

show trace

Use the **show trace** command to display trace category and level.

show trace [all]

Syntax Description	all (Optional) Keyword to display all trace category and level information.
Defaults	This command has no setting.
Command Types	Switch command.
Command Modes	Normal.

Examples This example shows how to display the active trace category and level information only:

```
Console> show trace
Trace monitor is enabled for this session.
Trace Category  Level
-----
HTTP            3
SYNFIG          5
Console>
```

This example shows how to display all trace category and level information:

```
Console> show trace all
Trace monitor is enabled for this session.
Trace Category  Level
-----
ACCT            off
ACL             off
BDD            off
CDP            off
CONFIG         off
COPS           off
DHCP           off
DIAG           off
DNS            off
DRIP           off
DTP            off
DUPFLASH       off
DUPNVRAM       off
DYNVLAN        off
EARL           off
ENVMON         off
EOBC           off
EPLD           off
ESSR           off
EVMGR          off
FCP            off
FDDI           off
```

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```

FDDI                off
FILESYS             off
HAMGR               off
HTTP                off
GARP                off
GVRP                off
INBAND              off
IPC                 off
KERBEROS            off
L3AGE                off
L3SUP               off
LANE                off
LD                  off
LLC                 off
LTL                 off
MBUF                off
MCAST               off
MDG                 off
MEMDBG              off
MLS                 off
MLSM                off
MODPORT             off
NTP                 off
NVSYNC              off
OOB                  off
PAGP                off
PROTFILT            off
PPWR                off
PRUNING              off
PRIVATEVLAN         off
QOS                  off
RADIUS              off
REDUN                off
RSFC                 off
RSVP                 off
RUNTIMECFG          off
SCP                  off
SECURITY             off
SLP                  off
SNMP                 off
SPAN                 off
STP                  off
SYNCMGR              off
SYNFIG               off
SYSLOG               1
TACACS               off
TEST                 off
TFTP                 off
TFTPD                off
UDLD                 off
VERB                  off
VMPS                  1
VTP                  off
Console>

```

Related Commands set trace

show traffic

Use the **show traffic** command to display Traffic and Peak information for each switching bus.

show traffic

Syntax Description This command has no arguments or keywords.

Defaults This command has no default setting.

Command Types Switch command.

Command Modes Normal.

Examples This example shows how to display Traffic and Peak information for each switching bus on Catalyst 5500 and Catalyst 5505 switches:

```
Console> show traffic
Switching-Bus Traffic Peak Peak-Time
-----
A                5%    10% Thu Mar 18 1999, 22:45:20
B                 4%    15% Fri Mar 19 1999, 09:59:31
C                 6%     8% Fri Mar 19 1999, 11:30:13
Console>
```

Related Commands **show system**

show trunk

Use the **show trunk** command to display trunking information for the switch.

```
show trunk [mod_num[/port_num]] [detail]
```

Syntax Description	
<i>mod_num</i>	(Optional) Number of the module.
<i>/port_num</i>	(Optional) Number of the port.
detail	(Optional) Keyword to show detailed information about the specified trunk port.

Defaults This command has no default setting.

Command Types Switch command.

Command Modes Normal.

Usage Guidelines Entering the **show trunk** command without specifying a module or port number displays the actively trunking ports.

To display the trunking configuration for a port that is not actively trunking, specify the module and port number of the port you want to display.

The RSM port displays as a port that is always trunking, with allowed and active VLANs for each VLAN configured on the RSM.

The Catalyst 2948G and 2980G switches are fixed configuration switches. Ports are located on module 2 for the 2948G and on modules 2 and 3 for the 2980G; for this reason, if you enter *mod_num/port_num* 1/N, an error message will be displayed.

Examples This example shows how to display trunking information for the switch:

```
Console> (enable) show trunk
* - indicates vtp domain mismatch
Port      Mode           Encapsulation  Status      Native vlan
-----  -
2/1       auto           dot1q          trunking    1
4/9       auto           isl            trunking    1
4/10      desirable     isl            trunking    1

Port      Vlans allowed on trunk
-----  -
2/1       1-1005
4/9       1-1005
4/10      1-1005
Port      Vlans allowed and active in management domain
-----  -
2/1       1-5,10,50,152,500,521-524,570
```

```

4/9      1,4-5,1003,1005
4/10     1,4-5,1003,1005

Port      Vlans in spanning tree forwarding state and not pruned
-----
2/1      1-5,10,50,152,500,521-524,570
4/9      1005
4/10     1005
Console> (enable)

```

This example shows how to display trunking information for a specific port:

```

Console> (enable) show trunk 4/5
* - indicates vtp domain mismatch

Port      Mode           Encapsulation  Status      Native vlan
-----
4/5      nonegotiate   dot1q          trunking    1

Port      Vlans allowed on trunk
-----
4/5      1-1005

Port      Vlans allowed and active in management domain
-----
4/5      1-3,1003,1005

Port      Vlans in spanning tree forwarding state and not pruned
-----
4/5      1005
Console> (enable)

```

Table 2-80 describes the fields in the **show trunk** command output.

Table 2-80 *show trunk Command Output Fields*

Field	Description
Port	Module and port numbers.
Mode	Trunk administrative status of the port (on, off, auto, or desirable).
Encapsulation	Trunking type configured by administration.
Status	Status of whether the port is trunking or nontrunking.
Native VLAN	Number of the native VLAN for the trunk link (for 802.1Q trunks, the VLAN for which untagged traffic can be transmitted and received over the trunk; for ISL trunks, packets are tagged on all VLANs, including the native VLAN).
Vlans allowed on trunk	Range of VLANs allowed to go on the trunk (default is 1 to 1000).
Vlans allowed and active in management domain	Range of active VLANs within the allowed range.
Vlans in spanning tree forwarding state and not pruned	Range of VLANs that actually go on the trunk with Spanning-Tree Protocol forwarding state.

Related Commands

set trunk

show uddld

Use the **show uddld** command to display UDLD information.

show uddld

show uddld port [*mod_num*[/*port_num*]]

Syntax Description

port	Keyword that specifies module or ports.
<i>mod_num</i>	(Optional) Number of the module for which UDLD information is displayed.
<i>/port_num</i>	(Optional) Number of the port for which UDLD information is displayed.

Defaults

This command has no default setting.

Command Types

Switch command.

Command Modes

Normal.

Examples

This example shows how to find out whether or not UDLD is enabled:

```
Console> show uddld
UDLD          : enabled
Message Interval :15 seconds
Console>
```

This example shows how to display UDLD information for a specific module and port:

```
Console> show uddld port 2/1
UDLD          :enabled
Message Interval :15 seconds
Port      Admin Status  Aggressive Mode  Link State
-----  -
2/1      enabled        disabled         undertermined
Console>
```

This example shows how to display UDLD information for all ports on a specific module:

```
Console> (enable) show uddld port 1
UDLD          :enabled
Message Interval :15 seconds
Port      Admin Status  Aggressive Mode  Link State
-----  -
1/1      disabled        disabled         not applicable
1/2      disabled        enabled          not applicable
Console>
```

Table 2-81 describes the fields in the **show udd** command output.

Table 2-81 *show udd Command Output Fields*

Field	Description
UDLD	Status of whether UDLD is enabled or disabled.
Port	Module and port numbers.
Admin Status	Status of whether administration status is enabled or disabled.
Aggressive Mode	Status of whether aggressive mode is enabled or disabled.
Link State	Status of the link: undetermined (detection in progress, UDLD has been disabled on the neighbors), not applicable (UDLD is not supported on the port, UDLD has been disabled on the port, or the port is disabled), shutdown (unidirectional link has been detected and the port disabled), bidirectional (bidirectional link has been detected).

Related Commands `set udd`

show users

Use the **show users** command to show if the console port is active and to list all active Telnet sessions with the IP address or IP alias of the originating host.

show users [noalias]

Syntax Description	noalias (Optional) Keyword that specifies to indicate, not to display, the IP alias; the IP address is displayed.
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Defaults	This command has no default setting.
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Command Types	Switch command.
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Command Modes	Normal.
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Examples	This example shows how to display the users of the active Telnet sessions:
-----------------	--

