the system clock setting, use the **clock** command in the EXEC mode.

Examples

To display the current clock settings, enter:

```
switch# show clock
Fri Feb 13 19:18:13 UTC 2009
```

Related Commands

clock summer-time
clock timezone

show copyright

To display the software copyright information for the PPC, use the **show copyright** command.

show copyright [|] [>]

Syntax Description

|	(Optional) Pipe character (|) for enabling an output modifier that filters the command output. For a complete description of the options available for filtering the command output, see the **show** command.
>	(Optional) Greater-than character (>) for enabling an output modifier that redirects the command output to a file. For a complete description of the options available for redirecting the command output, see the **show** command.

Defaults

No default behavior or values.

Command Modes

EXEC

Command History

Release	Modification
COSLI 1.0	This command was introduced.

Usage Guidelines

Use the **show copyright** command to display the copyright information for the SAMI PPC.

Examples

To display the PPC software copyright information, enter:

```
switch# show copyright
```

Related Commands

This command has no related commands.

show crashinfo

To display the contents of the crash file stored in Flash memory, enter the **show crashinfo** command in EXEC mode.

show crashinfo [*filename*]

Syntax Description

filename	(Optional) Name of the crash file.

Defaults

No default behavior or values.

Command Modes

EXEC

Command History

Release	Modification
COSLI 1.0	This command was introduced.

Usage Guidelines

The first string of the crash file is ": Saved_Crash" and the last string is ": End_Crash".

If there is no crash data saved in flash, or if the crash data has been cleared by entering the **clear crashinfo** command, the **show crashinfo** command displays an error message.

Examples

To display the PPC software copyright information, enter:

```
switch# show crashinfo
```

Related Commands

This command has no related commands.

show debug

To display debugging flags that have been set on a PPC, use the **show debug** command.

show debug [|] [>]

Syntax Description

|	(Optional) Pipe character (|) for enabling an output modifier that filters the command output.
>	(Optional) Greater-than character (>) for enabling an output modifier that redirects the command output to a file.

Defaults

No default behavior or values

Command Modes

EXEC

Command History

Release	Modification
COSLI 1.0	This command was introduced.

Usage Guidelines

The **show debug** command lists debugging flags that have been set on the PPC.

Examples

To display the debug flags set on a PPC, enter:

```
switch# show debug
No debug flag set
```

Related Commands

This command has no related commands.

show eventlog

To display the event log, use the **show eventlog** command in EXEC mode.

show eventlog [|] [>]

Syntax Description

|	(Optional) Pipe character (|) for enabling an output modifier that filters the command output.
>	(Optional) Greater-than character (>) for enabling an output modifier that redirects the command output to a file.

Defaults

No default behavior or values

Command Modes

EXEC

Command History

Release	Modification
COSLI 1.0	This command was introduced.

Usage Guidelines

The **show eventlog** command lists system events that have occurred on the PPC.

Examples

To display a list of events that have occurred on a PPC, enter:

```
switch# show eventlog
Feb 13 06:40:06 cpu0 notice syslog-ng[380]: syslog-ng starting up; version=\'2.0.9\'
Feb 13 06:40:06 cpu0 info kernel: Using MPC8548 BOUNCER machine description
Feb 13 06:40:06 cpu0 info kernel: Memory CAM mapping: CAM0=1024Mb, CAM1=0Mb, CAM2=0Mb
residual: 0Mb
Feb 13 06:40:06 cpu0 notice kernel: Linux version
2.6.21_mvlcge500-octeon-mips64_octeon_v2_be (vvaidhya@srg-mcs-3) (gcc version 4.2.0
(MontaVista 4.2.0-16.0.23.custom 2008-07-02)) #1 Mon Feb 9 16:03:50 PST 2009
Feb 13 06:40:06 cpu0 debug kernel: Found legacy serial port 0 for
/soc8548@f7000000/serial@4500
Feb 13 06:40:06 cpu0 debug kernel: mem=f7004500, taddr=f7004500, irq=0, clk=500000000,
speed=9600
Feb 13 06:40:06 cpu0 debug kernel: Found legacy serial port 1 for
/soc8548@f7000000/serial@4600
Feb 13 06:40:06 cpu0 debug kernel: mem=f7004600, taddr=f7004600, irq=0, clk=500000000,
speed=9600
Feb 13 06:40:06 cpu0 debug kernel: Entering add_active_range(0, 262144, 524288) 0 entries
of 256 used
Feb 13 06:40:06 cpu0 debug kernel: Top of RAM: 0x80000000, Total RAM: 0x40000000
Feb 13 06:40:06 cpu0 debug kernel: Memory hole size: 1024MB
Feb 13 06:40:06 cpu0 warning kernel: Zone PFN ranges:
Feb 13 06:40:06 cpu0 warning kernel: DMA        262144 ->   524288
Feb 13 06:40:06 cpu0 warning kernel: Normal     524288 ->   524288
Feb 13 06:40:06 cpu0 warning kernel: early_node_map[1] active PFN ranges
Feb 13 06:40:06 cpu0 warning kernel: 0:   262144 ->   524288
```

```
Feb 13 06:40:06 cpu0 debug kernel: On node 0 totalpages: 262144
Feb 13 06:40:06 cpu0 debug kernel: DMA zone: 2048 pages used for memmap
Feb 13 06:40:06 cpu0 debug kernel: DMA zone: 0 pages reserved
Feb 13 06:40:06 cpu0 debug kernel: DMA zone: 260096 pages, LIFO batch:31
Feb 13 06:40:06 cpu0 debug kernel: Normal zone: 0 pages used for memmap
Feb 13 06:40:06 cpu0 warning kernel: Built 1 zonelists.  Total pages: 260096
Feb 13 06:40:06 cpu0 notice kernel: Kernel command line:
Feb 13 06:40:06 cpu0 info kernel: mpic: Setting up MPIC \" OpenPIC  \" version 1.2 at
f7040000, max 1 CPUs
Feb 13 06:40:06 cpu0 info kernel: mpic: ISU size: 80, shift: 7, mask: 7f
Feb 13 06:40:06 cpu0 info kernel: mpic: Initializing for 80 sources
Feb 13 06:40:06 cpu0 warning kernel: PID hash table entries: 4096 (order: 12, 16384 bytes)
Feb 13 06:40:06 cpu0 debug kernel: time_init: decrementer frequency = 62.500000 MHz
Feb 13 06:40:06 cpu0 debug kernel: time_init: processor frequency   = 1250.000000 MHz
Feb 13 06:40:06 cpu0 warning kernel: Dentry cache hash table entries: 131072 (order: 7,
524288 bytes)
Feb 13 06:40:06 cpu0 warning kernel: Inode-cache hash table entries: 65536 (order: 6,
262144 bytes)
Feb 13 06:40:06 cpu0 info kernel: Memory: 989056k/1048576k available (49876k kernel code,
59168k reserved, 92k data, 127k bss, 47140k init)
Feb 13 06:40:06 cpu0 debug kernel: Calibrating delay loop... 124.92 BogoMIPS (lpj=249856)
Feb 13 06:40:06 cpu0 info kernel: Security Framework v1.0.0 initialized
Feb 13 06:40:06 cpu0 info kernel: SELinux:  Initializing.
Feb 13 06:40:06 cpu0 debug kernel: SELinux:  Starting in enforcing mode
Feb 13 06:40:06 cpu0 warning kernel: Mount-cache hash table entries: 512
Feb 13 06:40:06 cpu0 info kernel: NET: Registered protocol family 16
```

