show dot1x

To display the system dot1x capabilities, protocol version, and timer values, use the **show dot1x** command.

show dot1x

Syntax Description

This command has no keywords or arguments.

Defaults

This command has no default settings.

Command Types

Switch command.

Command Modes

Normal.

Examples

This example shows how to display the dot1x information for the system:

```
Console> show dot1x
PAE Capability              Authenticator Only
Protocol Version            1
system-auth-control         enabled
max-req                     2
quiet-period                60 seconds
re-authperiod               3600 seconds
server-timeout              30 seconds
supp-timeout                30 seconds
tx-period                   30 seconds
guest-vlan                  69

Console>
```

Related Commands

clear dot1x config
set dot1x
set feature dot1x-radius-keepalive

show dvlan statistics

To display dynamic VLAN statistics, use the **show dvlan statistics** command.

show dvlan statistics

Syntax Description

This command has no keywords or arguments.

Defaults

This command has no default settings.

Command Types

Switch command.

Command Modes

Normal.

Examples

This example shows how to display dynamic VLAN statistics:

```
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>
```

Related Commands

reconfirm vmps

show environment

To display environmental, temperature, and inline power status information, use the **show environment** command.

show environment [**all** | **temperature** | {**power** [*mod*]}]

Syntax Description

all	(Optional) Displays environmental status information (for example, power supply, fan status, and temperature information) and information about the power available to the system.
temperature	(Optional) Displays temperature information.
power	(Optional) Displays inline power status.
mod	(Optional) Number of the module to display inline power status

Defaults

If you do not enter a keyword, environmental status information (for example, power supply, fan status, and temperature information) only is displayed.

Command Types

Switch command.

Command Modes

Normal.

Usage Guidelines

The **temperature** option is not supported by the NAM.

In the output of the **show environment all** command, environmental status and temperature information for the NAM module is not supported.

In the output of the **show environment temperature** and **show environment all** commands, you will notice three slot 1 displays. The first slot 1 is the actual supervisor engine. The second slot 1 is the switching engine, which is on the supervisor engine (slot 1) and has its own Intake, Exhaust, Device 1, and Device 2 temperature outputs. The third slot 1 is the MSFC, which is also on the supervisor engine, and has its own Intake, Exhaust, Device 1, and Device 2 temperature outputs.

If you see a partial-deny card status, this is an indication that some module ports are inline powered but not all the ports on the module are inline powered.

Examples

This example shows how to display environmental status information:

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

This example shows how to display environmental status information and details about the power available to the system:

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

                   Intake        Exhaust       Device 1     Device 2
Slot             Temperature   Temperature   Temperature   Temperature
---------------  ------------  ------------  ------------  ------------
1                24C(50C,65C)  32C(60C,75C)  27C           32C
3                N/A           N/A           N/A           N/A
5                22C(50C,65C)  27C(60C,75C)  28C           28C
1  (Switch-Eng)  22C(50C,65C)  22C(60C,75C)  N/A           N/A
1  (MSFC)        26C(50C,65C)  30C(60C,75C)  N/A           N/A

Chassis Modules
------------------
VTT1: 25C(85C,100C)
VTT2: 24C(85C,100C)
VTT3: 25C(85C,100C)

PS1 Capacity: 1153.32 Watts (27.46 Amps @42V)
PS2 Capacity: none
PS Configuration : PS1 and PS2 in Redundant Configuration.
Total Power Available: 1153.32 Watts (27.46 Amps @42V)
Total Power Available for Line Card Usage: 1153.32 Watts (27.46 Amps @42V)
Total Power Drawn From the System: 453.18 Watts (10.79 Amps @42V)
Remaining Power in the System: 700.14 Watts (16.67 Amps @42V)
Default Inline Power allocation per port: 2.00 Watts (0.04 Amps @42V)

Slot power Requirement/Usage :

Slot Card Type           PowerRequested PowerAllocated CardStatus
                         Watts   A @42V Watts   A @42V
---- ------------------- ------- ------ ------- ------ ----------
1    WS-X6K-SUP1A-2GE    138.60   3.30  138.60   3.30  ok
2                          0.00   0.00  138.60   3.30  none
3    WS-X6380-NAM         63.00   1.50   63.00   1.50  ok
5    WS-X6248-RJ-45      112.98   2.69  112.98   2.69  ok
Console>
```

This example shows how to display temperature information:

```
Console> show environment temperature
                   Intake        Exhaust       Device 1     Device 2
Slot             Temperature   Temperature   Temperature   Temperature
---------------  ------------  ------------  ------------  ------------
1                25C(50C,65C)  34C(60C,75C)  27C           32C
3                N/A           N/A           N/A           N/A
5                24C(50C,65C)  27C(60C,75C)  28C           29C
1  (Switch-Eng)  22C(50C,65C)  22C(60C,75C)  N/A           N/A
1  (MSFC)        28C(50C,65C)  32C(60C,75C)  N/A           N/A

