

Switch Command Reference

This chapter describes each command in the Catalyst 2900 Command Line Interface (CLI). Use these commands to configure and maintain the Catalyst 2900.

Command Line Interface Overview

Table 5-1 lists command aliases that have been defined for ease of use. Like regular commands, aliases are not case sensitive. Unlike regular commands, however, some aliases cannot be abbreviated.

Table 5-1 Command Aliases

Alias	Command
?	help
batch	configure
di	show
earl	cam
exit	quit
logout	quit

Table 5-2 lists all the switch commands in the Catalyst 2900 CLI.

Table 5-2 Command Line Interface Commands

Command	Description	Mode
clear alias	Clears aliases of commands.	P ¹
clear arp	Clears ARP table entries.	P
clear cam	Clears CAM table entries.	P
clear config	Clears configuration and resets the system.	P
clear counters	Clears MAC and Port counters.	P
clear help	Shows the clear command menu.	P
clear ip alias	Clears aliases of IP Addresses.	P
clear ip route	Clears IP routing table entries.	P

Command	Description	Mode
clear log	Clears the system error log.	P
clear snmp trap	Clears SNMP trap receiver address.	P
clear spantree portvlanpri	Clears spantree port vlan priority.	P
clear trunk	Clears trunks.	P
clear vlan	Clears a VLAN.	P
clear vtp	Clear VTP statistics.	P
configure	Downloads a configuration file from the network and executes each command in the file.	P
disable	Returns the console interface to normal mode.	P
disconnect	Closes an active console port or Telnet session.	P
download	Copies a software image from a specified host to the designated module's flash memory.	P
download serial	Copies software images to the supervisor card or Flash memory through a serial port.	P
enable	Activates privileged mode.	N ²
help	Lists the top-level commands available in the current mode.	N, P
history	Shows the contents of the history substitution buffer.	N
ping	Sends ICMP echo request packets to another node on the network.	N
quit	Exits the administration interface session.	N
reset	Sets the system to its default values or configures the system as an individual module.	P
set alias	Creates a shorthand name (alias) for the command.	P
set arp	Sets an ARP table entry.	P
set cam	Sets a CAM table entry.	P
set cdp disable	Deactivates Cisco Discovery Protocol information.	P
set cdp enable	Sets Cisco Discovery Protocol information.	P
set cdp interval	Sets the number of seconds between Cisco Discovery Protocol messages.	P
set help	Sets the LER-alarm value.	P
set enablepass	Sets the privileged password.	P
set help	Shows the set command menu.	N
set interface	Sets a network interface configuration.	P
set ip alias	Sets an alias for an IP Address.	P
set ip fragmentation	Enables or disables the fragmentation of IP packets bridged between Ethernet networks.	P
set ip help	Lists the set ip commands.	P

Command	Description	Mode
set ip redirect	Enables or disables ICMP redirect messages for the switch.	
set ip route	Adds IP addresses or aliases to the IP routing table.	P
set ip unreachable	Enables or disables ICMP unreachable messages for the switch.	P
set length	Sets the number of lines in the terminal display screen.	N
set logout	Sets the number of minutes before automatic logout.	P
set module disable	Disables a module.	P
set module enable	Enables a module.	P
set module help	Shows the set module command menu.	P
set module name	Sets module name.	P
set password	Sets the console password.	P
set port disable	Disables a port.	P
set port duplex	Sets port transmission type (full/half duplex).	P
set port enable	Enables a port.	P
set port help	Shows the set port command menu.	P
set port level	Sets a port's priority level (normal/high).	P
set port name	Sets a port's name.	P
set port speed	Sets a port's speed.	P
set port trap	Sets the port up/down trap (enable/disable).	P
set prompt	Sets the CLI prompt.	P
set snmp community	Sets SNMP community string.	P
set snmp help	Shows the set snmp command menu.	P
set snmp rmon	Sets the SNMP RMON.	P
set snmp trap	Sets the SNMP Remote Monitoring (RMON) support (enable/disable).	P
set span	Sets the switch port analyzer.	P
set spantree disable	Disables spanning tree.	P
set spantree enable	Enables spanning tree.	P
set spantree fwddelay	Sets spantree forward delay.	P
set spantree hello	Sets spantree hello time.	P
set spantree help	Shows the set spantree command menu.	P
set spantree maxage	Sets spantree maximum aging time.	P
set spantree portcost	Sets spantree port cost.	P
set spantree portfast	Sets the spantree port fast start.	P
set spantree portpri	Sets spantree port priority.	P
set spantree portvlanpri	Sets the spantree port vlan priority.	P
set spantree priority	Sets spantree priority.	P

Command	Description	Mode
set system baud	Sets the console port baud rate.	P
set system contact	Sets the system contact.	P
set system help	Shows the set system command menu.	P
set system location	Sets the system location.	P
set system modem	Sets modem control (enable/disable).	P
set system name	Sets the system name.	P
set time	Sets the system time.	P
set trunk	Sets ports to be trunks.	P
set vlan	Sets virtual LANs on ports.	P
set vtp	Sets Virtual Trunk information.	P
show alias	Shows aliases for commands.	N
show arp	Shows the ARP table.	N
show cam	Shows the CAM table.	N
show cdp	Shows Cisco Discovery Protocol information.	N
show config	Shows the system configuration.	P
show flash	Lists flash code information.	P
show help	Lists and describes the available show commands.	N
show interface	Shows network interfaces.	N
show ip alias	Shows aliases for IP Addresses.	N
show ip help	Lists the show ip commands.	N
show ip route	Displays the IP routing table entries.	N
show log	Displays the system error log.	P
show mac	Shows MAC information.	N
show module	Shows mbuf and malloc statistics.	P
show module	Shows module information.	N
show netstat	Shows network statistics.	N
show port	Shows port information.	N
show snmp	Shows SNMP information.	N
show span	Shows switch port analyzer information.	N
show spantree	Shows spantree information.	N
show system	Shows system information.	N
show test	Shows results of diagnostic tests.	N
show time	Shows the current time.	N
show trunk	Shows trunk information.	N
show users	Shows active Admin sessions.	N
show version	Shows version information.	N
show vlan	Shows virtual LAN information.	N
show vtp	Shows Virtual Trunk Protocol (VTP) information.	N

Command	Description	Mode
show vtp help	Displays Virtual Trunk Protocol commands.	
slip	Attaches or detaches SLIP from the console port.	P
telnet	Starts a telnet connection to a remote host.	P
test help	Shows the test command menu.	P
test snmp trap	Sends trap message to SNMP trap receivers.	P
upload	Uploads a code image to a network host.	P
wait	Pauses for a specified number of seconds.	N
write	Uploads the current configuration to a host or displays it on the terminal.	P

1. P = Privileged mode.
2. N = Normal mode.

clear alias

Use the **clear alias** command to clear the shorthand versions of commands.

```
clear alias all  
clear alias name
```

Syntax Description

all Identifies every alternate identifier previously created.

name Identifies the alternate identifier of the command.

Default

This command has no default setting.

Command Mode

Privileged.

Example

The following example shows how to erase the alias called arpdel:

```
Console> (enable) clear alias arpdel  
Command alias deleted.  
Console> (enable) clear alias all  
Command alias table cleared.  
Console> (enable)
```

Related Commands

session
show alias

clear arp

Use the **clear arp** command to delete a specific entry or all entries from the Address Resolution Protocol (ARP) table.

```
clear arp all  
clear arp ip_address
```

Syntax Description

all Specifies every IP address in the ARP table.

ip_address IP address in the ARP table to be cleared.

Default

This command has no default setting.

Command Mode

Privileged.

Example

The following example shows how to remove IP address 198.133.219.209 from the ARP table and then remove all entries from the ARP table:

```
Console> (enable) clear arp 198.133.219.209  
ARP entry deleted.  
Console> (enable) clear arp all  
ARP table cleared.  
Console> (enable)
```

Related Commands

```
set arp  
show arp
```

clear cam

Use the **clear cam** command to delete a specific entry or all entries from the Address Recognition Protocol table (identified as the Content Addressable Memory, or CAM table).

```
clear cam mac_addr [vlan]  
clear cam {dynamic | static | permanent} [vlan ]
```

Syntax Description

vlan The number of the VLAN.

mac_addr Identifies one or more MAC addresses.

Default

This command has no default setting.

Command Mode

Privileged.

Example

The following example shows how to remove MAC address 00-40-0b-a0-03-fa from the CAM table:

```
Console> (enable) clear cam  
Usage: Console> (enable) clear cam 00-40-0b-a0-03-fa  
CAM table entry cleared.
```

The following example shows how to clear dynamic entries from the CAM table:

```
Console> (enable) clear cam dynamic  
Dynamic CAM entries cleared.  
Console> (enable)
```

Related Commands

set bridge help
show cam

clear config

Use the **clear config** command to clear the system or module configuration information stored in NVRAM.

```
clear config all  
clear config mod_num
```

Syntax Description

all Specifies all modules and system information, including the IP address.

mod_num The number of the module.

Default

This command has no default setting.

Command Mode

Privileged.

Example

The following example shows how to delete the configuration information stored in NVRAM on module 2:

```
Console> (enable) clear config 2  
This command will clear module 2 configuration.  
Do you want to continue (y/n) [n]? y  
.....  
Module 2 configuration cleared.  
Console> (enable) clear config 1  
This command will clear module 1 configuration.  
Do you want to continue (y/n) [n]? y  
.....  
Module 1 configuration cleared.  
host%  
  
Console> (enable) clear config all  
This command will clear all configuration in NVRAM.  
Do you want to continue (y/n) [n]? y  
.....  
Connection closed by foreign host  
host%
```

clear counters

Use the **clear counters** command to clear MAC and port counters.

clear counters

Syntax Description

This command has no keywords or arguments.

Default

This command has no default setting.

Command Mode

Privileged.

Example

The following example shows how to reset MAC and port counters to zero:

```
Console> (enable) clear counters  
MAC and Port counters cleared.  
Console> (enable)
```

clear help

Use the **clear help** command to list the **clear** commands with brief descriptions of their functions.

clear help

Syntax Description

This command has no arguments or keywords.

Default

This command has no default setting.

Command Mode

Privileged.

Example

The following example shows how to list all of the **clear** commands:

```
Console> (enable) clear help
Commands:
-----
clear alias      Clear aliases of commands
clear arp        Clear ARP table entries
clear cam        Clear CAM table entries
clear config     Clear configuration and reset system
clear counters   Clear MAC and Port counters
clear help       Show this message
clear ip         Clear IP, use 'clear ip help' for more info
clear log        Clear the system error log
clear snmp       Clear SNMP trap receiver address
clear spantree   Clear spantree port vlan priority
clear trunk      Clear trunk ports
clear vlan       Clear a VLAN
clear vtp        Clear VTP statistics
Console> (enable)
```

Related Command

set help

clear ip alias

Use the **clear ip alias** command to clear IP aliases that were set using the **set ip alias** command.

```
clear ip alias all  
clear ip alias name
```

Syntax Description

all Specifies all previously set aliases of IP addresses.

name Identifies a specific alias of an IP address.

Default

This command has no default setting.

Command Mode

Privileged.

Example

The following example shows how to delete a previously defined IP alias named simba:

```
Console> (enable) clear ip alias simba  
IP alias deleted.
```

Related Commands

```
set ip alias  
show ip alias
```

clear ip route

Use the **clear ip route** command to delete all IP routing table entries.

```
clear ip route all  
clear ip route destination gateway
```

Syntax Description

all Specifies every entry in the IP routing table.

destination The IP address of the host or network.

gateway The IP address or alias of the gateway router.

Default

This command has no default setting.

Command Mode

Privileged.

Example

The following example shows how to delete the table entry for destination 134.12.3.0, elvis gateway:

```
Console> (enable) clear ip route  
Usage: clear ip route all  
Usage: clear ip route <destination><gateway>  
Console> (enable) clear ip route 134.12.3.0 elvis  
Route deleted.  
Console> (enable) clear ip route all  
All routes deleted.  
Console> (enable)
```

Related Commands

```
set ip route  
show ip route
```

clear log

Use the **clear log** command to delete all entries in the system error log.

```
clear log  
clear log mod_num
```

Syntax Description

mod_num The number of the module.

Default

This command has no default setting.

Command Mode

Privileged.

Example

The following example shows how to clear the system error log:

```
Console> (enable) clear log  
System error log cleared.  
Console> (enable)
```

Related Command

show log

clear snmp trap

Use the **clear snmp trap** command to clear an entry from the SNMP trap receiver table.

```
clear snmp trap all  
clear snmp trap rcvr_address
```

Syntax Description

all Specifies every entry in the SNMP trap receiver table.

rcvr_address IP alias or IP address of the trap receiver (the SNMP management station).

Default

This command has no default setting.

Command Mode

Privileged.

Example

The following example shows how to clear the trap for IP address 192.122.173.82:

```
Console> (enable) clear snmp trap 192.122.173.82  
SNMP trap receiver deleted.  
Console> (enable)
```

Related Commands

```
set snmp trap  
show snmp  
test snmp trap
```

clear spantree portvlanpri

Use the **clear spantree portvlanpri** command to reset the spantree port vlan priority.

```
clear spantree portvlanpri mod_num/port_num vlans
```

Syntax Description

This command has no arguments or keywords.

Default

This command has no default setting.

Command Mode

Privileged.

Example

The following example shows how to reset the spantree port priority:

```
Console> (enable) clear spantree portvlanpri ?  
Usage: clear spantree portvlanpri <mod_num/port_num> <vlans>  
Console> (enable) clear spantree portvlanpri 1/2 23-40  
Port 1/2 vlans 3,6-20,23-1000 using portpri 32  
Port 1/2 vlans 1-2,4-5,21-22 using portpri 30
```

Related Commands

```
set spantree portvlanpri  
show spantree
```


clear trunk

Use the **clear trunk** command to reset trunk ports to bridge ports or to clear partial information in the trunk table.

```
clear trunk mod_num/port_num [ vlangs ]
```

Syntax Description

all	Specifies all trunks.
<i>mod_num</i>	The number of the module.
<i>port_num</i>	The number of the port.
<i>vlangs</i>	(Optional) Identifies one or more VLANs.

Default

If VLANs are specified, they are removed from the list of allowed VLANs on the trunk. If you do not specify a VLAN range, the mode is set to **auto** for Dynamic Interswitch Link (DISL) trunk ports and **off** for other trunk ports. Refer to the **set trunk** command for more information about **auto** and **off** modes.

Command Mode

Privileged.

Usage Guidelines

If VLANs are specified, only the specified VLANs are cleared from the trunk port table. When all VLANs in the trunk port are cleared, the port is automatically reset to a regular bridge port. Default VLANs cannot be cleared on the trunk.

Example

The following example shows how to clear the trunk for module 1, port 2:

```
Console> (enable) clear trunk 1/2  
Clear Trunk 1/2 100-200  
Port 1/2 mode set to auto  
VLAN(s) 100-200 cleared from port 1/2  
Console> (enable)
```

Related Commands

set trunk
show trunk

clear vlan

Use the **clear vlan** command to delete an existing vlan from a management domain.

clear vlan *vlan_num*

Syntax

vlan_num Identifies a VLAN.

Default

This command has no default setting.

Command Mode

Privileged.

Example

The following example shows how to clear an existing vlan from a management domain:

```
Console> (enable) clear vlan ?
Usage: clear vlan <vlan_num>
(vlan)num should be in the range of 2..1000)
Console> (enable) clear vlan 4
This command will de-activate all ports on vlan 4
in the entire management domain
Do you want to continue(y/n) [n]?y
VTP: VLAN 4 deletion succesful
```

Related Commands

set vlan

show vlan

clear vtp

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

clear vtp statistics

Syntax Description

statistics Specifies the statistics.

Default

This command has no default setting.

Command Mode

Privileged.

Usage Guidelines

The term VTP represents the Virtual Trunk Protocol.

Example

```
Console> (enable) clear vtp ?  
Usage: clear vtp statistics  
Console> (enable) clear vtp statistics  
vtp statistics cleared.  
Console> (enable)
```

Related Commands

set vtp
set vtp domain
set vtp statistics
show vtp
show vtp domain
show vtp help
show vtp statistics

configure

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

configure network
configure *host file*

Syntax Description

network Causes interactive prompting for the host and the file.

host The IP address or IP alias of the host.

file The name of the file.

