

show mls cef

To display hardware Layer 3 switching table entries, use the **show mls cef** command.

```
show mls cef [prefix] [mask] [module number]
```

Syntax Description	
<i>prefix</i>	(Optional) Entry prefix in the format A.B.C.D.
<i>mask</i>	(Optional) Entry prefix mask in the format A.B.C.D.
module <i>number</i>	(Optional) Displays the entries for a specific module.

Defaults This command has no default settings.

Command Modes EXEC

Command History	Release	Modification
	12.1(5c)EX	Support for this command was introduced on the Supervisor Engine 2.
	12.1(8a)E	Support for this command on the Supervisor Engine 2 was extended to the 12.1 E release.

Usage Guidelines This command is supported on systems configured with a Supervisor Engine 2 only.

In systems configured with a Supervisor Engine 2 with a PFC and an MSFC2, hardware Layer 3 switching provides IP unicast and IP multicast Layer 3 switching for a Supervisor Engine 2, a PFC2, an MSFC2, and fabric-enabled switching modules that have a DFC.

In systems configured with a Supervisor Engine 1 with a PFC and an MSFC or an MSFC2, Layer 3 switching with MLS is provided. Refer to the “Configuring IP Unicast Layer 3 Switching on Supervisor Engine 1” and “Configuring IPX Unicast Layer 3 Switching on Supervisor Engine 1” chapters in the *Catalyst 6500 Series Switch Cisco IOS Software Configuration Guide* for more information.

Hardware Layer 3 switching applies to IP traffic only.

You can enter this command on the supervisor engine and hardware Layer 3 switching module consoles only. Enter the [remote login](#) command to session into the supervisor engine and DFC-equipped module to enter the commands.

Examples This example shows how to display all the hardware Layer 3 switching table entries:

```
Switch-sp# show mls cef
```

Index	Prefix	Mask	Adjacency
0	0.0.0.0	255.255.255.255	punt
1	255.255.255.255	255.255.255.255	punt
2	1.2.19.177	255.255.255.255	punt
3	1.0.0.0	255.255.255.255	punt
4	1.255.255.255	255.255.255.255	punt
5	11.11.11.177	255.255.255.255	punt

show mls cef

```

6      11.11.0.0      255.255.255.255    punt
7      11.11.255.255 255.255.255.255    punt
8      4.4.4.177     255.255.255.255    punt
9      4.4.4.0       255.255.255.255    punt
10     4.4.4.255      255.255.255.255    punt
11     5.5.5.177     255.255.255.255    punt
12     5.5.5.0      255.255.255.255    punt
13     5.5.5.255    255.255.255.255    punt
14     6.6.6.177     255.255.255.255    punt
15     6.6.6.0      255.255.255.255    punt
16     6.6.6.255    255.255.255.255    punt
17     11.11.13.149 255.255.255.255    0000.0000.0b0b
18     11.11.13.118 255.255.255.255    0000.0000.0b0b
19     11.11.13.119 255.255.255.255    0000.0000.0b0b
<Output truncated>
114851 110.0.0.0      255.0.0.0          00e0.f74c.842d
114852 40.0.0.0       255.0.0.0          00e0.f74c.842c
114853 30.0.0.0       255.0.0.0          00e0.f74c.842e
114854 50.0.0.0       255.0.0.0          00e0.f74c.842e
114855 171.0.0.0      255.0.0.0          0060.5c86.5b82
115200 0.0.0.0        0.0.0.0            0060.5c86.5b82
Switch-sp#

```

This example shows how to display the entry for a specific prefix in the MLS hardware Layer 3-switching table:

```

Switch-sp# show mls cef | include 1.255.254.254
Index      Prefix      Mask      Adjacency
1102      1.255.254.254 255.255.255.255 0800.2073.5848
Switch-sp#

```

Table 2-37 describes the possible fields in the `show mls cef` command output.

Table 2-37 show mls cef Command Output Fields

Field	Description
Index	Hardware Layer 3 switching table entry index; the maximum contains 256,000 entries.
Adjacency	Adjacency types are as follows: <ul style="list-style-type: none"> • drop—Packets matching the prefix entry are dropped. • punt—Redirect to an MSFC for further processing. • <i>mac-address</i>—Packets matching the prefix are forwarded to this specific next hop or the final destination host if directly attached.

Related Commands

[show mls cef mac](#)
[show mls cef summary](#)

show mls cef adjacency

To display information about the hardware Layer 3 switching adjacency node, use the **show mls cef adjacency** command.

```
show mls cef adjacency [count | mac-address number] [module number]
```

Syntax Description	count	(Optional) Displays the total adjacency count.
	mac-address <i>number</i>	(Optional) Displays the adjacency node information for a specific MAC address.
	module <i>number</i>	(Optional) Displays the adjacency node information for a specific module.

Defaults This command has no default settings.

Command Modes EXEC

Command History	Release	Modification
	12.1(5c)EX	Support for this command was introduced on the Supervisor Engine 2.
	12.1(8a)E	Support for this command on the Supervisor Engine 2 was extended to the 12.1 E release.

Usage Guidelines This command is supported on systems configured with a Supervisor Engine 2 only.

The **module *number*** keyword and argument designate the module and port number. Valid values depend on the chassis and module used. For example, if you have a 48-port 10/100BASE-T Ethernet module installed in a 13-slot chassis, valid values for the module number are from 2 to 13 and valid values for the port number are from 1 to 48.

In systems configured with a Supervisor Engine 2 with a PFC and an MSFC2, hardware Layer 3 switching provides IP unicast and IP multicast Layer 3 switching for a Supervisor Engine 2, a PFC2, an MSFC2, and fabric-enabled switching modules that have a DFC.

In systems configured with a Supervisor Engine 1 with a PFC and an MSFC or an MSFC2, Layer 3 switching with MLS is provided. Refer to the “Configuring IP Unicast Layer 3 Switching on Supervisor Engine 1” and “Configuring IPX Unicast Layer 3 Switching on Supervisor Engine 1” chapters in the *Catalyst 6500 Series Switch Cisco IOS Software Configuration Guide* for more information.

Hardware Layer 3 switching applies to IP traffic only.

Hardware Layer 3 switching adjacency statistics are updated every 60 seconds.

You can view hardware-switched IP directed broadcasts information by entering the **show mls cef adjacency mac-address *number* detail** command. The *number* argument is the 48-bit hardware address of the next hop.

For each hardware Layer 3 switching FIB entry, hardware Layer 3 switching stores Layer 2 information from the MSFC2 for adjacent nodes in the hardware Layer 3 switching adjacency table. Adjacent nodes are nodes that are directly connected at Layer 2. To forward traffic, hardware Layer 3 switching selects a route from a hardware Layer 3 switching FIB entry, which points to a hardware Layer 3 switching adjacency entry, and uses the Layer 2 header for the adjacent node in the adjacency table entry to rewrite the packet during Layer 3 switching. Hardware Layer 3 switching supports 256,000 adjacency table entries.

Examples

This example shows how to display information for all adjacency nodes:

```
Router# show mls cef adjacency

Index 17414 : mac-sa:00d0.061d.200a, mac-da:0000.0000.0b0b
             interface:Gi4/11, mtu:1514
             packets:0000000000000000, bytes:0000000000000000

Index 17415 : mac-sa:00d0.061d.200a, mac-da:00e0.f74c.842e
             interface:Vl46, mtu:1514
             packets:0000000000000000, bytes:0000000000000000

Router#
```

This example shows how to display the total number of adjacency nodes:

```
Router# show mls cef adjacency count

Total adjacencies:          30004
Router#
```

This example shows how to display adjacency node information for a specific MAC address:

```
Router# show mls cef adjacency mac-address 00e0.f74c.842e

Index 17415 : mac-sa:00d0.061d.200a, mac-da:00e0.f74c.842e
             interface:Vl46, mtu:1514
             packets:0000000000000000, bytes:0000000000000000

Router#
```

This example shows how to display the adjacency node information for a specific MAC address for a specific module:

```
Router# show mls cef adjacency mac-address 00e0.f74c.842e module 4

Module 4#
Index 17415 : mac-sa:00d0.061d.200a, mac-da:00e0.f74c.842e
             interface:Vl46, mtu:1514
             packets:0000000000000000, bytes:0000000000000000

Router#
```

show mls cef exact-route

To display the hardware load-sharing results, use the **show mls cef exact-route** command.

```
show mls cef exact-route src-ip {dest-ip | src-l4port} [dest-l4port | {module num}]
```

Syntax Description		
<i>src-ip</i>		Source IP address.
<i>dest-ip</i>		Destination IP address.
<i>src-l4port</i>		Layer 4 source port number; valid values are from 0 to 65535.
<i>dest-l4port</i>		(Optional) Layer 4 destination port number; valid values are from 0 to 65535.
module num		(Optional) Module number.

Defaults This command has no default settings.

Command Modes EXEC

Command History	Release	Modification
	12.1(13)E	Support for this command was introduced on the Supervisor Engine 2.

Usage Guidelines This command is supported on systems configured with a Supervisor Engine 2 only.

Examples This example shows how to display hardware load-sharing information:

```
Router# show mls cef exact-route 172.20.52.16 172.20.52.31

Router-sp#
Interface: Gi2/1, Next Hop: 255.255.255.255, Vlan: 4073, Destination Mac: 00d0.061d.200a

Router#
```

Related Commands **show ip cef exact-route** (refer to the *Cisco IOS Release 12.1 Command Reference*)

show mls cef hardware

To display hardware Layer 3 switching table entries, use the **show mls cef hardware** command.

```
show mls cef hardware [module number]
```

Syntax Description	module number (Optional) Displays the adjacency node information for a specific module.
---------------------------	--

This command has no keywords or arguments.

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

Command Modes	EXEC
----------------------	------

Command History	Release	Modification
	12.1(5c)EX	Support for this command was introduced on the Supervisor Engine 2.
	12.1(8a)E	Support for this command on the Supervisor Engine 2 was extended to the 12.1 E release.
	12.1(8b)E6	This command was changed to include consistency check information.

Usage Guidelines	<p>This command is supported on systems configured with a Supervisor Engine 2 only.</p> <p>In systems configured with a Supervisor Engine 2 with a PFC and an MSFC2, hardware Layer 3 switching provides IP unicast and IP multicast Layer 3 switching for a Supervisor Engine 2, a PFC2, an MSFC2, and fabric-enabled switching modules that have a DFC.</p> <p>In systems configured with a Supervisor Engine 1 with a PFC and an MSFC or an MSFC2, Layer 3 switching with MLS is provided. Refer to the “Configuring IP Unicast Layer 3 Switching on Supervisor Engine 1” and “Configuring IPX Unicast Layer 3 Switching on Supervisor Engine 1” chapters in the <i>Catalyst 6500 Series Switch Cisco IOS Software Configuration Guide</i> for more information.</p>
-------------------------	---

Hardware Layer 3 switching applies to IP traffic only.

Examples	This example shows how to display all the hardware Layer 3 switching table entries:
-----------------	---

```
Router# show mls cef hardware

Switch-sp#
  CEF TCAM v2:
  Size:
    65536 rows/device, 2 device(s), 131072 total rows
    32 entries/mask-block
    8192 total blocks (32b wide)
    0 - 4095 upper blocks, 4096 - 8191 lower blocks
    1179648 s/w table memory
```

```
Used blocks:
  Upper bank:
    63 IP ucast
    0 IPX
    0 IP mcast
  Lower bank:
    0 IP ucast
    0 IPX
    0 IP mcast
Free blocks (non-contiguous range):
  27 - 4095 upper blocks, 4096 - 8191 lower blocks
Options:
  sanity check: off
  sanity interval: 301 seconds
  consistency check: on
    consistency check interval: 61 seconds
  redistribution: off
    redistribution interval: 120 seconds
    redistribution threshold: 10
  compression: on
    compression interval: 30 seconds
  bank balancing: off
    bank differential limit: 5
  rpf mode: off
  tcam shadowing: on
Background Task statistics:
  sanity check count: 0000000000000169
  Consistency check count: 0000000000000834
  Consistency check errors: 0000000000000002
  block redistribute count: 0000000000000000
  block compress count: 0000000000000011
    IP ucast [29]: 0000000000000001
    IP ucast [28]: 0000000000000001
Hardware switching status:
  ip switching: on
  ipx switching: off
```

Router#

show mls cef ip

To display IP entries in the MLS hardware Layer 3 switching table, use the **show mls cef ip** command.

```
show mls cef ip [prefix [mask]] | [module num]
```

```
show mls cef ip {lookup ip-address} [module num]
```

```
show mls cef ip {multicast tcam [prefix [mask]] [module num]}
```

Syntax Description

<i>prefix</i>	(Optional) Entry prefix in the format A.B.C.D.
<i>mask</i>	(Optional) Entry prefix mask in the format A.B.C.D.
module num	(Optional) Displays the entries for a specific module.
lookup ip-address	(Optional) Displays the TCAM entry index for the specified destination IP unicast address.
multicast tcam	(Optional) Displays the IP multicast entries in the compact CEF table display format.

Defaults

This command has no default settings.

Command Modes

EXEC

Command History

Release	Modification
12.1(5c)EX	Support for this command was introduced on the Supervisor Engine 2.
12.1(8a)E	Support for this command on the Supervisor Engine 2 was extended to the 12.1 E release.

Usage Guidelines

This command is supported on systems configured with a Supervisor Engine 2 only.

In systems configured with a Supervisor Engine 2 with a PFC and an MSFC2, hardware Layer 3 switching provides IP unicast and IP multicast Layer 3 switching for a Supervisor Engine 2, a PFC2, an MSFC2, and fabric-enabled switching modules that have a DFC.

In systems configured with a Supervisor Engine 1 with a PFC and an MSFC or an MSFC2, Layer 3 switching with MLS is provided. Refer to the “Configuring IP Unicast Layer 3 Switching on Supervisor Engine 1” and “Configuring IPX Unicast Layer 3 Switching on Supervisor Engine 1” chapters in the *Catalyst 6500 Series Switch Cisco IOS Software Configuration Guide* for more information.

Information in the output of the **show mls cef ip** command is also displayed in the **show mls ip** command.

The lookup is performed as a “longest prefix match” and displays the TCAM entry index that applies to the specified destination IP address.

The information output is in this format: Index, Prefix, Mask, and Adjacency.

Examples

This example shows how to display IP entries in the MLS hardware Layer 3 switching table:

```
Router# show mls cef ip
```

Index	Prefix	Mask	Adjacency
0	0.0.0.0	255.255.255.255	punt
1	255.255.255.255	255.255.255.255	punt
2	127.0.0.12	255.255.255.255	punt
3	127.0.0.0	255.255.255.255	punt
4	127.255.255.255	255.255.255.255	punt
5	172.20.52.18	255.255.255.255	punt
6	172.20.52.0	255.255.255.255	punt
7	172.20.52.31	255.255.255.255	punt
8	172.20.52.1	255.255.255.255	0010.0d59.b8c0
160	172.20.52.0	255.255.255.224	punt
6400	224.0.0.0	255.255.255.0	punt
115200	0.0.0.0	0.0.0.0	0010.0d59.b8c0

```
Router#
```

This example shows how to display the IP multicast entries in the compact CEF table display format:

```
Router# show mls cef ip multicast tcam
```

Index	Group	Source	RPF Interface
Router#			

This example shows how to display the longest prefix match lookup:

```
Router# show mls cef ip lookup 172.20.52.19
```

160	172.20.52.0	255.255.255.224	punt
-----	-------------	-----------------	------

```
Router#
```

show mls cef ipx

To display IPX entries in the MLS hardware Layer 3 switching table, use the **show mls cef ipx** command.

```
show mls cef ipx [prefix [mask]] | [module num]
```

```
show mls cef ipx {lookup ip-address} [module num]
```

Syntax Description

<i>prefix</i>	(Optional) Entry prefix in the format A.B.C.D.
<i>mask</i>	(Optional) Entry prefix mask in the format A.B.C.D.
module num	(Optional) Displays the entries for a specific module.
lookup ip-address	(Optional) Displays the longest prefix match lookup.

