

# show snmp access

To display SNMP access information, use the **show snmp access** command.

```
show snmp access [volatile | nonvolatile | read-only]
```

```
show snmp access [-hex] groupname security-model {v1 v2c}
```

```
show snmp access [-hex] g          security-model v3 noauthentication authentication
privacy context -hex contextname
```

## Syntax Description

	(Optional) Displays information for volatile storage types.
	(Optional) Displays information for nonvolatile storage types.
	(Optional) Displays information for read-only storage types.
	(Optional) Displays <i>groupname</i> , <i>username</i> , and <i>contextname</i> as a hexadecimal character.
<i>groupname</i>	Name of the SNMP group or collection of users who have a common access policy.
	Specifies security model v1, v2c, or v3.
<b>v2c   v3</b>	Displays information for security models not set to use authentication protocol.
	Displays information for authentication protocol.
	Displays information regarding messages sent on behalf of the user that are protected from disclosure.
<i>contextname</i>	(Optional) Specifies the name of a context string.

## Defaults

## Command Types

Switch command.

## Command Modes

## Usage Guidelines

If you use special characters for the *groupname* (nonprintable delimiters for these parameters), you must use a hexadecimal keyword, which is one or two hexadecimal digits separated by a colon (:); for example, 00:ab:34.

If you do not enter a context name, a NULL context string is used.

There are three versions of SNMP:

- Version 1 (SNMPv1)—This is the initial implementation of SNMP. Refer to RFC 1157 for a full description of functionality.

Version 2 (SNMPv2c)—The second release of SNMP, described in RFC 1902, has additions and enhancements to data types, counter size, and protocol operations.

The SNMP functionality on the Catalyst enterprise LAN switches for SNMP v1 and SNMP v2c remains intact; however, the functionality has greatly expanded for SNMPv3. Refer to the “Configuring SNMP” chapter of the *Catalyst 6500 Series Switch Software Configuration Guide*

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## Examples

```
Console> (enable) show snmp access
Group Name:defaultROgroup
Context:
Security Model:v1
Security Level:noauthentication
Context Match:vlan-1
Read View:defaultAdminView
Write View:
Notify View:defaultAdminView
Storage Type:read-only
Row Status:active

Group Name:defaultROgroup
Context:
Security Model:v2c
Security Level:noauthentication
Context Match:vlan-55
Read View:defaultAdminView
Write View:
Notify View:defaultAdminView
Storage Type:read-only
Row Status:active
```

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## Related Commands

# show snmp access-list

---

## Syntax Description

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## Defaults

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## Command Types

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## Command Modes

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## Examples

```
          show snmp access-list
Access-Number  IP-Addresses/ IP-Mask
-----
1              172.20.60.100/255.0.0.0
              1.1.1.1/-
2              172.20.60.7/-
              2.2.2.2/-
3              2.2.2.2/155.0.0.0
4              1.1.1.1/2.1.2.4
              2.2.2.2/-
              2.2.2.5/-
```

# show snmp buffer

show snmp buffer

show snmp buffer

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

show snmp buffer

\_\_\_\_\_

# show snmp community

volatile | nonvolatile

show snmp community index -hex]

---

read-only

---

volatile

---

nonvolatile

---

index

---

-hex

---

---

show snmp community

show snmp community

---

show snmp community

show snmp community

---

**show snmp community**

`show snmp community`

---

**clear snmp community**  
**set snmp community**

# show snmp context

---

## Syntax Description

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## Defaults

---

## Command Types

---

## Command Modes

---

## Examples

```
show snmp context
```

---

## Related Commands

# show snmp counters

*mod/port*

---



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Specifies HCRMON counters.

Specifies if-MIB counters.

Specifies RMON counters.

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*Catalyst 6500 Series Switch Software Configuration Guide*

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```

snmpInPkts           = 13993
snmpOutPkts          = 13960
snmpInBadVersions    = 0
snmpInBadCommunityNames = 33
snmpInBadCommunityUses = 0
  
```

