Oracle Integrated Lights Out Manager (ILOM) 3.0

Supplement for the Sun Datacenter InfiniBand Switch 36 Firmware Version 2.0

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Contents

Using This Documentation

This supplement provides detailed information regarding the installation, administration, and reference of Oracle Integrated Lights Out Manager (ILOM) 3.0 firmware for the Sun Datacenter InfiniBand Switch 36 from Oracle. This document is written for system administrators and authorized service providers who have experience with the Oracle ILOM firmware.

Product Notes

For late-breaking information an known issues about this product, refer to the product notes at:

`http://www.oracle.com/pls/topic/lookup?ctx=E26698-01`

Related Documentation

Documentation	Links
All Oracle products	http://www.oracle.com/documentation
Sun Datacenter InfiniBand Switch 36	http://www.oracle.com/pls/topic/lookup?ctx=E26698-01
Oracle Integrated Lights Out Manager (ILOM) 3.0	http://www.oracle.com/pls/topic/lookup?ctx=E19860-01

Feedback

Provide feedback on this documentation at:

http://www.oracle.com/goto/docfeedback

Support and Accessibility

Description	Links
Access electronic support through My Oracle Support	http://support.oracle.com For hearing impaired: http://www.oracle.com/accessibility/support.html
Learn about Oracle's commitment to accessibility	http://www.oracle.com/us/corporate/accessibility/index.html

Understanding Oracle ILOM on the Switch

These topics provide an overview of Oracle ILOM and its implementation on the switch.

Related Information

- "Administering Oracle ILOM (CLI)" on page 33
- "Administering Oracle ILOM (Web)" on page 117
- "Using the Fabric Monitor" on page 171
- "Administering Oracle ILOM (SNMP)" on page 191
- "Administering Hardware (IPMI)" on page 249
- "Understanding Oracle ILOM Commands" on page 257

Oracle ILOM Overview

This document provides basic Oracle ILOM 3.0 information as it pertains to the switch. See "Related Documentation" on page xviii.

Oracle ILOM is a means of remotely managing a hardware device through a SP. For the switch, the SP is the Komtron management controller within the switch. Oracle ILOM enables monitoring and controlling of users, hardware, services, protocols, and configuration. You can use Oracle ILOM to perform tasks that could otherwise be accomplished with the hardware commands.

Oracle ILOM has two primary interfaces, a command line and a web interface. The Oracle ILOM web interface enables point-and-click administration of the Oracle ILOM components and services. You access these interfaces using the default `ilom-admin` or `ilom-operator` user accounts. The `ilom-admin` account is for Oracle ILOM system administration. This account is fully privileged to add, delete, create, enable, disable, and so on, the Oracle ILOM targets, components, and services. The `ilom-operator` account is for users to only monitor the many aspects of Oracle ILOM.

Additionally, the Oracle ILOM implementation supports industry-standard SNMP and IPMI interfaces.

When you upgrade the management controller firmware to version 1.1.2 or higher, Oracle ILOM 3.0 support is installed. An additional benefit of Oracle ILOM is that future management controller and I4 firmware upgrades are greatly simplified.

Related Information

- "Understanding Oracle ILOM Commands" on page 257
- "Web Interface Overview" on page 117
- "Accessing Oracle ILOM From the CLI" on page 34
- "Access Oracle ILOM From the Web Interface" on page 120
- "Upgrading the Switch Firmware Through Oracle ILOM (CLI)" on page 107

Supported Features

For the implementation of Oracle ILOM 3.0 on the management controller, these features are supported:

- **Interfaces** – These interfaces are supported:
  - **CLI** – Succinct and human-readable administration interface.
  - **BI** – Browser interface or web interface. User-friendly administration interface.
  - **SNMP** – Advanced user interface for those experienced with SNMP.
  - **IPMI** – An interface between hardware devices.
- **Event and fault monitoring** – These events are logged:
  - **Oracle ILOM events**
  - **Switch-specific events** – Non-Oracle ILOM events are also logged into the Oracle ILOM event log.

- **Firmware upgrade** – I4 switch chip and management controller firmware upgrade from a single repository file.
- **Fabric Monitor** – Browser interface to monitor switch configuration, status, and activity.
- **Oracle ILOM support** – These features are supported for this implementation of Oracle ILOM:
  - **User management** – `ilom-admin`, `ilom-operator`, and user-created Oracle ILOM accounts.
  - **Network management** – IP address, netmask, switch, and other parameters.
  - **Session monitoring** – Monitor active user sessions.
  - **Service management** – HTTP, HTTPS, SNMP, and others.
  - **Alert management** – Manage propagation of SNMP alerts, IPMI PETs, and Email alerts.
  - **DNS** – Domain name services are provided.
  - **SMTP management** – Configure SMTP client setting to support email alerts.
  - **Snapshot feature** – Take a *snapshot* of the state of Oracle ILOM.
  - **Event management** – Manage the local Oracle ILOM event log.
  - **Remote syslog** – Forward the Syslog to a remote server.
  - **Service Tag** – Support for the Service Tag program.
  - **Back up and restore Oracle ILOM configuration** – Save and restore the state of Oracle ILOM.
  - **Modification of back up and restore** – Switch-specific configuration information can be selectively backed up or restored.
  - **NTP management** – Automatically set time with NTP servers.
  - **Timezone management** – Configure the correct timezone for the management controller.
- **Start OS shell from Oracle ILOM CLI** – Toggle between the Oracle ILOM CLI and the Linux OS.
- **Sensors**
  - **Aggregate sensor** – Reports general health of switch, power redundancy, cooling redundancy status, etc.
  - **Fan sensors** – Return the speed of the fans.
  - **Power supply sensors** – Report the state of the power supplies.
  - **Voltage sensors** – Return the various voltages on the main board.
  - **Temperature sensors** – Report the temperatures within the switch.
- **Indicators**
- **FRU ID** – FRU identification information display.

Related Information

- "Administering Oracle ILOM (CLI)" on page 33
- "Administering Oracle ILOM (Web)" on page 117

Understanding Oracle ILOM Targets

These topics describe the Oracle ILOM targets and their properties.

Related Information

- "Understanding Oracle ILOM Commands" on page 257

Oracle ILOM Target Overview

Oracle ILOM targets represent all software and hardware components and services managed by Oracle ILOM. Targets are identified by a hierarchal path very similar to the directories and files of a file system. Each target has properties and commands that can affect it.

Target properties are of two types:

- **Read and write** – Display the value of these properties with the `show` command. Change the properties with the `set` command. A typical read and write property would be an IP address.

- **Write only** – You cannot display the value of these properties with the `show` command. The value is typically displayed as `(Cannot show property)`. When you set the property value with the `set` command, it initiates a one-time action. For example, when the `commitpending` property is set to `true`, it copies the pending network properties into the standard network properties.

Target commands are specific to the permissions of the user that wants to affect the target. For example, the `ilom-admin` user can use the `show` or `set` command to affect an IP address property, but the `ilom-operator` user can only use the `show` command.

Related Information

- "`show` Command" on page 267
- "`set` Command" on page 266
- "Oracle ILOM Targets and Descriptions" on page 5
- "Oracle ILOM General System Targets and Properties" on page 8
- "Oracle ILOM Fan Targets and Properties" on page 11
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Oracle ILOM Targets and Descriptions

This table lists the Oracle ILOM targets supported in the switch and provides a short description of the target.

Oracle ILOM Target	Description
`/`	Hierarchy root
`/SYS`	Sensors and FRU information
`/SYS/CABLE_ATTN`	Aggregate sensor – Overall connector hardware state
`/SYS/CABLE_CONN_STAT`	Aggregate sensor – Change in cable connectivity state
`/SYS/CHASSIS_STATUS`	Aggregate sensor – Overall chassis state

Oracle ILOM Target	Description
/SYS/COOLING_ATTN	Aggregate sensor – Overall cooling state
/SYS/COOLING_REDUN	Aggregate sensor – Cooling redundancy state
/SYS/Fabric_Mgmt	Fabric management Linux shell (ilom-admin user)
/SYS/FAN*x*	Fan *x* information
/SYS/FAN*x*/PRSNT	Presence of fan *x*
/SYS/FAN*x*/TACH	Speed of fan *x*
/SYS/I_ATTENTION	State of Attention LED
/SYS/I_LOCATOR	State of Locator LED
/SYS/I_POWER	State of Power LED
/SYS/IBDEV_ATTN	Aggregate sensor – Overall I4 switch chip state
/SYS/MB	Motherboard information
/SYS/MB/BOOT_I4A	Status of I4 switch chip boot
/SYS/MB/T_BACK	Temperature at rear of chassis
/SYS/MB/T_FRONT	Temperature at front of chassis
/SYS/MB/T_I4A	Temperature of the I4 switch chip
/SYS/MB/T_SP	Temperature of the management controller
/SYS/MB/V_1.8V	Voltage of the main 1.8V source
/SYS/MB/V_1.8VOK	State of the main 1.8V source
/SYS/MB/V_2.5V	Voltage of the main 2.5V source
/SYS/MB/V_2.5VOK	State of the main 2.5V source
/SYS/MB/V_3.3VMain	Voltage of the main 3.3V source
/SYS/MB/V_3.3VMainOK	State of the main 3.3V source
/SYS/MB/V_3.3VStby	Voltage of the standby 3.3V source
/SYS/MB/V_5V	Voltage of the main 5V source
/SYS/MB/V_5VOK	State of the main 5V source
/SYS/MB/V_12V	Voltage of the main 12V source
/SYS/MB/V_BAT	Voltage of the battery
/SYS/MB/V_ECB	State of the Electronic Circuit Breaker
/SYS/MB/V_I41.2V	Voltage of the I4 switch chip
/SYS/MB/V_I41.2VOK	State of the I4 switch chip 1.2V source
/SYS/Platform_CLI	Comprehensive Linux shell

Oracle ILOM Target	Description
/SYS/POWER_ATTN	Aggregate sensor – Overall power state
/SYS/POWER_REDUN	Aggregate sensor – Power redundancy state
/SYS/PSU*x*	Power supply *x* information
/SYS/PSU*x*/PRSNT	Presence of power supply *x*
/SYS/PSU*x*/ALERT	State of power supply *x*
/SYS/PSU*x*/AC_PRESENT	Presence of AC input power for power supply *x*
/SYS/TEMP_ATTN	Aggregate sensor – Overall temperature state
/SYS/Switch_Diag	Diagnostic Linux shell (ilom-operator and ilom-admin users)
/SP	Management controller or Host
/SP/alertmgmt	Alert rule management
/SP/alertmgmt/rules	Alert rules
/SP/cli	CLI
/SP/clients	Clients that connect to external services
/SP/clients/dns	DNS client configuration
/SP/clients/ntp	NTP configuration
/SP/clients/ntp/server	NTP server configuration
/SP/clients/smtp	SMTP email client configuration
/SP/clients/syslog	syslogd management
/SP/clients/syslog/1	syslogd remote logging management 1
/SP/clients/syslog/2	syslogd remote logging management 2
/SP/clock	Clock management
/SP/config	Configuration back up and restore settings
/SP/diag/snapshot	State of switch snapshot
/SP/logs	Log events
/SP/logs/event	Designations for event log
/SP/logs/event/list	Designations for event log
/SP/network	External network interface
/SP/services	Available services
/SP/services/http	HTTP service
/SP/services/https	HTTPS service
/SP/services/https/ssl	HTTPS SSL certificate settings

Oracle ILOM Target	Description
/SP/services/https/ssl/custom_cert	Custom SSL certificate settings
/SP/services/https/ssl/custom_key	Custom SSL private key settings
/SP/services/https/ssl/default_cert	Default SSL certificate settings
/SP/services/ipmi	Management of the IPMI service
/SP/services/servicetag	Service Tag configuration
/SP/services/snmp	SNMP agent service configuration
/SP/services/snmp/communities	SNMP communities
/SP/services/snmp/communities/private	SNMP community
/SP/services/snmp/communities/public	SNMP community
/SP/services/snmp/users	SNMP users
/SP/sessions	Session description
/SP/users	User description

Related Information

- "Oracle ILOM Target Overview" on page 4
- "Oracle ILOM General System Targets and Properties" on page 8
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Oracle ILOM General System Targets and Properties

This table lists the Oracle ILOM /SYS targets and their properties. Targets without properties are not listed.

Target and Path	Properties
/SYS	• type = Host System • ipmi_name = SYS • product_name = Sun Datacenter InfiniBand Switch 36 • product_part_number = 5111402 • product_serial_number = 0110SJC-1099XY9992 • product_manufacturer = Sun Microsystems
/SYS/CABLE_ATTN	• type = OEM • ipmi_name = CABLE_ATTN • class = Discrete Sensor • value = State Deasserted • alarm_status = cleared
/SYS/CABLE_CONN_STAT	• type = OEM • ipmi_name = CABLE_CONN_STAT • class = Discrete Sensor • value = State Deasserted • alarm_status = cleared
/SYS/CHASSIS_STATUS	• type = OEM • ipmi_name = CHASSIS_STATUS • class = Discrete Sensor • value = State Deasserted • alarm_status = cleared
/SYS/COOLING_ATTN	• type = OEM • ipmi_name = COOLING_ATTN • class = Discrete Sensor • value = State Deasserted • alarm_status = cleared
/SYS/COOLING_REDUN	• type = OEM • ipmi_name = COOLING_REDUN • class = Discrete Sensor • value = State Deasserted • alarm_status = cleared
/SYS/IBDEV_ATTN	• type = OEM • ipmi_name = IBDEV_ATTN • class = Discrete Sensor • value = State Deasserted • alarm_status = cleared

Target and Path	Properties
/SYS/MB	• type = Motherboard • ipmi_name = MB • product_name = Sun Datacenter InfiniBand Switch 36 • product_part_number = 5111402 • product_serial_number = 0110SJC-1099XY9992 • product_manufacturer = Sun Microsystems • fru_name = Chassis and Motherboard • fru_description = Chassis and Motherboard • fru_extra_1 = ComEx: manufacturing_date - 2010.01.26 • fru_extra_2 = ComEx: serial_number - NCD4J0289 • fru_extra_3 = ComEx: hardware_rev - 0x6, firmware_rev - 0x102 • fru_extra_4 = ComEx: bios_version - NOW1R112 , bios_date - 04/24/2009
/SYS/MB/BOOT_I4A	• type = OEM • ipmi_name = MB/BOOT_I4A • class = Discrete Sensor • value = State Deasserted • alarm_status = cleared
/SYS/POWER_ATTN	• type = OEM • ipmi_name = POWER_ATTN • class = Discrete Sensor • value = State Deasserted • alarm_status = cleared
/SYS/POWER_REDUN	• type = OEM • ipmi_name = POWER_REDUN • class = Discrete Sensor • value = State Deasserted • alarm_status = cleared
/SYS/TEMP_ATTN	• type = OEM • ipmi_name = TEMP_ATTN • class = Discrete Sensor • value = State Deasserted • alarm_status = cleared

Related Information

- "Oracle ILOM Target Overview" on page 4
- "Oracle ILOM Targets and Descriptions" on page 5
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Oracle ILOM Fan Targets and Properties

This table lists the Oracle ILOM `/SYS/FAN`*x* targets and their properties. Targets without properties are not listed.

Note – The `/SYS/FAN`*x* target is only available for currently present fans.

Target and Path	Properties
`/SYS/FAN`*x*	• `type = Rear Fan`
`/SYS/FAN`*x*`/PRSNT`	• `type = Entity Presence` • `ipmi_name = FAN1/PRSNT` • `class = Discrete Sensor` • `value = Present` • `alarm_status = cleared`
`/SYS/FAN`*x*`/TACH`	• `type = Fan` • `ipmi_name = FAN1/TACH` • `class = Threshold Sensor` • `value = 12208.000 RPM` • `upper_critical_threshold = 26705.000 RPM` • `lower_noncritical_threshold = 6322.000 RPM` • `alarm_status = cleared`

Related Information

- "Oracle ILOM Target Overview" on page 4
- "Oracle ILOM Targets and Descriptions" on page 5
- "Oracle ILOM General System Targets and Properties" on page 8
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- "Oracle ILOM Power Supply Targets and Properties" on page 13
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Oracle ILOM Indicator Targets and Properties

This table lists the Oracle ILOM `/SYS/I_`*indicator* indicator targets and their properties. Targets without properties are not listed.

Target and Path	Properties
`/SYS/I_ATTENTION`	• `type = Indicator` • `ipmi_name = I_ATTENTION` • `value = Off`
`/SYS/I_LOCATOR`	• `type = Indicator` • `ipmi_name = I_LOCATOR` • `value = Off`
`/SYS/I_POWER`	• `type = Indicator` • `ipmi_name = I_POWER` • `value = On`

Related Information

- "Oracle ILOM Target Overview" on page 4
- "Oracle ILOM Targets and Descriptions" on page 5
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Oracle ILOM Power Supply Targets and Properties

This table lists the Oracle ILOM /SYS/PSU*x* targets and their properties. Targets without properties are not listed.

Note – The /SYS/PSU*x* target is only available for currently present power supplies.

Target and Path	Properties
/SYS/PSU*x*	• type = Power Supply • ipmi_name = PSU0 • fru_name = A236 • fru_description = Power Supply • fru_manufacturer = Delta Energy Systems • fru_version = 01 • fru_part_number = 3002234 • fru_serial_number = 006541 • fru_extra_1 = sun_spec_part_number - 885-1390-01 • fru_extra_2 = ipmi_serial_number - 1841DET-0915B26541 • fru_extra_3 = ipmi_part_number - 300-2234-01
/SYS/PSU*x*/PRSNT	• type = Entity Presence • ipmi_name = PSU0/PRSNT • class = Discrete Sensor • value = Present • alarm_status = cleared
/SYS/PSU*x*/ALERT	• type = OEM • ipmi_name = PSU0/ALERT • class = Discrete Sensor • value = State Deasserted • alarm_status = cleared
/SYS/PSU*x*/AC_PRESENT	• type = OEM • ipmi_name = PSU0/AC_PRESENT • class = Discrete Sensor • value = State Deasserted • alarm_status = cleared

Related Information

- "Oracle ILOM Target Overview" on page 4

Oracle ILOM Temperature Targets and Properties

This table lists the Oracle ILOM `/SYS/MB` temperature parameter targets and their properties. Targets without properties are not listed.