Defaults

This command has no default settings.

Command Modes

EXEC

Command History

Release	Modification
12.1(5c)EX	Support for this command was introduced on the Supervisor Engine 2.
12.1(8a)E	Support for this command on the Supervisor Engine 2 was extended to the 12.1 E release.

Usage Guidelines

This command is supported on systems configured with a Supervisor Engine 2 only.

In systems configured with a Supervisor Engine 2 with a PFC and an MSFC2, hardware Layer 3 switching provides IP unicast and IP multicast Layer 3 switching for a Supervisor Engine 2, a PFC2, an MSFC2, and fabric-enabled switching modules that have a DFC.

In systems configured with a Supervisor Engine 1 with a PFC and an MSFC or an MSFC2, Layer 3 switching with MLS is provided. Refer to the “Configuring IP Unicast Layer 3 Switching on Supervisor Engine 1” and “Configuring IPX Unicast Layer 3 Switching on Supervisor Engine 1” chapters in the *Catalyst 6500 Series Switch Cisco IOS Software Configuration Guide* for more information.

Information in the output of the **show mls cef ipx** command is also displayed in the **show mls ipx** command.

Examples

The **show mls cef ipx** command outputs are similar to the **show mls cef ip** command outputs.

show mls cef logging

To display the contents of the TCAM inconsistency buffer, use the **show mls cef logging** command.

show mls cef logging [*module num*]

Syntax Description	module number (Optional) Displays the entries for a specific module.
---------------------------	---

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

Command Modes	EXEC
----------------------	------

Command History	Release	Modification
	12.1(8b)E6	Support for this command was introduced on the Supervisor Engine 2.

Usage Guidelines	<p>The TCAM inconsistency buffer records any inconsistency found in the TCAM.</p> <p>This command is supported on systems configured with a Supervisor Engine 2 only.</p> <p>In systems configured with a Supervisor Engine 2 with a PFC and an MSFC2, hardware Layer 3 switching provides IP unicast and IP multicast Layer 3 switching for a Supervisor Engine 2, a PFC2, an MSFC2, and fabric-enabled switching modules that have a DFC.</p> <p>In systems configured with a Supervisor Engine 1 with a PFC and an MSFC or an MSFC2, Layer 3 switching with MLS is provided. Refer to the “Configuring IP Unicast Layer 3 Switching on Supervisor Engine 1” and “Configuring IPX Unicast Layer 3 Switching on Supervisor Engine 1” chapters in the <i>Catalyst 6500 Series Switch Cisco IOS Software Configuration Guide</i> for more information.</p> <p>Hardware Layer 3 switching applies to IP traffic only.</p>
-------------------------	---

Examples	This example shows how to display the contents of the TCAM inconsistency buffer:
-----------------	--

```
Router# show mls cef logging
PFIB_ERR:TCAM_SHADOW_CONSISTENCY_ERR:value : Index: 100
Expected: 0 -0 -0
Hardware: 5 -1020304 -0
PFIB_ERR:TCAM_SHADOW_CONSISTENCY_ERR:Mask : Index: 3
Expected: 4 -0 -0
Hardware: 6 -FFF00000-0
Router#
```

show mls cef mac

To display the hardware Layer 3 switching MAC address information for the MSFC, use the **show mls cef mac** command.

```
show mls cef mac [module num]
```

Syntax Description	module num (Optional) Displays the entries for a specific module.
---------------------------	--

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

Command Modes	EXEC
----------------------	------

Command History	Release	Modification
	12.1(5c)EX	Support for this command was introduced on the Supervisor Engine 2.
	12.1(8a)E	Support for this command on the Supervisor Engine 2 was extended to the 12.1 E release.

Usage Guidelines	<p>This command is supported on systems configured with a Supervisor Engine 2 only.</p> <p>In systems configured with a Supervisor Engine 2 with a PFC and an MSFC2, hardware Layer 3 switching provides IP unicast and IP multicast Layer 3 switching for a Supervisor Engine 2, a PFC2, an MSFC2, and fabric-enabled switching modules that have a DFC.</p> <p>In systems configured with a Supervisor Engine 1 with a PFC and an MSFC or an MSFC2, Layer 3 switching with MLS is provided. Refer to the “Configuring IP Unicast Layer 3 Switching on Supervisor Engine 1” and “Configuring IPX Unicast Layer 3 Switching on Supervisor Engine 1” chapters in the <i>Catalyst 6500 Series Switch Cisco IOS Software Configuration Guide</i> for more information.</p>
-------------------------	---

Examples	<p>This example shows how to display hardware Layer 3 switching MAC address information for the MSFC:</p>
-----------------	---

```
Router# show mls cef mac
Router MAC address:00d0.061d.200a
Router#
```

Related Commands	<p>show mls cef</p> <p>show mls cef summary</p>
-------------------------	---

show mls cef statistics

To display the number of switched packets and bytes, use the **show mls cef statistics** command.

show mls cef statistics [**module** *number*]

Syntax Description	module <i>number</i> (Optional) Displays the information for a specific module.
---------------------------	--

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

Command Modes	EXEC
----------------------	------

Command History	Release	Modification
	12.1(5c)EX	Support for this command was introduced on the Supervisor Engine 2.
	12.1(8a)E	Support for this command on the Supervisor Engine 2 was extended to the 12.1 E release.

Usage Guidelines	<p>This command is supported on systems configured with a Supervisor Engine 2 only.</p> <p>In systems configured with a Supervisor Engine 2 with a PFC and an MSFC2, hardware Layer 3 switching provides IP unicast and IP multicast Layer 3 switching for a Supervisor Engine 2, a PFC2, an MSFC2, and fabric-enabled switching modules that have a DFC.</p> <p>In systems configured with a Supervisor Engine 1 with a PFC and an MSFC or an MSFC2, Layer 3 switching with MLS is provided. Refer to the “Configuring IP Unicast Layer 3 Switching on Supervisor Engine 1” and “Configuring IPX Unicast Layer 3 Switching on Supervisor Engine 1” chapters in the <i>Catalyst 6500 Series Switch Cisco IOS Software Configuration Guide</i> for more information.</p>
-------------------------	---

Examples	This example shows how to display MLS hardware Layer 3 switching statistical information:
-----------------	---

```
Router# show mls cef statistics

Total CEF switched packets: 0000000000000007
Total CEF switched bytes:   0000000000000322
Router#
```

show mls cef summary

To display the total number of packets and bytes that are switched on the local switching engine and the number of prefixes in the hardware Layer 3 switching table, use the **show mls cef summary** command.

```
show mls cef summary [module number]
```

Syntax Description	module number (Optional) Displays the information for a specific module.
---------------------------	---

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

Command Modes	EXEC
----------------------	------

Command History	Release	Modification
	12.1(5c)EX	Support for this command was introduced on the Supervisor Engine 2.
	12.1(8a)E	Support for this command on the Supervisor Engine 2 was extended to the 12.1 E release.

Usage Guidelines	<p>This command is supported on systems configured with a Supervisor Engine 2 only.</p> <p>In systems configured with a Supervisor Engine 2 with a PFC and an MSFC2, hardware Layer 3 switching provides IP unicast and IP multicast Layer 3 switching for a Supervisor Engine 2, a PFC2, an MSFC2, and fabric-enabled switching modules that have a DFC.</p> <p>In systems configured with a Supervisor Engine 1 with a PFC and an MSFC or an MSFC2, Layer 3 switching with MLS is provided. Refer to the “Configuring IP Unicast Layer 3 Switching on Supervisor Engine 1” and “Configuring IPX Unicast Layer 3 Switching on Supervisor Engine 1” chapters in the <i>Catalyst 6500 Series Switch Cisco IOS Software Configuration Guide</i> for more information.</p>
-------------------------	---

Examples	This example shows how to display a summary of hardware Layer 3 switching information:
-----------------	--

```
Switch-sp# show mls cef summary
Total CEF switched packets: 000000000098681
Total CEF switched bytes: 000000004539326
Total routes: 80385
  IP unicast routes: 80383
  IPX routes: 0
  IP multicast routes: 2
Switch-sp#
```

Table 2-38 describes the possible fields in the **show mls cef summary** command output.

Table 2-38 *show mls cef summary Command Output Fields*

Field	Description
Total hardware Layer 3 switching switched packets	Number of hardware Layer 3 switching packets forwarded by hardware Layer 3 switching engine.
Total hardware Layer 3 switching switched bytes	Number of bytes forwarded by hardware Layer 3 switching engine.
Total routes	Number of route entries.
IP unicast routes	Number of IP unicast route entries.
IPX routes	Number of IPX route entries.
IP multicast routes	Number of IP multicast route entries.

Related Commands

[show mls cef](#)
[show mls cef mac](#)

show mls ip

To display the MLS IP information, use the **show mls ip** command.

```
show mls ip [any | destination {hostname | ip-address} | detail | flow {tcp | udp} | {interface
  {interface interface-number}} | {vlan vlan-id} | {macd destination-mac-address} | {macs
  source-mac-address} | {module number} | source {hostname | ip-address} | count]
```

Syntax Description	
any	(Optional) Displays any MLS IP information.
destination <i>hostname</i>	(Optional) Displays the entries for a specific destination IP address.
destination <i>ip-address</i>	(Optional) Displays the entries for a specific destination IP address.
detail	(Optional) Specifies a detailed output.
flow	(Optional) Specifies the flow type.
tcp udp	Selects the flow type.
interface <i>interface</i>	(Optional) Specifies an interface.
<i>interface-number</i>	Interface type; possible valid values are ethernet , fastethernet , gigabitethernet , tengigabitethernet , pos , atm , and ge-wan .
vlan <i>vlan-id</i>	(Optional) Specifies the VLAN ID; see the “Usage Guidelines” section for valid values.
macd <i>destination-mac-address</i>	(Optional) Specifies the destination MAC address.
macs <i>source-mac-address</i>	(Optional) Specifies the source MAC address.
module <i>number</i>	(Optional) Displays the entries that are downloaded on the specified module; see the “Usage Guidelines” section for valid values.
source <i>hostname</i>	(Optional) Displays the entries for a specific source address.
source <i>ip-address</i>	(Optional) Displays the entries for a specific source IP address.
count	(Optional) Displays the total number of MLS entries.

Defaults This command has no default settings.

Command Modes EXEC

Command History	Release	Modification
	12.0(7)XE	Support for this command was introduced on Catalyst 6500 series switches.
	12.1(11b)E	This command was changed to include the ge-wan , atm , and pos keywords.

Usage Guidelines

The *interface-number* argument designates the module and port number. Valid values for *interface-number* depend on the specified interface type and the chassis and module used. For example, if you specify a Gigabit Ethernet interface and have a 48-port 10/100BASE-T Ethernet module installed in a 13-slot chassis, valid values for the module number are from 2 to 13 and valid values for the port number are from 1 to 48. This definition also applies to the **module number** keyword and argument.

If your system is configured with a Supervisor Engine 1, valid values for *vlan-id* are from 1 to 1005. If your system is configured with a Supervisor Engine 2, valid values for *vlan-id* are from 1 to 4094. Extended-range VLANs are not supported on systems configured with a Supervisor Engine 1.

When you view the output, note that a colon (:) is used to separate the fields.

Examples

This example shows how to display any MLS IP information:

```
Router# show mls ip any
DstIP          SrcIP          Dst i/f:DstMAC      Pkts          Bytes
-----
SrcDstPorts    SrcDstEncap Age    LastSeen
-----
172.20.52.122  0.0.0.0        5 : 00e0.4fac.b3ff 4              1067
Fa5/9,----- ARPA,ARPA    86    06:05:44
172.20.52.37   0.0.0.0        100 : 00d0.5870.a4ff 1              332
Fa5/9,----- ARPA,ARPA   102    06:05:27
172.20.52.36   0.0.0.0        100 : 0050.7312.0cff 1              268
Fa5/9,----- ARPA,ARPA   100    06:05:29

Number of Entries Found = 3
```

Router#

This example shows how to display MLS information on a specific interface:

```
Router# show mls ip interface fastethernet 5/9
DstIP          SrcIP          Dst i/f:DstMAC      Pkts          Bytes
-----
SrcDstPorts    SrcDstEncap Age    LastSeen
-----
172.20.52.37   0.0.0.0        100: 00d0.5870.a4ff 1              129
Fa5/9,----- ARPA,ARPA   107    06:10:02
172.20.52.36   0.0.0.0        100 : 0050.7312.0cff 50            6403
Fa5/9,----- ARPA,ARPA   107    06:10:04

Number of Entries Found = 2
```

Router#

This example shows how to display MLS information on a specific IP address:

```
Router# show mls ip destination 172.20.52.122
DstIP          SrcIP          Dst i/f:DstMAC      Pkts          Bytes
-----
SrcDstPorts    SrcDstEncap Age    LastSeen
-----
172.20.52.122  0.0.0.0        5 : 00e0.4fac.b3ff 684           103469
Fa5/9,Fa5/9 ARPA,ARPA    281    07:17:02

Number of Entries Found = 1
```

Router#

This example shows how to display MLS information on a specific flow:

```
Router# show mls ip flow udp
DstIP          SrcIP          Dst i/f:DstMAC      Pkts          Bytes
-----
SrcDstPorts    SrcDstEncap Age    LastSeen
-----
172.20.52.122  0.0.0.0        5    : 00e0.4fac.b3ff 4          1067
Fa5/9,----- ARPA,ARPA    48    06:12:35
172.20.52.37   0.0.0.0        100  : 00d0.5870.a4ff 3          551
Fa5/9,----- ARPA,ARPA   198   06:12:20
172.20.52.36   0.0.0.0        100  : 0050.7312.0cff 52         6761
Fa5/9,----- ARPA,ARPA   198   06:12:21

Number of Entries Found = 3
```

Router#

This example shows how to display detailed MLS information on a full flow mask:

```
Router# show mls ip detail
IP Destination  IP Source      Vlan Xtag L3-protocol Encapsulation
-----+-----+-----+-----+-----+-----+
RW-Vlan RW-MACSource  RW-MACDestination  Bytes      Packets      Age
-----+-----+-----+-----+-----+-----+
Last Seen      QoS           Police Count Threshold  Leak        Drop Bucket
-----+-----+-----+-----+-----+-----+
Use-Tbl Use-Enble
+-----+-----+
```

Router#

This example shows how to display detailed MLS information when there is not a full flow mask:

```
Router# show mls ip detail
IP Destination  IP Source      Protocol [IN/OUT] Ports Vlan Xtag
-----+-----+-----+-----+-----+
L3-protocol Encapsulation RW-Vlan RW-MACSource  RW-MACDestination
-----+-----+-----+-----+-----+
Bytes      Packets      Age Last Seen      QoS      Police Count
-----+-----+-----+-----+-----+
Threshold  Leak        Drop Bucket  Use-Tbl Use-Enable
-----+-----+-----+-----+-----+
```

Router#

Related Commands [mls ip](#)

show mls ip multicast

To display the MLS IP information, use the **show mls ip multicast** command.

```
show mls ip multicast [{complete | partial}] [{group {hostname | ip-address} [ip-mask |
  {interface {interface interface-number}} | {source {hostname | ip-address}}]}] | {interface
  {interface interface-number}} | {source {hostname | ip-address} [ip-mask}}]
```

```
show mls ip multicast [connected | consistency-check | summary]
```

```
show mls ip multicast statistics [group {hostname | ip-address} [source {hostname | ip-address}}]
```

Syntax Description

complete	(Optional) Displays complete hardware-switched entries.
partial	(Optional) Displays partially hardware-switched entries.
group <i>hostname</i> <i>ip-address</i>	(Optional) Displays the entries for a specific multicast group source address or host name.
<i>ip-mask</i>	(Optional) IP mask for group source IP address.
interface	(Optional) Specifies an interface.
<i>interface</i>	Interface type; possible valid values are ethernet , fastethernet , gigabitethernet , tengigabitethernet , port-channel , vlan , ge-wan , atm , and pos .
<i>interface-number</i>	Interface number; see the “Usage Guidelines” section for valid values.
source <i>hostname</i>	(Optional) Displays the entries for a specific source host name.
source <i>ip-address</i>	(Optional) Displays the entries for a specific source IP address.
connected	(Optional) Displays the installed interface or mask entries.
consistency-check	(Optional) Displays consistency-checker information.
summary	(Optional) Displays a summary of statistics multicast entries.
statistics	(Optional) Displays the statistics multicast entries for the (optional) specified group or source entry.

