

show cgmp leave

Use the **show cgmp leave** command to display the status of the CGMP leave feature.

```
show cgmp leave
```

Syntax Description

This command has no arguments or keywords.

Default

This command has no default setting.

Command Type

Switch command.

Command Mode

Normal.

Example

This example shows how to display the status of the CGMP leave feature:

```
Console> show cgmp leave  
CGMP:      enabled  
CGMP leave: enabled  
Console>
```

Related Command

```
set cgmp leave
```

show cgmp statistics

Use the **show cgmp statistics** command to display CGMP statistics.

```
show cgmp statistics [vlan_id]
```

Syntax Description

vlan_id (Optional) VLAN number for which to display CGMP statistics.

Default

This command has no default setting.

Command Type

Switch command.

Command Mode

Normal.

Example

This example shows how to display CGMP statistics for VLAN 1:

```
Console> show cgmp statistics 1  
CGMP enabled  
  
CGMP statistics for vlan 1:  
valid rx pkts received          211915  
invalid rx pkts received        0  
valid cgmp joins received       211729  
valid cgmp leaves received      186  
valid igmp leaves received      0  
valid igmp queries received     3122  
igmp gs queries transmitted     0  
igmp leaves transmitted         0  
failures to add GDA to EARL     0  
topology notifications received 80  
number of CGMP packets dropped 2032227  
Console>
```

Table 2-16 describes the fields in the **show cgmp statistics** output.

Table 2-16 show cgmp statistics Command Output Fields

Field	Description
Valid rx pkts received	Number of valid CGMP packets received.
Invalid rx pkts received	Number of invalid CGMP packets received.
valid cgmp joins received	Number of CGMP group-specific queries received.
valid cgmp leaves received	Number of CGMP leaves received.
valid igmp leaves received	Number of IGMP leaves received.
valid igmp queries received	Number of IGMP reports received.
igmp gs queries transmitted	Number of IGMP group specific-equivalent queries transmitted by the switch.
igmp leaves transmitted	Number of IGMP leaves transmitted by the switch.
failures to add GDA to EARL	Number of times the switch failed to add a multicast entry (GDA) to the EARL table.
topology notifications received	Number of topology change notifications received by the switch.
number of CGMP packets dropped	Number of IGMP packets dropped by the switch.

Related Commands

clear cgmp statistics
set cgmp

show config

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

show config

Syntax Description

This command has no arguments or keywords.

Default

This command has no default setting.

Command Type

Switch command.

Command Mode

Normal.

Example

This example shows the (partial) contents of a configuration file:

```
Console> show config
...
.....
.....
.....
.....
.

begin
set password $1$FMFQ$HfZR5DUszVHIRhrz4h6V70
set enablepass $1$FMFQ$HfZR5DUszVHIRhrz4h6V70
set prompt cat19-lnf>
set length 24 default
set logout 20
set banner motd ^C

Welcome to the Cat 5000! ^C
!
#system
set system baud 9600
set system modem disable
set system name Catalyst 5000
set system location San Jose, CA
set system contact Susan x237
#cgmp
set cgmp enable
!
```

```

#syslog
set logging console enable
set logging server disable
set logging level cdp 2 default
set logging level cgmp 2 default
set logging level displ 5 default
set logging level dvlan 2 default
set logging level earl 2 default
set logging level fddi 2 default
set logging level ip 2 default
set logging level pruning 2 default
set logging level snmp 2 default
set logging level spantree 2 default
set logging level sys 5 default
set logging level tac 2 default
set logging level tcp 2 default
set logging level telnet 2 default
set logging level tftp 2 default
set logging level vtp 2 default
set logging level vmpls 2 default
!
#ntp
set ntp broadcastclient disable
set ntp broadcastdelay 3000
set ntp client enable
set ntp server 172.16.21.83
set timezone PST -7 0
set summertime enable PSST
!
#permit list
set ip permit disable
!
#module 1 : 2-port 100BaseTX Supervisor
set module name 1
set vlan 1 1/1-2
set port enable 1/1-2
set port level 1/1-2 normal
set port duplex 1/1-2 half
set port trap 1/1-2 disable
set port name 1/1-2
set port security 1/1-2 disable
set port membership 1/1-2 static
set cdp enable 1/1-2
set cdp interval 1/1-2 60
set trunk 1/1 auto 1-1000
set trunk 1/2 auto 1-1000
set spantree portfast 1/1-2 disable
set spantree portcost 1/1-2 10
set spantree portpri 1/1-2 32
set spantree portvlanpri 1/1 0
set spantree portvlanpri 1/2 0
!
<display truncated>
end
Console>

```

Related Commands

clear config

write

show counters

Use the **show counters** command to display hardware counters for a port.

show counters *mod_num/port_num*

Syntax Description

mod_num Number of the module.

port_num Number of the port.

Default

This command has no default setting.

Command Type

Switch command.

Command Mode

Normal.

Usage Guideline

The Catalyst 2948G is a fixed configuration switch. All ports are located on “module 2;” for this reason, if you enter *mod_num/port_num 1/N*, an error message will be displayed.

Examples
This example shows how to display the counters for port 1 on module 3 (a Token Ring module) on a Catalyst 5000, 2926G, or 2926 series switch:

Note The counters displayed may change depending on the module type queried.

```
64 bit counters
0  ifHCInOctets           =           0
1  ifHCInUcastPkts       =           0
2  ifHCInMulticastPkts   =           0
3  ifHCInBroadcastPkts   =           0
4  ifHCOctets            =           0
5  ifHCOUcastPkts        =           0
6  ifHCOMulticastPkts    =           0
7  ifHCOBroadcastPkts    =           0

32 bit counters
0  dot5StatsLineErrors   =           0
1  dot5StatsBurstErrors  =           0
2  dot5StatsACErrors     =           0
3  dot5StatsAbortTransErrors =       0
4  dot5StatsInternalErrors =       0
5  dot5StatsLostFrameErrors =       0
6  dot5StatsReceiveCongestions =     0
7  dot5StatsFrameCopiedErrors =     0
```

```

 8 dot5StatsTokenErrors           =          0
 9 dot5StatsSoftErrors            =          0
10 dot5StatsHardErrors             =          0
11 dot5StatsSignalLoss            =          0
12 dot5StatsTransmitBeacons       =          0
13 dot5StatsRecoverys             =          0
14 dot5StatsLobeWires             =          0
15 dot5StatsRemoves               =          0
16 dot5StatsSingles               =          0
17 dot5StatsFreqErrors            =          0
18 dot1dSrPortSpecInFrames        =          0
19 dot1dSrPortSpecOutFrames       =          0
20 dot1dSrPortApeInFrames         =          0
21 dot1dSrPortApeOutFrames        =          0
22 dot1dSrPortSteInFrames         =          0
23 dot1dSrPortSteOutFrames        =          0
24 dot1dSrPortSegmentMismatchDiscards =          0
25 dot1dSrPortDuplicateSegmentDiscards =          0
26 dot1dSrPortHopCountExceededDiscards =          0
27 dot1dSrPortDupLanIdOrTreeErrors =          0
28 dot1dSrPortLanIdMismatches    =          0
29 tokenRingMLStatsDropEvents     =          0
30 tokenRingMLStatsMacOctets      =          0
31 tokenRingMLStatsMacPkts        =          0
32 tokenRingMLStatsRingPurgeEvents =          0
33 tokenRingMLStatsRingPurgePkts  =          0
34 tokenRingMLStatsBeaconEvents   =          0
35 tokenRingMLStatsBeaconPkts     =          0
36 tokenRingMLStatsBeaconTime     =          0
37 tokenRingMLStatsClaimTokenEvents =          0
38 tokenRingMLStatsClaimTokenPkts =          0
39 tokenRingMLStatsNAUNChanges    =          0
40 tokenRingMLStatsLineErrors     =          0
41 tokenRingMLStatsInternalErrors =          0
42 tokenRingMLStatsBurstErrors    =          0
43 tokenRingMLStatsACErrors       =          0
44 tokenRingMLStatsAbortErrors    =          0
45 tokenRingMLStatsLostFrameErrors =          0
46 tokenRingMLStatsCongestionErrors =          0
47 tokenRingMLStatsFramesCopiedErrors =          0
48 tokenRingMLStatsFrequencyErrors =          0
49 tokenRingMLStatsTokenErrors    =          0
50 tokenRingMLStatsSoftErrorReports =          0
51 tokenRingMLStatsRingPollEvents =          0
52 tokenRingMLStatsHistoryActiveStations =          0
53 tokenRingPStatsDropEvents      =          0
54 tokenRingPStatsDataOctets      =          0
55 tokenRingPStatsDataPkts        =          0
56 tokenRingPStatsDataBroadcastPkts =          0
57 tokenRingPStatsDataMulticastPkts =          0
58 tokenRingPStatsDataPkts18to63Octets =          0
59 tokenRingPStatsDataPkts64to127Octets =          0
60 tokenRingPStatsDataPkts128to255Octets =          0
61 tokenRingPStatsDataPkts256to511Octets =          0
62 tokenRingPStatsDataPkts512to1023Octets =          0
63 tokenRingPStatsDataPkts1024to2047Octets =          0
64 tokenRingPStatsDataPkts2048to4095Octets =          0
65 tokenRingPStatsDataPkts4096to8191Octets =          0
66 tokenRingPStatsDataPkts8192to18000Octets =          0
67 tokenRingPStatsDataPktsGreaterThan18000Octets (null) =          0
68 dot1dTpPortInFrames           =          0
69 dot1dTpPortOutFrames          =          0
70 dot1dTpPortInDiscards         =          0
Console>

```

show counters

Table 2-17 describes the fields in the **show counters** command output when the command is issued against a Token Ring module port.

Table 2-17 show counters Command Token Ring Output Fields

Field	Description
64-Bit Counters	
ifHCInOctets	Total number of octets received on the interface, including framing characters. This object is a 64-bit version of ifInOctets.
ifHCInUcastPkts	Number of packets delivered by this sublayer to a higher sublayer not addressed to a multicast or broadcast address. This object is a 64-bit version of ifInUcastPkts.
ifHCInMulticastPkts	Number of packets delivered by this sublayer to a higher sublayer addressed to a multicast address at this sublayer. For a MAC-layer protocol, these addresses include both group and functional addresses. This object is a 64-bit version of ifInMulticastPkts.
ifHCInBroadcastPkts	Number of packets delivered by this sublayer to a higher sublayer addressed to a broadcast address at this sublayer. This object is a 64-bit version of ifInBroadcastPkts.
ifHCOctets	Total number of octets transmitted out the interface, including framing characters. This object is a 64-bit version of ifOutOctets.
ifHCOUcastPkts	Total number of packets that higher-level protocols requested be transmitted and were not addressed to a multicast or broadcast address at this sublayer, including those that were discarded or not sent. This object is a 64-bit version of ifOutUcastPkts.
ifHCOMulticastPkts	Total number of packets that higher-level protocols requested be transmitted and were addressed to a multicast address at this sublayer, including those that were discarded or not sent. For a MAC-layer protocol, these addresses include both group and functional addresses. This object is a 64-bit version of ifOutMulticastPkts.
ifHCOBroadcastPkts	Total number of packets that higher-level protocols requested be transmitted and were addressed to a broadcast address at this sublayer, including those that were discarded or not sent. This object is a 64-bit version of ifOutBroadcastPkts.
32-Bit Counters	
dot5StatsLineErrors	Number of times a frame or token was copied or repeated by a station.
dot5StatsBurstErrors	Number of times a station detected the absence of transitions for five half-bit timers (burst-five error).
dot5StatsACErrors	Number of times a station received an AMP frame or an SMP frame where the AC bits were both set to 0. This indicates that no station recognized the destination address and copied the frame, and then received another SMP frame where both AC-bits were set to 0 without first receiving an AMP frame. This condition indicates a station that cannot set the A bit and the C bit properly.
dot5StatsAbortTransErrors	Number of times a station transmitted an abort delimiter while transmitting.
dot5StatsInternalErrors	Number of times a station recognized an internal error.
32-Bit Counters	
dot5StatsLostFrameErrors	Number of times a station was transmitting and its return-to-repeat timer expired. This condition indicates that a transmitting station in strip mode did not receive the frame trailer before the return-to-repeat timer went off.
dot5StatsReceiveCongestions	Number of times a station recognized a frame addressed to its specific address but had no available buffer space. This condition indicates a congested station.
dot5StatsFrameCopiedErrors	Number of times a station recognized a frame addressed to its specific address and detected that the frame status field A-bits were set to 1. This condition indicates a possible line hit or duplicate address.