```

snmpInASNParseErrs      = 0
snmpInTooBig            = 0
snmpInNoSuchNames      = 0
snmpInBadValues        = 0
snmpInReadOnly         = 0
snmpInGenErrs          = 0
snmpInTotalReqVars     = 61747
snmpInTotalSetVars     = 0
snmpInGetRequests      = 623
snmpInGetNexts         = 13337
snmpInSetRequests      = 0
snmpInGetResponses     = 0
snmpInTraps            = 0
snmpOutTooBig          = 0
snmpOutNoSuchNames     = 230
snmpOutBadValues       = 0
snmpOutGenErrs        = 0
snmpOutGetRequests     = 0
snmpOutGetNexts       = 0
snmpOutSetRequests     = 0
snmpOutGetResponses    = 13960
snmpOutTraps           = 0
Console>

```

Table 2-89 describes the fields in the `show snmp counters` command output.

**Table 2-89** *show snmp counters Command Output Fields*

Field	Description
snmpInASNParseErrs	Number of ASN.1 or BER errors encountered by the SNMP entity when decoding received SNMP messages.
snmpInTooBig	Number of SNMP PDUs delivered to the SNMP protocol entity with the value of the error-status field as “tooBig.”
snmpInNoSuchNames	Number of SNMP PDUs delivered to the SNMP protocol entity with the value of the error-status field as “noSuchName.”
snmpInBadValues	Number of SNMP PDUs delivered to the SNMP protocol entity with the value of the error-status field as “badValue.”
snmpInReadOnly <sup>1</sup>	Number of valid SNMP PDUs delivered to the SNMP protocol entity with the value of the error-status field as “readOnly.”
snmpInGenErrs	Number of SNMP PDUs delivered to the SNMP protocol entity with the value of the error-status field as “genErr.”

*show snmp counters Command Output Fields (continued)*

snmpInTotalReqVars	Number of MIB objects retrieved successfully by the SNMP protocol entity as the result of receiving valid SNMP Get-Request and Get-Next PDUs.
snmpInTotalSetVars	Number of MIB objects altered successfully by the SNMP protocol entity as the result of receiving valid SNMP Set-Request PDUs.
snmpInGetRequests	Number of SNMP Get-Request PDUs accepted and processed by the SNMP protocol entity.
snmpInPkts	Number of messages delivered to the SNMP entity from the transport service.
snmpOutPkts	Number of SNMP messages passed from the SNMP protocol entity to the transport service.
snmpInBadVersions	Number of SNMP messages delivered to the SNMP entity for an unsupported SNMP version.
snmpInBadCommunityNames	Number of SNMP messages delivered to the SNMP entity that used an SNMP community name not known to said entity.
snmpInBadCommunityUses	Number of SNMP messages delivered to the SNMP entity that represented an SNMP operation not allowed by the SNMP community named in the message.
snmpInASNParseErrs	Number of ASN.1 or BER errors encountered by the SNMP entity when decoding received SNMP messages.
snmpInTooBig	Number of SNMP PDUs delivered to the SNMP protocol entity with the value of the error-status field as "tooBig."
snmpInNoSuchNames	Number of SNMP PDUs delivered to the SNMP protocol entity with the value of the error-status field as "noSuchName."
snmpInBadValues	Number of SNMP PDUs delivered to the SNMP protocol entity with the value of the error-status field as "badValue."
snmpInGenErrs	Number of SNMP PDUs delivered to the SNMP protocol entity with the value of the error-status field as "genErr."
snmpInTotalReqVars	Number of MIB objects retrieved successfully by the SNMP protocol entity as the result of receiving valid SNMP Get-Request and Get-Next PDUs.
snmpInTotalSetVars	Number of MIB objects altered successfully by the SNMP protocol entity as the result of receiving valid SNMP Set-Request PDUs.
snmpInGetRequests	Number of SNMP Get-Request PDUs accepted and processed by the SNMP protocol entity.
snmpInGetNexts	Number of SNMP Get-Next PDUs accepted and processed by the SNMP protocol entity.
snmpInSetRequests	Number of SNMP Set-Request PDUs accepted and processed by the SNMP protocol entity.
snmpInGetResponses	Number of SNMP Get-Response PDUs accepted and processed by the SNMP protocol entity.



# show snmp engineid

show snmp engineid

show snmp engineid

---

## Syntax Description

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## Defaults

---

## Command Types

---

## Command Modes

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## Usage Guidelines

The SNMP engine and the SNMP entity have a one-to-one mapping. You can also identify the SNMP entity, which is represented as hexadecimal numbers only, and must be from 5 to 32 bytes long; for example, 00:00:00:09:0a:fe:ff:12:97:33:45:12.

---

This example shows how to display the SNMP engine ID:

```
          show snmp engineid
EngineId: 00:00:00:09:00:d0:00:4c:18:00
Engine Boots: 1234455
Console> (enable)
```

**Table 2-90** show snmp engineid Command Output Fields

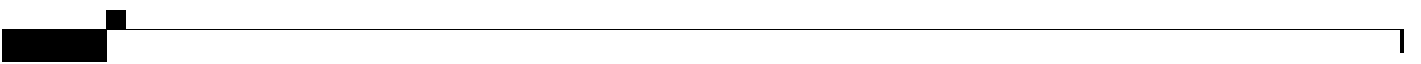
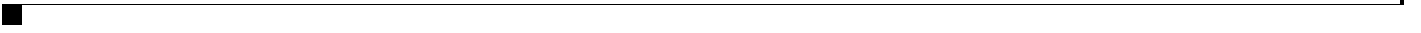
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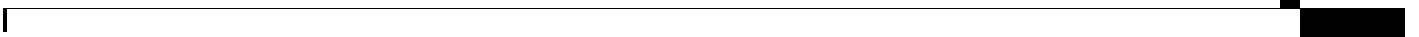
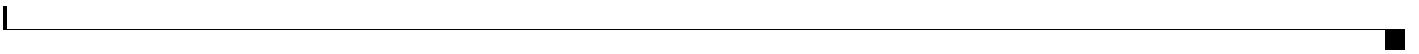

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## show snmp notification mapping

### show snmp notification mapping

Trap Keyword	Notification Object Name	Notif. Sent Syslog
auth	authenticationFailure	SNMPAUTHFAIL
autosshutdn	cmasModuleAutoShutdown	MODAUTOSHUTTRAP
bridge	newRoot	NEWROOTTRAP
	topologyChange	TOPOTRAP
callhomesntp	ccmSntpServerFailNotif	SMTPSERVERFAILNOTIF
chassis	chassisAlarmOn	CHASSISALARM
	chassisAlarmOff	CHASSISALARM
config	sysConfigChangeTrap	SYSCONFIGCHANGENOTIF
entity	entConfigChange	ENTITYTRAP
entityfru	cefcModuleStatusChange	ENTITYMODTRAP
	cefcPowerStatusChange	ENTITYPOWERTRAP
	cefcFRUInserted	FRUINSERTEDTRAP
	cefcFRURemoved	FRUREMOVEDTRAP
	cefcPowerSupplyOutputChange	POWEROUTPUTCHANGENOTIF
envtemp	ciscoEnvMonTemperature	ENVMONTEMPTRAP
envshutdn	ciscoEnvMonShutdown	ENVMONSHUTDOWNTRAP
envfan	ciscoEnvMonFanNotification	ENVMONFANTRAP
envpower	ciscoEnvMonRedundantSupplyNotification	ENVMONPOWERTRAP
envstate	ciscoEnvMonTempStatusChangeNotif	ENVMONTEMPTRAP
	ciscoEnvMonFanStatusChangeNotif	ENVMONFANTRAP
	ciscoEnvMonSuppStatusChangeNotif	ENVMONPOWERTRAP
flashinsert	ciscoFlashDeviceInsertedNotif	FLASHINSERTEDNOTIF
flashremove	ciscoFlashDeviceRemovedNotif	FLASHREMOVEDNOTIF
flexifchange	cflIfStatusChangeNotif	FLEXLINKSTATUSNOTIF
inlinepower	pethPsePortOnOffNotification	PETHPORTONOFFTRAP
ippermit	ipPermitDeniedTrap	IPPERMITDENIEDNOTIF
l2ctrl	clcIfMacLimitHighNotif	CLCIFHIGHTRAP
	clcIfMacLimitLowNotif	CLCIFLOWTRAP
	clcIfVlanMacLimitHighNotif	CLCIFVLANHIGHTRAP
	clcIfVlanMacLimitLowNotif	CLCIFVLANLOWTRAP
	clcVlanMacLimitHighNotif	CLCVLANHIGHTRAP
	clcVlanMacLimitNotif	CLCVLANLOWTRAP
l2tunnel	cltcTunnelDropThresholdExceeded	CLTCDROPEXCEEDTRAP

	cltcTunnelShutdownThresholdExceeded	CLTCSHUTEXCEEDTRAP
linkerrhigh	clemHighThresholdExceeded	CLEMHIGHTHRESHEXCDTRAP
linkerrlow	clemLowThresholdExceeded	CLEMLOWTHRESHEXCDTRAP
macmove	cmnMacMoveNotification	MACMOVENOTIF
mac	cmnMacChangedNotification	MACCHANGEDNOTIF
macthreshold	cmnMacThresholdExceedNotif	MACTHRESHOLDEXCEEDNOTIF
module	moduleUp	MODULETRAP
	moduleDown	MODULETRAP
noauthfailvlan	cpaeNoAuthFailVlanNotif	NOAUTHFAILVLANNOTIF
noguestvlan	cpaeNoGuestVlanNotif	NOGUESTVLANNOTIF
redundancy	ciscoRFSwactNotif	RFSWACTTRAP
	ciscoRFProgressionNotif	RFPROGRESSIONTRAP
stp	stpInconsistencyUpdate	STPXTTRAP
	stpRootInconsistencyUpdate	STPXTTRAPROOT
	stpLoopInconsistencyUpdate	STPXTTRAPROOT
syslog	clogMessageGenerated	
system	ciscoSystemClockChanged	CLOCKCHANGETRAP
sysinfolog	csilLoggingFailNotif	SYSINFOLOGFAILNOTIF
vlancreate	vtpVlanCreated	VLANCREATEDNOTIF
vlandelete	vtpVlanDeleted	VLANDELETEDNOTIF
vmmps	vmVmmpsChange	VMPSCHANGENOTIF
vtp	vtpConfigRevNumberError	VTPPREVERRORENOTIF
	vtpLocalModeChanged	VTPLOCALMODENOTIF
	vtpVersionInUseChanged	VTPVERCHANGEDNOTIF
	vtpVersionOneDeviceDetected	VTPVERONENOTIF
	vlanTrunkPortDynamicStatusChange	TRUNKSTATUSCHANGEDNOTIF
	vtpConfigDigestError	CONFIGDIGESTERROR

Console> (enable)



***show snmp notify Command Output Fields***


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UDP Port#: 165  
Timeout: 100  
Retry count: 5  
Tag List: tag1 tag2 tag3  
Parameters: jeorge  
Storage Type: nonvolatile  
Row Status: active  
Console> (enable)

---

---

**Table 2-93**     *show snmp targetaddr Command Output Fields*

UDP Port #	Number of the UDP port of the target host to use.
Timeout	Number of timeouts.
Retry count	Number of retries.
Tag List	Tags that point to target addresses to send notifications to.
Parameters	Entry in the snmpTargetParamsTable; the maximum length is 32 bytes.
Storage Type	Storage type (volatile or nonvolatile).
Row Status	Status of the entry.

To display the SNMP parameters used in the snmpTargetParamsTable when generating a message to a target, use the \_\_\_\_\_ command.

[ \_\_\_\_\_ ]  
[ \_\_\_\_\_ ] { \_\_\_\_\_ }

The default storage type is \_\_\_\_\_ .

Switch command.

Normal.

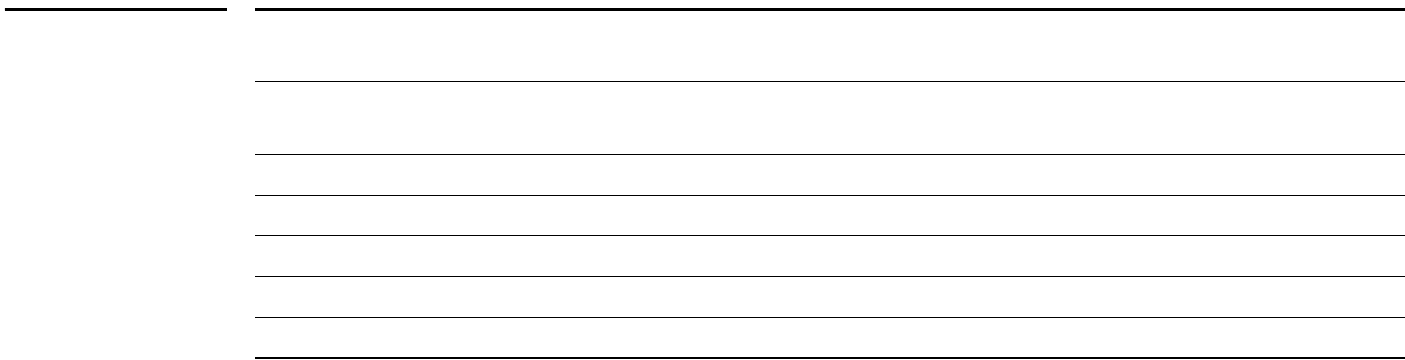
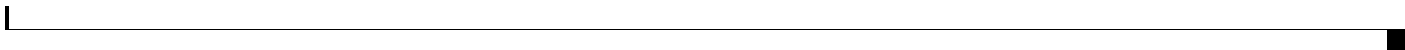
If you use special characters for the \_\_\_\_\_ value (nonprintable delimiters for this parameter), you must use a hexadecimal keyword, which is one or two hexadecimal digits separated by a colon (:); for example, 00:ab:34.

The \_\_\_\_\_ keyword is supported for security model v3 only.

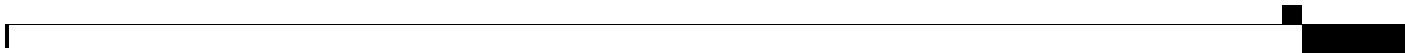
This example shows how to display specific target parameter information in the snmpTargetParamsTable:

```
show snmp targetparams snmpV1TrapParams
```





`show snmp user joe`





# show snmp view

*subtree*

---

## Syntax Description

---

*viewname*

---

*viewname*

---

*subtree*

---

---

## Defaults

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## Command Types

---

## Command Modes

---

## Usage Guidelines

*viewname*

---

## Examples

Table 2-96 describes the fields in the command output.

**Table 2-96** *show snmp view Command Output Fields*




**Table 2-97** *show span Command Output Fields (continued)*


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```
Port(s)                Vlan Port-State    Cost    Prio Portfast Channel_id
-----
6/5-8,6/13,6/15,6/17,6/1 1    not-connected 2684354 32   disabled 0
9
...
```

This example (while in PVST+ mode) shows how to display the active spanning tree port configuration for VLAN 1:

```
Spanning tree mode      PVST+
Spanning tree type      ieee
Spanning tree enabled
```

```
Designated Root          00-60-70-4c-70-00
Designated Root Priority  16384
Designated Root Cost     19
Designated Root Port     2/3
Root Max Age 14 sec      Hello Time 2 sec      Forward Delay 10 sec
```

```
Bridge ID MAC ADDR      00-d0-00-4c-18-00
Bridge ID Priority       32768
Bridge Max Age 20 sec    Hello Time 2 sec      Forward Delay 15 sec
```

Port	Vlan	Port-State	Cost	Prio	Portfast	Channel_id
2/3	1	forwarding	19	32	disabled	0
2/12	1	forwarding	19	32	disabled	0

Console> (enable)

```
Console> (enable)
VLAN 1
Spanning tree mode      MISTP
Spanning tree type      ieee
Spanning tree enabled
VLAN mapped to MISTP Instance: 1
```

Port	Vlan	Port-State	Cost	Prio	Portfast	Channel_id
2/3	1	forwarding	200000	32	disabled	0
2/12	1	forwarding	200000	32	disabled	0

Console> (enable)

```
Console> show spantree 989 active
```



Channel_id	Channel ID number.

---

**show spantree backbonefast**  
**show spantree blockedports**  
**show spantree portvlancost**  
**show spantree statistics**  
**show spantree summary**  
**show spantree uplinkfast**

# show spantree backbonefast

---

## Syntax Description

---

## Defaults

---

## Command Types

---

## Command Modes

---

## Usage Guidelines

---

## Examples

```
show spantree backbonefast
```

---

## Related Commands

# show spantree blockedports

---

## Syntax Description

---

Keyword and optional variable to display instance-specific information; valid values are from 1 to 16.

---

Keyword and optional variable to display instance-specific information; valid values are from 0 to 15.

---

---

## Defaults

---

## Command Types

---

## Command Modes

---

## Usage Guidelines

---

## Examples

```
show spantree blockedports 1002
```

```
show spantree blockedports mistp-instance 1
```

```
show spantree blockedports mst 0
```

To display information about BPDU filtering, use the \_\_\_\_\_ command.

[ \_\_\_\_\_ ]

\_\_\_\_\_ **set spantree bpd-filter**

**show spantree bpdu-guard**

**show spantree bpdu-guard /**

---

---

---

---

---

---

---

---

**set spantree bpdu-guard**



*vlan mod/port*

*instance mod/port*

*instance mod/port*

---

*vlan*

---

*mod port*

---

*instance*

---

*instance*

---

*mod/port*

---

---

---

---

---

*instance*

*skew*

---

***show spantree bpdu-skewing Command Output Fields***

Worst Skew (ms)	Duration of the worst skew; absolute time in milliseconds.
Worst Skew Date	Date and time of the worst skew duration.

To display the MAC address of the root switch in the instance, the time remaining before the VLAN joins the instance, and the number of seconds left before the entry expires and is removed from the table, use the command.

---

Number of the VLAN.

---

---

This command has no default settings.

---

Switch command.

---

Normal.

---

This command is available in MISTP or MISTP/PVST+ mode only.

This command is not available in MST mode.

When only one entry is printed (or when all the entries are associated to the same instance), the VLAN is mapped to that instance. If two or more entries are associated with different instances, then the VLAN has a conflict, is blocked, and is not mapped to any instance.

The time left timers associated with the mapping of a VLAN to an MISTP instance are started with the maximum age of the BPDU and can be up to the maximum age. This field can show “inactive” to indicate the MAC address is the same as the MAC address of the switch (for example, the switch is the root). In all the other cases, the entry is a number, and the timer restarts every time an incoming BPDU confirms the mapping.

The delay timer field can display the following:

Number in seconds that represents the timer running; this timer can be up to the maximum forward delay. The timer is initialized with the fwd delay.

If the timer is not running, “inactive” is displayed because the VLAN is already mapped to the instance or a conflict is in progress.

---

This example shows the output if there are no conflicts on the specified VLAN:

This example shows the output if there are conflicts on the specified VLAN:

[Table 2-100](#) describes the fields in the `show ip dhcp snooping` command output.

Inst	Instance number that is requesting to map the VLAN.
MAC	MAC address of the root sending the BPDU claiming the VLAN, taken from the root ID of the BPDU.
Delay	Time remaining before the VLAN joins the instance.
Time left	Age of the entry, as time in seconds left before the entry expires and is removed from the table.

---

To display the current default port cost mode, use the \_\_\_\_\_ command.

\_\_\_\_\_ This command has no arguments or keywords.

\_\_\_\_\_ This command has no default settings.

\_\_\_\_\_ Switch command.

\_\_\_\_\_ Normal.

\_\_\_\_\_ This example shows how to display the default port cost mode:  
\_\_\_\_\_  
\_\_\_\_\_

---

To display spanning tree guard information for the VLANs or instances on a port, use the command.

```
[ ]  
[ ]  
[ ]  
[ ]  
[ ]  
[ ]
```

	(Optional) Number of the VLAN; valid values are from 1 to 4094.
/	(Optional) Number of the module and the port on the module.
	Keyword and optional variable to display MISTP instance-specific information; valid values are from 1 to 16.
	Keyword and optional variable to display MST instance-specific information; valid values are from 0 to 15.