Related Commands This command has no related commands.

show gfarstats

To display the current gianfar Ethernet driver traffic counters, use the **show gfarstats** command in EXEC mode.

show gfarstats [|] [>]

Syntax Description

|	(Optional) Pipe character (|) for enabling an output modifier that filters the command output.
>	(Optional) Greater-than character (>) for enabling an output modifier that redirects the command output to a file.

Defaults

No default behavior or values

Command Modes

EXEC

Command History

Release	Modification
COSLI 1.0	This command was introduced.

Usage Guidelines

The **show gfarstats** command lists gianfar Ethernet driver traffic counters.

Examples

To display a list of counters, enter:

```
switch# show gfarstats
Detailed stats:
rx-dropped-by-kernel             = 0
rx-large-frame-errors            = 0
rx-short-frame-errors            = 0
rx-non-octet-errors              = 0
rx-crc-errors                    = 0
rx-overrun-errors                = 0
rx-busy-errors                   = 0
rx-babbling-errors               = 0
rx-truncated-frames              = 0
ethernet-bus-error               = 0
tx-babbling-errors               = 0
tx-underrun-errors               = 0
rx-skb-missing-errors            = 0
tx-timeout-errors                = 0
rx-packets-in-ring0              = 16652586
rx-packets-in-ring1              = 0
tx-rx-64-frames                  = 0
tx-rx-65-127-frames              = 250478
tx-rx-128-255-frames             = 2117440
tx-rx-256-511-frames             = 2793415
tx-rx-512-1023-frames            = 28
tx-rx-1024-1518-frames           = 20
```

```
tx-rx-1519-1522-good-vlan        = 0
rx-bytes                         = 478941470
rx-packets                       = 4069674
rx-fcs-errors                    = 0
receive-multicast-packet         = 0
receive-broadcast-packet         = 0
rx-control-frame-packets         = 0
rx-pause-frame-packets           = 0
rx-unknown-op-code               = 0
rx-alignment-error               = 0
rx-frame-length-error            = 0
rx-code-error                    = 0
rx-carrier-sense-error           = 0
rx-undersize-packets             = 15061
rx-oversize-packets              = 0
rx-fragmented-frames             = 0
rx-jabber-frames                 = 0
rx-dropped-frames                = 0
tx-byte-counter                  = 197681758
tx-packets                       = 1515087
tx-multicast-packets             = 0
tx-broadcast-packets             = 0
tx-pause-control-frames          = 0
tx-deferral-packets              = 0
tx-excessive-deferral-packets    = 0
tx-single-collision-packets      = 0
tx-multiple-collision-packets    = 0
tx-late-collision-packets        = 0
tx-excessive-collision-packets   = 0
tx-total-collision               = 0
reserved                         = 0
tx-dropped-frames                = 0
tx-jabber-frames                 = 0
tx-fcs-errors                    = 0
tx-control-frames                = 0
tx-oversize-frames               = 43
tx-undersize-frames              = 2773
tx-fragmented-frames             = 0
```

Related Commands This command has no related commands.

show hosts

To display the hosts on a PPC, use the **show hosts** in EXEC mode.

show hosts

Syntax Description

This command has no arguments or keywords.

Defaults

No default behavior or values

Command Modes

EXEC

Command History

Release	Modification
COSLI 1.0	This command was introduced.

Usage Guidelines

The **show hosts** command lists the name servers and their corresponding IP addresses. It also lists the hostnames, their corresponding IP addresses, and their corresponding aliases (if applicable) in a host table summary.

Examples

To display a list of hosts on a PPC, enter:

```
switch# show hosts
Entering func dns_show_config at line [734]
==== Param info ====
No flag: FALSE, CMI mesg type: 0, Shell_type: 1, Submode_context: 0
Parameter Count: 1, Command Id: 104, MTS Q: 3
Session id: , Username: , Debug_flag: 0, filter: 0 Prc_mode: 3
Sup state: 1, User mode state: 1, Is_admin: 1
Exec_filter_mode: 0, Script_mode: 0
Vty ID: /dev/pts/0 User Perms Mask:0
Permitted vsans: 0-4095

Ascii Gen: FALSE
Ascii command:  Info flags: 0x0

Param Arg [0]. Token id: 104 NULL
command line of pinfo has value [show hosts]
Default domain is not set
Name/address lookup uses domain service
Name servers are 255.255.255.255
```

Related Commands

This command has no related commands.

show icmp statistics

To display the Internet Control Message Protocol (ICMP) statistics, use the **show icmp statistics** command.

show icmp statistics [|] [>]

Syntax Description

|	(Optional) Pipe character (|) for enabling an output modifier that filters the command output.
>	(Optional) Greater-than character (>) for enabling an output modifier that redirects the command output to a file.

Command Modes

EXEC

Command History

Release	Modification
COSLI 1.0	This command was introduced.

Usage Guidelines

Use the **show icmp-statistics** command to view ICMP statistics.