Table 2-17 show counters Command Token Ring Output Fields (continued)

Field	Description
dot5StatsTokenErrors	Number of times a station acting as the active monitor recognized an error condition that required a token to be transmitted.
dot5StatsSoftErrors	Number of soft errors the port detected. Soft errors are recoverable by the MAC-layer protocols. The soft error number directly corresponds to the number of report error MAC frames that this port has transmitted.
dot5StatsHardErrors	Number of times the port detected an immediately recoverable fatal error. This denotes the number of times this port has either transmitted or received a beacon MAC frame.
dot5StatsSignalLoss	Number of times the port detected a loss of signal condition from the ring.
dot5StatsTransmitBeacons	Number of times the port transmitted a beacon frame.
dot5StatsRecoverys	Number of claim token MAC frames received or transmitted after the port received a ring-purge MAC frame. This counter signifies the number of times the ring was purged and had recovered back into a normal operating state.
dot5StatsLobeWires	Number of times the port detected an open or short circuit in the lobe data path. The adapter is closed and the ring state signifies this condition.
dot5StatsRemoves	Number of times the port received a remove ring station MAC frame request. When the port receives this, it enters the closed state.
dot5StatsSingles	Number of times the port sensed that it is the only station on the ring. This occurs if the port is the first one up on a ring or if there is a hardware problem.
dot5StatsFreqErrors	Number of times the port detected that the incoming signal frequency differs from the expected frequency specified by the IEEE 802.5 standard.
dot1dSrPortSpecInFrames	Number of Specifically-Routed frames received.
dot1dSrPortSpecOutFrames	Number of Specifically-Routed frames transmitted.
dot1dSrPortApeInFrames	Number of All-Paths (All-Routes) Explorer frames received.
dot1dSrPortApeOutFrames	Number of All-Paths (All-Routes) Explorer frames transmitted.
dot1dSrPortSteInFrames	Number of Spanning-Tree Explorer frames received.
dot1dSrPortSteOutFrames	Number of Spanning-Tree Explorer frames transmitted.
dot1dSrPortSegmentMismatchDiscards	Number of Explorer frames discarded by this port because the route descriptors field contained an invalid adjacent segment value.
32-Bit Counters	
dot1dSrPortDuplicateSegmentDiscards	Number of Explorer frames discarded by this port because the routing descriptor field contained a duplicate segment value.
dot1dSrPortHopCountExceededDiscards	Number of Explorer frames discarded because the number of routing descriptors in the RIF exceeded the specified maximum hop count.
dot1dSrPortDupLanIdOrTreeErrors	Number of duplicate LAN IDs or tree errors. This helps to detect problems in networks containing older IBM source routing bridges.
dot1dSrPortLanIdMismatches	Number of discarded All-Routes Explorer and Spanning-Tree Explorer frames because the last LAN ID in the routing information field did not equal the LAN-in ID. This error can occur in implementations that do only a LAN-in ID and bridge number check instead of a LAN-in ID, bridge number, and LAN-out ID check before forwarding broadcast frames.
tokenRingMLStatsDropEvents	Number of events when packets were dropped by the probe due to lack of resources. This number is not necessarily the number of packets dropped; it is the number of times this condition was detected. This value is the same as the corresponding tokenRingPStatsDropEvents.
tokenRingMLStatsMacOctets	Number of octets of data in MAC packets (excluding those that were not good frames) received on the network. This excludes framing bits but includes FCS octets.

Table 2-17 show counters Command Token Ring Output Fields (continued)

Field	Description
tokenRingMLStatsMacPkts	Number of MAC packets (excluding packets that were not good frames) received.
tokenRingMLStatsRingPurgeEvents	Number of times that the ring entered the ring-purge state from a normal ring state. The ring-purge state that occurs in response to the claim token or beacon state is not counted.
tokenRingMLStatsRingPurgePkts	Number of ring-purge MAC packets detected by the probe.
tokenRingMLStatsBeaconEvents	Number of times that the ring entered a beaconing state (beaconFrameStreamingState, beaconBitStreamingState, beaconSetRecoveryModeState, or beaconRingSignalLossState) from a non-beaconing state. A change of the source address of the beacon packet does not constitute a new beacon event.
tokenRingMLStatsBeaconPkts	Number of beacon MAC packets detected by the probe.
tokenRingMLStatsBeaconTime	Amount of time that the ring was in the beaconing state.
tokenRingMLStatsClaimTokenEvents	Number of times the ring entered the claim token state from the normal ring state or ring-purge state. The claim token state that comes in response to a beacon state is not counted.
tokenRingMLStatsClaimTokenPkts	Number of claim token MAC packets detected by the probe.
tokenRingMLStatsNAUNChanges	Number of NAUN changes detected by the probe.
tokenRingMLStatsLineErrors	Number of line errors reported in error reporting packets detected by the probe.
tokenRingMLStatsInternalErrors	Number of adapter internal errors reported in error reporting packets detected by the probe.
tokenRingMLStatsBurstErrors	Number of burst errors reported in error reporting packets detected by the probe.
32-Bit Counters	
tokenRingMLStatsACErrors	Number of AC (address copied) errors reported in error reporting packets detected by the probe.
tokenRingMLStatsAbortErrors	Number of abort delimiters reported in error reporting packets detected by the probe.
tokenRingMLStatsLostFrameErrors	Number of lost frame errors reported in error reporting packets detected by the probe.
tokenRingMLStatsCongestionErrors	Number of receive congestion errors reported in error reporting packets detected by the probe.
tokenRingMLStatsFramesCopiedErrors	Number of frame-copied errors reported in error reporting packets detected by the probe.
tokenRingMLStatsDropEvents	Number of events where packets were dropped by the probe due to lack of resources. This number is not necessarily the number of packets dropped; it indicates the number of times this condition was detected. This value is the same as the corresponding tokenRingPStatsDropEvents.
tokenRingMLStatsFrequencyErrors	Number of frequency errors reported in error reporting packets detected by the probe.
tokenRingMLStatsTokenErrors	Number of token errors reported in error reporting packets detected by the probe.
tokenRingMLStatsSoftErrorReports	Number of soft error report frames detected by the probe.
tokenRingMLStatsRingPollEvents	Number of ring poll events detected by the probe.
tokenRingMLStatsHistoryActiveStations	Maximum number of active stations on the ring detected by the probe during this sampling interval.
tokenRingPStatsDropEvents	Number of events where packets were dropped by the probe due to lack of resources. This number is not necessarily the number of packets dropped; it indicates the number of times this condition was detected. This value is the same as the corresponding tokenRingMLStatsDropEvents.
tokenRingPStatsDataOctets	Number of octet data in good frames received on the network (excluding framing bits but including FCS octets) in non-MAC packets.

