

System Management Commands

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disable ports leds

To turn **off** the LEDs on all ports on a device, use the **disable ports leds** Global Configuration mode command.

To set the LEDs of all the ports on the device to their current operational status of the port, use the **no disable ports leds** command.

Syntax

disable **ports leds**no disable **ports leds**

Parameters

This command has no arguments or keywords.

Default Configuration

The default is **no disable port leds**; that is the LEDs of all the ports reflect their current status.

Command Mode

Global Configuration mode

Examples

The following example turns off the port LEDs.

switchxxxxxx(config)# disable ports leds

hostname

To specify or modify the device host name, use the **hostname** Global Configuration mode command. To remove the existing host name, use the **no** form of the command.

Syntax

hostname name

no hostname

Parameters

Name—Specifies the device host name. (Length: 1-58 characters). The hostname must start with a letter, end with a letter or digit, and have as interior characters only letters, digits, and hyphens.

Default Configuration

No host name is defined.

Command Mode

Global Configuration mode

Example

The following example specifies the device host name as 'enterprise'.

switchxxxxxx(config) # hostname enterprise
enterprise(config) #

reload

To reload the operating system at a user-specified time, use the **reload** Privileged EXEC mode command.

Syntax

reload [in [hhh:mm | mmm] | at hh:mm [day month]] | cancel]

Parameters

- in hhh:mm | mmm—(Optional) Schedules a reload of the software to take effect in the specified minutes or hours and minutes. The reload must take place within approximately 24 days.
- at hh:mm—(Optional) Schedules a reload of the software to take place at the specified time (using a 24-hour clock). If you specify the month and day, the reload is scheduled to take place at the specified time and date. If you do not specify the month and day, the reload takes place at the specified time on the current day (if the specified time is later than the current time) or on the next day (if the specified time is earlier than the current time). Specifying 00:00 schedules the reload for midnight. The reload must take place within 24 days.
- day—(Optional) Number of the day in the range from 1 to 31.
- month—(Optional) Month of the year.
- cancel—(Optional) Cancels a scheduled reload.

Default Usage

None

Command Mode

Privileged EXEC mode

User Guidelines

The **at** keyword can be used only if the system clock has been set on the device. To schedule reloads across several devices to occur simultaneously, synchronize the time on each device with SNTP.

When you specify the reload time using the **at** keyword, if you specify the month and day, the reload takes place at the specified time and date. If you do not specify the month and day, the reload takes place at the specified time on the current day (if the specified time is later than the current time), or on the next day (if the specified time is earlier than the current time). Specifying 00:00 schedules the reload for midnight. The reload must take place within 24 days.

To display information about a scheduled reload, use the **show reload** command.

Example 1: The following example reloads the operating system on all units of a stack system or on the single unit of a standalone system.

```
switchxxxxxx> reload
This command will reset the whole system and disconnect your current session. Do you want to continue? (y/n) [Y]
```

Example 2: The following example reloads the operating system in 10 minutes on all on all units of a stack system or on the single unit of a standalone system.

switchxxxxxx> reload in 10

This command will reset the whole system and disconnect your current session. Reload is scheduled for 11:57:08 UTC Fri Apr $21\ 2012$ (in $10\ \text{minutes}$). Do you want to continue? (y/n) [Y]

Example 3: The following example reloads the operating system at 13:00 on all units of a stack system or on the single unit of a standalone system.

switchxxxxxx> reload at 13:00

This command will reset the whole system and disconnect your current session. Reload is scheduled for 13:00:00 UTC Fri Apr 21 2012 (in 1 hour and 3 minutes). Do you want to continue? (y/n) [Y]

Example 4: The following example cancels a reload.

switchxxxxxx> reload cancel
Reload cancelled.

resume

To enable switching to another open Telnet session, use the **resume** EXEC mode command.

Syntax

resume [connection]

Parameters

connection—(Optional) Specifies the connection number. (Range: 1-4 connections.)

Default Configuration

The default connection number is that of the most recent connection.

Command Mode

Privileged EXEC mode

Example

The following command switches to open Telnet session number 1.

switchxxxxxx> resume 1

service cpu-utilization

To enable measuring CPU utilization, use the **service cpu-utilization** Global Configuration mode command. To restore the default configuration, use the **no** form of this command.

Syntax

service cpu-utilization

no service cpu-utilization

Parameters

This command has no arguments or keywords.

Default Configuration

Measuring CPU utilization is enabled.

Command Mode

Global Configuration mode

User Guidelines

Use the **service cpu utilization** command to measure information on CPU utilization.

Example

The following example enables measuring CPU utilization.

switchxxxxx(config) # service cpu-utilization

show cpld version

To display the device CPLD code version, use the **show cpld version** User EXEC mode command.

Syntax

show cpld version [unit unit-id]

Parameters

unit [unit-id]—Specifies the unit number (Range: 1 – 4). If not specified, the command will display CPLD code version for all units in stack.

Command Mode

User EXEC mode

Example 1 - The following example displays the CPLD version of all units in stack.

Example 2 - The following example displays the CPLD version where a unit in stack does not have a CPLD.

```
switchxxxxxx> show cpld version
Unit ID Unit Type CPLD code Version
----
1 CBS350-48P-4X Not Supported
2 CBS350-48P-4X 1.0.2
```

show cpu input rate

To display the rate of input frames to the CPU in packets per seconds (pps), use the **show cpu input rate** User EXEC mode command.

Syntax

show cpu input rate

Parameters

This command has no arguments or keywords.

Command Mode

User EXEC mode

Example

The following example displays CPU input rate information.

```
switchxxxxxx> show cpu input rate Input Rate to CPU is 1030 pps.
```

show cpu utilization

To display information about CPU utilization, use the **show cpu utilization** Privileged EXEC mode command.

Syntax

show cpu utilization

Parameters

This command has no arguments or keywords.

Default Usage

None

Command Mode

Privileged EXEC mode

User Guidelines

Use the **show cpu-utilization** command to enable measuring CPU utilization.