Default

This command has no default setting.

Command Mode

Privileged.

Usage Guidelines

Refer to the “Creating a Configuration File” appendix for information about constructing a configuration file to be downloaded using the **configure** command.

Example

Following is a sample file called *system5.cfg* in the tftpboot directory:

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

pingpong
pingpong
end
#
```

Each line contains a command, except lines that begin with ! or #.

The following example shows how to download the configuration file called *system5.cfg* from the 192.122.174.42 host:

```
Console> (enable) configure 192.122.174.42 system5.cfg
Configure using system5.cfg from cres (y/n) [n]? y
/
Done. Finished Network Download. (446 bytes)
>> show time
Wed Feb 22 1995, 17:42:50
>> set ip alias conc7 198.133.219.207
IP alias added.
>> set ip alias montreux 198.133.219.40
IP alias added.
>> set ip alias cres 192.122.174.42
IP alias added.
>> set prompt system5>
>> set password
Enter old password:
Enter new password: pingpong
Retype new password: pingpong
Password changed.
system5> (enable)
```

Related Command

show config

disable

Use the **disable** command to return the console interface to normal mode.

disable

Syntax Description

This command has no arguments or keywords.

Default

This command has no default setting.

Command Mode

Privileged.

Example

The following example shows how to return the console to normal mode:

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

Related Command

enable

disconnect

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

```
disconnect console  
disconnect ip_addr
```

Syntax Description

console The active console port.

ip_addr The IP address or IP alias.

Default

This command has no default setting.

Command Mode

Privileged.

Usage Guidelines

If multiple sessions from the same IP address exist, the **disconnect** command will check if the current process is also from the same IP address. If it is not, all Telnet sessions from the specified IP address are disconnected. If it is, all sessions, other than the current session, are disconnected. The system prompts whether to disconnect the current Telnet session. You can answer **n** and remain connected or answer **y** and be disconnected.

Example

The following example shows how to close a Telnet session with a host with IP address 198.134.214.4:

```
Console> (enable) disconnect 198.134.214.4  
Telnet session from 198.134.214.4 disconnected. (1)  
Console> (enable) disconnect console  
Console session disconnected.
```

Related Command

telnet

download

Use the **download** command to copy a software image from a specified host to a designated module's Flash memory.

```
download host file [ module_num ]
```

Syntax Description

host The name or IP address of host.

file The name of file to be downloaded.

module_num (Optional) Number of the module.

Default

If a module number is not specified, the default is module 1.

Command Mode

Privileged.

Usage Guidelines

The Catalyst 2900 supports two ways to download new code to the processors: TFTP network download through **any** network port, and kermit serial download through the EIA/TIA-232 Console port. This command downloads code to the module's Flash memory. Catalyst 2900 software will reject an image if it is not a valid image for the module.

Example

The following example shows how to download the *c2900__spvxx.bin* file, where *xx* is the software version number, from the mercury host:

```
Console> (enable) download mercury c2900_spv11.bin
Download image c2900_spv11.bin from mercury to module 1FLASH (y/n) [n]? y
\
Done. Finished Network Download. (100604 bytes)
host%

intelquery: id=0x89898989 code=0xa2a2a2a2
FLASH on Synergy:

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

erase(b=14, c=1): block(s): 14 Erase done
Programming Flash: Flash Programming Complete
erase(b=2, c=4): block(s): 2 3 4 5 Erase done
Programming Flash: Flash Programming Complete
System must be reset to run new image
```


The following example shows how to download the `acpflash_1111.bbi` code from the mercury host:

```
Console> (enable) download mercury acpflash_1111.bbi 3
This command will reset Module 3.
Download image acpflash_1111.bbi from mercury to Module 3 FLASH (y/n) [n]? y
/
Done. Finished network download. (1964012 bytes)
Console> (enable)
```

Related Commands

reset

show flash

show version

upload

download serial

Use the **download serial** command to copy software images to the supervisor card or Flash memory through a serial port.

download serial

Syntax Description

This command has no arguments or keywords.

Default

This command has no default setting.

Command Mode

Privileged.

Usage Guidelines

This command uses Kermit protocol through the serial EIA/TIA-232 console port. The **download serial** command is not allowed from a Telnet session.



Caution After starting the serial download using Kermit, do not attempt to abort the serial download by typing Ctrl-C. This command will interrupt the download process and leave the switch in an undesirable state. However, if this occurs, reboot the switch.

Example

In the following example, a tty port is connected to the CLI port on the Catalyst 2900. Following is a sample session showing a connection to a remote terminal from a Sun workstation and the use of the **serial download** command to copy a software image to the supervisor card:

```
[At local Sun workstation]
host% kermit
C-Kermit 5A(172) ALPHA, 30 Jun 91, SUNOS 4.0 (BSD)
Type ? or 'help' for help
C-Kermit>set line /dev/ttyb
C-Kermit>c
Connecting to /dev/ttyb, speed 9600.
The escape character is ^ (ASCII 28).
Type the escape character followed by C to get back,
or followed by ? to see other options.

Console> enable
Enter Password:
Console> (enable) set system baud 19200
^C
[Back at local sun workstation]
C-Kermit>set speed 19200
/dev/ttyb, 19200 bps
C-Kermit>c
Connecting to /dev/ttyb, speed 19200.
The escape character is ^ (ASCII 28).
Type the escape character followed by C to get back,
or followed by ? to see other options.
```

```
Console> (enable) download serial
Download Supervisor image via console port (y/n) [n]? y

Concentrator Boot ROM (Ver 1.00)

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

^\\C
[Back at Local System]
C-Kermit>send c2900__xx.bin
                SF
c2900__xx.bin => c2900__XX.BIN, Size: 1233266

X to cancel file, CR to resend current packet
Z to cancel group, A for status report
E to send Error packet, Ctrl-C to quit immediately: .....
.....

..... [OK]
ZB
C-Kermit> quit
host%
```

Related Commands

set baud
set line
set speed

enable

Use the **enable** command to activate Privileged mode. In privileged mode, certain commands are available, and certain displays have extra information.

enable

Syntax Description

This command has no arguments or keywords.

Default

This command has no default setting.

Command Mode

Normal.

Usage Guidelines

The designation (enable) indicates that the system is in privileged mode and that privileged commands can be entered.

Example

The following example shows how to enter privileged mode:

```
Console> enable  
Enter password:  
Console> (enable)
```

Related Command

disable

help

Use the **help** command to list the top-level commands available in the current mode.

help

Syntax Description

This command has no arguments or keywords.

Default

This command has no default setting.

Command Mode

Normal and Privileged.

Usage Guidelines

In normal mode, the **help** command provides a list of the top-level commands available in normal mode. In privileged mode, this command provides a list of the top-level commands available in privileged mode.

Example

The following example shows how to list the top-level commands available in normal mode:

```
Console> (enable) help
Commands:
-----
clear          Clear, use 'clear help' for more info
configure      Configure system from terminal/network
disable        Disable privileged mode
disconnect     Disconnect user session
download       Download code to a processor
enable         Enable privileged mode
help           Show this message
history        Show contents of history substitution buffer
ping           Send echo packets to hosts
quit           Exit from the Admin session
reset          Reset system or module
session        Tunnel to ATM module
set            Set, use 'set help' for more info
show           Show, use 'show help' for more info
slip           Attach/detach Serial Line IP interface
telnet         Telnet to a remote host
test           Test, use 'test help' for more info
upload         Upload code from a processor
wait           Wait for x seconds
write          Write system configuration to terminal/network
Console> (enable)
```

The following example shows how to list the top-level commands available in privileged mode:

```
Console> (enable) help
Commands:
-----
clear          Clear, use 'clear help' for more info
configure      Configure system from terminal/network
disable        Disable privileged mode
disconnect     Disconnect user session
download       Download code to a processor
enable         Enable privileged mode
help           Show this message
history        Show contents of history substitution buffer
ping           Send echo packets to hosts
quit           Exit from the Admin session
reset          Reset system or module
session        Tunnel to ATM module
set            Set, use 'set help' for more info
show           Show, use 'show help' for more info
slip           Attach/detach Serial Line IP interface
telnet         Telnet to a remote host
test           Test, use 'test help' for more info
upload         Upload code from a processor
wait           Wait for x seconds
write          Write system configuration to terminal/network
Console> (enable)
```

history

The **history** command shows the contents of the history substitution buffer. Refer to the “Configuring the Software” chapter for details about the history substitution buffer.

history

Syntax Description

This command has no arguments or keywords.

Default

This command has no default setting.

Command Mode

Normal.

Usage Guidelines

The history buffer size is fixed at 20 commands.

Example

In the following example, the **history** command lists the contents of the history substitution buffer:

```
Console> history
  1 help
  2 history
Console> !2
Console> history
  1 help
  2 history
  3 history
```

ping

Use the **ping** command to send Internet Control Message Protocol (ICMP) echo request packets to another node on the network.

```
ping host  
ping -s host [ packet_size ] [ packet_count ]
```

Syntax Description

- | | |
|---------------------|---|
| -s | Causes ping to send one datagram per second, printing one line of output for every response received. The ping command does not return any output when no response is received. |
| <i>host</i> | The IP address or IP alias of the host. |
| <i>packet_size</i> | (Optional) The number of bytes in a packet, from 1 to 1514 bytes; the default is 56 bytes. The actual packet size will be eight bytes larger because the switch adds header information. |
| <i>packet_count</i> | (Optional) The number of packets to send. |

Default

This command has no default setting.

Command Mode

Normal.

Usage Guidelines

Press **Ctrl-C** to stop pinging.

Following are sample results of the **ping** command:

- Normal response—The normal response occurs in one to ten seconds, depending on network traffic.
- Destination does not respond—If the host does not respond, a no answer message appears in ten seconds.
- Destination unreachable—The gateway given in the route table for this destination indicates that the destination is unreachable.
- Network or host unreachable—The switch found no corresponding entry in the route table.

Example

The following example shows how to ping a host with IP alias elvis a single time, then ping it once per second until you press **Ctrl-C** to stop pinging:

```
Console> ping elvis
elvis is alive
Console> ping -s elvis
ping elvis: 56 data bytes
64 bytes from elvis: icmp_seq=0. time=11 ms
64 bytes from elvis: icmp_seq=1. time=8 ms
64 bytes from elvis: icmp_seq=2. time=8 ms
64 bytes from elvis: icmp_seq=3. time=7 ms
64 bytes from elvis: icmp_seq=4. time=11 ms
64 bytes from elvis: icmp_seq=5. time=7 ms
64 bytes from elvis: icmp_seq=6. time=7 ms
^C

----elvis PING Statistics----
7 packets transmitted, 7 packets received, 0% packet loss
round-trip (ms)  min/avg/max = 7/8/11
Console>
```

Related Commands

- set ip route**
- set interface**
- show interface**
- show ip route**

quit

Use the **quit** command to exit an CLI session.

quit

Syntax Description

This command has no arguments or keywords.

Default

This command has no default setting.

Command Mode

Normal.

Usage Guidelines

The **exit** and **logout** commands perform the same function as the **quit** command.

Example

The following example shows how to close a connection with the CLI:

```
Console> quit
Connection closed by foreign host.
host%
```

Related Commands

exit
logout

reset

Use the **reset** command to restart the system or an individual line card.

```
reset system  
reset mod_num
```

Syntax Description

system Resets the system to its default values.

mod_num The number of the module.

Default

This command has no default setting.

Command Mode

Privileged.

Usage Guidelines

If a no module number or module 1 is specified, the command resets the entire system.

Example

The following example shows how to reset module 2:

```
Console> (enable) reset 2  
This command will reset module 2.  
Do you want to continue (y/n) [n]? y  
Resetting module 2...  
Console> (enable)
```

set alias

Use the **set alias** command to define shorthand versions of commands.

```
set alias name command [ parameter ] [ parameter ]
```

Syntax Description

<i>name</i>	The alias being created.
<i>command</i>	The command for which the alias is being created.
<i>parameter</i>	(Optional) Parameters that apply to the command for which an alias is being created. See the specific command for information about parameters that apply.

Default

No aliases configured.

Command Mode

Privileged.

Usage Guidelines

The name *all* cannot be defined as an alias.

Example

The following example shows how to set **arpdel** as the alias for the **clear arp** command:

```
Console> (enable) set alias arpdel clear arp  
Command alias added.  
Console> (enable)
```

Related Commands

clear alias
show alias

set arp

The **set arp** command adds entries into the Address Resolution Protocol (ARP) table and sets the ARP aging time for the table.

```
set arp agingtime agingtime  
set arp ip_addr hw_addr
```

Syntax Description

agingtime The number of seconds (from 1 to 1000000) that entries will remain in the ARP table before being deleted. Setting this value to 0 disables aging.

ip_addr The IP address or IP alias of the physical unit.

hw_addr The MAC address of the physical unit.

Default

No ARP table entries exist, and ARP aging is set to 1200 seconds.

Command Mode

Privileged.

Example

The following example shows how to set the aging time for the ARP table to 1800 seconds and add an entry for a physical unit with IP address 198.133.219.232 and a MAC address of 00-00-0c-40-0f-bc to the ARP table:

```
Console> (enable) set arp agingtime 1800  
ARP aging time set to 1800 seconds.  
Console> (enable) set arp 198.133.219.232 00-00-0c-40-0f-bc  
ARP entry added.  
Console> (enable)
```

Related Commands

clear arp

show arp

set cam

Use the **set cam** command to add entries into the Content Addressable Memory (CAM) table and to set the aging time for the table. The default configuration has a local MAC address(es), spanning-tree address (01-80-c2-00-00-00), and CDP multicast address for destination port 1/3 (the NMP).

Note Although this command refers to the CAM table, the table is an EARL table.

```
set cam agingtime vlan agingtime
set cam {dynamic | static | permanent} unicast_mac mod/ports [ vlan ]
set cam {dynamic | static | permanent} multicast_mac mod/ports [ vlan ]
```

Syntax Description

<i>vlan</i>	The number of the virtual LAN. When setting aging time and when setting CAM entries to dynamic, static, or permanent for a trunk port, the VLAN number is required. Otherwise, the VLAN number is optional.
<i>agingtime</i>	(Optional) The number of seconds (0-1000000) that entries will remain in the table before being deleted.
dynamic	Specifies that entries are subject to aging.
static	Specifies that entries are not subject to aging. Static (nonpermanent) entries will remain in the EARL table until the system is reset.
permanent	Specifies that static (permanent) entries will be stored in NVRAM until they are removed by the clear cam or clear config command.
<i>unicast_mac</i>	The MAC address of the destination host used for a unicast.
<i>multicast_mac</i>	The MAC address of the destination host used for a multicast.
<i>mod</i>	The number of the module.
<i>ports</i>	The numbers of the ports.
<i>multicast_mac</i>	The MAC address of the destination host used for a multicast.

Default

The default aging time for all configured VLANs is 300 seconds. Setting aging time to 0 disables aging.

Command Mode

Privileged.

Usage Guidelines

If the given MAC address is a multicast ($xn\text{-}xx\text{-}xx\text{-}xx\text{-}xx\text{-}xx$ where n is $xxx1$ [that is, the least significant bit of the most significant byte is set to 1]) or broadcast address ($ff\text{-}ff\text{-}ff\text{-}ff\text{-}ff\text{-}ff$) and multiple ports are specified, the ports must all be in the same VLAN. If the given address is a unicast address and multiple ports are specified, the ports must be in different VLANs.

Example

The following example shows how to set the CAM table aging time to 300 seconds; how to add a unicast entry to the table for module 2, port 9; and how to add a permanent multicast entry to the table for module 1, port 1, and module 2, ports 1, 3, and 8 through 12.

```
Console> (enable) set cam agingtime 1 300
CAM table aging time set.
Console> (enable) set cam static 00-00-0c-a0-03-fa 2/9
Static unicast entry added to CAM table.
Console> (enable) set cam permanent 01-40-0b-a0-03-fa 1/1,2/1,2/3,2/8-12
Permanent multicast entry added to CAM table.
Console> (enable)
```

Related Commands

clear cam

show cam

set cdp disable

Use the **set cdp disable** command to disable the Cisco Discovery Protocol (CDP) information display on specified ports. If enable or disable is not specified, the current setting remains active.