Table 2-17 show counters Command Token Ring Output Fields (continued)

Field	Description
tokenRingPStatsDataPkts	Number of non-MAC packets in good frames received.
tokenRingPStatsDataBroadcastPkts	Number of good non-MAC frames received that were directed to an LLC broadcast address (0xFFFFFFFF or 0xC000FFFFFFFF).
tokenRingPStatsDataMulticastPkts	Number of good non-MAC frames received that were directed to a local or global multicast or functional address. This number does not include packets directed to the broadcast address.
tokenRingPStatsDataPkts18to63Octets	Number of good non-MAC frames received between 18 and 63 octets in length inclusive, excluding framing bits, but including FCS octets.
tokenRingPStatsDataPkts64to127Octets	Number of good non-MAC frames received between 64 and 127 octets in length inclusive, excluding framing bits, but including FCS octets.
tokenRingPStatsDataPkts128to255Octets	Number of good non-MAC frames received between 128 and 255 octets in length inclusive, excluding framing bits, but including FCS octets.
32-Bit Counters	
tokenRingPStatsDataPkts256to511Octets	Number of good non-MAC frames received between 256 and 511 octets in length inclusive, excluding framing bits, but including FCS octets.
tokenRingPStatsDataPkts512to1023Octets	Number of good non-MAC frames received between 512 and 1023 octets in length inclusive, excluding framing bits, but including FCS octets.
tokenRingPStatsDataPkts1024to2047Octets	Number of good non-MAC frames received between 1024 and 2047 octets in length inclusive, excluding framing bits, but including FCS octets.
tokenRingPStatsDataPkts2048to4095Octets	Number of good non-MAC frames received between 2048 and 4095 octets in length inclusive, excluding framing bits, but including FCS octets.
tokenRingPStatsDataPkts4096to8191Octets	Number of good non-MAC frames received between 4096 and 8191 octets in length inclusive, excluding framing bits, but including FCS octets.
tokenRingPStatsDataPkts8192to18000Octets	Number of good non-MAC frames received between 8192 and 18000 octets in length inclusive, excluding framing bits, but including FCS octets.
tokenRingPStatsDataPktsGreaterThan18000Octets(null)	Number of good non-MAC frames received that were greater than 18000 octets in length, excluding framing bits but including FCS octets.
dot1dTpPortInFrames	Number of frames received by this port from its segment. Frames received on the interface corresponding to this port are counted by this object only if they are for a protocol being processed by the local bridging function, including bridge management frames.
dot1dTpPortOutFrames	Number of frames transmitted by this port to its segment. Frames transmitted on the interface corresponding to this port are counted by this object only if they are for a protocol being processed by the local bridging function, including bridge management frames.
dot1dTpPortInDiscards	Number of valid frames received that were discarded (for example, filtered) by the forwarding process.

show counters

When you enter the **show counters** command against a Catalyst 4000 or 2948G series switch port, the display is similar to that of a Catalyst 5000, 2926G, or 2926 series switch.

```
**GIGABIT PORT
Console> show counters 2/1
 0 rxUnicastPacketCount      = 0
 1 txUnicastPacketCount      = 0
 2 rxMulticastPacketCount    = 0
 3 txMulticastPacketCount    = 0
 4 rxBroadcastPacketCount    = 0
 5 txBroadcastPacketCount    = 0
 6 rxByteCount                = 0
 7 txByteCount                = 0
 8 pkts64                     = 0
 9 pkts65to127               = 0
10 pkts128to255              = 0
11 pkts256to511              = 0
12 pkts512to1023             = 0
13 pkts1024to1522            = 0
14 rxNoPacketBufferCount     = 0
15 rxCRCAAlignErrorPacketCount = 0
16 rxUndersizedPacketCount   = 0
17 rxOversizedPacketCount    = 0
18 rxFragmentPacketCount     = 0
19 rxJabberPacketCount       = 0
20 pauseControlFramesRx      = 0
21 pauseControlFramesTx      = 0
22 unsupportedOpCodesRx      = 0
23 txQueueNotAvailable       = 0
24 totalCollisionCount        = 0
25 lateCollisionCount         = 0
26 singleCollisionFrames     = 0
27 multipleCollisionFrames    = 0
28 excessiveCollisionFrames   = 0
29 deferredTransmissions     = 0
30 carrierSenseErrors         = 0
31 falseCarrierDuringIdle     = 0
32 symbolErrorDuringCarrier   = 0
33 sequenceErrorDuringCarrier = 0

**10/100 PORT
Console> sh counters 3/3
 0 rxUnicastPacketCount      = 0
 1 txUnicastPacketCount      = 0
 2 rxMulticastPacketCount    = 0
 3 txMulticastPacketCount    = 0
 4 rxBroadcastPacketCount    = 0
 5 txBroadcastPacketCount    = 0
 6 rxByteCount                = 0
 7 txByteCount                = 0
 8 pkts64                     = 0
 9 pkts65to127               = 0
10 pkts128to255              = 0
11 pkts256to511              = 0
12 pkts512to1023             = 0
13 pkts1024to1522            = 0
14 rxNoPacketBufferCount     = 0
15 rxCRCAAlignErrorPacketCount = 0
16 rxUndersizedPacketCount   = 0
17 rxOversizedPacketCount    = 0
18 rxFragmentPacketCount     = 0
19 rxJabberPacketCount       = 0
20 pauseControlFramesRx      = 0
21 pauseControlFramesTx      = 0
22 unsupportedOpCodesRx      = 0
```

```

23 txQueueNotAvailable      = 0
24 totalCollisionCount      = 0
25 lateCollisionCount       = 0
26 singleCollisionFrames    = 0
27 multipleCollisionFrames  = 0
28 excessiveCollisionFrames = 0
29 deferredTransmissions    = 0
30 carrierSenseErrors       = 0
31 falseCarrierDuringIdle   = 0
32 symbolErrorDuringCarrier = 0
33 sequenceErrorDuringCarrier = 0

```

Table 2-18 describes the additional fields which may be displayed.