Target and Path	Properties
`/SYS/MB/T_BACK`	• `type = Temperature` • `ipmi_name = MB/T_BACK` • `class = Threshold Sensor` • `value = 27.000 degree C` • `upper_nonrecov_threshold = 80.000 degree C` • `upper_critical_threshold = 70.000 degree C` • `alarm_status = cleared`

Target and Path	Properties
/SYS/MB/T_FRONT	• type = Temperature • ipmi_name = MB/T_FRONT • class = Threshold Sensor • value = 28.000 degree C • upper_nonrecov_threshold = 80.000 degree C • upper_critical_threshold = 70.000 degree C • alarm_status = cleared
/SYS/MB/T_I4A	• type = Temperature • ipmi_name = MB/T_I4A • class = Threshold Sensor • value = 45.000 degree C • upper_nonrecov_threshold = 100.000 degree C • upper_critical_threshold = 70.000 degree C • alarm_status = cleared
/SYS/MB/T_SP	• type = Temperature • ipmi_name = MB/T_SP • class = Threshold Sensor • value = 41.000 degree C • upper_nonrecov_threshold = 70.000 degree C • upper_critical_threshold = 60.000 degree C • alarm_status = cleared

Related Information

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Oracle ILOM Voltage Targets and Properties

This table lists the Oracle ILOM /SYS/MB voltage parameter and state targets, and their properties. Targets without properties are not listed.

Target and Path	Properties
/SYS/MB/V_1.8V	• type = Voltage • ipmi_name = MB/V_1.8V • class = Threshold Sensor • value = 1.785 Volts • upper_nonrecov_threshold = 1.979 Volts • upper_critical_threshold = 1.940 Volts • upper_noncritical_threshold = 1.891 Volts • lower_noncritical_threshold = 1.697 Volts • lower_critical_threshold = 1.639 Volts • lower_nonrecov_threshold = 1.591 Volts • alarm_status = cleared
/SYS/MB/V_2.5V	• type = Voltage • ipmi_name = MB/V_2.5V • class = Threshold Sensor • value = 2.480 Volts • upper_nonrecov_threshold = 2.878 Volts • upper_critical_threshold = 2.679 Volts • upper_noncritical_threshold = 2.586 Volts • lower_noncritical_threshold = 2.387 Volts • lower_critical_threshold = 2.282 Volts • lower_nonrecov_threshold = 2.083 Volts • alarm_status = cleared
/SYS/MB/V_3.3VMain	• type = Voltage • ipmi_name = MB/V_3.3VMain • class = Threshold Sensor • value = 3.283 Volts • upper_nonrecov_threshold = 3.540 Volts • upper_critical_threshold = 3.454 Volts • upper_noncritical_threshold = 3.403 Volts • lower_noncritical_threshold = 3.112 Volts • lower_critical_threshold = 3.061 Volts • lower_nonrecov_threshold = 2.958 Volts • alarm_status = cleared

Target and Path	Properties
/SYS/MB/V_3.3VStby	• type = Voltage • ipmi_name = MB/V_3.3VStby • class = Threshold Sensor • value = 3.420 Volts • upper_nonrecov_threshold = 3.540 Volts • upper_critical_threshold = 3.454 Volts • upper_noncritical_threshold = 3.403 Volts • lower_noncritical_threshold = 3.112 Volts • lower_critical_threshold = 3.061 Volts • lower_nonrecov_threshold = 2.958 Volts • alarm_status = warning
/SYS/MB/V_5V	• type = Voltage • ipmi_name = MB/V_5V • class = Threshold Sensor • value = 5.018 Volts • upper_nonrecov_threshold = 5.902 Volts • upper_critical_threshold = 5.694 Volts • upper_noncritical_threshold = 5.486 Volts • lower_noncritical_threshold = 4.498 Volts • lower_critical_threshold = 4.290 Volts • lower_nonrecov_threshold = 4.108 Volts • alarm_status = cleared
/SYS/MB/V_12V	• type = Voltage • ipmi_name = MB/V_12V • class = Threshold Sensor • value = 11.966 Volts • upper_nonrecov_threshold = 12.710 Volts • upper_critical_threshold = 12.524 Volts • upper_noncritical_threshold = 12.338 Volts • lower_noncritical_threshold = 11.346 Volts • lower_critical_threshold = 11.160 Volts • lower_nonrecov_threshold = 10.974 Volts • alarm_status = cleared

Target and Path	Properties
/SYS/MB/V_BAT	• type = Voltage • ipmi_name = MB/V_BAT • class = Threshold Sensor • value = 3.120 Volts • upper_critical_threshold = 3.494 Volts • lower_noncritical_threshold = 2.746 Volts • lower_critical_threshold = 2.621 Volts • alarm_status = cleared
/SYS/MB/V_I41.2V	• type = Voltage • ipmi_name = MB/V_I41.2V • class = Threshold Sensor • value = 1.217 Volts • upper_nonrecov_threshold = 1.498 Volts • upper_critical_threshold = 1.462 Volts • upper_noncritical_threshold = 1.392 Volts • lower_noncritical_threshold = 1.041 Volts • lower_critical_threshold = 0.994 Volts • lower_nonrecov_threshold = 0.901 Volts • alarm_status = cleared
/SYS/MB/V_1.8VOK	• type = OEM • ipmi_name = MB/V_1.8VOK • class = Discrete Sensor • value = State Deasserted • alarm_status = cleared
/SYS/MB/V_2.5VOK	• type = OEM • ipmi_name = MB/V_2.5VOK • class = Discrete Sensor • value = State Deasserted • alarm_status = cleared
/SYS/MB/V_3.3VMain OK	• type = OEM • ipmi_name = MB/V_3.3VMainOK • class = Discrete Sensor • value = State Deasserted • alarm_status = cleared

Target and Path	Properties
/SYS/MB/V_5VOK	• type = OEM • ipmi_name = MB/V_5VOK • class = Discrete Sensor • value = State Deasserted • alarm_status = cleared
/SYS/MB/V_ECB	• type = OEM • ipmi_name = MB/V_ECB • class = Discrete Sensor • value = State Deasserted • alarm_status = cleared
/SYS/MB/V_I41.2VOK	• type = OEM • ipmi_name = MB/V_I41.2VOK • class = Discrete Sensor • value = State Deasserted • alarm_status = cleared

Related Information

- "Oracle ILOM Target Overview" on page 4
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Oracle ILOM General Targets and Properties

This table lists general Oracle ILOM `/SP` targets and their properties. Targets without properties are not listed.

Note – Only the `/SP/alertmgmt/rules/1` target is listed, because there are 15 `rules` targets with identical default properties.

Target and Path	Properties
/SP	• hostname = us-36p-1 • system_contact = (none) • system_description = Sun Datacenter InfiniBand Switch 36, ILOM v2.0.5-1, r47111 • system_identifier = (none) • system_location = (none)
/SP/alertmgmt/rules/1	• community_or_username = public • destination = 123.45.67.89 • destination_port = 0 • email_custom_sender = (none) • email_message_prefix = (none) • event_class_filter = (none) • event_type_filter = (none) • level = minor • snmp_version = 2c • testrule = (Cannot show property) • type = snmptrap
/SP/cli	• timeout = 0
/SP/clients/dns	• auto_dns = enabled • nameserver = (none) • retries = 1 • searchpath = (none) • timeout = 5
/SP/clients/ntp/server/1	• address = 0.0.0.0
/SP/clients/ntp/server/2	• address = 0.0.0.0
/SP/clients/smtp	• address = 0.0.0.0 • custom_sender = (none) • port = 25 • send_test_email_to = (Cannot show property) • state = disabled
/SP/clients/syslog/1	• address = 0.0.0.0
/SP/clients/syslog/2	• address = 0.0.0.0
/SP/clock	• datetime = Thu Oct 15 02:54:28 2009 • timezone = UTC • usentpserver = disabled

Target and Path	Properties
/SP/config	• dump_uri = (Cannot show property) • load_uri = (Cannot show property) • passphrase = none
/SP/diag/snapshot	• dataset = normal • dump_uri = (Cannot show property) • encrypt_output = false • result = (none)
/SP/logs/event	• clear = (Cannot show property)
/SP/network	• commitpending = (Cannot show property) • dhcp_server_ip = none • ipaddress = 123.45.67.89 • ipdiscovery = static • ipswitch = 123.45.67.1 • ipnetmask = 255.255.255.0 • macaddress = 00:AB:CD:EF:AB:CD • pendingipaddress = 123.45.67.89 • pendingipdiscovery = static • pendingipswitch = 123.45.67.1 • pendingipnetmask = 255.255.255.0 • state = enabled
/SP/network/test	• ping = (Cannot show property)

Related Information

- "Oracle ILOM Target Overview" on page 4
- "Oracle ILOM Targets and Descriptions" on page 5
- "Oracle ILOM General System Targets and Properties" on page 8
- "Oracle ILOM Fan Targets and Properties" on page 11
- "Oracle ILOM Indicator Targets and Properties" on page 12
- "Oracle ILOM Power Supply Targets and Properties" on page 13
- "Oracle ILOM Temperature Targets and Properties" on page 14
- "Oracle ILOM Voltage Targets and Properties" on page 16
- "Oracle ILOM Service Targets and Properties" on page 23
- "Oracle ILOM User and Session Targets and Properties" on page 25

Oracle ILOM Service Targets and Properties

This table lists the Oracle ILOM /SP/services targets and their properties. Targets without properties are not listed.

Note – The /SP/services/snmp/users/snmpuser target was created for this table so that the default SNMP user properties could be displayed.

Target and Path	Properties
/SP/services/http	• port = 80 • secureredirect = enabled • servicestate = disabled
/SP/services/https	• port = 443 • servicestate = enabled
/SP/services/https/ssl	• cert_status = Using Default (No custom certificate or private key loaded)
/SP/services/https/ssl/custom_cert	• clear_action = (Cannot show property) • issuer = (none) • load_uri = (Cannot show property) • subject = (none) • valid_from = (none) • valid_until = (none)
/SP/services/https/ssl/custom_key	• clear_action = (Cannot show property) • key_present = false • load_uri = (Cannot show property)
/SP/services/https/ssl/default_cert	• issuer = /C=US/ST=California/L=Santa Clara/O=Sun Microsystems, Inc./CN=sun-ilom • subject = /C=US/ST=California/L=Santa Clara/O=Sun Microsystems, Inc./CN=sun-ilom • valid_from = Apr 27 17:10:36 2005 GMT • valid_until = Apr 25 17:10:36 2015 GMT
/SP/services/ipmi	• servicestate = enabled
/SP/services/servicetag	• passphrase = none • state = enabled

Target and Path	Properties
/SP/services/snmp	• engineid = (none) • port = 161 • servicestate = enabled • sets = disabled • v1 = disabled • v2c = disabled • v3 = enabled
/SP/services/snmp/communities/private	• permission = rw
/SP/services/snmp/communities/public	• permission = ro
/SP/services/snmp/mibs	• dump_uri = (Cannot show property)
/SP/services/snmp/users/snmpuser	• authenticationpassword = (Cannot show property) • authenticationprotocol = MD5 • permission = ro • privacypassword = (Cannot show property) • privacyprotocol = none

Related Information

- "Oracle ILOM Target Overview" on page 4
- "Oracle ILOM Targets and Descriptions" on page 5
- "Oracle ILOM General System Targets and Properties" on page 8
- "Oracle ILOM Fan Targets and Properties" on page 11
- "Oracle ILOM Indicator Targets and Properties" on page 12
- "Oracle ILOM Power Supply Targets and Properties" on page 13
- "Oracle ILOM Temperature Targets and Properties" on page 14
- "Oracle ILOM Voltage Targets and Properties" on page 16
- "Oracle ILOM General Targets and Properties" on page 20
- "Oracle ILOM User and Session Targets and Properties" on page 25

Oracle ILOM User and Session Targets and Properties

This table lists the Oracle ILOM /SP/users targets and their properties. Targets without properties are not listed.

Note – The `/SP/sessions/1` target is included in this table because it is created when a user logs in.

Target and Path	Properties
`/SP/sessions/1`	• `username = ilom-admin` • `role = aucro` • `starttime = Thu Oct 15 02:36:11 2009` • `type = shell` • `mode = normal`
`/SP/users/ilom-admin`	• `role = aucro` • `password = *****`
`/SP/users/ilom-operator`	• `role = o` • `password = *****`

Related Information

- "Oracle ILOM Target Overview" on page 4
- "Oracle ILOM Targets and Descriptions" on page 5
- "Oracle ILOM General System Targets and Properties" on page 8
- "Oracle ILOM Fan Targets and Properties" on page 11
- "Oracle ILOM Indicator Targets and Properties" on page 12
- "Oracle ILOM Power Supply Targets and Properties" on page 13
- "Oracle ILOM Temperature Targets and Properties" on page 14
- "Oracle ILOM Voltage Targets and Properties" on page 16
- "Oracle ILOM General Targets and Properties" on page 20
- "Oracle ILOM Service Targets and Properties" on page 23

Installing the Oracle ILOM Firmware

Firmware version 1.1.3 enabled Oracle ILOM 3.0 support on the switch. If your firmware version is less than 1.1.3, you must first install the 1.1.3 firmware, and then upgrade to the latest firmware using the procedure described in "Upgrading the Switch Firmware Through Oracle ILOM (CLI)" on page 107.

If the management controller firmware has not been upgraded to Oracle ILOM support, the following topics assist you with upgrading the management controller firmware to version 1.1.3:

Related Information

- "Upgrading the Switch Firmware Through Oracle ILOM (CLI)" on page 107

Firmware Delivery

The firmware upgrade is performed by a script running on the management controller. The script accesses a web server hosting a directory that contains the firmware upgrade. The firmware is provided as a compressed `.tar` file. The file name contains the version number and is in the format of:

`SUN_DCS_36p_`*version*`.tar.gz`

where *version* is the version of the firmware.

For example, `SUN_DCS_36p_1.1.3.tar.gz`.

Within the `.tar` file are the upgrade script and necessary `.rpm` packages in a smaller `.tar` file.

Related Information

- "Acquire the Oracle ILOM Firmware Version 1.1.3" on page 28
- "Install the Oracle ILOM Firmware Version 1.1.3" on page 30

▼ Acquire the Oracle ILOM Firmware Version 1.1.3

Note – Perform this task only if your firmware version number is earlier than 1.1.3.

1. **Open a web browser on a host that is on the same Ethernet network as the management controller to receive the firmware update.**
2. **Go to this URL:**

   `http://support.oracle.com`

   Oracle's My Oracle Support page is displayed.
3. **Sign in if you already have an account.**

   The dashboard page is displayed.

Note – If you do not have an account, you must register.

4. **Click the Patches & Updates tab.**

   The Patches and Downloads page is displayed.
5. **In the Patch Search for Oracle....window, click the Advanced Search tab.**

   The Patch Search for Oracle... window updates.
6. **In the Product is drop-down menu, select Sun Datacenter InfiniBand Switch 36.**
7. **In the Release is drop-down menu, select Sun Datacenter InfiniBand Switch 36 1.1.3.**
8. **Click Search.**

   The Patch Search window expands with the search results.
9. **In the Patch Name column, click the patch `10364281` link.**

   The Patch Search window reformats.

10. **Click the `p10364281_113_Generic.zip` link to initiate the download.**

11. **Indicate where the file should be saved.**

    The file is downloaded and saved.

12. **In the File Download window, click Close.**

13. **In your receiving directory, decompress the `.zip` file.**

    The firmware is in the `SUN_DCS_36p_1.1.3.tar.gz` file.

    The readme file contains the latest information about the firmware release.

14. **Unpack the `.gz` file:**

```
# gunzip SUN_DCS_36p_1.1.3.tar.gz
#
```

15. **Untar the file:**

```
# tar xvf SUN_DCS_36p_1.1.3.tar
```

    The extracted files are displayed.

16. **Read the README files for information about installing the firmware.**

17. **Securely copy the upgrade script to the `/tmp` directory of the management controller file system.**

```
$ scp spfw_upgrade_1.1.3.sh root@nm2name:/tmp
```

    where *nm2name* is the host name of the management controller.

Note – You might need to provide the `root` password. The default `root` password is `changeme`.

---

18. **Install the Oracle ILOM firmware.**

    See "Install the Oracle ILOM Firmware Version 1.1.3" on page 30.

Related Information

- "Firmware Delivery" on page 27
- "Install the Oracle ILOM Firmware Version 1.1.3" on page 30

▼ Install the Oracle ILOM Firmware Version 1.1.3

Note – Perform this task only if your firmware version number is earlier than 1.1.3.

Note – This procedure brings the management controller offline until after the upgrade is completed.

1. **(Optional) Back up any files on the management controller that you want to keep.**

Caution – The firmware upgrade completely erases the management controller's file system.

2. **If the Subnet Manager is running on the management controller, disable it with the** `disablesm` **command.**

```
# disablesm
Stopping partitiond daemon.                                [  OK  ]
Stopping IB Subnet Manager..                               [  OK  ]
#
```

3. **On the management controller, change to the** `/tmp` **directory and run the upgrade script:**

```
# cd /tmp
# sh spfw_upgrade_1.1.3.sh http://URL_to_directory
#
```

   where *URL_to_directory* is a URL that points to the directory on the web server that contains the unpacked `.rpm` files from the `SUN_DCS_36p_1.1.3.tar` file.

   The upgrade begins.

4. **If the upgrade script requests a restart, reboot the switch:**

```
# reboot
```

5. **After reboot, verify the firmware upgrade:**

```
# version
SUN DCS 36p version: 1.1.3
Build time: Mar 25 2010 10:00:23
SP board info:
Manufacturing Date: 2009.02.19
Serial Number: "NCD2S0133"
Hardware Revision: 0x0100
Firmware Revision: 0x0102
BIOS version: NOW1R112
BIOS date: 04/24/2009
#
```

6. **If previously disabled, enable the Subnet Manager.**

```
# enablesm
Starting IB Subnet Manager.                                [  OK  ]
Starting partitiond daemon.                                [  OK  ]
#
```

7. **After installing the firmware with Oracle ILOM support, you can now upgrade the firmware through the Oracle ILOM interface.**

   See "Upgrading the Switch Firmware Through Oracle ILOM (CLI)" on page 107 or "Upgrade the Switch Firmware (Web)" on page 166.

Related Information

- "Firmware Delivery" on page 27
- "Acquire the Oracle ILOM Firmware Version 1.1.3" on page 28

Administering Oracle ILOM (CLI)

These topics describe how to administer Oracle ILOM from the CLI.