```
set cdp disable mod_num/port_num  
set cdp disable all
```

Syntax Description

mod_num The number of the module.

port_num The number of the port.

all Disable the Cisco Discovery Protocol (CDP) information on all ports.

Default

The default system configuration has CDP enabled with a message interval of 60 seconds for every port.

Command Mode

Privileged.

Usage Guidelines

When enabling or disabling CDP and the message interval is not specified, the existing message interval is used.

Example

The following example shows how to disable the CDP message display for port 1 on module 2:

```
Console> (enable) set cdp 2/1 disable  
Port 2/1 CDP disabled.  
Console> (enable)
```

Related Commands

```
set cdp enable  
set cdp interval
```


set cdp enable

Use the **set cdp enable** command to enable the Cisco Discovery Protocol (CDP) information display. If enable or disable is not specified, the current setting remains active.

```
set cdp enable mod_num/port_num  
set cdp enable all
```

Syntax Description

mod_num The number of the module.

port_num The number of the port.

all Enable the Cisco Discovery Protocol (CDP) information on all ports.

Default

The default system configuration has CDP enabled with a message interval of 60 seconds for every port. When you use the **clear config** command, the number of lines in the terminal display screen is reset to the factory default of 100.

Command Mode

Privileged.

Usage Guidelines

When enabling or disabling CDP and the message interval is not specified, the existing message interval is used.

Example

The following example shows how to enable the CDP message display for port 1 on module 2:

```
Console> (enable) set cdp 2/1 enable  
Port 2/1 CDP enabled.  
Console> (enable)
```

Related Commands

```
set cdp disable  
set cdp interval
```

set cdp interval

Use the **set cdp interval** command to set the message interval for Cisco Discovery Protocol (CDP) on each port.

```
set cdp interval mod_num/port_num interval  
set cdp interval all
```

Syntax Description

<i>mod_num</i>	The number of the module.
<i>port_num</i>	The number of the port.
<i>interval</i>	The number of seconds (5-900) the system waits before sending a message.
all	Set the message interval for Cisco Discovery Protocol (CDP) information on all ports.

Default

The default system configuration has CDP enabled with a message interval of 60 seconds for every port.

Command Mode

Privileged.

Usage Guidelines

You can set the message interval within the range of 5 to 900 seconds.

Example

The following example shows how to set the CDP message interval for port 10 on module 2 to 60 seconds:

```
Console> (enable) set cdp interval  
Usage: set cdp interval all <interval>  
       set cdp interval <mod/ports...> <interval>  
       (interval = 5..900 seconds.)  
Console> (enable) set cdp interval 2/10 60  
CDP message interval set to 60 seconds for port 2/10.  
Console> (enable)
```

Related Commands

```
set cdp disable  
set cdp enable
```

set enablepass

The **set enablepass** command changes the password for the privileged level on the CLI.

set enablepass

Syntax Description

This command has no arguments or keywords.

Default

The default configuration does not have enable password configured.

Command Mode

Privileged.

Usage Guidelines

The command prompts you for the old password. If the password is valid, the command then prompts you to enter a new password twice. A zero length password is allowed.

Example

The following example shows how to establish a new password:

```
Console> (enable) set enablepass
Enter old password:
Enter new password:
Retype new password:
Password changed.
Console> (enable)
```

Related Commands

enable

set password

set help

Use the **set help** command to list the **set** commands with brief descriptions of their functions.

set help

Syntax Description

This command has no arguments or keywords.

Default

This command has no default setting.

Command Mode

Normal and Privileged.

Usage Guidelines

In normal mode, the **set help** command lists the **set** commands available in normal mode. In privileged mode, the **set help** command lists the **set** commands available in privileged mode.

Example

The following example shows how to list the **set** commands available in normal mode:

```
Console> set help
Commands:
-----
set help          Show this message
set length        Set number of lines in display (0 to disable 'more')
Console>
```

The following example shows how to list the **set** commands available in privileged mode:

```
Console> (enable) set help
Set commands:
-----
set alias          Set alias for command
set arp            Set ARP table entry
set bridge         Set bridge, use 'set bridge' for more info
set cam            Set CAM table entry
set cdp            Set cdp, use 'set cdp help' for more info
set enablepass    Set privilege mode password
set help           Show this message
set interface      Set network interface configuration
set ip             Set IP, use 'set ip help' for more info
set length         Set number of lines in display (0 to disable 'more')
set logout         Set number of minutes before automatic logout
set module         Set module, use 'set module help' for more info
set password       Set console password
set port           Set port, use 'set port help' for more info
set prompt         Set prompt
set snmp           Set SNMP, use 'set snmp help' for more info
set span           Set switch port analyzer
set spantree       Set spantree, use 'set spantree help' for more info
set system         Set system, use 'set system help' for more info
set time           Set time
set trunk          Set trunk ports
set vlan           Set Virtual LAN information
set vtp            Set Virtual Trunk Information
Console> (enable)
```

set interface

Use the **set interface** command to configure network interfaces.

```
set interface sc0/sl0 {up | down}  
set interface sc0 [vlan vlan_num ] [ip_address [ netmask [ broadcast ]]]  
set interface sl0 slip_address dest_address
```

Syntax Description

sc0	Indicates in-band interface.
sl0	Indicates SLIP interface.
up	Brings the interface into operation.
down	Brings the interface out of operation.
<i>vlan_num</i>	Identifies the number of the VLAN where the IP address is stored.
<i>ip_address</i>	IP address.
<i>netmask</i>	(Optional) The subnet mask.
<i>broadcast</i>	(Optional) The broadcast mask.
<i>slip_address</i>	IP address of the console port.
<i>dest_address</i>	IP address of the host to which the console port will be connected.

Default

The default configuration is sc0 and sl0 with IP address, netmask, and broadcast set as 0.0.0.0. The destination address for sl0 is also 0.0.0.0.

Command Mode

Privileged.

Usage Guidelines

The **set interface** command can be used to assign network addresses, subnet masks for the Catalyst interfaces administratively and destination addresses for slip interfaces. It can also be used to bring the interfaces up or down administratively. There are two configurable network interfaces to a Catalyst 2900: in-band (sc0) and SLIP (sl0). Once you assign an IP address to sc0, the Catalyst 2900 becomes accessible through Ethernet interfaces.

Example

The following example shows how to set the following elements from the console port:

- interface sc0
- interface sl0

It also shows administratively how to bring down interface sc0 using a console terminal:

```
Console> (enable) set interface sc0 192.200.11.44 255.255.255.0
Interface sc0 IP address and netmask set.
Console> (enable) set interface sl0 192.200.10.45 192.200.10.103
Interface sl0 SLIP and destination address set.
Console> (enable) set interface sc0 down.
Interface sc0 administratively down.
Console> (enable)
```

The following example shows how to set the IP address for sc0 through a Telnet session:

```
Console> (enable) set interface sc0 192.200.11.40
This command may disconnect active telnet sessions.
Do you want to continue (y/n) [n]? y
Interface sc0 IP address set.
<lost connection, hangs until timeout or until sc0 is back to its original IP address
again>
```

The following example shows how to take the interface out of operation through a Telnet session:

```
Console> (enable) set interface sc0 down
This command will inactivate telnet sessions.
Do you want to continue (y/n) [n]? y
Interface sc0 administratively down.
```

The interface hangs until timeout or until sc0 is up again.

The following example shows how to identify the VLAN on which to store the IP address:

```
Console> (enable) set interface sc0 5
Interface sc0 vlan set.
Console> (enable)
Console> (enable) set interface sc0 200
Vlan is not active, user needs to set vlan 200 active
Interface sc0 vlan set.
Console> (enable)
```

The interface hangs until timeout or until sc0 is up again.

Related Command

show interface

set ip alias

Use the **set ip alias** command to add aliases of IP addresses.

```
set ip alias name ip_addr
```

Syntax Description

name The name of the alias being defined.

ip_addr The IP address of the alias being defined.

Default

The default configuration has one IP alias (0.0.0.0) configured as the default.

Command Mode

Privileged.

Example

The following example shows how to define an IP alias of mercury for IP address 192.122.174.234:

```
Console> (enable) set ip alias mercury 192.122.174.234  
IP alias added.  
Console> (enable)
```

Related Commands

clear ip alias

show ip alias

set ip fragmentation

Use the **set ip fragmentation** command to enable or disable the fragmentation for IP packets bridged between Ethernet networks, which have different maximum transmission units (MTUs).

```
set ip fragmentation { enable | disable }
```

Syntax Description

- | | |
|----------------|---|
| enable | Allows fragmentation for IP packets bridged between Ethernet networks, which have different MTUs. |
| disable | Disallows fragmentation for IP packets bridged between networks with different MTUs. Packets are dropped. |

Default

The default value is IP fragmentation enabled.

Command Mode

Privileged.

Example

The following example shows how to disable IP fragmentation:

```
Console> (enable) set ip fragmentation disable  
IP fragmentation disabled for module 2  
Console> (enable)
```

Related Command

set ip route
show ip route

set ip help

Use the **set ip help** command to list the **set ip** commands.

set ip help

Syntax Description

This command has no arguments or keywords.

Default

This command has no default setting.

Command Mode

Privileged.

Example

The following example shows how to list the **set ip** commands:

```
Console> (enable) set ip help
Set ip commands:
-----
set ip alias           Set alias for IP Address
set ip fragmentation   Set IP fragmentation enable/disable
set ip help           Show this message
set ip redirect        Set ICMP redirect enable/disable
set ip route           Set IP routing table entry
set ip unreachable    Set ICMP unreachable messages
Console> (enable)
```

Related Commands

- set ip alias**
- set ip redirect**
- set ip route**

set ip redirect

Use the **set ip redirect** command to enable or disable ICMP redirect messages for the Catalyst 2900.

```
set ip redirect {enable | disable}
```

Syntax Description

enable Activates ICMP redirect messages to sender.

disable Deactivates ICMP redirect messages to sender.

Default

The default configuration has ICMP redirect enabled.

Command Mode

Privileged.

Example

The following example shows how to deactivate the redirection of ICMP messages:

```
Console> (enable) set ip redirect disable
ICMP redirect messages disabled.
Console> (enable)
```

Related Commands

show ip route

show netstat

set ip route

The **set ip route** command adds IP addresses or aliases to the IP routing table.

```
set ip route destination gateway [ metric ]
```

Syntax Description

destination The IP address or IP alias of the network or specific host.

gateway The IP address or IP alias of the router.

metric (Optional) Indicates whether the destination network is local or remote. Use 0 for local and 1 for remote.

Default

The default configuration routes the local network through the sc0 interface with metric 0 as soon as sc0 is configured.

Command Mode

Privileged.

Example

The following example shows how to set the default route to 192.122.173.42:

```
Console> (enable) set ip route default 192.122.173.42  
Route added.  
Console> (enable)
```

Related Commands

clear ip route
show snmp
show ip route

set ip unreachable

Use the **set ip unreachable** command to enable or disable Internet Control Message Protocol (ICMP) unreachable messages for the switch.

```
set ip unreachable {enable | disable}
```

Syntax Description

enable	Allows IP unreachable messages to be returned to the Internet source host.
disable	Disallows IP unreachable messages to be returned to the Internet source host.

Default

The default is ICMP unreachable messages enabled.

Command Mode

Privileged.

Usage Guidelines

When enabled, the switch returns an ICMP unreachable message to the Internet source host whenever it receives an IP datagram that it cannot deliver. When disabled, the switch does not notify the Internet source host when it receives an IP datagram that it cannot deliver.

Example

The following example shows how to disable ICMP unreachable messages:

```
Console> (enable) set ip unreachable disable  
ICMP unreachable message disabled for module 4  
Console> (enable)
```

Related Commands

```
show ip unreachable  
show ip route
```

set length

Use the **set length** command to configure the number of lines in the terminal display screen.

set length *number* (in normal mode)
set length *number* [**default**] (in privileged mode only)

Syntax Description

number Number of lines to display on the screen (0-512).
default Sets the number of lines in the terminal display screen for the current administration session and all other sessions.

Default

The default value is 24 lines upon starting a session. When the value is changed in a session, it applies only to that administration session.

Command Mode

Normal.

Usage Guidelines

Output from a single command that overflows a single display screen is followed by the `--More--` prompt. At the `--More--` prompt, you can type **Ctrl-C** to quit, **q** or **Q** to quit, press the **Spacebar** to display an additional screen of output, or press **Return** to display one more line of output. Setting the screen length to 0 turns off the scrolling feature and causes the entire output to be displayed at once. Unless a default value is specified, a value that is changed in an administrative session only applies to the current session.

Example

The following example shows how to use normal mode to set the screen length to 30 lines:

```
Console> set length  
Usage: set length <screenlength>  
       (screenlength = 5..512, 0 to disable 'more' feature)  
Console> set length 30  
Screen length for this session set to 30.  
Console>
```

The following example shows how to use privileged mode to set the screen length to 24 lines for the current administration session and all other sessions:

```
Console> (enable) set length  
Usage: set length <screenlength> [default]  
       (screenlength = 5..512, 0 to disable 'more' feature)  
Console> (enable) set length 24 default  
Screen length default for new sessions set to 24.  
Console> (enable)
```

set logout

Use the **set logout** command to set the number of minutes until the system automatically disconnects an idle session.

set logout *timeout*

Syntax Description

timeout The number of minutes until the system automatically disconnects an idle session.

Default

The default value is 20 minutes.

Usage Guidelines

You can specify a timeout period from 0 to 10,000 minutes. Setting the value to 0 disables the automatic disconnection of idle sessions.

Command Mode

Privileged.

Example

The following example shows how to use the **set logout** command:

```
Console> (enable) set logout
Usage: set logout <timeout>
       timeout = 0..10000 minutes; 0 disables automatic logout
Console> (enable) set logout 20
Sessions will be automatically logged out after 20 minutes of idle time.
Console> (enable) set logout 0
Sessions will not be automatically logged out.
Console> (enable)
```

set module disable

Use the **set module disable** command to disable a module.

set module disable *mod_num*

Syntax Description

mod_num The number of the module. You can specify a series of modules by entering a comma between each module number (for example: 2,3,5). You can specify a range of modules by entering a dash between module numbers (for example: 2 to 5).

Default

The default configuration has all modules enabled.

Command Mode

Privileged.

Usage Guidelines

Avoid disabling a module via a Telnet session because your Telnet session may be established on the module being disabled. In such case, the Telnet session will hang. The supervisor module cannot be disabled.

Example

The following example shows how to disable module 1 through the console port:

```
Console> (enable) set module disable 1  
Module 2 disabled.  
Console> (enable)
```

The following example shows how to disable module 2 through a Telnet session:

```
Console> (enable) set module disable 2  
This command may disconnect your telnet session.  
Do you want to continue (y/n) [n]? y  
Module 2 disabled.
```

Related Commands

set module enable

show module

set module enable

Use the **set module enable** command to enable a module.

```
set module enable module_num
```

Syntax Description

module_num The number of the module.

Default

The default setting has all modules enabled.

Command Mode

Privileged.

Usage Guidelines

If an individual port on a module was previously disabled, enabling the module does not enable the disabled port.

Example

The following example shows how to enable module 2:

```
Console> (enable) set module enable 2  
Module 2 enabled.  
Console> (enable)
```

Related Commands

set module disable
show module

set module help

Use the **set module help** command to list the **set module** commands.

set module help

Syntax Description

This command has no arguments or keywords.

Default

This command has no default setting.

Command Mode

Privileged.

Example

The following example shows how to list the **set module** commands:

```
Console> (enable) set module help
Commands:
-----
set module disable  Disable a module
set module enable   Enable a module
set module help     Show this message
set module name     Set module name
Console> (enable)
```

set module name

Use the **set module name** command to set the name for a module.