```

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

Telnet Sessions                               User
-----
172.16.10.75
172.16.10.75
171.31.1.203
Console>

```

The output shows the state of the console port (active or inactive) and the IP address or IP alias of each active Telnet session.

Related Commands	disconnect
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show version—switch

Use the **show version** command to display software and hardware version information for switching and supervisor engine modules only.

show version [*mod*]

Syntax Description	<i>mod</i> (Optional) Number of the module.
---------------------------	---

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

Command Types	Switch command.
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Command Modes	Normal.
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Examples	This example shows how to display the software and hardware versions:
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```

Console> show version
Console> show version
WS-C5509 Software, Version NmpSW: 6.1(0.24)FTL
Copyright (c) 1995-1999 by Cisco Systems
NMP S/W compiled on Aug 31 1999, 12:59:28

System Bootstrap Version: 5.2(1)
System Web Interface Version: 5.0(0.25)

Hardware Version: 1.0 Model: WS-C5509 Serial #: SCA032100T8

Mod Port Model                Serial #    Versions
-----
1   2   WS-X5K-SUP1-2GE             SAD03232101 Hw : 4.0
                                       Fw : 5.2(1)
                                       Fw1: 4.2(0.24)VAI78
                                       Sw  : 5.3(0.74)MIA7-Eng
                                       Sw1: 5.3(0.74)MIA7
3   48  WS-X5223-RJ-45             SAD03257164 Hw : 1.1
                                       Fw : 4.2(0.24)VAI78
                                       Sw  : 5.3(0.74)MIA7
5   48  WS-X5223-RJ-45             SAD03257171 Hw : 1.1
                                       Fw : 4.2(0.24)VAI78
                                       Sw  : 5.3(0.74)MIA7

          DRAM                FLASH                NVRAM
Module Total  Used    Free    Total  Used    Free    Total Used  Free
-----
1          65408K  24747K  40661K  16384K  14543K   1841K  512K  203K  309K

Uptime is 2 days, 0 hour, 41 minutes
Console> (enable)

```

This example show how to display version information for a specific module:

```

Console> (enable) show version 2
Mod Port Model                Serial #    Versions
-----
2   1   WS-X5403-NAM          JAB0343055Y Hw : 0.201
                                       Fw : 4.2(0.24)DAY68
                                       Sw : 6.1(0.24)FTL

Console> (enable)

```

Table 2-82 describes the fields in the **show version** command output.

Table 2-82 show version Command Output Fields

Field	Description
McpSW	Version number of the MCP software.
NmpSW	Version number of the NMP software.
NMP S/W compiled on	Date and time that the NMP software was compiled.
MCP S/W compiled on ¹	Date and time that the MCP software was compiled.
System Bootstrap Version	System bootstrap version number.
Web Interface Version	Web interface version number.
Hardware Version	Hardware version number.
Model	Switch model number.
Serial #	Switch serial number.
Module	Module number.
Ports	Number of ports on the module.
Model	Model number of the module.
Serial #	Serial number of the module.
Hw	Hardware version of the module.
Fw	Version of the firmware installed on the module. If this is a supervisor engine module, the Fw version number is the NMP boot ROM version level.
Fw1	Version of the second firmware image on the module, if present. If this is a supervisor engine module, the Fw1 version number is the MCP boot ROM version level.
Sw	Version of the software installed on the module.
Gsp ¹	Version of the gigabit switching platform.
Nmp ¹	Version of the supervisor engine software.
Module	Module number.
DRAM Total	Total dynamic RAM installed on the module.
Used	Amount of DRAM in use.
Free	Amount of available DRAM.
FLASH Total	Total Flash memory installed on the module.
Used	Amount of FLASH in use.

Table 2-82 *show version Command Output Fields (continued)*

Field	Description
Free	Amount of available FLASH.
NVRAM Total	Total NVRAM installed on the module.
Used	Amount of NVRAM in use.
Free	Amount of available NVRAM.
Used	Amount of NVRAM in use.
Available	Amount of NVRAM available.
Uptime is	Number of uninterrupted days, hours, minutes, and seconds the system has been up and running.

1. This field is not supported on the Catalyst 4000 family and 2948G switches.

show vlan

Use the **show vlan** command to display VLAN information.

show vlan [**trunk**]

show vlan *vlan* [**notrunk**]

show vlan *type*

Syntax Description	
trunk	(Optional) Keyword that specifies to force the display to show information only on trunk ports.
<i>vlan</i>	Number of the VLAN. If the VLAN number is not specified, all VLANs are displayed.
notrunk	(Optional) Keyword that specifies to force the display to show information only on nontrunk ports.
<i>type</i>	Type of VLAN; valid values are Ethernet, FDDI, FDDIInet, TrBRF, and TrCRF.

Defaults This command has no default setting.

Command Types Switch command.

Command Modes Normal.

Usage Guidelines Each Ethernet switch port and Ethernet repeater group belong to only one VLAN. Trunk, FDDI/CDDI, and ATM ports can be on multiple VLANs.