Defaults

This command has no default settings.

Command Modes

EXEC

Command History

Release	Modification
12.0(7)XE	Support for this command was introduced on the Catalyst 6500 series switches.
12.1(1)E	Support for this command on the Catalyst 6500 series switches was extended to the 12.1 E release.
12.1(5c)EX	This command was changed to include the complete and partial options and support systems configured with a Supervisor Engine 2 with a Layer 3 switching engine II (PFC2).
12.1(11b)E	This command was changed to include the ge-wan , atm , and pos keywords.

Release	Modification
12.1(12c)E4	This command was changed to include the consistency-checker option.
12.1(19)E	This command was changed to include the statistics group option.

Usage Guidelines

The *interface-number* argument designates the module and port number. Valid values for *interface-number* depend on the specified interface type and the chassis and module used. For example, if you specify a Gigabit Ethernet interface and have a 48-port 10/100BASE-T Ethernet module installed in a 13-slot chassis, valid values for the module number are from 2 to 13 and valid values for the port number are from 1 to 48.

The number of valid values for **port-channel num** depends on the software release. For releases prior to Release 12.1(3a)E3, valid values are from 1 to 256; for Releases 12.1(3a)E3, 12.1(3a)E4, and 12.1(4)E1, valid values are from 1 to 64. Release 12.1(5c)EX and later support a maximum of 64 values ranging from 1 to 256. Release 12.1(13)E and later support a maximum of 64 values ranging from 1 to 282; values 257 to 282 are supported on the CSM and FWSM.

If your system is configured with a Supervisor Engine 1, valid values for *vlan-id* are from 1 to 1005. If your system is configured with a Supervisor Engine 2, valid values for *vlan-id* are from 1 to 4094. Extended-range VLANs are not supported on systems configured with a Supervisor Engine 1.

When you view the output, note that a colon (:) is used to separate the fields.

For complete shortcuts, the MSFC does not see the packets coming into the RPF interface and replication/forwarding on all the oifs are done by the EARL. For partial shortcuts, the MSFC sees the packet in the incoming VLAN. When a partial shortcut is established, the MSFC does not forward the packet to the interfaces that are getting hardware forwarded.

Examples

This example shows how to display general MLS IP multicast information:

```
Router# show mls ip multicast
Multicast hardware switched flows:
(*, 224.1.1.1) Incoming interface: Vlan0, Packets switched: 0
Hardware switched outgoing interfaces: Vlan202
RPF-MFD installed

Total hardware switched flows : 1
Router#
```

This example shows how to display any MLS IP multicast information:

```
Router# show mls ip multicast any
DstIP          SrcIP          Dst i/f:DstMAC      Pkts          Bytes
-----
SrcDstPorts    SrcDstEncap    Age      LastSeen
-----
172.20.52.122  0.0.0.0        5       : 00e0.4fac.b3ff  4           1067
Fa5/9,----- ARPA,ARPA     86      06:05:44
172.20.52.37   0.0.0.0        100      : 00d0.5870.a4ff  1           332
Fa5/9,----- ARPA,ARPA    102     06:05:27
172.20.52.36   0.0.0.0        100      : 0050.7312.0cff  1           268
Fa5/9,----- ARPA,ARPA    100     06:05:29

Number of Entries Found = 3
Router#
```

This example shows how to display a summary of MLS information:

```
Router# show mls ip multicast summary
1 MMLS entries using 168 bytes of memory
Number of partial hardware-switched flows: 0
Number of complete hardware-switched flows: 1
Directly connected subnet entry install is enabled
Aggregation of routed oif is enabled
Hardware shortcuts for mvpn mroutes supported
Egress Mode of replication is enabled
Maximum route support is enabled
Router#
```

This example shows how to display MLS information on a specific interface:

```
Router# show mls ip multicast interface fastethernet 5/9
DstIP          SrcIP          Dst i/f:DstMAC      Pkts          Bytes
-----
SrcDstPorts    SrcDstEncap Age   LastSeen
-----
172.20.52.37   0.0.0.0        100: 00d0.5870.a4ff 1              129
Fa5/9,----- ARPA,ARPA    107   06:10:02
172.20.52.36   0.0.0.0        100 : 0050.7312.0cff 50             6403
Fa5/9,----- ARPA,ARPA    107   06:10:04

Number of Entries Found = 2
Router#
```

Related Commands [mls ip multicast \(interface configuration mode\)](#)

show mls ip statistics

To display statistical information for NetFlow IP entries, use the **show mls ip statistics** command.

show mls ip statistics [**count** [*module number*] | **detail** [*module number*] | *module number*]

Syntax Description	Parameter	Description
	count	(Optional) Displays the total number of NetFlow entries.
	module number	(Optional) Displays the entries that are downloaded on the specified module; see the “Usage Guidelines” section for valid values.
	detail	(Optional) Specifies a detailed per-flow output.

Defaults This command has no default settings.

Command Modes EXEC

Command History	Release	Modification
	12.1(5c)EX	Support for this command was introduced on the Supervisor Engine 2.
	12.1(8a)E	Support for this command on the Supervisor Engine 2 was extended to the 12.1 E release.

Examples This example shows how to display statistical information for the NetFlow IP entries:

```
Router> show mls ip statistics
Displaying Netflow entries in Supervisor Earl
DstIP          SrcIP          Prot:SrcPort:DstPort  Src i/f:AdjPtr
-----
Pkts          Bytes          Age  LastSeen  Attributes
-----
Router>
```

This example shows how to display detailed statistical information for the NetFlow IP entries:

```
Router> show mls ip statistics detail
Displaying Netflow entries in Supervisor Earl
DstIP          SrcIP          Prot:SrcPort:DstPort  Src i/f:AdjPtr
-----
Pkts          Bytes          Age  LastSeen  Attributes
-----
QoS          Police Count Threshold  Leak  Drop Bucket  Use-Tbl Use-Enable
-----+-----+-----+-----+-----+-----+-----+
Router>
```

Related Commands [show mls netflow ip](#)

show mls ipx

To display MLS IPX information, use the **show mls ipx** command.

```
show mls ipx [{destination ipx-network} | {interface {interface interface-number}} | {vlan
vlan-id} | {macd destination-mac-address} | {macs source-mac-address} | {module number}
| {source {hostname | ipx-network}}] [detail | count]
```

Syntax	Description
destination <i>ipx-network</i>	(Optional) Displays the entries for a specific destination network address.
interface <i>interface</i>	(Optional) Specifies the interface.
<i>interface-number</i>	(Optional) Interface type; possible valid values are ethernet , fastethernet , gigabitethernet , tengigabitethernet , pos , atm , and ge-wan .
vlan <i>vlan-id</i>	(Optional) Module and port number; see the “Usage Guidelines” section for valid values.
macd <i>destination-mac-address</i>	(Optional) Specifies the VLAN ID; see the “Usage Guidelines” section for valid values.
macs <i>source-mac-address</i>	(Optional) Specifies the destination MAC address.
module <i>number</i>	(Optional) Specifies the source MAC address.
source <i>hostname</i>	(Optional) Displays the entries that are downloaded on the specified slot; see the “Usage Guidelines” section for valid values.
source <i>ipx-network</i>	(Optional) Displays the entries for a specific source address.
detail	(Optional) Displays the entries for a specific destination network address.
count	(Optional) Displays the detailed list of entries.
	(Optional) Displays the total number of MLS entries.

Defaults

This command has no default settings.

Command Modes

EXEC

Command History

Release	Modification
12.0(7)XE	Support for this command was introduced on the Catalyst 6500 series switches.
12.1(1)E	Support for this command on the Catalyst 6500 series switches was extended to the 12.1 E release.
12.1(5c)EX	This command was changed to support systems configured with Supervisor Engine 2 with a Layer 3 switching engine II (PFC2).

Release	Modification
12.1(8a)E	Support for this command on the Catalyst 6500 series switch Supervisor Engine 2 was extended to the 12.1 E release.
12.1(11b)E	This command was changed to include the pos , atm , and ge-wan keywords.
12.1(11b)EX	The command was changed to support extended-range VLANs.

Usage Guidelines

When you enter the *ipx-network* value, the format is N.H.H.H.

When you enter the *destination-mac-address* value, the format for the 48-bit MAC address is H.H.H.

The *interface-number* argument designates the module and port number. Valid values for *interface-number* depend on the specified interface type and the chassis and module used. For example, if you specify a Gigabit Ethernet interface and have a 48-port 10/100BASE-T Ethernet module installed in a 13-slot chassis, valid values for the module number are from 2 to 13 and valid values for the port number are from 1 to 48. These valid values also apply when entering the **module number** keyword and argument.

If your system is configured with a Supervisor Engine 1, valid values for *vlan-id* are from 1 to 1005. If your system is configured with a Supervisor Engine 2, valid values for *vlan-id* are from 1 to 4094. Extended-range VLANs are not supported on systems configured with a Supervisor Engine 1.

Examples

This example shows how to display MLS IPX information:

```
Router# show mls ipx
DstNet-DstNode          SrcNet  Dst i/f:DstMAC      Pkts      Bytes
-----
SrcDstPorts   SrcDstEncap Age   LastSeen
-----
Number of Entries Found = 0

Router#
```

This example shows how to display the total number of MLS entries:

```
Router# show mls ipx count
Number of shortcuts = 66
Router#
```

Related Commands

[mls ipx \(interface configuration mode\)](#)

show mls nde

To display NDE status information, use the **show mls nde** command.

show mls nde

Syntax Description This command has no arguments or keywords.

Defaults This command has no default settings.

Command Modes EXEC

Command History	Release	Modification
	12.0(7)XE	Support for this command was introduced on the Catalyst 6500 series switches.
	12.1(1)E	Support for this command on the Catalyst 6500 series switches was extended to the 12.1 E release.

Examples This example shows how to display NDE status information:

```
Router# show mls nde
  Netflow Data Export is Enabled
Router#
```

Related Commands [mls nde sender](#)
[show mls netflow](#)

show mls netflow

To display configuration information about the NetFlow hardware, use the **show mls netflow** command.

```
show mls netflow {aging | flowmask | {table-contention {detailed | summary}} | usage}
```

Syntax Description		
	aging	Displays the NetFlow-aging information.
	flowmask	Displays the current NetFlow IP and IPX flow mask.
	table-contention	Displays the NetFlow table-contention level information.
	detailed	Displays the detailed NetFlow table-contention level information.
	summary	Displays a summary of NetFlow table-contention levels.
	usage	Displays the NetFlow table usage.

Defaults This command has no default settings.

Command Modes EXEC

Command History	Release	Modification
	12.1(8a)E	Support for this command was introduced on the Catalyst 6500 series switches.
	12.1(23)E	The following changes were made to this command: <ul style="list-style-type: none"> • Include the usage keyword. • Changed the output to include the entry creation mode and the maximum flow allocation number.

Examples This example shows how to display the MLS NDE status:

```
Router# show mls netflow
Netflow Data Export version: 7
Netflow Data Export disabled
Netflow Data Export port/host is not configured
Total packets exported = 0
```

Router#

This example shows how to display aging configuration:

```
Router# show mls netflow aging
          enable timeout  packet threshold
          -----
normal aging true      300      N/A
fast aging  true       32       100
long aging  true       900      N/A
```

Router#

This example shows how to display detailed information about the NetFlow table-contention level:

```
Router# show mls netflow table-contention detailed
Earl in Module 1
Detailed Table Contention Level Information
=====
Layer 3
-----
L3 Contention Level:      0
Page Hits Requiring 1 Lookup   =      0
Page Hits Requiring 2 Lookups  =      0
Page Hits Requiring 3 Lookups  =      0
Page Hits Requiring 4 Lookups  =      0
Page Hits Requiring 5 Lookups  =      0
Page Hits Requiring 6 Lookups  =      0
Page Hits Requiring 7 Lookups  =      0
Page Hits Requiring 8 Lookups  =      0
Page Misses                   =      0
Router#
```

This example shows how to display a summary of the NetFlow table-contention level:

```
Router# show mls netflow table summary
Earl in Module 1
Netflow Entry Creation is Enabled. Maximum number of flow is 80K.
Summary of Table Contention Levels (on a scale of 0 (lowest) to 5 (highest))
=====
L3 Contention Level: 0
Router#
```

This example shows how to display information about the NetFlow table usage:

```
Router# show mls netflow usage
Netflow table usage notification enabled at 80% every 300 seconds
Netflow table utilization of module 7 is 99%
Netflow table utilization of module 10 is 24%
Router#
```

Related Commands

- [mls aging fast](#)
- [mls aging long](#)
- [mls aging normal](#)
- [mls nde flow](#)

show mls netflow ip

To display the MLS NetFlow IP information, use the **show mls netflow ip** command.

```
show mls ip netflow ip [count | destination {hostname | ip-address} | detail | flow {tcp | udp} |
  {interface {interface interface-number} | {vlan vlan-id}} | {macd destination-mac-address} |
  {macs source-mac-address} | routes num | module number | source {hostname | ip-address} |
  statistics]
```

Syntax Description		
count	(Optional)	Displays the total number of MLS NetFlow IP entries.
destination <i>hostname</i>	(Optional)	Displays the entries for a specific destination IP address.
destination <i>ip-address</i>	(Optional)	Displays the entries for a specific destination IP address.
detail	(Optional)	Specifies a detailed output.
flow	(Optional)	Specifies the flow type.
tcp udp	(Optional)	Specifies the flow type.
interface <i>interface</i>	(Optional)	Specifies the interface.
<i>interface-number</i>	(Optional)	Interface type; possible valid values are ethernet , fastethernet , gigabitethernet , tengigabitethernet , pos , atm , and ge-wan .
vlan <i>vlan-id</i>	(Optional)	Module and port number; see the “Usage Guidelines” section for valid values.
macd <i>destination-mac-address</i>	(Optional)	Specifies the VLAN ID; see the “Usage Guidelines” section for valid values.
macs <i>source-mac-address</i>	(Optional)	Specifies the destination MAC address.
routes <i>num</i>	(Optional)	Specifies the source MAC address.
module <i>number</i>	(Optional)	Displays the routing NetFlow entries.
source <i>hostname</i>	(Optional)	Displays the entries that are downloaded on the specified module; see the “Usage Guidelines” section for valid values.
source <i>ip-address</i>	(Optional)	Displays the entries for a specific source address.
statistics	(Optional)	Displays the entries for a specific source IP address.
	(Optional)	Displays the statistics NetFlow entries.