```
set module name module_num [ module_name ]
```

Syntax Description

module_num The number of the module.

module_name (Optional) The name being created for the module.

Default

The default configuration has no module names configured for any modules.

Command Mode

Privileged.

Usage Guidelines

If the module name is not specified, it is cleared.

Example

The following example shows how to set the name for module 1 to supervisor:

```
Console> (enable) set module name 1 Supervisor  
Module name set.  
Console> (enable)
```

Related Command

show module

set password

Use the **set password** command to change the initial level password on the CLI.

set password

Syntax Description

This command has no arguments or keywords.

Default

The default configuration has no password configured.

Command Mode

Privileged.

Usage Guidelines

The command prompts you for the old password followed by the new password. If the old password is valid, the command then prompts you to enter a new password twice. A zero length password is allowed. Old and new passwords typed are not echoed.

Example

The following example shows how to set an initial password:

```
Console> (enable) set password
Enter old password:
Enter new password:
Retype new password:
Password changed.
Console> (enable)
```

Related Command

set enablepass

set port disable

Use the **set port disable** command to disable a port.

set port disable *mod_num/port_num*

Syntax Description

mod_num The number of the module.

port_num The number of the port.

Default

The default system configuration has all ports enabled.

Command Mode

Privileged.

Example

The following example shows how to take port 10 on module 2 out of service:

```
Console> (enable) set port disable 2/10  
Port 2/10 disabled.  
Console> (enable)
```

Related Commands

set port enable

show port

set port duplex

Use the **set port duplex** command to configure the transmission type of an Ethernet or Fast Ethernet interface.

```
set port duplex mod num/port num {full | half | auto}
```

Syntax Description

<i>mod num</i>	The number of the module.
<i>port num</i>	The number of the port.
full	Indicates full duplex.
half	Indicates half duplex.
auto	Indicates the port is in auto-sensing mode, and has not yet determined the port duplex.

Default

The default configuration for 10 Mbps and 100 Mbps modules has all Ethernet ports set to half duplex. The default configuration for 10/100 Mbps Fast Ethernet modules has all ports set to auto.

Command Mode

Privileged.

Usage Guideline

Ethernet and Fast Ethernet interfaces can be configured to either full duplex or half duplex. When a port is in auto-sensing mode, enabled by the **set port speed** command, both its speed and duplex are determined by auto-sensing. The following type of error messages is therefore generated if you attempt to set the transmission type of auto-sensing Fast Ethernet ports to half or full duplex mode:

```
cat4-lnf> (enable) set port duplex 2/1 full (1 port - failed)  
Port 2/1 is in auto-sensing mode.
```

Example

The following example shows how to set port 1 on module 2 to full duplex:

```
Console> (enable) set port duplex 2/1 full  
Port 2/1 set to full-duplex.  
Console> (enable)
```

Related Command

show port

set port enable

Use the **set port enable** command to enable or disable a port.

set port enable *mod_num/port_num*

Syntax Description

mod_num The number of the module.

port_num The number of the port.

Default

All ports enabled.

Command Mode

Privileged.

Example

The following example shows how to enable port 3 on module 2:

```
Console> (enable) set port enable 2/3  
Port 2/3 enabled.  
Console> (enable)
```

Related Commands

set port disable

show port

set port help

Use the **set port help** command to list the **set port** commands.

set port help

Syntax Description

This command has no arguments or keywords.

Default

This command has no default setting.

Command Mode

Privileged.

Example

The following example shows how to list the **set port** commands:

```
Console> (enable) set port help
Commands:
-----
set port disable      Disable a port
set port duplex       Set port transmission type (full/half duplex)
set port enable       Enable a port
set port help         Show this message
set port level        Set port priority level (normal/high)
set port name         Set port name
set port speed        Set port transmission speed (10/100 Mbps)
set port trap         Set port up/down trap (enable/disable)
Console> (enable)
```

Related Commands

set port disable
set port duplex
set port level
set port enable
set port name
set port speed
set port trap
show port

set port level

Use the **set port level** command to set the priority level of the port on the switching bus.

```
set port level mod_num/port_num {normal | high}
```

Syntax Description

mod_num The number of the module.

port_num The number of the port on the module.

normal Indicates that packets traveling through ports set at normal priority are served after packets traveling through ports set at high priority.

high Indicates that packets traveling through the specified port are served first.

Default

The default configuration has all ports at normal priority level.

Command Mode

Privileged.

Example

The following example shows how to set the priority level for port 2 on module 1 to high:

```
Console> (enable) set port level 1/2 high  
Port 1/2 port level set to high.  
Console> (enable)
```

Related Commands

set port disable

set port duplex

set port enable

set port help

set port name

set port speed

set port trap

show port

set port name

Use the **set port name** command to configure a name for a port.

```
set port name mod_num/port_num [ name_string ]
```

Syntax Description

mod_num The number of the module

port_num The number of the port.

name_string (Optional) A description of the port.

Default

The default configuration has no port name configured for any port.

Command Mode

Privileged.

Usage Guidelines

If the name string is not specified, the port name is cleared.

Example

The following example shows how to set port 1 on module 4 to Fred Grover:

```
Console> (enable) set port name 4/1 Fred Grover  
Port 4/1 name set.  
Console> (enable)
```

Related Commands

set port disable
set port duplex
set port enable
set port help
set port level
set port speed
set port trap
show port

set port speed

Use the **set port speed** command to configure the speed of a 10/100 Fast Ethernet interface.

```
set port speed mod num/port num { 10 | 100 | auto }
```

Syntax Description

mod num The number of the module.

port num The number of the port.

10 Set the port speed to 10 Mbps.

100 Set the port speed to 100 Mbps.

auto Set the port speed to auto-sensing mode.

Default

The default configuration has all 10/100 Mbps Fast Ethernet Switching Module ports set to auto.

Command Mode

Privileged.

Usage Guidelines

Fast Ethernet interfaces on the 10/100 Mbps Fast Ethernet Switching module can be configured to either 10 Mbps or 100 Mbps. They can also be set to auto-sensing mode, allowing them to sense and distinguish between 10 Mbps and 100 Mbps port transmission speeds and full-duplex or half-duplex port transmission types at a remote port connection. Set at auto-sensing mode, the interfaces automatically configure themselves to operate at the proper speed and transmission type.

Example

The following examples show how to set port 1 on module 2 to auto-sensing mode, configured to either 10 Mbps or 100 Mbps:

```
Console> (enable) set port speed  
Usage: set port speed <mod_num/port_num> <10|100|auto>  
Console> (enable) set port speed 2/1 auto  
Port 2/1 speed set to auto-sensing mode.  
  
Console> (enable) set port speed 2/2 10  
Port 2/2 speed set to 10 Mbps.  
  
Console> (enable) set port speed 2/3 100  
Port 2/3 speed set to 100 Mbps.
```

Related Commands

- set port disable**
- set port duplex**
- set port enable**
- set port help**
- set port level**
- set port name**
- set port trap**
- show port**

set port trap

Use the **set port trap** command to enable or disable the standard SNMP link trap operation (up or down) for a port.

```
set port trap mod_num/port_num enable | disable
```

Syntax Description

mod_num The number of the module.

port_num The number of the port.

enable Activates the SNMP link trap.

disable Deactivates the SNMP link trap.

Default

The default configuration has all port traps disabled.

Command Mode

Privileged.

Example

```
Console> (enable) set port trap  
Usage: set port trap <mod_num/port_num> <enable|disable>  
Console> (enable) set port trap 1/2 enable  
Port 1/2 up/down trap enabled.  
Console> (enable)
```

Related Commands

```
set port disable  
set port duplex  
set port enable  
set port help  
set port level  
set port name  
show port
```

set prompt

Use the **set prompt** command to change the prompt for the CLI.

set prompt *prompt_string*

Syntax Description

prompt_string The text that is to appear in place of the default prompt “Console>”.

Default

The default configuration has the prompt “Console>”.

Command Mode

Privileged.

Example

The following example shows how to set the prompt to “system100>”:

```
Console> (enable) set prompt system100>
system100> (enable)
```

set snmp community

Use the **set snmp community** command to set one of the three SNMP community strings.

```
set snmp community access_type [ community_string ]
```

Syntax Description

access_type Identifies the type of access available to the SNMP community. Specify **read-only**, **read-write**, or **read-write all**.

community_string (Optional) Identifies the name of the SNMP community.

Default

The following communities with preestablished access types have been set as defaults:

- public: read-only
- private: read-write
- secret: read-write-all

Command Mode

Privileged.

Example

The following example shows how to set the SNMP community called hocuspocus to read-write access type:

```
Console> (enable) set snmp community read-write hocuspocus  
SNMP read-write community string set.  
Console> (enable) set snmp community read-only  
SNMP read-only community string cleared.  
Console> (enable)
```

Related Command

show snmp

set snmp help

Use the **set snmp help** command to list the **set snmp** commands.

set snmp help

Syntax Description

This command has no arguments or keywords.

Default

This command has no default setting.

Command Mode

Privileged.

Example

The following example shows how to list the **set snmp** commands:

```
Console> (enable) set snmp help
Set snmp commands:
-----
set snmp community      Set SNMP community string
set snmp help           Show this message
set snmp rmon           Set SNMP RMON
set snmp trap           Set SNMP trap information
Console> (enable)
```


set snmp rmon

Use the **set snmp rmon** command to enable or disable SNMP remote monitoring (RMON) support.

```
set snmp rmon enable | disable
```

Syntax Description

enable Activates SNMP remote monitoring support.

disable Deactivates SNMP remote monitoring support.

Default

The default is that remote monitoring support is enabled.

Command Mode

Privileged.

Usage Guidelines

The following configurations and implementations are supported:

- Remote monitoring statistics are collected on a segment basis instead of a repeater port basis for the Catalyst 2900 Group Switching Ethernet Module (100BaseFX port).
- The remote monitoring feature deinstalls all of the domains for all of the interfaces on an Ethernet module that has been removed from the system.
- RMON is only enabled for ethernet ports.
- RMON groups enabled are ethernets, history, alarm, and events as specified in RFC 1757.
- Use of this command requires a separate software license.

Example

The following example shows how to enable and disable remote monitoring support:

```
Console> (enable) set snmp rmon  
Usage: set snmp rmon <enable|disable>  
Console> (enable) set snmp rmon enable  
SNMP RMON support enabled.  
Console> (enable) set snmp rmon disable  
SNMP RMON support disabled.
```

Related Command

show snmp

set snmp trap

Use the **set snmp trap** command to enable, disable, or add an entry into the SNMP authentication trap receiver table, or to enable or disable other specific types of traps on the system.

```
set snmp trap enable | disable [ all | module | chassis | bridge | repeater | auth | vtp ]  
set snmp trap rcvr_address rcvr_community
```

Syntax Description

enable	Activates SNMP authentication trap.
disable	Deactivates SNMP authentication trap.
all	Indicates all types of traps.
module	Indicates the <i>moduleUp</i> and <i>moduleDown</i> traps from the CISCO-STACK-MIB.
chassis	Indicates the <i>chassisAlarmOn</i> and <i>chassisAlarmOff</i> traps from the CISCO-STACK-MIB
bridge	Indicates the <i>newRoot</i> and <i>topologyChange</i> traps from RFC 1493 (the BRIDGE-MIB).
repeater	Indicates the <i>rpPtrHealth</i> , <i>rpPtrGroupChange</i> , and <i>rpPtrResetEvent</i> traps from RFC 1516 (the SNMP-REPEATER-MIB).
auth	Indicates the <i>authenticationFailure</i> trap from RFC 1157.
<i>rcvr_address</i>	The IP address or IP alias of the trap receiver.
<i>rcvr_community</i>	The community string to use when sending authentication traps.

Default

The default configuration has the SNMP authentication trap disabled.

Command Mode

Privileged.

Example

The following example shows how to enable an entry in the SNMP trap receiver table:

```
Console> (enable) set snmp trap
Usage: set snmp trap <enable|disable> [all|module|chassis|bridge|repeater|auth|vtp]
       set snmp trap <rcvr_address> <rcvr_community>
       (rcvr_address is ipalias or IP address, rcvr_community is string)
Console> (enable) set snmp trap enable chassis
SNMP chassis alarm traps enabled.
Console> (enable)
```

The following example shows how to add an entry in the SNMP trap receiver table:

```
Console> (enable) set snmp trap 192.122.173.42 public
SNMP trap receiver added.
Console> (enable)
```

Related Commands

clear snmp trap

show snmp

test snmp trap

set span

Use the **set span** command to set up the port analyzer.

set span enable

set span disable

set span *src_mod/src_port dest_mod/dest_port* [**rx** | **tx** | **both**]

set span *src_vlan dest_mod/dest_port* [**rx** | **tx** | **both**]

Syntax Description

enable	Port monitoring is enabled.
disable	Port monitoring is disabled.
<i>src_mod</i>	The monitored module (source).
<i>src_port</i>	The monitored port (source).
<i>dest_mod</i>	The monitoring module (destination).
<i>dest_port</i>	The monitoring port (destination).
<i>src_vlan</i>	The monitored VLAN (source).
rx	Information received at the destination is monitored.
tx	Information transmitted from the source is monitored.
both	Both information that is transmitted from the source and received at the destination is monitored.

Default

The default configuration has port monitoring disabled, port 1/1 as the monitoring port (destination), VLAN 1 as the monitored VLAN (source), and both transmit and receive packets monitored. If the parameter **rx**, **tx**, or **both** is not specified, the default is **both**.

Command Mode

Privileged.

Usage Guidelines

After the port analyzer is enabled and the defaults set up, subsequent commands replace source ports, VLANs, and destination ports.

Use either a dedicated remote monitor probe or a Sniffer analyzer to monitor ports.

The following SPAN configurations and implementations are supported:

- You can configure a trunk port as a source or destination port. If the destination port is a trunk port, all outgoing packets through the SPAN carry an ISL header.
- The SPAN feature operates on a port basis on the Catalyst 2900 Fast Ethernet Module (10/100 TX or 100BaseFX port). Source and destination ports cannot be in the same repeater segment.
- When a switch port is configured as a destination SPAN port, it is no longer a normal switch port; only monitored traffic through the SPAN port is displayed.
- Once a SPAN is enabled, you cannot change the VLAN configuration of the destination SPAN port.
- When SPAN is enabled, if you disable a source or destination port, the SPAN functionality stops operating until both the source and destination ports are again enabled.
- You can configure a disabled port to be a source or destination port, but the SPAN function does not take effect until both source and destination ports are enabled.
- When SPAN is enabled for monitoring a VLAN, if you move a switched port into or out of the monitored VLAN, the number of monitored ports changes.
- Source and destination ports cannot be the same port.
- Source and destination ports must be of the same VLAN type.
- A trunk port cannot be one of the monitored ports if the SPAN is enabled to monitor VLAN traffic.

Example

```

-----1-----2-----3-----4-----5-----6-----7-----8
Console> (enable) set span
Usage: set span enable
       set span disable
       set span <src_mod/src_port> <dest_mod/dest_port> [rx|tx|both]
       set span <src_vlan> <dest_mod/dest_port> [rx|tx|both]
Console> (enable) set span 2/3 2/4 tx
Enabled monitoring of ports 2/3 transmit traffic by ports 2/4.
Console> (enable) set span enable
span enabled.
Console> (enable)

```

Related Commands

```

clear config all
show span

```

set spantree disable

Use the **set spantree disable** command to disable the spanning-tree algorithm for a VLAN.

```
set spantree disable [ vlan ]
```

Syntax Description

vlan (Optional) The number of the VLAN. If the VLAN number is not specified, the default, VLAN 1, is used.

Default

The default configuration has all spanning trees enabled.

Command Mode

Privileged.

Example

The following example shows how to disable the spanning-tree algorithm for VLAN 1:

```
Console> (enable) set spantree disable 1  
VLAN 1 bridge spanning tree disabled.  
Console> (enable)
```

Related Commands

set spantree enable
show spantree

set spantree enable

Use the **set spantree enable** command to enable the spanning-tree algorithm for a VLAN.

```
set spantree enable [ vlan ]
```

Syntax Description

vlan (Optional) The number of the VLAN. If a VLAN number is not specified, the default, VLAN 1, is used.

Default

The default configuration has all spanning trees enabled.

Command Mode

Privileged.

Example

The following example shows how to activate the spanning-tree algorithm for VLAN 1:

```
Console> (enable) set spantree enable 1  
VLAN 1 bridge spanning tree enabled.  
Console> (enable)
```

Related Commands

show spantree

set spantree disable

set spantree fwddelay

Use the **set spantree fwddelay** command to set the bridge forward delay for a VLAN.