Example

The following example displays CPU utilization information.

show environment

To display environment information, use the **show environment** User EXEC mode command.

Syntax

show environment {all | fan | temperature {status} | stack | switch-number |}

Parameters

- all—Displays the fan and temperature general status. If this parameter is used a fault situation will be reported if it exists on any one of the stack units
- fan—Displays the fan(s) status
- temperature {status}—Displays the temperature status
- **stack** [switch-number]—(Optional) Displays detailed environment status of a stack, per each stack unit. If the switch-number is specified, the environment status of the selected device number is displayed. (Range: 1 4)

Command Mode

User EXEC mode

User Guidelines

The **fan** and **temperature status** parameters are available only on devices on which fan and/or temperature sensor are installed.

Fan status can be one of:

- OK The fan/s functions correctly.
- Failure One or more of the fans failed.
- Fan read fail Reading information from one or more fans failed.
- NA No fan is installed.

Temperature can be one of:

- **OK** The temperature is below the warning threshold.
- Warning- The temperature is between the warning threshold and the critical threshold.
- Critical the temperature is above the critical threshold.

Sensor status can be one of:

- **OK** All Sensors on device are functioning properly.
- Failure One or more of the sensors failed.
- NA No sensor installed.

Example 1 - The following example displays the general environment status of a device or a stack.

switchxxxxxx> show environment all

Internal power supply Active.

```
fans OK
Sensor is OK
Temperature is OK
#EDITOR: The temperature status is OK if ALL the temperature sensors status in all the stack
members is OK, and if the temperature of all the stack members is below the lowest threshold
(this is calculated per stack member, if one or more of the stack members temperature is
above its specific threshold, the temperature status is FAILURE)
#EDITOR: Likewise the fan status will be OK - only if status of fans on ALL stack members
is OK (meaning no fan fail - or with redundant fan support - only 1 fan fail and redundant
fan active
```

Example 2 - The following example displays the power status of a device or a stack.

switchxxxxxx> show environment power

Internal power supply Active.

Example 3 - The following example displays the general fan status of a device or a stack.

```
switchxxxxxx> show environment fan
fans OK
#EDITOR: The fan status is OK if the fan sensors status in ALL the stack members is OK
```

Example 4 - The following example displays the temperature status of a device or a stack.

```
switchxxxxx> show environment temperature status
TEMPERATURE level is Warning
```

Example 5 - The following example displays the detailed environment status of a stack.

switchxxxxxx> Unit	show environm fan Status	ent stack
1	OK	
2	Failure	
3	Read fan fai	1
4	NA	
#EDITOR: * fan	Direction co	lumn will be printed only in SKUs which support this feature,
or in a stack	when one of t	he units might support this feature.
Unit	Sensor	Temperature
	Status	Level
1	OK	warning
2	Failure	NA
3	NA	NA
4	OK	OK

show inventory

To display product inventory list, use the **show inventory** User EXEC mode command.

Syntax

show inventory [entity]

Parameters

entity—Specifies the entity to be displayed. It can be a number (1 - 4) for a specific unit number in a stack, or an interface (Ethernet) name.

Command Mode

User EXEC mode

User Guidelines

Use the **show inventory** command to retrieve and display inventory information about the device, unit in stack, and connected entities such as SFPs.

In case no entity is specified the command will display information for all units in stack and all connected entities.

If the specified entity is an interface (Ethernet) name, and an SFP is not inserted into the port - Only the NAME & DESCR fields will be displayed, and DESCR will be "No SFP Inserted".

Examples

Example 1 - The following example displays all the entities in a standalone system.

```
switchxxxxxx> show inventory
NAME: "1", DESCR: "48-Port Gigabit with 4-Port 10-Gigabit Managed Switch"
PID: xx350-4x-K9, VID: V01, SN: 123456789
```

Example 2 - The following example displays a specific entity in a standalone system.

```
switchxxxxxx> show inventory gigabitethernet1/0/49
NAME: "GigabitEthernet1/0/49", DESCR: "1000M base-LX Mini-GBIC SFP Transceiver"
PID: MGBLX1,VID: V01, SN: AGC1525UR7G
```

Example 3 - The following example displays information for specific entity - where VID information cannot be read from SFP.

```
switchxxxxxx> show inventory gi1/0/1
NAME: "gi1/0/1", DESCR: "SFP-1000Base-LX"
PID: SFP-1000-LX ,VID: Information Unavailable , SN: 613bbgr8
```

Example 4 - The following example displays information for specific interface - where SFP is not inserted into the interface.

```
switchxxxxxx> show inventory gi1/0/2
NAME: "gi1/0/2", DESCR: "SFP not inserted"
```

Example 5 - The following example displays all the entities in a stacking system with two units.

```
switchxxxxxx> show inventory
NAME: "2", DESCR: "48-Port Gigabit with 4-Port 10-Gigabit Managed Switch"
```

```
PID: xx350-4x-K9 , VID: V01, SN: 123456789

NAME: "GigabitEthernet2/0/49", DESCR: "1000M base-LX Mini-GBIC SFP Transceiver"

PID: MGBLX1, VID: V01, SN: AGC1525UR7G

NAME: "4", DESCR: "48-Port Gigabit with 4-Port 10-Gigabit Managed Switch"

PID: xx350-4x-K9 , VID: V01, SN: 123456789
```

Example 6- The following example displays information for unit 1 of the stack.

```
switchxxxxxx> show inventory 1 NAME: "1" DESCR: "48-Port Gigabit with 4-Port 10-Gigabit Managed Switch" PID: xx350-4x-K9 VID: V02 SN: 402
```

show platform certificate

Use the **show platform certificate** Privileged EXEC mode command to display the device SUDI certificate and optionally a signature over the certificate.

Syntax

show platform sudi certificate [**sign** [**nonce** <nonce value>]]

Parameters

- sign—(Optional) display a signature over the certificate
- [nonce <nonce value>]—(Optional) provide a nonce to use with the signature to protect from replay attacks. (range 0-4,294,967,295)

Default Usage

The certificate is displayed without a signature. If the **sign** parameter is specified without a **nonce** value then the signature will be generated without using a nonce.

