

show snmp access

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

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

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

```
show snmp access [-hex] groupname security-model v3 {noauthentication | authentication |
  privacy}
```

Syntax Description	
volatile	(Optional) Keyword to display information for volatile storage types.
nonvolatile	(Optional) Keyword to display information for nonvolatile storage types.
read-only	(Optional) Keyword to display information for read-only storage types.
<i>groupname</i>	Name of the SNMP group or collection of users who have a common access policy.
-hex	(Optional) Keyword to display <i>groupname</i> and <i>username</i> as a hexadecimal character.
security-model v1 v2c v3	Keywords to specify security model v1, v2c, or v3.
noauthentication	Keyword to display information for security models not set to use authentication protocol.
authentication	Keyword to display information for authentication protocol.
privacy	Keyword to display information regarding messages sent on behalf of the user that are protected from disclosure.

Defaults The default storage type is **volatile**.

Command Types Switch command.

Command Modes Privileged.

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

The **read-only** keyword is supported for security model v3 only.

Related Commands

```
set snmp access
clear snmp access
```

show snmp counters

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

show snmp counters

show snmp counters {*mod* | *port*} [**dot1d** | **dot3** | **dot5** | **fddi** | **hcrmon** | **ifmib** | **rmon** | **v3**]

Syntax Description

<i>mod</i>	Module number.
<i>port</i>	Port number.
dot1d	(Optional) Keyword to specify dot1d counters.
dot3	(Optional) Keyword to specify dot3 counters.
dot5	(Optional) Keyword to specify dot5 counters.
fddi	(Optional) Keyword to specify FDDI counters.
hcrmon	(Optional) Keyword to specify HCRMON counters.
ifmib	(Optional) Keyword to specify if-MIB counters.
rmon	(Optional) Keyword to specify RMON counters.
v3	(Optional) Keyword to specify SNMP v3 counters.

Defaults

This command has no default setting.

Command Types

Switch command.

Command Modes

Normal.

Examples

This example shows how to display all SNMP counters:

```
Console> show snmp counters
mib2 SNMP group counters:
snmpInPkts           = 13993
snmpOutPkts          = 13960
snmpInBadVersions    = 0
snmpInBadCommunityNames = 33
snmpInBadCommunityUses = 0
snmpInASNParseErrs   = 0
snmpInTooBigs        = 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>

```

This example shows how to display SNMP 3 counters:

```

Console> show snmp counters v3
usmStatsUnsupportedSecLevels = 1
usmStatsNotInTimeWindows    = 11
usmStatsUnknownUserNames    = 18
usmStatsUnknownEngineIDs    = 35
usmStatsWrongDigests        = 0
usmStatsDecryptionErrors    = 0
Console>
      = 0
Console> (enable)

```

Table 2-52 describes the fields in the **show snmp counters** command output.

Table 2-52 *show snmp counters Command Output Fields*

Field	Description
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.”
snmpInReadOnlys ¹	Number of valid SNMP PDUs delivered to the SNMP protocol entity with the value of the error-status field as “readOnly.”

Table 2-52 show snmp counters Command Output Fields (continued)

Field	Description
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.
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.
snmpInTooBigs	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.

Table 2-52 *show snmp counters Command Output Fields (continued)*

Field	Description
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.
snmpInTraps	Number of SNMP Trap PDUs accepted and processed by the SNMP protocol entity.
snmpOutTooBig	Number of SNMP PDUs generated by the SNMP protocol entity with the value of the error-status field as “tooBig.”
snmpOutNoSuchNames	Number of SNMP PDUs generated by the SNMP protocol entity with the value of the error-status as “noSuchName.”
snmpOutBadValues	Number of SNMP PDUs generated by the SNMP protocol entity with the value of the error-status field as “badValue.”
snmpOutGenErrs	Number of SNMP PDUs generated by the SNMP protocol entity with the value of the error-status field as “genErr.”
snmpOutGetRequests	Number of SNMP Get-Request PDUs generated by the SNMP protocol entity.
snmpOutGetNexts	Number of SNMP Get-Next PDUs generated by the SNMP protocol entity.
snmpOutSetRequests	Number of SNMP Set-Request PDUs generated by the SNMP protocol entity.
snmpOutGetResponses	Number of SNMP Get-Response PDUs generated by the SNMP protocol entity.
snmpOutTraps	Number of SNMP Trap PDUs generated by the SNMP protocol entity.
usmStatsUnsupportedSecLevels	Number of packets received by the SNMP engine that were dropped because they requested a security level that was unknown to the SNMP engine or otherwise unavailable.
usmStatsNotInTimeWindows	Number of packets received by the SNMP engine that were dropped because they appeared outside of the authoritative SNMP engine’s window.
usmStatsUnknownUserNames	Number of packets received by the SNMP engine that were dropped because they referenced a user that was not known to the SNMP engine.
usmStatsUnknownEngineIDs	Number of packets received by the SNMP engine that were dropped because they referenced an snmpEngineID that was not known to the SNMP engine.
usmStatsWrongDigests	Number of packets received by the SNMP engine that were dropped because they did not contain the expected digest value.
usmStatsDecryptionErrors	Number of packets received by the SNMP engine that were dropped because they could not be decrypted.

1. It is a protocol error to generate an SNMP PDU that contains the value “readOnly” in the error-status field. This object is provided as a means of detecting incorrect implementations of the SNMP.

show snmp engineid

Use the **show snmp engineid** command to display the SNMP local engine ID.

show snmp engineid

Syntax Description This command has no arguments or keywords.