Related Information

- "Administering Oracle ILOM (Web)" on page 117
- "Using the Fabric Monitor" on page 171
- "Administering Oracle ILOM (SNMP)" on page 191
- "Administering Hardware (IPMI)" on page 249
- "Understanding Oracle ILOM Commands" on page 257

CLI Overview

The Oracle ILOM CLI interface uses a set of commands that affect targets. The commands act like verbs, and the targets are analogous to nouns. The command line is like a rudimentary sentence. For example, to *display* the *event log*, the command line is:

```
-> show /SP/logs/event/list
```

where:

- `show` is the command (or verb).
- `/SP/logs/event/list` is the target (or noun).

For a list of the basic commands in the Oracle ILOM CLI, see "Understanding Oracle ILOM Commands" on page 257.

Related Information

- "Understanding Oracle ILOM Targets" on page 4
- "Access Oracle ILOM From the Web Interface" on page 120
- "Switching Between the Oracle ILOM Shell and the Linux Shell" on page 36
- "Monitoring Oracle ILOM Targets (CLI)" on page 41
- "Controlling Oracle ILOM Targets (CLI)" on page 69

Accessing Oracle ILOM From the CLI

You use the same method to access the Oracle ILOM shell as you would the management controller. Specifying the user name determines the shell (Linux or Oracle ILOM) that is presented.

- "Access the Oracle ILOM Shell From the CLI (NET MGT Port)" on page 34
- "Access the Oracle ILOM Shell From the CLI (USB Management Port)" on page 35

Related Information

- *Switch Installation*, accessing the management controller
- "Access Oracle ILOM From the Web Interface" on page 120
- "Monitoring Oracle ILOM Targets (CLI)" on page 41
- "Controlling Oracle ILOM Targets (CLI)" on page 69
- "Switching Between the Oracle ILOM Shell and the Linux Shell" on page 36

▼ Access the Oracle ILOM Shell From the CLI (NET MGT Port)

1. **If you have not already done so, configure the DHCP server with the MAC address and new host name of the management controller inside of the switch.**

   The MAC address is printed on the customer information (yellow) sheet on the outside of the switch shipping carton and on the pull-out tab on the left side front of the switch, adjacent to power supply 0.

2. **Open an SSH session and connect to the management controller by specifying the controller's host name.**

   For example:

```
% ssh -l ilom-admin nm2name
ilom-admin@nm2name's password: password
->
```

   where *nm2name* is the host name of the management controller. Initially, the password is `ilom-admin`.

Note – You can change the *password* at a later time. See "Change an Oracle ILOM User's Password and or Role (CLI)" on page 86 for instructions on how to change Oracle ILOM user passwords.

   The Oracle ILOM shell prompt (`->`) is displayed.

Note – You can also log in as the `ilom-operator` user with the password `ilom-operator`. The `ilom-operator` user has only read permissions.

Related Information

- "Access the Oracle ILOM Shell From the CLI (USB Management Port)" on page 35

▼ Access the Oracle ILOM Shell From the CLI (USB Management Port)

1. **If you have not already done so, connect a USB-to-serial adapter to the USB port of the switch.**

2. **Connect a serial terminal, terminal server, or workstation with a TIP connection to the USB-to-serial adapter.**

   Configure the terminal or terminal emulator with these settings:

   - 115200 baud
   - 8 bits
   - No parity
   - 1 Stop bit
   - No handshaking

3. **Press the Return or Enter key on the serial device several times to synchronize the connection.**

   You might see text similar to this.

```
...
CentOS release 5.2 (Final)
Kernel 2.6.27.13-nm2 on an i686

nm2name login:
```

   where *nm2name* is the host name of the management controller.

4. **Type `ilom-admin` for the login name followed by the `ilom-admin` password.**

Note – You can also log in as the `ilom-operator` user with the password `ilom-operator`. The `ilom-operator` user has only read permissions.

```
nm2name login: ilom-admin
Password: password
->
```

Note – As shipped, the `ilom-admin` user password is `ilom-admin`. See "Change an Oracle ILOM User's Password and or Role (CLI)" on page 86 for instructions on how to change Oracle ILOM user passwords.

   The Oracle ILOM shell prompt (->) is displayed.

Related Information

- "Access the Oracle ILOM Shell From the CLI (NET MGT Port)" on page 34

Switching Between the Oracle ILOM Shell and the Linux Shell

If you accessed the management controller as the `root` user within the Linux shell, you can switch to the Oracle ILOM shell with the `spsh` command. Similarly, if you accessed the management controller as an Oracle ILOM user within the Oracle ILOM shell, you can switch to the Linux shell through the `/SYS/Switch_Diag` or `/SYS/Fabric_Mgmt` target.

These tasks enable you to switch back and forth between the Oracle ILOM shell and Linux shell.

- "/SYS/Switch_Diag and /SYS/Fabric_Mgmt Linux Shells" on page 37
- "Switch From the Oracle ILOM Shell to the Linux Shell" on page 40
- "Switch From the Linux Shell to the Oracle ILOM Shell" on page 41

Related Information

- "Accessing Oracle ILOM From the CLI" on page 34

/SYS/Switch_Diag and /SYS/Fabric_Mgmt Linux Shells

The preferred method of accessing the Linux shell is through the /SYS/Switch_Diag and /SYS/Fabric_Mgmt Linux shell targets of the Oracle ILOM CLI interface.

Using the show command on the /SYS/Switch_Diag target opens a restricted Linux shell that enables the ilom-admin user, ilom-operator user, and users with similar permissions, to run diagnostic commands.

Using the show command on the /SYS/Fabric_Mgmt target opens an other restricted Linux shell that enables the ilom-admin user, and users with similar permissions, to run diagnostic, switch, and fabric management commands.

Note – The ilom-operator user cannot access the Linux shell from the /SYS/Fabric_Mgmt target.

This table lists the Linux shell commands and their availability from the respective Linux shell targets. Typing the help all command from within the restricted shells lists the commands available to that shell.

Note – Linux shell commands that are not listed are unavailable from the /SYS/Switch_Diag or /SYS/Fabric_Mgmt targets.

Command	/SYS/Switch_Diag	/SYS/Fabric_Mgmt
checkboot	Available	Available
checkpower	Available	Available

Command	/SYS/Switch_Diag	/SYS/Fabric_Mgmt
checktopomax		Available
checkvoltages	Available	Available
connector	Available	Available
dcsport	Available	Available
disablecablelog		Available
disablelinklog		Available
disablesm		Available
disableswitchport		Available
enablecablelog		Available
enablelinklog		Available
enablesm		Available
enableswitchport		Available
env_test	Available	Available
exit	Available	Available
fdconfig		Available
fwverify	Available	Available
generatetopology		Available
getfanspeed	Available	Available
getmaster	Available	Available
getportstatus	Available	Available
help	Available	Available
ibdiagnet		Available
ibhosts	Available	Available
ibnetstatus	Available	Available
ibnodes	Available	Available
ibportstate	Available	Available
ibroute	Available	Available
ibrouters	Available	Available
ibstat	Available	Available
ibswitches	Available	Available
ibtracert	Available	Available

Command	/SYS/Switch_Diag	/SYS/Fabric_Mgmt
listlinkup	Available	Available
matchtopology		Available
perfquery	Available	Available
saquery		Available
setcontrolledhandover		Available
setmsmlocationmonitor		Available
setsmmkey		Available
setsmpriority		Available
setsubnetprefix		Available
showfruinfo	Available	Available
showpsufru	Available	Available
showsmlog	Available	Available
showtemps	Available	Available
showtopology	Available	Available
showunhealthy	Available	Available
smconfigtest		Available
smnodes		Available
smpartition		Available
smpquery	Available	Available
version	Available	Available

Related Information

- "show Command" on page 267
- "Switch From the Oracle ILOM Shell to the Linux Shell" on page 40
- "Switch From the Linux Shell to the Oracle ILOM Shell" on page 41

▼ Switch From the Oracle ILOM Shell to the Linux Shell

1. **Access the Oracle ILOM CLI.**

   See "Accessing Oracle ILOM From the CLI" on page 34.

2. **Switch to the Linux shell.**

```
-> show /SYS/Switch_Diag
NOTE: show on Switch_Diag will launch a restricted Linux shell.
      User can execute switch diagnosis and IB monitoring commands
      in the shell. To view the list of commands, use "help" at
      rsh prompt.

      Use exit command at rsh prompt to revert back to
      ILOM shell.

Diag@hostname->
```

Or.

```
-> show /SYS/Fabric_Mgmt
NOTE: show on Fabric_Mgmt will launch a restricted Linux shell.
      User can execute switch diagnosis, SM Configuration and IB
      monitoring commands in the shell. To view the list of commands,
      use "help" at rsh prompt.

      Use exit command at rsh prompt to revert back to
      ILOM shell.

FabMan@hostname->
```

where *hostname* is the host name of the management controller.

You are now in the Linux shell.

You can use the `exit` command to return to the Oracle ILOM shell.

If you try to switch to the /SYS/Fabric_Mgmt Linux shell as the `ilom-operator` user, this message is displayed.

```
-> show /SYS/Fabric_Mgmt
show: User role does not allow this action to be performed
->
```

Related Information

- "`show` Command" on page 267
- "`exit` Command (ILOM)" on page 262
- "`/SYS/Switch_Diag` and `/SYS/Fabric_Mgmt` Linux Shells" on page 37
- "Switch From the Linux Shell to the Oracle ILOM Shell" on page 41

▼ Switch From the Linux Shell to the Oracle ILOM Shell

1. **Access the management controller.**

   See *Switch Administration*, accessing the managment controller.

2. **Switch to the Oracle ILOM shell.**

```
# spsh
Oracle(R) Integrated Lights Out Manager
Version ILOM 3.0 r47111
Copyright (c) 2010, Oracle and/or its affiliates. All rights reserved.
->
```

You are now in the Oracle ILOM shell.

You can use the `exit` command to return to the Linux shell.

Related Information

- "`exit` Command (ILOM)" on page 262
- "`/SYS/Switch_Diag` and `/SYS/Fabric_Mgmt` Linux Shells" on page 37
- "Switch From the Oracle ILOM Shell to the Linux Shell" on page 40

Monitoring Oracle ILOM Targets (CLI)

These topics enable you to display the status of many Oracle ILOM targets.

- "Performing Daily Tasks (CLI)" on page 42
- "Checking the Status of Services (CLI)" on page 54
- "Verifying Other Aspects With Oracle ILOM (CLI)" on page 60

Related Information

- "Accessing Oracle ILOM From the CLI" on page 34
- "Controlling Oracle ILOM Targets (CLI)" on page 69
- "Monitoring Oracle ILOM Targets (Web)" on page 121
- "Upgrading the Switch Firmware Through Oracle ILOM (CLI)" on page 107
- "Understanding Oracle ILOM Targets" on page 4

Performing Daily Tasks (CLI)

These tasks help you see the status of Oracle ILOM targets that are continually changing.

Related Information

▼ Display the Date (CLI)

1. **Access the Oracle ILOM CLI.**

   See "Accessing Oracle ILOM From the CLI" on page 34.

2. **Display the date.**

```
-> show /SP/clock datetime timezone
```

For example:

```
-> show /SP/clock datetime timezone
 /SP/clock
  Properties:
```

```
      datetime = Sat Oct 22 07:57:19 2011
      timezone = CEST (Europe/Oslo)
->
```

Related Information

- "show Command" on page 267
- "Display the Date (Web)" on page 122
- "Display the Date and Time (SNMP)" on page 196

▼ Display Switch Status LEDs States (CLI)

1. **Access the Oracle ILOM CLI.**

   See "Accessing Oracle ILOM From the CLI" on page 34.

2. **Display the status of the Power LED.**

```
-> show /SYS/I_POWER value
 /SYS/I_POWER
  Properties:
      value = On
->
```

3. **Display the status of the Attention LED.**

```
-> show /SYS/I_ATTENTION value
 /SYS/I_ATTENTION
  Properties:
      value = Off
->
```

4. **Display the status of the Locator LED.**

```
-> show /SYS/I_LOCATOR value
 /SYS/I_LOCATOR
  Properties:
      value = Off
->
```

Related Information

- "show Command" on page 267
- "Display the Switch Status LEDs States (Web)" on page 122
- "Display Switch Status LED States (IPMI)" on page 255

- "Enable the Locator LED (CLI)" on page 72
- "Disable the Locator LED (CLI)" on page 73

▼ Display the Aggregate Sensors State (CLI)

1. **Access the Oracle ILOM CLI.**

   See "Accessing Oracle ILOM From the CLI" on page 34.

2. **Display the aggregate sensor state.**

```
-> show aggregate_sensor_target value alarm_status
```

   where *aggregate_sensor_target* is from the table in "Aggregate Sensor States" on page 45.

   For example, to display the overall switch state:

```
-> show /SYS/CHASSIS_STATUS value alarm_status
 /SYS/CHASSIS_STATUS
  Properties:
      value = State Deasserted
      alarm_status = cleared
->
```

   The `value = State Deasserted` and `alarm_status = cleared` means there are no faults.

Related Information

- "`show` Command" on page 267
- "Display the Aggregate Sensors State (Web)" on page 122
- "Display the Aggregate Sensors State (SNMP)" on page 197
- "Display the Sensor States (IPMI)" on page 250
- "Aggregate Sensor States" on page 45

Aggregate Sensor States

Nine aggregate sensors provide an overall status of particular aspects of the switch. Each aggregate sensor is the logical `and` summation of many binary sensor checks.

When all of the checks are `true`, the respective aggregate sensor's `value` property is set to `State Deasserted`, and the `alarm_status` property is set to `cleared`. This situation means all binary sensors indicate that there are no faults.

When one of the binary sensor checks is `false`, a fault occurs, the `value` property becomes `State Asserted`, and the `alarm_status` property is set to `major`. That aspect of the switch is in an unhealthy state.

Aspect	Aggregate Sensor Target
Overall connector hardware state	/SYS/CABLE_ATTN
Change in cable connectivity state	/SYS/CABLE_CONN_STAT
Overall switch state	/SYS/CHASSIS_STATUS
Overall cooling state	/SYS/COOLING_ATTN
Cooling redundancy state	/SYS/COOLING_REDUN
Overall I4 switch chip state	/SYS/IBDEV_ATTN
Overall power state	/SYS/POWER_ATTN
Power redundancy state	/SYS/POWER_REDUN
Overall temperature state	/SYS/TEMP_ATTN

Related Information

- "Display the Aggregate Sensors State (CLI)" on page 44
- "Display the Aggregate Sensors State (Web)" on page 122
- "Display the Entity Numbers" on page 211

▼ Display Power Supply Status (CLI)

1. **Access the Oracle ILOM CLI.**

   See "Accessing Oracle ILOM From the CLI" on page 34.

2. **Check for the presence of the power supply.**

```
-> show /SYS/PSUx/PRSNT value
```

   where *x* is either `0` (left power supply) or `1` (right power supply). For example:

```
-> show /SYS/PSU0/PRSNT value
 /SYS/PSU0/PRSNT
  Properties:
      value = Present
->
```

Note – The `/SYS/PSUx` target is available only for currently installed power supplies.

3. **Check for the presence of input power.**

```
-> show /SYS/PSUx/AC_PRESENT value alarm_status
 /SYS/PSU0/AC_PRESENT
  Properties:
      value = State Deasserted
      alarm_status = cleared
->
```

The `value = State Deasserted` and `alarm_status = cleared` means that there is no error, and input power is present.

4. **Check for an alert.**

```
-> show /SYS/PSUx/ALERT value alarm_status
 /SYS/PSU0/ALERT
  Properties:
      value = State Deasserted
      alarm_status = cleared
->
```

The `value = State Deasserted` and `alarm_status = cleared` means that there is no alert.

Related Information

- "`show` Command" on page 267
- "Display Power Supply Status (Web)" on page 123
- "Display Power Supply Status (SNMP)" on page 198

▼ Display Board-Level Voltages (CLI)

There are sensor targets that enable you to display the voltage levels on the motherboard.

1. **Access the Oracle ILOM CLI.**

   See "Accessing Oracle ILOM From the CLI" on page 34.

2. **Display the board-level voltage data.**

```
-> show voltage_sensor_target value
```

where *voltage_sensor_target* is from the table in "Board Level Voltages" on page 48. For example, to display the voltage of the main 1.8V source:

```
-> show /SYS/MB/V_1.8V value
 /SYS/MB/V_1.8V
  Properties:
      value = 1.785 Volts
->
```

3. **For more sensor information, type.**

```
-> show -d properties voltage_sensor_target
```

where *voltage_sensor_target* is from the table in "Board Level Voltages" on page 48. For example, to display the properties of the main 1.8V source:

```
-> show -d properties /SYS/MB/V_1.8V
 /SYS/MB/V_1.8V
  Properties:
      type = Voltage
      ipmi_name = MB/V_1.8V
      class = Threshold Sensor
      value = 1.785 Volts
      upper_nonrecov_threshold = 1.979 Volts
      upper_critical_threshold = 1.940 Volts
      upper_noncritical_threshold = 1.891 Volts
      lower_noncritical_threshold = 1.697 Volts
      lower_critical_threshold = 1.639 Volts
      lower_nonrecov_threshold = 1.591 Volts
      alarm_status = cleared
->
```

Related Information

- "show Command" on page 267
- "Display Board-Level Voltages (Web)" on page 124
- "Display Board-Level Voltages (SNMP)" on page 200
- "Board Level Voltages" on page 48

Board Level Voltages

This table lists board voltages and their respective sensor targets, which enable you to check the voltage levels and alarm states.

Board Level Voltage	Voltage Sensor Target
Voltage of the main 1.8V source	`/SYS/MB/V_1.8V`
State of the main 1.8V source	`/SYS/MB/V_1.8VOK`
Voltage of the main 2.5V source	`/SYS/MB/V_2.5V`
State of the main 2.5V source	`/SYS/MB/V_2.5VOK`
Voltage of the main 3.3V source	`/SYS/MB/V_3.3VMain`
State of the main 3.3V source	`/SYS/MB/V_3.3VMainOK`
Voltage of the standby 3.3V source	`/SYS/MB/V_3.3VStby`
Voltage of the main 5V source	`/SYS/MB/V_5V`
State of the main 5V source	`/SYS/MB/V_5VOK`
Voltage of the main 12V source	`/SYS/MB/V_12V`
Voltage of the battery	`/SYS/MB/V_BAT`
State of the ECB	`/SYS/MB/V_ECB`
Voltage of the I4 switch chip	`/SYS/MB/V_I41.2V`
State of the I4 switch chip 1.2V source	`/SYS/MB/V_I41.2VOK`

Related Information

- "Display Board-Level Voltages (CLI)" on page 47
- "Display Board-Level Voltages (Web)" on page 124
- "Display the Entity Numbers" on page 211

▼ Display Internal Temperatures (CLI)

1. **Access the Oracle ILOM CLI.**

   See "Accessing Oracle ILOM From the CLI" on page 34.