Table 2-18 show counters Command Output Fields for Catalyst 4000 and 2948G Series Switches

Field	Description
txUnicastPacketCount (size 64 bits)	Number of transmitted unicast packets (size 64 bits).
rxUnicastPacketCount (size 64 bits)	Received unicast packets (size 64 bits).
txMulticastPacketCount (size 64 bits)	Number of transmitted multicast packets (size 64 bits).
rxMulticastPacketCount (size 64 bits)	Number of received multicast packets (size 64 bits).
txBroadcastPacketCount (size 64 bits)	Number of transmitted broadcast packets (size 64 bits).
rxBroadcastPacketCount (size 64 bits)	Number of received broadcast packets (size 64 bits).
rxNoPacketBufferCount	Number of received no packet buffer packets.
rxCRCAAlignErrorPacketCount	Number of received CRC align error packets.
rxFragmentPacketCount	Number of received fragment packets (size 64 bits).
rxJabberPacketCount	Number of received Jabber packets (size 64 bits).
unsupportedOpcodesRx	Number of unsupported Opcodes received errors.
txQueueNotAvailable	Number of transmit queue not available errors.
totalCollisionCount	Total collision count (Fast Ethernet)
falseCarrierDuringIdle	Number of false carrier duringidle (Fast Ethernet) errors.
symbolErrorDuringCarrier	Number of symbol error during carrier (Fast Ethernet) errors.
SequenceErrorDuringCarrier	Number of sequence error during carrier (Gigabit Ethernet) errors.

Related Command

clear counters

show drip statistics

Use the **show drip statistics** command to display DRiP statistics.

show drip statistics

Syntax Description

This command has no arguments or keywords.

Default

This command has no default setting.

Command Type

Switch command.

Command Mode

Privileged.

Example

This example shows how to display the DRiP settings:

```
Console> (enable) show drip statistics
DRiP statistics:
DRiP is Disabled
ARE reduction is Enabled
CRF distribution is Disabled
Input queue drops = 0. Output drops = 0
Console> (enable)
```

Related Command

clear drip statistics

show dvlan statistics

Use the **show dvlan statistics** command to display DVLAN statistics.

show dvlan statistics

Syntax Description

This command has no arguments or keywords.

Default

This command has no default setting.

Command Type

Switch command.

Command Mode

Privileged.

Usage Guideline

This command is not supported on the Catalyst 4000 and 2948G series switches.

Example

This example shows how to display the DVLAN statistical information:

```
Console> show dvlan statistics
VMPS Client Statistics
-----
VQP Queries:                0
VQP Responses:              0
Vmps Changes:                0
VQP Shutdowns:              0
VQP Denied:                  0
VQP Wrong Domain:           0
VQP Wrong Version:           0
VQP Insufficient Resource: 0
Console>
```

show fddi

Use the **show fddi** command to display the settings for FDDI and CDDI modules.

show fddi

Syntax Description

This command has no arguments or keywords.

Default

This command has no default setting.

Command Type

Switch command.

Command Mode

Normal.

Usage Guidelines

This command is not supported on the Catalyst 4000 and 2948G series switches.

This command is not supported by the three-port Gigabit Ethernet switching module (WS-X5403).

Example

This example shows how to display the FDDI settings:

```
Console> show fddi
Mod  SMT User-Data          T-Notify  TReq
---  -
2    Engineering          30        165000
5    Marketing            20        150000

Port  Tlmin   Ler-CutOff  Ler-Alarm
-----
2/1   40      7           8
2/2   40      7           8
5/1   40      10          11
5/2   40      9           12
Console>
```

Table 2-19 describes the fields in the **show fddi** command output.

Table 2-19 show fddi Command Output Fields

Field	Description
Mod	Module number.
SMT User-Data	Configured user-data string for the module.
T-Notify	TNotify timer value for the FDDI module.
TReq	TRequest value for the FDDI module.
Port	Module and port number.
Tlmin	TL_MIN value for the FDDI port.
Ler-CutOff	LER-cutoff value for the FDDI port.
Ler-Alarm	LER-alarm value for the FDDI port.

Related Commands

set fddi alarm
set fddi cutoff
set fddi tlmin
set fddi tnotify
set fddi treq
set fddi userdata

show fddicam

Use the **show fddicam** command to display the FDDI CAM table for a FDDI module.

```
show fddicam mod_num [fddi] [mac_addr]
```

Syntax Description

mod_num Number of the module.

fddi (Optional) Keyword to cause MAC addresses to display in noncanonical format.

mac_addr (Optional) Specific MAC address that displays FDDI CAM table information.

Default

This command has no default setting.

Command Type

Switch command.

Command Mode

Normal.

Usage Guidelines

This command is not supported on the Catalyst 4000 and 2948G series switches.

This command is not supported by the three-port Gigabit Ethernet switching module (WS-X5403).

Example

This example shows how to display the FDDI CAM table for module 4:

```
Console> show fddicam 4  
MAC Address            VLAN    Protocol Type  
-----  
00-40-0b-d0-00-2b      1      FDDI  
Total FDDI CAM entries = 1  
Console>
```

Table 2-20 describes the fields in the **show fddicam** command output.

Table 2-20 show fddicam Command Output Fields

Field	Description
MAC Address	MAC address of the FDDI module.
VLAN	VLAN that the MAC address was learned on.
Protocol Type	Protocol type learned for the MAC address.
Total FDDI CAM entries	Total number of FDDI CAM table entries found.

Related Commands

clear cam
set bridge fddicheck
show config

show flash

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

show flash *[[m/]device:]* [**all** | **chips** | **filesys**]

Syntax Description

<i>m/</i>	(Optional) Supervisor Engine III and Catalyst 4000 and 2948G series switch supervisor engine modules only; module number of the supervisor engine containing the Flash device.
<i>device:</i>	(Optional) Supervisor Engine III only; valid devices are bootflash , slot0 , and slot1 ; Catalyst 4000 and 2948G series supervisor engine module; valid value is bootflash .
all	(Optional) Supervisor Engine III and Catalyst 4000 and 2948G series supervisor engine module only; keyword used to list deleted files, undeleted files, and files with errors on a Flash memory device.
chips	(Optional) Supervisor Engine III and Catalyst 4000 and 2948G series switch supervisor engine modules only; keyword used to show information about the Flash chip.
filesys	(Optional) Supervisor Engine III and Catalyst 4000 and 2948G series switch supervisor engine modules only; keyword used to show the Device Info Block, the Status Info, and the Usage Info.