Defaults

This command has no default settings.

Command Modes

EXEC

Command History

Release	Modification
12.0(7)XE	Support for this command was introduced on the Catalyst 6500 series switches.
12.1(1)E	Support for this command on the Catalyst 6500 series switches was extended to the 12.1 E release.
12.1(5c)EX	This command was changed to support systems configured with a Supervisor Engine 2 with a Layer 3 switching engine II (PFC2).
12.1(11b)E	This command was changed to include the ge-wan , atm , and pos keywords.
12.1(11b)EX	The command was changed to support extended-range VLANs.

Usage Guidelines

The **interface**, **macd**, and **macs** keywords are supported on systems configured with a Supervisor Engine 1 with a Layer 3 Switching Engine (PFC) only.

The **routes** keyword is supported on systems configured with a Supervisor Engine 2 with a Layer 3 switching engine II (PFC2) only.

Information in the output of the **show mls netflow ip** command is also displayed in the **show mls ip** command.

If you enter the **show mls netflow ip** command with no argument, the output of the **show mls netflow ip routes** and **show mls netflow ip statistics** commands are displayed.

When you view the output, note that a colon (:) is used to separate the fields.

The *interface-number* argument designates the module and port number. Valid values for *interface-number* depend on the specified interface type and the chassis and module used. For example, if you specify a Gigabit Ethernet interface and have a 48-port 10/100BASE-T Ethernet module installed in a 13-slot chassis, valid values for the module number are from 2 to 13 and valid values for the port number are from 1 to 48. These valid values also apply when entering the **module number** keyword and argument.

If your system is configured with a Supervisor Engine 1, valid values for *vlan-id* are from 1 to 1005. If your system is configured with a Supervisor Engine 2, valid values for *vlan-id* are from 1 to 4094. Extended-range VLANs are not supported on systems configured with a Supervisor Engine 1.

Examples

This example shows how to display any MLS NetFlow IP information:

```
Router# show mls netflow ip
Displaying Netflow entries in Supervisor Earl
DstIP          SrcIP          Prot:SrcPort:DstPort  Src i/f:AdjPtr
-----
Pkts          Bytes          Age   LastSeen  Attributes
-----
172.20.52.19  0.0.0.0        0    :0        :0        0    : 0
0              0              1669 11:06:01  L3 - Dynamic

Router#
```

show mls netflow ip

This example shows how to display MLS NetFlow information on a specific interface:

```
Router# show mls netflow ip interface FastEthernet 3/1
Displaying Netflow entries in Supervisor Earl
DstIP          SrcIP          Prot:SrcPort:DstPort  Src i/f:AdjPtr
-----
Pkts          Bytes          Age  LastSeen  Attributes
-----
172.20.52.19  0.0.0.0        0   :0       :0       0   : 0
0             0              1635 11:05:26  L3 - Dynamic

Router#
```

This example shows how to display MLS NetFlow information on a specific IP address:

```
Router# show mls netflow ip destination 172.20.52.122
Displaying Netflow entries in Supervisor Earl
DstIP          SrcIP          Prot:SrcPort:DstPort  Src i/f:AdjPtr
-----
Pkts          Bytes          Age  LastSeen  Attributes
-----
172.20.52.19  0.0.0.0        0   :0       :0       0   : 0
0             0              1407 11:01:32  L3 - Dynamic

Router#
```

This example shows how to display MLS NetFlow information on a specific flow:

```
Router# show mls netflow ip flow udp
Displaying Netflow entries in Supervisor Earl
DstIP          SrcIP          Prot:SrcPort:DstPort  Src i/f:AdjPtr
-----
Pkts          Bytes          Age  LastSeen  Attributes
-----
172.20.52.19  0.0.0.0        0   :0       :0       0   : 0
0             0              1407 11:01:32  L3 - Dynamic

Router#
```

This example shows how to display detailed MLS NetFlow information on a full flow mask:

```
Router# show mls netflow ip detail
Displaying Netflow entries in Supervisor Earl
DstIP          SrcIP          Prot:SrcPort:DstPort  Src i/f:AdjPtr
-----
Pkts          Bytes          Age  LastSeen  Attributes
-----
QoS    Police Count Threshold  Leak  Drop Bucket  Use-Tbl Use-Enable
-----+-----+-----+-----+-----+-----+-----+-----+
172.20.52.19  0.0.0.0        0   :0       :0       0   : 0
0             0              1464 11:02:31  L3 - Dynamic
0x0         0              0     0     NO    64      NO    NO

Router#
```

show mls netflow ipx

To display MLS NetFlow IPX information, use the **show mls netflow ipx** command.

```
show mls netflow ipx [count | destination {hostname | ipx-address} | detail | flow {tcp | udp} |
  {interface {interface interface-number} | {vlan vlan-id}} | {macd destination-mac-address} |
  {macs source-mac-address} | routes num | module number | source {hostname | ipx-address}
  | statistics]
```

Syntax Description	
count	(Optional) Displays the total number of MLS NetFlow IPX entries.
destination <i>hostname</i>	(Optional) Displays the entries for a specific destination IPX address.
destination <i>ipx-address</i>	(Optional) Displays the entries for a specific destination IPX address.
detail	(Optional) Specifies a detailed output.
flow	(Optional) Changes the flow type.
tcp udp	Specifies the flow type.
interface <i>interface</i>	(Optional) Specifies the interface.
<i>interface-number</i>	(Optional) Interface type; possible valid values are ethernet , fastethernet , gigabitethernet , tengigabitethernet , pos , atm , and ge-wan .
vlan <i>vlan-id</i>	(Optional) Module and port number; see the “Usage Guidelines” section for valid values.
macd <i>destination-mac-address</i>	(Optional) Specifies the VLAN ID; see the “Usage Guidelines” section for valid values.
macs <i>source-mac-address</i>	(Optional) Specifies the destination MAC address.
routes <i>num</i>	(Optional) Specifies the source MAC address.
module <i>number</i>	(Optional) Displays the routing NetFlow entries.
source <i>hostname</i>	(Optional) Displays the entries that are downloaded on the specified module; see the “Usage Guidelines” section for valid values.
source <i>ipx-address</i>	(Optional) Displays the entries for a specific source address.
statistics	(Optional) Displays the entries for a specific destination IPX address.
	(Optional) Displays the statistics for NetFlow entries.

Defaults

This command has no default settings.

Command Modes

EXEC

Command History	Release	Modification
	12.0(7)XE	Support for this command was introduced on the Catalyst 6500 series switches.
	12.1(1)E	Support for this command on the Catalyst 6500 series switches was extended to the 12.1 E release.
	12.1(5c)EX	This command was changed to support systems configured with a Supervisor Engine 2 with a Layer 3 switching engine II (PFC2).
	12.1(8a)E	Support for this command on the Supervisor Engine 2 was extended to the 12.1 E release.
	12.1(11b)E	This command was changed to include the ge-wan , atm , and pos keywords.
	12.1(11b)EX	The command was changed to support extended-range VLANs.

Usage Guidelines

The **interface**, **macd**, and **macs** keywords are supported on systems configured with a Supervisor Engine 1 with a Layer 3 Switching Engine (PFC) only.

The **routes** keyword is supported on systems configured with a Supervisor Engine 2 with a Layer 3 switching engine II (PFC2) only.

When you enter the *ipx-network*, the format is N.H.H.H.

When you enter the *destination-mac-address*, the format for the 48-bit MAC address is H.H.H.

The *interface-number* argument designates the module and port number. Valid values for *interface-number* depend on the specified interface type and the chassis and module used. For example, if you specify a Gigabit Ethernet interface and have a 48-port 10/100BASE-T Ethernet module installed in a 13-slot chassis, valid values for the module number are from 2 to 13 and valid values for the port number are from 1 to 48. These valid values also apply when entering the **module number** keyword and argument.

If your system is configured with a Supervisor Engine 1, valid values for *vlan-id* are from 1 to 1005. If your system is configured with a Supervisor Engine 2, valid values for *vlan-id* are from 1 to 4094. Extended-range VLANs are not supported on systems configured with a Supervisor Engine 1.

Examples

The output from the **show mls netflow ipx** commands are similar to the **show mls netflow ip** commands.

Related Commands

[show mls netflow ip](#)

show mls qos

To display MLS QoS information, use the **show mls qos** command.

```
show mls qos [{ip | ipx | last | mac | maps}] [{interface interface-number} |
{null interface-number} | {port-channel number} | {vlan vlan-id}] ]
```

Syntax Description		
ip ipx	(Optional)	Displays the MLS IP or IPX status information.
last	(Optional)	Displays the last packet policing information.
mac	(Optional)	Displays the MAC address-based QoS status information.
maps	(Optional)	Displays the QoS mapping information.
<i>interface</i>	(Optional)	Interface type; possible valid values are ethernet , fastethernet , gigabitethernet , tengigabitethernet , ge-wan , pos , and atm .
<i>interface-number</i>	(Optional)	Module and port number; see the “Usage Guidelines” section for valid values.
null <i>interface-number</i>	(Optional)	Specifies the null interface; the valid value is 0 .
port-channel <i>number</i>	(Optional)	Specifies the channel interface; see the “Usage Guidelines” section for valid values.
vlan <i>vlan-id</i>	(Optional)	Specifies the VLAN ID; see the “Usage Guidelines” section for valid values.

Defaults

This command has no default settings.

Command Modes

EXEC

Command History

Release	Modification
12.0(7)XE	Support for this command was introduced on the Catalyst 6500 series switches.
12.1(1)E	Support for this command on the Catalyst 6500 series switches was extended to the 12.1 E release.
12.1(3a)E3	The number of valid values for port-channel changed; see the “Usage Guidelines” section for valid values.
12.1(11b)E	This command was changed to include the ge-wan , atm , and pos keywords.
12.1(11b)EX	The command was changed to support extended-range VLANs.

Usage Guidelines

The *interface-number* argument designates the module and port number. Valid values for *interface-number* depend on the specified interface type and the chassis and module used. For example, if you specify a Gigabit Ethernet interface and have a 48-port 10/100BASE-T Ethernet module installed in a 13-slot chassis, valid values for the module number are from 2 to 13 and valid values for the port number are from 1 to 48.

The number of valid values for **port-channel num** depends on the software release. For releases prior to Release 12.1(3a)E3, valid values are from 1 to 256; for Releases 12.1(3a)E3, 12.1(3a)E4, and 12.1(4)E1, valid values are from 1 to 64. Release 12.1(5c)EX and later support a maximum of 64 values ranging from 1 to 256. Release 12.1(13)E and later support a maximum of 64 values ranging from 1 to 282; values 257 to 282 are supported on the CSM and FWSM.

If your system is configured with a Supervisor Engine 1, valid values for *vlan-id* are from 1 to 1005. If your system is configured with a Supervisor Engine 2, valid values for *vlan-id* are from 1 to 4094. Extended-range VLANs are not supported on systems configured with a Supervisor Engine 1.

Examples

This example shows the output if you do not enter any keywords:

```
Router# show mls qos
QoS is enabled globally
Microflow QoS is enabled globally

QoS global counters:
Total packets: 217500
IP shortcut packets: 344
Packets dropped by policing: 344
IP packets with TOS changed by policing 18323
IP packets with COS changed by policing 1602
Non-IP packets with COS changed by policing 0
Router#
```

This example shows how to display information about the last logged packet:

```
Router# show mls qos last
QoS engine last packet information:
Packet was transmitted
Output TOS/DSCP: 0xC0/48[unchanged]   Output COS: 0[unchanged]
Aggregate policer index: 0(none)
Microflow policer index: 0(none)
Router#
```

This example shows how to display the QoS map settings:

```
Router# show mls qos maps
Policed-dscp map:
    0  1  2  3  4  5  6  7  8  9
-----
00:  00 01 02 03 04 05 06 07 08 09
10:  10 11 12 13 14 15 16 17 18 19
20:  20 21 22 23 24 25 26 27 28 29
30:  30 31 32 33 34 35 36 37 38 39
40:  40 41 42 43 44 45 46 47 48 49
50:  50 51 52 53 54 55 56 57 58 59
60:  60 61 62 63

Dscp-cos map:
    0  1  2  3  4  5  6  7  8  9
-----
00:  00 00 00 00 00 00 00 00 01 01
10:  01 01 01 01 01 01 02 02 02 02
20:  02 02 02 02 03 03 03 03 03 03
30:  03 03 04 04 04 04 04 04 04 04
40:  05 05 05 05 05 05 05 05 06 06
50:  06 06 06 06 06 06 07 07 07 07
60:  07 07 07 07
```

```
Cos-dscp map:
  cos:   0  1  2  3  4  5  6  7
-----
  dscp:  0  8 16 24 32 40 48 56

IpPrecedence-dscp map:
  ipprec: 0  1  2  3  4  5  6  7
-----
  dscp:  0  8 16 24 32 40 48 56

Router#
```

Related Commands

[mls qos \(global configuration mode\)](#)
[mls qos \(interface configuration mode\)](#)

show mls qos aggregate policer

To display information about the MLS QoS aggregate policer, use the **show mls qos aggregate policer** command.

```
show mls qos aggregate policer [aggregate-name]
```

Syntax Description	<i>aggregate-name</i> (Optional) Named aggregate policer.
---------------------------	---

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

Command Modes	EXEC
----------------------	------

Command History	Release	Modification
	12.0(7)XE	Support for this command was introduced on the Catalyst 6500 series switches.
	12.1(1)E	Support for this command on the Catalyst 6500 series switches was extended to the 12.1 E release.

Usage Guidelines	In the output, the following applies:
-------------------------	---------------------------------------

- The **AgId** parameter displays the hardware policer ID and is nonzero if assigned.
- The policy maps using the policer, if any, are listed in the square brackets ([]).
- If there are no policies using the policer, no **AgId** line is displayed.
- If the policer is referred to in policy maps but has not been defined, **[undefined]** is displayed.

Aggregate policing works independently on each DFC-equipped switching module and independently on the PFC2, which supports any non-DFC-equipped switching modules. Aggregate policing does not combine flow statistics from different DFC-equipped switching modules. You can display aggregate policing statistics for each DFC-equipped switching module, the PFC2, and any non-DFC-equipped switching modules supported by the PFC2.

Examples	This example shows the output if you do not enter any keywords:
-----------------	---

```
Router# show mls qos aggregate-policer
ag1 (undefined)
  AgId=0 [ pol1 pol2 ]
ag2 64000 64000 conform-action set-dscp-transmit 56 exceed-action drop
  AgId=0 [ pol3 ]
ag3 32000 32000 conform-action set-dscp-transmit 34 exceed-action drop
Router#
```

Related Commands	mls qos aggregate-policer
-------------------------	---

show mls qos statistics-export info

To display information about the MLS statistics data export status and configuration, use the **show mls qos statistics-export info** command.

show mls qos statistics-export info

Syntax Description This command has no keywords or arguments.

Defaults This command has no default settings.

Command Modes EXEC

Command History	Release	Modification
	12.1(8a)EX	Support for this command was introduced on the Catalyst 6500 series switches.

Usage Guidelines QoS statistics data export is not supported on OSM interfaces.