The default is VLAN 1, and the default port list is “all the ports” in the specified or default VLAN.

Switch command.

Normal.

The command works on a per-port basis. When you enable the feature on a port, a logical port is blocked on a per-VLAN basis. This means that you can specify a port (or a list of ports) and specify a VLAN, but you cannot specify both.

---

This example shows how to display spanning tree guard information for a specific VLAN:

```
show spantree guard 1004
```

```
show spantree guard mistp-instance 3
```

---

MISTP-PVST mode. Use 'show spantree mapping config' to view mappings configured on the local switch.

```
Console> (enable)
Inst Root Mac          Vlans
-----
1    00-50-3e-78-70-00 1
2    00-50-3e-78-70-00 -
3    00-50-3e-78-70-00 -
4    00-50-3e-78-70-00 -
5    00-50-3e-78-70-00 -
6    00-50-3e-78-70-00 -
7    00-50-3e-78-70-00 -
8    00-50-3e-78-70-00 -
9    00-50-3e-78-70-00 -
10   00-50-3e-78-70-00 -
11   00-50-3e-78-70-00 -
12   00-50-3e-78-70-00 -
13   00-50-3e-78-70-00 -
14   00-50-3e-78-70-00 -
15   00-50-3e-78-70-00 -
16   00-50-3e-78-70-00 -
Console> (enable)
```

Console> (enable)

Inst	Root Mac	Vlans
------	----------	-------

1	-	1
2	-	-
3	-	-
4	-	-
5	-	-
6	-	-
7	-	-
8	-	-
9	-	-
10	-	-
11	-	-
12	-	-
13	-	-
14	-	-
15	-	-
16	-	-

Console> (enable)

```

Console>
Instance 1
Spanning tree mode          MISTP
Spanning tree type          ieee
Spanning tree instance enabled

Designated Root             00-d0-00-4c-18-00
Designated Root Priority     32769 (root priority: 32768, sys ID ext: 1)
Designated Root Cost        0
Designated Root Port        none
VLANs mapped:               1
Root Max Age 20 sec Hello Time 2 sec Forward Delay 15 sec

Bridge ID MAC ADDR          00-d0-00-4c-18-00
Bridge ID Priority           32769 (bridge priority: 32768, sys ID ext: 1)
VLANs mapped:               1
Bridge Max Age 20 sec Hello Time 2 sec Forward Delay 15 sec

Port              Inst Port-State      Cost      Prio Portfast Channel_id
-----
2/3                1 forwarding      200000    32 disabled 0
2/12               1 forwarding      200000    32 disabled
Console>

```



```
Console>
Spanning tree mode          MST
Instance                    0
VLANs Mapped: 1-1005,1025-4093

Designated Root             00-04-9b-ba-48-00
Designated Root Priority    32768 (root priority: 32768, sys ID ext: 0)
Designated Root Cost       2000000
Designated Root Port       6/48
Root Max Age 20 sec Hello Time 2 sec Forward Delay 15 sec

CIST Regional Root         00-10-7b-bb-2f-00
CIST Regional Root Priority 32768
CIST Internal Root Cost    0 Remaining Hops 18

Bridge ID MAC ADDR         00-10-7b-bb-2f-00
Bridge ID Priority          32768 (bridge priority: 32768, sys ID ext: 0)
Bridge Max Age 20 sec Hello Time 2 sec Forward Delay 15 sec Max Hops 20

Topology change initiator   4/48
Last topology change occured Mon Oct 9 2006, 11:20:28
Topology change count       3
```

```

Port                State      Role Cost   Prio Type
-----
6/48                forwarding  ROOT  2000000   32 Shared, Boundary(STP)
Console>

```

```

Console>
Spanning tree mode   MST
Instance             1
VLANs Mapped:       1

Designated Root      00-d0-00-b3-68-00
Designated Root Priority 32769 (root priority:32768, sys ID ext:1)
Designated Root Cost 0      Remaining Hops 20
Designated Root Port 1/0

Bridge ID MAC ADDR   00-d0-00-b3-68-00
Bridge ID Priority    32769 (bridge priority:32768, sys ID ext:1)

```

```

Port                State      Role Cost   Prio Type
-----
5/1                 forwarding  BDRY   20000    32 P2P, Boundary(STP)
5/2                 forwarding  BDRY   20000    32 P2P, Boundary(STP)
7/48                forwarding  BDRY  2000000   32 Shared, Boundary
Console>

```

```

Console>
Edge Port:          No, (Configured) Default
Link Type:          P2P, (Configured) Auto
Port Guard:         Default
Boundary:           Yes (PVST)
Hello:              2, (Local bridge hello: 2)

```

```

Inst State      Role Cost   Prio VLANs
-----
0 forwarding    ROOT      20000    32 1-9,11-13,15-99
10 forwarding   MSTR      20000    32 10,100,1000
14 forwarding   MSTR      20000    32 14
Console>

```

```
Console>
Currnet (NVRAM) MST Configuration
Configuration Name: Cisco Revision: 1
Instance Vlans
```

```
-----
0      401-1005,1025-1999,2201-4096
1      1-50
2      51-100
3      101-300
4      -
5      -
6      2000-2200
7      301-400
8      -
9      -
10     -
11     -
12     -
13     -
14     -
15     -
=====
```

New MST Region Configuration (Not applied yet)

```
Region Name: Catalyst Revision: 6000
Instance Vlans
```

```
-----
0      1-50,401-1005,1025-1999,2201-4096
1      -
2      51-100
3      101-300
4      -
5      -
6      2000-2200
```

7 301-400  
8 -  
9 -  
10 -  
11 -  
12 -  
13 -  
14 -  
15 -

=====  
Edit buffer is locked by: Console  
Console> (enable)