Default

This command has no default setting.

Command Type

Switch command.

Command Mode

Normal.

Usage Guidelines

A colon (:) is required after the specified device.

Examples

This example shows how to list the Flash information for Supervisor Engines I or II:

```

Console> show flash
File           Version      Sector      Size      Built
-----
c5000 nmp      3.1(213-Eng) 02-11      1606709 06/16/98 00:16:21
          epld      3.1          30          72920   06/14/98 20:33:06
          lcp atm    3.1          12-15      23747   06/14/98 12:16:37
          lcp tr     3.1          12-15      28737   06/14/98 12:22:52
          lcp c5ip   3.1          12-15      23723   06/14/98 12:27:36
          lcp 64k   3.1          12-15      57100   06/14/98 12:24:57
          atm/fddi 3.1          12-15      24502   06/14/98 11:57:58
          lcp 360   3.1(212)    12-15      120648  06/14/98 12:32:50
          mcp      3.1          12-15      26278   06/14/98 11:50:41
Console>

```

The following examples show how to list Flash information for Supervisor Engine III (the output is similar to that displayed for Catalyst 4000 and 2948G series switch supervisor engine modules):

```

Console> show flash
-#- ED --type-- --crc--- -seek-- nlen -length- -----date/time----- name
1  .D 2          2D6B310A 100fc0 15  1052123 Aug 26 1998 15:43:50 cat5k_r47_1.cbi
2  .. 2          43B312DF 201ed8 15  1052608 Aug 27 1998 10:23:30 cat5k_r47_1.cbi

```

6283877 bytes available (2104731 bytes used)

```

Console> show flash chips
***** Intel Series 2+ Status/Register Dump *****

```

ATTRIBUTE MEMORY REGISTERS:

```

Config Option Reg (4000): 2
Config Status Reg (4002): 0
Card Status Reg (4100): 1
Write Protect Reg (4104): 4
Voltage Cntrl Reg (410C): 0
Rdy/Busy Mode Reg (4140): 2

```

COMMON MEMORY REGISTERS: Bank 0

```

Intelligent ID Code : 8989A0A0
Compatible Status Reg: 8080
Global Status Reg: B0B0
Block Status Regs:
0 : B0B0 B0B0 B0B0 B0B0 B0B0 B0B0 B0B0 B0B0
8 : B0B0 B0B0 B0B0 B0B0 B0B0 B0B0 B0B0 B0B0
16 : B0B0 B0B0 B0B0 B0B0 B0B0 B0B0 B0B0 B0B0
24 : B0B0 B0B0 B0B0 B0B0 B0B0 B0B0 B0B0 B0B0

```

COMMON MEMORY REGISTERS: Bank 1

```

Intelligent ID Code : 8989A0A0
Compatible Status Reg: 8080
Global Status Reg: B0B0
Block Status Regs:
0 : B0B0 B0B0 B0B0 B0B0 B0B0 B0B0 B0B0 B0B0
8 : B0B0 B0B0 B0B0 B0B0 B0B0 B0B0 B0B0 B0B0
16 : B0B0 B0B0 B0B0 B0B0 B0B0 B0B0 B0B0 B0B0
24 : B0B0 B0B0 B0B0 B0B0 B0B0 B0B0 B0B0 B0B0

```

COMMON MEMORY REGISTERS: Bank 2

```

Intelligent ID Code : FF00FF
IID Not Intel -- assuming bank not populated

```

show flash

COMMON MEMORY REGISTERS: Bank 3
Intelligent ID Code : FF00FF
IID Not Intel -- assuming bank not populated

COMMON MEMORY REGISTERS: Bank 4
Intelligent ID Code : FF00FF
IID Not Intel -- assuming bank not populated

Console> show flash filesystems

----- F I L E S Y S T E M S T A T U S -----

Device Number = 0
DEVICE INFO BLOCK:
Magic Number = 6887635 File System Vers = 10000 (1.0)
Length = 800000 Sector Size = 20000
Programming Algorithm = 4 Erased State = FFFFFFFF
File System Offset = 20000 Length = 7A0000
MONLIB Offset = 100 Length = C730
Bad Sector Map Offset = 1FFF8 Length = 8
Squeeze Log Offset = 7C0000 Length = 20000
Squeeze Buffer Offset = 7E0000 Length = 20000
Num Spare Sectors = 0
Spares:
STATUS INFO:
Writable
NO File Open for Write
Complete Stats
No Unrecovered Errors
USAGE INFO:
Bytes Used = 201D9B Bytes Available = 5FE265
Bad Sectors = 0 Spared Sectors = 0
OK Files = 1 Bytes = 100FC0
Deleted Files = 1 Bytes = 100DDB
Files w/Errors = 0 Bytes = 0

Console> show flash all

-#-	ED	--type--	--crc---	-seek--	nlen	-length-	-----	date/time-----	name
1	.D	2	2D6B310A	100fc0	15	1052123	Aug 26 1998 15:43:50	cat5k_r47_1.cbi	
2	..	2	43B312DF	201ed8	15	1052608	Aug 27 1998 10:23:30	cat5k_r47_1.cbi	

6283877 bytes available (2104731 bytes used)