Examples

To display ICMP statistics, enter:

```
switch# show icmp statistics

-----------------------------------------------
ICMP Statistics :
-----------------------------------------------
                              Rx         Tx
Total Messages    :           0          0
Errors            :           0          0
Echo Request      :           0          0
Echo Reply        :           0          0
Unreachable       :           0          0
TTL Expired       :           0          0
Redirect          :           0          0
Address Mask      :           0          0
Param problem     :           0          0
Source quench     :           0          0
Time stamp        :           0          0

-----------------------------------------------
```

Related Commands

There are no related commands.

show interface

To display interface information, use the **show interface** command.

show interface [**vlan** *number*] [|] [>]

Syntax Description

vlan *number*	(Optional) Displays the statistics for the specified VLAN.
|	(Optional) Pipe character (|) for enabling an output modifier that filters the command output. For a complete description of the options available for filtering the command output, see the **show** command.
>	(Optional) Greater-than character (>) for enabling an output modifier that redirects the command output to a file. For a complete description of the options available for redirecting the command output, see the **show** command.

Defaults

No default behavior or values.

Command Modes

EXEC

Command History

Release	Modification
WSG Release 1.0	This command was introduced.
WSG Release 3.0	IPV6 statistics were added.

Usage Guidelines

To display all of the interface statistical information, enter the **show interface** command without using **vlan** optional keyword.

Examples

To display all of the interface statistical information, enter:

```
switch# show interface
eth0      Link encap:Ethernet  HWaddr 00:1F:CA:08:89:2E
          inet addr:127.0.0.23  Bcast:127.0.0.255  Mask:255.255.255.0
          UP BROADCAST RUNNING MULTICAST  MTU:9560  Metric:1
          RX packets:376394 errors:0 dropped:0 overruns:0 frame:0
          TX packets:35455 errors:0 dropped:0 overruns:0 carrier:0
          collisions:0 txqueuelen:1000
          RX bytes:109038474 (103.9 MiB)  TX bytes:4452754 (4.2 MiB)
          Base address:0x4000

eth0.121  Link encap:Ethernet  HWaddr 00:1F:CA:08:89:2E
          inet addr:1.5.31.122  Bcast:1.5.255.255  Mask:255.255.0.0
          UP BROADCAST RUNNING MULTICAST  MTU:1500  Metric:1
          RX packets:0 errors:0 dropped:0 overruns:0 frame:0
          TX packets:5405 errors:0 dropped:0 overruns:0 carrier:0
          collisions:0 txqueuelen:0
          RX bytes:0 (0.0 b)  TX bytes:324300 (316.6 KiB)
```

To display the details, statistics, or IP information for all or a specified VLAN interface (51 in this example), enter:

```
wsg# show interface vlan 51
    vlan [51] is administratively up
    Hardware type: VLAN
    MODE: UNKNOWN
    IPv4 Address = [51.51.51.4] netmask = [255.255.255.0]
    IPv6 Address = fe80::21b:2aff:fe65:fa56/64
    VRF: global
    FT Status: non redundant
    Description:
    MTU: 1500 bytes

    295165 unicast packets input, 23950072 bytes
    0 multicast, 84326 broadcast
    0 input errors, 0 unknown, 0 ignored
    6 unicast packets output, 468 bytes
    0 multicast, 0 broadcast
    0 output errors, 0 ignored
```

Table 4-3 describes the fields in the **show interface** command output.

Table 4-3 show interface vlan Command Field Descriptions

Field	Description
VLAN_name	Status of the specified VLAN: either up or down.
Hardware type is	Hardware type of the interface: VLAN.
Mode	Mode associated with the VLAN. A bridge-group VLAN is displayed as transparent. A routed VLAN is displayed as routed. Otherwise, this field displays the value “unknown.”
IP Address	IPv4 address of the interface.
Netmask	Interface netmask.
FT status	Status of whether the interface is redundant.
Description	Description for the VLAN.
MTU	Configured MTU in bytes.
# unicast packets input, # bytes	Total number of incoming unicast packets and number of bytes.
# multicast, # broadcast	Total number of incoming multicast and broadcast packets.
# input errors, # unknown, # ignored	Total number of errors for incoming packets, including numbers for packets that are unknown, and ignored.
# unicast packets output, # bytes	Total number of outgoing unicast packets and number of bytes.
# multicast, # broadcast	The total number of outgoing multicast and broadcast packets.
# output errors, # unknown	Number of errors for outgoing packets, including unknown packets.

Related Commands There are no related commands.

show ip interface brief

To display a brief configuration and status summary of all interfaces or a specified VLAN, enter:

show ip interface brief [**vlan** *number*]

Syntax Description

number	Displays the statistics for the specified VLAN.

Defaults

None.

Command Modes

EXEC

Command History

Release	Modification
WSG Release 1.0	This command was introduced.
WSG Release 3.0	Added support for IPv6.

Usage Guidelines

Use the **show ip interface brief** command to display a brief configuration and status summary of all the interfaces or a specified VLAN.

Examples

To display a brief configuration and status summary of all the interfaces, enter:

```
switch# show ip interface brief
Interface    IP-Address                  Status                 Protocol
vlan   51    51.51.51.4                  administratively up    up
             fe80::21b:2aff:fe65:fa56/64
```

Table 4-4 describes the fields in the **show ip interface brief** command output.

Table 4-4 show ip interface brief Command Field Descriptions

Field	Description
Interface	VLAN number.
IP Address	IPv4/IPv6 address(es) for the VLAN interface.
Status	Status of the specified VLAN—either up or down.
Protocol	Status of the line protocol—either up or down.

Related Commands

There are no related commands.

show ip interface vlan

To display a configuration and status summary of a specified VLAN, enter:

show ip interface vlan *number*

Syntax Description

number	Displays the statistics for the specified VLAN.

Defaults

None.

Command Modes

EXEC

Command History

Release	Modification
WSG Release 1.0	This command was introduced.
WSG Release 3.0	Added IPv6 statistics.

Usage Guidelines

Use the **show ip interface vlan** command to display a configuration and status summary of a specified VLAN.

Examples

To display a brief configuration and status summary of all the interfaces, enter:

```
switch# sh ip interface vlan 51
   Vlan51 is up, line protocol is up
   IP Address is 51.51.51.4
   IPv6 address is fe80::21b:2aff:fe65:fa56/64
   Broadcast Address is 255.255.255.0
   Address determined by setup command
   MTU is 1500 bytes
```

Related Commands

There are no related commands.

show ixpstats

To display the contents of the IXP stastistics file, use the **show ixpstats** command in EXEC mode.

show ixpstats [|] [>]

Syntax Description

|	(Optional) Pipe character (|) for enabling an output modifier that filters the command output.
>	(Optional) Greater-than character (>) for enabling an output modifier that redirects the command output to a file.