Defaults This command has no default setting.

Command Types Switch command.

Command Modes Privileged.

Usage Guidelines If the SNMP engine ID is cleared, the system automatically regenerates a local SNMP engine ID. The SNMP engine and SNMP entity has 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.

Examples This example shows how to display the SNMP engine ID:

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

Table 2-53 describes the fields in the **show snmp engineid** command output.

Table 2-53 show snmp engineid Command Output Fields

Field	Description
EngineId	String identifying the name of the SNMP copy on the device.
Engine Boots	Number of times an SNMP engine has been started or reinitialized.

Related Commands show snmp

show snmp group

Use the **show snmp group** command to display the name of the SNMP group or collection of users who have a common access policy.

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

```
show snmp group [-hex] {groupname} [-hex] user {username}
[security-model {v1 | v2c | v3}]
```

Syntax Description		
volatile	(Optional) Keyword to specify the storage type is defined as temporary memory and the content is deleted if the device is turned off.	
nonvolatile	(Optional) Keyword to specify the storage type is defined as persistent memory and the content remains after the device is turned off and on again.	
read-only	(Optional) Keyword to specify that the storage type is defined as read only.	
<i>groupname</i>	Name of the SNMP group or collection of users who have a common access policy.	
-hex	(Optional) Keyword to display <i>groupname</i> and <i>username</i> as a hexadecimal character.	
user <i>username</i>	Keyword and variable to specify the SNMP group username.	
security-model v1 v2c v3	(Optional) Keywords to specify security model v1, v2c, or v3.	

Defaults The default storage type is **volatile**.

Command Types Switch command.

Command Modes Privileged.

Usage Guidelines If you use special characters for the *groupname* and *username* (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.

The **read-only** keyword is supported for security model v3 only.

Examples

This example shows how to display the SNMP group:

```

Console> (enable) show snmp group
Security Model: v1
Security Name: public
Group Name: defaultROgroup
Storage Type: volatile
Row Status: active

Security Model: v1
Security Name: secret
Group Name: defaultRWALLgroup
Storage Type: volatile
Row Status: active

Security Model: v1
Security Name: private
Group Name: defaultRWgroup
Storage Type: volatile
Row Status: active

Security Model: v2c
Security Name: public
Group Name: defaultROgroup
Storage Type: volatile
Row Status: active
Console> (enable)

```

Table 2-54 describes the fields in the **show snmp group** command output.

Table 2-54 show snmp group Command Output Fields

Field	Description
Security Model	Security model used by the group.
Security Name	Security string definition.
Group Name	Name of the SNMP group or collection of users who have a common access policy.
Storage Type	Keyword to indicate whether the settings are volatile or nonvolatile.
Row Status	Status of the entry.

Related Commands

set snmp group
clear snmp group

show snmp notify

Use the **show snmp notify** command to display the snmpNotifyTable configuration.

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

```
show snmp notify [-hex] {notifyname}
```

Syntax Description	
volatile	(Optional) Keyword to specify the storage type is defined as temporary memory and the content is deleted if the device is turned off.
nonvolatile	(Optional) Keyword to specify the storage type is defined as persistent memory and the content remains after the device is turned off and on again.
read-only	(Optional) Keyword to specify that the storage type is defined as read only.
-hex	(Optional) Keyword to display <i>notifyname</i> as a hexadecimal character.
<i>notifyname</i>	A unique identifier to index the snmpNotifyTable.

Defaults The default storage type is **nonvolatile**.

Command Types Switch command.

Command Modes Privileged.

Usage Guidelines If you use special characters for the *notifyname* (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 **read-only** keyword is supported for security model v3 only.

Examples This example shows how to display the SNMP notify information for a specific *notifyname*:

```
Console> (enable) show snmp notify snmpV1Notification
Notify Name: snmpV1Notification
Notify Tag: snmpV1Trap
Notify Type: trap
Storage Type: volatile
Row Status: active
Console> (enable)
```

Table 2-55 describes the fields in the **show snmp notify** command output.

Table 2-55 *show snmp notify Command Output Fields*

Field	Description
Notify Name	Unique identifier used to index the snmpNotifyTable.
Notify Tag	Name of the entry in the snmpNotifyTable.
Notify Type	Type of notification.
Storage Type	Storage type (volatile or nonvolatile).
Row Status	Status of the entry.

Related Commands

set snmp notify
clear snmp notify

show snmp targetaddr

Use the **show snmp targetaddr** command to display the SNMP target address entries in the snmpTargetAddressTable.

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

```
show snmp targetaddr [-hex] {addrname}
```

Syntax Description	
volatile	(Optional) Keyword to specify the storage type is defined as temporary memory and the content is deleted if the device is turned off.
nonvolatile	(Optional) Keyword to specify the storage type is defined as persistent memory and the content remains after the device is turned off and on again.
read-only	(Optional) Keyword to specify that the storage type is defined as read only.
-hex	(Optional) Keyword to display <i>addrname</i> as a hexadecimal character.
<i>addrname</i>	Name of the target agent; the maximum length is 32 bytes.

Defaults The default storage type is **nonvolatile**.

Command Types Switch command.

Command Modes Privileged.

Usage Guidelines If you use special characters for the *addrname* (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 **read-only** keyword is supported for security model v3 only.