----- F I L E S Y S T E M S T A T U S -----

Device Number = 0
DEVICE INFO BLOCK:
Magic Number = 6887635 File System Vers = 10000 (1.0)
Length = 800000 Sector Size = 20000
Programming Algorithm = 4 Erased State = FFFFFFFF
File System Offset = 20000 Length = 7A0000
MONLIB Offset = 100 Length = C730
Bad Sector Map Offset = 1FFF8 Length = 8
Squeeze Log Offset = 7C0000 Length = 20000
Squeeze Buffer Offset = 7E0000 Length = 20000
Num Spare Sectors = 0
Spares:
STATUS INFO:
Writable
NO File Open for Write
Complete Stats
No Unrecovered Errors
USAGE INFO:
Bytes Used = 201D9B Bytes Available = 5FE265
Bad Sectors = 0 Spared Sectors = 0
OK Files = 1 Bytes = 100FC0
Deleted Files = 1 Bytes = 100DDB

```
Files w/Errors = 0      Bytes = 0

***** Intel Series 2+ Status/Register Dump *****

ATTRIBUTE MEMORY REGISTERS:
  Config Option Reg (4000): 2
  Config Status Reg (4002): 0
  Card Status Reg (4100): 1
  Write Protect Reg (4104): 4
  Voltage Cntrl Reg (410C): 0
  Rdy/Busy Mode Reg (4140): 2

COMMON MEMORY REGISTERS: Bank 0
  Intelligent ID Code : 8989A0A0
  Compatible Status Reg: 8080
  Global Status Reg: B0B0
  Block Status Regs:
    0 : B0B0 B0B0 B0B0 B0B0 B0B0 B0B0 B0B0 B0B0
    8 : B0B0 B0B0 B0B0 B0B0 B0B0 B0B0 B0B0 B0B0
   16 : B0B0 B0B0 B0B0 B0B0 B0B0 B0B0 B0B0 B0B0
   24 : B0B0 B0B0 B0B0 B0B0 B0B0 B0B0 B0B0 B0B0

COMMON MEMORY REGISTERS: Bank 1
  Intelligent ID Code : 8989A0A0
  Compatible Status Reg: 8080
  Global Status Reg: B0B0
  Block Status Regs:
    0 : B0B0 B0B0 B0B0 B0B0 B0B0 B0B0 B0B0 B0B0
    8 : B0B0 B0B0 B0B0 B0B0 B0B0 B0B0 B0B0 B0B0
   16 : B0B0 B0B0 B0B0 B0B0 B0B0 B0B0 B0B0 B0B0
   24 : B0B0 B0B0 B0B0 B0B0 B0B0 B0B0 B0B0 B0B0

COMMON MEMORY REGISTERS: Bank 2
  Intelligent ID Code : FF00FF
  IID Not Intel -- assuming bank not populated

COMMON MEMORY REGISTERS: Bank 3
  Intelligent ID Code : FF00FF
  IID Not Intel -- assuming bank not populated

COMMON MEMORY REGISTERS: Bank 4
  Intelligent ID Code : FF00FF
  IID Not Intel -- assuming bank not populated
```

Related Commands

download

reset—switch

show version—switch

upload

show history

Use the **show history** command to list the commands you have entered in the current EXEC session.

show history

Syntax Description

This command has no arguments or keywords.

Command Type

Cisco IOS ATM command.

Command Mode

EXEC.

Usage Guidelines

This command is not supported on the Catalyst 4000 and 2948G series switches.

The command history feature provides a record of EXEC commands you have entered. The number of commands the history buffer records is determined by the **history size** line configuration command or the **terminal history size** EXEC command.

Table 2-21 lists the keys and functions you can use to recall commands from the command history buffer.

Table 2-21 History Keys

Key	Function
Up arrow or Ctrl-P ¹	Recalls commands in the history buffer in a backward sequence, beginning with the most recent command. Repeat the key sequence to recall older commands.
Down arrow or Ctrl-N ¹	Returns to more recent commands in the history buffer after recalling commands with Ctrl-P or the up arrow. Repeat the key sequence to recall more recent commands.

¹ The arrow keys function only with ANSI-compatible terminals such as VT100s.

Example

This example shows how to list the command history:

```
ATM#show history
enable
show atm traffic
show atm vlan
show lane
show history
ATM#
```

show igmp statistics

Use the **show igmp statistics** command to view IGMP statistics for a particular VLAN.

```
show igmp statistics [vlan_id]
```

Syntax Description

vlan_id (Optional) VLAN for which to show IGMP statistics.

Default

If no VLAN is specified, statistics for VLAN 1 are shown.

Command Type

Switch command.

Command Mode

Normal.

Usage Guideline

This command is not supported on the Catalyst 4000 and 2948G series switches.

Example

This example shows how to view IGMP statistics for VLAN 1:

```
Console> show igmp statistics 1
IGMP enabled

IGMP statistics for vlan 1:
Total valid pkts rcvd:          18951
Total invalid pkts rcvd         0
General Queries rcvd           377
Group Specific Queries rcvd     0
MAC-Based General Queries rcvd  0
Leaves rcvd                     14
Reports rcvd                    16741
Queries Xmitted                 0
GS Queries Xmitted              16
Reports Xmitted                 0
Leaves Xmitted                  0
Failures to add GDA to EARL     0
Topology Notifications rcvd     10
IGMP packets dropped            0
Console>
```

Table 2-22 describes the fields in the **show igmp statistics** output.

Table 2-22 show igmp statistics Command Output Fields

Field	Description
IGMP Enabled	Status of whether IGMP snooping is enabled or disabled.
Total valid pkts rcvd	Total number of valid IGMP packets received.
Total invalid pkts rcvd	Total number of invalid IGMP packets received.
General Queries rcvd	Total number of IGMP general queries received.
Group Specific Queries rcvd	Total number of IGMP group-specific queries received.
MAC-Based General Queries rcvd	Total number of MAC-based general queries received.
Leaves rcvd	Total number of IGMP leaves received.
Reports rcvd	Total number of IGMP reports received.
Queries Xmitted	Total number of IGMP general queries transmitted by the switch.
GS Queries Xmitted	Total number of IGMP group specific-equivalent queries transmitted by the switch.
Reports Xmitted	Total number of IGMP reports transmitted by the switch.
Leaves Xmitted	Total number of IGMP leaves transmitted by the switch.
Failures to add GDA to EARL	Total number of times the switch failed to add a multicast entry (GDA) to the EARL table.
Topology Notifications rcvd	Total number of topology change notifications received by the switch.
IGMP packets dropped	Total number of IGMP packets dropped by the switch.

Related Commands

- clear igmp statistics**
- clear multicast router**
- set igmp**
- set multicast router**
- show multicast router**
- show multicast group count**

show imagemib

Use the **show imagemib** command to display image information provided in the CISCO-IMAGE-MIB for a particular image.

```
show imagemib flash | filename
```

Syntax Description

<i>flash</i>	Name of the Flash image on the Supervisor II.
<i>filename</i>	Name of the Flash device on the Supervisor III or the Catalyst 4000 and 2948G series switch supervisor engine module.

Default

This command has no default setting.

Command Type

Switch command.

Command Mode

Normal.