Command Modes

EXEC

Command History

Release	Modification
COSLI 1.0	This command was introduced.

Usage Guidelines

Use the **show ixpstats** command to view the contents of the IXP statistics file.

Examples

To display IXP statistics, enter:

```
switch# show ixpstats
Statistics at the IXP processor
--------------------------------

Statistics for Module: RX
Output Packets                                    13856661
Missing SOP                                             0
Incorrect Port Number                                   0
Unexpected SOP                                          0
Drops - No Buffer                                       0
SPI4 Length Error                                       0
SPI4 Parity Error                                       0
SPI4 Aborts                                             0

Statistics for Module: TX0
Input Packets                                     1349186
Table 0 (Port 2) TX'ed                             674596
Table 1 (Port 4) TX'ed                             674581
Table 2 (Port 8) TX'ed                                  9
Table 3 TX'ed (unused)                                  0
SPI-4 flow control                                      0

....
```

Related Commands

There are no related commands.

show logging

To display the current syslog configuration and syslog messages, use the **show logging** command.

show logging {**config** [|] [>] | **message** {**all cpuid** *cpu-id* | **module** *mod-id*}}

Syntax Description

config	Displays syslog configuration.
message	Displays syslog messages.
cpu-id	Displays syslog messages for a specific CPU ID.
mod-id	Displays sysog messages for a specific module ID.
|	Pipe character (|) for enabling an output modifier that filters the command output. For a complete description of the options available for filtering the command output, see the **show** command.
>	Greater-than character (>) for enabling an output modifier that redirects the command output to a file. For a complete description of the options available for redirecting the command output, see the **show** command.

Defaults

None.

Command Modes

EXEC

Command History

Release	Modification
COSLI 1.0	This command was introduced.
WSG Release 3.0	Added external IPv6 logging information.

Usage Guidelines

To enable system logging, use the **logging** configuration command. The **show logging** command lists the current syslog messages and identifies which **logging** command options are enabled.

Examples

To display the syslog configuration, enter:

```
wsg# show logging config
    Ext logging server IP: 1.1.1.1
    Ext logging server IPv6: 2001:88:88:94::1
    Number of lines read log: 100
```

Related Commands

logging

show processes

To display general information about all of the processes running on the PPC, use the **show processes** command. The **show processes** command displays summary CPU information for the SiByte 1250 Processor.

show processes [|] [>]

Syntax Description

This command has no arguments or keywords.

Defaults

No default behavior or values.

Command Modes

EXEC

Command History

Release	Modification
COSLI 1.0	This command was introduced.

Usage Guidelines

The displayed system processes information is at the CPU system level (the total CPU usage) and is not on a per-context level.

Examples

To display information about the memory processes for the SiByte Processor, enter:

```
switch# show processes
PID    State  PC         TTY   Process
-----  -----  --------  ----  -------------
    1      S  1f89b7b0      -  (init)
    2      S         0      -  (posix_cpu_timer)
    3      S         0      -  (softirq-high/0)
    4      S         0      -  (softirq-timer/0)
    5      S         0      -  (softirq-net-tx/)
    6      S         0      -  (softirq-net-rx/)
    7      S         0      -  (softirq-block/0)
    8      S         0      -  (softirq-tasklet)
    9      S         0      -  (softirq-sched/0)
   10      S         0      -  (softirq-rcu/0)
   11      S         0      -  (watchdog/0)
   12      S         0      -  (desched/0)
   13      S         0      -  (events/0)
   14      S         0      -  (khelper)
   15      S         0      -  (kthread)
   38      S         0      -  (kblockd/0)
...
```

Related Commands

show tech-support

show running-config

To display the running configuration of a PPC, use the **show running-config** command.

show running-config [|] [>]

Syntax Description

This command has no keywords or arguments.

Defaults

No default behavior or values.

Command Modes

EXEC

Command History

Release	Modification
COSLI 1.0	This command was introduced.

Usage Guidelines

Use the **show running-config** command to display the running configuration of a PPC.

Examples

To display the entire running configuration, enter:

```
switch# show running-config
Generating configuration........
hostname PPC3
interface vlan 121
  ip address 172.5.31.122 255.255.0.0
interface vlan 2
  no ip address
  shutdown
ip default-gateway 172.5.31.21

snmp-server community private rw
snmp-server location  "san"
snmp-server contact "abc"
ipsec local-identity id-type fqdn id wsg.cisco.com
```

Related Commands

show startup-config

show snmp

To display the Simple Network Management Protocol (SNMP) statistics and configured SNMP information, use the **show snmp** command.

show snmp [**community** | **host**] [|] [>]

Syntax Description

community	Displays SNMP community strings.
host	Displays the configured SNMP notification recipient host, the User Datagram Protocol (UDP) port number, the user, and the security model.
|	Pipe character (|) for enabling an output modifier that filters the command output. For a complete description of the options available for filtering the command output, see the **show** command.
>	Greater-than character (>) for enabling an output modifier that redirects the command output to a file. For a complete description of the options available for redirecting the command output, see the **show** command.

Defaults

PPC community strings display.

Command Modes

EXEC

Command History

Release	Modification
WSG Release 1.0	This command was introduced.
WSG Release 3.0	Added IPv6 statistics.

Usage Guidelines

By default, this command displays the PPC contact, the PPC location, the packet traffic information, community strings, and the user information. You can configure the PPC to display specific SNMP information by including the appropriate keyword.

Examples

To display SNMP statistics and configured SNMP information, enter:

```
switch# show snmp
sys contact: cis
sys location: san
0 SNMP packets input
        0 Bad SNMP versions
        0 Unknown community name
        0 Illegal operation for community name supplied
        0 Encoding errors
        0 Number of requested variables
        0 Number of altered variables
        0 Get-request PDUs
        0 Get-next PDUs
        0 Set-request PDUs
0 SNMP packets output
```

```
        0 Too big errors
        0 No such name errors
        0 Bad values errors
        0 General errors
        0 Response PDUs
        0 Trap PDUs

switch# show snmp host
    Host                            Port   Version  Type   CommName
    ____                            ____   _______  ____   ______
   2001:88:88:94::1            162          v1       trap          v2
```

Related Commands

snmp-server community
snmp-server host

show startup-config

To display the PPC startup configuration, use the **show startup-config** command in EXEC mode.

show startup-config [|] [>]

Syntax Description

|	(Optional) Pipe character (|) for enabling an output modifier that filters the command output. For a complete description of the options available for filtering the command output, see the **show** command.
>	(Optional) Greater-than character (>) for enabling an output modifier that redirects the command output to a file. For a complete description of the options available for redirecting the command output, see the **show** command.