Chassis Modules
------------------
VTT1: 25C(85C,100C)
VTT2: 25C(85C,100C)
VTT3: 25C(85C,100C)
Console> (enable)
```

This example shows how to display the inline power for all modules:

```
Console> show environment power
PS1 Capacity:919.38 Watts (21.89 Amps @42V)
PS2 Capacity:none
PS Configuration :PS1 and PS2 in Redundant Configuration.
Total Power Available:919.38 Watts (21.89 Amps @42V)
Total Power Available for Line Card Usage:885.78 Watts (21.09 Amps
@42V)
Total Power Drawn From the System:342.72 Watts ( 8.16 Amps @42V)
Remaining Power in the System:576.66 Watts (13.73 Amps @42V)
Configured Default Inline Power allocation per port:7.00 Watts (0.16
Amps @42V)

Slot power Requirement/Usage :

Slot Card Type           PowerRequested PowerAllocated CardStatus
                         Watts   A @42V Watts   A @42V
---- ------------------- ------- ------ ------- ------ ----------
1    WS-X6K-S2U-MSFC2    145.32   3.46  145.32   3.46  ok
2    WS-X6148-GE-TX      151.20   3.60  151.20   3.60  ok

Slot Inline Power Requirement/Usage :

Slot CardType            Total Allocated   Max H/W Supported  Max H/W Supported
                         To Module (Watts) Per Module (Watts) Per Port (Watts)
---- ------------------- ----------------- ------------------ --------------------
2    WS-X6148-GE-TX      12.6              400                15.400
Console>
```

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

```
Console> show environment power 9
Module 9:
Default Inline Power allocation per port: 9.500 Watts (0.22 Amps @42V)
Total inline power drawn by module 9: 0 Watt

Slot power Requirement/Usage :

Slot Card Type           PowerRequested PowerAllocated CardStatus
                         Watts   A @42V Watts   A @42V
---- ------------------- ------- ------ ------- ------ ----------
9    WS-X6348            123.06   2.93  123.06   2.93  ok

Default Inline Power allocation per port: 9.500 Watts (0.22 Amps @42V)
Port      InlinePowered     PowerAllocated
      Admin Oper   Detected mWatt mA @42V
----- ----- ------ -------- ----- --------
 9/1  auto  off    no       0     0
 9/2  auto  off    no       0     0
 9/3  auto  off    no       0     0
 9/4  auto  off    no       0     0
 9/5  auto  off    no       0     0
.
.
.
Console>
```

Table 2-29 describes the fields in the **show environment** output.

Table 2-29 show environment Command Output Fields

Field	Description
Environmental Status[1]	
PS1: and PS2:	Power supply status.
PS1 Fan: and PS2 Fan:	Power supply fan status.
Chassis-Ser-EEPROM:	Chassis serial EEPROM status.
Fan:	Fan status.
Clock A: and Clock B:	Clock A and B status.
VTT1:, VTT2:, and VTT3:	VTT module status. VTT modules are power monitors for the chassis backplane. A minor system alarm is signalled when one of the three VTTs fails, and a major alarm is signalled when two or more VTTs fail.
Intake Temperature and Exhaust Temperature	Temperature of the air flow as it enters, goes over the modules, and exits the chassis. The current temperature is listed first, with the minor and major alarm temperatures listed in parentheses.
Device 1 Temperature and Device 2 Temperature	The devices are additional temperature sensors measuring the internal temperature on each module indicated. The current temperature is listed first, with the warning and critical alarm temperatures listed in parentheses.
Chassis Modules	
VTT1:, VTT2:, and VTT3:	Temperature of the VTT modules. The current temperature is listed first, with the minor and major alarm temperature settings listed in parentheses.
PS1 Capacity: and PS2 Capacity:	Power supply capacity.
PS Configuration:	Power supply configuration.
Total Power Available:	Total available power.
Total Power Available for Line Card Usage:	Total power available for module use.
Total Power Drawn From the System:	Total power drawn from the system.
Remaining Power in the System:	Remaining power in the system.
Configured Default Inline Power allocation per port:	Configured default inline power allocation per port.
Slot power Requirement/Usage	
Power Requested	Module power requested.
Power Allocated	Module power allocation.
Card Status	Module status (no, ok, partial-deny[2], unknown, power-bad, and power-deny).
Slot Inline Power Requirement/Usage	
Total Allocated to Module	Inline power in Watts already allocated to the specified module.
Max H/W Supported Per Module	Maximum hardware supported per module in Watts.
Max H/W Supported Per Port	Maximum hardware supported per port in Watts.

Table 2-29 show environment Command Output Fields (continued)

Field	Description
Total inline power drawn	Total inline power drawn from the system.
InlinePowered—Admin	Inline power management status—auto, on, and off.
InlinePowered—Oper	Inline power status—on indicates power is being supplied by that port, off indicates power is not being supplied by the port, denied indicates there is not have enough power available to provide to the port.
InlinePowered—Detected	Status of whether or not inline power is detected.

1. Environmental status indications are the following: . = Pass, F = Fail, U = Unknown, and N = Not Present.
2. The partial-deny state indicates that some ports but not all ports in the module are inline powered.

Related Commands

set inlinepower defaultallocation
show environment
show port inlinepower

show errdisable-timeout

To display the configuration and status of the errdisable timeout, use the **show errdisable-timeout** command.

show errdisable-timeout

Syntax Description

This command has no arguments or keywords.

Defaults

This command has no default settings.

Command Types

Switch command.

Command Modes

Normal.

Usage Guidelines

If your system is configured with a Supervisor Engine 2, the crossbar-fallback error may be displayed in the ErrDisable Reason field.

Examples

This example shows how to display the errdisable timeout configuration and status:

```
Console> show errdisable-timeout
ErrDisable Reason      Timeout Status
---------------------- --------------
arp-inspection         disable
bcast-suppression      disable
bpdu-guard             disable
channel-misconfig      disable
crossbar-fallback      disable
duplex-mismatch        disable
gl2pt-ingress-loop     disable
gl2pt-threshold-exceed disable
udld                   enable
other                  disable

Interval: 300 seconds

Ports that will be enabled at the next timeout:
Port  Errdisable Reason  Port ErrDisableTimeout  Action on Timeout
----  -----------------  ----------------------  -----------------
3/3   udld               Disable                 Remain Disabled
3/4   udld               Enable                  Enabled
3/5   other              Disable                 Remain Disabled (PRBS)
Console>(enable)
```

Related Commands

set errdisable-timeout

show errordetection

To display error detection settings, use the **show errordetection** command.

show errordetection

Syntax Description

This command has no arguments or keywords.

Defaults

This command has no default settings.

Command Types

Switch command.

Command Modes

Normal.

Examples

This example shows how to display the error detection settings:

```
Console> show errordetection
Inband error detection:          disabled
Memory error detection:          enabled
Port counter error detection:    enabled
Console> (enable)
```

Related Commands

set errordetection

show fabric channel

To display Switch Fabric Module information, use the **show fabric channel** command.

show fabric channel counters [*mod*]

show fabric channel utilization

show fabric channel switchmode [*mod*]

Syntax Description

counters	Displays fabric channel counter information.
mod	(Optional) Number of the Switch Fabric Module.
utilization	Displays fabric channel utilization information.
switchmode	Displays switch mode and fabric channel status.

Defaults

This command has no default settings.

Command Types

Switch command.

Command Modes

Normal.

Usage Guidelines

These commands are supported on systems configured with a Switch Fabric Module and the Supervisor Engine 2 with Layer 3 Switching Engine II (PFC2) only.

In the **show fabric channel switchmode** command output, the Fab Chan field displays the module channel number and the correspondent fabric channel number in pairs. The first number is the fabric channel number associated with the module (valid value is 0) and the second number is the fabric channel number to the Catalyst 6500 series Switch Fabric Module. (Valid values are 0 to 17.)

For the Switch Fabric Module, the Switch Mode and Channel Status fields will show “n/a.”

In the **show fabric channel switchmode** command output, the Switch Mode field displays one of the following modes:

- Flow-through mode—In this mode, data passes between the local bus and the supervisor engine bus.
- Truncated mode—In this mode, the truncated data is sent over the switch fabric channel if both the destination and the source modules are fabric-enabled modules. If either the source or destination module is not a fabric-enable module, the data goes through the switch fabric channel and the data bus. The Switch Fabric Module does not get involved when traffic is forwarded between nonfabric-enabled modules.
- Compact mode—In this mode, a compact version of the DBus header is forwarded over the switch fabric channel, delivering the best possible switching rate. Nonfabric-enabled modules do not support the compact mode and will generate CRC errors if they receive frames in compact mode.

Examples

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

```
Console> show fabric channel counters 2
Channel 0 counters:
0 rxErrors                          =                    0
1 txErrors                          =                    0
2 txDropped                         =                    0
Console>
```

This example shows how to display fabric channel utilization information:

```
Console> show fabric channel utilization
Fab Chan Input Output
-------- ----- ------
       0    0%     0%
       1    0%     0%
       2    0%     0%
       3    0%     0%
.
.
.
      15    0%     0%
      16    0%     0%
      17    0%     0%
Console>
```

This example shows how to display switch mode and fabric channel status:

```
Console> show fabric channel switchmode
Global switching mode: flow through
Module Num Fab Chan Fab Chan Switch Mode  Channel Status
------ ------------ -------- ------------ --------------
     2            1   0, 1   flow through ok
     3            0   n/a    n/a          n/a
     5           18   0, 0   n/a          unknown
     5           18   1, 1   n/a          ok
.
.
.
     5           18  15, 15  n/a          unknown
     5           18  16, 16  n/a          unknown
     5           18  17, 17  n/a          unknown
    16            0 n/a      n/a          n/a
Console>
```

Table 2-30 describes the fields in the **show fabric channel** output.

Table 2-30 show fabric channel Command Output Fields

Field	Description
rxErrors	Number of received errors.
txErrors	Number of transmitted errors.
txDropped	Number of dropped transmitted packets.
Input	Percentage of input traffic utilization.
Output	Percentage of output traffic utilization.
Num Fab Chan	Number of fabric channels associated with the module.
Global switching mode	Global switching mode of the switch (flow through, truncated, and compact).

Table 2-30 show fabric channel Command Output Fields (continued)

Field	Description
Fab Chan	Fabric channel number; see the "Usage Guidelines" section for additional information.
Switch Mode	Channel switch mode type (flow through, truncated, and compact).
Channel Status	Channel status (ok, sync error, CRC error, heartbeat error, buffer error, timeout error, or unknown).

Related Commands switch fabric

show file

To display the contents of a file that have been saved to Flash memory, use the **show file** command.

show file [*device***:**]*filename* [**dump**]

Syntax Description

*device***:**	(Optional) Device where the Flash memory resides.
filename	Name of the configuration file.
dump	(Optional) Shows the hexadecimal dump of the file.

Defaults

This command has no default settings.

Command Types

Switch command.

Command Modes

Privileged.

Usage Guidelines

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

Examples

This example shows how to display the contents of the configuration file saved to Flash memory:

```
Console> (enable) show file slot0:cfgfile
begin
!
#version 5.4
!
set password $1$FMFQ$HfZR5DUszVHIRhrz4h6V70
set enablepass $1$FMFQ$HfZR5DUszVHIRhrz4h6V70
set prompt Console>
set length 24 default
!
#system
set system baud  9600
set system modem disable
...
Console> (enable)
```

This example shows how to display the hexadecimal dump from a file:

```
Console> (enable) show file slot:cfgfile dump
8099d140  0A626567 696E0A21 0A237665 7273696F   .begin.!.#versio
8099d150  6E20352E 3328302E 31312942 4F552D45   n 5.3(0.11)BOU-E
8099d160  6E670A21 0A736574 20706173 73776F72   ng.!.set passwor
8099d170  64202431 24464D46 51244866 5A523544   n $1$FMFQ$HfZR5D
8099d180  55737A56 48495268 727A3468 36563730   UszVHIRhrz4h6V70
8099d190  0A736574 20656E61 626C6570 61737320   .set enablepass
8099d1a0  24312446 4D465124 48665A52 35445573   $1$FMFQ$HfZR5DUs
8099d1b0  7A564849 5268727A 34683656 37300A73   zVHIRhrz4h6V70.s
...
```

show flash

To list bootflash or Flash PC card information, including file code names, version numbers, volume ID, status, and sizes, use the **show flash** command.

show flash devices

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

Syntax Description

m/	(Optional) Module number of the supervisor engine containing the Flash device.
device:	(Optional) Valid devices are **bootflash** and **slot0**.
all	(Optional) Lists deleted files, undeleted files, and files with errors on a Flash memory device.
chips	(Optional) Shows information about the Flash chip.
filesys	(Optional) Shows the Device Info Block, the Status Info, the Usage Info, and the volume ID.

Defaults

This command has no default settings.

Command Types

Switch command.

Command Modes

Normal.

Usage Guidelines

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

Examples

This example shows how to list the Flash files:

```
Console> show flash devices
slot0, bootflash, tftp
Console>
```

These examples show how to list supervisor engine Flash information:

```
Console> show flash
-#- ED --type-- --crc--- -seek-- nlen -length- -----date/time------ name
  1 .. ffffffff fec05d7a  4b3a4c   25  4667849 Mar 03 2000 08:52:09 cat6000-sup.
5-3-4-CSX.bin
  2 .. ffffffff 4e5efc31  c0fadc   30  7716879 May 19 2000 06:50:55 cat6000-sup-
d.6-1-0-83-ORL.bin