Command Mode

Privileged EXEC mode

User Guidelines

show platform sudi certificate command displays the SUDI certificate. The command output includes the certificate chain in PEM format, where the first certificate that is displayed is the Cisco Root CA, and the second certificate that is displayed is the Cisco Subordinate/Intermediary Certificate. Both certificates can be verified to match the certificates published on https://www.cisco.com/security/pki/. The third certificate is the SUDI leaf certificate.

If the optional sign parameter is used, then the command output will display a signature over the certificates using the SUDI private key.

The command also supports an optional [nonce <nonce value>] parameter used as part of the signature inputs to prevent replay attacks. If the [nonce <nonce value>] parameter is not provided the signed data will not include the nonce.

The command output includes a signature version. The Signature value is set to 1 to indicate that the SUDI private key was used for signing.

Examples

Example 1: The following example displays the SUDI certificate chain without a signature:

```
switchxxxxxx# show platform sudi certificate
----BEGIN CERTIFICATE----
MIIDITCCAgmgAwIBAgIJAZozWHjOFsHBMA0GCSqGSIb3DQEBCwUAMC0xDjAMBgNV
BAOTBUNpc2NvMRswGQYDVQQDExJDaXNjbyBSb290IENBIDIwOTkwIBcNMTYwODA5
MjA10DI4WhgPMjA50TA4MDkyMDU4MjhaMC0xDjAMBgNVBAOTBUNpc2NvMRswGQYD
VQQDExJDaXNjbyBSb290IENBIDIwOTkwggEiMA0GCSqGSIb3DQEBAQUAA4IBDwAw
ggEKAoIBAQDTtuM1fg0+9Gflik4axlCK1I2fb3ESCL8+tk8kOXlhfrJ/zlfRbe60
xRP0iUGMKWKBj0IvvWFf4AW/nyzCR8ujTt4a11Eb55SAKXbXYQ7L4YMg+lmZmg/I
```

v3GJEc3HCYU0BsY8g9LuLMvqwiNmAwM2jWzNq0EPArt/F6RiQKq6Ta3e7VIfDZ7J
65OA2xASA2FrSe9Vj97KpQReDcm6G7cqFH5f+CrdQ4qwAa4zWNyM3k0pUb637DNd
9m+n6WECyc/IUD+2e+yp21kBzIKH7JvDpu2U7NBPfr52mFX8AfCzgkXV69bp+iYf
saH1DvXIfPpNp93zGKUSXxEj4w881t2zAgMBAAGjQjBAMA4GA1UdDwEB/wQEAwIB
BjAPBgNVHRMBAf8EBTADAQH/MB0GA1UdDgQWBBQ41VcPNCNO86EmILoUkcdBiB2j
WzANBgkqhkiG9w0BAQsFAAOCAQEAjeKZo+4xd05TFtq99nKnWA0J+DmydBOnPMwY
1DrKfBKe2wVu5AJMvRjgJIoy/CHVPaCOWH58UTqfji95eUaryQ/s36RKrBgMMlwr
WNItxE625PHuaN6EjD1WdWiRMz2hy8F4FCKz5hgUEvN+PUNZwsPnpU6q3Ay0+11T
4TriwCV8kJx3cWu0NvTypYCCXMscSfLFQR13bo+1z6XNm30SecmrxkmQBVMqjCZM
VvAxhxW1iGnYdPRQuNqt0xITzCSERqg3QVVQYnFJUkNVN6j0dmmMVKZh17HgqLnF
PKkmBlNQ9hQcNM3CSZVvEAK0CCEo/NJ/xzZ6WX1/f8DfleXbFq==

----END CERTIFICATE----

----BEGIN CERTIFICATE----

MIIEZzCCA0+qAwIBAqIJCmR1UkzYYXxiMA0GCSqGSIb3DQEBCwUAMC0xDjAMBqNV BAOTBUNpc2NvMRswGQYDVQQDExJDaXNjbyBSb2901ENBIDIwOTkwIBcNMTYwODEx MjAyODA4WhqPMjA5OTA4MDkyMDU4MjdaMDExHzAdBqNVBAMTFkhpZ2qqQXNzdXJh bmNlIFNVREkgQ0ExDjAMBgNVBAoTBUNpc2NvMIIBIjANBgkqhkiG9w0BAQEFAAOC AQ8AMIIBCgKCAQEAvdzeSWdDI61RZDYRvA6JqaRvQyy6Dx1WaqI82UeKR4ZRn0ef $\verb|xMGvp4c88/VMS8WSjQ01qolMfMxqHkcSiFBOULx6Trquw4TrEf9sIuzvgJvDaEa8| \\$ IllXPwtPtNqZEIWi8jlinz2uGam93KuGPcioHfruzbDKWHL/HWFGYMgz+OKwhD3J 4NRySknQvUovfV8eWLeVOqW8rbnG3TZxv5VexOiK4jL3ObvsQPuAWUwUoo7nuF1E GTG/VCeyCe/H8+afIScbZOkI9xejtckflnBYFVCyFxzm2H3YZatb6ohbyRXLtOPj T3SJ+OOoYMlSLd28z727LpRbFFLGYhyWxEXDuQIDAQABo4IBgjCCAX4wDgYDVR0P AQH/BAQDAgEGMBIGA1UdEwEB/wQIMAYBAf8CAQAwfwYIKwYBBQUHAQEEczBxMEEG CCsGAQUFBzAChjVodHRwczovL3d3dy5jaXNjby5jb20vc2VjdXJpdHkvcGtpL2N1 cnRzL2NyY2EyMDk5LmNlcjAsBggrBgEFBQcwAYYgaHR0cDovL3BraWN2cy5jaXNj by5jb20vcGtpL29jc3AwHwYDVR0jBBgwFoAUOJVXDzQjTvOhJiC6FJHHQYgdo1sw UgYDVR0gBEswSTBHBgorBgEEAQkVAR4AMDkwNwYIKwYBBQUHAgEWK2h0dHA6Ly93 d3cuY21zY28uY29tL3N1Y3VyaXR5L3BraS9wb2xpY211cy8wQwYDVR0fBDwwOjA4 oDagNIYyaHR0cDovL3d3dy5jaXNjby5jb20vc2VjdXJpdHkvcGtpL2NybC9jcmNh MjA5OS5jcmwwHQYDVR0OBBYEFOpro7nBE5d+G/s6jWhgBzlfh0j6MA0GCSqGSIb3 DQEBCwUAA4IBAQBcqYEOgAHhGWKndwM901XX2Enh4hjXR5avDg7G/f6Tb9H509dt QW+AeZGEghhwUrw1EeG79tHkncAe+m+64xMC1ttyI1RSyn8rBqQYkXnnCRbtF/Nw pQe5fjvdeIFWJhUI16TOt/ZlkNnWnLsUU1alZmN+J/FhSr8VTJWGRM9gY8hefH8f 5U7LMiDXxsFVHB7R6KGNjvtawrl6W6RKp2dceGxEIIvMahqMWWHHiWOQAOtVrHuE NEjYR/7klLLwdgQF/NNCA2z47pSfMFnBcr8779GqVIbBTpOP2E6+1pBrE2jBNNoc uBG1fgvh1qtJUdBbTziAKNoCo4sted6PW2/U