Defaults

No default behavior or values.

Command Modes

EXEC

Command History

Release	Modification
COSLI 1.0	This command was introduced.

Usage Guidelines

To clear the startup configuration, use the **clear startup-config** command.

To copy the running configuration to the startup configuration, or copy the startup configuration to the running configuration, use the **copy running-config** command.

Examples

To display information about the startup configuration, enter:

```
switch# show startup-config
hostname PPC3
interface vlan 121
  ip address 172.5.31.122 255.255.0.0
interface vlan 2
  no ip address
  shutdown
ip default-gateway 172.5.31.21
snmp-server community private rw
snmp-server location  "san"
snmp-server contact "abc"
ipsec local-identity id-type fqdn id wsg.cisco.com
```

Related Commands

show running-config

show system

To display the PPC system information, use the **show system** command.

show system {**internal sysmgr service** {**all** [**details**] | **local [details]** | **name** *service* | **not-running [details]** | **pid** *service-pid* | **running [details]** | **uuid** *service-uuid*} | **resources** | **uptime**} [|] [>]

Syntax Description

internal sysmgr service	Displays Cisco internal system-related functions. The **internal sysmgr service** keywords and related keywords, options, and arguments are intended for use by trained Cisco personnel for troubleshooting purposes only.
resources	Displays system-related CPU and memory statistics.
uptime	Displays how long the PPC has been up and running.
|	(Optional) Pipe character (|) for enabling an output modifier that filters the command output.
>	(Optional) Greater-than character (>) for enabling an output modifier that redirects the command output to a file.

Command Modes

EXEC

Command History

Release	Modification
COSLI 1.0	This command was introduced.

Usage Guidelines

The **show system internal sysmgr service** keyword option, and its related keywords, options, and arguments are intended for use by trained Cisco personnel for troubleshooting purposes only.

Examples

To display system-related and CPU and memory statistics, enter:

```
switch# show system resources
Load average:   1 minute: 1.15   5 minutes: 1.09   15 minutes: 1.02
Total number of processes   :   77 total, 2 running
CPU states  :   0.0% user,   0.0% kernel,   100.0% idle
Memory usage:      1012K total,       330K used,       682K free
                      0K buffers,     141K cache
```

To display how long the PPC has been up and running, enter:

```
switch# show system uptime
System start time:          Fri Feb 13 06:40:39 2009

System uptime:              4 days, 8 hours, 25 minutes, 0 seconds
Kernel uptime:              4 days, 8 hours, 25 minutes, 46 seconds
PPC3#
```

Related Commands

This command has no related commands.

show tcp statistics

To display Transmission Control Protocol (TCP) statistics, use the **show tcp statistics** command.

show tcp statistics [|] [>]

Syntax Description

|	(Optional) Pipe character (|) for enabling an output modifier that filters the command output.
>	(Optional) Greater-than character (>) for enabling an output modifier that redirects the command output to a file.

Command Modes

EXEC

Command History

Release	Modification
COSLI 1.0	This command was introduced.

Usage Guidelines

To display TCP statistics, use the **show tcp statistics** command.

Examples

To display TCP statistics, enter:

```
switch# show tcp statistics
-----------------------------------------------
 TCP Statistics :
 -------------------------------------------------
 Rcvd    : 3996 total , 0 errors
  Sent    : 2958 total , 0 RST flag segment
  7 active opens , 4 passive opens
 Connections : 4 attempts-failed , 0 established resets , 1 currently established
-----------------------------------------------
```

Related Commands

There are no related commands.

show tech-support

To display information that is useful to technical support when reporting a problem with your PPC, use the **show tech-support** command.

show tech-support [**details**] [|] [>]

Syntax Description

details	(Optional) Provides detailed information for each of the **show** commands described below in the "Usage Guidelines" section.
|	(Optional) Pipe character (|) for enabling an output modifier that filters the command output.
>	(Optional) Greater-than character (>) for enabling an output modifier that redirects the command output to a file.

Command Modes

EXEC

Command History

Release	Modification
COSLI 1.0	This command was introduced.

Usage Guidelines

The **show tech-support** command is useful when collecting a large amount of information about your PPC for troubleshooting purposes with Cisco technical support. The output of this command can be provided to technical support representatives when reporting a problem.

The **show tech-support** command displays the output of several **show** commands at once. The output from this command varies depending on your configuration. The default output of the **show tech-support** command includes the output of the following commands:

- **show version**—See the **show version** command.
- **show clock**—See the **show clock** command.
- **show running-config**—See the **show running-config** command.
- **show startup-config**—See the **show startup-config** command.

Explicitly set the terminal length command to 0 (zero) to disable autoscrolling and enable manual scrolling. Use the **show terminal** command to view the configured terminal size. After obtaining the output of this command, reset your terminal length as required.

You can save the output of this command to a file by appending > *filename* to the **show tech-support** command. If you save this file, verify that you have sufficient space to do so as each of these files may take about 1.8 MB.

Examples

To display the summary version of the technical support report, enter:

```
switch# show tech-support
```

Related Commands

show clock
show running-config
show startup-config
show version

show telnet

To display the information about the Telnet session, use the **show telnet** command.

show telnet [**maxsessions**] [|] [>]

Syntax Description

maxsessions	(Optional) Displays the maximum number of enabled Telnet sessions.
|	(Optional) Pipe character (|) for enabling an output modifier that filters the command output. For a complete description of the options available for filtering the command output, see the **show** command.
>	(Optional) Greater-than character (>) for enabling an output modifier that redirects the command output to a file. For a complete description of the options available for redirecting the command output, see the **show** command.

Command Modes

EXEC

Command History

Release	Modification
COSLI 1.0	This command was introduced.