2. **Display the internal temperatures.**

```
-> show temperature_sensor_target value
```

where *temperature_sensor_target* is from the table in "Internal Temperature Sensors" on page 50.

For example, to display the temperature at the front of the switch:

```
-> show /SYS/MB/T_FRONT value
 /SYS/MB/T_FRONT
  Properties:
      value = 27.000 degree C
->
```

3. **For more sensor information, type.**

```
-> show -d properties temperature_sensor_target
```

where *temperature_sensor_target* is from the table in "Internal Temperature Sensors" on page 50.

For example, to display the properties of the front temperature sensor:

```
-> show -d properties /SYS/MB/T_FRONT
 /SYS/MB/T_FRONT
  Properties:
      type = Temperature
      ipmi_name = MB/T_FRONT
      class = Threshold Sensor
      value = 33.000 degree C
      upper_nonrecov_threshold = 80.000 degree C
      upper_critical_threshold = 70.000 degree C
      upper_noncritical_threshold = N/A
      lower_noncritical_threshold = N/A
      lower_critical_threshold = N/A
      lower_nonrecov_threshold = N/A
      alarm_status = cleared
->
```

Related Information

- "show Command" on page 267
- "Display Internal Temperatures (Web)" on page 124
- "Display Internal Temperatures (SNMP)" on page 204
- "Internal Temperature Sensors" on page 50

Internal Temperature Sensors

This table provides the temperature sensor locations and their respective sensor targets.

Temperature Location	Temperature Sensor Target
Temperature at front of switch	/SYS/MB/T_FRONT
Temperature of the I4 switch chip	/SYS/MB/T_I4A
Temperature of the management controller	/SYS/MB/T_SP
Temperature at rear of switch	/SYS/MB/T_BACK

Related Information

- "Display Internal Temperatures (CLI)" on page 49
- "Display Internal Temperatures (Web)" on page 124
- "Display the Entity Numbers" on page 211

▼ Display Fan Status (CLI)

1. **Access the Oracle ILOM CLI.**

   See "Accessing Oracle ILOM From the CLI" on page 34.

2. **Check for the presence of the fan module.**

```
-> show /SYS/FANx/PRSNT value
```

   where *x* is either 0 (far left) to 4 (far right). For example:

```
-> show /SYS/FAN1/PRSNT value
 /SYS/FAN1/PRSNT
  Properties:
      value = Present
->
```

Note – The /SYS/FAN*x* target is available only for currently installed fans.

3. **Display the fan speed.**

```
-> show /SYS/FAN1/TACH value
 /SYS/FAN1/TACH
  Properties:
      value = 12208.000 RPM
->
```

4. **For more sensor information, type.**

```
-> show -d properties /SYS/FAN1/TACH
 /SYS/FAN1/TACH
  Properties:
      type = Fan
      ipmi_name = FAN1/TACH
      class = Threshold Sensor
      value = 12208.000 RPM
      upper_nonrecov_threshold = N/A
      upper_critical_threshold = 26705.000 RPM
      upper_noncritical_threshold = N/A
      lower_noncritical_threshold = 6322.000 RPM
      lower_critical_threshold = N/A
      lower_nonrecov_threshold = N/A
      alarm_status = cleared
->
```

Related Information

- "show Command" on page 267
- "Display Fan Status (Web)" on page 125
- "Display Fan Status (SNMP)" on page 207

▼ Display the Oracle ILOM Sessions (CLI)

1. **Access the Oracle ILOM CLI.**

   See "Accessing Oracle ILOM From the CLI" on page 34.

2. **Display the active Oracle ILOM sessions.**

```
-> show -d properties -l 2 /SP/sessions
```

   For example:

Note – The `type` property indicates whether the user is using the CLI (`shell`) or web (`web`) interface.

```
-> show -d properties -l 2 /SP/sessions
 /SP/sessions
  Properties:
 /SP/sessions/23
     username = ilom-admin
     role = aucro
     starttime = Sat Oct 10 01:38:36 2009
     type = shell
     mode = normal
 /SP/sessions/24
  Properties:
     username = ilom-operator
     role = o
     starttime = Sat Oct 10 03:12:48 2009
     type = web
     mode = normal
->
```

Related Information

- "`show` Command" on page 267
- "Display the Oracle ILOM Sessions (Web)" on page 125
- "Display Oracle ILOM Sessions (SNMP)" on page 214

▼ Display the Oracle ILOM Event Log (CLI)

The Oracle ILOM event message log contains Oracle ILOM events that happened to or were initiated by the management controller. Example events include user login, sensor state change, configuring of `syslog` servers, and so on. You can view these events using the Oracle ILOM `show` command for the `/SP/logs/event/list` target.

1. **Access the Oracle ILOM CLI.**

   See "Accessing Oracle ILOM From the CLI" on page 34.

2. **Display the Oracle ILOM event log.**

```
-> show /SP/logs/event/list
```

   For example:

Note – The output in the example is a portion of the full output.

```
-> show /SP/logs/event/list
/SP/logs/event/list
  Targets:
  Properties:
  Commands:
      cd
      show
ID      Date/Time                  Class      Type       Severity
-----   -------------------------  --------   --------   --------
94      Fri Oct  9 01:15:13 2009   Audit      Log        minor
 root : Open Session : object = /session/type : value = shell : success
93      Fri Oct  9 01:13:51 2009   Audit      Log        minor
 test : Close Session : object = /session/type : value = www : success
92      Fri Oct  9 00:59:44 2009   Audit      Log        minor
.
.
.
->
```

Related Information

- "show Command" on page 267
- "Display the Oracle ILOM Event Log (Web)" on page 126
- "Display the Oracle ILOM Event Log (SNMP)" on page 215
- "Display the System Event Log (IPMI)" on page 253

Checking the Status of Services (CLI)

These topics enable you to display the status of the services supported by ILOM.

- "Display the HTTP Service Status (CLI)" on page 54
- "Display the HTTPS Service Status (CLI)" on page 55
- "Display the SSL Certificates (CLI)" on page 55
- "Display the SNMP Service Status (CLI)" on page 56
- "Display the SNMP User Accounts (CLI)" on page 56
- "Display the SNMP Service Communities (CLI)" on page 57
- "Display the IPMI Service Status (CLI)" on page 58
- "Display the DNS Client Status (CLI)" on page 58
- "Display the SMTP Client Status (CLI)" on page 59

- "Display the NTP Servers (CLI)" on page 59

Related Information

- "Checking the Status of Services (Web)" on page 126
- "Performing Daily Tasks (CLI)" on page 42
- "Verifying Other Aspects With Oracle ILOM (CLI)" on page 60

▼ Display the HTTP Service Status (CLI)

1. **Access the Oracle ILOM CLI.**

   See "Accessing Oracle ILOM From the CLI" on page 34.

2. **Display the HTTP status.**

```
-> show -d properties /SP/services/http
 /SP/services/http
  Properties:
      port = 80
      secureredirect = enabled
      servicestate = disabled
->
```

Related Information

- "`show` Command" on page 267
- "Display the HTTP Service Status (Web)" on page 127
- "Display the HTTP Service Status (SNMP)" on page 217

▼ Display the HTTPS Service Status (CLI)

1. **Access the Oracle ILOM CLI.**

   See "Accessing Oracle ILOM From the CLI" on page 34.

2. **Display the HTTPS status.**

```
-> show -d properties /SP/services/https
 /SP/services/https
  Properties:
      port = 443
      servicestate = enabled
->
```

Related Information

- "show Command" on page 267
- "Display the HTTPS Service Status (Web)" on page 127
- "Display the HTTPS Service Status (SNMP)" on page 218

▼ Display the SSL Certificates (CLI)

1. **Access the Oracle ILOM CLI.**

   See "Accessing Oracle ILOM From the CLI" on page 34.

2. **Display the SSL status.**

```
-> show -d properties /SP/services/https/ssl
 /SP/services/https/ssl
  Properties:
      cert_status = Using Default (No custom certificate or private key loaded)
->
```

3. **Display the properties of the** `default_cert` **certificate.**

```
-> show -d properties /SP/services/https/ssl/default_cert
 /SP/services/https/ssl/default_cert
  Properties:
      issuer = /C=US/ST=California/L=Santa Clara/O=Sun Microsystems, Inc./CN=
sun-ilom
      subject = /C=US/ST=California/L=Santa Clara/O=Sun Microsystems, Inc./CN=
sun-ilom
      valid_from = Apr 27 17:10:36 2005 GMT
      valid_until = Apr 25 17:10:36 2015 GMT
->
```

Related Information

- "show Command" on page 267
- "Display the SSL Certificates (Web)" on page 127

▼ Display the SNMP Service Status (CLI)

1. **Access the Oracle ILOM CLI.**

   See "Accessing Oracle ILOM From the CLI" on page 34.

2. **Display the SNMP status.**

```
-> show -d properties /SP/services/snmp
 /SP/services/snmp
 Properties:
 engineid = (none)
 port = 161
 servicestate = enabled
 sets = disabled
 v1 = disabled
 v2c = disabled
 v3 = enabled
->
```

Related Information

- "`show` Command" on page 267
- "Display the SNMP Service Status (Web)" on page 128

▼ Display the SNMP User Accounts (CLI)

1. **Access the Oracle ILOM CLI.**

   See "Accessing Oracle ILOM From the CLI" on page 34.

2. **Display the SNMP users.**

```
-> show -d targets /SP/services/snmp/users
```

   For example:

```
-> show -d targets /SP/services/snmp/users
 /SP/services/snmp/users
  Targets:
      snmpuser
->
```

3. **Display the `snmpuser` user properties.**

```
-> show -d properties /SP/services/snmp/users/snmpuser
 /SP/services/snmp/users/snmpuser
  Properties:
      authenticationpassword = (Cannot show property)
      authenticationprotocol = MD5
      permission = ro
```

```
      privacypassword = (Cannot show property)
      privacyprotocol = none
->
```

Related Information

- "show Command" on page 267
- "Display the SNMP Service User Accounts (Web)" on page 128

▼ Display the SNMP Service Communities (CLI)

1. **Access the Oracle ILOM CLI.**

   See "Accessing Oracle ILOM From the CLI" on page 34.

2. **Display the SNMP communities.**

```
-> show -d targets /SP/services/snmp/communities
 /SP/services/snmp/communities
  Targets:
      private
      public
->
```

3. **Display the** `private` **community properties.**

```
-> show -d properties /SP/services/snmp/communities/private
 /SP/services/snmp/communities/private
  Properties:
      permission = rw
->
```

Related Information

- "show Command" on page 267
- "Display the SNMP Service Communities (Web)" on page 129

▼ Display the IPMI Service Status (CLI)

1. **Access the Oracle ILOM CLI.**

   See "Accessing Oracle ILOM From the CLI" on page 34.

2. **Display the IPMI status.**

```
-> show -d properties /SP/services/ipmi
 /SP/services/ipmi
  Properties:
      servicestate = enabled
->
```

Related Information

- "show Command" on page 267
- "Display the IPMI Service Status (Web)" on page 129

▼ Display the DNS Client Status (CLI)

1. **Access the Oracle ILOM CLI.**

   See "Accessing Oracle ILOM From the CLI" on page 34.

2. **Display the DNS status.**

```
-> show -d properties /SP/clients/dns
 /SP/clients/dns
  Properties:
      auto_dns = enabled
      nameserver = 10.172.157.73, 10.172.157.74
      retries = 1
      searchpath = no.oracle.com
      timeout = 5
->
```

Related Information

- "show Command" on page 267
- "Display the DNS Client Status (Web)" on page 129
- "Display the DNS Client Status (SNMP)" on page 218
- "Configure the DNS Client (CLI)" on page 75

▼ Display the SMTP Client Status (CLI)

1. **Access the Oracle ILOM CLI.**

   See "Accessing Oracle ILOM From the CLI" on page 34.

2. **Display the SMTP client status.**

Note – This example shows that the SMTP client is not enabled

```
-> show -d properties /SP/clients/smtp
 /SP/clients/smtp
  Properties:
      address = 0.0.0.0
      custom_sender = (none)
      port = 25
      send_test_email_to = (Cannot show property)
      state = disabled
->
```

Related Information

- "show Command" on page 267
- "Display the SMTP Client Status (Web)" on page 130
- "Display the SMTP Client Status (SNMP)" on page 219
- "Configure the SMTP Client (CLI)" on page 76

▼ Display the NTP Servers (CLI)

1. **Access the Oracle ILOM CLI.**

   See "Accessing Oracle ILOM From the CLI" on page 34.

2. **Display the IP addresses of the NTP servers.**

```
-> show /SP/clients/ntp/server/1 address
 /SP/clients/ntp/server/1
 Properties:
 address = 123.45.67.89

-> show /SP/clients/ntp/server/2 address
 /SP/clients/ntp/server/2
 Properties:
 address = 0.0.0.0
->
```

In the output, the IP address of NTP server 1 is `123.45.67.89`. The IP address of `0.0.0.0` for NTP server 2 means the server is not configured.

3. **Display the NTP server status.**

```
-> show /SP/clock usentpserver
 /SP/clock
  Properties:
      usentpserver = disabled
->
```

The value of the `usentpserver` property determines if the management controller synchronizes time with the configured NTP servers. The value is either `enabled` or `disabled`.

Related Information

- "`show` Command" on page 267
- "Display the Network Time Protocol Servers (Web)" on page 130
- "Display the NTP State (SNMP)" on page 219
- "Display the NTP Servers (SNMP)" on page 220
- "Set the Date and Time (CLI)" on page 71

Verifying Other Aspects With Oracle ILOM (CLI)

These tasks display the status of aspects of Oracle ILOM not included in "Performing Daily Tasks (CLI)" on page 42 or "Checking the Status of Services (CLI)" on page 54.

- "Get Help on an Oracle ILOM Command (CLI)" on page 61
- "Get Help on an Oracle ILOM Target Property (CLI)" on page 62
- "Display the Alert Properties (CLI)" on page 62
- "Display the Oracle ILOM User Accounts (CLI)" on page 63
- "Display the Remote Log Hosts (CLI)" on page 64
- "Display the Network Management Configuration (CLI)" on page 65
- "Display the CLI Session Timeout (CLI)" on page 66
- "Display Switch FRU ID (CLI)" on page 66
- "Display Power Supply FRU ID (CLI)" on page 67
- "Display the Firmware Version (CLI)" on page 68
- "Display System Identification Properties (CLI)" on page 68

Related Information

- "Verifying Other Aspects With Oracle ILOM (Web)" on page 131

- "Performing Daily Tasks (CLI)" on page 42
- "Checking the Status of Services (CLI)" on page 54

▼ Get Help on an Oracle ILOM Command (CLI)

1. **Access the Oracle ILOM CLI.**

   See "Accessing Oracle ILOM From the CLI" on page 34.

2. **Get help on a command.**

```
-> help -o verbose command
```

   where *command* is the Oracle ILOM command for which you need help.

   For example, to get help on the `exit` command:

```
-> help -o verbose exit
The exit command is used to terminate a session.
Usage: exit
Example:
  -> exit
  Connection to nyc-sp closed.
->
```

Related Information

- "`help` Command (ILOM)" on page 263
- "Get Help on an Oracle ILOM Target Property (CLI)" on page 62

▼ Get Help on an Oracle ILOM Target Property (CLI)

1. **Access the Oracle ILOM CLI.**

   See "Accessing Oracle ILOM From the CLI" on page 34.

2. **Get help on a target property.**

```
-> help target property
```

   where:

   - *target* is the target and path to act upon.

- *property* is the property of the *target* for which you need help.

For example, to get help about the `ilom-operator` user's `role` property:

```
-> help /SP/users/ilom-operator role
  Properties:
      role : Role of ilom-operator
      role : Possible values = Operator, Administrator, a, u, c, r, o, s
      role : User role required for set = u
->
```

Related Information

- "`help` Command (ILOM)" on page 263
- "Get Help on an Oracle ILOM Command (CLI)" on page 61

▼ Display the Alert Properties (CLI)

Alerts can provide advance notice of a system failure. The Oracle ILOM implementation in the management controller supports 15 alert rules, which configure alert properties. Supported alert types are SNMP traps, IPMI PETs, and email alerts. For SNMP traps and PETs, the alert destination must have the relevant Oracle ILOM MIBs installed and must support SNMP traps.

1. **Access the Oracle ILOM CLI.**

   See "Accessing Oracle ILOM From the CLI" on page 34.

2. **Display the alert properties.**

```
-> show -d properties /SP/alertmgmt/rules/alert
```

where *alert* is the number of the alert to display.

For example, to display the properties for alert 1:

```
-> show -d properties /SP/alertmgmt/rules/1
 /SP/alertmgmt/rules/1
  Properties:
      community_or_username = public
      destination = 0.0.0.0
      destination_port = 0
      email_custom_sender = (none)
      email_message_prefix = (none)
      event_class_filter = (none)
      event_type_filter = (none)
      level = disable
      snmp_version = 1
```

```
      testrule = (Cannot show property)
      type = snmptrap
->
```

Note – In the output, alert 1 is not configured to send any alerts.

Related Information

- "show Command" on page 267
- "Display the Alert Properties (Web)" on page 131
- "Display the Alert Properties (SNMP)" on page 221
- "Enable Alerts to Send SNMP Traps (CLI)" on page 102
- "Enable Alerts to Send PETs (CLI)" on page 104
- "Enable Alerts to Send Email Alerts (CLI)" on page 105
- "Disable Alerts (CLI)" on page 106

▼ Display the Oracle ILOM User Accounts (CLI)

1. **Access the Oracle ILOM CLI.**

   See "Accessing Oracle ILOM From the CLI" on page 34.