----END CERTIFICATE----

----BEGIN CERTIFICATE----

MIIEITCCAwmgAwIBAgIKBgEgAwc2RDFGxTANBgkqhkiG9w0BAQsFADAxMR8wHQYD VQQDExZIaWdoIEFzc3VyYW5jZSBTVURJIENBMQ4wDAYDVQQKEwVDaXNjbzAgFw0y MjA4MDExMDEwMDhaGA8yMDk5MDgwOTIwNTgyNlowYjEoMCYGA1UEBRMfUElEOkMx MjAwLTE2UC0yRyBTTjpEVFkyNjMxMDAxNTEOMAwGA1UEChMFQ21zY28xETAPBgNV BAsTCFRQTSBTVURJMRMwEQYDVQQDEwpMSUdIVFNBQkVSMIIBIjANBgkqhkiG9w0B AQEFAAOCAQ8AMIIBCgKCAQEAxHlUxYHK+BoQ3N7sL2u0Tgc3aJuJGnfJbrMHtow3 S8EmyyebeZpdWbfpn/zFH8TC3J9cr1NA4EvYi1Qli9ioSuBlLTjDujhAIPVqZnmy cEDjDG0QI2xPYz+nL83ULkYWWTejarfz4jIPYb9po1veMavEqcEtBQHmPAlbzZyL adRSrj32ph+XlnZ8BKU1BzXq52zcXsz2fICd0evw4O9f2LOMTvzMkn/i8dLx4gy1 $\verb|oP95/EgJLgTydtpZyuA8TG9fy23qrWdJJzM+ZS+6cYr120Eu7j5t5oN3IfAYxMwk||$ 1MRaR+Ft5QWgK/ZBvAd3eme1LB7K48h/nxKBLrtD6aobiQIDAQABo4IBBjCCAQIw DgYDVR0PAQH/BAQDAgXgMAwGA1UdEwEB/wQCMAAwHwYDVR0jBBgwFoAU6mujucET 134b + zqNaGAHOV + HSPowgaEGA1UdEQSBmTCB1qBQBgorBgEEAQkVAwQCoEITQDFGOT1BMDQ5Qzk1MjgxRjU1RjhBNjhBNzJFMjA0OURCQzgyOTAwNjREMjUzMjdEMUI3 QUFBQUFBQUFBQUFBQUFBQUFBQUFBQUFBQUFBQHBQNFBQNFBQNAQ4EFqQUDyWO Gy2I7j1nREZxpDmwbA5+hcQwDQYJKoZIhvcNAQELBQADggEBAA2KBFfaQf5kFaMJ DJtGTyMNfu0hYjELDCwMK04iepo1w8bg9Rlb25LXYX+Rkk1/ZlIo3wLmRYNIddow NQbJwt8Ch27kYyjnHcBWgz/M/DWOfKgEpNlS/Lw3ssLiAN67Y4dqUycUq7QVwG/I zHO8oMu4sWjarkpiMTibJbw6w5PbJhd8meHoaJA1AV0pNKASvsIKoCZI1cRP/RFZ dnRMM9LQUqeVob9hn5WRQ5PrweuALXMkUpmqeHsxSxa0M9w2u7dDYq/oeGZuUk93 9JaBqW4nwZ50MkwK9qLzYFzR5HD+YfJup22DoSdXZhO+gz4MzVCqDp5zsEyDPZ16 XI.N57.74 =

----END CERTIFICATE----

Example 2: The following example displays the SUDI certificate chain with a signature over the certificates using a nonce of 12345:

switchxxxxxx# show platform sudi certificate sign nonce 12345 ----BEGIN CERTIFICATE----MIIDITCCAqmqAwIBAqIJAZozWHjOFsHBMAOGCSqGSIb3DQEBCwUAMC0xDjAMBqNV ${\tt BAoTBUNpc2NvMRswGQYDVQQDExJDaXNjbyBSb290IENBIDIwOTkwIBcNMTYwODA5}$ MjA1ODI4WhqPMjA5OTA4MDkyMDU4MjhaMC0xDjAMBqNVBAoTBUNpc2NvMRswGQYD VQQDExJDaXNjbyBSb290IENBIDIwOTkwggEiMA0GCSqGSIb3DQEBAQUAA4IBDwAw qqEKAoIBAQDTtuM1fq0+9Gflik4axlCK1I2fb3ESCL8+tk8k0XlhfrJ/zlfRbe60 xRP0iUGMKWKBj0IvvWFf4AW/nyzCR8ujTt4a11Eb55SAKXbXYQ7L4YMg+lmZmg/I v3GJEc3HCYU0BsY8g9LuLMvqwiNmAwM2jWzNq0EPArt/F6RiQKq6Ta3e7VIfDZ7J 650A2xASA2FrSe9Vj97KpQReDcm6G7cqFH5f+CrdQ4qwAa4zWNyM3k0pUb637DNd 9m+n6WECyc/IUD+2e+yp21kBZIKH7JvDpu2U7NBPfr52mFX8AfCZgkXV69bp+iYf saH1DvXIfPpNp93zGKUSXxEj4w881t2zAgMBAAGjQjBAMA4GA1UdDwEB/wQEAwIB BjAPBgNVHRMBAf8EBTADAQH/MB0GA1UdDgQWBBQ41VcPNCNO86EmILoUkcdBiB2j WzANBgkqhkiG9w0BAQsFAAOCAQEAjeKZo+4xd05TFtq99nKnWA0J+DmydBOnPMwY lDrKfBKe2wVu5AJMvRjgJIoY/CHVPaCOWH58UTqfji95eUaryQ/s36RKrBgMMlwr WNItxE625PHuaN6EjD1WdWiRMZ2hy8F4FCKz5hgUEvN+PUNZwsPnpU6q3Ay0+11T 4TriwCV8kJx3cWu0NvTypYCCXMscSfLFQR13bo+1z6XNm30SecmrxkmQBVMqjCZM VvAxhxW1iGnYdPRQuNqt0xITzCSERqg3QVVqYnFJUkNVN6j0dmmMVKZh17HgqLnF PKkmBlNQ9hQcNM3CSzVvEAK0CCEo/NJ/xzZ6WX1/f8Df1eXbFg== ----END CERTIFICATE----

----BEGIN CERTIFICATE----

MIIEZzCCA0+gAwIBAgIJCmR1UkzYYXxiMA0GCSqGSIb3DQEBCwUAMC0xDjAMBgNV BAOTBUNpc2NvMRswGQYDVQQDExJDaXNjbyBSb290IENBIDIwOTkwIBcNMTYwODEx MjAyODA4WhqPMjA5OTA4MDkyMDU4MjdaMDExHzAdBqNVBAMTFkhpZ2qqQXNzdXJh bmNlIFNVREkgQ0ExDjAMBgNVBAoTBUNpc2NvMIIBIjANBgkqhkiG9w0BAQEFAAOC ${\tt AQ8AMIIBCgKCAQEAvdzeSWdDI61RZDYRvA6JqaRvQyy6Dx1WaqI82UeKR4ZRn0ef}$ xMGvp4c88/VMS8WSjQO1qo1MfMxqHkcSiFBOULx6Trquw4TrEf9sIuzvgJvDaEa8 IllXPwtPtNqZEIWi8jlinz2uGam93KuGPcioHfruzbDKWHL/HWFGYMgz+OKwhD3J 4NRySknQvUovfV8eWLeVOqW8rbnG3TZxv5VexOiK4jL3ObvsQPuAWUwUoo7nuFlE GTG/VCeyCe/H8+afIScbZOkI9xejtckflnBYFVCyFxzm2H3YZatb6ohbyRXLtOPj T3SJ+OOoYM1SLd28z727LpRbFFLGYhyWxEXDuQIDAQABo4IBgjCCAX4wDgYDVR0P AQH/BAQDAgEGMBIGA1UdEwEB/wQIMAYBAf8CAQAwfwYIKwYBBQUHAQEEczBxMEEG CCsGAQUFBzAChjVodHRwczovL3d3dy5jaXNjby5jb20vc2VjdXJpdHkvcGtpL2Nl cnRzL2NyY2EyMDk5LmNlcjAsBggrBgEFBQcwAYYgaHR0cDovL3BraWN2cy5jaXNj by5jb20vcGtpL29jc3AwHwYDVR0jBBgwFoAUOJVXDzQjTvOhJiC6FJHHQYgdo1sw UgYDVR0gBEswSTBHBgorBgEEAQkVAR4AMDkwNwYIKwYBBQUHAgEWK2h0dHA6Ly93 d3cuY21zY28uY29tL3N1Y3VyaXR5L3BraS9wb2xpY211cy8wQwYDVR0fBDwwOjA4 oDaqNIYyaHR0cDovL3d3dy5jaXNjby5jb20vc2VjdXJpdHkvcGtpL2NybC9jcmNh MjA5OS5jcmwwHQYDVR0OBBYEFOpro7nBE5d+G/s6jWhgBzlfh0j6MA0GCSqGSIb3 DQEBCwUAA4IBAQBcqYEOgAHhGWKndwM901XX2Enh4hjXR5avDg7G/f6Tb9H509dt ${\tt QW+AeZGEghhwUrw1EeG79tHkncAe+m+64xMC1ttyI1RSyn8rBqQYkXnnCRbtF/Nwarder} \\$ pQe5fjvdeIFWJhUI16TOt/ZlkNnWnLsUU1alZmN+J/FhSr8VTJWGRM9gY8hefH8f 5U7LMiDXxsFVHB7R6KGNjvtawrl6W6RKp2dceGxEIIvMahgMWWHHiWOQAOtVrHuE NEjYR/7klLLwdgQF/NNCA2z47pSfMFnBcr8779GqVIbBTpOP2E6+1pBrE2jBNNoc uBG1fgvh1qtJUdBbTziAKNoCo4sted6PW2/U