---

---

---

---

---

---

---

---

```
Console>
Portfast BPDU guard is disabled.
Portfast BPDU filter is disabled.
Console>
```

```
Console>
Portfast:      Default
BPDU Filter:  Enable
BPDU Guard:   Default
Portfast BPDU guard is disabled.
Portfast BPDU filter is disabled.
Console>
```

---

---

---

---

---

---

---

---

Console>  
Port 1/1 instances 1-16 have path cost 20000.  
Console>

---

*mod/port* |

---

*mod port*

---

---

---

---

---

---

---

---

---

---

*mod/port vlan*

*mod/port instance*

*mod/port instance*

---

*mod port*

---

*vlan*

---

*instance*

---

*instance*

---

---

---

---

---

---

```
PORT based information & statistics
config bpdu's xmitted (port/VLAN) 0(0)
config bpdu's received (port/VLAN) 0(0)
tcn bpdu's xmitted (port/VLAN) 0(0)
tcn bpdu's received (port/VLAN) 0(0)
forward trans count 0
```

```
Status of Port Timers
forward delay timer INACTIVE
forward delay timer value 0
message age timer INACTIVE
message age timer value 0
topology change timer INACTIVE
topology change timer value 0
hold timer INACTIVE
hold timer value 0
delay root port timer INACTIVE
delay root port timer value 0
```

```
VLAN based information & statistics
spanningtree type ibm
spanningtree multicast address c0-00-00-00-01-00
bridge ID priority 32768 (bridge priority: 32768, sys ID ext:
64)
bridge mac address 00-10-2f-52-eb-ec
bridge hello time 2 sec
bridge forward delay 4 sec
topology change initiator: 1/0
topology change FALSE
topology change time 14
topology change detected FALSE
topology change count 0
```

```
Other port-specific info
dynamic max age transitions 0
port bpdu ok count 0
msg age expiry count 0
link loading 1
bpdu in processing FALSE
num of similar bpdus to process 0
next state 0
src mac count: 0
total src mac count 0
curr_src_mac 00-00-00-00-00-00
next_src_mac 00-00-00-00-00-00
channel_src_mac 00-00-00-00-00-00
channel src count 0
channel ok count 0
Console> (enable)
```

Console> (enable)  
Port 2/1 Instance 2

SpanningTree enabled for instance = 2

BPDU-related parameters

port spanning tree	enabled
state	forwarding
port_id	0x8041
port number	0x41
path cost	20000
message age (port/inst)	1(20)
designated_root	00-50-3e-8f-8c-00
designated_cost	0
designated_bridge	00-50-3e-8f-8c-00
designated_port	0x8001
top_change_ack	FALSE
config_pending	FALSE
port_inconsistency	none

PORT based information & statistics

config bpdu's xmitted (port/inst)	0(0)
config bpdu's received (port/inst)	102(490)
tcn bpdu's xmitted (port/inst)	0(0)
tcn bpdu's received (port/inst)	0(0)
forward trans count	0
scp failure count	0

Status of Port Timers

forward delay timer	INACTIVE
forward delay timer value	15
message age timer	ACTIVE
message age timer value	1
topology change timer	INACTIVE
topology change timer value	0
hold timer	INACTIVE
hold timer value	0
delay root port timer	INACTIVE
delay root port timer value	0
delay root port timer restarted is	FALSE

Instance based information & statistics

spanningtree type	ieee
spanningtree multicast address	01-80-c2-00-00-00
bridge priority	32770
bridge mac address	00-d0-00-b3-68-00
bridge hello time	2 sec
bridge forward delay	15(15) sec
topology change initiator:	15/63
last topology change occurred:	Sun Jun 7 2000, 09:00:03
topology change	FALSE
topology change time	35
topology change detected	FALSE
topology change count	0
topology change last recvd. from	00-00-00-00-00-00

Other port-specific info

dynamic max age transitions	0
port bpdu ok count	0
msg age expiry count	0
link loading	1
bpdu in processing	FALSE

```
num of similar bpdus to process      0
received_inferior_bpdu               FALSE
next state                           3
src mac count:                       0
total src mac count                  0
curr_src_mac                         00-00-00-00-00-00
next_src_mac                         00-00-00-00-00-00
channel_src_mac                      00-00-00-00-00-00
channel_src count                    0
channel ok count                     0
Console>
```

```
Console>
Port 8/1 Instance 0
```

```
SpanningTree enabled for instance = 0
```

#### BPDU-related parameters

```
port spanning tree                  enabled
state                              forwarding
port_id                            0x81c1
port number                        0x1c1
path cost                          20000
message age (port/VLAN)            0(20)
designated_root                    00-04-9b-ba-48-00
designated_cost                    33920
designated_bridge                   00-10-7b-bb-2f-00
designated_port                    0x81c1
top_change_ack                    FALSE
config_pending                    FALSE
port_inconsistency                none
```

#### PORT based information & statistics

```
config bpdu's xmitted (port/inst)  101(212)
config bpdu's received (port/inst)  101(205)
tcn bpdu's xmitted (port/inst)     0(1)
tcn bpdu's received (port/inst)    0(2)
forward trans count                 0
scp failure count                  0
root inc trans count (port/inst)    0(0)
inhibit loopguard                  FALSE
loop inc trans count (port/inst)    0(0)
```

#### Status of Port Timers

```
forward delay timer                INACTIVE
forward delay timer value          0
message age timer                  INACTIVE
message age timer value            0
topology change timer              INACTIVE
topology change timer value        0
hold timer                        INACTIVE
hold timer value                   0
delay root port timer              INACTIVE
delay root port timer value        0
delay root port timer restarted is FALSE
```

#### Vlan based information & statistics

```
spanningtree type                  ieee
spanningtree multicast address     01-80-c2-00-00-00
bridge priority                    32768
bridge mac address                 00-10-7b-bb-2f-00
bridge hello time                   2 sec
```





<b>VLAN-based information and statistics</b>	
	bridge's Max Age and Forward Delay parameters.
topology change detected	Boolean parameter set to TRUE when a topology change has been detected by or notified to the bridge.
topology change count	Number of times the topology change has occurred.
topology change last recvd. from	MAC address of the bridge that transmitted the last TCN BPDU.
<b>Other port-specific info</b>	
	Status of whether the port received an inferior BPDU or in response to an RLQ BPDU.
next state	Port state before it is actually set by spanning tree, to facilitate other tasks in using the new value.
src mac count:	Number of BPDUs with the same source MAC address.
total src mac count	Number of BPDUs with all the source MAC addresses.

curr_src_mac	Source MAC address of the configured BPDU received on a particular port. It should always be set to NULL for the Catalyst 6500 series switches.
next_src_mac	MAC address from the different source. It should always be set to NULL for the Catalyst 6500 series switches.
channel_src_mac	Source MAC address of the channel port. It is used to detect channel misconfiguration and avoid spanning tree loops.
channel src count	Number of times channel_src_mac gets changed and if the limit is exceeded, a channel misconfiguration is detected.
channel ok count	Number of times the channel ok condition was detected.