Usage Guidelines

If you do not include the optional **maxsessions** keyword, the PPC displays the following Telnet information:

- Session ID—Unique session identifier for the Telnet session
- Remote host—IP address and port of the remote Telnet client
- Active time—Time since the Telnet connection request was received by the PPC

Examples

To display the current Telnet information, enter:

```
switch# show telnet
Max Sessions not configured
------------------------------------------------------------
SessionId        Host:Port           Active-Time
------------------------------------------------------------
  29965       127.0.0.51:28673     0 Yrs 0 Days 00:19:59
```

Related Commands

telnet

show terminal

To display the console terminal settings, use the **show terminal** command.

show terminal [**internal info**] [|] [>]

Syntax Description

internal info	(Optional) Displays terminal internal information.
|	(Optional) Pipe character (|) for enabling an output modifier that filters the command output. For a complete description of the options available for filtering the command output, see the **show** command.
>	(Optional) Greater-than character (>) for enabling an output modifier that redirects the command output to a file. For a complete description of the options available for redirecting the command output, see the **show** command.

Command Modes

EXEC

Command History

Release	Modification
COSLI 1.0	This command was introduced.

Usage Guidelines

Use the show terminal command to display the console terminal settings.

Examples

To display the console terminal settings, enter:

```
switch# show terminal
TTY: /dev/pts/0 Type: "vt100"
Length: 27 lines, Width: 80 columns
Session Timeout: None
```

Related Commands

terminal

show udp statistics

To display User Datagram Protocol (UDP) statistics, use the **show udp statistics** command.

show udp statistics [|] [>]

Syntax Description

|	(Optional) Pipe character (|) for enabling an output modifier that filters the command output.
>	(Optional) Greater-than character (>) for enabling an output modifier that redirects the command output to a file.

Command Modes EXEC

Command History

Release	Modification
COSLI 1.0	This command was introduced.

Usage Guidelines Use the **show udp statistics** command to display UDP statistics.

Examples To display UDP statistics, enter:

```
swtich# show udp statistics
```

Related Commands There are no related commands.

show version

To display the version information of system software that is loaded in flash memory and currently running on the PPC, use the **show version** command.

show version[|] [>]

Syntax Description

|	(Optional) Pipe character (|) for enabling an output modifier that filters the command output. For a complete description of the options available for filtering the command output, see the **show** command.
>	(Optional) Greater-than character (>) for enabling an output modifier that redirects the command output to a file. For a complete description of the options available for redirecting the command output, see the **show** command.

Command Modes

EXEC

Command History

Release	Modification
COSLI 1.0	This command was introduced.

Usage Guidelines

The **show version** command also displays information related to the following PPC hardware components:

- Slot number—Slot number that the SAMI occupies on the Catalyst 6500 series chassis.
- CPU—Number of CPUs and type and model
- Memory—Total and shared volatile memory
- Flash memory—Total and used flash memory

Use the **show version** command to verify the software version on the PPC before and after an upgrade.

Examples

To display the software version information, enter:

```
switch# show version
Image Version

Image version:
1.0.0


Software Version

Linux version 2.6.21_mvlcge500-octeon-mips64_octeon_v2_be (vvaidhya@srg-mcs-3) (gcc
version 4.2.0 (MontaVista 4.2.0-16.0.23.custom 2008-07-02)) #1 Mon Feb 9 16:03:50 PST 2009


Hardware Version
```

```
Hardware version:
processor       : 0
cpu             : e500v2
clock           : 1250.000000MHz
revision        : 2.0 (pvr 8021 0020)
bogomips        : 124.92
timebase        : 62500000
platform        : MPC8548 BOUNCER
Machine         : Bouncer - MPC8548
clock           : 1250MHz
PVR             : 0x80210020
SVR             : 0x80390020
PLL setting     : 0x5
Memory          : 1024 MB
MemTotal:      1036548 kB
MemFree:        863888 kB
Buffers:             0 kB
Cached:         143456 kB
SwapCached:          0 kB
Active:          24500 kB
Inactive:       120816 kB
SwapTotal:           0 kB
SwapFree:            0 kB
Dirty:               0 kB
Writeback:           0 kB
AnonPages:        1880 kB
Mapped:           2396 kB
Slab:             6928 kB
SReclaimable:     3372 kB
SUnreclaim:       3556 kB
PageTables:        188 kB
NFS_Unstable:        0 kB
Bounce:              0 kB
CommitLimit:    518272 kB
Committed_AS:    31056 kB
VmallocTotal:  2048000 kB
VmallocUsed:     18148 kB
VmallocChunk:  2029796 kB
Procnum:
3
Slotnum:
2


Application Versions

No application.
Linux version 2.6.21_mvlcge500-octeon-mips64_octeon_v2_be (vvaidhya@srg-mcs-3) (gcc
version 4.2.0 (MontaVista 4.2.0-16.0.23.custom 2008-07-02)) #1 Mon Feb 9 16:03:50 PST 2009


Kernel uptime:              4 days, 8 hours, 29 minutes, 44 seconds
```

Related Commands

show tech-support

show vlans

To display the VLANs on the PPC downloaded from the supervisor engine, use the **show vlans** command.

show vlans [|] [>]

Syntax Description

|	(Optional) Pipe character (|) for enabling an output modifier that filters the command output. For a complete description of the options available for filtering the command output, see the **show** command.
>	(Optional) Greater-than character (>) for enabling an output modifier that redirects the command output to a file. For a complete description of the options available for redirecting the command output, see the **show** command.

Command Modes

EXEC

Command History

Release	Modification
COSLI 1.0	This command was introduced.

Usage Guidelines

Use the **show vlans** command to display a list of VLANs downloaded from the supervisor engine on the SAMI PPC.

Examples

To display the VLANs on the PPC downloaded from the supervisor engine, enter:

```
switch# show vlans
Vlans configured on SUP for this module
    vlan192-193 vlan333
```

Related Commands

This command has no related commands.

snmp-server community

To create or modify Simple Network Management Protocol (SNMP) community names and access privileges, use the **snmp-server community** command. Each SNMP device or member is part of a community. An SNMP community determines the access rights for each SNMP device. SNMP uses communities to establish trust between managers and agents. Use the **no** form of this command to remove an SNMP community.

snmp-server community *community_name* [**ro** | **rw**]

no snmp-server community *community_name* [**ro** | **rw**]

Syntax Description

community_name	SNMP community name for this system. Enter an unquoted text string with no space and a maximum of 32 alphanumeric characters.
ro	(Optional) Allows read-only access for this community.
rw	(Optional) Allows read and write access for this community.

Command Modes

Configuration mode

Caution If you change the SNMP engine ID, all configured SNMP users become invalid. You must recreate all SNMP users by using the **snmp-server community** command in configuration mode.

Command History

Release	Modification
COSLI 1.0	This command was introduced.