Examples This example shows how to display information for all VLANs:

```

Console> show vlan
VLAN Name                Status    IfIndex Mod/Ports, Vlans
-----
1    default                active    5        1/2
                                     6/1-48
                                     7/2-24
2    VLAN0002              active    339
5    VLAN0005              active    342
50   VLAN0050              active    346
100  VLAN0100              active    347
152  VLAN0152              active    348
200  VLAN0200              active    349
300  VLAN0300              active    350
305  VLAN0305              active    354
801  VLAN0801              active    338      338      802

```

```

VLAN Type SAID MTU Parent RingNo BrdgNo Stp BrdgMode Trans1 Trans2
-----
1 enet 100001 1500 - - - - - 0 0
10 enet 100010 1500 - - - - - 0 0
901 enet 100901 1500 - - - - - 0 0
999 trbrf 100999 4472 - - 0xe ieee - 0 0
1002 fddi 101002 1500 - 0x0 - - - 0 0
1003 trcrf 101003 1500 0 0x0 - - - 0 0
1004 fdnet 101004 1500 - - 0x0 ieee - 0 0
1005 trbrf 101005 1500 - - 0x0 ibm - 0 0

VLAN AREHops STEHops Backup CRF
-----
1003 7 7 off
Console>

```

Table 2-83 describes the fields in the **show vlan** command output.

Table 2-83 show vlan Command Output Fields

Field	Description
VLAN	VLAN number.
Name	Name, if configured, of the VLAN.
Status	Status of the VLAN (active or suspend).
IfIndex	Interface Index, assigned by SNMP.
Mod/Ports, VLANs	Ports that belong to the VLAN.
Type	Media type of the VLAN.
SAID	Security association ID value for the VLAN.
MTU	Maximum transmission unit size for the VLAN.
Parent	Parent VLAN, if one exists.
RingNo	Ring number for the VLAN, if applicable.
BrdgNo	Bridge number for the VLAN, if applicable.
Stp	Spanning-Tree Protocol type used on the VLAN.
BrdgMode	Bridging mode for this VLAN. Possible values are SRB and SRT; the default is SRB.
Trans1	First translational VLAN used to translate FDDI or Token Ring to Ethernet.
Trans2	Second translational VLAN used to translate FDDI or Token Ring to Ethernet.
AREHops	Maximum number of hops for All-Routes Explorer frames. Possible values are 1 through 13; the default is 7.
STEHops	Maximum number of hops for Spanning-Tree Explorer frames. Possible values are 1 through 13; the default is 7.
Backup CRF	Status of whether the TrCRF is a backup path for traffic.

■ show vlan

Related Commands

set trunk
set vlan
show trunk

show vlan mapping

Use the **show vlan mapping** command to display VLAN mapping table information.

show vlan mapping

Syntax Description This command has no keywords or arguments.

Defaults This command has no default setting.

Command Types Switch command.

Command Modes Normal.

Examples This example shows how to display the VLAN mapping table information:

```
Console> show vlan mapping
802.1q vlan      ISL vlan      Effective
-----
1099             917           true
Console>
```

Table 2-84 describes the fields in the **show vlan mapping** command output.

Table 2-84 show vlan mapping Command Output Fields

Field	Description
802.1Q Vlan	Number of the 802.1Q VLAN.
ISL Vlan	Number of the ISL VLAN.
Effective	Status of the VLAN. If the VLAN is active and its type is Ethernet, true is displayed, if not, false is displayed.

Related Commands

- set vlan mapping
- clear vlan mapping

show vmps

Use the **show vmps** command to display VMPS configuration information.

show vmps [noalias]

Syntax Description	noalias (Optional) Keyword that specifies to force the display to show IP addresses, not IP aliases.
---------------------------	---

Defaults This command has no default settings.

Command Types Switch command.

Command Modes Normal.

Examples This example shows how to display VMPS configuration information for Catalyst 5000 family and 2926G series switches:

```
Console> show vmps
VMPS Server Status:
-----
Management Domain: (null)
State: disabled
Operational Status: inactive
TFTP Server: default
TFTP File: vmps-config-database.1
Fallback VLAN: (null)
Secure Mode: open
VMPS No Domain Req: allow
```

```
VMPS Client Status:
-----
VMPS VQP Version: 1
Reconfirm Interval: 60 min
Server Retry Count: 3
VMPS domain server:
```

```
No dynamic ports configured.
Console>
```

This example shows how to display VMPS configuration information for Catalyst 4000 family, 2948G, and 2980G series switches:

```
Console> show vmps
VMPS Client Status:
-----
VMPS VQP Version: 1
Reconfirm Interval: 60 min
Server Retry Count: 3
VMPS domain server:
```

```
No dynamic ports configured.
Console>
```

Table 2-85 describes the fields in the **show vmpls** command output.