Examples This example shows how to display specific target address information in the snmpTargetAddressTable:

```
Console> (enable) show snmp targetaddr cisco
Target Address Name: cisco
IP Address: 170.0.25.1
UDP Port#: 165
Timeout: 100
Retry count: 5
Tag List: tag1 tag2 tag3
Parameters: jeorge
Storage Type: nonvolatile
Row Status: active
Console> (enable)
```

■ **show snmp targetaddr**

Table 2-56 describes the fields in the **show snmp targetaddr** command output.

Table 2-56 *show snmp targetaddr Command Output Fields*

Field	Description
Target Address Name	Name of the target address.
IP Address	Target IP address.
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.

Related Commands

set snmp targetaddr
clear snmp targetaddr

show snmp targetparams

Use the **show snmp targetparams** command to display the SNMP parameters used in the snmpTargetParamsTable when generating a message to a target.

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

```
show snmp targetparams [-hex] {paramsname}
```

Syntax Description	
volatile	(Optional) Keyword to specify the storage type is defined as temporary memory and the content is deleted if the device is turned off.
nonvolatile	(Optional) Keyword to specify the storage type is defined as persistent memory and the content remains after the device is turned off and on again.
read-only	(Optional) Keyword to specify that the storage type is defined as read only.
-hex	(Optional) Keyword to display <i>paramsname</i> as a hexadecimal character.
<i>paramsname</i>	Name of the parameter in the snmpTargetParamsTable; the maximum length is 32 bytes.

Defaults The default storage type is **volatile**.

Command Types Switch command.

Command Modes Privileged.

Usage Guidelines If you use special characters for the *paramsname* (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 **read-only** keyword is supported for security model v3 only.

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

```
Console> (enable) show snmp targetparams snmpV1TrapParams
Target Parameter Name: snmpV1TrapParams
Message Processing Model: v1
Security Name: public
Security Level: noauthentication
Storage Type: volatile
Row Status: active
Console> (enable)
```

Table 2-57 describes the fields in the **show snmp targetparams** command output.

Table 2-57 show snmp targetparams Command Output Fields

Field	Description
Target Parameter Name	A unique identifier used to index the snmpTargetParamsTable.
Message Processing Model	Version number used by the Message Processing Model.
Security Name	Security string definition.
Security Level	Type of security level (authentication: security level is set to use authentication protocol, noauthentication: security level is not set to use authentication protocol).
Storage Type	Storage type (volatile or nonvolatile).
Row Status	Status of the entry.

Related Commands

set snmp targetparams
clear snmp targetparams

show snmp user

Use the **show snmp user** command set to display SNMP information for a specific user.

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

```
show snmp user [-hex] {user} [remote {engineid}]
```

```
show snmp user summary
```

Syntax Description		
volatile	(Optional) Keyword to specify the storage type is defined as temporary memory and the content is deleted if the device is turned off.	
nonvolatile	(Optional) Keyword to specify the storage type is defined as persistent memory and the content remains after the device is turned off and on again.	
read-only	(Optional) Keyword to specify that the storage type is defined as read only.	
-hex	(Optional) Keyword to display <i>user</i> as a hexadecimal character.	
<i>user</i>	Name of the SNMP user.	
remote <i>engineid</i>	(Optional) Keyword and variable to specify the username on a remote SNMP engine.	
summary	Keyword to specify a summary of SNMP users.	

Defaults The default storage type is **nonvolatile**, and the local SNMP engine ID is used.

Command Types Switch command.

Command Modes Privileged.

Usage Guidelines If you use special characters for *user* (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 **read-only** keyword is supported for security model v3 only.

Examples This example shows how to display specific user information:

```
Console> (enable) show snmp user joe
EngineId: 00:11:22:33:44
User Name: joe
Authentication Protocol: md5
Privacy Protocol: des56
Storage Type: volatile
Row Status: active
Console> (enable)
```

Table 2-58 describes the fields in the **show snmp user** command output.

Table 2-58 show snmp user Command Output Fields

Field	Description
EngineId	String identifying the name of the copy of SNMP on the device.
User Name	String identifying the name of the SNMP user.
Authentication Protocol	Type of authentication protocol.
Privacy Protocol	Type of privacy authentication protocol.
Storage Type	Keyword to indicate whether the settings are volatile or nonvolatile.
Row Status	Status of the entry.

Related Commands

set snmp user
clear snmp user

show snmp view

Use the **show snmp view** command set to display the SNMP MIB view configuration.

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

```
show snmp view [-hex] {viewname} {subtree}
```

Syntax Description	
volatile	(Optional) Keyword to specify the storage type is defined as temporary memory and the content is deleted if the device is turned off.
nonvolatile	(Optional) Keyword to specify the storage type is defined as persistent memory and the content remains after the device is turned off and on again.
read-only	(Optional) Keyword to specify that the storage type is defined as read only.
-hex	(Optional) Keyword to display the <i>viewname</i> as a hexadecimal character.
<i>viewname</i>	Name of a MIB view.
<i>subtree</i>	Name of the subtree.

Defaults The default view is **volatile**.

Command Types Switch command.

Command Modes Privileged.

Usage Guidelines If you use special characters for *viewname* (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.

A MIB subtree used with a mask defines a view subtree; it can be in OID format or a text name mapped to a valid OID.

The **read-only** keyword is supported for security model v3 only.

Examples This example shows how to display the SNMP MIB view:

```
Console> (enable) show snmp view
View Name: defaultUserView
Subtree OID: 1.3.6.1
Subtree Mask:
View Type: included
Storage Type: volatile
Row Status: active
Control> (enable)
```

Table 2-59 describes the fields in the **show snmp view** command output.