Usage Guidelines

After you create or modify a community, all SNMP devices assigned to that community as members have the same access rights (as described in RFC 2576). The COSLI PPC supports read-only access to the MIB tree for devices included in this community.

Examples

To specify an SNMP community called SNMP_Community1, which is a member of the user group, with read-only access privileges for the community, enter:

```
switch(config)# snmp-server community SNMP_Community1
```

To remove an SNMP community, enter:

```
swtich(config)# no snmp-server community SNMP_Community1
```

Related Commands

snmp-server host

snmp-server contact

To specify the contact information for the Simple Network Management Protocol (SNMP) system, use the **snmp-server contact** command. You can specify information for only one contact name. Use the **no** form of this command to remove an SNMP contact.

snmp-server contact *contact_information*

no snmp-server contact

Syntax Description

contact_information	SNMP contact information for this system. Enter a text string with a maximum of 240 alphanumeric characters, including spaces. If the string contains more than one word, enclose the string in quotation marks (“ ”). You can include information on how to contact the person; for example, you can include a phone number or an e-mail address.

Command Modes

Configuration mode

Command History

Release	Modification
COSLI 1.0	This command was introduced.

Usage Guidelines

You can specify only one contact name per SNMP system.

Examples

To specify SNMP system contact information, enter:

```
switch(config)# snmp-server contact “User1 user1@cisco.com”
```

To remove the specified SNMP contact information, enter:

```
switch(config)# no snmp-server contact
```

Related Commands

snmp-server host

snmp-server enable traps

To enable the COSLI PPC to send Simple Network Management Protocol (SNMP) traps and informs to the network management system (NMS), use the **snmp-server enable traps** command. This command enables both traps and inform requests for the specified notification types. Use the **no** form of this command to disable the sending of SNMP traps and inform requests.

snmp-server enable traps [**interface | snmp authentication | syslog**]

no snmp-server enable traps [**interface | snmp authentication | syslog**]

Syntax Description

interface	Enables the sending of SNMP interface traps. If no type is specified, the COSLI PPC sends all notifications.
snmp authentication	Enables the sending of SNMP agent authentication traps.
syslog	Enables the sending of SNMP syslog traps.

Command Modes

Configuration mode

Command History

Release	Modification
COSLI 1.0	This command was introduced.

Usage Guidelines

To configure the COSLI PPC to send the SNMP notifications, specify at least one **snmp-server enable traps** command. To enable multiple types of notifications, you must enter a separate **snmp-server enable traps** command for each notification type.

If you enter the **snmp-server enable traps** command without any keywords, the COSLI PPC enables all notification types and traps.

The **snmp-server enable traps** command is used with the **snmp-server host** command. The **snmp-server host** command specifies which host receives the SNMP notifications. To send notifications, you must configure at least one SNMP server host.

Examples

To enable the COSLI PPC to send interface traps to the SNMP host “myhost,” enter:

```
switch(config)# snmp-server host myhost.cisco.com
switch(config)# snmp-server enable traps interface
```

To disable SNMP server interface notifications, enter:

```
switch(config)# no snmp-server enable traps interface
```

Related Commands

snmp-server host

snmp-server host

To specify which host receives Simple Network Management Protocol (SNMP) notifications, use the **snmp-server host** command. To send notifications, you must configure at least one SNMP host using the **snmp-server host** command. Use the **no** form of this command to remove the specified host.

snmp-server host *host_address* {*community-string_username* | **informs** | **traps** | **version** {**1** {**udp-port**} | **2c** {**udp-port**}}}

no snmp-server host *host_address* {*community-string_username* | **informs** | **traps** | **version** {**1** {**udp-port**} | **2c** {**udp-port**}}}

Syntax Description

host_address	IP address of the host (the targeted recipient). Enter the address in dotted-decimal IP notation (for example, 192.168.11.1).
community-string_username	SNMP community string or username with the notification operation to send. Enter an unquoted text string with no space and a maximum of 32 alphanumeric characters.
informs	Sends SNMP inform requests to the identified host, which allows for manager-to-manager communication. Inform requests can be useful when you need more than one NMS in the network.
traps	Sends SNMP traps to the identified host. An agent uses a trap to tell the NMS that a problem has occurred. The trap originates from the agent and is sent to the trap destination, as configured within the agent itself. The trap destination is typically the IP address of the NMS.
version	Specifies the version of SNMP used to send the traps. SNMPv3 is the most secure model because it allows packet encryption with the **priv** keyword.
1	Specifies SNMPv1. This option is not available for use with SNMP inform requests. SNMPv1 has one optional keyword (**udp-port**) that specifies the port UDP port of the host to use. The default is 162.
2c	Specifies SNMPv2C. SNMPv2C has one optional keyword (**udp-port**) that specifies the port UDP port of the host to use. The default is 162.

Command Modes

Configuration mode

Command History

Release	Modification
COSLI 1.0	This command was introduced.

Usage Guidelines

None.

Examples

To specify the recipient of an SNMP notification, enter:

```
switch(config)# snmp-server host 172.168.1.1 traps version 2c abcddsfsf udp-port 500
```

To remove the specified host, enter:

```
switch(config)# no snmp-server host 192.168.1.1 traps version 2c abcddsfsf udp-port 500
```

Related Commands

snmp-server enable traps

snmp-server location

To specify the Simple Network Management Protocol (SNMP) system location, use the **snmp-server location** command. You can specify only one location. Use the **no** form of this command to remove the SNMP system location.

snmp-server location *location*

no snmp-server location

Syntax Description

location	Physical location of the system. Enter a text string with a maximum of 240 alphanumeric characters, including spaces. If the string contains more than one word, enclose the string in quotation marks (“ ”).

Command Modes

Configuration mode

Command History

Release	Modification
COSLI 1.0	This command was introduced.

Usage Guidelines

You can specify only one location per SNMP system.