----END CERTIFICATE----

MIIEITCCAwmgawiBagiKBgegawc2RDFGxTANBgkqhkiG9w0BaQsFaDaxMR8wHQYDVQQDExZIaWdoIEFzc3VyYW5jZSBTVURJIENBMQ4wDAYDVQQKEwVDaXNjbzAgFw0yMjA4MDExMDEwMDhaGA8yMDk5MDgwOTIwNTgyNlowYjEoMCYGA1UEBRMfUElEOkMxMjAwLTE2UC0yRyBTTjpEVFkyNjMxMDaxNTEOMAwGA1UEChMFQ2lzY28xETAPBgNVBASTCFRQTSBTVURJMRMwEQYDVQQDEwpMSUdIVFNBQkVSMIIBIjANBgkqhkiG9w0BAQEFAAOCAQ8AMIIBCGKCAQEAxHlUxYHK+BoQ3N7sL2uOTgc3aJuJGnfJbrMHtow3S8EmyyebeZpdWbfpn/zFH8TC3J9cr1NA4EvYi1Qli9ioSuBlLTjDujhAIPVqZnmycEDjDG0Q12xPYz+nL83ULkYWWTejarfz4jIPYb9polveMavEqcEtBQHmPAlbzZyLadRsrj32ph+Xlnz8BKU1BzXq52zcXsz2fICd0evw409f2LOMTvzMkn/i8dLx4qyloP95/EgJLgTydtpZyuA8TG9fy23qrWdJJzM+Zs+6cYrl20Eu7j5t5oN3IfAYxMwk1MRaR+Ft5QWgk/ZBvAd3emelLB7K48h/nxKBLrtD6aobiQIDAQABo4lBbjCCAQIwDgYDVR0PAQH/BAQDAgXgMAwGA1UdEwEB/wQCMAAwHwYDVR0jBBgwFoAU6mujucET34b+zqNaGAHOV+HSPowgaEGA1UdEQSBmTCBlqBQBgcnBgEEAQkVAwQCoEITQDFGOT1BMDQ5QzkIMjgxRjU1RjhBNjhBNzJFMjAOOURCQzgyOTAwNjREMjUZMjdEMUI3RDkzQ0IxNDc3MzdBMTmqQqYJKwYBBAEJFQIDoDUTMONoaXBJRD1Vd01DQUFBQUFB

 $\label{eq:ca45d415eace3b6cc09d84026dfcb4d1fbf614c319d3d28a3b924f6f432b26254aeca9c22aa150ccfadd78bf2c4326d89f863eb52893e2cf3b9ddcd6d1f8ff00ea5830eec1281446c5ab5c92eee00306d25a1c75a6b0deaf9fee88b2b62d5e341bbe2fdbfb4cf4b5720d74f4e63f16c2012baadb5251a9dbc871c4977335b8152715a95b48003d139e9e7e19fb7aa84f62e1a8c0e007a15f2a312c839b96170e05e58a0e0f9ee78a28ffc9ddeb73fc7fdde0cbb556fa17aeb0d984bb4afa435fe40599de1c222bdd132112ecb23ea1ca7ea78b40b2fb39d04867c05b0a7965e2180ba79688da06864be541f4956db963e48ad26f817bb56465f11e5ff89e128$

show reload

To display whether there is a pending reload for status of the device, use the **show reload** Privileged EXEC mode command.

Syntax

show reload

Parameters

This command has no arguments or keywords.

Command Mode

Privileged EXEC mode

User Guidelines

You can use this command to display a pending software reload. To cancel a pending reload, use this command with the **cancel** parameter.

Example

The following example displays that reboot is scheduled for 00:00 on Saturday, April-20.

switchxxxxxx> show reload

Reload scheduled for 00:00:00 UTC Sat April 20 (in 3 hours and 12 minutes)

show sessions

To display open Telnet sessions, use the **show sessions** User EXEC mode command.

Syntax

show sessions

Parameters

This command has no arguments or keywords.

Default Usage

None

Command Mode

User EXEC mode

User Guidelines

The **show sessions** command displays Telnet sessions to remote hosts opened by the current Telnet session to the local device. It does not display Telnet sessions to remote hosts opened by other Telnet sessions to the local device.

Example

The following example displays open Telnet sessions.

switchxxxxxx> show sessions				
Connection	Host	Address	Port	Byte
1 2	Remote router 172.16.1.2	172.16.1.1 172.16.1.2	23 23	89 8

The following table describes significant fields shown above.

Field	Description
Connection	The connection number.
Host	The remote host to which the device is connected through a Telnet session.
Address	The remote host IP address.
Port	The Telnet TCP port number.
Byte	The number of unread bytes for the user to see on the connection.

show software versions

To display system software version information use the following, **show software versions** Privileged EXEC mode command.

Syntax

show software versions [unit unit-id] [detailed]

Parameters

• **Detailed** - (optional) Display additional software version also related to BootRom booton, CPLD, PoE controller, OpenSSH and OpenSSL.

Defaults

Displays the following software version info - image, bootloader and kernel.

Command Mode

Privileged EXEC mode

User Guidelines

The **show software versions** command displays the version information of device image, BootRom, booton, bootloader and kernel as well as relevant software modules.

Examples

Example 1: The following example displays basic device software version information:

switchxxxxxx# show software versions

Active-image version:	1.2.3.4
In-active-image version:	5.6.7.8 (active after reboot)
Kernel version:	Linux 3.10.70
Unit 1 Bootloader version:	U-Boot 2013.01 (Sep 02 2018 - 00:32:52)

Example 2: The following example displays detailed device software version information

switchxxxxxx# show software versions detailed

Active-image version:	1.2.3.4
In-active-image version:	5.6.7.8 (active after reboot)
Kernel version:	Linux 3.10.70
OpenSSL version:	1.1.0b
OpenSSH version:	7.3p1

BootRom version:	1.20
Booton version:	6.13
Bootloader version:	U-Boot 2013.01 (Sep 02 2018 - 00:32:52)
CPLD version:	9.29
PoE controller version:	21.190.18.3

show system

Use the **show system** User EXEC mode command to display system information.

Syntax

show system [unit unit-id]

Parameters

unit-id—Specifies the unit number. (Range: 1-4)

Command Mode

User EXEC mode

User Guidelines

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

The System MAC address output displays device base MAC address (not configurable by user).

The System Object ID output displays the unique System Object ID (not configurable by user).

The fan output displays, per each unit, the device fan(s) status summary. The value of fail indicates that one or more of the fans is not functioning properly. To view specific status per each fan in device use the command show system fans, on page 30. The sensor and temperature output displays, per each unit, the temperature level and general status of all sensors. The value of fail for sensors indicates one ore more sensors are not functioning propery. To view per sensor status, temperature read and threshold levels, use command show system sensors, on page 32.