Examples This example shows how to display information about the MLS statistics data export status and configuration:

```
Router# show mls qos statistics-export info
QoS Statistics Data Export Status and Configuration information
-----
Export Status : enabled
Export Interval : 250 seconds
Export Delimiter : @
Export Destination : 172.20.52.3, UDP port 514 Facility local6, Severity debug

QoS Statistics Data Export is enabled on following ports:
-----
FastEthernet5/24

QoS Statistics Data export is enabled on following shared aggregate policers:
-----
aggr1M

QoS Statistics Data Export is enabled on following class-maps:
-----
class3
Router#
```

■ show mls qos statistics-export info

Related Commands

mls qos statistics-export (global configuration mode)
mls qos statistics-export (interface configuration mode)
mls qos statistics-export aggregate-policer
mls qos statistics-export class-map
mls qos statistics-export delimiter
mls qos statistics-export destination
mls qos statistics-export interval

show mls sampling

To display the sampled NDE status, use the **show mls sampling** command.

show mls sampling

Syntax Description This command has no keywords or arguments.

Defaults This command has no default settings.

Command Modes EXEC

Command History	Release	Modification
	12.1(13)E	Support for this command was introduced on the Catalyst 6500 series switches.

Usage Guidelines Sampled NetFlow is supported on systems configured with a Supervisor Engine 2 and on Layer 3 interfaces only.

Examples This example shows how to display sampling status:

```
Router# show mls sampling
time-based sampling is enabled
1 out of every 1024 packets is being sampled.
Sampling Interval and Period is 4 millisecond per 4096 millisecond
Router#
```

Related Commands [mls netflow sampling](#)
[mls sampling](#)

show mls statistics

To display MLS statistics information including IP, IPX, multicast, Layer 2 protocol, and QoS statistics, use the **show mls statistics** command.

show mls statistics

Syntax Description This command has no keywords or arguments.

Defaults This command has no default settings.

Command Modes EXEC

Command History	Release	Modification
	12.0(7)XE	Support for this command was introduced on the Catalyst 6500 series switches.
	12.1(1)E	Support for this command on the Catalyst 6500 series switches was extended to the 12.1 E release.
	12.1(2)E	The information display for the command was updated.
	12.1(11b)E	The information display for the command was updated.
	12.1(11b)EX	The information display for the command was changed to include packet error information.
	12.1(23)E	The output was changed to include pps performance information.

Usage Guidelines The pps performance displayed is the rate that is calculated as the average rate within the last 30 seconds.

Examples This example shows how to display MLS statistical information for a Catalyst 6500 series switch configured with a Supervisor Engine 1:

```
Router# show mls statistics
  Number of ip unicast shortcuts      : 10
  Number of ip multicast shortcuts    : 0
  Number of ipx shortcuts             : 0
  Number of l2 shortcuts              : 0
  Total packets counted               : 20026697
  Total ip packets shortcut           : 806
  Total ipx packets shortcut          : 0
  Total ip packets with TOS changed   : 10005
  Total ip packets with COS changed   : 1166
  Total non ip packets COS changed    : 0
  Total packets dropped by access-lists : 5
  Total packets dropped by traffic policing : 9998956
  IP len against Physical length err  = 0
  IP min. length check error          = 0
  IP pkts with cksum error            = 0
```

```
IPX len against Physical length err = 0
IPX min. length check error        = 0
Router#
```

This example shows how to display MLS statistical information for a Catalyst 6500 series switch configured with a Supervisor Engine 2:

```
Router# show mls statistics

Statistics for Earl in Module 2

L2 Forwarding Engine
  Total packets Switched          : 20273@ 22552 pps

L3 Forwarding Engine
  Total Packets Bridged           : 20273
  Total Packets FIB Switched      : 7864
  Total Packets ACL Routed        : 0
  Total Packets Netflow Switched  : 0
  Total Mcast Packets Switched/Routed : 220598
  Total ip packets with TOS changed : 0
  Total ip packets with COS changed : 0
  Total non ip packets COS changed : 0
  Total packets dropped by ACL     : 0
  Total packets dropped by Policing : 705757744

Statistics for Earl in Module 9

L2 Forwarding Engine
  Total packets Switched          : 16683@ 1 pps

L3 Forwarding Engine
  Total Packets Bridged           : 0
  Total Packets FIB Switched      : 0
  Total Packets ACL Routed        : 0
  Total Packets Netflow Switched  : 0
  Total Mcast Packets Switched/Routed : 0
  Total ip packets with TOS changed : 0
  Total ip packets with COS changed : 0
  Total non ip packets COS changed : 0
  Total packets dropped by ACL     : 0
  Total packets dropped by Policing : 277949053
Router#
```

show mls table-contention

To display TCL information, use the **show mls table-contention** command.

```
show mls table-contention { detailed | summary }
```

Syntax Description	Parameter	Description
	detailed	Displays the detailed TCL information.
	summary	Displays the TCL level.

Defaults This command has no default settings.

Command Modes EXEC

Command History	Release	Modification
	12.0(7)XE	Support for this command was introduced on the Catalyst 6500 series switches.
	12.1(1)E	Support for this command on the Catalyst 6500 series switches was extended to the 12.1 E release.

Examples This example shows how to display a detailed list of TCL information:

```
Router# show mls table-contention detailed
Detailed Table Contention Level Information
=====
Layer 3
-----
L3 Contention Level:      0
Page Hits Requiring 1 Lookup   =      31
Page Hits Requiring 2 Lookups  =       0
Page Hits Requiring 3 Lookups  =       0
Page Hits Requiring 4 Lookups  =       0
Page Hits Requiring 5 Lookups  =       0
Page Hits Requiring 6 Lookups  =       0
Page Hits Requiring 7 Lookups  =       0
Page Hits Requiring 8 Lookups  =       0
Page Misses                   =       0
```

Router#

This example shows how to display a summary of TCL information:

```
Router# show mls table-contention summary
Summary of Table Contention Levels (on a scale of 0 (lowest) to 3 (highest))
=====
L3 Contention Level: 0
```

Router#

show module

To display the module status and information, use the **show module** command.

show module [*mod-num* | **all** | **version**]

Syntax Description	
<i>mod-num</i>	(Optional) Number of the module.
all	(Optional) Displays the information for all modules.
version	(Optional) Displays version information.

Defaults This command has no default settings.

Command Modes EXEC

Command History	Release	Modification
	12.0(7)XE	Support for this command was introduced on the Catalyst 6500 series switches.
	12.1(1)E	Support for this command on the Catalyst 6500 series switches was extended to the 12.1 E release.
	12.1(3a)E3	This command was changed to display supervisor engine redundancy status.
	12.1(13)E	This command was changed to display the online diagnostic status.

Usage Guidelines In the Mod Sub-Module fields, the **show module** command displays the supervisor engine number but appends the uplink daughter card's module type and information.

Entering the **show module** command with no arguments is the same as entering the **show module all** command.

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

```
Router# show module all
Mod Ports Card Type                               Model                               Serial No.
-----
  2     2 Catalyst 6000 supervisor 2 (Active)    WS-X6K-SUP2-2GE                    SAD04450LF1
  3    48 48 port 10/100 mb RJ-45 ethernet        WS-X6248-RJ-45                     SAD03181468
  5     0 Switching Fabric Module (Active)        WS-C6500-SFM                       SAD04420JR5

Mod MAC addresses                               Hw   Fw       Sw       Status
-----
  2 0001.6461.39c0 to 0001.6461.39c1           1.1  6.1(3)   6.2(0.97)  Ok
  3 00d0.bb0f.9808 to 00d0.bb0f.9837           1.0  4.2(0.24) 6.2(0.97)  Ok
  5 0001.0002.0003 to 0001.0002.0003           1.0  6.1(3)   6.2(0.97)  Ok
```

show module

```

Mod Sub-Module          Model          Serial          Hw    Status
-----
 2 Policy Feature Card 2 WS-F6K-PFC2    SAD04440HVU    1.0   Ok
 2 Cat6k MSFC 2 daughterboard WS-F6K-MSFC2  SAD04430J9K    1.1   Ok

```

```
Mod Online Diag Status
-----
```

```

 2 Pass
 3 Pass
 5 Pass

```

```
Router#
```

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

```
Router# show module 2
```

```

Mod Ports Card Type          Model          Serial No.
-----
 2    2 Catalyst 6000 supervisor 2 (Active) WS-X6K-SUP2-2GE SAD04450LF1

```

```

Mod MAC addresses          Hw    Fw          Sw          Status
-----
 2 0001.6461.39c0 to 0001.6461.39c1 1.1 6.1(3)      6.2(0.97)  Ok

```

```

Mod Sub-Module          Model          Serial          Hw    Status
-----
 2 Policy Feature Card 2 WS-F6K-PFC2    SAD04440HVU    1.0   Ok
 2 Cat6k MSFC 2 daughterboard WS-F6K-MSFC2  SAD04430J9K    1.1   Ok

```

```
Router#
```

show monitor session

To display information about the SPAN and RSPAN sessions, use the **show monitor session** command.

show monitor session [**{range session-range}** | **local** | **remote** | **all** | **session** | **detail**]

Syntax Description	
range	(Optional) Displays a range of sessions; valid values are from 1 to 66. See the <i>session-range</i> “Usage Guidelines” section for additional information.
local	(Optional) Displays only local SPAN sessions.
remote	(Optional) Displays both RSPAN source and destination sessions.
all	(Optional) Displays all sessions.
session	(Optional) Number of the session; valid values are from 1 to 66.
detail	(Optional) Displays detailed information.

Defaults

This command has no default settings.

Command Modes

EXEC

Command History

Release	Modification
12.0(7)XE	Support for this command was introduced on the Catalyst 6500 series switches.
12.1(1)E	Support for this command on the Catalyst 6500 series switches was extended to the 12.1 E release.
12.1(5c)EX	These SPAN support restrictions were added: <ul style="list-style-type: none"> • If your switch has a Switch Fabric Module installed, SPAN is supported among supervisor engines and nonfabric-enabled modules. • If your switch does not have a Switch Fabric Module installed, SPAN is supported on all modules including fabric-enabled modules. • SPAN on DFC-equipped modules is not supported.
12.1(8a)E	Support for this command on the Catalyst 6500 series switches was extended to the 12.1 E release.
12.1(13)E	This command was changed to support the range session-range , local , detail , remote , and all options and to change the maximum number of valid sessions from 1 to 66.

Usage Guidelines

When entering a range of session, use a dash (-) to specify a range and separate multiple entries with a comma (.). Do not enter spaces before or after the comma or dash.

You can enter multiple ranges by separating the ranges with a comma.

If you enter the **show monitor session** command without specifying a session, the information for all sessions is displayed.

Examples

This example shows how to display the saved version of the monitor configuration for a specific session:

```
Router# show monitor session 2
Session 2
-----
Type : Remote Source Session

Source Ports:
  RX Only:      Fa1/1-3
Dest RSPAN VLAN: 901
Router#
```

This example shows how to display the detailed information from a saved version of the monitor configuration for a specific session:

```
Router# show monitor session 2 detail
Session 2
-----
Type : Remote Source Session

Source Ports:
  RX Only:      Fa1/1-3
  TX Only:      None
  Both:         None
Source VLANs:
  RX Only:      None
  TX Only:      None
  Both:         None
Source RSPAN VLAN: None
Destination Ports: None
Filter VLANs:   None
Dest RSPAN VLAN: 901
Router#
```

Related Commands

[monitor session](#)
[remote-span](#)

show mpls l2transport vc

To display the state of virtual circuits on a router, use the **show mpls l2transport vc** command.

show mpls l2transport vc [**detail**] [[*vc-id*] | [*vc-id-min*] *vc-id-max*] | [**summary**]

Syntax Description	detail	(Optional) Displays the detailed information about the virtual circuits on a PE router.
	<i>vc-id</i>	(Optional) Virtual circuit ID.
	<i>vc-id-min</i>	(Optional) Range of virtual circuit IDs to be displayed; valid values are from 0 to 429467295.
	<i>vc-id-max</i>	(Optional) Displays the information about a range of virtual circuit IDs that you specify. The range is from 0 to 429467295.
	summary	(Optional) Displays a summary of the active virtual circuits on a PE router's MPLS interfaces.

Defaults This command has no default settings.

Command Modes EXEC

Command History	Release	Modification
	12.1(8a)E	Support for this command was introduced on the Catalyst 6500 series switches.

Usage Guidelines The **show mpls l2transport vc** command is not supported on systems configured with a Supervisor Engine 1.

Examples This example shows how to display the status of the virtual circuits on the router:

```
Router# show mpls l2transport vc
Transport Client      VC      Local      Remote      Tunnel
VC ID      Intf      State      VC Label      VC Label      Label
4          Vl4       UP         23            21            77
101       Vl101     UP         24            22            77
Router#
```

This example shows the output of the **summary** keyword:

```
Router# show mpls l2transport vc summary
MPLS interface VC summary:
  interface: Gi8/1, programmed imposition vcs: 1
  interface: Gi8/3, programmed imposition vcs: 1

VC summary (active/non-active) by destination:
  destination: 13.0.0.1, Number of locally configured vc(s): 2
Router#
```

This example shows the detailed information about the currently routed virtual circuits on the router interfaces:

```
Router# show mpls l2transport vc detail
VC ID: 111, Local Group ID: 5, Remote Group ID: 2 (VC is up)
Client Intf: Gi1/0.1 is up, Destination: 2.2.2.2, Peer LDP Ident: 2.2.2.2:0
Local VC Label: 17, Remote VC Label: 17, Tunnel Label: 16
Outgoing Interface: Gi0/0, Next Hop: 12.1.1.3
Local MTU: 1500, Remote MTU: 1500
Remote interface description: GigabitEthernet0/0.1
Imposition: LC Programmed
Current Imposition/Last Disposition Slot: 1/255
Packet Totals(in/out): 0/0
Byte totals(in/out): 0/0

VC ID: 123, Local Group ID: 6, Remote Group ID: 3 (VC is up)
Client Intf: Gi1/0.2 is up, Destination: 2.2.2.2, Peer LDP Ident: 2.2.2.2:0
Local VC Label: 18, Remote VC Label: 19, Tunnel Label: 16
Outgoing Interface: Gi0/0, Next Hop: 12.1.1.3
Local MTU: 1500, Remote MTU: 1500
Remote interface description: GigabitEthernet0/0.2
Imposition: LC Programmed
Current Imposition/Last Disposition Slot: 1/255
Packet Totals(in/out): 0/0
Byte totals(in/out): 0/0
Router#
```

This example shows the detailed virtual circuit information for a specified virtual circuit:

```
Router# show mpls l2transport vc 111 detail

VC ID: 111, Local Group ID: 5, Remote Group ID: 2 (VC is up)
Client Intf: Gi1/0.1 is up, Destination: 2.2.2.2, Peer LDP Ident: 2.2.2.2:0
Local VC Label: 17, Remote VC Label: 17, Tunnel Label: 16
Outgoing Interface: Gi0/0, Next Hop: 12.1.1.3
Local MTU: 1500, Remote MTU: 1500
Remote interface description: GigabitEthernet0/0.1
Imposition: LC Programmed
Current Imposition/Last Disposition Slot: 1/255
Packet Totals(in/out): 0/0
Byte totals(in/out): 0/0
Router#
```

Table 2-39 describes the significant fields displayed in the outputs.

Table 2-39 show mpls l2transport vc Command Field Descriptions

Field	Description
Transport VC ID	Virtual circuit identifier assigned to one of the interfaces on the router.
Client Intf	Ingress or egress interface through which the Layer 2 VLAN packet travels.