Example

This example shows how to display CISCO-IMAGE-MIB information for the Flash device on the Catalyst 4000 and 2948G series switch supervisor engine module:

```
Console> show imagemib cat4000.4-4-0-14.bin  
show mib info for file cat4000.4-4-0-14.bin  
show_presto_nmp_image_header : open file cat4000.4-4-0-14.bin error code = -3, )  
Console>
```

show interface

Use the **show interface** command to display information on network interfaces and standard SNMP trap operation on any interface.

show interface
show interface trap

Syntax Description

trap Keyword to specify the state of the network interfaces.

Default

This command has no default setting.

Command Type

Switch command.

Command Mode

Normal.

Example

This example shows how to display information on all network interfaces:

```

Console> show interface
me1:flags=63<UP,BROADCAST,RUNNING>
      inet 0.0.0.0 netmask 255.0.0.0 broadcast 0.0.0.0
s10:flags=51<UP,POINTOPOINT,RUNNING>
      slip 0.0.0.0 dest 0.0.0.0
sc0:flags=63<UP,BROADCAST,RUNNING>
      vlan 1 inet 171.69.199.168 netmask 255.255.255.0 broadcast 171.69.199.255
Console>
    
```

Table 2-23 describes the fields in the **show interface** command output.

Table 2-23 show interface Command Output Fields

Field	Description
me1	Information on the me1 interface.
flags	Flags indicating the interface state (decoded in the subsequent field).
<UP,BROADCAST, RUNNING>	Interface state (UP, DOWN, BROADCAST, LOOPBACK, POINTOPOINT, or RUNNING).
inet	IP address of the interface.
netmask	Network mask for the interface.
broadcast	Broadcast address for the interface.
s10	Information on the SLIP interface.

Table 2-23 show interface Command Output Fields (continued)

Field	Description
<UP,POINTOPOINT, RUNNING>	Interface state (UP, DOWN, BROADCAST, LOOPBACK, POINTOPOINT, or RUNNING).
slip	IP address of the SLIP interface.
dest	IP address of the host to which the console port will be connected.
sc0	Information on the in-band interface.
vlan	Number of the VLAN to which the sc0 interface has been assigned (known as the management VLAN).

This example shows how to determine the state of the network interfaces:

```

Console> (enable) show interface trap
Interface  Trap
-----  ----
sc0       enabled
me1       disabled
sl0       disabled

```

Related Command

set interface

show ip alias

Use the **show ip alias** command to show a listing of defined IP aliases.

show ip alias [*name*]

Syntax Description

name (Optional) Alias for a specific host.

Default

This command has no default setting.

Command Type

Switch command.

Command Mode

Normal.

Example

This example shows how to display a listing of all IP aliases:

```
Console> show ip alias
default          0.0.0.0
sparc20          192.168.10.69
cat5500-1        172.16.169.16
cat5500-2        172.16.169.20
Console>
```

Related Commands

clear ip alias

set ip alias

show ip dns

Use the **show ip dns** command to show the DNS name servers and the default DNS domain name.

show ip dns

Syntax Description

This command has no arguments or keywords.

Default

This command has no default setting.

Command Type

Switch command.

Command Mode

Normal.

Example

This example shows how to display the DNS name servers and the default DNS domain name:

```

Console> show ip dns
DNS is currently enabled.
The default DNS domain name is: cisco.com

DNS name server          status
-----
172.16.30.32
192.168.2.132           primary
172.31.128.70
Console>

```

Table 2-24 describes the fields in the **show ip dns** command output.

Table 2-24 show ip dns Command Output Fields

Field	Description
DNS is currently enabled	Status of whether DNS is enabled or disabled.
default DNS domain name	Default DNS domain name.
DNS name server	IP addresses or IP aliases of the configured DNS servers.
status	Primary DNS server.

Related Commands

clear ip dns domain

clear ip dns server

set ip dns

set ip dns domain

set ip dns server

show ip permit

Use the **show ip permit** command to display the IP permit list information.

show ip permit [noalias]

Syntax Description

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

Default

This command has no default value.

Command Type

Switch command.

Command Mode

Normal.

Example

This example shows how to display IP permit list information:

```
Console> show ip permit
IP permit list feature enabled.
Permit List      Mask
-----
batboy
172.16.101.102
172.20.102.0      255.255.255.0
172.20.164.0      255.255.255.0

Denied IP Address  Last Accessed Time  Type
-----
172.20.101.104     08/20/98,07:45:20   SNMP
172.31.206.222     08/21/98,14:23:05   Telnet
Console>
```

Table 2-25 describes the fields in the **show ip permit** command output.

Table 2-25 show ip permit Command Output Fields

Field	Description
IP permit list feature enabled	Status of whether the IP permit list feature is enabled or disabled.
Permit List	IP addresses and IP aliases that are allowed to access the switch.
Mask	Subnet masks of permitted IP addresses.
Denied IP Address	IP addresses and IP aliases that are not allowed to access the switch.
Last Accessed Time	Date and time of the last attempt to log in to the switch from the address.
Type	Login-attempt type.

Related Commands

clear ip permit

set snmp trap

show ip route

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

show ip route [noalias]

Syntax Description

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

Default

This command has no default setting.

Command Type

Switch command.

Command Mode

Normal.

Example

This example shows how to display the IP route table:

```

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

  Destination          Gateway                Flags  Use      Interface
  -----
  default              172.20.59.1           UG     0        sc0
  default              172.69.199.1          G      0        me1
  172.20.59.0          172.20.59.25          U      0        sc0
  171.69.199.0         171.69.199.68         U      0        me1
  default              default                UH     0        s10
  Console>
    
```

Table 2-1 *show ip route* Command Output Fields

Field	Description
Fragmentation	Displays current setting of IP fragmentation.
Redirect	Displays current setting of ICMP redirect.
Unreachable	Displays current setting of ICMP unreachable messages.
Destination	Destination address IP route mask.
Gateway	IP address or IP alias of the gateway router.
RouteMask	Determines which path is closer to the destination.

Table 2-1 *show ip route Command Output Fields (continued)*

Field	Description (continued)
Flags	Indicates route status; possible values are U=up, G=route to a Gateway, H=route to a Host, and D=Dynamically created by a redirect.
Use	Number of times a route entry was used to route packets.
Interface	Type of interface.

Related Commands

set ip route
clear ip route