2. **Display the Oracle ILOM user accounts.**

```
-> show -d targets /SP/users
 /SP/users
  Targets:
      ilom-admin
      ilom-operator
->
```

3. **Display the** `ilom-admin` **user's role.**

```
-> show /SP/users/ilom-admin role
 /SP/users/ilom-admin
  Properties:
      role = aucro
->
```

Related Information

- "show Command" on page 267
- "Display the Oracle ILOM User Accounts (Web)" on page 132

- "Display Oracle ILOM User Accounts (SNMP)" on page 222

▼ Display the Remote Log Hosts (CLI)

1. **Access the Oracle ILOM CLI.**

   See "Accessing Oracle ILOM From the CLI" on page 34.

2. **Display the remote log hosts.**

```
-> show /SP/clients/syslog/number address
```

   where *number* is the number of the host, either `1` or `2`.

   For example, to display the IP address of remote host 1:

```
-> show /SP/clients/syslog/1 address
 /SP/clients/syslog/1
  Properties:
      address = 0.0.0.0
->
```

Note – The address of `0.0.0.0` or `(none)` indicates that remote host 1 functionality is not configured.

Related Information

- "`show` Command" on page 267
- "Display the Remote Log Hosts (Web)" on page 132
- "Display the Remote Log Hosts (SNMP)" on page 223
- "Set the Remote Log Hosts (CLI)" on page 74

▼ Display the Network Management Configuration (CLI)

1. **Access the Oracle ILOM CLI.**

   See "Accessing Oracle ILOM From the CLI" on page 34.

2. **Display the network management configuration.**

```
-> show -d properties /SP/network
```

For example:

```
-> show -d properties /SP/network
 /SP/network
  Properties:
      commitpending = (Cannot show property)
      dhcp_server_ip = 10.12.235.35
      ipaddress = 10.12.235.70
      ipdiscovery = dhcp
      ipswitch = 10.12.235.254
      ipnetmask = 255.255.255.0
      macaddress = 00:E0:4B:28:00:8E
      pendingipaddress = 10.12.235.70
      pendingipdiscovery = dhcp
      pendingipswitch = 10.12.235.254
      pendingipnetmask = 255.255.255.0
      state = enabled
->
```

Related Information

- "show Command" on page 267
- "Display the Network Management Configuration (Web)" on page 133
- "Display the Network Management Configuration (SNMP)" on page 223

▼ Display the CLI Session Timeout (CLI)

1. **Access the Oracle ILOM CLI.**

   See "Accessing Oracle ILOM From the CLI" on page 34.

2. **Display the CLI session timeout.**

```
-> show /SP/cli timeout
 /SP/cli
  Properties:
      timeout = 0
->
```

Related Information

- "show Command" on page 267

- "Display the CLI Session Timeout (Web)" on page 133
- "Set the Oracle ILOM CLI Session Timeout (CLI)" on page 107

▼ Display Switch FRU ID (CLI)

1. **Access the Oracle ILOM CLI.**

   See "Accessing Oracle ILOM From the CLI" on page 34.

2. **Display the switch FRU information.**

```
-> show -d properties /SYS/MB
 /SYS/MB
  Properties:
      type = Motherboard
      ipmi_name = MB
      product_name = Sun Datacenter InfiniBand Switch 36
      product_part_number = 5111402
      product_serial_number = 0110SJC-1099XY9992
      product_manufacturer =  Sun Microsystems
      fru_name = Chassis and Motherboard
      fru_description = Chassis and Motherboard
      fru_extra_1 = ComEx: manufacturing_date - 2009.02.20
      fru_extra_2 = ComEx: serial_number - NCD3R0527
      fru_extra_3 = ComEx: hardware_rev - 0x100, firmware_rev - 0x102
      fru_extra_4 = ComEx: bios_version - NOW1R112
 , bios_date - 04/24/2009
->
```

Related Information

- "`show` Command" on page 267
- "Display System Component FRU ID (Web)" on page 134
- "Display Switch FRU ID (SNMP)" on page 224
- "Display FRU ID Information (IPMI)" on page 254

▼ Display Power Supply FRU ID (CLI)

Note – You can only display FRU ID information for currently present power supplies.

1. **Access the Oracle ILOM CLI.**

   See "Accessing Oracle ILOM From the CLI" on page 34.

2. **Display the power supply FRU information.**

```
-> show -d properties /SYS/PSUslot
```

where *slot* is the slot of the power supply (`0` or `1`).

In the output, the FRU information is listed under `Properties`.

For example, for power supply 0:

```
-> show -d properties /SYS/PSU0
 /SYS
  Properties:
      type = Power Supply
      ipmi_name = PSU0
      fru_name = A247
      fru_description = Power Supply
      fru_manufacturer = Delta Energy Systems
      fru_version = 02
      fru_part_number = 3002233
      fru_serial_number = 001180
      fru_extra_1 = sun_spec_part_number - 885-1389-02
      fru_extra_2 = ipmi_serial_number - 1841DET-1008B51180
      fru_extra_3 = ipmi_part_number - 300-2233-02
->
```

Related Information

- "`show` Command" on page 267
- "Display System Component FRU ID (Web)" on page 134
- "Display Power Supply FRU ID (SNMP)" on page 226
- "Display FRU ID Information (IPMI)" on page 254

▼ Display the Firmware Version (CLI)

1. **Access the Oracle ILOM CLI.**

   See "Accessing Oracle ILOM From the CLI" on page 34.

2. **Display the firmware version.**

```
-> version
```

For example:

```
-> version
SP firmware 2.0.5-1
SP firmware build number: 47111
SP firmware date: Sun Oct 16 14:03:22 IST 2011
SP filesystem version: 0.1.22
->
```

Related Information

- "`version` Command (ILOM)" on page 269
- "Display the Firmware Version (Web)" on page 134
- "Display the Firmware Version (SNMP)" on page 231

▼ Display System Identification Properties (CLI)

1. **Access the Oracle ILOM CLI.**

   See "Accessing Oracle ILOM From the CLI" on page 34.

2. **Display the identification properties.**

```
-> show -d properties /SP
 /SP/cli
  Properties:
      hostname = us-36p-1
      system_contact = (none)
      system_description = Sun Datacenter InfiniBand Switch 36, ILOM v2.0.5-1,
r47111
      system_identifier = (none)
      system_location = (none)
->
```

Related Information

- "Display System Identification Properties (Web)" on page 135
- "Display System Identification Properties (SNMP)" on page 231
- "Set the System Identification Properties (CLI)" on page 84

Controlling Oracle ILOM Targets (CLI)

These topics enable you to change the behavior or configuration of many Oracle ILOM targets.

Related Information

- "Accessing Oracle ILOM From the CLI" on page 34
- "Controlling Oracle ILOM Targets (Web)" on page 135
- "Monitoring Oracle ILOM Targets (CLI)" on page 41
- "Upgrading the Switch Firmware Through Oracle ILOM (CLI)" on page 107
- "Understanding Oracle ILOM Targets" on page 4

Performing General Tasks on Oracle ILOM Targets (CLI)

You can perform these tasks periodically on a few Oracle ILOM targets.

- "Restore the Configuration (CLI)" on page 78
- "Create a Snapshot of the Switch State (CLI)" on page 79
- "Snapshot Dataset Information (CLI)" on page 81
- "Set the Network Management Parameters (CLI)" on page 82
- "Set the System Identification Properties (CLI)" on page 84

Related Information

- "Performing General Tasks on Oracle ILOM Targets (Web)" on page 136
- "Performing Oracle ILOM User Tasks (CLI)" on page 85

▼ Restart the Management Controller (CLI)

Note – Restarting the management controller severs any management console link to the management controller. You must reaccess the management controller to regain administrative control.

---

1. **Access the Oracle ILOM CLI.**

   See "Accessing Oracle ILOM From the CLI" on page 34.

2. **Reset the management controller.**

```
-> reset /SP
Are you sure you want to reset /SP (y/n)? y
->
```

   The management controller is reset and you must reaccess the management controller to regain administrative control.

Related Information

- "`reset` Command" on page 265
- *Switch Administration*, restarting the management controller
- "Restart the Management Controller (Web)" on page 136

▼ Set the Date and Time (CLI)

1. **Access the Oracle ILOM CLI.**

   See "Accessing Oracle ILOM From the CLI" on page 34.

2. **Set the date and time.**

```
-> set /SP/clock datetime=MMDDhhmmYYYY
```

where *MMDDhhmmYYYY* is the month, date, hour, and minute as two digits, and the year as four digits.

For example:

```
-> set /SP/clock datetime=100922352009
Set 'datetime' to '100922352009'
-> show /SP/clock datetime
 /SP/clock
  Properties:
      datetime = Fri Oct  9 22:35:30 2009
->
```

3. **Set the time zone.**

```
-> set /SP/clock timezone=XXX
```

where *XXX* is the identifier of the time zone.

For example:

```
-> set /SP/clock timezone=CET
Set 'timezone' to 'CET'
-> show /SP/clock timezone
 /SP/clock
  Properties:
      timezone = CET
->
```

4. **(Optional) If you want to use a time server, follow these steps:**

   a. **Set the IP addresses of the time servers.**

```
-> set /SP/clients/ntp/server/number address=IP_address
```

where:

- *number* is 1 for the first time server and 2 for the second time server.

- *IP_address* is the IP address of the time server.

For example, to use the time servers with addresses 123.45.67.89 and 123.45.67.88:

```
-> set /SP/clients/ntp/server/1 address=123.45.67.89
Set 'address' to '123.45.67.89'
-> set /SP/clients/ntp/server/2 address=123.45.67.88
Set 'address' to '123.45.67.88'
->
```

b. Start using the time servers.

```
-> set /SP/clock usentpserver=enabled
Set 'usentpserver' to 'enabled'
->
```

The management controller is configured to use the time servers.

Related Information

- "`set` Command" on page 266
- "Set the Date and Time (Web)" on page 137
- "Set the Date and Time (SNMP)" on page 233

▼ Enable the Locator LED (CLI)

1. **Access the Oracle ILOM CLI.**

   See "Accessing Oracle ILOM From the CLI" on page 34.

2. **Enable the Locator LED.**

```
-> set /SYS/I_LOCATOR value=on
Set 'value' to 'on'
->
```

The Locator LED flashes.

Related Information

- "`set` Command" on page 266
- "Enable the Locator LED (Web)" on page 138
- "Enable the Locator LED (IPMI)" on page 256
- "Disable the Locator LED (CLI)" on page 73

- "Display Switch Status LEDs States (CLI)" on page 43

▼ Disable the Locator LED (CLI)

1. **Access the Oracle ILOM CLI.**

   See "Accessing Oracle ILOM From the CLI" on page 34.

2. **Disable the Locator LED.**

```
-> set /SYS/I_LOCATOR value=off
Set 'value' to 'off'
->
```

The Locator LED is unlit.

Related Information

- "set Command" on page 266
- "Disable the Locator LED (Web)" on page 139
- "Disable the Locator LED (IPMI)" on page 256
- "Enable the Locator LED (CLI)" on page 72
- "Display Switch Status LEDs States (CLI)" on page 43

▼ Clear the Oracle ILOM Event Log (CLI)

1. **Access the Oracle ILOM CLI.**

   See "Accessing Oracle ILOM From the CLI" on page 34.

2. **Clear the Oracle ILOM event log.**

```
-> set /SP/logs/event clear=true
Are you sure you want to clear /SP/logs/event (y/n)? y
Set 'clear' to 'true'
->
```

The Oracle ILOM event log is cleared.

Related Information

- "set Command" on page 266
- "Clear the Oracle ILOM Event Log (Web)" on page 139
- "Clear the Oracle ILOM Event Log (SNMP)" on page 235

- "Display the Oracle ILOM Event Log (CLI)" on page 53
- "Set the Remote Log Hosts (CLI)" on page 74

▼ Set the Remote Log Hosts (CLI)

The Oracle ILOM implementation in the management controller provides a protocol for transmitting Oracle ILOM events to a remote log host. The events transmitted are similar to those displayed in the local log.

1. **Access the Oracle ILOM CLI.**

   See "Accessing Oracle ILOM From the CLI" on page 34.

2. **Set the remote log host IP address.**

```
-> set /SP/clients/syslog/number address=IP_address
```

   where:

   - *number* is `1` for the first log host and `2` for the second log host.
   - *IP_address* is the IP address of the log host.

   For example, to set the IP address of remote host 1 to 123.45.67.89:

```
-> set /SP/clients/syslog/1 address=123.45.67.89
Set 'address' to '123.45.67.89'
->
```

Note – Setting a remote log host IP address to `0.0.0.0` disables that functionality.

Related Information

- "`set` Command" on page 266
- "Set the Remote Log Hosts (Web)" on page 140
- "Set the Remote Log Hosts (SNMP)" on page 235
- "Display the Remote Log Hosts (CLI)" on page 64

▼ Configure the DNS Client (CLI)

To enable name services within the management controller, Oracle ILOM must be configured as a DNS client.

1. **Access the Oracle ILOM CLI.**

   See "Accessing Oracle ILOM From the CLI" on page 34.

2. **Configure the client with the DNS server information.**

```
-> set /SP/clients/dns auto_dns=state nameserver=IP_addresses searchpath='domains'
```

where:

- *state* is whether to retrieve DNS settings from the DHCP server. A value of `enabled` means from the DHCP server. A value of `disabled` means local settings.
- *IP_addresses* are a comma delimited list of up to three IP addresses of name servers in search order.
- *domains* are a comma delimited list of up to six domains or search suffixes in search order.

For example, to configure for local settings for the DNS client:

```
-> set /SP/clients/dns auto_dns=disabled nameserver=123.45.67.89,123.45.67.90
searchpath='india.sun.com,norway.sun.com'
Set 'auto_dns' to 'disabled'
Set 'nameserver' to '123.45.67.89,123.45.67.90'
Set 'searchpath' to 'india.sun.com,norway.sun.com'
->
```

Note – The number of `retries` and `timeout` are configurable. The default values of `1` and `5`, respectively, provide for optimal performance.

Related Information

- "`set` Command" on page 266
- "Configure the DNS Client (Web)" on page 140
- "Configure the DNS Client (SNMP)" on page 236
- "Display the DNS Client Status (CLI)" on page 58

▼ Configure the SMTP Client (CLI)

To enable email alerts, Oracle ILOM must be configured as an SMTP client.

1. **Access the Oracle ILOM CLI.**

   See "Accessing Oracle ILOM From the CLI" on page 34.

2. **Configure the client with the SMTP server information.**

```
-> set /SP/clients/smtp address=IP_address custom_sender=email state=state
```

where:

- *IP_address* is the IP address of the SMTP server.
- *email* is the sender, as seen in the `From:` field. For example: `ilom-36p1@`*hostname*, where *hostname* is the host name of the management controller.
- *state* is either `enabled` or `disabled`.

For example:

```
-> set /SP/clients/smtp address=123.45.67.89 custom_sender=ilom-36p1@hostname
state=enabled
Set 'address' to '123.45.67.89'
Set 'custom_sender' to 'ilom-36p1@hostname'
Set 'state' to 'enabled'
->
```

3. **(Optional) Send a test email to verify SMTP client settings:**

   a. **Type.**

```
-> set /SP/clients/smtp send_test_email_to=email_to
```

   where *email_to* is the destination email address.

   b. **Verify the email was received.**

Related Information

- "`set` Command" on page 266
- "Configure the SMTP Client (Web)" on page 141
- "Configure the SMTP Client (SNMP)" on page 237
- "Display the SMTP Client Status (CLI)" on page 59

▼ Back Up the Configuration (CLI)

Note – You must use a passphrase to back up sensitive information, such as passwords.

Note – See "Switch Configuration Information Backed Up" on page 78 for what switch configuration information is backed up.

1. **Access the Oracle ILOM CLI.**

   See "Accessing Oracle ILOM From the CLI" on page 34.

2. **Set the passphrase for the backup.**

```
-> set /SP/config passphrase=phrase
```

   where *phrase* is an alphanumeric string. For example:

```
-> set /SP/config passphrase=user1234
Set 'passphrase' to 'user1234'
->
```

3. **Back up the configuration.**

```
-> set /SP/config dump_uri=URI
```

   where *URI* is the uniform resource indicator.

   For example, to dump the configuration as the `my.config` file to the `/opt/dump` directory on a server with IP address 123.45.67.89 using the SCP protocol:

```
-> set /SP/config dump_uri=scp://root:changeme@123.45.67.89/opt/dump/my.config
Dump successful.
->
```

   The configuration is backed up as the `my.config` XML file.

Related Information

- "`set` Command" on page 266
- "Switch Configuration Information Backed Up" on page 78
- "Back Up the Configuration (Web)" on page 142
- "Restore the Configuration (CLI)" on page 78

Switch Configuration Information Backed Up

When you back up the configuration with a passphrase, this switch-specific information is saved into an `.xml` file:

- DCS configuration
- User Subnet Manager configuration
- Environment daemon configuration
- List of disabled ports
- SNMP InfiniBand configuration

Related Information

- "Back Up the Configuration (CLI)" on page 77
- "Back Up the Configuration (Web)" on page 142

▼ Restore the Configuration (CLI)

Note – You must use the correct passphrase when restoring the configuration that was backed up with a passphrase.

1. **Access the Oracle ILOM CLI.**

   See "Accessing Oracle ILOM From the CLI" on page 34.

2. **Set the passphrase for the restore.**

```
-> set /SP/config passphrase=phrase
```

   where *phrase* is an alphanumeric string. For example

```
-> set /SP/config passphrase=user1234
Set 'passphrase' to 'user1234'
->
```

3. **Restore the configuration.**

```
-> set /SP/config load_uri=URI
```

where *URI* is the uniform resource indicator.

For example, to load the configuration as the `my.config` file from the `/opt/dump` directory on a server with IP address 123.45.67.89 using the SCP protocol:

```
-> set /SP/config load_uri=scp://root:changeme@123.45.67.89/opt/dump/my.config
Load successful.
->
```

The configuration is restored.

Related Information

- "`set` Command" on page 266
- "Restore the Configuration (Web)" on page 143
- "Back Up the Configuration (CLI)" on page 77
- "Switch Configuration Information Backed Up" on page 78

▼ Create a Snapshot of the Switch State (CLI)

The snapshot utility collects log files, executes various commands and collects their output, and sends the data collected to a user-defined location. The dataset property of the `/SP/diag/snapshot` target defines the data that is collected. See "Snapshot Dataset Information (CLI)" on page 81.

The snapshot describes the state of the switch at a particular moment in time. You can use this information for fault diagnosis.The snapshot utility requires administrator privileges.