```
set spantree fwddelay delay [ vlan ]
```

Syntax Description

<i>delay</i>	The number of seconds (4-30) for the bridge forward delay.
<i>vlan</i>	(Optional) The number of the VLAN. If a VLAN number is not specified, VLAN 1 is assumed.

Default

The default configuration has fwddelay set to 15 seconds for all VLANs.

Command Mode

Privileged.

Example

The following example shows how to set the bridge forward delay for VLAN 1000 to 16 seconds:

```
Console> (enable) set spantree fwddelay 16 1000  
VLAN 1000 bridge forward delay set to 16 seconds.  
Console> (enable)
```

Related Command

show spantree

set spantree hello

Use the **set spantree hello** command to set the bridge hello time for a VLAN.

```
set spantree hello interval [ vlan ]
```

Syntax Description

interval The number of seconds (1-10) the system waits before sending a multicast message indicating that it is present.

vlan (Optional) The number of the VLAN. If a VLAN number is not specified, VLAN 1 is assumed.

Default

The default configuration has hello time set to 2 seconds for all VLANs.

Command Mode

Privileged.

Example

The following example shows how to set the spantree hello time to 2 seconds for VLAN 1000:

```
Console> (enable) set spantree hello 2 1000  
VLAN 1000 bridge hello time set to 2.  
Console> (enable)
```

Related Command

show spantree

set spantree help

Use the **set spantree help** command to list the available **set spantree** commands.

set spantree help

Syntax Description

This command has no arguments or keywords.

Default

This command has no default setting.

Command Mode

Privileged.

Example

The following example shows how to list the **set spantree** commands:

```
Console> (enable) set spantree ?
Set spantree commands:
-----
set spantree disable      Disable spanning tree
set spantree enable      Enable spanning tree
set spantree fwddelay    Set spantree forward delay
set spantree hello       Set spantree hello interval
set spantree help        Show this message
set spantree maxage      Set spantree max aging time
set spantree portcost    Set spantree port cost
set spantree portfast    Set spantree port fast start
set spantree portpri     Set spantree port priority
set spantree priority    Set spantree priority
set spantree portvlanpri Set spantree port vlan priority
Console> (enable)
```

set spantree maxage

Use the **set spantree maxage** command to set the bridge maximum aging time for a VLAN.

```
set spantree maxage agingtime [ vlan ]
```

Syntax Description

<i>agingtime</i>	The maximum number of seconds (6-40) that the system retains the information received from other bridges through Spanning-Tree Protocol.
<i>vlan</i>	(Optional) The number of the VLAN. If a VLAN number is not specified, VLAN 1 is assumed.

Default

The default configuration is 20 seconds.

Command Mode

Privileged.

Example

The following example shows how to set the maximum aging time for VLAN 1000 to 20 seconds:

```
Console> (enable) set spantree maxage 20 1000  
VLAN 1000 bridge max aging time set to 20.  
Console> (enable)
```

Related Command

show spantree

set spantree portcost

Use the **set spantree portcost** command to set the bridge path cost for a port.

set spantree portcost *mod_num/port_num cost*

Syntax Description

<i>mod_num</i>	The number of the module.
<i>port_num</i>	The number of the port on the module.
<i>cost</i>	A number, from 0 to 65535, that indicates the cost of the path. Zero (0) is a low cost, and 65535 is a high cost.

Default

The default configuration is as follows:

- 100BaseTX Ethernet port cost = 10
- 10BaseT Ethernet port cost = 100

Command Mode

Privileged.

Example

The following example shows how to set the portcost for port 1 on module 4 to 10:

```
Console> (enable) set spantree portcost 4/1 10  
Bridge port 4/1 path cost set to 10.  
Console> (enable)
```

Related Command

show spantree

set spantree portfast

Use the **set spantree portfast** command to allow a port that is connected to a single workstation or PC to start faster when it is connected.

```
set spantree portfast mod_num/port_num enable | disable
```

Syntax Description

mod_num The number of the module.

port_num The number of the port on the module.

enable Enables the spanning tree bridge **portfast** for a port.

disable Disables the spanning tree bridge **portfast** for a port.

Default

This command has no default setting.

Command Mode

Privileged.

Usage Guidelines

When you use the **spantree portfast enable** command on a port, when the port is connected it immediately enters into the spanning tree forwarding state rather than going through the normal spanning tree states such as listening and learning. Use this command on ports that are connected to a single workstation or PC only; do not use it on ports that are connected to networking devices such as hubs, routers, switches, bridges, or concentrators.

Example

The following example shows how to set the spanning tree bridge **portfast** for port 2 on module 1.

```
Console> (enable) set spantree portfast
Usage: set spantree portfast <mod_num/port_num> <enable|disable>
Console> (enable) set spantree portfast 1/2 enable
```

```
Warning: Spantree port fast start should only be enabled on ports connected to a single
host. Connecting hubs, concentrators, switches, bridges, etc. to a fast start port can
cause temporary spanning tree loops. Use with caution.
```

```
Spantree port 1/2 fast start enabled.
Console> (enable) set spantree portfast 1/2 disable
Spantree port 1/2 fast start disabled.
Console> (enable)
```

set spantree portpri

Use the set **spantree portpri** command to set the bridge priority for a port in spanning-tree algorithm.

```
set spantree portpri mod_num/port_num priority
```

Syntax Description

mod_num The number of the module.

port_num The number of the port.

priority A number that represents the cost of a link in a spanning-tree bridge. The priority level is from 0 to 63, with 0 indicating high priority, and 63 indicating low priority.

Default

The default configuration has all ports with bridge priority set to 32.

Command Mode

Privileged.

Example

The following example shows how to set the priority of port 1 on module 4 to 63:

```
Console> (enable) set spantree portpri 4/1 63  
Bridge port 4/1 priority set to 63.  
Console> (enable)
```

Related Command

show spantree

set spantree portvlanpri

Use the **set spantree portvlanpri** command to set the port priority for a subset of vlans in the trunk port.

```
set spantree priority bridge_priority [ vlan ]
```

Syntax Description

bridge_priority A number representing the priority of the bridge. The priority level is from 0 to 65535, with 0 being high priority, and 65535 being low priority.

vlan (Optional) The number of the VLAN. If a VLAN number is not specified, VLAN 1 is used.

Default

Default configuration has the port Vlan priority set to 0 and no Vlans using this priority level. Subsequent calls to this command add Vlans to a specified port priority level. Additionally, subsequent calls to this command do not replace vlans that are set at a specified port priority level.

Command Mode

Privileged.

Usage Guidelines

Set the port priority within the range of 0 to 63.

Example

```
Console> (enable) set spantree portvlanpri ?  
Usage: set spantree portvlanpri <mod_num/port_num> <priority> [vlans]  
      (priority = 0..63)  
Console> (enable) set spantree portvlanpri 1/2 16 21-40  
Port 1/2 vlans 3,6-20,41-1000 using portpri 32  
Port 1/2 vlans 1-2,4-5,21-40 using portpri 16  
Console> (enable)
```

Related Commands

show spantree
clear spantree portvlanpri

set spantree priority

Use the **set spantree priority** command to set the bridge priority for a VLAN.

```
set spantree priority bridge_priority [ vlan ]
```

Syntax Description

bridge_priority A number representing the priority of the bridge. The priority level is from 0 to 65535, with 0 being high priority, and 65535 being low priority.

vlan (Optional) The number of the VLAN. If a VLAN number is not specified, VLAN 1 is used.

Default

The default configuration has the bridge priority set to 32768.

Command Mode

Privileged.

Example

The following example shows how to set the bridge priority of VLAN 1 to 4096:

```
Console> (enable) set spantree priority 4096  
VLAN 1 bridge priority set to 4096.  
Console> (enable)
```

Related Command

show spantree

set system baud

Use the **set system baud** command to set the console port baud rate.

set system baud *rate*

Syntax Description

rate The baud rate. Valid rates are 600, 1200, 2400, 4800, 9600, 19200, and 38400.

Default

The default value is 9600 baud.

Command Mode

Privileged.

Example

The following example shows how to set the system baud rate to 19200:

```
Console> (enable) set system baud 19200
System console port baud rate set.
Console> (enable)
```

Related Command

show system

set system contact

Use the **set system contact** command to set the system contact string.

```
set system contact [ contact_string ]
```

Syntax Description

contact_string (Optional) User-definable text, usually containing the name of the person to contact for system administration. If no contact string is specified, the system contact string is cleared.

Default

The default configuration has no system contact configured.

Command Mode

Privileged.

Example

The following example shows how to set the system contact string to Luis x5529:

```
Console> (enable) set system contact Luis x5529  
System contact set.  
Console> (enable)
```

Related Command

show system

set system help

Use the **set system help** command to list the **set system** commands.

set system help

Syntax Description

This command has no arguments or keywords.

Default

This command has no default setting.

Command Mode

Privileged.

Example

The following example shows how to list the **set system** commands:

```
Console> (enable) set system help
Commands:
-----
set system baud      Set system console port baud rate
set system contact  Set system contact
set system help      Show this message
set system location  Set system location
set system modem     Set system modem control (enable/disable)
set system name      Set system name
Console> (enable)
```

set system location

Use the **set system location** command to set the system location string.

```
set system location [ location_string ]
```

Syntax Description

location_string (Optional) A word or phrase that indicates where the system is located.
If no location string is specified, the system location is cleared.

Default

This command has no default setting.

Command Mode

Privileged.

Example

The following example shows how to set the system location string to “Closet 230 4/F”:

```
Console> (enable) set system location Closet 230 4/F  
System location set.  
Console> (enable)
```

Related Command

show system

set system modem

Use the **set system modem** command to enable or disable modem control lines on the console port.

```
set system modem {enable | disable}
```

Syntax Description

enable Activates modem control lines on the console port.

disable Deactivates modem control lines on the console port.

Default

The default configuration has modem control lines disabled.

Command Mode

Privileged.

Example

The following example shows how to disable the modem control lines on the console port:

```
Console> (enable) set system modem disable
Modem control lines disabled on console port.
Console> (enable)
```

Related Command

show system

set system name

Use the **set system name** command to configure a name for the system.

```
set system name [ name_string ]
```

Syntax Description

name_string (Optional) A word or phrase that identifies the system. If no name is specified, the system name is cleared.

Default

The default configuration has no system name configured.

Command Mode

Privileged.

Example

The following example shows how to set the system name to “Support Group”:

```
Console> (enable) set system name Support Group  
System name set.  
Console> (enable)
```

Related Command

show system

set time

Use the **set time** command to change the time of day in the system clock.

```
set time [ day_of_week ] [ mm/dd/yy ] [ hh:mm:ss ]
```

Syntax Description

day_of_week (Optional) The day of the week.

mm/dd/yy (Optional) The month, day, and year.

hh:mm:ss (Optional) The current time in 24-hour format.

Default

This command has no default setting.

Command Mode

Privileged.

Example

The following example shows how to set the system clock to Wednesday, May 17, 1995 at 1:25:55 p.m.:

```
Console> (enable) set time wed 5/17/95 13:25:55  
Wed Feb 22 1995, 13:25:55  
Console> (enable)
```

Related Command

show time

set trunk

Use the **set trunk** command to configure trunk ports.

```
set trunk mod_num/port_num [ on | off | desirable | auto ] [ vlan_range ]
```

Syntax Description

<i>mod_num</i>	The number of the module.
<i>port_num</i>	The number of the port.
on	This parameter puts the port into permanent ISL trunking mode, and negotiates to convert the link into a trunk port. Moreover, the port converts to be a trunk port even if the other end of the link does not agree to the change.
off	This parameter negotiates to convert the link into a nontrunk port. Moreover, the port converts to be a nontrunk port even if the other end of the link does not agree to the change. This is the default mode for non-dynamic interswitch link (nonDISL) trunks.
desirable	This parameter triggers negotiations to switch the state of the link from a trunk port to a nontrunk port.
auto	This parameter indicates that the port is willing to become a trunk port if another device on that link desires to be a trunk.
<i>vlan_range</i>	The VLANs specified are added to the list of allowed VLANs on the trunk. The VLAN range is 2 to 1000.

Default

All ports are nontrunk ports by default. The default *vlan_range* is 1 to 1000.

Command Mode

Privileged.

Usage Guidelines

Only Fast Ethernet ports can be configured as trunk ports. The **set trunk** command adds VLANs and ports to existing trunk groups; the command does not replace existing VLANs and ports with new VLANs and ports. VLAN numbers must be in the range from 1 to 1000.

When a Catalyst 2900 port that is configured to **auto** detects a link bit, and it determines that the other end of the link is a trunk port, the Catalyst 2900 automatically converts the port configured to **auto** into trunking mode. The trunk port reverts to a nontrunk port when its link goes down.

To return a trunk to a normal switched port, use the **clear trunk** command.

Example

The following example shows how to set port 2 on module 1 as a trunk port:

```
Console> (enable) set trunk
Usage: set trunk <mod_num/port_num> [on|off|desirable|auto] [vlan_range]
      (vlans = 1..1000
      An example of vlans is 2-10,1000)
Console> (enable) set trunk 1/2 1-5
Port 1/2 allowed vlans modified to 1-1000.
Console> (enable) set trunk 1/2 on
Port 1/2 mode set to on.
Console> (enable)
```

Related Commands

clear trunk

show trunk

set vlan

Use the **set vlan** command to group ports into a virtual LAN.

```
set vlan vlan_num mod/ports ...  
set vlan vlan_num [ name name ] [ type type ] [ mtu mtu ] [ said said ]  
  [ state state ] [ ring ring_number ] [ parent vlan_num ]  
  [ stp stp_type ] [ translation vlan_num ]
```

Syntax Description

<i>vlan_num</i>	The number of the VLAN.
<i>mod</i>	The number of the module.
<i>ports</i>	The number of the port on the module.
<i>name</i>	The name of the VLAN.
<i>type</i>	The VLAN type (Ethernet, Token Ring, or TR NET).
<i>mtu</i>	The maximum transmission unit (packet size, in bytes) that the VLAN can use.
<i>said</i>	Security association identifier.
<i>state</i>	The VLAN is either active or suspended .
<i>ring_number</i>	Ring number for token ring vlans.
<i>stp_type</i>	1–Source routing transparent, 2–Source routing porting.

Default

The default configuration has all switched Ethernet ports and Ethernet repeater ports in VLAN 1. The default SAID for VLAN 1 is **100001**, for VLAN 2 is **100002**, for VLAN 3 is **100003**, and so on. The default **type** is Ethernet. The default **mtu** is 1500 bytes. The default **status** is “active”.

Command Mode

Privileged.

Usage Guidelines

You cannot set multiple VLANs for ISL ports using this command. The VLAN name can be within the range of 1 to 32 characters in length. The VLAN number must be within the range of 1 to 1000.

Example

The following example shows how to set VLAN 1000 to include ports 1 and 2 on module 1, and port 1 on module 2:

```
Console> (enable) set vlan
Usage:
set vlan <vlan_num> <mod/ports...>
set vlan <vlan_num> [name <name>][type <type>][mtu <mtu>][said <said>]
      [state <state>] [ring <ring_number>]
      [parent <vlan_num>] [stp <stp_type>]
      [translation <vlan_num>]
      (An example of mod/ports is 1/1,2/1-12,3/1-2,4/1-12
      type = (ethernet, token_ring, tr_net)
      name = 1..32 characters, status = (active, suspend)
      vlan_num = 1..1005)
Console> (enable) set vlan 1000 1/1,1/2,2/1
VLAN 1000 created.
VLAN 1 modified.
VLAN 3 modified.
VLAN    Mod/Ports
----    -
1000    1/1-2
        2/1
Console> (enable) set vlan 3 name catbox type ethernet mtu 1500 said 3
VLAN 3 Added
Console> (enable)
```

Related Commands

clear vlan

show vlan

set vtp

Use the **set vtp** command to set the management domain name, VLAN trunk protocol mode of operation, advertisement interval, and password values.

```
set vtp [domain domain_name][mode mode][interval interval][passwd passwd]
```

Syntax Description

domain_name The name that identifies the VLAN management domain (1 to 32 characters in length).

mode The mode of operation (client, server).

interval The rate at which periodic advertisements are generated (2 to 10 minutes).

passwd The VLAN trunk protocol password (8 to 64 characters).

Default

This default *interval* is 5 minutes.

Command Mode

Privileged.

Usage Guidelines

The *interval* range is from two to ten minutes. The *password* must be at least eight characters in length.

Example

```
Console> (enable) set vtp
Usage:
set vtp [domain <name>][mode <mode>][interval <interval>][passwd <passwd>]
      (name: 1-32 characters, mode = (client, server, transparent),
      interval = 120-600 sec, passwd : 0-64 characters)
Console> (enable) set vtp domain catbox mode client interval 160
VTP: domain catbox modified
Console> (enable)
```

Related Commands

```
clear vtp statistics
show vtp
show vtp domain
show vtp statistics
```

show alias

Use the **show alias** command to display shorthand versions of command invocations.