Table 2-59 show snmp view Command Output Fields

Field	Description
View Name	Name of a MIB view.
Subtree OID	Name of a MIB subtree in OID format or a text name mapped to a valid OID.
Subtree Mask	Subtree mask can be all ones, all zeros, or a combination of both.
View Type	Status of whether the MIB subtree is included or excluded.
Storage Type	Storage type (volatile or nonvolatile).
Row Status	Status of the entry.

Related Commands

set snmp view
clear snmp view

show span

Use the **show span** command to display information about the current SPAN configuration.

show span

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 SPAN information for the switch. In this example, the SPAN source is port 2/1 and the SPAN destination is port 2/12. Only transmit traffic is monitored. Normal incoming packets are disabled on the SPAN destination port. Monitoring multicast traffic is enabled.

```
Console> (enable) show span
-----
Destination      : Port 4/1
Admin Source     : Port 2/2
Oper Source      : Port 2/2
Direction        : transmit/receive
Incoming Packets : enabled
Learning         : -
Multicast        : enabled
Filter           : 10,20,30,40,50,60,70,80,90,100
Status           : inactive
Console> (enable)
```

Table 2-60 describes the fields in the **show span** command output.

Table 2-60 show span Command Output Fields

Field	Description
Destination	Destination port for SPAN information.
Admin Source	Source port or VLAN for SPAN information.
Oper Source	Operator port or VLAN for SPAN information.
Direction	Status of whether transmit, receive, or transmit/receive information is monitored.
Incoming Packets	Status of whether reception of normal incoming packets on the SPAN destination port is enabled or disabled.
Learning	Status of whether learning is enabled or disabled for the SPAN destination port.

Table 2-60 *show span Command Output Fields (continued)*

Field	Description
Multicast	Status of whether monitoring multicast traffic is enabled or disabled.
Filter	Monitored VLANs in source trunk ports.
Max. Bandwidth	Bandwidth limits for SPAN traffic, in Mbps.

Related Commands

clear config
set span

show spantree

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

show spantree [*vlan* | *mod/port*] [**active**]

Syntax Description	
<i>vlan</i>	(Optional) Number of the VLAN.
<i>mod/port</i>	(Optional) Number of the module and the port on the module.
active	(Optional) Keyword to display only the active ports.

Defaults This command has no default setting.

Command Types Switch command.

Command Modes Normal.

Usage Guidelines If you do not specify the VLAN number, VLAN 1 is displayed.

The maximum length of the channel port list can be 47. The spaces in the Port column may not be enough to display the entire list in one line. If this is the case, the port list is split into multiple lines. For example, in the following display, ports 6/5-8, 6/13, 6/15, 6/17, 6/19 are channeling:

```

...
Port                Vlan Port-State    Cost  Priority Portfast  Channel_id
-----
6/5-8, 6/13, 6/15, 6/17, 6/1
9                    1    not-connected    0     32 disabled  768
...

```

Examples This example shows how to display the active spanning tree port configuration for VLAN 1:

```

Console> (enable) show spantree 1 active
VLAN 1
Spanning tree enabled
Spanning tree type          ieee

Designated Root            00-50-a7-0c-a0-00
Designated Root Priority    8192
Designated Root Cost       119
Designated Root Port       6/48
Root Max Age 20 sec        Hello Time 2 sec    Forward Delay 15 sec

Bridge ID MAC ADDR         00-50-3e-8f-8c-00
Bridge ID Priority          32768
Bridge Max Age 20 sec      Hello Time 2 sec    Forward Delay 15 sec

```

■ show spantree

```

Port                Vlan Port-State   Cost  Priority Portfast  Channel_id
-----
6/18                1    forwarding     19    32 disabled  0
6/19                1    forwarding     19    32 disabled  0
6/20                1    forwarding     19    32 disabled  0
6/32                1    blocking       19    32 disabled  0
6/33                1    blocking       19    32 disabled  0
6/34                1    blocking       19    32 disabled  0
6/48                1    forwarding     19    32 disabled  0
Console> (enable)

```

Table 2-61 describes the fields in the **show spantree** command output:

Table 2-61 show spantree Command Output Fields

Field	Description
VLAN	VLAN for which spanning tree information is shown.
Spanning tree	Status of whether Spanning Tree Protocol is enabled or disabled.
Designated Root	MAC address of the designated spanning tree root bridge.
Designated Root Priority	Priority of the designated root bridge.
Designated Root Cost	Total path cost to reach the root.
Designated Root Port	Port through which the root bridge can be reached (shown only on nonroot bridges).
Root Max Age	Amount of time a BPDU packet should be considered valid.
Hello Time	Number of times the root bridge sends BPDUs.
Forward Delay	Amount of time the port spends in listening or learning mode.
Bridge ID MAC ADDR	Bridge MAC address.
Bridge ID Priority	Bridge priority.
Bridge Max Age	Bridge maximum age.
Hello Time	Amount of time the bridge sends BPDUs.
Forward Delay	Amount of time the bridge spends in listening or learning mode.
Port	Port number.
Vlan	VLAN to which the port belongs.
Port-State	Spanning tree port state (disabled, inactive, not-connected, blocking, listening, learning, forwarding, bridging, or type-pvid-inconsistent).
Cost	Cost associated with the port.
Priority	Priority associated with the port.
Portfast	Status of whether the port is configured to use the PortFast feature.
Channel_id	Channel ID number.