Table 2-39 show mpls l2transport vc Command Field Descriptions (continued)

Field	Description
VC State	<p>Status of the virtual circuit. The status can be one of the following:</p> <ul style="list-style-type: none"> • UP—The virtual circuit is in a state where it can carry traffic between the two virtual circuit end points. A virtual circuit is up when both imposition and disposition interfaces are programmed. <p>The disposition interfaces are programmed if the virtual circuit has been configured and the client interface is up.</p> <p>The imposition interface is programmed if the disposition interface is programmed and you have a remote virtual circuit label and an IGP label. The IGP label can be implicit null in a back-to-back configuration. (An IGP label means that there is a LSP to the peer.)</p> <ul style="list-style-type: none"> • DOWN—The VC is not ready to carry traffic between the two virtual circuit end points.
Local VC Label	Virtual circuit label that a router signals to its peer router, which is used by the peer router during imposition. The local virtual circuit label is a disposition label. The local virtual circuit label determines the egress interface of an arriving packet from the MPLS backbone.
Remote VC Label	Disposition virtual circuit label of the remote peer router.
Tunnel Label	IGP label that is used to route the packet over the MPLS backbone to the destination router with the egress interface.
VC ID	Virtual circuit identifier assigned to one of the interfaces on the router.
Local Group ID	ID that is used to group virtual circuits locally. Ethernet over MPLS groups virtual circuits by the hardware port, which is unique for each port on a router.
Remote Group ID	ID that is used by the peer to group several virtual circuits.
Client	Ingress or egress interface through which the Layer 2 VLAN packet travels.
Destination	Destination that is specified for this virtual circuit. You specify the destination IP address as part of the mpls l2transport route vc command.
Peer LDP ID	Targeted peer's LDP IP address.
Local VC Label	Virtual circuit label that a router signals to its peer router, which is used by the peer router during imposition. The local virtual circuit label is a disposition label. The local virtual circuit label determines the egress interface of an arriving packet from the MPLS backbone.
Remote VC Label	Disposition virtual circuit label of the remote peer router.
Tunnel Label	IGP label that is used to route the packet over the MPLS backbone to the destination router with the egress interface.
Outgoing Interface	Egress interface of the virtual circuit.

Table 2-39 show mpls l2transport vc Command Field Descriptions (continued)

Field	Description
Next Hop	IP address of the next hop.
Local MTU	Maximum transmission unit that is specified for the client interface.
Remote MTU	Maximum transmission unit that is specified for the remote router's client interface.
Imposition	Status of the module.
LC programmed	LC not programmed.
Current Imposition/ Last Disposition Slot	Current imposition is the outgoing interface that is used for imposition. Last disposition slot is the interface where packets for this virtual circuit arrive.
Packet Totals (in/out)	Total number of packets that are forwarded in each direction.
Byte Totals (in/out)	Total number of bytes that are forwarded in each direction.

Related Commands [mpls l2transport route](#)

show mpls ttfib

To display the MPLS TTFIB table information, use the **show mpls ttfib** command.

```
show mpls ttfib [{detail [hardware]}] | {vrf instance [detail]}
```

Syntax Description	detail	(Optional) Displays detailed information.
	hardware	(Optional) Displays detailed hardware information.
	vrf instance	(Optional) Displays entries for a specified VPN Routing/Forwarding instance.

Defaults This command has no default settings.

Command Modes EXEC

Command History	Release	Modification
	12.1(8a)E3	Support for this command was introduced on the Catalyst 6500 series switches.
	12.1(19)E	The output was changed to display the incoming label (indicated by an asterisk*) that is included in the load balancer.

Examples This example shows how to display the MPLS TTFIB table information:

```
Router# show mpls ttfib
Local  Outgoing  Packets Tag      LTL  Dest.  Destination  Outgoing
Tag    Tag or VC  Switched  Index Vlanid  Mac Address  Interface
4116   21         0         0x132 1019  00d0.040d.380a GE5/3
      34         0         0xE3  4031  0000.0430.0000 PO4/4
      45         0         0xE0  1020  0000.0400.0000 PO4/1*
4117   16         0         0x132 1019  00d0.040d.380a GE5/3*
      17         0         0xE0  1020  0000.0400.0000 PO4/1
      18         0         0xE3  4031  0000.0430.0000 PO4/4
4118   21         0         0xE0  1020  0000.0400.0000 PO4/1*
      56         0         0xE3  4031  0000.0430.0000 PO4/4
4119   35         0         0xE3  4031  0000.0430.0000 PO4/4*
      47         0         0xE0  1020  0000.0400.0000 PO4/1
```

show msfc

To display MSFC information, use the **show msfc** command.

```
show msfc {buffers | eeprom | fault | netint | tlb}
```

Syntax Description	Parameter	Description
	buffers	Displays buffer allocation information.
	eeprom	Displays the internal information.
	fault	Displays fault information.
	netint	Displays network interrupt information.
	tlb	Displays the processor TLB registers.

Defaults This command has no default settings.

Command Modes EXEC

Command History	Release	Modification
	12.1(8a)E	Support for this command was introduced on the Catalyst 6500 series switches.
	12.1(19)E	This command was changed from show msfc2 to show msfc .

Examples These examples display the **show msfc** command output:

```
Router# show msfc buffers
Reg. set   Min    Max
TX         640
ABQ        640 16384
0          0     40
1         6715 8192
2          0     0
3          0     0
4          0     0
5          0     0
6          0     0
7          0     0
Threshold = 8192

Vlan Sel  Min  Max  Cnt  Rsvd
1016  1  6715 8192  0    0
Router#

Router# show msfc eeprom
RSFC CPU IDPROM:
IDPROM image:

(FRU is 'Cat6k MSFC 2 daughterboard')

IDPROM image block #0:
```

```

hexadecimal contents of block:
00: AB AB 01 90 13 22 01 00 00 02 60 03 00 EA 43 69      .....".....`...Ci
10: 73 63 6F 20 53 79 73 74 65 6D 73 00 00 00 00 00      sco Systems.....
20: 00 00 57 53 2D 46 36 4B 2D 4D 53 46 43 32 00 00      ..WS-F6K-MSFC2..
30: 00 00 00 00 00 00 53 41 44 30 36 32 31 30 30 36      .....SAD0621006
40: 37 00 00 00 00 00 00 00 00 00 37 33 2D 37 32 33      7.....73-723
50: 37 2D 30 33 00 00 00 00 00 00 41 30 00 00 00 00      7-03.....A0....
60: 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00      .....
70: 00 00 00 02 00 03 00 00 00 00 09 00 05 00 01      .....
80: 00 03 00 01 00 01 00 02 00 EA FF DF 00 00 00 00      .....

```

```

block-signature = 0xABAB, block-version = 1,
block-length = 144, block-checksum = 4898

```

```

*** common-block ***
IDPROM capacity (bytes) = 256 IDPROM block-count = 2
FRU type = (0x6003,234)
OEM String = 'Cisco Systems'
Product Number = 'WS-F6K-MSFC2'
Serial Number = 'SAD06210067'
Manufacturing Assembly Number = '73-7237-03'
Manufacturing Assembly Revision = 'A0'
Hardware Revision = 2.3
Manufacturing bits = 0x0 Engineering bits = 0x0
SNMP OID = 9.5.1.3.1.1.2.234
Power Consumption = -33 centiamperes RMA failure code = 0-0-0-0
*** end of common block ***

```

IDPROM image block #1:

```

hexadecimal contents of block:
00: 60 03 01 62 0A C2 00 00 00 00 00 00 00 00 00 00      `..b.....
10: 00 00 00 00 00 01 00 23 00 08 7C A4 CE 80 00 40      .....#..|....@
20: 01 01 00 01 00 00 00 00 00 00 00 00 00 00 00 00      .....
30: 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00      .....
40: 14 01 00 00 00 00 00 00 00 00 00 00 00 00 00 00      .....
50: 10 00 4B 3C 41 32 80 80 80 80 80 80 80 80 80 80      ..K<A2.....
60: 80 80      ..

```

```

block-signature = 0x6003, block-version = 1,
block-length = 98, block-checksum = 2754

```

```

*** linecard specific block ***
feature-bits = 00000000 00000000
hardware-changes-bits = 00000000 00000001
card index = 35
mac base = 0008.7CA4.CE80
mac_len = 64
num_processors = 1
epld_num = 1
epld_versions = 0001 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000
00 0000 0000
port numbers:
pair #0: type=14, count=01
pair #1: type=00, count=00
pair #2: type=00, count=00
pair #3: type=00, count=00
pair #4: type=00, count=00
pair #5: type=00, count=00
pair #6: type=00, count=00
pair #7: type=00, count=00
sram_size = 4096
sensor_thresholds =
sensor #0: critical = 75 oC, warning = 60 oC
sensor #1: critical = 65 oC, warning = 50 oC

```

show msfc

```

    sensor #2: critical = -128 oC (sensor not present), warning = -128 oC (senso
r not present)
    sensor #3: critical = -128 oC (sensor not present), warning = -128 oC (senso
r not present)
    sensor #4: critical = -128 oC (sensor not present), warning = -128 oC (senso
r not present)
    sensor #5: critical = -128 oC (sensor not present), warning = -128 oC (senso
r not present)
    sensor #6: critical = -128 oC (sensor not present), warning = -128 oC (senso
r not present)
    sensor #7: critical = -128 oC (sensor not present), warning = -128 oC (senso
r not present)
    *** end of linecard specific block ***

```

End of IDPROM image

Router#

Router# **show msfc fault**

Reg. set	Min	Max
TX		640
ABQ	640	16384
0	0	40
1	6715	8192
2	0	0
3	0	0
4	0	0
5	0	0
6	0	0
7	0	0

Threshold = 8192

Vlan	Sel	Min	Max	Cnt	Rsvd
1016	1	6715	8192	0	0

Router#

Router# **show msfc netint**

Network IO Interrupt Throttling:

```

throttle count=0, timer count=0
active=0, configured=1
netint usec=3999, netint mask usec=400

```

Router#

Router# **show msfc tlb**

Mistral revision 3

TLB entries : 37

Virt Address range	Phy Address range	Attributes
0x10000000:0x1001FFFF	0x010000000:0x01001FFFF	CacheMode=2, RW, Valid
0x10020000:0x1003FFFF	0x010020000:0x01003FFFF	CacheMode=2, RW, Valid
0x10040000:0x1005FFFF	0x010040000:0x01005FFFF	CacheMode=2, RW, Valid
0x10060000:0x1007FFFF	0x010060000:0x01007FFFF	CacheMode=2, RW, Valid
0x10080000:0x10087FFF	0x010080000:0x010087FFF	CacheMode=2, RW, Valid
0x10088000:0x1008FFFF	0x010088000:0x01008FFFF	CacheMode=2, RW, Valid
0x18000000:0x1801FFFF	0x010000000:0x01001FFFF	CacheMode=0, RW, Valid
0x19000000:0x1901FFFF	0x010000000:0x01001FFFF	CacheMode=7, RW, Valid
0x1E000000:0x1E1FFFFF	0x01E000000:0x01E1FFFFF	CacheMode=2, RW, Valid
0x1E800000:0x1E81FFF	0x01E800000:0x01E81FFF	CacheMode=2, RW, Valid
0x1FC00000:0x1FC7FFFF	0x01FC00000:0x01FC7FFFF	CacheMode=2, RO, Valid
0x30000000:0x3001FFFF	0x070000000:0x07001FFFF	CacheMode=2, RW, Valid
0x40000000:0x407FFFFF	0x000000000:0x0007FFFFF	CacheMode=3, RO, Valid
0x40800000:0x40FFFFFF	0x000800000:0x000FFFFFF	CacheMode=3, RO, Valid
0x41000000:0x417FFFFF	0x001000000:0x0017FFFFF	CacheMode=3, RO, Valid
0x41800000:0x419FFFFF	0x001800000:0x0019FFFFF	CacheMode=3, RO, Valid

```

0x41A00000:0x41A7FFFF 0x001A0000:0x001A7FFFF CacheMode=3, RO, Valid
0x41A80000:0x41A9FFFF 0x001A8000:0x001A9FFFF CacheMode=3, RO, Valid
0x41AA0000:0x41ABFFFF 0x001AA000:0x001ABFFFF CacheMode=3, RO, Valid
0x41AC0000:0x41AC7FFF 0x001AC000:0x001AC7FFF CacheMode=3, RO, Valid
0x41AC8000:0x41ACFFFF 0x001AC800:0x001ACFFFF CacheMode=3, RO, Valid
0x41AD0000:0x41AD7FFF 0x001AD000:0x001AD7FFF CacheMode=3, RO, Valid
0x41AD8000:0x41AD9FFF 0x001AD800:0x001AD9FFF CacheMode=3, RO, Valid
0x41ADA000:0x41ADBFFF 0x001ADA00:0x001ADBFFF CacheMode=3, RW, Valid
0x41ADC000:0x41ADFFFF 0x001ADC00:0x001ADFFFF CacheMode=3, RW, Valid
0x41ADE000:0x41ADFFFF 0x001ADE00:0x001ADFFFF CacheMode=3, RW, Valid
0x41AE0000:0x41AFFFFF 0x001AE000:0x001AFFFFF CacheMode=3, RW, Valid
0x41B00000:0x41B7FFFF 0x001B0000:0x001B7FFFF CacheMode=3, RW, Valid
0x41B80000:0x41BFFFFF 0x001B8000:0x001BFFFFF CacheMode=3, RW, Valid
0x41C00000:0x41DFFFFF 0x001C0000:0x001DFFFFF CacheMode=3, RW, Valid
0x41E00000:0x41FFFFFF 0x001E0000:0x001FFFFFF CacheMode=3, RW, Valid
0x42000000:0x43FFFFFF 0x00200000:0x003FFFFFF CacheMode=3, RW, Valid
0x44000000:0x45FFFFFF 0x00400000:0x005FFFFFF CacheMode=3, RW, Valid
0x46000000:0x47FFFFFF 0x00600000:0x007FFFFFF CacheMode=3, RW, Valid
0x06E00000:0x06FFFFFF 0x006E0000:0x006FFFFFF CacheMode=2, RW, Valid
0x07000000:0x077FFFFF 0x00700000:0x0077FFFFF CacheMode=2, RW, Valid
0x07800000:0x07FFFFFF 0x00780000:0x007FFFFFF CacheMode=2, RW, Valid

```

Router#

show pagp

To display port-channel information, use the **show pagp** command.

```
show pagp [group-number] {counters | internal | neighbor | pgroup}
```

Syntax Description	
<i>group-number</i>	(Optional) Channel-group number; valid values are a maximum of 64 values from 1 to 282.
counters	Displays the traffic information.
internal	Displays the internal information.
neighbor	Displays the neighbor information.
pgroup	Displays the active port channels.

Defaults This command has no default settings.

Command Modes EXEC

Command History	Release	Modification
	12.0(7)XE	Support for this command was introduced on the Catalyst 6500 series switches.
	12.1(1)E	Support for this command on the Catalyst 6500 series switches was extended to the 12.1 E release.
	12.1(3a)E3	The number of valid values for <i>group-number</i> changed; see the “Usage Guidelines” section for valid values.

Usage Guidelines The number of valid values for *group-number* depends on the software release. For releases prior to Release 12.1(3a)E3, valid values are from 1 to 256; for Releases 12.1(3a)E3, 12.1(3a)E4, and 12.1(4)E1, valid values are from 1 to 64. Release 12.1(5c)EX and later support a maximum of 64 values ranging from 1 to 256. Release 12.1(13)E and later support a maximum of 64 values ranging from 1 to 282; values 257 to 282 are supported on the CSM and FWSM.

You can enter any **show pagp** command to display the active port-channel information. To display the nonactive information, enter the **show pagp** command with a group.