```
show alias [ name ]
```

Syntax Description

name (Optional) The name of the alias to be displayed.

Default

This command has no default setting.

Command Mode

Normal.

Example

The following example shows how to display all aliases:

```
Console> show alias  
arpdelete      clear arp  
resetclr       clear config
```

Related Commands

clear alias
session

show arp

Use the **show arp** command to display the Address Recognition Protocol (ARP) table.

show arp [noalias]

Syntax Description

noalias (Optional) Indicates not to display the IP alias, only the IP address.

Default

This command has no default setting.

Command Mode

Normal.

Example

The following example shows how to display the ARP table:

```
Console> show arp
ARP Aging time = 1200 sec
cat7-lnf      at 00-40-0b-ac-83-ff
atlas        at 00-00-0c-35-7f-42
```

Related Commands

clear arp

set arp

show cam

Use the **show cam** command to display the CAM table.

```
show cam {dynamic | static | permanent | system} [ vlan ]  
show cam {dynamic | static | permanent} mod_num/port_num  
show cam mac_addr [ vlan ]
```

Syntax Description

dynamic	Specifies that entries are subject to aging.
static	Specifies that entries are not subject to aging.
permanent	Specifies that static (permanent) entries will be stored in NVRAM until they are removed by the clear cam or clear config command.
system	Specifies the system.
<i>vlan</i>	(Optional) Number of the VLAN. If a VLAN is not specified, all VLANs are displayed.
<i>mod_num</i>	The number of the module.
<i>port_num</i>	The number of the port.
<i>mac_addr</i>	The MAC address.

Default

This command has no default setting.

Command Mode

Normal.

Usage Guidelines

To view the CAM aging time for a specific VLAN, use the **show cam** *vlan* command; to view aging time for all configured VLANs, use the **show config** command.

Example

The following example shows how to display dynamic CAM entries for VLAN 1:

```
Console> (enable) show cam dynamic 1
VLAN 1 Aging time = 300 sec
* = Static Entry. + = Permanent Entry. # = System Entry.
```

VLAN	Destination MAC	Destination Ports or VCs
1	08-00-20-22-cd-c0	1/1
1	08-00-20-72-16-b8	3/41
1	00-40-0b-f0-03-ff	3/36

```
Matching CAM Entries = 3
Console> (enable)
```

Related Commands

- clear cam
- set bridge help
- show config

show cdp

Use the **show cdp** command to display Cisco Discovery Protocol (CDP) information.

```
show cdp neighbors [ mod_num ] [ detail ]
show cdp neighbors [ mod_num/port_num ] [ detail ]
show cdp port [ mod_num ]
show cdp port [ mod_num/port_num ]
```

Syntax Description

neighbors	Shows CDP information about all Cisco products connected to the switch.
<i>mod_num</i>	(Optional) The number of the module about which CDP information is to be displayed.
<i>port_num</i>	(Optional) The number of the port on the module about which CDP information is to be displayed.
detail	(Optional) Shows descriptive information about neighboring Cisco products.
port	Show CDP port settings.

Default

This command has no default setting.

Command Mode

Normal.

Example

The following example shows how to display CDP information about neighboring systems:

```
Console> (debug-eng) show cdp neighbor
Port Device-ID                Port-ID      Platform    Capability
-----
4/2  000041770(Workgroup Swi 5    WS-C1201    T
4/4  000102703                2/2         WS-C2900    S
```

The following example shows how to display CDP information for a particular port:

```
Console> (enable) show cdp port 2/1
Port CDP Status Message-Interval
----
2/1  enabled    60
Console> (enable)
```

Related Commands

```
set cdp disable
set cdp enable
```

show config

Use the **show config** command to display the current system configuration.

show config

Syntax Description

This command has no arguments or keywords.

Default

This command has no default setting.

Command Mode

Privileged.

Example

The following example shows the contents of a configuration file:

```
Console> (enable) show config
.....
begin
set password $1$FMFQ$HfZR5DUszVHIRhrz4h6V70
set enablepass $1$FMFQ$HfZR5DUszVHIRhrz4h6V70
set prompt Console>>
set length 100 default
set logout 0
!
#system
set system baud 9600
set system modem disable
set system name cat9-lnf
set system location San Jose G-1
set system contact Cal P.
!
#snmp
set snmp community read-only public
set snmp community read-write private
set snmp community read-write-all secret
set snmp rmon enable
set snmp trap disable module
set snmp trap disable chassis
set snmp trap disable bridge
set snmp trap disable repeater
set snmp trap disable vtp
set snmp trap disable auth
!
#ip
set interface sc0 3 172.20.25.132 255.255.0.0 172.20.255.255
set interface sl0 0.0.0.0 0.0.0.0
set arp agingtime 1200
set ip redirect enable
set ip unreachable disable
set ip fragmentation enable
set ip route 0.0.0.0 172.20.1.201 1
set ip alias default 0.0.0.0
set ip alias max 171.69.193.165
set ip alias cat7-lnf 172.20.25.130
```

```
set ip alias cat9-lnf          172.20.25.132
set ip alias da_bears         172.20.22.7
set ip alias atlas            172.20.1.201
set ip alias lnf              172.20.0.0
!
#Command alias
!
#bridge
set bridge ipx snaptoether    8023raw
set bridge ipx 8022toether    8023

#vtp
set vtp domain Cal mode server interval 300
set vlan 100001 name default type ethernet mtu 1500 said 1 state active ring 0 bridg0
set vlan 100003 name VLAN0003 type ethernet mtu 1500 said 3 state active ring 0 brid0
set vlan 100055 name vlan55 type ethernet mtu 1500 said 85 state active ring 0 brid0
set vlan 100088 name vlan88 type token_ring mtu 1500 said 88 state active ring 0 br0
set vlan 101003 name token-ring-default type token_ring mtu 4500 said 1003 state 0
set vlan 101005 name trnet-default type tr_net mtu 4500 said 1005 state active ri0
set vlan 100001 translation 1003 translation 1002
set vlan 101002 translation 1003 translation 1
set vlan 101003 translation 1 translation 1002
!
#vlan
!
#trunks
set trunk 1/1 on 1-1000
set trunk 1/2 auto 1-1000
set trunk 2/1 auto 1-1000
set trunk 2/2 auto 1-1000
set trunk 2/3 auto 1-1000
set trunk 2/4 auto 1-1000
set trunk 2/5 auto 1-1000
set trunk 2/6 auto 1-1000
set trunk 2/7 auto 1-1000
set trunk 2/8 auto 1-1000
set trunk 2/9 auto 1-1000
set trunk 2/10 auto 1-1000
set trunk 2/11 auto 1-1000
set trunk 2/12 auto 1-1000
!
#cam
set cam agingtime 1 300
set cam agingtime 3 300
set cam agingtime 55 300
!
#cdp
set cdp enable 1/1-2,2/1-12
set cdp interval 1/1-2,2/1-12 60
!
#spantree
#vlan 1
set spantree enable 1
set spantree fwddelay 15 1
set spantree hello 2 1
set spantree maxage 20 1
set spantree priority 32768 1
#vlan 3
set spantree enable 3
set spantree fwddelay 15 3
set spantree hello 2 3
set spantree maxage 20 3
set spantree priority 32768 3
#vlan 55
set spantree enable 55
```

show config

```
set spantree fwddelay 15 55
set spantree hello 2 55
set spantree maxage 20 55
set spantree priority 32768 55
!
#trunk
set spantree portcost 1/1 10
set spantree portpri 1/1 32
set spantree portvlanpri 1/1 0
set spantree portfast 1/1 disable
set spantree portcost 1/2 10
set spantree portpri 1/2 32
set spantree portvlanpri 1/2 0
set spantree portfast 1/2 disable
set spantree portcost 2/1 10
set spantree portpri 2/1 32
set spantree portvlanpri 2/1 0
set spantree portfast 2/1 disable
set spantree portcost 2/2 10
set spantree portpri 2/2 32
set spantree portvlanpri 2/2 0
set spantree portfast 2/2 disable
set spantree portcost 2/3 10
set spantree portpri 2/3 32
set spantree portvlanpri 2/3 0
set spantree portfast 2/3 disable
set spantree portcost 2/4 10
set spantree portpri 2/4 32
set spantree portvlanpri 2/4 0
set spantree portfast 2/4 disable
set spantree portcost 2/5 10
set spantree portpri 2/5 32
set spantree portvlanpri 2/5 0
set spantree portfast 2/5 disable
set spantree portcost 2/6 10
set spantree portpri 2/6 32
set spantree portvlanpri 2/6 0
set spantree portfast 2/6 disable
set spantree portcost 2/7 10
set spantree portpri 2/7 32
set spantree portvlanpri 2/7 0
set spantree portfast 2/7 disable
set spantree portcost 2/8 10
set spantree portpri 2/8 32
set spantree portvlanpri 2/8 0
set spantree portfast 2/8 disable
set spantree portcost 2/9 10
set spantree portpri 2/9 32
set spantree portvlanpri 2/9 0
set spantree portfast 2/9 disable
set spantree portcost 2/10 10
set spantree portpri 2/10 32
set spantree portvlanpri 2/10 0
set spantree portfast 2/10 disable
set spantree portcost 2/11 10
set spantree portpri 2/11 32
set spantree portvlanpri 2/11 0
set spantree portfast 2/11 disable
set spantree portcost 2/12 10
set spantree portpri 2/12 32
set spantree portvlanpri 2/12 0
set spantree portfast 2/12 disable
!
```

```
#module 1
set module name 1
set port enable 1/1-2
set port level 1/1-2 normal
set port duplex 1/1-2 half
set port trap 1/1-2 disable
set port name 1/1-2
!
#module 2
set module name 2
set module enable 2
set port enable 2/1-12
set port level 2/1-12 normal
set port duplex 2/1-12 half
set port trap 2/1-12 disable
set port name 2/1-12
!
#switch port analyzer
set span 1 1/1 both
set span disable
end
Console> (enable)
```

Related Commands

write

clear config

show flash

Use the **show flash** command to list flash code information, such as file code names, version numbers, and sizes.

show flash

Syntax Description

This command has no arguments or keywords.

Default

This command has no default setting.

Command Mode

Privileged.

Example

The following example shows how to list the flash code versions:

```
Console> (enable) show flash
File           Version           Size (bytes)
-----
c2901 nmp       2.126            780825
          mcp       2.126            26323
          lcp       2.126            25151
          lcp 64k   2.126            36869
Console> (enable)
```

show help

Use the **show help** command to list the available **show** commands.

show help

Syntax Description

This command has no arguments or keywords.

Default

This command has no default setting.

Command Mode

Normal.

Example

The following example shows how to list the **show** commands:

```
Console> show help
Show commands:
-----
show alias          Show aliases for commands
show arp            Show ARP table
show cam            Show CAM table
show cdp            Show Cisco Discovery Protocol Information
show flash          Show system flash information
show help           Show this message
show interface      Show network interfaces
show ip             Show IP Information
show mac            Show MAC information
show module         Show module information
show netstat        Show network statistics
show port           Show port information
show snmp           Show SNMP information
show span           Show switch port analyzer information
show spantree       Show spantree information
show system         Show system information
show test           Show results of diagnostic tests
show time           Show time of day
show trunk          Show trunk ports
show users          Show active Admin sessions
show version        Show version information
show vlan           Show Virtual LAN information
show vtp            Show VTP Information
Console>
```

show interface

Use the **show interface** command to display network interfaces.

show interface

Syntax Description

This command has no arguments or keywords.

Default

This command has no default setting.

Command Mode

Normal.

Example

The following example shows how to display s10 and sc0:

```
Console> show interface
s10: flags=51<DOWN,POINTOPOINT,RUNNING>
      slip 0.0.0.0 dest 0.0.0.0
sc0:  flags=63<UP,BROADCAST,RUNNING>
      vlan 1 inet 172.20.25.127 netmask 255.255.0.0 broadcast 172.20.255.255
Console>
```

Related Command

set interface

show ip alias

The **show ip alias** command shows aliases of IP addresses.

```
show ip alias [ name ]
```

Syntax Description

name (Optional) The name of the host.

Default

This command has no default setting.

Command Mode

Normal.

Example

The following example shows how to display all IP aliases:

```
Console> (enable) show ip alias  
elvis      192.122.174.11  
mercury    192.122.174.234  
neptune    198.211.203.44
```

show ip help

Use the **show ip help** command to list the **show ip** commands.

show ip help

Syntax Description

This command has no arguments or keywords.

Default

This command has no default setting.

Command Mode

Normal.

Example

The following example shows how to list the **show ip** commands:

```
Console> (enable) show ip help
Show ip commands:
-----
show ip alias      Show aliases for IP Addresses
show ip route      Show IP routing table
Console> (enable)
```

Related Commands

show ip alias

show ip route

show ip route

Use the **show ip route** command to display IP routing table entries.

```
show ip route [ noalias ]
```

Syntax Description

noalias (Optional) Indicates not to display the IP alias, only the IP address.

Default

This command has no default setting.

Command Mode

Normal.

Usage Guidelines

If the **noalias** keyword is specified, IP aliases are not displayed; only IP addresses are displayed.

Example

The following example shows how to display the established routes:

```
Console> (enable) show ip route
Fragmentation  Redirect  Unreachable
-----
disabled      enabled   disabled

Destination    Gateway          Flags  Use      Interface
-----
172.20.0.0     172.20.22.181  U      0       sc0
default        default         UH     0       sl0
Console> (enable)
```

Related Commands

```
clear ip route
set ip route
set ip fragmentation
set ip redirect
set ip unreachable
```

show log

Use the **show log** command to display the system error log.

show log

Syntax Description

This command has no arguments or keywords.

Default

This command has no default setting.

Command Mode

Privileged.

Example

The following example shows how to display the error log:

```
Console> (enable) show log
Network Management Processor (NMP) Log:
  Reset count:                1071
  Re-boot History:            Jul 25 1994 10:56:41 3, Jul 25 1994 10:56:41 3
                               Jul 25 1994 10:56:41 3, Jul 25 1994 10:56:41 3
                               Jul 25 1994 10:56:41 3, Jul 25 1994 10:56:41 3
                               Jul 25 1994 10:56:41 3, Jul 25 1994 10:56:41 3
                               Jul 25 1994 10:56:41 3
  Bootrom Checksum Failures:  0   UART Failures:                0
  Flash Checksum Failures:   17  Flash Program Failures:  0
  Power Supply 1 Failures:    6   Power Supply 2 Failures:  11
  DRAM Failures:              0
  Exceptions:                  7
  Last Exception occurred on Jul 25 1994 10:56:41 ...
  PC: 0005D3FE, Status: 2000, Vector: 7008
  sp+00: 20000005 D3FE7008 103FE7B8 00A50025
  sp+10: 002500A5 FFFFFFFCE FFFFFFFCE 00000033
  sp+20: FFFFFFFCE 00000033 FFFFFFFCE 00003300
  sp+30: 00000000 00000000 00000000
  D0: FFFFFFFCE, D1: 0000007F, D2: 00000004, D3: 00000002
  D4: 00000000, D5: 00000000, D6: 00000000, D7: 00000000
  A0: 000015EF, A1: FFFFFFFCF, A2: FFFFFFFCE, A3: 00000000
  A4: 00000000, A5: 00000000, A6: 103FE7A8, sp: 103FE76C
Console> (enable)
```

Related Command

clear log

show mac

Use the **show mac** command to display MAC counters.