# show spantree summary

---

## Syntax Description

---

---

---

---

---

## Defaults

---

## Command Types

---

## Command Modes

---

## Usage Guidelines

---

## Examples



---

**Related Commands**

# show spantree uplinkfast

---

## Syntax Description

---

---

---

## Defaults

---

## Command Types

---

## Command Modes

---

## Usage Guidelines

---

## Examples

---

**Related Commands**

# show ssh

---

## Syntax Description

---

## Defaults

---

## Command Types

---

## Command Modes

---

## Usage Guidelines

A user ID might not be specified in the output of this command because a user ID is not mandatory for local user authentication.

---

## Examples

---

## Related Commands

# show startup-config

---

## Syntax Description

---

## Defaults

---

## Command Types

---

## Command Modes

---

## Usage Guidelines

### Return

starts two lines above the line containing the string  
**n**

---

## Examples

```
!  
# ***** NON-DEFAULT CONFIGURATION *****  
!  
!  
#time: Mon Jun 11 2001, 06:56:10  
!  
#version 6.3(0.56)PAN  
!  
  
!  
#!
```

```
#vtp
set vtp domain dan
set vtp mode transparent
set vlan 1 name default type ethernet mtu 1500 said 100001 state active
set vlan 1002 name fddi-default type fddi mtu 1500 said 101002 state active
set vlan 1004 name fddinet-default type fddinet mtu 1500 said 101004 state active
set stp ieee
set vlan 1005 name trnet-default type trbrf mtu 1500 said 101005 state active
set p ibm
set vlan 2,10-11
set vlan 1003 name token-ring-default type trcrf mtu 1500 said 101003 state active
set mode srb aremaxhop 7 stemaxhop 7 backupcrf off
!
#ip
set interface sc0 1 172.20.52.19/255.255.255.224 172.20.52.31

set ip route 0.0.0.0/0.0.0.0 172.20.52.1
!
#set boot command
set boot config-register 0x10f
set boot system flash bootflash:cat6000-sup2-d.6-3-0-56-PAN.bin
set boot system flash bootflash:cat6000-sup2-d.6-3-0-54-PAN.bin
set boot system flash bootflash:cat6000-sup2-d.6-3-0-46-PAN.bin
set boot system flash bootflash:cat6000-sup2-d.6-3-0-44-PAN.bin
set boot system flash bootflash:
!
#qos
set qos wred lp2q2t tx queue 1 60:80 80:100
set qos wred lp2q2t tx queue 2 60:80 80:100
set qos wred lp3q1t tx queue 1 80:100
set qos wred lp3q1t tx queue 2 80:100
set qos wred lp3q1t tx queue 3 80:100
!
#mmls nonrpf
set mmls nonrpf timer 0
!
#security ACLs
clear security acl all
#pbf set
set pbf mac 00-01-64-61-39-c3
#adj set
set security acl adjacency ADJ2 10 00-00-00-00-00-0a 00-00-00-00-00-0b mtu 9600
#
commit security acl all
!
# default port status is enable
!
!
#module 1 empty
!
#module 2 : 2-port 1000BaseX Supervisor
!
#module 3 : 48-port 10/100BaseTX Ethernet
set vlan 10 3/1
set vlan 11 3/2
!
#module 4 empty
!
#module 5 : 0-port Switch Fabric Module
!
#module 6 empty
!
#module 7 empty
!
```

---

```
#module 8 empty
!  
#module 9 empty
!  
#module 15 empty
!  
#module 16 empty
end  
Console> (enable)
```

---

---

---

---

---

---

---

```
Console>
Summertime is disabled and set to ''
Start : Thu Apr 13 2000, 04:30:00
End   : Mon Jan 21 2002, 05:30:00
Offset: 1440 minutes (1 day)
Recurring: no
Console>
```

---

Console>

PS1-Status PS2-Status

-----  
none ok

Fan-Status Temp-Alarm Sys-Status Uptime d,h:m:s Logout

-----  
ok off ok 1,22:38:21 20 min

PS1-Type PS2-Type

-----  
none WS-CAC-1300W

Modem Baud Traffic Peak Peak-Time

-----  
disable 9600 0% 0% Mon Jan 10 2000, 15:23:31

PS1 Capacity: 1153.32 Watts (27.46 Amps @42V)

System Name System Location System Contact CC

-----  
Information Systems Closet 230 4/F Xena ext. 24

No active fabric module in the system.

```

Core Dump                Core File
-----
enabled                  bootflash:crashinfo

System Logging Host      File                      Interval
-----
Disabled              -                  tftp:sysinfo          1440
Index                 System Command
-----
1                     show version

```

```

Syslog Dump              Syslog File
-----
enabled                  bootflash:sysloginfo

```

Console>

Console>

Console> (enable) show system

PS1-Status PS2-Status

```

-----
ok          none

```

Fan-Status Temp-Alarm Sys-Status Uptime d,h:m:s Logout

```

-----
ok          off          ok          5,22:12:33    20 min

```

PS1-Type PS2-Type

```

-----
WS-CAC-1300W           none

```

Modem Baud Backplane-Traffic Peak Peak-Time

```

-----
disable 9600 0%                0% Tue Mar 5 2002, 11:44:07

```

PS1 Capacity: 1153.32 Watts (27.46 Amps @42V)