1. **Access the Oracle ILOM CLI.**

   See "Accessing Oracle ILOM From the CLI" on page 34.

2. **Create a snapshot of the switch state.**

```
-> set /SP/diag/snapshot dataset=value dump_uri=URI
```

where:

- *value* is the type of dataset, as described in the table in "Snapshot Dataset Information (CLI)" on page 81.

- *URI* is the uniform resource indicator (FTP and SFTP supported)

For example, to take a snapshot of the `normal` dataset and transfer the snapshot using the FTP protocol to the `/tftpboot/normal` directory of the host with IP address 123.45.67.89 as the `root` user:

```
-> set /SP/diag/snapshot dataset=normal dump_uri=
ftp://root:changeme@123.45.67.89//tftpboot/normal
Set 'dataset' to 'normal'
Set 'dump_uri' to 'ftp://root:changeme@123.45.67.89//tftpboot/normal'
->
```

The snapshot process takes several minutes to complete.

3. **(Optional) Check the progress of the snapshot process.**

```
-> show /SP/diag/snapshot result
 /SP/diag/snapshot
  Properties:
      result = Running
->
```

This example shows the progress of the snapshot process, after it has finished:

```
-> show /SP/diag/snapshot result
 /SP/diag/snapshot
  Properties:
     result = Collecting data into
ftp://root:*****@123.45.67.89//tftpboot/normal/magnum_123.45.67.89_2011-01-07T
14-43-15.zip
Snapshot Complete
Done.
->
```

Related Information

- "`set` Command" on page 266
- "`show` Command" on page 267
- "Snapshot Dataset Information (CLI)" on page 81
- "Create a Snapshot of the Switch State (Web)" on page 144

Snapshot Dataset Information (CLI)

The `dataset` property of the `/SP/diag/snapshot` target determines what data is included in the snapshot. This table provides a listing of the dataset values and the data that is included in the snapshot.

Dataset Value	Description
`normal`	Contains Oracle ILOM data, basic operating system data, and switch configuration data.
`normal-logonly`	Contains only log entries that pertain to Oracle ILOM data, basic operating system data, and switch hardware data.
`fruid`	Contains normal dataset information, with additional FRUID data.
`fruid-logonly`	Contains only log entries that pertain to Oracle ILOM data, basic operating system data, switch hardware data, and additional FRUID data.
`full`	Contains normal dataset information, with additional FRUID data and diagnostic data.
`full-logonly`	Contains only log entries that pertain to Oracle ILOM data, basic operating system data, switch hardware data, additional FRUID data, and diagnostic data.

The snapshot is stored as a `.zip` file with a filename of this format:

hostname_IP_address_year-month-day`T`*hour-minute-second*`.zip`

for example:

`magnum_123.45.67.89_2011-01-07T14-43-15.zip`

Note – The `normal`, `fruid`, and `full` datasets of the snapshot utility are currently equivalent and contain the same data in the snapshot.

Related Information

- "Create a Snapshot of the Switch State (CLI)" on page 79

▼ Set the Network Management Parameters (CLI)

This task enables you to configure the NET MGT interface.

Note – This procedure makes changes that do not require a reset or reboot.

---

1. **Access the Oracle ILOM CLI.**

   See "Accessing Oracle ILOM From the CLI" on page 34.

2. **Configure the network management parameters.**

```
-> set /SP/network property=value property=value ...
```

   where:

   - *property* is the parameter of the network to configure.
   - *value* is the value of the *property* to configure.

   These properties are supported:

   - `pendingipaddress` – The *value* is the IP address of the management controller to be configured.
   - `pendingipdiscovery` – The *value* is the method of IP discovery to be configured, either `static` or `dhcp`.
   - `pendingipswitch` – The *value* is the IP address of the switch to be configured.
   - `pendingipnetmask` – The *value* is the netmask to be configured.

Note – You can configure one, several, or all properties in one command line.

---

3. **Commit the changes.**

```
-> set /SP/network commitpending=true
```

For example, to set the IP address of the management controller:

```
-> show /SP/network ipaddress
 /SP/network
  Properties:
     ipaddress = 123.45.67.89
-> set /SP/network pendingipaddress=123.45.67.90
Set 'pendingipaddress' to '123.45.67.90'
-> set /SP/network commitpending=true
Set 'commitpending' to 'true'
```

The IP address has changed to `123.45.67.90`.

Note – Changing some network management properties terminates the NET MGT connection to the management controller. You must re-establish the connection to continue administering the management controller. See "Accessing Oracle ILOM From the CLI" on page 34.

---

4. **Access the Oracle ILOM CLI using the new IP address.**

   See "Accessing Oracle ILOM From the CLI" on page 34.

5. **Display the new IP address.**

```
-> show /SP/network ipaddress
 /SP/network
  Properties:
     ipaddress = 123.45.67.90
->
```

Related Information

- "`set` Command" on page 266
- "`show` Command" on page 267
- "Set the Network Management Parameters (Web)" on page 145
- "Set the Network Parameters (SNMP)" on page 238

▼ Set the System Identification Properties (CLI)

1. **Access the Oracle ILOM CLI.**

   See "Accessing Oracle ILOM From the CLI" on page 34.

2. **Set the host name property.**

```
-> set /SP hostname=string
```

   For example:

```
-> set /SP hostname=us-36p-1
Set 'hostname' to 'us-36p-1'
->
```

3. **Set the system contact property.**

```
-> set /SP system_contact=string
```

   For example:

```
-> set /SP system_contact='sysadmin'
Set 'system_contact' to 'sysadmin'
->
```

4. **Set the system identifier property.**

```
-> set /SP system_identifier=string
```

   For example:

```
-> set /SP system_identifier='data center'
Set 'system_identifier' to 'data center'
->
```

5. **Set the system location property.**

```
-> set /SP system_location=string
```

For example:

```
-> set /SP system_location='3rd floor'
Set 'system_location' to '3rd floor'
->
```

6. **Display the identification properties.**

```
-> show -d properties /SP
 /SP/cli
  Properties:
      hostname = us-36p-1
      system_contact = sysadmin
      system_description = Sun Datacenter InfiniBand Switch 36, ILOM v2.0.5-1,
r47111
      system_identifier = data center
      system_location = 3rd floor
->
```

Related Information

- "Set the System Identification Properties (Web)" on page 146
- "Set the System Identification Properties (SNMP)" on page 240
- "Display System Identification Properties (CLI)" on page 68

Performing Oracle ILOM User Tasks (CLI)

These tasks enable you to change and configure Oracle ILOM user targets.

- "Add an Oracle ILOM User Account (CLI)" on page 86
- "Change an Oracle ILOM User's Password and or Role (CLI)" on page 86
- "Delete an Oracle ILOM User Account (CLI)" on page 87

Related Information

- "Performing Oracle ILOM User Tasks (Web)" on page 146
- "Performing General Tasks on Oracle ILOM Targets (CLI)" on page 69

▼ Add an Oracle ILOM User Account (CLI)

1. **Access the Oracle ILOM CLI.**

   See "Accessing Oracle ILOM From the CLI" on page 34.

2. **Add an Oracle ILOM user.**

```
-> create /SP/user/username
```

   where *username* is the name of the user's account.

   For example, to add a user named `testuser`:

```
-> create /SP/users/testuser
Creating user...
Enter new password: ********
Enter new password again: ********
Created /SP/users/testuser
->
```

Note – New users are assigned the role of `o` (operator) or Read only by default.

   The Oracle ILOM user `testuser` is added.

Related Information

- "`create` Command" on page 259
- "Add an Oracle ILOM User Account (Web)" on page 147
- "Add an Oracle ILOM User Account (SNMP)" on page 241
- "Delete an Oracle ILOM User Account (CLI)" on page 87

▼ Change an Oracle ILOM User's Password and or Role (CLI)

1. **Access the Oracle ILOM CLI.**

   See "Accessing Oracle ILOM From the CLI" on page 34.

2. **Change the Oracle ILOM user's configuration.**

```
-> set /SP/users/username password=password role=role
```

   where:

- *username* is the user account name.
- *password* is the new password.
- *role* is the new role for the user.

For the *role*, you can use the characters of the `aucros` string to enable the respective abilities:

- `a` – Administrator
- `u` – User management
- `c` – Console
- `r` – Reset and host control
- `o` – Read only (operator)
- `s` – Service

Note – You can change the user password and role independently.

For example, to change the password for the `ilom-operator` user:

```
-> set /SP/users/ilom-operator password=knockknock
Changing password for user /SP/users/ilom-operator...
Enter new password again: **********
New password was successfully set for user /SP/users/ilom-operator
->
```

The `ilom-operator` user's password is changed.

Caution – With this procedure, it is also possible for the `ilom-admin` user to reset the `root` user password, should it be lost or forgotten. The `ilom-admin` user must use the USB management port to reset the `root` user password. See "Access the Oracle ILOM Shell From the CLI (USB Management Port)" on page 35.

Related Information

- "`set` Command" on page 266
- "Change an Oracle ILOM User's Password and or Role (Web)" on page 148

▼ Delete an Oracle ILOM User Account (CLI)

1. **Access the Oracle ILOM CLI.**

   See "Accessing Oracle ILOM From the CLI" on page 34.

2. **Delete the Oracle ILOM user.**

```
-> delete /SP/users/username
```

where *username* is the name of the user's account.

For example, to delete the `testuser` user:

```
-> delete /SP/users/testuser
Are you sure you want to delete /SP/users/testuser (y/n)? y
Deleted /SP/users/testuser
->
```

The Oracle ILOM user `testuser` is deleted.

Related Information

- "`delete` Command" on page 260
- "Delete an Oracle ILOM User Account (Web)" on page 148
- "Delete an Oracle ILOM User Account (SNMP)" on page 242
- "Add an Oracle ILOM User Account (CLI)" on page 86

Managing HTTP Services (CLI)

These tasks help you manage the Oracle ILOM HTTP service targets.

- "Enable the HTTP Service (CLI)" on page 88
- "Disable the HTTP Service (CLI)" on page 89

Related Information

- "Managing HTTP Services (Web)" on page 149
- "Managing HTTPS Services (CLI)" on page 90
- "Managing SNMP Services (CLI)" on page 93
- "Managing IPMI Services (CLI)" on page 100

▼ Enable the HTTP Service (CLI)

Note – The HTTP service is disabled and the HTTPS service is enabled by default.

1. **Access the Oracle ILOM CLI.**

   See "Accessing Oracle ILOM From the CLI" on page 34.

2. **Enable the HTTP service.**

```
-> set /SP/services/http servicestate=enabled
Set 'servicestate' to 'enabled'
->
```

The HTTP service is enabled.

Related Information

- "`set` Command" on page 266
- "Enable the HTTP Service (Web)" on page 149
- "Set the HTTP Service State (SNMP)" on page 243
- "Disable the HTTP Service (CLI)" on page 89

▼ Disable the HTTP Service (CLI)

Note – The HTTP service is disabled by default.

1. **Access the Oracle ILOM CLI.**

   See "Accessing Oracle ILOM From the CLI" on page 34.

2. **Disable the HTTP service.**

```
-> set /SP/services/http servicestate=disabled
Set 'servicestate' to 'disabled'
->
```

The HTTP service is disabled.

Related Information

- "`set` Command" on page 266
- "Disable the HTTP Service (Web)" on page 150
- "Set the HTTP Service State (SNMP)" on page 243
- "Enable the HTTP Service (CLI)" on page 88

Managing HTTPS Services (CLI)

These tasks help you manage the Oracle ILOM HTTPS service targets.

- "Enable the HTTPS Service (CLI)" on page 90
- "Install a Custom SSL Certificate (CLI)" on page 91
- "Remove the Custom SSL Certificate (CLI)" on page 91
- "Disable the HTTPS Service (CLI)" on page 92

Related Information

- "Managing HTTPS Services (Web)" on page 151
- "Managing HTTP Services (CLI)" on page 88
- "Managing SNMP Services (CLI)" on page 93
- "Managing IPMI Services (CLI)" on page 100

▼ Enable the HTTPS Service (CLI)

Note – This procedure enables an HTTPS connection to the web interface. The HTTPS service is enabled by default.

1. **Access the Oracle ILOM CLI.**

   See "Accessing Oracle ILOM From the CLI" on page 34.

2. **Enable secure redirection.**

```
-> set /SP/services/http secureredirect=enabled
Set 'secureredirect' to 'enabled'
->
```

3. **Enable the HTTPS service.**

```
-> set /SP/services/https servicestate=enabled
Set 'servicestate' to 'enabled'
->
```

The HTTPS service is enabled.

Related Information

- "`set` Command" on page 266

- "Enable the HTTPS Service (Web)" on page 151
- "Set the HTTPS Service State (SNMP)" on page 243
- "Disable the HTTPS Service (CLI)" on page 92

▼ Install a Custom SSL Certificate (CLI)

1. **Access the Oracle ILOM CLI.**

   See "Accessing Oracle ILOM From the CLI" on page 34.

2. **Load the certificate.**

```
-> load -source URI /SP/services/https/ssl/custom_cert
```

   where *URI* is the uniform resource indicator.

   For example, to load a certificate named `server.pem` from IP address 123.45.67.89 using the TFTP protocol:

```
-> load -source tftp://123.45.67.89//server.pem
/SP/services/https/ssl/custom_cert
Load successful.
->
```

   The certificate is loaded.

Related Information

- "`load` Command" on page 264
- "Install a Custom SSL Certificate (Web)" on page 152
- "Remove the Custom SSL Certificate (CLI)" on page 91

▼ Remove the Custom SSL Certificate (CLI)

1. **Access the Oracle ILOM CLI.**

   See "Accessing Oracle ILOM From the CLI" on page 34.

2. **Remove the certificate.**

```
-> reset /SP/services/https/ssl/custom_cert
Are you sure you want to reset /SP/services/https/ssl/customer_cert (y/n)? y
Performing reset on /SP/services/https/ssl/custom_cert
->
```

The certificate is removed.

Related Information

- "`reset` Command" on page 265
- "Remove the Custom SSL Certificate (Web)" on page 152
- "Install a Custom SSL Certificate (CLI)" on page 91

▼ Disable the HTTPS Service (CLI)

Note – This procedure disables the HTTPS connection to the web interface. To access the web interface, either the HTTP service or the HTTPS service must be enabled.

1. **Access the Oracle ILOM CLI.**

   See "Accessing Oracle ILOM From the CLI" on page 34.

2. **Disable secure redirection.**

```
-> set /SP/services/http secureredirect=disabled
Set 'secureredirect' to 'disabled'
->
```

3. **Disable the HTTPS service.**

```
-> set /SP/services/https servicestate=disabled
Set 'servicestate' to 'disabled'
->
```

The HTTPS service is disabled.

Related Information

- "`set` Command" on page 266
- "Disable the HTTPS Service (Web)" on page 153
- "Set the HTTPS Service State (SNMP)" on page 243

- "Enable the HTTPS Service (CLI)" on page 90

Managing SNMP Services (CLI)

These tasks help you manage the Oracle ILOM SNMP service targets.

- "Enable the SNMP Service (CLI)" on page 93
- "Configure the SNMP Service (CLI)" on page 94
- "Add SNMP Service User Accounts (CLI)" on page 95
- "Modify SNMP Service User Accounts (CLI)" on page 96
- "Delete SNMP Service User Accounts (CLI)" on page 97
- "Add SNMP Service Communities (CLI)" on page 97
- "Modify SNMP Service Communities (CLI)" on page 98
- "Delete SNMP Service Communities (CLI)" on page 98
- "Download SNMP Service MIBs (CLI)" on page 99
- "Disable the SNMP Service (CLI)" on page 100

Related Information

- "Managing SNMP Services (Web)" on page 153
- "Managing HTTP Services (CLI)" on page 88
- "Managing HTTPS Services (CLI)" on page 90
- "Managing IPMI Services (CLI)" on page 100

▼ Enable the SNMP Service (CLI)

Note – The SNMP service is enabled by default.

1. **Access the Oracle ILOM CLI.**

   See "Accessing Oracle ILOM From the CLI" on page 34.

2. **Enable the SNMP service.**

```
-> set /SP/services/snmp servicestate=enabled
Set 'servicestate' to 'enabled'
->
```

   The SNMP service is enabled.

Related Information

- "`set` Command" on page 266
- "Enable the SNMP Service (Web)" on page 154
- "Disable the SNMP Service (CLI)" on page 100

▼ Configure the SNMP Service (CLI)

1. **Access the Oracle ILOM CLI.**

   See "Accessing Oracle ILOM From the CLI" on page 34.

2. **Configure the SNMP parameters.**

```
-> set /SP/services/snmp property=value property=value ...
```

where:

- *property* is the parameter of the SNMP service to configure.
- *value* is the value of the *property* to configure

These properties are supported:

- `port` – The *value* is the UDP port for SNMP.
- `servicestate` – The *value* is either `enabled` or `disabled`.
- `sets` – The *value* is either `enabled` or `disabled` for set requests.
- `v1` – The *value* is either `enabled` or `disabled` for this protocol.
- `v2c` – The *value* is either `enabled` or `disabled` for this protocol.
- `v3` – The *value* is either `enabled` or `disabled` for this protocol.

Note – You can configure one to all properties in one command line.

For example, to enable `sets` and the `v2c` protocol:

```
-> set /SP/services/snmp sets=enabled v2c=enabled
Set 'sets' to 'enabled'
Set 'v2c' to 'enabled'
->
```

Related Information

- "`set` Command" on page 266
- "Configure the SNMP Service (Web)" on page 154

▼ Add SNMP Service User Accounts (CLI)

1. **Access the Oracle ILOM CLI.**

   See "Accessing Oracle ILOM From the CLI" on page 34.

2. **Add a new SNMP user.**

```
-> create /SP/services/snmp/users/username authenticationpassword=password
```

where:

- *username* is the name of the SNMP user.
- *password* is the password used for authentication.

For example, to create an SNMP user with the name of `snmpuser` and the password of `changeme`:

```
-> create /SP/services/snmp/users/snmpuser authenticationpassword=changeme
Created /SP/services/snmp/users/snmpuser
->
```

Note – By default, new users are given read-only permissions and no privacy protocol.