Examples This example shows how to display PAgP counter information:

```
Router# show pagp counters
          Information          Flush
Port     Sent   Recv    Sent   Recv
-----
Channel group: 1
  Fa5/4   2660   2452     0     0
  Fa5/5   2676   2453     0     0
Channel group: 2
```

```

Fa5/6      289    261    0    0
Fa5/7      290    261    0    0
Channel group: 1023
Fa5/9      0      0      0    0
Channel group: 1024
Fa5/8      0      0      0    0
Router#

```

This example shows how to display internal PAGP information:

```

Router# show pagp 1 internal
Flags: S - Device is sending Slow hello.  C - Device is in Consistent state.
      A - Device is in Auto mode.
Timers: H - Hello timer is running.      Q - Quit timer is running.
      S - Switching timer is running.    I - Interface timer is running.

Channel group 1

```

Port	Flags	State	Timers	Hello Interval	Partner Count	PAGP Priority	Learning Method
Fa5/4	SC	U6/S7		30s	1	128	Any
Fa5/5	SC	U6/S7		30s	1	128	Any

```

Router#

```

This example shows how to display PAGP neighbor information for all neighbors:

```

Router# show pagp neighbor
Flags: S - Device is sending Slow hello.  C - Device is in Consistent state.
      A - Device is in Auto mode.      P - Device learns on physical port.

Channel group 1 neighbors

```

Port	Partner Name	Partner Device ID	Partner Port	Age	Flags	Group Cap.
Fa5/4	JAB031301	0050.0f10.230c	2/45	2s	SAC	2D
Fa5/5	JAB031301	0050.0f10.230c	2/46	27s	SAC	2D

```

Channel group 2 neighbors

```

Port	Partner Name	Partner Device ID	Partner Port	Age	Flags	Group Cap.
Fa5/6	JAB031301	0050.0f10.230c	2/47	10s	SAC	2F
Fa5/7	JAB031301	0050.0f10.230c	2/48	11s	SAC	2F

```

Channel group 1023 neighbors

```

Port	Partner Name	Partner Device ID	Partner Port	Age	Flags	Group Cap.
------	--------------	-------------------	--------------	-----	-------	------------

```

Channel group 1024 neighbors

```

Port	Partner Name	Partner Device ID	Partner Port	Age	Flags	Group Cap.
------	--------------	-------------------	--------------	-----	-------	------------

```

Router#

```

Related Commands

[pagp learn-method](#)
[pagp port-priority](#)

show platform

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

```
show platform { buffers | eeprom | fault | netint | { tech-support ipmulticast group-ip-addr
src-ip-addr } | tlb }
```

Syntax Description		
buffers		Displays buffer allocation information.
eeprom		Displays CPU EEPROM information.
fault		Displays fault date.
netint		Displays platform network interrupt information.
tech-support ipmulticast		Displays IP multicast-related information for TAC.
<i>group-ip-addr</i>		Specifies the group IP address.
<i>src-ip-addr</i>		Specifies the source IP address.
tlb		Displays processor TLB register information.

Defaults This command has no default settings.

Command Modes EXEC

Command History	Release	Modification
	12.0(7)XE	Support for this command was introduced on the Catalyst 6500 series switches.
	12.1(1)E	Support for this command on the Catalyst 6500 series switches was extended to the 12.1 E release.

Usage Guidelines This command is similar to the [show msfc](#) command.

Examples This example shows how to display buffer allocation information:

```
Router# show platform buffers
Reg. set   Min    Max
TX         640   640
ABQ        640  16384
0           0     40
1        6715  8192
2           0     0
3           0     0
4           0     0
5           0     0
6           0     0
7           0     0
Threshold = 8192
```

```
Vlan Sel Min Max Cnt Rsvd
1019 1 6715 8192 0 0
Router#
```

This example shows how to display CPU EEPROM information:

```
Router# show platform eeprom
```

```
MSFC CPU IDPROM:
```

```
IDPROM image:
```

```
IDPROM image block #0:
```

```
hexadecimal contents of block:
```

```
00: AB AB 02 9C 13 5B 02 00 00 02 60 03 03 E9 43 69 .....[....`...Ci
10: 73 63 6F 20 53 79 73 74 65 6D 73 00 00 00 00 00 .....sco Systems....
20: 00 00 57 53 2D 58 36 4B 2D 53 55 50 33 2D 50 46 ..WS-X6K-SUP3-PF
30: 43 33 00 00 00 00 53 41 44 30 36 34 34 30 31 57 C3....SAD064401W
40: 4C 00 00 00 00 00 00 00 00 00 37 33 2D 37 34 30 L.....73-740
50: 34 2D 30 37 00 00 00 00 00 00 30 35 00 00 00 00 4-07.....05....
60: 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 .....
70: 00 00 00 00 02 BD 00 00 00 00 00 09 00 05 00 01 .....
80: 00 03 00 01 00 01 00 02 03 E9 00 00 00 00 00 00 .....
90: 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 .....

```

```
block-signature = 0xABAB, block-version = 2,
block-length = 156, block-checksum = 4955
```

```
*** common-block ***
```

```
IDPROM capacity (bytes) = 512 IDPROM block-count = 2
```

```
FRU type = (0x6003,1001)
```

```
OEM String = 'Cisco Systems'
```

```
Product Number = 'WS-X6K-SUP3-PFC3'
```

```
Serial Number = 'SAD064401WL'
```

```
Manufacturing Assembly Number = '73-7404-07'
```

```
Manufacturing Assembly Revision = '05'
```

```
Hardware Revision = 0.701
```

```
Manufacturing bits = 0x0 Engineering bits = 0x0
```

```
SNMP OID = 9.5.1.3.1.1.2.1001
```

```
Power Consumption = 0 centiamperes RMA failure code = 0-0-0-0
```

```
CLEI =
```

```
*** end of common block ***
```

```
IDPROM image block #1:
```

```
hexadecimal contents of block:
```

```
00: 60 03 02 67 0C 24 00 00 00 00 00 00 00 00 00 00 `..g.$.....
10: 00 00 00 00 00 00 00 00 51 00 05 9A 3A 7E 9C 00 00 .....Q...:~...
20: 02 02 00 01 00 01 00 00 00 00 00 00 00 00 00 00 .....
30: 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 .....
40: 14 01 00 00 00 00 00 00 00 00 00 00 00 00 00 00 .....
50: 00 00 81 81 81 81 80 80 80 80 80 80 80 80 80 80 .....
60: 80 80 06 72 00 46 37 ...r.F7

```

```
block-signature = 0x6003, block-version = 2,
block-length = 103, block-checksum = 3108
```

```
*** linecard specific block ***
```

```
feature-bits = 00000000 00000000
```

```
hardware-changes-bits = 00000000 00000000
```

```
card index = 81
```

```
mac base = 0005.9A3A.7E9C
```

```
mac_len = 0
```

```
num_processors = 2
```

```
epld_num = 2
```

```
epld_versions = 0001 0001 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000
0000
```

```

port numbers:
  pair #0: type=14, count=01
  pair #1: type=00, count=00
  pair #2: type=00, count=00
  pair #3: type=00, count=00
  pair #4: type=00, count=00
  pair #5: type=00, count=00
  pair #6: type=00, count=00
  pair #7: type=00, count=00
sram_size = 0
sensor_thresholds =
  sensor #0: critical = -127 oC (sensor present but ignored), warning = -127 oC (sensor
present but ignored)
  sensor #1: critical = -127 oC (sensor present but ignored), warning = -127 oC (sensor
present but ignored)
  sensor #2: critical = -128 oC (sensor not present), warning = -128 oC (sensor not
present)
  sensor #3: critical = -128 oC (sensor not present), warning = -128 oC (sensor not
present)
  sensor #4: critical = -128 oC (sensor not present), warning = -128 oC (sensor not
present)
  sensor #5: critical = -128 oC (sensor not present), warning = -128 oC (sensor not
present)
  sensor #6: critical = -128 oC (sensor not present), warning = -128 oC (sensor not
present)
  sensor #7: critical = -128 oC (sensor not present), warning = -128 oC (sensor not
present)
max_connector_power = 1650
cooling_requirement = 70
ambient_temp = 55
*** end of linecard specific block ***
Router#

```

This example shows how to display fault date information:

```

Router# show platform fault
Fault History Buffer:
s72033_rp Software (s72033_rp-JSV-M), Experimental Version 12.2(20030331:071521)
[kkuttuva-CSCEa55513-const2 120]
Compiled Mon 31-Mar-03 21:58 by kkuttuva
Signal = 10, Code = 0x1C, Uptime 00:01:14
$0 : 00000000, AT : 00000000, v0 : 00000000, v1 : 00000000
a0 : 00000000, a1 : 10050000, a2 : 00000000, a3 : 43F4B614
t0 : 50A19548, t1 : 10048000, t2 : 10040000, t3 : 10050000
t4 : 43F515A8, t5 : 43F515A4, t6 : 43F515A0, t7 : 43F5159C
s0 : 50A19548, s1 : 00000000, s2 : 50A19548, s3 : 10030100
s4 : 10030000, s5 : 41700000, s6 : 43F4B614, s7 : 41DB0000
t8 : 43F51614, t9 : 00000000, k0 : 5032D19C, k1 : 40231598
gp : 41F96960, sp : 50A19508, s8 : 422183A0, ra : 4027FB50
EPC : 4027FB84, SREG : 3401F103, Cause : 8000001C
Router#

```

This example shows how to display platform net interrupt information:

```

Router# show platform netint
Network IO Interrupt Throttling:
  throttle count=0, timer count=0
  active=0, configured=1
  netint usec=3999, netint mask usec=800
inband_throttle_mask_hi = 0x0
inband_throttle_mask_lo = 0x800000
Router#

```

This example shows how to display processor TLB register information:

```
Router# show platform tlb
```

```
Mistral revision 5
TLB entries : 42
Virt Address range      Phy Address range      Attributes
0x10000000:0x1001FFFF   0x010000000:0x01001FFFF CacheMode=2, RW, Valid
0x10020000:0x1003FFFF   0x010020000:0x01003FFFF CacheMode=2, RW, Valid
0x10040000:0x1005FFFF   0x010040000:0x01005FFFF CacheMode=2, RW, Valid
0x10060000:0x1007FFFF   0x010060000:0x01007FFFF CacheMode=2, RW, Valid
0x10080000:0x10087FFF   0x010080000:0x010087FFF CacheMode=2, RW, Valid
0x10088000:0x1008FFFF   0x010088000:0x01008FFFF CacheMode=2, RW, Valid
0x18000000:0x1801FFFF   0x010000000:0x01001FFFF CacheMode=0, RW, Valid
0x19000000:0x1901FFFF   0x010000000:0x01001FFFF CacheMode=7, RW, Valid
0x1E000000:0x1E1FFFFF   0x01E000000:0x01E1FFFFF CacheMode=2, RW, Valid
0x1E880000:0x1E89FFFF   0x01E880000:0x01E89FFFF CacheMode=2, RW, Valid
0x1FC00000:0x1FC7FFFF   0x01FC00000:0x01FC7FFFF CacheMode=2, RO, Valid
0x30000000:0x3001FFFF   0x070000000:0x07001FFFF CacheMode=2, RW, Valid
0x40000000:0x407FFFFF   0x000000000:0x0007FFFFF CacheMode=3, RO, Valid
0x40800000:0x40FFFFFF   0x000800000:0x000FFFFFF CacheMode=3, RO, Valid
0x41000000:0x417FFFFF   0x001000000:0x0017FFFFF CacheMode=3, RO, Valid
0x41800000:0x419FFFFF   0x001800000:0x0019FFFFF CacheMode=3, RO, Valid
0x41A00000:0x41BFFFFF   0x001A00000:0x001BFFFFF CacheMode=3, RO, Valid
0x41C00000:0x41C7FFFF   0x001C00000:0x001C7FFFF CacheMode=3, RO, Valid
0x41C80000:0x41CFFFFF   0x001C80000:0x001CFFFFF CacheMode=3, RO, Valid
0x41D00000:0x41D7FFFF   0x001D00000:0x001D7FFFF CacheMode=3, RO, Valid
0x41D80000:0x41D9FFFF   0x001D80000:0x001D9FFFF CacheMode=3, RO, Valid
0x41DA0000:0x41DBFFFF   0x001DA0000:0x001DBFFFF CacheMode=3, RW, Valid
0x41DC0000:0x41DDFFFF   0x001DC0000:0x001DDFFFF CacheMode=3, RW, Valid
0x41DE0000:0x41DFFFFF   0x001DE0000:0x001DFFFFF CacheMode=3, RW, Valid
0x41E00000:0x41FFFFFF   0x001E00000:0x001FFFFFF CacheMode=3, RW, Valid
0x42000000:0x43FFFFFF   0x002000000:0x003FFFFFF CacheMode=3, RW, Valid
0x44000000:0x45FFFFFF   0x004000000:0x005FFFFFF CacheMode=3, RW, Valid
0x46000000:0x47FFFFFF   0x006000000:0x007FFFFFF CacheMode=3, RW, Valid
0x48000000:0x49FFFFFF   0x008000000:0x009FFFFFF CacheMode=3, RW, Valid
0x4A000000:0x4BFFFFFF   0x00A000000:0x00BFFFFFF CacheMode=3, RW, Valid
0x4C000000:0x4DFFFFFF   0x00C000000:0x00DFFFFFF CacheMode=3, RW, Valid
0x4E000000:0x4FFFFFFF   0x00E000000:0x00FFFFFFF CacheMode=3, RW, Valid
0x0C000000:0x0DFFFFFF   0x00C000000:0x00DFFFFFF CacheMode=2, RW, Valid
0x0E000000:0x0FFFFFFF   0x00E000000:0x00FFFFFFF CacheMode=2, RW, Valid
0x50000000:0x51FFFFFF   0x080000000:0x081FFFFFF CacheMode=3, RW, Valid
0x52000000:0x53FFFFFF   0x082000000:0x083FFFFFF CacheMode=3, RW, Valid
0x54000000:0x55FFFFFF   0x084000000:0x085FFFFFF CacheMode=3, RW, Valid
0x56000000:0x57FFFFFF   0x086000000:0x087FFFFFF CacheMode=3, RW, Valid
0x58000000:0x59FFFFFF   0x088000000:0x089FFFFFF CacheMode=3, RW, Valid
0x5A000000:0x5BFFFFFF   0x08A000000:0x08BFFFFFF CacheMode=3, RW, Valid
0x5C000000:0x5DFFFFFF   0x08C000000:0x08DFFFFFF CacheMode=3, RW, Valid
0x5E000000:0x5FFFFFFF   0x08E000000:0x08FFFFFFF CacheMode=3, RW, Valid
Router#
```

Related Commands [show msfc](#)

show policy-map

To display policy map information, use the **show policy-map** command.

show policy-map

show policy-map *policy-map-name*

Syntax Description	<i>policy-map-name</i> Name of the policy map.
---------------------------	--

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

Command Modes	EXEC
----------------------	------

Command History	Release	Modification
	12.0(7)XE	Support for this command was introduced on the Catalyst 6500 series switches.
	12.1(1)E	Support for this command on the Catalyst 6500 series switches was extended to the 12.1 E release.
	12.1(11b)E	This command was changed to include the ge-wan , atm , and pos keywords.
	12.1(11b)EX	The command was changed to support extended-range VLANs.