System Name System Location System Contact CC

```

-----

```

Fab Chan Input Output

```

-----
0      0%      0%
1      0%      0%
2      0%      0%
3      0%      0%
4      0%      0%
5      0%      0%
6      0%      0%
7      0%      0%
8      0%      0%
9      0%      0%
10     0%      0%
11     0%      0%
12     0%      0%
13     0%      0%
14     0%      0%
15     0%      0%
16     0%      0%
17     0%      0%

```





---

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---

---

---

---

---

Console>

Largest block available :265701552  
Total Memory available :269982080  
Total Memory used :35440704

L3 Switching Engine III:total patches:1 (1 records displayed)  
Record No :1  
Sun May 2 2004, 17:25:02:58  
Reason:<reason>

EOB:No entries found

---

```

L2 Non zero registers -
dbus_timeout                = 0x1
rbus_timeout                = 0x1

L3 Non zero registers -
none.

Inband non-zero error statistics information -
RsrcErrors                  = 00000087

The following Driver error counters are non zero -
rx crc err                  = 18
MC flag but UC pkt         = 14005

Module 1 :WS-X6148X2-RJ-45 non-zero error counters -

BUS ASIC 1:
0073:SP_CC_S_LO_PKT_CNT_LO    = 0061
0095:SP_TW_S_NEG_PLD_ERR_CNT  = 0030
00B6:SP_RI_S_PKT_CNT_LO      = 0061
014A:SP_TI_CFG                = 0092
01EC:SP_CI_S_LO_PKT_CNT_HI    = 11C7
01EE:                          = FFFF

OUTPUT PORT ASIC 1:
none.

INPUT PORT ASIC 1:
none.

PORT ASIC 1:
none.

BUS ASIC 2:
01EC:SP_CI_S_LO_PKT_CNT_HI    = 004D
01EE:                          = F50E

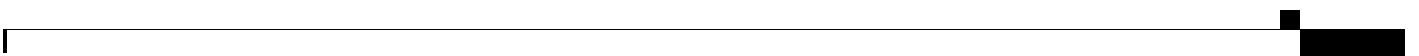
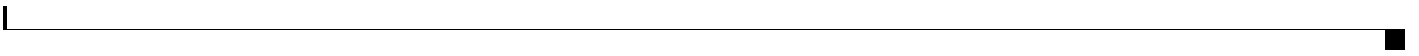
OUTPUT PORT ASIC 2:
none.

INPUT PORT ASIC 2:
none.

PORT ASIC 2:
none.

<truncated output>
.....
Non-zero port counters for 2/2 -
18:rxHCDropEvents           = 32
 1:rxUndersizedPkts         = 1
 6:ifInErrors                = 32
 8:ifInDiscards              = 32
.....
<truncated output>
Console>

```





---

---

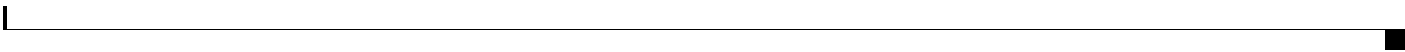
---

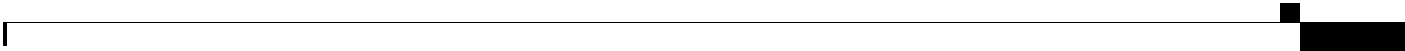
---

---

---







---

---

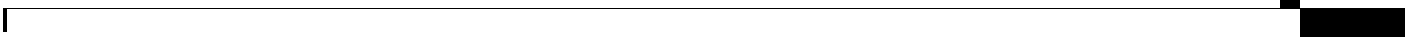
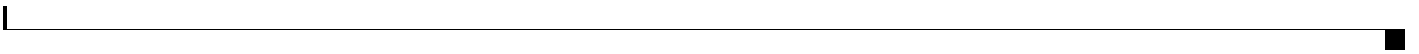
---

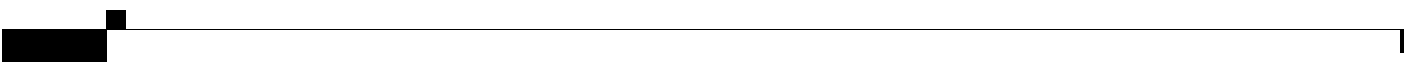
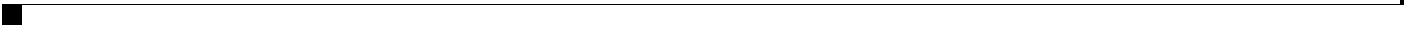
---

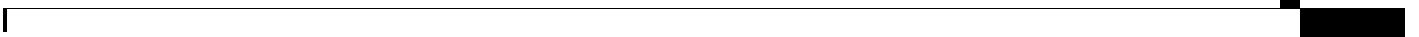
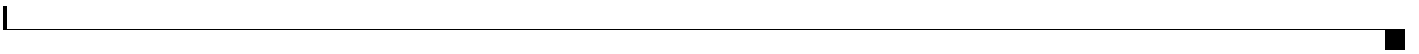
---

---











---

---

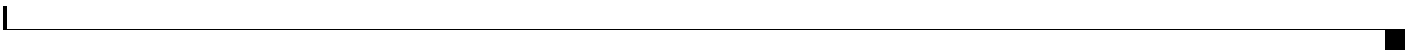
---

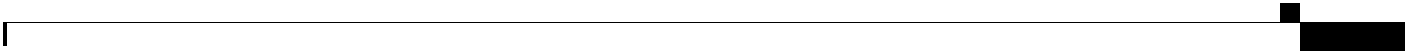
---

---

---





---


---

**set tacacs directedrequest**  
**set tacacs key**  
**set tacacs server**  
**set tacacs timeout**

**show tech-support**

**show tech-support module port / vlan mistp-instance**  
**mst memory config**

---

**module**

---

**port /**

---

**vlan**

---

**mistp-instance**

---

**mst**

---

**memory**

---

**config**

---

---

**show**

---

---

---

---



**Caution**

---

---

**Ctrl-C**

**config**

**show tech-support**

**show config**

**show flash**

**show log**