3. **(Optional) Configure the user with a privacy protocol and password.**

```
-> set /SP/services/snmp/users/snmpuser privacyprotocol=DES privacypassword=
password authenticationpassword=password
```

For example, to configure the `snmpuser` with the DES protocol and privacy password of `changeme`:

```
-> set /SP/services/snmp/users/snmpuser privacyprotocol=DES privacypassword=
changeme authenticationpassword=changeme
Set 'privacyprotocol' to 'DES'
Set 'privacypassword' to 'changeme'
Set 'authenticationpassword' to 'changeme'
User /SP/services/snmp/users/snmpuser properties were updated successfully
->
```

The SNMP user `snmpuser` is configured.

Related Information

- "`load` Command" on page 264

- "set Command" on page 266
- "Add SNMP Service User Accounts (Web)" on page 155
- "Delete SNMP Service User Accounts (CLI)" on page 97

▼ Modify SNMP Service User Accounts (CLI)

1. **Access the Oracle ILOM CLI.**

   See "Accessing Oracle ILOM From the CLI" on page 34.

2. **Modify an SNMP user.**

```
-> set /SP/services/snmp/users/username property=value property=value ...
```

   where:

   - *username* is the name of the SNMP user to modify.
   - *property* is the parameter of the SNMP user to configure.
   - *value* is the value of the *property* to configure.

   These properties are supported:

   - `authenticationpassword` – The *value* is the password used for authentication.
   - `authenticationprotocol` – The *value* is the protocol used for authentication.
   - `permission` – The *value* is permission granted to the SNMP user.
   - `privacypassword` – The *value* is the password used for privacy.
   - `privacyprotocol` – The *value* is the protocol used for privacy.

   For example, to configure the `snmpuser` with read and write permissions:

```
-> set /SP/services/snmp/users/snmpuser permission=rw
Set 'permission' to 'rw'
User /SP/services/snmp/users/snmpuser properties were updated successfully
->
```

Related Information

- "set Command" on page 266
- "Modify SNMP Service User Accounts (Web)" on page 156

▼ Delete SNMP Service User Accounts (CLI)

1. **Access the Oracle ILOM CLI.**

   See "Accessing Oracle ILOM From the CLI" on page 34.

2. **Delete an SNMP user.**

```
-> delete /SP/services/snmp/users/username
```

   where *username* is the name of the SNMP user to be deleted.

   For example, to delete the `snmpuser`:

```
-> delete /SP/services/snmp/users/snmpuser
Are you sure you want to delete /SP/services/snmp/users/snmpuser (y/n)? y
Deleted /SP/services/snmp/users/snmpuser
->
```

   The SNMP user `snmpuser` is deleted.

Related Information

- "`delete` Command" on page 260
- "Delete SNMP Service User Accounts (Web)" on page 157
- "Add SNMP Service User Accounts (CLI)" on page 95

▼ Add SNMP Service Communities (CLI)

1. **Access the Oracle ILOM CLI.**

   See "Accessing Oracle ILOM From the CLI" on page 34.

2. **Add an SNMP community.**

```
-> create /SP/services/snmp/communities/community permission=rw
```

   where *community* is the name of the SNMP community to create.

   For example, to add the community `newcom`:

```
-> create /SP/services/snmp/communities/newcom permission=rw
Created /SP/services/snmp/communities/newcom
->
```

   The SNMP community `newcom` is added.

Related Information

- "`create` Command" on page 259
- "Add SNMP Service Communities (Web)" on page 157
- "Delete SNMP Service Communities (CLI)" on page 98

▼ Modify SNMP Service Communities (CLI)

1. **Access the Oracle ILOM CLI.**

   See "Accessing Oracle ILOM From the CLI" on page 34.

2. **Modify an SNMP community.**

```
-> set /SP/services/snmp/communities/community property=value property=
value ...
```

   where:

   - *community* is the name of the SNMP community to modify.
   - *property* is the parameter of the SNMP community to configure.
   - *value* is the value of the *property* to configure.

   This property is supported:

   - `permission` – The *value* is permission granted to the SNMP community.

   For example, to configure the `newcom` community with read only permissions:

```
-> set /SP/services/snmp/communities/newcom permission=ro
Set 'permission' to 'ro'
->
```

Related Information

- "`set` Command" on page 266
- "Modify SNMP Service Communities (Web)" on page 158

▼ Delete SNMP Service Communities (CLI)

1. **Access the Oracle ILOM CLI.**

   See "Accessing Oracle ILOM From the CLI" on page 34.

2. **Delete an SNMP community.**

```
-> delete /SP/services/snmp/communities/community
```

where *community* is the name of the SNMP community to delete.

For example, to delete the `newcom` community:

```
-> delete /SP/services/snmp/communities/newcom
Are you sure you want to delete /SP/services/snmp/communities/newcom (y/n)? y
Deleted /SP/services/snmp/communities/newcom
->
```

The SNMP community `newcom` is deleted.

Related Information

- "`delete` Command" on page 260
- "Delete SNMP Service Communities (Web)" on page 159
- "Add SNMP Service Communities (CLI)" on page 97

▼ Download SNMP Service MIBs (CLI)

This procedure creates a compressed file, `ilom-mibs.zip`, that contains these MIBs:

- `ENTITY-MIB.mib`
- `SUN-HW-TRAP-MIB.mib`
- `SUN-ILOM-CONTROL-MIB.mib`
- `SUN-PLATFORM-MIB.mib`
- `SUN-FABRIC-MIB.mib`
- `SUN-DCS-IB-MIB.txt`

1. **Access the Oracle ILOM CLI.**

   See "Accessing Oracle ILOM From the CLI" on page 34.

2. **Download the MIBs.**

```
-> dump -destination URI /SP/services/snmp/mibs
```

where *URI* is the uniform resource indicator.

For example, to dump the MIBs as the `ilom-mibs.zip` file to a server with IP address 123.45.67.89 using the FTP protocol:

```
-> dump -destination ftp://root:changeme@123.45.67.89/tftpboot/ilom-mibs.zip
/SP/services/snmp/mibs
Dump successful.
->
```

The MIBs are downloaded.

Related Information

- "`dump` Command" on page 261
- "Download SNMP Service MIBs (Web)" on page 159

▼ Disable the SNMP Service (CLI)

1. **Access the Oracle ILOM CLI.**

   See "Accessing Oracle ILOM From the CLI" on page 34.

2. **Disable the service.**

```
-> set /SP/services/snmp servicestate=disabled
Set 'servicestate' to 'disabled'
->
```

The SNMP service is disabled.

Related Information

- "`set` Command" on page 266
- "Disable the SNMP Service (Web)" on page 160
- "Enable the SNMP Service (CLI)" on page 93

Managing IPMI Services (CLI)

These tasks help you manage the Oracle ILOM IPMI service target.

- "Enable the IPMI Service (CLI)" on page 101
- "Disable the IPMI Service (CLI)" on page 101

Related Information

- "Managing IPMI Services (Web)" on page 160
- "Managing HTTP Services (CLI)" on page 88
- "Managing HTTPS Services (CLI)" on page 90
- "Managing SNMP Services (CLI)" on page 93

▼ Enable the IPMI Service (CLI)

Note – The IPMI service is enabled by default.

1. **Access the Oracle ILOM CLI.**

   See "Accessing Oracle ILOM From the CLI" on page 34.

2. **Enable the IPMI service.**

```
-> set /SP/services/ipmi servicestate=enabled
Set 'servicestate' to 'enabled'
->
```

   The IPMI service is enabled.

Related Information

- "`set` Command" on page 266
- "Enable the IPMI Service (Web)" on page 161
- "Disable the IPMI Service (CLI)" on page 101
- "Display the IPMI Service Status (CLI)" on page 58

▼ Disable the IPMI Service (CLI)

1. **Access the Oracle ILOM CLI.**

   See "Accessing Oracle ILOM From the CLI" on page 34.

2. **Disable the service.**

```
-> set /SP/services/ipmi servicestate=disabled
Set 'servicestate' to 'disabled'
->
```

The IPMI service is disabled.

Related Information

- "`set` Command" on page 266
- "Disable the IPMI Service (Web)" on page 161
- "Enable the IPMI Service (CLI)" on page 101
- "Display the IPMI Service Status (CLI)" on page 58

Managing Other Aspects With Oracle ILOM (CLI)

These tasks help you manage other aspect of ILOM.

- "Enable Alerts to Send SNMP Traps (CLI)" on page 102
- "Enable Alerts to Send PETs (CLI)" on page 104
- "Enable Alerts to Send Email Alerts (CLI)" on page 105
- "Disable Alerts (CLI)" on page 106
- "Set the Oracle ILOM CLI Session Timeout (CLI)" on page 107

Related Information

- "Managing Other Aspects With Oracle ILOM (Web)" on page 162
- "Managing Other Aspects With Oracle ILOM (SNMP)" on page 242
- "Performing General Tasks on Oracle ILOM Targets (CLI)" on page 69

▼ Enable Alerts to Send SNMP Traps (CLI)

1. **Access the Oracle ILOM CLI.**

   See "Accessing Oracle ILOM From the CLI" on page 34.

2. **Enable alerts to send SNMP traps.**

```
-> set /SP/alertmgmt/rules/alert/ destination=IP_address destination_port=162 level=
level snmp_version=version
```

where:

- *alert* is the number of the alert.
- *IP_address* is the IP address of the host to receive the SNMP trap.
- *level* is the level of the alert.
- *version* is the version of SNMP trap.

For example, to set alert 1 to send `v2c` SNMP traps on occurrence of `minor` or higher severity events to the host at 123.45.67.89:

```
-> set /SP/alertmgmt/rules/1/ destination=123.45.67.89 destination_port=162
level=minor snmp_version=2c
Set 'destination' to '123.45.67.89'
Set 'destination_port' to '162'
Set 'level' to 'minor'
Set 'snmp_version' to '2c'
->
```

Note – The destination port of 162 is the default used.

This is an example of an SNMP v2c trap of when the aggregate sensor is in the state of `Asserted`:

```
Sep 12 13:12:38 mnm-blr-2 snmptrapd[1514]: [ID 702911 daemon.warning]
123.45.67.90 [123.45.67.90]: Trap
DISMAN-EVENT-MIB::sysUpTimeInstance = Timeticks: (4472) 0:00:44.72,
SNMPv2-MIB::snmpTrapOID.0 = OID:
SNMPv2-SMI::enterprises.42.2.175.103.2.0.43,
SNMPv2-SMI::enterprises.42.2.175.103.2.1.1.0 = STRING: "123.45.67.90",
SNMPv2-SMI::enterprises.42.2.175.103.2.1.14.0 = STRING: "00000002",
SNMPv2-SMI::enterprises.42.2.175.103.2.1.15.0 = STRING: "Sun
Datacenter InfiniBand Switch 36", SNMPv2-SMI::enterprises.42.2.175.103.2.1.2.0
= STRING: "/SYS/CHASSIS_STATUS",
SNMPv2-SMI::enterprises.42.2.175.103.2.1.9.0 = STRING: "State Asserted",
SNMPv2-SMI::enterprises.42.2.175.103.2.1.10.0 = OID:
SNMPv2-SMI::mib-2.47.1.1.1.1.2.3
```

In the output, the trap source is the switch and the component raising the trap is `/SYS/CHASSIS_STATUS` or the aggregate sensor. The sensor is `State Asserted`.

Related Information

- "`set` Command" on page 266
- "Enable Alerts to Send SNMP Traps (Web)" on page 162
- "Enable Alerts to Send SNMP Traps (SNMP)" on page 244
- "Enable Alerts to Send PETs (CLI)" on page 104
- "Enable Alerts to Send Email Alerts (CLI)" on page 105
- "Display the Alert Properties (CLI)" on page 62
- "Disable Alerts (CLI)" on page 106

▼ Enable Alerts to Send PETs (CLI)

1. **Access the Oracle ILOM CLI.**

   See "Accessing Oracle ILOM From the CLI" on page 34.

2. **Enable alerts to send PETs.**

```
-> set /SP/alertmgmt/rules/alert/ destination=IP_address level=level type=ipmipet
```

where:

- *alert* is the number of the alert.
- *IP_address* is the IP address of the host to receive the PET trap.
- *level* is the level of the alert.

For example, to set alert 2 to send PET traps on occurrence of `minor` or higher severity events to the host at 123.45.67.89:

```
-> set /SP/alertmgmt/rules/2/ destination=123.45.67.89 level=minor type=ipmipet
Set 'destination' to '123.45.67.89'
Set 'level' to 'minor'
Set 'type' to 'ipmipet'
->
```

This is an example of a PET trap of when the aggregate sensor is in the state of `Asserted`:

```
Sep 12 13:12:38 mnm-blr-2 snmptrapd[1514]: [ID 702911 daemon.warning]
123.45.67.90: Enterprise Specific Trap (12583681) Uptime: 117 days, 8:00:20.80,
SNMPv2-SMI::enterprises.3183.1.1.1 = Hex-STRING: FF 20 00 08 FF FF FF FF FF FF
8E 00 28 4B E0 00
Sep 12 13:12:38 mnm-blr-2 02 00 A0 EB C1 07 FF FF 20 20 02 20 01 00 00 01
Sep 12 13:12:38 mnm-blr-2 FF FF 00 00 00 00 00 19 2A 00 00 00 30 30 80 0F
Sep 12 13:12:38 mnm-blr-2 03 43 48 41 53 53 49 53 5F 53 54 41 54 55 53 00
```

```
Sep 12 13:12:38 mnm-blr-2 80 26 03 53 75 6E 54 4D 20 44 61 74 61 63 65 6E
Sep 12 13:12:38 mnm-blr-2 74 65 72 20 49 6E 66 69 6E 69 42 61 6E 64 20 53
Sep 12 13:12:38 mnm-blr-2 77 69 74 63 68 20 33 36 00 C1 00 00 00 00
```

Related Information

- "`set` Command" on page 266
- "Enable Alerts to Send PETs (Web)" on page 163
- "Enable Alerts to Send PETs (SNMP)" on page 245
- "Enable Alerts to Send SNMP Traps (CLI)" on page 102
- "Enable Alerts to Send Email Alerts (CLI)" on page 105
- "Display the Alert Properties (CLI)" on page 62
- "Disable Alerts (CLI)" on page 106

▼ Enable Alerts to Send Email Alerts (CLI)

1. **Access the Oracle ILOM CLI.**

   See "Accessing Oracle ILOM From the CLI" on page 34.

2. **Enable alerts to send emails.**

```
-> set /SP/alertmgmt/rules/alert destination=email_to type=email
email_custom_sender=email_from level=level
```

where:

- *alert* is the number of the alert.
- *email_to* is the email address to receive the alert.
- *email_from* is the sender, as seen in the `From:` field. For example: `ilom-36pl-`*hostname*, where *hostname* is the host name of the management controller.
- *level* is the level of the alert.

For example, to set alert 1 to send an email to `user@headsup.com` whenever a major or higher severity event happens:

```
-> set /SP/alertmgmt/rules/1 destination=user@headsup.com type=email
email_custom_sender=ilom-36pl-magnum level=major
Set 'destination' to 'user@headsup.com'
Set 'type' to 'email'
Set 'email_custom_sender' to 'ilom-36pl-magnum'
Set 'level' to 'major'
->
```

Related Information

- "`set` Command" on page 266
- "Enable Alerts to Send Email Alerts (Web)" on page 164
- "Enable Alerts to Send Email Alerts (SNMP)" on page 246
- "Enable Alerts to Send SNMP Traps (CLI)" on page 102
- "Enable Alerts to Send PETs (CLI)" on page 104
- "Display the Alert Properties (CLI)" on page 62
- "Disable Alerts (CLI)" on page 106

▼ Disable Alerts (CLI)

1. **Access the Oracle ILOM CLI.**

   See "Accessing Oracle ILOM From the CLI" on page 34.

2. **Disable the alerts.**

```
-> set /SP/alertmgmt/rules/alert level=disable
```

   where *alert* is the number of the alert to disable.

   For example, to disable alert 1:

```
-> set /SP/alertmgmt/rules/1 level=disable
Set 'level' to 'disable'
->
```

   The alert is disabled.

Related Information

- "`set` Command" on page 266
- "Disable Alerts (Web)" on page 164
- "Disable Alerts (SNMP)" on page 248
- "Display the Alert Properties (CLI)" on page 62
- "Enable Alerts to Send SNMP Traps (CLI)" on page 102
- "Enable Alerts to Send PETs (CLI)" on page 104
- "Enable Alerts to Send Email Alerts (CLI)" on page 105

▼ Set the Oracle ILOM CLI Session Timeout (CLI)

1. **Access the Oracle ILOM CLI.**

   See "Accessing Oracle ILOM From the CLI" on page 34.

2. **Set the Oracle ILOM CLI session timeout.**

```
-> set /SP/cli timeout=value
```

   where *value* is the number of minutes for session timeout (`1–1440`).

   For example, to set the timeout for 100 minutes:

```
-> set /SP/cli timeout=100
Set 'timeout' to '100'
->
```

Note – Setting a timeout *value* of `0` disables the timeout feature.

   The CLI session timeout is set.

Related Information

- "`set` Command" on page 266
- "Set the CLI Session Timeout (Web)" on page 165

Upgrading the Switch Firmware Through Oracle ILOM (CLI)

One of the advantages of Oracle ILOM support on the management controller is that all firmware upgrades and downgrades have been simplified into a two-task process.

These topics enable you to either upgrade or downgrade the switch firmware through the Oracle ILOM CLI.

- "Firmware Overview" on page 108
- "Verify Firmware Integrity (CLI)" on page 108
- "Acquire the Switch Firmware Package (CLI)" on page 109
- "Upgrade the Switch Firmware (CLI)" on page 111

Related Information

- "Upgrade the Switch Firmware (Web)" on page 166
- "Monitoring Oracle ILOM Targets (CLI)" on page 41
- "Controlling Oracle ILOM Targets (CLI)" on page 69
- "Installing the Oracle ILOM Firmware" on page 27

Firmware Overview

The management controller has firmware that represents the following:

- Basic I/O system for initial startup of the controller.
- Linux operating system that enables the management controller to function as a service processor and host for the switch.
- File system that contains the many hardware commands, InfiniBand commands, Subnet Manager, and other applications for the administration of the switch and InfiniBand fabric.

The switch chip has firmware that instructs how to route links, set data rates, and configure signal parameters.

When improvements to the operation of the switch are made or features are added, these enhancements are delivered through a firmware upgrade.