Related Commands

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

show spantree backbonefast

Use the **show spantree backbonefast** command to display whether the spanning tree Backbone Fast Convergence feature is enabled.

show spantree backbonefast

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 whether the spanning tree Backbone Fast Convergence feature is enabled:

```
Console> show spantree backbonefast  
Backbonefast is enabled.  
Console>
```

Related Commands **set spantree backbonefast**

show spantree blockedports

Use the **show spantree blockedports** command to display only the blocked ports.

```
show spantree blockedports [vlan_num]
```

Syntax Description	<i>vlan_num</i> (Optional) Number of the VLAN.
Defaults	This command has no default setting.
Command Types	Switch command.
Command Modes	Normal.
Usage Guidelines	If you do not specify a VLAN number, all blocked ports in the system are displayed.
Examples	This example shows how to display the blocked ports for VLAN 1002: <pre>Console> show spantree blockedports 1002 Number of blocked ports (segments) in VLAN 1002 : 0 Console></pre>
Related Commands	show spantree

show spantree portvlancost

Use the **show spantree portvlancost** command to show the path cost for the VLANs on a port.

show spantree portvlancost *mod/port*

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

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

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

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

Examples	This example shows how to display the path cost for the VLANs on port 2/12:
-----------------	---

```
Console> show spantree portvlancost 2/12
Port 2/12 VLANs 1-1005 have path cost 19.
Console>
```

Related Commands	set spantree portvlancost
-------------------------	----------------------------------

show spantree statistics

Use the **show spantree statistics** command to show spanning tree statistical information.

```
show spantree statistics mod/port [vlan]
```

Syntax Description	
<i>mod/port</i>	(Optional) Number of the module and the port on the module.
<i>vlan</i>	(Optional) Number of the VLAN.

Defaults This command has no default setting.

Command Types Switch command.

Command Modes Normal.

Examples This example shows how to display statistical information:

```
Console> (enable) show spantree statistics 1/2 1005
```

```
SpanningTree enabled for vlanNo = 1005
```

BPDU-related parameters

```
port spanning tree      enabled
state                  disabled
port_id                0xcccf
port number            0x7eb
path cost              80
message age (port/VLAN) 0(10)
designated_root         00-10-2f-52-eb-ec
designated_cost         0
designated_bridge       00-10-2f-52-eb-ec
designated_port         0xcccf
top_change_ack         FALSE
config_pending         FALSE
```

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
```

show spantree statistics

```

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 priority                 32768
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)

```

Table 2-62 describes the possible fields in the **show spantree statistics** command output.

Table 2-62 show spantree statistics Command Output Fields

Field	Description
BPDU-related parameters	
port spanning tree	Status of whether Spanning Tree Protocol is enabled or disabled on the port.
state	Spanning tree port state (disabled, listening, learning, forwarding, or blocking).
port_id	Port identifier of the associated port.
port number	Port number.
path cost	Contribution of the path through this root port. This applies to the total path cost to the root for this bridge.
message age (port/VLAN)	Age of the received protocol information recorded for a port and the value of the Max Age parameter (shown in parentheses) recorded by the switch.
designated_root	MAC address of the designated spanning tree root bridge.
designated_cost	Cost of the path to the root offered by the designated port on the LAN to which this port is attached.
designated_bridge	Bridge identifier of the bridge assumed to be the designated bridge for the LAN associated with the port.
designated_port	Port identifier of the bridge port assumed to be the designated port for the LAN associated with the port.

Table 2-62 show spantree statistics Command Output Fields (continued)

Field	Description
BPDU-related parameters (continued)	
top_change_ack	Value of the Topology Change Acknowledgement flag in the next configured BPDU to be transmitted on the associated port. The flag is set in reply to a Topology Change Notification BPDU.
config_pending	Boolean parameter set to record that a configured BPDU should be transmitted on expiration of the hold timer for the associated port.
port_inconsistency	Status of whether the port is in an inconsistent (PVID or port type) state or not.
PORT-based information and statistics	
config bpdu's xmitted (port/VLAN)	Number of BPDUs transmitted from the port. The number in parentheses is the number of configured BPDUs transmitted by the switch for this instance of spanning tree.
config bpdu's received (port/VLAN)	Number of BPDUs received by this port. The number in parentheses is the number of configured BPDUs received by the switch for this instance of spanning tree.
tcn bpdu's xmitted (port/VLAN)	Number of TCN BPDUs transmitted on this port.
tcn bpdu's received (port/VLAN)	Number of TCN BPDUs received on this port.
forward trans count	Number of times the port state transitioned to FORWARDing state.
scp failure count	Number of SCP failures.
Status of Port Timers	
forward delay timer	Status of the forward delay timer. This timer monitors the time spent by a port in the listening and learning states.
forward delay timer value	Current value of the forward delay timer.
message age timer	Status of the message age timer. This timer measures the age of the received protocol information recorded for a port.
message age timer value	Current value of the message age timer.
topology change timer	Status of the topology change timer. This timer determines the time period in which configured BPDUs are transmitted with the topology change flag set by the bridge when it is the root following the detection of a topology change.
topology change timer value	Current value of the topology change timer.
hold timer	Status of the hold timer. This timer ensures that configured BPDUs are not transmitted too frequently through any bridge port.
hold timer value	Current value of the hold timer.
delay root port timer	Status of the delay root port timer. This timer enables fast convergence on linkup when the UplinkFast feature is enabled.
delay root port timer value	Current value of the delay root port timer.

■ show spantree statistics

Table 2-62 show spantree statistics Command Output Fields (continued)

Field	Description
VLAN-based information and statistics	
spanningtree type	Type of spanning tree (IEEE, IBM, CISCO).
spanningtree multicast address	Destination address used to send out configured BPDUs on a bridge port.
bridge priority	Part of the bridge identifier and is taken as the most significant part bridge ID comparisons.
bridge mac address	Bridge MAC address.
bridge hello time	Value of the Hello Time parameter when the bridge is the root or is attempting to become the root.
bridge forward delay	Value of the Forward Delay parameter when the bridge is the root or is attempting to become the root.
topology change initiator:	Number of the port that caused the topology change.
topology change	Boolean parameter set to record the value of the topology change flag in config BPDUs to be transmitted by the bridge on LANs for which the bridge is the designated bridge
topology change time	Time period for which BPDUs are transmitted with the topology change flag set by the bridge when it is the root following the detection of a topology change. It is equal to the sum of the 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.
Other port-specific info	
dynamic max age transitions	Number of dynamic max age transitions.
port bpdu ok count	Number of reported port BPDU counts.
msg age expiry count	Number of message age expires.
link loading	Status of whether the link is oversubscribed.
bpdu in processing	Status of whether the BPDU is under processing.
num of similar bpdus to process	Number of similar BPDUs to process that are received on a specific port.
received_inferior_bpdu	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.

Table 2-62 *show spantree statistics Command Output Fields (continued)*

Field	Description
Other port-specific info (continued)	
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 6000 family switches.
next_src_mac	MAC address from the different source. It should always be set to NULL for the Catalyst 6000 family 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.

Related Commands show spantree

show spantree summary

Use the **show spantree summary** command to display a summary of spanning tree information.

show spantree summary [novlan]

Syntax Description	novlan (Optional) Keyword to display the overall information only; does not display the same information per VLAN.
---------------------------	---

Defaults This command has no default setting.

Command Types Switch command.

Command Modes Normal.

Usage Guidelines If the switch is not the root for any VLANs, “none” is displayed in the “Root switch for vlans” field.

Examples This example shows how to display a summary of spanning tree information:

```

Console> show spantree summary
Root switch for vlans:none.

Portfast bpdu-guard enabled for bridge.
Uplinkfast disabled for bridge.
Backbonefast disabled for bridge.

Summary of connected spanning tree ports by vlan

Vlan  Blocking  Listening  Learning  Forwarding  STP Active
-----
   1      3         0         0           4           7

          Blocking  Listening  Learning  Forwarding  STP Active
          -----
Total      3         0         0           4           7
Console>

```

Related Commands **show spantree**

show spantree uplinkfast

Use the **show spantree uplinkfast** command to show the Uplinkfast feature settings.

```
show spantree uplinkfast
```

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 the Uplinkfast feature settings:

```
Console> show spantree uplinkfast  
VLAN port list  
-----  
1-20 1/1 (fwd), 1/2-1/5  
21-50 1/9 (fwd), 1/6-1/8, 1/10-1/12  
51-100 2/1 (fwd), 2/12  
Console>
```

Related Commands **set spantree uplinkfast**

show summertime

Use the **show summertime** command to display the current status of the **summertime** feature.

show summertime

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 the current status of the **summertime** feature:

```
Console> show summertime
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>
```

Related Commands **set summertime**

show system

Use the **show system** command to display system information.

show system

Syntax Description This command has no keywords or arguments.

Defaults This command has no default setting.

Command Types Switch command.

Command Modes Normal.
The switching bus traffic values displayed apply to a single bus.

Examples This example shows how to display system information:

```

Console> show system
PS1-Status PS2-Status
-----
ok          none

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

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
Console>

```

Table 2-63 describes the fields in the **show system** command output.

Table 2-63 show system Command Output Fields

Field	Description
PS1-Status	Status of power supply 1 (ok, fan failed, faulty, or none).
PS2-Status	Status of power supply 2 (ok, fan failed, faulty, or none).

Table 2-63 *show system Command Output Fields (continued)*

Field	Description
Fan-Status	Status of the fan (ok, faulty, or other).
Temp-Alarm	Status of whether the temperature alarm is off or on.
Sys-Status	System status (ok or faulty). Corresponds to system LED status.
Uptime d, h:m:s	Amount of time in days, hours, minutes, and seconds, that the system has been up and running.
Logout	Amount of time after which an idle session is disconnected.
PS1-Type	Part number of the power supply.
PS2-Type	Part number of the redundant power supply, if present.
Modem	Status of the modem status (enable or disable).
Baud	Baud rate to which the modem is set.
Traffic	Current traffic percentage.
Peak	Peak percentage of traffic on the backplane.
Peak-Time	Time stamp when peak percentage was recorded.
PS1 Capacity	Power supply 1 maximum capacity.
PS2 Capacity	Power supply 2 maximum capacity.
PS Configuration	Power supply configuration.
System Name	System name.
System Location	System location.
System Contact	System contact information.

Related Commands

set system baud
set system contact
set system location
set system modem
set system name

show system highavailability

Use the **show system highavailability** command to display the system high availability configuration settings.

show system highavailability

Syntax Description This command has no arguments or keywords.

Defaults This command has no default setting.

Command Types Switch command.

Command Modes Privileged.

Examples This example shows how to display the system high availability configuration settings:

```
Console> (enable) show system highavailability
Highavailability:disabled
Highavailability versioning:disabled
Highavailability Operational-status:OFF(high-availability-not-enabled)
Console> (enable)
```

Related Commands **set system highavailability**
set system highavailability versioning

show tacacs

Use the **show tacacs** command to display the TACACS+ protocol configuration.

show tacacs [noalias]

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

Defaults This command has no default setting.

Command Types Switch command.

Command Modes Normal.

Examples This example shows how to display the TACACS+ protocol configuration:

```

Console> show tacacs
Login Authentication: Console Session  Telnet Session
-----
tacacs                disabled          disabled
local                 enabled(primary)  enabled(primary)

Enable Authentication: Console Session  Telnet Session
-----
tacacs                disabled          disabled
local                 enabled(primary)  enabled(primary)

Tacacs login attempts:3
Tacacs timeout:5 seconds
Tacacs direct request:disabled

Tacacs-Server                               Status
-----
171.69.193.114                               primary
Console>

```

Table 2-64 describes the fields in the **show tacacs** command output.

Table 2-64 show tacacs Command Output Fields

Field	Description
Login authentication	Display of the login authentication types.
Console Session	Status of whether the console session is enabled or disabled.
Telnet Session	Status of whether the Telnet session is enabled or disabled.
Enable Authentication	Display of the enable authentication types.
Tacacs login attempts	Number of failed login attempts allowed.

Table 2-64 *show tacacs Command Output Fields (continued)*

Field	Description
Tacacs timeout	Time in seconds to wait for a response from the TACACS+ server.
Tacacs direct request	Status of whether TACACS+ directed-request option is enabled or disabled.
Tacacs-Server	IP addresses or IP aliases of configured TACACS+ servers.
Status	Primary TACACS+ server.

Related Commands

set tacacs attempts
set tacacs directedrequest
set tacacs key
set tacacs server
set tacacs timeout

show tech-support

Use the **show tech-support** command to display system and configuration information you can provide to the Cisco Technical Assistance Center (TAC) when reporting a problem.

```
show tech-support [module mod | port mod/port] [vlan vlan_num]
                 [config | memory]
```

Syntax Description

module <i>mod</i>	(Optional) Keyword and variable to specify the module number of the switch ports.
port <i>mod/port</i>	(Optional) Keyword and variable to specify the module and port number of the switch ports.
vlan <i>vlan_num</i>	(Optional) Keyword and variable to specify the VLAN.
config	Keyword to display switch configuration.
memory	Keyword to display memory and processor state data.

Defaults

By default, this command displays the output for technical-support-related **show** commands. Use keywords to specify the type of information to be displayed. If you do not specify any parameters, the system displays all configuration, memory, module, port, and VLAN data.

Command Types

Switch command.

Command Modes

Privileged.

Usage Guidelines



Caution

Avoid running multiple **show tech-support** commands on a switch or multiple switches on the network segment. Doing so may cause spanning tree instability.

The **show tech-support** command output is continuous; it does not display one screen at a time. To interrupt the output, press **Ctrl-C**.

If you specify the **config** keyword, the **show tech-support** command displays the output of these commands:

- **show config**
- **show flash**
- **show log**
- **show microcode**
- **show module**
- **show port**
- **show spantree active**

- **show spantree summary**
- **show system**
- **show test**
- **show trunk**
- **show version**
- **show vlan**

If you specify the **memory** keyword, the **show tech-support** command displays the output of these commands:

- **ps**
- **ps -c**
- **show cam static**
- **show cam system**
- **show flash**
- **show memory buffers**
- **show microcode**
- **show module**
- **show proc**
- **show proc mem**
- **show proc cpu**
- **show system**
- **show spantree active**
- **show version**

If you specify a module, port, or VLAN number, the system displays general system information and information for the component you specified.

Related Commands

See the commands listed in the “Usage Guidelines” section.

show test

Use the **show test** command to display the errors reported from the diagnostic tests.

show test [*mod*]

Syntax Description	<i>mod</i> (Optional) Number of the module. If you do not specify a number, test statistics are given for the general system as well as for the supervisor engine.
Defaults	This command has no default setting.
Command Types	Switch command.
Command Modes	Normal.
Usage Guidelines	Only error conditions are displayed. If there are no errors, PASS is displayed in the Line Card Status field.
Examples	<p>This example shows the error display for module 2:</p> <pre> Console> show test 2 Module 2 : 2-port 1000BaseX Supervisor Network Management Processor (NMP) Status: (. = Pass, F = Fail, U = Unknown) ROM: . Flash-EEPROM: . Ser-EEPROM: . NVRAM: . EOBC Comm: . Line Card Status for Module 2 : PASS Port Status : Ports 1 2 ----- . . Line Card Diag Status for Module 2 (. = Pass, F = Fail, N = N/A) Module 2 Cafe II Status : NewLearnTest: . IndexLearnTest: . DontForwardTest: . DontLearnTest: . ConditionalLearnTest: . BadBpduTest: . TrapTest: . Loopback Status [Reported by Module 2] : Ports 1 2 ----- . . </pre>

```

Channel Status :
Ports 1 2
-----
. .

```

This example shows the error display for module 3:

```

Console> show test 3

Module 3 : 12-port 1000BaseX Ethernet

Line Card Status for Module 3 : PASS

Port Status :
Ports 1 2 3 4 5 6 7 8 9 10 11 12
-----
. . . . . . . . . . . . . . . .
Line Card Diag Status for Module 3 (. = Pass, F = Fail, N = N/A)
Loopback Status [Reported by Module 3] :
Ports 1 2 3 4 5 6 7 8 9 10 11 12
-----
. . . . . . . . . . . . . . . .