Example 1: The following example displays system information of a stack.

```
switchxxxxxx# show system
System Description:
                                   CBS350-48P-4X
System Up Time (days, hour:min:sec):
                                   03,02:27:46
System Contact:
System Name:
                                   switch151400
System Location:
System MAC Address:
                                   00:24:ab:15:14:00
System Object ID:
                                     1.3.6.1.4.1.9.6.1.1006.48.5
Unit Type
    CBS350-48P-4X
1
         CBS350-48P-4X
Unit Fans Status
----
       OK
2
      fail
Unit.
       Sensor Status
                              Temperature Level
1
            OK
                               Warning
            Fail
                                Warning
```

Example 2: The following examples displays system information for unit 2 in a stack.

System Contact: System Name: System Location: System MAC Address: System Object ID:

00:99:88:66:33:33

1.3.6.1.4.1.674.10895.3031

Fans Status: OK

#Editor: For systems with no temperature sensors, the temperature in the following line

will be blank and the Status will be $\ensuremath{\text{N}/\text{A}}$

Unit Sensor Status Temperature Level Critical ----

2 Fail Critical

show system languages

To display the list of supported languages, use the **show system languages** User EXEC mode command.

Syntax

show system languages

Parameters

This command has no arguments or keywords.

Default Usage

None

Command Mode

User EXEC mode

Example

The following example displays the languages configured on the device. Number of Sections indicates the number of languages permitted on the device.

switchxxxxxx> show system languages				
Language Name	Unicode Name	Code		
English	English	en-US		
Japanese	μùÑμ£⅓F¬P	ja-JP		

show system tcam utilization

To display the Ternary Content Addressable Memory (TCAM) utilization, use the **show system tcam utilization** EXEC mode command.

Syntax

show system tcam utilization[*unit unit-id*]

Parameters

unit-id—(Optional) Specifies the unit number. (Range: 1–4)

Default Usage

None

Command Mode

User EXEC mode

Example

The following example displays TCAM utilization information.

switchxxxxxx> show system tcam utilization

System:	System: 75%		
Unit	TCAM utilization [%]		
1	58		
2	57		

show services tcp-udp

To display information about the active TCP and UDP services, use the **show services tcp-udp** Privileged EXEC mode command.

Syntax

show services tcp-udp

Parameters

This command has no arguments or keywords.

Command Mode

Privileged EXEC mode

User Guidelines

The output does not show sessions where the device is a TCP/UDP client.

Examples

	switchxxxxxx> show services tcp-udp Type Local IP Address Remote IP address Service Name State					
TCP	All:22	SSH	LISTEN			
TCP	All:23	Telnet	LISTEN			
TCP	All:80	HTTP	LISTEN			
TCP	All:443	HTTPS	LISTEN			
TCP	172.16.1.1:23	172.16.1.18:	8789	Telnet	ESTABLIS	HED
TCP6	All-23	Telnet	LISTEN			
TCP6	fe80::200:b0ff:	fe00:0-23		Telnet		
fe	80::200:b0ff:fe00	:0-8999		ESTABLISHED		
UDP	All:161	SNMP				
UDP6	A 11-161	SNMP				

show tech-support

To display system and configuration information that can be provided to the Technical Assistance Center when reporting a problem, use the **show tech-support** User EXEC mode command.

Syntax

show tech-support [config | memory]

Parameters

- memory—(Optional) Displays memory and processor state data.
- config—(Optional) Displays switch configuration within the CLI commands supported on the device.

Default Configuration

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

Command Types

Switch command.

Command Mode

User EXEC mode

User Guidelines

Caution: Avoid running multiple **show tech-support** commands on a switch or multiple switches on the network segment. Doing so may cause starvation of some time sensitive protocols, like STP.

The **show tech-support** command may time out if the configuration file output takes longer to display than the configured session time out time. If this happens, enter a **set logout timeout** value of **0** to disable automatic disconnection of idle sessions or enter a longer timeout value.

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

If the user specifies the **memory** keyword, the **show tech-support** command displays the following output:

- Flash info (dir if exists, or flash mapping)
- Output of command show bootvar
- Buffers info (like print os buff)
- Memory info (like **print os mem**)
- Proc info (like print OS tasks)
- Versions of software components

• Output of command show cpu utilization

show system fans

To view the status of the fans on the device, use the **show system fans** User EXEC mode command.

Syntax

show system fans [unit-id]

Parameters

unit-id—(Optional) Specifies the unit number to be reloaded. (Range: 1-4). If unspecified, displays information for all the units.

Command Mode

User EXEC mode

User Guidelines

Use the **show system fans** command to display detailed information per fan. The following information will be displayed:

- Per fan actual RPM.
- Per fan status Possible values are: OK, fail; read fail; .

Examples

Display for units whose hardware supports variable fan speed.

switchxxxxxx> show system fans

Unit ID: 1			
Unit/fan ID	Fan Actual Speed (RPM)	Fan Status =====	
1/1	6000	ОК	
1/2	NA	Fail	
1/3	NA	Read fail	
1/4	4000	ОК	

Unit ID: 2		
Unit/fan ID	Fan Actual Speed (RPM)	Fan Status =====
2/1	8000	OK

2/2	8000	OK
2/3	8000	OK

Unit ID: 3		
Unit/fan ID	Fan Actual Speed (RPM)	Fan Status =====
3/1	5000	OK
3/2	4500	OK
3/3	5000	OK

Display for devices that do not support display of fan speed:

switchxxxxxx> show system fans

Unit ID: 1	
Unit/fan ID	Fan Status =====
=======	
1/1	OK
1/2	Fail
1/3	Read fail
1/4	OK

Unit ID: 2	
Unit/fan ID	Fan Status =====
======	
2/1	ОК
2/2	OK
2/3	ОК

Unit ID: 3	
Unit/fan ID	Fan Status =====
======	
3/1	OK
3/2	OK
3/3	OK

show system sensors

To view the temperature sensor status, use the **show system sensors** User EXEC mode command.