3605796 bytes available (12384988 bytes used)
Console>
```

```
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

COMMON MEMORY REGISTERS: Bank 3
Console>

Console> show flash all
-#- ED --type-- --crc--- -seek-- nlen -length- -----date/time------ name
  1 .. ffffffff fec05d7a  4b3a4c   25  4667849 Mar 03 2000 08:52:09 cat6000-sup.
5-3-4-CSX.bin
  2 .. ffffffff 4e5efc31  c0fadc   30  7716879 May 19 2000 06:50:55 cat6000-sup-
d.6-1-0-83-ORL.bin

3605796 bytes available (12384988 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
Console>
```

Related Commands

download
reset—switch

show garp timer

To display all the values of the General Attribute Registration Protocol (GARP) timers, use the **show garp timer** command.

show garp timer

Syntax Description

This command has no arguments or keywords.

Defaults

This command has no default settings.

Command Types

Switch command.

Command Modes

Normal.

Usage Guidelines

You must maintain the following *relationship* for the various timer values:

- Leave time must be greater than or equal to three times the join time.
- Leaveall time must be greater than the leave time.

Caution Set the same GARP application (for example, GMRP and GVRP) timer values on all Layer 2-connected devices. If the GARP timers are set differently on the Layer 2-connected devices, GARP applications will not operate successfully.

Note The modified timer values are applied to all GARP application (for example, GMRP and GVRP) timer values.

Examples

This example shows how to display all the values of the GARP timers:

```
Console> (enable) show garp timer
Timer     Timer Value (milliseconds)
--------  --------------------------
Join      200
Leave     600
LeaveAll  10000
Console> (enable)
```

Related Commands

set garp timer
set gmrp timer
set gvrp timer

show gmrp configuration

To display complete GMRP-related configuration information, use the **show gmrp configuration** command.

show gmrp configuration

Syntax Description

This command has no arguments or keywords.

Defaults

This command has no default settings.

Command Types

Switch command.

Command Modes

Normal.

Usage Guidelines

If the port list exceeds the available line spaces, the list wraps to the next line.

Examples

This example shows how to display GMRP-related configuration information:

```
Console> (enable) show gmrp configuration
Global GMRP Configuration:
GMRP Feature is currently enabled on this switch.
GMRP Timers (milliseconds):
Join = 200
Leave = 600
LeaveAll = 10000
Port based GMRP Configuration:
GMRP-Status Registration ForwardAll Port(s)
----------- ------------ ---------- -------------------------------------------
Enabled     Normal       Disabled   1/1-2
                                    2/1-48
                                    15/1
Console> (enable)
```

Related Commands

set gmrp registration

show gmrp statistics

To display all the GMRP-related statistics for a specified VLAN, use the **show gmrp statistics** command.

show gmrp statistics [*vlan*]

Syntax Description

vlan	(Optional) VLAN for which to show GMRP statistics; valid values are from 1 to 1005 and from 1025 to 4094.

Defaults

The default is that if you do not specify a VLAN, statistics for VLAN 1 are shown.

Command Types

Switch command.

Command Modes

Normal.

Examples

This example shows how to display all the GMRP-related statistics for VLAN 23:

```
Console> show gmrp statistics 23
GMRP Statistics for vlan <23>:
Total valid GMRP Packets Received:                      500
Join Empties:                                           200
Join INs:                                               250
Leaves:                                                 10
Leave Alls:                                             35
Empties:                                                5
Fwd Alls:                                               0
Fwd Unregistered:                                       0
Total valid GMRP Packets Transmitted:                   600
Join Empties:                                           200
Join INs:                                               150
Leaves:                                                 45
Leave Alls:                                             200
Empties:                                                5
Fwd Alls:                                               0
Fwd Unregistered:                                       0
Total valid GMRP Packets Received:                      0
Total GMRP packets dropped:                             0
Total GMRP Registrations Failed:                        0
Console>
```

Related Commands

clear gmrp statistics
set gmrp

show gmrp timer

To display all the values of the GMRP timers, use the **show gmrp timer** command.

show gmrp timer

Syntax Description

This command has no arguments or keywords.

Defaults

This command has no default settings.

Command Types

Switch command.

Command Modes

Normal.

Examples

This example shows how to display all the values of the GMRP timers:

```
Console> (enable) show gmrp timer
Timer               Timer Value(milliseconds)
-------------------------------------------
Join                200
Leave               600
Leave All           10000
Console> (enable)
```

Related Commands

set garp timer
set gmrp timer
set gvrp timer
show gmrp configuration

show gvrp configuration

To display GVRP configuration information, including timer values, whether or not GVRP and dynamic VLAN creation is enabled, and which ports are running GVRP, use the **show gvrp configuration** command.

show gvrp configuration

Syntax Description

This command has no arguments or keywords.

Defaults

This command has no default settings.

Command Types

Switch command.

Command Modes

Normal.

Usage Guidelines

If the port list exceeds the available line spaces, the list wraps to the next line.

If no ports are GVRP participants, the message output changes from:

```
GVRP Participants running on port_list
```

to:

```
GVRP Participants running on no ports.
```

Examples

This example shows how to display GVRP configuration information:

```
Console> show gvrp configuration

Global GVRP Configuration:
GVRP Feature is currently enabled on the switch.
GVRP dynamic VLAN creation is enabled.
GVRP Timers(milliseconds)
Join = 200
Leave = 600
LeaveAll = 10000

Port based GVRP Configuration:
GVRP-Status Registration Applicant Port(s)
----------- ------------ --------- -----------------------------------------
Enabled.   Normal      Normal   2/1
Enabled.   Normal      Active   4/4
Enabled.   Fixed       Normal   4/9
Enabled.   Fixed       Active   4/11
Enabled.   Forbidden   Normal   4/10
Enabled.   Forbidden   Active   4/5
Disabled   Normal      Normal   2/2
                                4/12-24
                                5/1-8
Disabled   Normal      Active   4/1,4/8
```

```
Disabled   Fixed       Normal   4/2
Disabled   Fixed       Active   4/7
Disbled    Forbidden   Normal   4/3
Disbled    Forbidden   Active   4/6

GVRP Participants running on no ports.
Console>
```

Related Commands

clear gvrp statistics
set gvrp
set gvrp dynamic-vlan-creation
set gvrp registration
set gvrp timer
show gvrp statistics

show gvrp statistics

To view GVRP statistics for a port, use the **show gvrp statistics** command.

show gvrp statistics [*mod/port*]

Syntax Description

mod/port	(Optional) Number of the module and port on the module.

Defaults

The default is, that if you do not specify a VLAN, statistics for VLAN 1 are shown.

Command Types

Switch command.

Command Modes

Normal.

Examples

This example shows how to display GVRP statistics for module 2, port 1:

```
Console> show gvrp statistics 2/1
GVRP enabled

GVRP statistics for port 2/1:
Total valid pkts rcvd:           18951
Total invalid pkts recvd         0
General Queries recvd            377
Group Specific Queries recvd     0
MAC-Based General Queries recvd  0
Leaves recvd                     14
Reports recvd                    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
GVRP packets dropped             0
Console>
```

Table 2-31 describes the fields in the **show gvrp statistics** output.

Table 2-31 show gvrp statistics Command Output Fields

Field	Description
GVRP Enabled	Status of whether or not GVRP is enabled or disabled.
Total valid pkts rcvd	Total number of valid GVRP packets received.
Total invalid pkts recvd	Total number of invalid GVRP packets received.
General Queries recvd	Total number of GVRP general queries received.
Group Specific Queries recvd	Total number of GVRP group-specific queries received.

Table 2-31 show gvrp statistics Command Output Fields (continued)

Field	Description
MAC-Based General Queries recvd	Total number of MAC-based general queries received.
Leaves recvd	Total number of GVRP leaves received.
Reports recvd	Total number of GVRP reports received.
Queries Xmitted	Total number of GVRP general queries transmitted by the switch.
GS Queries Xmitted	Total number of GVRP group specific-equivalent queries transmitted by the switch.
Reports Xmitted	Total number of GVRP reports transmitted by the switch.
Leaves Xmitted	Total number of GVRP 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.
GVRP packets dropped	Total number of GVRP packets dropped by the switch.

Related Commands

clear gvrp statistics
set gvrp
set gvrp dynamic-vlan-creation
set gvrp registration
set gvrp timer
show gvrp configuration

show ifindex

To display the information of the specific ifIndex, use the **show ifindex** command.

show ifindex *number*

Syntax Description

number	Number of the ifIndex.

Defaults

This command has no default settings.

Command Types

Switch command.

Command Modes

Normal.

Usage Guidelines

You can designate multiple ifIndex numbers by separating each number with a comma. To specify a range of numbers, use a dash (-) between the low and high numbers.

Examples

This example shows how to display ifIndex information:

```
Console> show ifindex 1,2,3,4-15,40-45
 Ifindex 1 is mapped to interface sc0.
 Ifindex 2 is mapped to interface sl0.
 Ifindex 3 is mapped to port 1/1.
 Ifindex 4 is mapped to port 1/2.
 Ifindex 5 is mapped to port 1/3.
 Ifindex 6 is mapped to port 1/4.
 Ifindex 7 is mapped to vlan 1.
 Ifindex 8 is mapped to vlan 1002.
 Ifindex 9 is mapped to vlan 1004.
 Ifindex 10 is mapped to vlan 1005.
 Ifindex 11 is mapped to vlan 1003.
 Ifindex 12 is mapped to port 9/1.
 Ifindex 13 is mapped to port 9/2.
 Ifindex 14 is mapped to port 9/3.
 Ifindex 15 is mapped to port 9/4.
 Ifindex 40 is mapped to port 8/5.
 Ifindex 41 is mapped to port 8/6.
 Ifindex 42 is mapped to port 8/7.
 Ifindex 43 is mapped to port 8/8.
 Ifindex 44 is mapped to port 8/9.
 Ifindex 45 is mapped to FEC-1/1-2.
Console>
```

show igmp flooding

To display whether the IGMP flooding feature is enabled or disabled, use the **show igmp flooding** command.

show igmp flooding

Syntax Description

This command has no keywords or arguments.

Defaults

This command has no default settings.

Command Types

Switch command.

Command Modes

Normal.

Usage Guidelines

Using the IGMP flooding feature, you can activate or prevent the flooding of multicast traffic after the last host leaves a multicast group.

For more information about IGMP flooding, refer to the "Understanding How IGMP Snooping Works" section of the "Configuring Multicast Services" chapter of the *Catalyst 6500 Series Switch Software Configuration Guide*.

Examples

This example show how to display the status of the IGMP flooding feature:

```
Console> show igmp flooding
Mcast flooding disabled
Console>
```

Related Commands

set igmp flooding

show igmp leave-query-type

To display the type of query to be sent when a port receives a leave message, use the **show igmp leave-query-type** command.

Syntax Description

This command has no keywords or arguments.

Defaults

This command has no default settings.

Command Types

Switch command.

Command Modes

Normal.

Examples

This example shows how to display the type of IGMP query that is sent when a port receives a leave message:

```
Console> show igmp leave-query-type
IGMP Leave Query Type : Mac based General Query
Console>
```

Related Commands

set igmp leave-query-type

show igmp mode

To display the IGMP mode on the switch, use the **show igmp mode** command.

show igmp mode

Syntax Description

This command has no keywords or arguments.

Defaults

This command has no default settings.

Command Types

Switch command.

Command Modes

Normal.

Usage Guidelines

The switch dynamically chooses either IGMP-only or IGMP-CGMP mode, depending on the traffic present on the network. IGMP-only mode is used in networks with no CGMP devices. IGMP-CGMP mode is used in networks with both IGMP and CGMP devices.

The **show igmp mode** command output includes three fields:

- IGMP Mode—Possible values are auto, igmp-only, and igmp-cgmp.
- IGMP-Operational-Mode—Possible values are igmp-only and igmp-cgmp.
- IGMP Address Aliasing Mode—Possible values are normal and fallback.

Examples

This example shows how to display the IGMP mode:

```
Console> show igmp mode
IGMP Mode:                  auto
IGMP Operational Mode:      igmp-only
IGMP Address Aliasing Mode: normal
Console>
```

Related Commands

set igmp mode

show igmp querier information

To display querier information specific to a configured VLAN, use the **show igmp querier information** command.

show igmp querier information [*vlan*]

Syntax Description

vlan	(Optional) Number of the VLAN.

Defaults

This command has no default settings.

Command Types

Switch command.

Command Modes

Normal.

Usage Guidelines

If you do not specify a VLAN number, IGMP querier information is displayed for all configured VLANs.

Examples

This example shows how to display querier information for VLAN 1:

```
Console> show igmp querier information 1
VLAN Querier State         Query Tx Count QI (seconds) OQI (seconds)
---- --------------------- -------------- ------------ -------------
1    QUERIER               26             125          300
Console>
```

Related Commands

set igmp querier

show igmp ratelimit-info

To display the IGMP rate limit for general-query packets, IGMP snooping protocol packets, and Protocol Independent Multicasting version 2 (PIMv2) packets, use the **show igmp ratelimit** command.

show igmp ratelimit-info

Syntax Description

This command has no arguments or keywords.

Defaults

This command has no default settings.

Command Types

Switch command.

Command Modes

Normal.

Usage Guidelines

The output of this command displays the number of IGMP rate limiting packets that are sent out every 30 seconds.

Examples

This example shows how to display IGMP rate limiting information:

```
Console> show igmp ratelimit-info
IGMP Ratelimiting is enabled
IGMP Ratelimiting: No of messages allowed in 30 seconds
-------------------------------------------------------
Igmp General Queries : 100
Dvmrp Probes         : 100
Mospf1 Hellos        : 100
Mospf2 Hellos        : 100
PimV2 Hellos         : 100
Console>
```

Related Commands

set igmp ratelimit

show igmp statistics

To view IGMP statistics for a particular VLAN, use the **show igmp statistics** command.

show igmp statistics [*vlan_id*]

Syntax Description

vlan_id	(Optional) VLAN for which to show IGMP statistics; valid values are from 1 to 1005 and from 1025 to 4094.

Defaults

The default is that if you do not specify a VLAN, statistics for VLAN 1 are shown.

Command Types

Switch command.

Command Modes

Normal.

Examples

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 recvd         0
General Queries recvd            377
Group Specific Queries recvd     0
MAC-Based General Queries recvd  0
Leaves recvd                     14
Reports recvd                    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 2-32 describes the fields in the **show igmp statistics** output.

Table 2-32 show igmp statistics Command Output Fields

Field	Description
IGMP enabled	Status of whether IGMP snooping is enabled or disabled.
Total valid pkts rcvd	Number of valid IGMP packets received.
Total invalid pkts recvd	Number of invalid IGMP packets received.
General Queries recvd	Number of IGMP general queries received.

Table 2-32 show igmp statistics Command Output Fields (continued)

Field	Description
Group Specific Queries recvd	Number of IGMP group-specific queries received.
MAC-Based General Queries recvd	Number of MAC-based general queries received.
Leaves recvd	Number of IGMP leaves received.
Reports recvd	Number of IGMP reports received.
Queries Xmitted	Number of IGMP general queries transmitted by the switch.
GS Queries Xmitted	Number of IGMP group-specific equivalent queries transmitted by the switch.
Reports Xmitted	Number of IGMP reports transmitted by the switch.
Leaves Xmitted	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 rcvd	Number of topology change notifications received by the switch.
IGMP packets dropped	Number of IGMP packets dropped by the switch.

Related Commands

clear igmp statistics
clear multicast router
set igmp
set multicast router
show multicast group
show multicast router

show imagemib

To display image information provided in the CISCO-IMAGE-MIB for a particular image, use the **show imagemib** command.

show imagemib *filename*

Syntax Description

filename	Name of the Flash device on the supervisor engine.

Defaults

This command has no default settings.

Command Types

Switch command.

Command Modes

Normal.

Examples

This example shows how to display CISCO-IMAGE-MIB information for the Flash image:

```
Console> (enable) show imagemib bootflash:cat6000-sup.6-1-1.bin
show mib info for file bootflash:cn50
CW_BEGIN$cat6000-WS-X6K-SUP1$
CW_IMAGE$bootflash:at6000-sup.5-5-1.bin$
CW_FAMILY$Catalyst 6000 Switch$
CW_MODULE$Catalyst Supervisor Module$
CW_VERSION$5.5.1$
CW_MIN_DRAM$ 32 MB$
CW_MIN_BOOTFLASH$  8 MB$
CW_MIN_NVRAM$ 512 KB$
CW_BUILDTIME$  Mar 24 2000 00:32:33$
CW_SYSDESCR$Catalyst Operating System$
CW_END$cat6000-WS-X6K-SUP1$
Console>
```

show interface

To display information on network interfaces, use the **show interface** command.

show interface

Syntax Description

This command has no arguments or keywords.

Defaults

This command has no default settings.

Command Types

Switch command.

Command Modes

Normal.

Examples

This example shows how to display sl0 and sc0:

```
Console> show interface
sl0: flags=51<UP,POINTOPOINT,RUNNING>
        slip 0.0.0.0 dest 0.0.0.0
sc0: flags=63<UP,BROADCAST,RUNNING>
        vlan 1 inet 172.20.52.19 netmask 255.255.255.224 broadcast 172.20.52.31
sc1: flags=63<UP,BROADCAST,RUNNING>
        vlan 2 inet 0.0.0.0 netmask 255.0.0.0 broadcast 0.255.255.255
dhcp server: 174.44.67.201
Console>
```

Table 2-33 describes the fields in the **show interface** command output.

Table 2-33 show interface Command Output Fields

Field	Description
sl0	Information on the SLIP interface.
flags	Flags indicating the interface state (decoded in the subsequent field).
<UP,POINTOPOINT, RUNNING>	Interface state (UP, DOWN, BROADCAST, LOOPBACK, POINTOPOINT, or RUNNING).
slip	IP address of the SLIP interface.

Table 2-33 show interface Command Output Fields (continued)

Field	Description
dest	IP address of the host to which the console port will be connected.
sc0	Information on the sc0 in-band interface.
vlan	Number of the VLAN to which the sc0 interface has been assigned (known as the management VLAN).
inet	IP address of the interface.
netmask	Network mask for the interface.
broadcast	Broadcast address for the interface.
sc1	Information on the sc1 in-band interface.
dhcp server	IP address of the DHCP server.

Related Commands set interface

show ip alias

To show a listing of defined IP aliases, use the **show ip alias** command.

show ip alias [*name*]

Syntax Description

name	(Optional) Alias for a specific host.

Defaults

This command has no default settings.

Command Types

Switch command.

Command Modes

Normal.

Examples

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
cat6000-1       172.16.169.16
cat6000-2       172.16.169.20
Console>
```

Related Commands

clear ip alias
set ip alias