```
show mac  
show mac mod_num  
show mac mod_num/port_num
```

Syntax Description

mod_num The number of the module. If a number is not specified, all modules are shown.

port_num The number of the port on the module.

Default

This command has no default setting.

Command Mode

Normal.

Example

The following example shows how to display MAC information:

```
Console> show mac
MAC          Rcv-Frms    Xmit-Frms    Rcv-Multi    Xmit-Multi    Rcv-Broad    Xmit-Broad
-----
1/1          98839       6475         98839        6474          0            1
1/2          0           0            0            0             0            0
2/1          0           0            0            0             0            0
2/2          0           0            0            0             0            0
2/3          0           0            0            0             0            0
2/4          0           0            0            0             0            0
2/5          0           0            0            0             0            0
2/6          0           0            0            0             0            0
2/7          0           0            0            0             0            0
2/8          0           0            0            0             0            0
2/9          0           0            0            0             0            0
2/10         0           0            0            0             0            0
2/11         0           0            0            0             0            0
2/12         0           0            0            0             0            0

MAC          Dely-Excd    MTU-Excd    In-Discard    Lrn-Discrd    In-Lost    Out-Lost
-----
1/1          0            0           375           0             0            0
1/2          0            0           0             0             0            0
2/1          0            0           0             0             0            0
2/2          0            0           0             0             0            0
2/3          0            0           0             0             0            0
2/4          0            0           0             0             0            0
2/5          0            0           0             0             0            0
2/6          0            0           0             0             0            0
2/7          0            0           0             0             0            0
2/8          0            0           0             0             0            0
2/9          0            0           0             0             0            0
2/10         0            0           0             0             0            0
2/11         0            0           0             0             0            0
2/12         0            0           0             0             0            0

Last-Time-Cleared
-----
Sun Apr 21 1996, 11:51:37
Console>
```

Related Command

clear counters

show module

Use the **show module** command to display module status and information.

show module

Syntax Description

This command has no arguments or keywords.

Default

This command has no default setting.

Command Mode

Normal.

Example

The following example shows how to display module status and information:

```
Console> show module
Mod Module-Name          Ports Module-Type          Model  Serial-Num Status
-----
1          2          100BaseTX Supervisor WS-X2900 002477455 ok
2          12          100BaseTX Ethernet   WS-X2902 002567322 ok

Mod MAC-Address(es)          Hw    Fw    Sw
-----
1  00-40-0b-b2-f4-00 thru 00-40-0b-b2-f7-ff  1.81  2.112  2.126
2  00-40-0b-d5-04-8c thru 00-40-0b-d5-04-97  1.4   1.2   2.126
```

Related Commands

set module disable
set module enable
set module help
set module name

show netstat

Use the **show netstat** command to display statistics for the various protocols in the TCP/IP protocol stack. This command is also used to display the state of network connections currently active on the system.

```
show netstat [ stats | tcp | udp | ip | icmp | interfaces | routes ]
```

Syntax Description

- stats** (Optional) Shows TCP, UDP, IP, and ICMP statistics.
- tcp** (Optional) Shows TCP statistics.
- udp** (Optional) Shows UDP statistics.
- ip** (Optional) Shows IP statistics.
- icmp** (Optional) Shows ICMP statistics.
- interfaces** (Optional) Shows interface statistics.
- routes** (Optional) Shows the IP routing table.

Default

This command has no default setting.

Command Mode

Normal.

Examples

The following example shows how to display default (TCP and UDP) statistics:

```
Console> show netstat
Active Internet connections (including servers)
Proto Recv-Q Send-Q Local Address          Foreign Address        (State)
tcp      0    128 192.122.174.221.23    192.122.174.40.1064   ESTABLISHED
tcp      0     0 *.23                  *.*                    LISTEN
udp      0     0 *.161                  *.*
```


The following example shows how to display TCP statistics:

```
Console> (enable) show netstat tcp
tcp:
    619 packets sent
        586 data packets (33863 bytes)
        16 data packets (2133 bytes) retransmitted
        17 ack-only packets (11 delayed)
        0 URG only packets
        0 window probe packets
        0 window update packets
        0 control packets
    806 packets received
        595 acks (for 34475 bytes)
        5 duplicate acks
        0 acks for unsent data
        329 packets (1082 bytes) received in-sequence
        0 completely duplicate packets (0 bytes)
        1 packet with some dup. data (1 byte duped)
        3 out-of-order packets (0 bytes)
        0 packets (0 bytes) of data after window
        0 window probes
        3 window update packets
        0 packets received after close
        0 discarded for bad checksums
        0 discarded for bad header offset fields
        0 discarded because packet too short
    0 connection requests
    4 connection accepts
    4 connections established (including accepts)
    3 connections closed (including 0 drops)
    0 embryonic connections dropped
    577 segments updated rtt (of 592 attempts)
    13 retransmit timeouts
        0 connections dropped by rexmit timeout
    0 persist timeouts
    0 keepalive timeouts
        0 keepalive probes sent
        0 connections dropped by keepalive
Console> (enable)
```

The following example shows how to display UDP statistics:

```
Console> show netstat udp
udp:
    0 incomplete headers
    0 bad data length fields
    0 bad checksums
    0 socket overflows
    1116 no such ports
Console>
```

The following example shows how to display IP statistics:

```
Console> show netstat ip
ip:
    957 total packets received
    0 bad header checksums
    0 with size smaller than minimum
    0 with data size < data length
    0 with header length < data size
    0 with data length < header length
    0 fragments received
    0 fragments dropped (dup or out of space)
    0 fragments dropped after timeout
    0 packets forwarded
    376 packets not forwardable
    0 redirects sent
Console>
```

The following example shows how to display ICMP statistics:

```
Console> show netstat icmp
icmp:
    Redirect enabled
    0 calls to icmp_error
    0 errors not generated 'cuz old message was icmp
    0 messages with bad code fields
    0 messages < minimum length
    0 bad checksums
    0 messages with bad length
    0 message responses generated
Console>
```

The following example shows how to display the IP routing table:

```
Console> show netstat routes
DESTINATION      GATEWAY          FLAGS    USE      INTERFACE
0.0.0.0          192.122.174.40  UG       13       sc0
192.122.174.0    192.122.174.221 U         457      sc0
Console>
```

The following example shows how to display interface statistics:

```
Console> show netstat interface
Interface          InPackets InErrors OutPackets OutErrors
s10                0          0          0          0
sc0                599        0          74         0
Console>
```

Related Commands

- set ip help**
- set ip route**
- set interface**

show port

Use the **show port** command to display port status and counters.

```
show port
show port mod_num
show port mod_num/port_num
```

Syntax Description

mod_num The number of the module.

port_num The number of the port on the module.

Default

This command has no default setting.

Command Mode

Normal.

Example

The following example shows how to display the status and counters for all ports on module 2:

```
Console> show port
Port Name          Status      Vlan      Level Duplex Speed Type
-----
1/1                connected  trunk    normal half   100 100BaseTX
1/2                notconnect 1         normal half   100 100BaseTX
2/1                notconnect 1         normal half   100 100BaseTX
2/2                notconnect 1         normal half   100 100BaseTX
2/3                notconnect 1         normal half   100 100BaseTX
2/4                notconnect 1         normal half   100 100BaseTX
2/5                notconnect 1         normal half   100 100BaseTX
2/6                notconnect 1         normal half   100 100BaseTX
2/7                notconnect 1         normal half   100 100BaseTX
2/8                notconnect 1         normal half   100 100BaseTX
2/9                notconnect 1         normal half   100 100BaseTX
2/10               notconnect 1         normal half   100 100BaseTX
2/11               notconnect 1         normal half   100 100BaseTX
2/12               notconnect 1         normal half   100 100BaseTX
```

show port

Port	Align-Err	FCS-Err	Xmit-Err	Rcv-Err
1/1	0	0	0	0
1/2	0	0	0	0
2/1	0	0	0	0
2/2	0	0	0	0
2/3	0	0	0	0
2/4	0	0	0	0
2/5	0	0	0	0
2/6	0	0	0	0
2/7	0	0	0	0
2/8	0	0	0	0
2/9	0	0	0	0
2/10	0	0	0	0
2/11	0	0	0	0
2/12	0	0	0	0

Port	Single-Col	Multi-Coll	Late-Coll	Excess-Col	Carri-Sens	Runts	Giants
1/1	0	0	0	0	0	0	-
1/2	0	0	0	0	0	0	-
2/1	0	0	0	0	0	0	-
2/2	0	0	0	0	0	0	-
2/3	0	0	0	0	0	0	-
2/4	0	0	0	0	0	0	-
2/5	0	0	0	0	0	0	-
2/6	0	0	0	0	0	0	-
2/7	0	0	0	0	0	0	-
2/8	0	0	0	0	0	0	-
2/9	0	0	0	0	0	0	-
2/10	0	0	0	0	0	0	-
2/11	0	0	0	0	0	0	-
2/12	0	0	0	0	0	0	-

Last-Time-Cleared

Sun Apr 21 1996, 11:51:37
Console>

Related Commands

- clear counters**
- set port disable**
- set port enable**
- set port level**
- set port name**
- set vlan**

show snmp

Use the **show snmp** command to display the SNMP information.

```
show snmp [ noalias ]
```

Syntax Description

noalias (Optional) Indicates not to display the IP alias, only the IP address.

Default

This command has no default setting.

Command Mode

Normal and privileged.

Usage Guidelines

If “noalias” is specified, IP aliases are not displayed; otherwise IP addressees are shown.

Example

The following example shows how to display the community strings in normal mode:

```
Console> show snmp
RMON: Enabled
Traps Enabled: Chassis
Port Traps Enabled: None

Community-Access      Community-String
-----
read-only              public

Trap-Rec-Address      Trap-Rec-Community
-----
192.122.173.42        public
Console>
```

The following example shows how to display the community strings in privileged mode:

```
Console> (enable) show snmp
show snmp
RMON: Enabled
Traps Enabled: Chassis
Port Traps Enabled: None

Community-Access      Community-String
-----
read-only              public

Trap-Rec-Address      Trap-Rec-Community
-----
192.122.173.42        public
Console> (enable)
```

Related Commands

set snmp community

set snmp help

set snmp rmon

set snmp trap

show span

Use the **show span command** to display switch port analyzer information.

show span

Syntax Description

This command has no keywords or arguments.

Default

This command has no default setting.

Command Mode

Normal.

Usage Guideline

The Switched Port Analyzer analyzes the traffic through a switch port in the system. It also analyzes the traffic of a particular VLAN through all switch ports in the system.

Example

The following example shows how to display port monitoring information.

```
Console> show span
Source      Destination  Direction    Status
-----
Port 2/3    Port 3/1-12  transmit     disabled
Console>
```

Related Commands

clear config all

set span

show spantree

Use the **show spantree** command to display spanning-tree information for a VLAN.

```
show spantree [ vlan ]  
show spantree mod_num/port_num
```

Syntax Description

vlan (Optional) The number of the VLAN. If the VLAN number is not specified, the default is VLAN 1.

mod_num The number of the module.

port_num The number of the port on the module.

Default

This command has no default setting.

Command Mode

Normal.

Example

The following example shows how to display the spantree syntax structure and options:

```
Console> show spantree ?  
Usage: show spantree [vlan]  
       show spantree <mod_num/port_num>
```

The following example shows how to display the spantree configuration:

```
Console> (enable) show spantree 1  
VLAN 1  
Spanning tree enabled  
  
Designated Root          00-40-0b-ac-80-00  
Designated Root Priority  32768  
Designated Root Cost     10  
Designated Root Port     1/1  
Root Max Age 20 sec      Hello Time 2 sec      Forward Delay 15 sec  
  
Bridge ID MAC ADDR       00-40-0b-b2-f4-00  
Bridge ID Priority       32768  
Bridge Max Age 20 sec    Hello Time 2 sec      Forward Delay 15 sec
```


Port	Vlan	Port-State	Cost	Priority	Fast-Start
1/1	1	forwarding	10	32	disabled
1/2	1	not-connected	10	32	disabled
2/1	1	not-connected	10	32	disabled
2/2	1	not-connected	10	32	disabled
2/3	1	not-connected	10	32	disabled
2/4	1	not-connected	10	32	disabled
2/5	1	not-connected	10	32	disabled
2/6	1	not-connected	10	32	disabled
2/7	1	not-connected	10	32	disabled
2/8	1	not-connected	10	32	disabled
2/9	1	not-connected	10	32	disabled
2/10	1	not-connected	10	32	disabled
2/11	1	not-connected	10	32	disabled
2/12	1	not-connected	10	32	disabled

The following example shows how to display the spantree configuration for module 1, ports 1 and 2, and module 2, ports 1 through 4:

```

Console> show spantree 1/1-2,2/1-4
Port      Vlan  Port-State  Cost  Priority  Fast-Start
-----
1/1       1     forwarding  10    32       disabled
1/1       3     forwarding  10    32       disabled
1/1       44    forwarding  10    32       disabled
1/1       55    forwarding  10    32       disabled
1/1       66    not-connected  10    32       disabled
1/1       77    forwarding  10    32       disabled
1/1       88    not-connected  10    32       disabled
1/1       99    not-connected  10    32       disabled
1/2       1000  inactive    10    32       disabled
2/1       1000  inactive    100   32       disabled
2/2       1000  inactive    100   32       disabled
2/3       1     not-connected  100   32       disabled
2/4       1     not-connected  100   32       disabled
Console>

```

Related Commands

set spantree disable
set spantree enable
set spantree fwddelay
set spantree hello
set spantree maxage
set spantree portcost
set spantree portpri
set spantree priority

show system

Use the **show system** command to display the power supply, fan, temperature alarm, system, and modem status; the number of days, hours, minutes, and seconds since the last system restart; the baud rate; the MAC address range; and the system name, location, and contact.

show system

Syntax Description

This command has no keywords or arguments.

Default

This command has no default setting.

Command Mode

Normal.

Example

The following example shows the system status and other information:

```
Console> show system
PS-Status  Fan-Status  Temp-Alarm  Sys-Status  Uptime d,h:m:s  Logout
-----
ok         ok          off         ok          1,23:10:38     none

Modem      Baud  Traffic Peak  Peak-Time
-----
disable   9600  0%     0%   Sun Apr 21 1996, 11:51:37

System Name          System Location          System Contact
-----
Console>
```

Related Commands

- set system baud**
- set system contact**
- set system location**
- set system modem**
- set system name**

show test

Use the **show test** command to display the results of diagnostic tests.

show test *mod_num*

Syntax Description

mod_num The number of the module. If no number is specified, module 1 is used.

Default

This command has no default setting.

Command Mode

Normal.

Usage Guidelines

The Network Management Processor only applies to module 1; therefore, only the display for module 1 includes the NMP status. If other modules are specified, the NMP status is not displayed.

Example

The following example shows how to display the test results for all tested modules:

```
Console> show test
Network Management Processor (NMP) Status: (. = Pass, F = Fail, U = Unknown)
  ROM: .   RAM: .   DUART: .   Flash-EEPROM: .   Ser-EEPROM: .   NVRAM: .
  FAN: .   Temperature: .   MCP Comm: .
  PS (3.3V): .   PS (12V): .   PS (24V): .

8051 Diag Status for Module 1 (. = Pass, F = Fail, N = N/A)
CPU      : .   Ext Ram 0: .   Ext Ram 1: .   Ext Ram 2: N
DPRAM   : .   LTL Ram 0: .   LTL Ram 1: N   LTL Ram 2: N
BootChecksum: .   CBL Ram 0: .   CBL Ram 1: N   CBL Ram 2: N
Saints   : .   Pkt Bufs : .   Repeaters: N   Sprom   : .

SAINT/SAGE Status :
Ports 1 2 3
-----
. . .

Packet Buffer Status :
Ports 1 2 3
-----
. . .

System Diagnostic Status : (. = Pass, F = Fail, N = N/A)

Module 1 : MCP

EARL Status :
  NewLearnTest: .
  IndexLearnTest: .
  DontForwardTest: .
  MonitorTest: .
  DontLearn: .
  FlushPacket: .
  ConditionalLearn: .
  EarlLearnDiscard: .