Table 2-85 *show vmpls Command Output Fields*

Field	Description
VMPS Server Status	Status of VMPS server.
Management Domain	Management domain supported by this server.
State	Status on whether VMPS is enabled or disabled.
Operational Status	VMPS status (active, inactive, or downloading).
TFTP Server	IP address of the VMPS server.
TFTP File	VMPS configuration filename.
Fallback VLAN	VLAN assigned if a VLAN is not assigned to a MAC address in the database.
Secure Mode	Secure mode status (open or secure).
VMPS No Domain Req	Status on whether the server accepts requests from clients with no domain name.
VMPS Client Status	Status of the VMPS client.
VMPS VQP Version	Version of VMPS VQP.
VMPS domain server	VMPS domain server name.

Related Commands

set vtp
download vmpls

show vmps mac

Use the **show vmps mac** command to display the MAC-address-to-VLAN mapping table.

```
show vmps mac [mac_addr]
```

Syntax Description	<i>mac_addr</i> (Optional) MAC address that allows you to see mapping information. If you do not specify a MAC address, the entire mapping table is displayed.
---------------------------	--

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

Command Types	Switch command.
----------------------	-----------------

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

Usage Guidelines	This command is supported by the Catalyst 5000 family switches and the Catalyst 2926G series switches.
-------------------------	--

Examples	This example shows the entire MAC-address-to-VLAN mapping table:
-----------------	--

```
Console> show vmps mac
MAC Address      VLAN Name  Last Requestor  Port ID  Last Accessed  Last Response
-----
00-00-c0-23-c8-34 Hardware  198.4.222.111  3/5     0, 01:25:30   Success
00-00-c0-25-c9-42 --NONE--  198.4.222.111  2/1     0, 05:20:00   Denied
Console>
```

Table 2-86 describes the fields in the **show vmps mac** command output.

Table 2-86 show vmps mac Command Output Fields

Field	Description
MAC Address	MAC address.
VLAN Name	VLAN name assigned to the MAC address.
Last Requestor	IP address of the client that last requested a VLAN assignment for this MAC address.
Port ID	Port ID in the last request.
Last Accessed	Time when the last request was processed for this MAC address.
Last Response	Response sent by the server for the last request.

Related Commands show vmps

show vmps statistics

Use the **show vmps statistics** command to display the VMPS statistics (based on the results of the **reconfirm vmps** command).

show vmps statistics

Syntax Description This command has no keywords or arguments.

Defaults This command has no default setting.

Command Types Switch command.

Command Modes Normal.

Examples This example shows how to display the VMPS statistics:

```
Console> show vmps statistics
VMPS Statistics:
Last Enabled At:          2,01:30:05
Config Requests:         20
Invalid Requests:        0
Status 'Error' Responses: 0
Status 'Deny' Responses: 5
MAC Address of Last Failed Request: 00-60-00-cc-01-02
Console>
```

Table 2-87 describes the fields in the **show vmps statistics** command output.

Table 2-87 show vmps statistics Command Output Fields

Field	Description
Last Enabled At	Time when the VMPS was enabled.
Config Requests	Number of configuration requests.
Invalid Requests	Number of invalid requests.
Status 'Error' Responses	Number of error responses.
Status 'Deny' Responses	Number of "Access Denied" and "Port Shutdown" responses.
MAC Address of Last Failed Request	MAC address of the last request for which the response was not successful.

Related Commands `show vmps`

show vmpls vlan

Use the **show vmpls vlan** command to display all the MAC addresses assigned to a VLAN in the VMPS table.

```
show vmpls vlan vlan_name
```

Syntax Description

vlan_name Name or number of the VLAN.

Defaults

This command has no default setting.

Command Types

Switch command.

Command Modes

Normal.

Usage Guidelines

This command is supported by the Catalyst 5000 family switches and the Catalyst 2926G series switches.

Examples

This example shows how to display all MAC addresses assigned to the Hardware VLAN in the VMPS table:

```
Console> show vmpls vlan Hardware
```

```
MAC Address          VLAN Name Last Requestor  Port ID Last Accessed Last Response
-----
00-00-c0-23-c8-34 Hardware  198.4.222.111  3/5    0, 01:25:30  Success
Console>
```

Table 2-88 describes the fields in the **show vmpls vlan** command output.

Table 2-88 show vmpls vlan Command Output Fields

Field	Description
MAC Address	MAC address.
VLAN Name	VLAN name assigned to the MAC address.
Last Requestor	IP address of the client that last requested a VLAN assignment for this MAC address.
Port ID	Port ID in the last request.
Last Accessed	Time when the last request was processed for this MAC address.
Last Response	Response sent by the server for the last request.

■ show vmps vlan

Related Commands show vmps