Channel Status :
Ports 1 2 3 4 5 6 7 8 9 10 11 12
-----
. . . . . . . . . . . . . . . .

```

This example shows the display when errors are reported by the LCP for module 3:

```

Console> show test 3

Module 3 : 12-port 1000BaseX Ethernet

Line Card Status for Module 3 : FAIL
Error                                         Device Number
-----
Port ASIC error                             1,2,5,12
CPU error                                    0
Line Card Diag Status for Module 3 (. = Pass, F = Fail, N = N/A)
Loopback Status [Reported by Module 1] :
Ports 1 2 3 4 5 6 7 8 9 10 11 12
-----
. . . . . . . . . . . . . . . .

Channel Status :
Ports 1 2 3 4 5 6 7 8 9 10 11 12
-----
. . . . . . . . . . . . . . . .

```

This example shows the display if you do not specify a module:

```

Console> show test

Environmental Status (. = Pass, F = Fail, U = Unknown, N = Not Present)
  PS1:..    PS2:N    PS1 Fan:..    PS2 Fan:N
  Chassis-Ser-EEPROM:..    Fan:..
  Clock(A/B):A    Clock A:..    Clock B:..
  VTT1:..    VTT2:..    VTT3:..

Module 1 :2-port 1000BaseX Supervisor
Network Management Processor (NMP) Status:(. = Pass, F = Fail, U =
Unknown)
  ROM: .    Flash-EEPROM:..    Ser-EEPROM:..    NVRAM:..    EOBC Comm:..

Line Card Status for Module 1 :PASS

Port Status :
  Ports 1 2
  -----
  . .

Line Card Diag Status for Module 1 (. = Pass, F = Fail, N = N/A)

Module 1
  Earl IV Status :
    NewLearnTest: .
    IndexLearnTest: .
    DontForwardTest: .
    DontLearnTest: .
    ConditionalLearnTest: .
    BadBpduTest: .
    TrapTest: .
    MatchTest: .
    SpanTest: .
    CaptureTest: .
Loopback Status [Reported by Module 1] :
  Ports 1 2
  -----
  . .

Channel Status :
  Ports 1 2
  -----
  . .

```

Table 2-65 describes the possible fields in the **show test** command output. The fields shown depend on the module type queried.

Table 2-65 show test Command Output Fields

Field	Description
Environmental Status	Test results that apply to the general system environment.
PS (3.3V)	Test results for the 3.3V power supply.
PS (12V)	Test results for the 12V power supply.
PS (24V)	Test results for the 24V power supply.

Table 2-65 *show test Command Output Fields (continued)*

Field	Description
PS1	Test results for power supply 1.
PS2	Test results for power supply 2.
Temperature	Test results for temperature.
Fan	Test results for the fan.
Module #	Test results that apply to module #. The module type is indicated as well.
Network Management Processor (NMP) Status	Test results that apply to the NMP on the supervisor engine module.
ROM	Test results for ROM.
Flash-EEPROM	Test results for the Flash EEPROM.
Ser-EEPROM	Test results for serial EEPROM.
NVRAM	Test results for the NVRAM.
EARL Status	Fields that display the EARL status information.
NewLearnTest	Test results for NewLearn test (EARL).
IndexLearnTest	Test results for IndexLearn test (EARL).
DontForwardTest	Test results for DontForward test (EARL).
MonitorTest	Test results for Monitor test (EARL).
DontLearn	Test results for DontLearn test (EARL).
FlushPacket	Test results for FlushPacket test (EARL).
ConditionalLearn	Test results for ConditionalLearn test (EARL).
EarlLearnDiscard	Test results for EarlLearnDiscard test (EARL).
EarlTrapTest	Test results for EarlTrap test (EARL).
LCP Diag Status for Module 1	Test results for the specified module.
CPU	Test results for the CPU.
Sprom	Test results for serial PROM.
Bootcsum	Test results for Boot ROM checksum.
Archsum	Test results for archive Flash checksum.
RAM	Test results for the RAM.
LTL	Test results for local-target logic.
CBL	Test results for color-blocking logic.
DPRAM	Test results for dual-port RAM.
SAMBA	Test results for SAMBA chip.
Saints	Test results for SAINT chips.
Pkt Bufs	Test results for the packet buffers.
Repeater	Test results for the repeater module.

Table 2-65 *show test Command Output Fields (continued)*

Field	Description
FLASH	Test results for the Flash memory.
EOBC	Channel through which a module exchanges control messages with the other modules in the system.
Local Power	Status of the DC converter on a module that supplies power to the entire module except the power management block on the module.
Phoenix	Test results for the Phoenix.
TrafficMeter	Test results for the TrafficMeter.
UplinkSprom	Test results for the Uplink SPROM.
PhoenixSprom	Test results for the Phoenix SPROM.
MII Status	Test results for MII ports.
SAINT/SAGE Status	Test results for individual SAINT/SAGE chip.
Phoenix Port Status	Test results for Phoenix ports.
Packet Buffer Status	Test results for individual packet buffer.
Phoenix Packet Buffer Status	Test results for Phoenix packet buffer.
Loopback Status	Test results for the loopback test.
Channel Status	Test results for the channel test.