PMD Loopback Status :
Ports 1 2 3
-----
. . .
```

show time

Use the **show time** command to display the current time of day in the system clock.

show time

Syntax Description

This command has no keywords or arguments.

Default

This command has no default setting.

Command Mode

Normal.

Example

The following example shows how to display the current time:

```
Console> show time  
Wed Feb 22 1995, 18:32:36  
Console>
```

Related Command

set time

show trunk

Use the **show trunk** command to display Interswitch Link information.

show trunk

Syntax Description

This command has no arguments or keywords.

Default

This command has no default setting.

Command Mode

Normal.

Example

The following example shows how to display trunk information:

```
Console> show trunk
Port      Mode      Status
-----
1/1       on        trunking
1/2       auto      not-trunking
2/1       auto      not-trunking
2/2       auto      not-trunking
2/3       auto      not-trunking
2/4       auto      not-trunking
2/5       auto      not-trunking
2/6       auto      not-trunking
2/7       auto      not-trunking
2/8       auto      not-trunking
2/9       auto      not-trunking
2/10      auto      not-trunking
2/11      auto      not-trunking
2/12      auto      not-trunking

Port      Vlans allowed
-----
1/1       1-1000
1/2       1-1000
2/1       1-1000
2/2       1-1000
2/3       1-1000
2/4       1-1000
2/5       1-1000
2/6       1-1000
2/7       1-1000
2/8       1-1000
2/9       1-1000
2/10      1-1000
2/11      1-1000
2/12      1-1000
```

Port	Vlans active
------	--------------

1/1	1, 3, 55
1/2	1
2/1	1
2/2	1
2/3	1
2/4	1
2/5	1
2/6	1
2/7	1
2/8	1
2/9	1
2/10	1
2/11	1
2/12	1

Console>

Related Commands

clear trunk

set trunk

show users

The **show users** command shows if the console port is active or not and lists all active Telnet sessions with the IP address or IP alias of the originating host.

show users [noalias]

Syntax Description

noalias (Optional) Indicates not to display the IP alias; the IP address is displayed.

Default

This command has no default setting.

Command Mode

Normal.

Example

The following example shows how to display the users of the active Telnet sessions:

```
Console> show users
Console Port
-----
Active

Telnet Sessions
-----
mercury
199.132.34.7
Console>
```

Related Command

disconnect

show version

Use the **show version** command to display software and hardware version information.

show version

Syntax Description

This command has no keywords or arguments.

Default

This command has no default setting.

Command Mode

Normal.

Example

The following example shows how to display the software and hardware versions:

```
Console> (enable) show version
WS-C2900 Software, Version McpSW: 2.126 NmpSW: 2.126
Copyright (c) 1995,1996 by Cisco Systems
NMP S/W compiled on Apr 15 1996, 06:30:58
MCP S/W compiled on Apr 15 1996, 06:24:03

System Bootstrap Version: 2.112

Hardware Version: 1.81 Model: WS-X2900 Serial #: 002477455

Module Ports Model Serial # Hw Fw Fw1 Sw
-----
1 2 WS-X2900 002477455 1.81 2.112 1.5 2.126
2 12 WS-X2903 002567322 1.4 1.2 2.126

8191K bytes of DRAM memory.
4096K bytes of FLASH memory.
256K bytes of non-volatile configuration memory.

Uptime is 1 day, 23 hours, 15 minutes
```

show vlan

Use the **show vlan** command to display virtual LAN information.

```
show vlan [ trunk ]
show vlan vlan [ notrunk ]
```

Syntax Description

trunk (Optional) Specifies to display trunk ports.

vlan The number of the VLAN to display.

notrunk (Optional) Specifies not to display trunk ports.

Default

This command has no default setting.

Command Mode

Normal.

Usage Guidelines

Each Ethernet switch port and Ethernet repeater group belongs to only one VLAN.

Example

The following example shows how to display the ports assigned to all VLANs:

```
Console> show vlan
VLAN      Name                Type    Status    Mod/Ports
-----  -
100001    default             enet    active    1/2
                                     2/1-12
100003    VLAN0003           enet    active
100088    vlan88              tring   active
101003    token-ring-default tring   active
101005    trnet-default       trnet   active

VLAN      SAID      MTU    RingNo  BridgeNo  StpNo  Parent  Trans1  Trans2
-----  -
100001    1         1500   0       0         0      0       1003    1002
100003    3         1500   0       0         0      0       0       0
100010    10        1500   0       0         0      0       0       0
100011    11        1500   0       0         0      0       0       0
100055    85        1500   0       0         0      0       0       0
100066    102       4500   2900    0         0      2900    0       0
100088    88        1500   0       0         0      0       0       0
100099    99        1500   0       0         0      0       0       0
101002    1002     4500   0       0         0      0       1003    1
101003    1003     4500   0       0         0      0       1       1002
101004    1004     4500   0       1004      0      0       0       0
101005    1005     4500   0       1005      0      0       0       0
Console>
```

Related Commands

set vlan

set trunk

show trunk

show vtp

Use the **show vtp** (Virtual Trunk Protocol) command to display Virtual Trunk Protocol information.

```
show vtp
show vtp [ domain ]
show vtp [ statistics ]
```

Syntax Description

domain Displays VTP domain information.

statistics Displays VTP statistics.

Default

This command has no default setting.

Command Mode

Normal.

Example

```
Console> show vtp
Show vtp commands:
-----
show vtp domain          Show VTP domain information
show vtp help            Show this message
show vtp statistics      Show VTP statistics
Console> show vtp domain

Domain index          1
Domain name           catbox
VTP version           1
Local mode            client
Config revision       0
Last updater          172.20.25.127
Vlan count            6
Max vlan storage      256
Notifications         disabled
Console> show vtp statistics
VTP statistics:
summary advts received      1
subset advts received       0
request advts received     30
summary advts transmitted   17
subset advts transmitted    9
request advts transmitted   0
No of config revision errors 0
No of config digest errors  0
```

Related Commands

set vtp

set vtp domain

set vtp statistics

show vtp help

show vtp help

Use the **show vtp** command to display available Virtual Trunk Protocol commands.

show vtp help

Syntax Description

help Displays available Virtual Trunk Protocol commands.

Default

This command has no default setting.

Command Mode

Normal.

Example

This example shows how to display Virtual Trunk Protocol commands.

```
Console> show vtp help
Show vtp commands:
-----
show vtp domain           Show VTP domain information
show vtp help             Show this message
show vtp statistics       Show VTP statistics
```

Related Commands

show vtp
show vtp domain
show vtp statistics

slip

Use the **slip** command to attach or detach Serial Line Interface Protocol (SLIP) for the console port.

slip attach | detach

Syntax Description

attach Activates SLIP for the console port.

detach Deactivates SLIP for the console port.

Default

By default, SLIP is not active (detached).

Command Mode

Privileged.

Usage Guidelines

You can use the **slip** command from a console port session or a Telnet session.

Example

The following example shows how to enable SLIP for a console port during a console port session:

```
Console> (enable) slip attach
Console port now running SLIP.
<console port running SLIP>
```

The following example shows how to disable SLIP for a console port during a Telnet session:

```
Console> (enable) slip attach
Console port now running SLIP.
<console port running SLIP>
Console> (enable) slip detach
SLIP detached on Console port.
<console port back to RS-232 Console>
Console> (enable)
```

Related Command

set interface

telnet

Use the **telnet** command to start a telnet connection to a remote host.

```
telnet host [ port ]
```

Syntax Description

host The remote host to which you connect.

port A specific port on the remote host to connect to.

Syntax Description

This command has no keywords or arguments.

Default

This command has no default setting.

Command Mode

Privileged.

Example

```
Console> (enable) telnet help
Usage: telnet <host> [port]
      (host is ipalias or IP address in dot notation: a.b.c.d)
Console> (enable) telnet elvis
Trying 192.122.174.11...
Connected to elvis.
Escape character is '^]'.

UNIX(r) System V Release 4.0 (elvis)

login: fred
Password:
Last login: Thu Feb 15 09:25:01 from forster.cisc.rum
Sun Microsystems Inc.   SunOS 5.4       Generic July 1994
You have new mail.
% logout

Console> (enable)
```

Related Command

disconnect

test help

Use the **test help** command to display the **test** commands.

test help

Syntax Description

This command has no keywords or arguments.

Default

This command has no default setting.

Command Mode

Privileged.

Example

The following example shows how to list the **test** commands:

```
Console> (enable) test help
Commands:
-----
test help          Show this message
test snmp          Send trap message to SNMP trap receivers
Console> (enable)
```

test snmp trap

Use the **test snmp trap** command to send an SNMP trap message to the trap receivers.

```
test snmp trap trap_number [ specific_number ]
```

Syntax Description

trap_number The number of the trap.

specific_number (Optional) The number of a predefined trap.

Default

This command has no default setting.

Command Mode

Privileged.

Example

The following example shows how to run trap 0:

```
Console> (enable) test snmp trap 0  
SNMP trap message sent. (4)  
Console> (enable)
```

Related Commands

clear snmp trap

set snmp trap

show snmp

test help

upload

Use the **upload** command to upload a code image to a network host.

```
upload host file [ module_num ]
```

Syntax Description

<i>host</i>	The IP address or IP alias of the host.
<i>file</i>	The name of the file.
<i>module_num</i>	(Optional) The number of the module. If no number is specified, the default is module 1.

Default

This command has no default setting.

Command Mode

Privileged.

Example

The following example shows how to upload the supervisor image to the *c5009_11.bin* file on the mercury host:

```
Console> (enable) upload mercury c5009_11.bin 3  
Upload Module 1 image to c5009_11.bin on mercury (y/n) [n]? y  
/  
Done. Finished Network Upload. (153908 bytes)  
Console> (enable)
```

Related Command

download

wait

Use the **wait** command to pause the CLI for a specified number of seconds. This command might be included in a configuration file.

wait *seconds*

Syntax Description

seconds The number of seconds for the CLI to wait.

Default

This command has no default setting.

Command Mode

Normal.

Example

The following example shows how to pause the CLI for five seconds:

```
Console> wait 5  
Console>
```

write

Use the **write** command to upload the current configuration to a host or to display it on the terminal.

write network
write terminal
write *host file*

Syntax Description

network Initiates a script that prompts for the IP address or IP alias of the host and the file name to upload.

terminal Displays the configuration file on the terminal.

host The IP address or IP alias of the host.

file The name of the file.

Default

This command has no default setting.

Command Mode

Privileged.

Usage Guidelines

The **write terminal** command is exactly the same as the **show config** command. The **write host file** command is a shorthand version of the **write network** command.

Example

```
Console> (enable) write term
.....
begin
set password $1$FMFQ$HfZR5DUszVHIRhrz4h6V70
set enablepass $1$FMFQ$HfZR5DUszVHIRhrz4h6V70
set prompt cat9-lnf>
set length 100 default
set logout 0
!
#system
set system baud 9600
set system modem disable
set system name cat9-lnf
set system location San Jose G-1
set system contact Cal P.
!
```

```
#snmp
set snmp community read-only      public
set snmp community read-write     private
set snmp community read-write-all secret
set snmp rmon enable
set snmp trap disable module
set snmp trap disable chassis
set snmp trap disable bridge
set snmp trap disable repeater
set snmp trap disable vtp
set snmp trap disable auth
!
#ip
set interface sc0 3 172.20.25.132 255.255.0.0 172.20.255.255
set interface sl0 0.0.0.0 0.0.0.0
set arp agingtime 1200
set ip redirect enable
set ip unreachable disable
set ip fragmentation enable
set ip route 0.0.0.0 172.20.1.201 1
set ip alias default 0.0.0.0
set ip alias max 171.69.193.165
set ip alias cat7-lnf 172.20.25.130
set ip alias cat9-lnf 172.20.25.132
set ip alias da_bears 172.20.22.7
set ip alias atlas 172.20.1.201
set ip alias lnf 172.20.0.0
!
#Command alias
!
#bridge
set bridge ipx snaptoether 8023raw
set bridge ipx 8022toether 8023

#vtp
set vtp domain Cal mode server interval 300
set vlan 100001 name default type ethernet mtu 1500 said 1 state active ring 0 bridg0
set vlan 100003 name VLAN0003 type ethernet mtu 1500 said 3 state active ring 0 brid0
set vlan 100055 name vlan55 type ethernet mtu 1500 said 85 state active ring 0 brid0
set vlan 100088 name vlan88 type token_ring mtu 1500 said 88 state active ring 0 br0
set vlan 101003 name token-ring-default type token_ring mtu 4500 said 1003 state 0
set vlan10 1005 name trnet-default type tr_net mtu 4500 said 1005 state active ri0
set vlan 100001 translation 1003 translation 1002
set vlan 101002 translation 1003 translation 1
set vlan 101003 translation 1 translation 1002
!
#vlan
!
#trunks
set trunk 1/1 on 1-1000
set trunk 1/2 auto 1-1000
set trunk 2/1 auto 1-1000
set trunk 2/2 auto 1-1000
set trunk 2/3 auto 1-1000
set trunk 2/4 auto 1-1000
set trunk 2/5 auto 1-1000
set trunk 2/6 auto 1-1000
set trunk 2/7 auto 1-1000
set trunk 2/8 auto 1-1000
set trunk 2/9 auto 1-1000
set trunk 2/10 auto 1-1000
set trunk 2/11 auto 1-1000
set trunk 2/12 auto 1-1000
!
```

```
#cam
set cam agingtime 1    300
set cam agingtime 3    300
set cam agingtime 55   300
!
#cdp
set cdp enable 1/1-2,2/1-12
set cdp interval 1/1-2,2/1-12 60
!
#spantree
#vlan 1
set spantree enable      1
set spantree fwddelay 15  1
set spantree hello      2   1
set spantree maxage     20  1
set spantree priority   32768 1
#vlan 3
set spantree enable      3
set spantree fwddelay 15  3
set spantree hello      2   3
set spantree maxage     20  3
set spantree priority   32768 3
#vlan 55
set spantree enable      55
set spantree fwddelay 15  55
set spantree hello      2   55
set spantree maxage     20  55
set spantree priority   32768 55
!
#trunk
set spantree portcost    1/1  10
set spantree portpri     1/1  32
set spantree portvlanpri 1/1  0
set spantree portfast    1/1  disable
set spantree portcost    1/2  10
set spantree portpri     1/2  32
set spantree portvlanpri 1/2  0
set spantree portfast    1/2  disable
set spantree portcost    2/1  10
set spantree portpri     2/1  32
set spantree portvlanpri 2/1  0
set spantree portfast    2/1  disable
set spantree portcost    2/2  10
set spantree portpri     2/2  32
set spantree portvlanpri 2/2  0
set spantree portfast    2/2  disable
set spantree portcost    2/3  10
set spantree portpri     2/3  32
set spantree portvlanpri 2/3  0
set spantree portfast    2/3  disable
set spantree portcost    2/4  10
set spantree portpri     2/4  32
set spantree portvlanpri 2/4  0
set spantree portfast    2/4  disable
set spantree portcost    2/5  10
set spantree portpri     2/5  32
set spantree portvlanpri 2/5  0
set spantree portfast    2/5  disable
set spantree portcost    2/6  10
set spantree portpri     2/6  32
set spantree portvlanpri 2/6  0
set spantree portfast    2/6  disable
set spantree portcost    2/7  10
set spantree portpri     2/7  32
set spantree portvlanpri 2/7  0
```

write

```
set spantree portfast      2/7  disable
set spantree portcost     2/8   10
set spantree portpri      2/8   32
set spantree portvlanpri  2/8   0
set spantree portfast     2/8  disable
set spantree portcost     2/9   10
set spantree portpri      2/9   32
set spantree portvlanpri  2/9   0
set spantree portfast     2/9  disable
set spantree portcost     2/10  10
set spantree portpri      2/10  32
set spantree portvlanpri  2/10  0
set spantree portfast     2/10  disable
set spantree portcost     2/11  10
set spantree portpri      2/11  32
set spantree portvlanpri  2/11  0
set spantree portfast     2/11  disable
set spantree portcost     2/12  10
set spantree portpri      2/12  32
set spantree portvlanpri  2/12  0
set spantree portfast     2/12  disable
!
#module 1
set module name      1
set port enable      1/1-2
set port level       1/1-2  normal
set port duplex      1/1-2  half
set port trap        1/1-2  disable
set port name        1/1-2
!
#module 2
set module name      2
set module enable    2
set port enable      2/1-12
set port level       2/1-12  normal
set port duplex      2/1-12  half
set port trap        2/1-12  disable
set port name        2/1-12
!
#switch port analyzer
set span 1 1/1 both
set span disable
end
Console>> (enable)
```

The following example shows how to upload the *system5.cfg* file to the mercury host using the **write hostfile** command as a shorthand method:

```
Console> (enable) write mercury system5.cfg
Upload configuration to system5.cfg on mercury (y/n) [y]? y
/
Done. Finished Network Upload. (9003 bytes)
Console> (enable)
```

Related Command

show config