Examples	This example shows how to display the policy map information for all policy maps:
-----------------	---

```
Router# show policy-map
  Policy Map simple
  Policy Map max-pol-ipp5
  class ipp5

  class ipp5
    police flow 10000000 10000 conform-action set-prec-transmit 6 exceed-action
  policed-dscp-transmit trust precedence police 2000000000 2000000 2000000 co
  nform-action set-prec-transmit 6exceed-action policed-dscp-transmit
Router#
```

This example shows how to display the policy map information for a specific policy map:

```
Router# show policy-map max-pol-ipp5
  Policy Map max-pol-ipp5
  class ipp5

  class ipp5
    police flow 10000000 10000 conform-action set-prec-transmit 6 exceed-action
  policed-dscp-transmit trust precedence police 2000000000 2000000 2000000 co
  nform-action set-prec-transmit 6exceed-action policed-dscp-transmit

Router#
```

Related Commands

[class-map](#)
[policy-map](#)
[show class-map](#)
[show policy-map interface](#)

show policy-map interface

To display the statistics and the configurations of the input and output policies that are attached to an interface, use the **show policy-map interface** command.

```
show policy-map interface [{interface interface-number} | {null interface-number} | {vlan
vlan-id}] [input | output]
```

Syntax Description		
<i>interface</i>	(Optional) Interface type; possible valid values are ethernet , fastethernet , gigabitethernet , tengigabitethernet , pos , atm , and ge-wan .	
<i>interface-number</i>	(Optional) Module and port number; see the “Usage Guidelines” section for valid values.	
null <i>interface-number</i>	(Optional) Specifies the null interface; the valid value is 0 .	
vlan <i>vlan-id</i>	(Optional) Specifies the VLAN ID; see the “Usage Guidelines” section for valid values.	
input	(Optional) Specifies the input policies only.	
output	(Optional) Specifies the output policies only.	

Defaults This command has no default settings.

Command Modes EXEC

Command History	Release	Modification
	12.0(7)XE	Support for this command was introduced on the Catalyst 6500 series switches.
	12.1(1)E	Support for this command on the Catalyst 6500 series switches was extended to the 12.1 E release.
	12.1(11b)E	This command was changed to include the ge-wan , atm , and pos keywords.
	12.1(11b)EX	The command was changed to support extended-range VLANs.
	12.1(13)E	The display was changed to include hardware-counter information.

Usage Guidelines The **output** keyword is not supported.

For OSM WAN interfaces only, if policing is configured within a policy map, hardware counters are displayed and the class-default counters are not displayed. If policing is not configured within a policy map, the class-default counters are displayed.

The *interface-number* argument designates the module and port number. Valid values for *interface-number* depend on the specified interface type and the chassis and module used. For example, if you specify a Gigabit Ethernet interface and have a 48-port 10/100BASE-T Ethernet module installed in a 13-slot chassis, valid values for the module number are from 2 to 13 and valid values for the port number are from 1 to 48.

If your system is configured with a Supervisor Engine 1, valid values for *vlan-id* are from 1 to 1005. If your system is configured with a Supervisor Engine 2, valid values for *vlan-id* are from 1 to 4094. Extended-range VLANs are not supported on systems configured with a Supervisor Engine 1.

Examples

This example shows how to display the statistics and the configurations of all the input and output policies attached to an interface:

```
Router# show policy-map interface fastethernet 6/3
FastEthernet6/3
  service-policy input: test
    class-map: ipp4 (match-all)
      217 packets
      5 minute offered rate 1 pps
      match: access-group 101
    police :
      32000 bps 1000 limit 1000 extended limit
      aggregate-forwarded 217 packets action: transmit
      exceeded 65 packets action: drop
      aggregate-forward 1 pps exceed 0 pps
Router#
```

Related Commands

[class-map](#)
[policy-map](#)
[show class-map](#)
[show mls qos](#)

show port-security

To display port-security setting information, use the **show port-security** command.

show port-security [**interface** *interface interface-number*]

show port-security [**interface** *interface interface-number*] **address**

Syntax Description	
interface <i>interface</i>	(Optional) Specifies the interface type; possible valid values are ethernet , fastethernet , gigabithernet , and tengigabithernet .
address	Displays all the secure MAC addresses that are configured on all the switch interfaces or on a specified interface with aging information for each address.

Defaults This command has no default settings.

Command Modes EXEC

Command History	Release	Modification
	12.1(13)E	Support for this command was introduced on the Catalyst 6500 series switches.

Usage Guidelines The *interface-number* argument designates the module and port number. Valid values for *interface-number* depend on the specified interface type and the chassis and module used. For example, if you specify a Gigabit Ethernet interface and have a 48-port 10/100BASE-T Ethernet module installed in a 13-slot chassis, valid values for the module number are from 2 to 13 and valid values for the port number are from 1 to 48.

Examples This example shows the output from the **show port-security** command when you do not enter any options:

```
Router# show port-security
Secure Port      MaxSecureAddr  CurrentAddr  SecurityViolation  Security
Action
                (Count)         (Count)      (Count)
-----
Fa5/1            11              11           0                  Shutdown
Fa5/5            15              5            0                  Restrict
Fa5/11           5               4            0                  Protect
-----

Total Addresses in System: 21
Max Addresses limit in System: 128
Router#
```

This example shows how to display port-security information for a specified interface:

```
Router# show port-security interface fastethernet 5/1
Port Security: Enabled
Port status: SecureUp
Violation mode: Shutdown
Maximum MAC Addresses: 11
Total MAC Addresses: 11
Configured MAC Addresses: 3
Aging time: 20 mins
Aging type: Inactivity
SecureStatic address aging: Enabled
Security Violation count: 0
Router#
```

This example show how to display all the secure MAC addresses configured on all the switch interfaces or on a specified interface with aging information for each address:

```
Router# show port-security address
Secure Mac Address Table
-----
```

Vlan	Mac Address	Type	Ports	Remaining Age (mins)
1	0001.0001.0001	SecureDynamic	Fa5/1	15 (I)
1	0001.0001.0002	SecureDynamic	Fa5/1	15 (I)
1	0001.0001.1111	SecureConfigured	Fa5/1	16 (I)
1	0001.0001.1112	SecureConfigured	Fa5/1	-
1	0001.0001.1113	SecureConfigured	Fa5/1	-
1	0005.0005.0001	SecureConfigured	Fa5/5	23
1	0005.0005.0002	SecureConfigured	Fa5/5	23
1	0005.0005.0003	SecureConfigured	Fa5/5	23
1	0011.0011.0001	SecureConfigured	Fa5/11	25 (I)
1	0011.0011.0002	SecureConfigured	Fa5/11	25 (I)

```
-----
Total Addresses in System: 10
Max Addresses limit in System: 128
Router#
```

show power

To display information about the power status, use the **show power** command.

```
show power [{available | redundancy-mode | {status {all | {module slot}}} | {power-supply
number} | total | used} | {inline [interface number]}]
```

Syntax Description	
available	(Optional) Displays the available system power (margin).
redundancy-mode	(Optional) Displays the power supply redundancy mode.
status	(Optional) Displays the power status.
all	Displays all the FRU types.
module slot	Displays the power status for a specific module.
power-supply number	Displays the power status for a specific power supply; valid values are 1 and 2 .
total	(Optional) Displays the total power available from power supplies.
used	(Optional) Displays the total power budgeted for powered-on items.
inline	(Optional) Displays the inline power status.
interface number	(Optional) Specifies the interface type; possible valid values are ethernet , fastethernet , gigabitethernet , tengigabitethernet , null , port-channel , and vlan . See the “Usage Guidelines” section for additional information.

Defaults This command has no default settings.

Command Modes EXEC

Command History	Release	Modification
	12.0(7)XE	Support for this command was introduced on the Catalyst 6500 series switches.
	12.1(1)E	Support for this command on the Catalyst 6500 series switches was extended to the 12.1 E release.
	12.1(13)E	This command was changed to display the inline power status on interfaces.

Usage Guidelines The *interface-number* argument designates the module and port number. Valid values for *interface-number* depend on the specified interface type and the chassis and module used. For example, if you specify a Gigabit Ethernet interface and have a 48-port 10/100BASE-T Ethernet module installed in a 13-slot chassis, valid values for the module number are from 2 to 13 and valid values for the port number are from 1 to 48.

If your system is configured with a Supervisor Engine 1, valid values for *vlan-id* are from 1 to 1005. If your system is configured with a Supervisor Engine 2, valid values for *vlan-id* are from 1 to 4094. Extended-range VLANs are not supported on systems configured with a Supervisor Engine 1.

The Inline power field in the **show power** output displays the inline power consumed by modules. For example, the following example shows that module 9 has consumed 0.300 A of inline power:

```
Inline power  #   current
module        9   0.300A
```

Examples

This example shows how to display the available system power:

```
Router> show power available
system power available = 20.470A
Router>
```

This example shows how to display power supply redundancy mode:

```
Router# show power redundancy-mode
system power redundancy mode = redundant
Router#
```

This command shows how to display the system power status:

```
Router# show power
system power redundancy mode = redundant
system power total = 27.460A
system power used = 13.990A
system power available = 13.470A
FRU-type      #   current  admin state oper
power-supply  1   27.460A  on         on
module        1   3.300A   -         -   (reserved)
module        2   3.300A   on         on
module        5   2.800A   on         on
module        7   1.900A   on         on
module        9   2.390A   on         on
Router#

Inline power  #   current
module        9   0.300A
```

This example shows how to display the power status for all FRU types:

```
Router# show power status all
FRU-type      #   current  admin state oper
power-supply  1   27.460A  on         on
module        1   4.300A   on         on
module        2   4.300A   -         -   (reserved)
module        5   2.690A   on         on
Router#
```

This example shows how to display the power status for a specific module:

```
Router# show power status module 1
FRU-type      #   current  admin state oper
module        1   -4.300A  on         on
Router#
```

This example shows how to display the power status for a specific power supply:

```
Router# show power status power-supply 1
FRU-type      #   current  admin state oper
power-supply  1   27.460A  on         on
Router#
```

show power

This example shows how to display the total power available from the power supplies:

```
Router# show power total
system power total = 27.460A
Router#
```

This example shows how to display the total power budgeted for powered-on items:

```
Router# show power used
system power used = -6.990A
Router#
```

This command shows how to display the inline power status on the interfaces:

```
Router# show power inline
Interface          Admin   Oper   Power ( mWatt )  Device
-----
FastEthernet9/1    auto   on     6300              Cisco 6500 IP Phone
FastEthernet9/2    auto   on     6300              Cisco 6500 IP Phone
FastEthernet9/3    auto   off    0                 n/a
.
.
.
<Output truncated>
```

Related Commands

[power enable](#)
[power redundancy-mode](#)

show protocol-filtering

To display protocol filtering information, use the **show protocol-filtering** command.

```
show protocol-filtering [interface {interface interface-number}]
```

Syntax Description	interface	(Optional) Specifies an interface.
	<i>interface</i>	(Optional) Specifies the interface type; possible valid values are ethernet , fastethernet , gigabitethernet , tengigabitethernet , pos , atm , and ge-wan .
	<i>interface-number</i>	(Optional) Specifies the module and port number; see the “Usage Guidelines” section for valid values.

Defaults This command has no default settings.

Command Modes EXEC

Command History	Release	Modification
	12.0(7)XE	Support for this command was introduced on the Catalyst 6500 series switches.
	12.1(1)E	Support for this command on the Catalyst 6500 series switches was extended to the 12.1 E release.
	12.1(11b)E	This command was changed to include the ge-wan , atm , and pos keywords.

Usage Guidelines The *interface-number* argument designates the module and port number. Valid values for *interface-number* depend on the specified interface type and the chassis and module used. For example, if you specify a Gigabit Ethernet interface and have a 48-port 10/100BASE-T Ethernet module installed in a 13-slot chassis, valid values for the module number are from 2 to 13 and valid values for the port number are from 1 to 48.

Examples This example shows how to display information about protocol filtering for a specific interface:

```
Router# show protocol-filtering interface fastethernet 5/8
Interface      IP Mode      IPX Mode      Group Mode      Other Mode
-----
Fa5/8          OFF          ON            OFF             OFF
Router#
```

Related Commands [protocol-filtering](#)

show qdm status

To display information about the status for the currently active QDM clients who are connected to the Catalyst 6500 series switch, use the **show qdm status** command.

show qdm status

Syntax Description This command has no keywords or arguments.

Defaults This command has no default settings.

Command Modes EXEC

Command History	Release	Modification
	12.1(8a)EX	Support for this command was introduced on the Catalyst 6500 series switches.

Usage Guidelines QDM is not supported on OSM interfaces.

You can use this command to display the unique client ID that is assigned to each QDM client connected to the Catalyst 6500 series switch.

The output display includes the following information:

- Number of QDM clients currently connected to the Catalyst 6500 series switch
- Version of QDB client
- Name and IP address of client
- Client identification
- Connection duration

Examples This example shows how to display information on the status of the currently active QDM web-based clients:

```
Router# show qdm status
Number of QDM Clients : 2
QDM Client v2.1(0.7)-_picard_2 @ 10.34.8.92 (id:5)
    connected since 07:50:00 UTC Sat Aug 11 1917

QDM Client v2.1(0.7)-_janeway_2 @ 171.69.49.14 (id:4)
    connected since 07:49:39 UTC Sat Aug 11 1917
Router#
```

Related Commands [disconnect qdm](#)

show qm-sp port-data

To display information about the QoS manager switch processor, use the **show qm-sp port-data** command.

```
show qm-sp port-data {mod port}
```

Syntax Description	<i>mod port</i>	Module and port number; see the “Usage Guidelines” section for valid values.
--------------------	-----------------	--

Defaults This command has no default settings.

Command Modes Privileged EXEC

Command History	Release	Modification
	12.0(7)XE	Support for this command was introduced on the Catalyst 6500 series switches.
	12.1(1)E	Support for this command on the Catalyst 6500 series switches was extended to the 12.1 E release.

Usage Guidelines This command is supported by the supervisor engine only and can be entered only from the Catalyst 6500 series switch console (see the [remote login](#) command).

The *mod port* arguments designate the module and port number. Valid values depend on the chassis and module used. For example, if you have a 48-port 10/100BASE-T Ethernet module installed in a 13-slot chassis, valid values for the module number are from 2 to 13 and valid values for the port number are from 1 to 48.

You can use the [show qm-sp port-data](#) command to verify values programmed in hardware.

Examples This example shows how to display information about the QoS manager:

```
Switch-sp# show qm-sp port-data 1 2
-----
* Type: Tx[1p2q2t] Rx[1p1q4t] [0] Pinnacle
* Per-Port: [Untrusted] Default COS[0] force[0] [VLAN based]
-----
* COSMAP(C[Q/T]) TX: 0[1/1] 1[1/1] 2[1/2] 3[1/2] 4[2/1] 5[3/1] 6[2/1] 7[2/2]
RX: 0[1/1] 1[1/1] 2[1/2] 3[1/2] 4[1/3] 5[2/1] 6[1/3] 7[1/4]
-----
* WRR bandwidth: [7168 18432]
* TX queue limit(size): [311296 65536 65536]
* WRED queue[1]: failed (0x82)
queue[2]: failed (0x82)
```

```
show qm-sp port-data
```

```
-----  
* TX drop thr queue[1]: type[2 QOS_SCP_2_THR] dropThr[311104 311104]  
      queue[2]: type[2 QOS_SCP_2_THR] dropThr[61504 61504]  
* RX drop threshold:   type[4 QOS_SCP_4_THR] dropThr[62259 62259 62259 62259]  
* RXOvr drop threshold: type[0 UNSUPPORTED] dropThr[16843009 131589 61504 61504]  
* TXOvr drop threshold: type[0 UNSUPPORTED] dropThr[67174656 260 16843009 131589]  
Switch-sp#
```

Related Commands

[rcv-queue queue-limit](#)
[remote login](#)
[wrr-queue bandwidth](#)
[wrr-queue queue-limit](#)
[wrr-queue threshold](#)