Syntax

show system sensors

Parameters

This command has no arguments or keywords.

Default Usage

None

Command Mode

User EXEC mode

User Guidelines

Use the **show system sensors** command to display detailed sensor information, per each device sensor. Information is displayed per each unit in the stack.

The following information will be displayed:

- · Sensor status.
- Sensor temperature reading
- Warning and Critical Alarm thresholds (temperature in Celsius)
- Location of specific sensor. Possible locations are: PP (Packet processor sensor); PCB (Sensor located on the Printed board circuit); PHY (PHY sensor); POE (Poe chip sensor).

Examples

Display for Stack systems with multiple sensor statuses

switchxxxxxx> show system sensors

Unit/ Sensor	Sensor status	Temperature (C)	Warning Alarm Temp (C)	Critical Alarm Temp (C)	Sensor Location
1/1	OK	44	50	65	PCB
1/2	Failure	NA	65	75	PP
2/1	OK	65	60	70	PHY

show system id

To display the system identity information, use the **show system id** User EXEC mode command.

Syntax

show system id [unit unit-id]

Parameters

unit unit-id—(Optional) Unit number or all. If unspecified, defaults to all. (Range: 1 – 4)

Command Mode

User EXEC mode

Example

The following example displays the system identity information.

```
switchxxxxxx> show system id
serial number 114
```

show ports leds configuration

To display whether the LEDs of the ports are enabled or disabled, use the **show port leds configuration** User EXEC mode

command.

Syntax

show ports leds configuration

Parameters

This command has no arguments or keywords.

Command Mode

User EXEC mode

Example 1: The following example displays the status of the port's LEDs when they are turned on.

```
switchxxxxxx> show ports leds configuration
Port leds are not disabled
```

Example 2: The following example displays the status of the port LEDs when they are turned off.

```
switchxxxxxx> show port leds configuration
Port leds are disabled
```

show users

To display information about the active users, use the **show users** User EXEC mode command.

Syntax

show users

Parameters

This command has no arguments or keywords.

Default Usage

None

Command Mode

User EXEC mode

Example

The following example displays information about the active users.

switchxxxxxx> show users		
Username	Protocol	Location
Bob	Serial	172.16.0.1
John	SSH	172.16.0.8
Robert	HTTP	172.16.1.7
Betty	Telnet	172.16.1.6
Sam		

show hardware version

To display hardware version information, use the **show hardware version** User EXEC mode command.

Syntax

show hardware version [unit unit-id]

Parameters

• *unit*—(Optional) Specifies the unit number. (Range: 1-4)

Default Usage

Show hardware version on all units if no unit is specified.

Command Mode

User EXEC mode

Example

The following example displays hardware version information.

switchxxxxxx> show hardware version
Unit HW Version
---1 1.0.0
2 1.0.0.

show hardware components

To display device hardware component information, use the **show hardware components** Privileged EXEC mode command.

Syntax

show hardware components

Parameters

This command has no arguments or keywords.

Command Mode

Privileged EXEC mode

User Guidelines

The **show hardware components** command displays information for device components such as packet processor(s), CPU, flash, PHYs and other hardware components.

The information displayed per each component depends on the information available for that component. Example for information that is displayed: vendor name, manufacturing part number (MPN), and HW reversion.

Examples

Example 1: The following example displays information on device hardware components:

switchxxxxx# show hardware components				
MAC info:	MAC info:			
Unit ID/ MAC ID	Vendor	MPN	Revision	
1	Marvell	98DX3236	A0	
2	Marvell	98DX3336	A0	

CPU info:		
Unit ID	Vendor	MPN
1	Marvell	88F6820 (Armada ARMv7)
2	Marvell	MV78230

PHY info:			
Unit ID/PHY ID	Vendor	MPN	Revision
1	Marvell	88E1680	A0

2	Marvell	88E3222	NS
2/1	Marvell	88E3680	A0

Flash info:		
Unit ID	Vendor	MPN
1	Micron	JS28F640J3D-75 (65536 Kbytes)
2	MXIC Macronix	MX30LF2G18AC-TI (65536 Kbytes)

system light

To light the networks port LEDs of a device, or of a specific unit in stack, use the **system light** EXEC mode command.

Syntax

system light [unit unit-id] [duration seconds]
system light stop

Parameters

• unit-id—Specify unit number or if left blank, all will light up.



Note

Relevant for stackable models only.

- **duration** *seconds*—The number of seconds to light the LEDs. If unspecified, defaults to 60 seconds. (Range: 5–3600)
- **stop**—Stop lighting the LEDs.

Command Mode

User EXEC mode

Example

The following example lights the system LED for 6 seconds.

switchxxxxxx> system light duration 65

system recovery

To set the system to automatically recover from temperature that reached the critical threshold, use the **system recovery** Global Configuration mode command.

To return to disable automatic recovery, use the **no** form of the command.

Syntax

system recovery

no system recovery

Parameters

This command has no arguments or keywords.

Default Configuration

System recovery is enabled by default.

Command Mode

Global Configuration mode

Example

switchxxxxxx(config)# no system recovery

system reset-button disable

Use the **system reset-button disable** Global Configuration mode command to disable the reset functionality of the device reset button. To re-enable the reset button functionality use the **no** form of the command.

Syntax

system reset-button disable no system reset-button disable

Parameters

This command has no arguments or keywords.

Default Configuration

By default the device reset button functionality is enabled.

Command Mode

Global Configuration mode

User Guidelines

Use the **system reset-button disable** command to disable the reset functionality of the device reset button. When this command is applied the device will not reload or reset to factory default even if the reset button is pressed. This is useful to prevent unwanted device reload or setting to factory defaults due to accidental pressing of the button.

If the reset button has other functionalities, besides reload and reset to factory default, they will not be effected by this setting.

Use the no form of command to re-activate the reset button and allow device reload and reset to factory default by pressing the button.

Examples

switchxxxxxx(config) # system reset-button disable

system reset-button disable