Examples

To specify SNMP system location information, enter:

```
switch(config)# snmp-server location “RTP, NC”
```

To remove the specified SNMP system location information, enter:

```
switch(config)# no snmp-server location
```

Related Commands

snmp-server community

terminal

To configure the terminal display settings, use the **terminal** command.

terminal {**length** *lines* | **no** | **session-timeout** *minutes* | **terminal-type** *text* | **width** *characters*}

Syntax Description

length *lines*	Sets the number of lines displayed on the current terminal screen. This command is specific to the console port only. Telnet and Secure Shell (SSH) sessions set the length automatically. Valid entries are from 0 to 511. The default is 24 lines. A value of 0 instructs the COSLI PPC to scroll continuously (no pausing) and overrides the terminal width value. If you later change the terminal length to any other value, the originally configured terminal width value takes effect.
no	Negates a command or sets it back to its default value.
session-timeout *minutes*	Specifies the session timeout value in minutes to configure the automatic logout time for the current terminal session on the PPC. When you exceed the time limit configured by this command, the PPC closes the session and exits. The range is 0 to 525600. The default value is inherited from the value that is configured for the **login timeout** command. If you do not configure a value for the **login timeout** command, the default for both commands is 5 minutes. You can set the **terminal session-timeout** value to 0 to disable this feature so that the terminal remains active until you choose to exit the PPC. The PPC does not save this change in the configuration file.
terminal-type *text*	Specifies the name and type of the terminal used to access the PPC. If a Telnet or SSH session specifies an unknown terminal type, the PPC uses the VT100 terminal by default. Specify a text string from 1 to 80 alphanumeric characters.
width *characters*	Sets the number of characters displayed on the current terminal screen. This command is specific to only the console port. Telnet and SSH sessions set the width automatically. Valid entries are from 24 to 512. The default is 80 columns.

Command Modes

EXEC

Command History

Release	Modification
COSLI 1.0	This command was introduced.

Usage Guidelines

Use the **show terminal** command to display the current terminal settings.

All terminal parameter-setting commands are set locally and do not remain in effect after you end a session. You must perform this task at the EXEC prompt at each session to see the debugging messages.

Examples

To specify the VT100 terminal, set the number of screen lines to 35, and set the number of characters to 250, enter:

```
switch# terminal terminal-type vt220
switch# terminal length 35
switch# terminal width 250
```

To specify a terminal timeout of 600 minutes for the current session, enter

```
switch# terminal session-timeout 600
```

To set the width to 100 columns, enter:

```
switch# terminal width 100
```

To set the width to its default of 80 columns, enter:

```
switch# terminal no width
```

Related Commands

show terminal

telnet maxsessions

To control the maximum number of Telnet sessions allowed for each context, use the **telnet maxsessions** command. By default, a PPC supports 16 concurrent Telnet management sessions. Use the **no** form of this command to revert to the default number of Telnet sessions.

telnet maxsessions *sessions*

no telnet maxsessions

Syntax Description

sessions	Maximum number of concurrent Telnet sessions allowed for the associated context. The range is from 1 to 16 Telnet sessions. The default is 16.

Command Modes

Configuration mode

Command History

Release	Modification
COSLI 1.0	This command was introduced.
WSG Release 3.0	This command was modified to include IPv6 addresses.

Usage Guidelines

A PPC supports a total maximum of 256 concurrent Telnet sessions.

Examples

To set the maximum number of concurrent Telnet sessions to 3 in the Admin context, enter:

```
switch(config)# telnet maxsessions 3
```

To revert to the default of 16 Telnet sessions for the Admin context, enter:

```
switch(config)# no telnet maxsessions
```

Related Commands

show telnet

traceroute

To discover the route that packets actually take when traveling to their destination address, use the **traceroute** command in user EXEC or privileged EXEC mode.

traceroute [*A.B.C.D* [**vrf** *vrfname*] | *X:X:X::X*] [**size** *size*]

Syntax Description

A.B.C.D	IPv4 address of the remote destination.
vrfname	Specifies the name of the destination VRF.
X:X:X::X	IPv6 address of the remote destination.
size	Specifies the size of the messages sent.

Command Modes

EXEC

Command History

Release	Modification
WSG Release 3.0	Added support for IPv6 and VRF.

Usage Guidelines

The traceroute command works by taking advantage of the error messages generated by routers when a datagram exceeds its hop limit value.

The traceroute command starts by sending probe datagrams with a hop limit of 1. Including a hop limit of 1 with a probe datagram causes the neighboring routers to discard the probe datagram and send back an error message. The traceroute command sends several probes with increasing hop limits and displays the round-trip time for each.

The traceroute command sends out one probe at a time. Each outgoing packet might result in one or more error messages. A time-exceeded error message indicates that an intermediate router has seen and discarded the probe. A destination unreachable error message indicates that the destination node has received and discarded the probe because the hop limit of the packet reached a value of 0. If the timer goes off before a response comes in, the traceroute command prints an asterisk (*).

The traceroute command terminates when the destination responds, when the hop limit is exceeded, or when the user interrupts the trace with the escape sequence. By default, to invoke the escape sequence, type Ctrl-^ X—by simultaneously pressing and releasing the Ctrl, Shift, and 6 keys, and then pressing the X key.

When not specified, the protocol argument is determined by the software examining the format of the destination argument. For example, if the software finds a destination argument in IP format, the protocol value defaults to IP.

Examples

To trace the route to the IPv6 address:

```
switch# traceroute 2001:88:88:94::1
traceroute to 2001:88:88:94::1 (2001:88:88:94::1) from 2001:88:88:94::4, 30 hops max, 16
byte packets
 1  2001:88:88:94::1 (2001:88:88:94::1)  0.668 ms  0.385 ms  0.319 ms
```

To define an IPv4 address in a specific VRF:

```
switch# traceroute 192.168.2.1 vrf red
```

username

To configure the SSH username, use the **username** configuration command. Use the **no** form of the command to remove a user.

username *name* **password 0** *unencrypted*

username *name* **password 5** *encrypted*

no username *name*

Syntax Description

name	The name of the user. Maximum number of characters is 32.
unencrypted	The unencrypted password. Maximum number of characters is 32.
encrypted	The encrypted password. Maximum number of characters is 64.

Command Modes

Global configuration

Command History

Release	Modification
WSG 3.0	This command was introduced.

Usage Guidelines

The first variant of the command takes an unencrypted password and subsequently encrypts it. When it is displayed using the **show running-configuration** command, the console displays the encrypted version.

The second variant requires an encrypted password, and is used mainly to transfer a login/password to a different card. Unencrypted passwords will never be displayed.

The **no** form of this command does not require including the password.

The maximum length for the *name* is 32 characters. The maximum length for the unencrypted password is also 32 characters. The maximum length for the encrypted password is 64 characters. For all of these fields, permitted characters are standard alphanumeric characters with the exception of “]”, “?”, “$”, TAB, and spaces.

Examples

Here is an example of the **username** command:

```
switch(config)# username test1 password 5 f2500a1a1dJID.4KVT0YvcPR.E98f/
```