Related Information

- "Verify Firmware Integrity (CLI)" on page 108
- "Acquire the Switch Firmware Package (CLI)" on page 109
- "Upgrade the Switch Firmware (CLI)" on page 111
- "Installing the Oracle ILOM Firmware" on page 27

▼ Verify Firmware Integrity (CLI)

Over time, you might become concerned that the filesystem of the management controller is corrupted, or inappropriate `.rpm` packages have been installed. The `fwverify` command can help troubleshoot these problems for you.

The `fwverify` command checks for correct version numbers of present packages, if any required packages are missing, and the integrity of installed files. More information about the `fwverify` command is provided in the *Switch Reference*, `fwverify` command.

- **On the management controller, verify the firmware integrity.**

```
# fwverify
Checking all present packages:
.......................................................................... OK
Checking if any packages are missing:
.......................................................................... OK
Verifying installed files:
.......................................................................... FAILED
* Package nm2-phs-2.0.5-1.i386:
S.5....T   /etc/init.d/dcs
#
```

In this example, within the `nm2-phs-2.0.5-1.i386` RPM package, the `/etc/init.d/dcs` file size differs, the MD5 sum differs, and the time differs.

Related Information

- *Switch Reference*, `fwverify` command
- "Firmware Overview" on page 108
- "Acquire the Switch Firmware Package (CLI)" on page 109
- "Upgrade the Switch Firmware (CLI)" on page 111
- "Installing the Oracle ILOM Firmware" on page 27

▼ Acquire the Switch Firmware Package (CLI)

Note – See the *Switch Product Notes* for the most up-to-date method of acquiring the firmware. If no information is provided there, use these instructions.

Note – The version numbers in this procedure are represented as *x.y*, *x.y.z*, and *x.y.z_w*. For example, for the 2.0.5-1 version of the firmware, *x*=2, *y*=0, *z*=5, and *w*=1. See the *Switch Product Notes* for the most current version numbers.

---

1. **Open a web browser on a host that is on the same Ethernet network as the management controller to receive the firmware update.**
2. **Go to this URL.**

   `http://support.oracle.com`

   Oracle's My Oracle Support page is displayed.

Note – This web page requires Flash support.

3. **Sign in if you already have an account.**

   The dashboard page is displayed.

Note – If you do not have an account, you must register.

4. **Click the Patches & Updates tab.**

   The Patches and Downloads page is displayed.

5. **In the Patch Search for Oracle....window, click the Advanced Search tab.**

   The Patch Search for Oracle... window updates.

6. **In the Product drop-down menu, select Sun Datacenter InfiniBand Switch 36.**

7. **In the Release drop-down menu, select Sun Datacenter InfiniBand Switch 36** *x.y.z***.**

   Where *x.y.z* is the version number of the firmware package to be acquired. For example, 2.0.5.

8. **Click Search.**

   The Patch Search window expands with the search results.

9. **In the Patch Name column, click the respective patch number link.**

   For example, `13373998`. The Patch Search window reformats.

10. **Click the** *filename*`.zip` **link to initiate the download.**

    For example, `p13373998_205-1_Generic.zip`.

11. **Indicate where the file should be saved.**

    The file is downloaded and saved.

12. **In your receiving directory, decompress the** *filename*`.zip` **file.**

    The firmware is in the `SUN_DCS_36p_`*x*`.`*y*`.z.tar.gz` file.

    The readme file contains the latest information about the firmware release.

13. **Unpack the** `.gz` **file.**

```
$ gtar -zxvf SUN_DCS_36p_x.y.z.tar.gz
```

    The extracted files are displayed.

14. **Move the switch firmware package (*filename*.pkg) to a directory on a host that is accessible by Oracle ILOM.**

15. **Upgrade the switch firmware.**

    See "Upgrade the Switch Firmware (CLI)" on page 111 or "Upgrade the Switch Firmware (Web)" on page 166.

Related Information

- "Firmware Overview" on page 108
- "Verify Firmware Integrity (CLI)" on page 108
- "Upgrade the Switch Firmware (CLI)" on page 111
- "Installing the Oracle ILOM Firmware" on page 27

▼ Upgrade the Switch Firmware (CLI)

Note – If you are going to downgrade the firmware to a version earlier than 2.0, you must remove user partitions and depopulate the Subnet Manager nodes list. See *Switch Administration*, removing partitions for firmware downgrade.

---

1. **Open an SSH session as user `root` and connect to the management controller by specifying the controller's host name.**

   For example:

```
% ssh -l root switch_name
root@switch_name's password: password
#
```

   where *switch_name* is the host name of the management controller. Initially, the *password* is `changeme`.

2. **If the Subnet Manager is running on the management controller, disable it with the `disablesm` command.**

```
# disablesm
Stopping partitiond daemon.                                [  OK  ]
Stopping IB Subnet Manager..                               [  OK  ]
#
```

3. **Verify that there is at least 80 MB available in the `/` filesystem.**

```
# df -h /
Filesystem            Size  Used Avail Use% Mounted on
/dev/hda2             471M  276M  172M  62% /
#
```

In this example, there are 172 MB available. If not enough space is available, you must delete or move files from the `/` filesystem.

4. **Verify that there is at least 120 MB available in the `/tmp` directory.**

```
# df -h /tmp
Filesystem            Size  Used Avail Use% Mounted on
tmpfs                 250M  240K 249M 1% /tmp
#
```

In this example, there are 249 MB available. If not enough space is available, you must delete files from the `/tmp` directory.

5. **Verify that there is at least 120 MB free memory available.**

```
# free -m
             total       used       free     shared    buffers     cached
Mem:           498        104        393          0         12         47
-/+ buffers/cache:         45        453
Swap:            0          0          0
#
```

In the `-/+ buffers/cache:` row of the `free` column, there should be at least 120 MB free memory. In this example, there are 453 MB available. If not enough memory is available, you must exit non-essential applications that are running.

6. **Start the Oracle ILOM shell.**

```
# spsh
Oracle(R) Integrated Lights Out Manager
Version ILOM 3.0 r47111
Copyright (c) 2010, Oracle and/or its affiliates. All rights reserved.
->
```

You are now in the Oracle ILOM shell.

You can use the `exit` command to return to the Linux shell.

7. **Begin the upgrade process.**

```
-> load -source URI/pkgname
```

where:

- *URI* is the uniform resource indicator for the host where the switch firmware package is located. The FTP and HTTP protocols are supported.
- *pkgname* is the name of the firmware package in the transfer directory.

For example, using the FTP protocol:

```
-> load -source
ftp://root:changeme@123.45.67.99//tmp/sundcs_36p_repository_2.0.5_1.pkg
Downloading firmware image. This will take a few minutes.
```

Note – If you are upgrading from firmware version 2.0.X, you can use the `-force` option to disable version number checking, and force the upgrade.

The firmware is downloaded. The upgrade begins. A caution is displayed and you are asked to commit to the upgrade.

```
NOTE: Firmware upgrade will upgrade firmware on SUN DCS 36p firmware.
      ILOM will enter a special mode to load new firmware. No other tasks
      should be performed in ILOM until the firmware upgrade is complete.

Are you sure you want to load the specified file (y/n)?
```

8. **Answer `y` to the prompt to commit to the upgrade.**

The upgrade begins.

```
Setting up environment for firmware upgrade. This will take few minutes.
Starting SUN DCS 36p FW update

==========================
Performing operation: I4 A
==========================
I4 fw upgrade from 7.3.0(INI:4) to 7.4.0(INI:4):
Upgrade started...
Upgrade completed.
INFO: I4 fw upgrade from 7.3.0(INI:4) to 7.4.0(INI:4) succeeded

==========================
Summary of Firmware update
==========================
```

```
I4 status :  FW UPDATE - SUCCESS
I4 update succeeded on :  A
I4 already up-to-date on :  none
I4 update failed on :  none

========================================
Performing operation: SUN DCS 36p firmware update
========================================
SUN DCS 36p fw upgrade from 1.3.3-1 to 2.0.5-1:
Upgrade started...
Upgrade completed.
INFO: SUN DCS 36p fw upgrade from 1.3.3-1 to 2.0.5-1 succeeded
Firmware update is complete.
->
```

9. **Exit the Oracle ILOM CLI shell.**

```
-> exit
exit
#
```

10. **Reboot the switch to enable the new firmware.**

    See *Switch Administration*, restarting the entire switch.

Note – The restart process takes between 4 to 5 minutes to complete. The Oracle ILOM stack requires at least 2 minutes to become operational after a reboot.

---

11. **If the Subnet Manager was previously disabled, log in as the `root` user and enable the Subnet Manager.**

```
% ssh -l root switch_name
root@switch_name's password: password
# enablesm
Starting IB Subnet Manager.                                [  OK  ]
Starting partitiond daemon.                                [  OK  ]
#
```

12. **Verify the firmware version.**

```
# version
SUN DCS 36p version: 2.0.5-1
Build time: Nov 25 2011 12:20:22
SP board info:
Manufacturing Date: 2009.02.19
Serial Number: "NCD2S0133"
Hardware Revision: 0x0100
Firmware Revision: 0x0102
BIOS version: NOW1R112
BIOS date: 04/24/2009
#
```

In the first line of the output is `SUN DCS 36p version` *x.y.z-w*, where *x.y.z-w* is the version of the firmware upgraded (or downgraded). For example, 2.0.5-1.

13. **Verify the firmware integrity.**

See "Verify Firmware Integrity (CLI)" on page 108.

Related Information

- "Upgrade the Switch Firmware (Web)" on page 166
- "Installing the Oracle ILOM Firmware" on page 27

Administering Oracle ILOM (Web)

These topics describe how to administer Oracle ILOM from the web interface.

Related Information

Web Interface Overview

The Oracle ILOM web interface uses a model of hierarchical tabbed pages that you select by clicking on the tab name. Once a page is displayed, you can provide information, set parameters, or access other subtabs. For some pages, initiating a task might spawn an additional window, which accepts further parameters. Clicking Save or Close closes the window.

Note – The Oracle ILOM web interface is only supported with the Internet Explorer and Mozilla Firefox web browsers.

The web interface enables you to accomplish most of the same tasks that are possible using the Oracle ILOM CLI. With the web interface, you do not need to use a command to specify a target or property. Therefore, the web interface is more user-friendly.

Note – The web interface does not support the management controller's Linux shell. You must access the management controller using the methods described in "Accessing Oracle ILOM From the CLI" on page 34 to enable Oracle ILOM shell - Linux shell toggling.

This illustration displays the initial Oracle ILOM web interface page.

This table lists the tabs and subtabs in the Oracle ILOM web interface.

Tab	Subtabs	Description
System Information	Versions	Displays version information of the switch firmware.
	Session Time-Out	Sets inactivity timeout for autologout.
	Components	Displays component status.
	Identification Information	Displays switch identification information.
System Monitoring	Sensor Readings	Displays sensor values.
	Indicators	Displays switch status LED state.
	Event Logs	Displays event log.

Tab	Subtabs	Description
Configuration	System Management Access	Subtabs for: • Web Server – Configures web server behavior and ports. • SSL Certificate – Displays certificate information. • SNMP – Manages SNMP users, communities, and access. • IPMI – Toggles the state of the IPMI service. • CLI – Sets inactivity timeout for autologout.
	Alert Management	Configures alerts.
	Network	Sets and enables basic network parameters. Has ping test.
	DNS	Sets DNS client parameters.
	Clock	Sets date, time, and time server parameters.
	Timezone	Sets time zone.
	Syslog	Configures Syslog redirection to IP address.
	SMTP Client	Configures SMTP client for email alerts. Has email test.
User Management	User Accounts	Configures user accounts.
	Active Sessions	Displays active sessions.
Maintenance	Firmware Upgrade	Enables firmware upgrade.
	Back Up/Restore	Configures system back up and restore.
	Reset SP	Resets the management controller.
	Snapshot	Configures and takes a snapshot of the switch state.
Switch/Fabric Monitoring Tools	SUN DCS 36p Monitor	Enables the Fabric Monitor interactive GUI.

Related Information

- "Oracle ILOM Targets and Descriptions" on page 5

▼ Access Oracle ILOM From the Web Interface

1. **Open a web browser and connect to the Oracle ILOM web interface by specifying the management controller's network address in the URL.**

   The Oracle ILOM login page is displayed.

Note – If the login page is not displayed or a 404 error is displayed, verify that the web interface is enabled. See "Enable the HTTP Service (CLI)" on page 88 and "Enable the HTTPS Service (CLI)" on page 90 to enable the web interface from the CLI.

---

2. **Type `ilom-admin` into the User Name field and the `ilom-admin` password into the Password field.**

Note – As shipped, the `ilom-admin` user password is ilom-admin. See "Change an Oracle ILOM User's Password and or Role (Web)" on page 148 for instructions on how to change Oracle ILOM user passwords.

---

3. **Click Submit.**

   The Oracle ILOM web interface is displayed.

Note – You can also log in as the `ilom-operator` user with the password `ilom-operator`. The `ilom-operator` user has only read permissions.

Related Information

- "Accessing Oracle ILOM From the CLI" on page 34
- "Web Interface Overview" on page 117
- "Monitoring Oracle ILOM Targets (Web)" on page 121
- "Controlling Oracle ILOM Targets (Web)" on page 135

Monitoring Oracle ILOM Targets (Web)

These topics enable you to display the status of many Oracle ILOM targets.

- "Performing Daily Tasks (Web)" on page 121
- "Checking the Status of Services (Web)" on page 126
- "Verifying Other Aspects With Oracle ILOM (Web)" on page 131

Related Information

- "Access Oracle ILOM From the Web Interface" on page 120
- "Monitoring Oracle ILOM Targets (CLI)" on page 41
- "Controlling Oracle ILOM Targets (Web)" on page 135

Performing Daily Tasks (Web)

These tasks help you see the status of Oracle ILOM targets that are continually changing.

- "Display the Date (Web)" on page 122
- "Display the Switch Status LEDs States (Web)" on page 122
- "Display the Aggregate Sensors State (Web)" on page 122
- "Display Power Supply Status (Web)" on page 123
- "Display Board-Level Voltages (Web)" on page 124
- "Display Internal Temperatures (Web)" on page 124
- "Display Fan Status (Web)" on page 125
- "Display the Oracle ILOM Sessions (Web)" on page 125
- "Display the Oracle ILOM Event Log (Web)" on page 126

Related Information

- "Performing Daily Tasks (Web)" on page 121
- "Checking the Status of Services (Web)" on page 126
- "Verifying Other Aspects With Oracle ILOM (Web)" on page 131

▼ Display the Date (Web)

1. **Access the Oracle ILOM web interface.**

   See "Access Oracle ILOM From the Web Interface" on page 120.

2. **Click the Configuration tab.**

3. **Click the Clock subtab.**

   The Clock Settings window opens.

   The current date and time is displayed in the Date and Time fields respectively.

Related Information

- "Display the Date (CLI)" on page 42
- "Display the Date and Time (SNMP)" on page 196

▼ Display the Switch Status LEDs States (Web)

1. **Access the Oracle ILOM web interface.**

   See "Access Oracle ILOM From the Web Interface" on page 120.

2. **Click the System Monitoring tab.**

3. **Click the Indicators subtab.**

   The Indicators window opens.

   In the Indicators table, the indicator target and status are displayed.

Related Information

- "Display Switch Status LEDs States (CLI)" on page 43
- "Display Switch Status LED States (IPMI)" on page 255
- "Enable the Locator LED (Web)" on page 138
- "Disable the Locator LED (Web)" on page 139

▼ Display the Aggregate Sensors State (Web)

1. **Access the Oracle ILOM web interface.**

   See "Access Oracle ILOM From the Web Interface" on page 120.

2. **Click the System Monitoring tab.**

3. **Click the Sensor Readings subtab.**

   The Sensor Readings window opens.

   In the Sensor Readings table, the sensor name (aggregate sensor target), type, and reading are displayed. Use the table in "Aggregate Sensor States" on page 45 to determine the aggregate sensor target for the respective sensor.

4. **Click an aggregate sensor's target link in the table.**

   A new window opens and displays the sensor's properties and values. The property value of `State Deasserted` means no faults.

5. **Click Close.**

Related Information

- "Aggregate Sensor States" on page 45
- "Display the Aggregate Sensors State (CLI)" on page 44
- "Display the Aggregate Sensors State (SNMP)" on page 197
- "Display the Sensor Alarm State (SNMP)" on page 210
- "Display the Sensor States (IPMI)" on page 250

▼ Display Power Supply Status (Web)

1. **Access the Oracle ILOM web interface.**

   See "Access Oracle ILOM From the Web Interface" on page 120.

2. **Click the System Monitoring tab.**

3. **Click the Sensor Readings subtab.**

   The Sensor Readings window opens.

4. **Click the next page arrow.**

   The Sensor Readings table is updated.

5. **Look for `/SYS/PSU` in the Sensor Readings table.**

   A Reading value of `State Deasserted` means no faults.

Related Information

- "Display Power Supply Status (CLI)" on page 46
- "Display Power Supply Status (SNMP)" on page 198

▼ Display Board-Level Voltages (Web)

1. **Access the Oracle ILOM web interface.**

   See "Access Oracle ILOM From the Web Interface" on page 120.

2. **Click the System Monitoring tab.**

3. **Click the Sensor Readings subtab.**

   The Sensor Readings window opens.

4. **Select Type: Voltage from the All Sensors drop-down menu.**

   The voltage sensor target, type, and reading are displayed. Use the table in "Board Level Voltages" on page 48 to determine the voltage sensor target for the respective voltage sensor.

5. **Click a voltage sensor's target link in the table.**

   A new window opens and displays the voltage sensor's properties and values.

6. **Click Close.**

Related Information

- "Board Level Voltages" on page 48
- "Display Board-Level Voltages (CLI)" on page 47
- "Display Board-Level Voltages (SNMP)" on page 200

▼ Display Internal Temperatures (Web)

1. **Access the Oracle ILOM web interface.**

   See "Access Oracle ILOM From the Web Interface" on page 120.

2. **Click the System Monitoring tab.**

3. **Click the Sensor Readings subtab.**

   The Sensor Readings window opens.

4. **Select Type: Temperature from the All Sensors drop-down menu.**

   The temperature sensor target, type, and reading are displayed. Use the table in "Internal Temperature Sensors" on page 50 to determine the temperature sensor target for the respective temperature sensor.

5. **Click a temperature sensor's target link in the table.**

   A new window opens and displays the temperature sensor's properties and values.

6. **Click Close.**

Related Information

- "Internal Temperature Sensors" on page 50
- "Display Internal Temperatures (CLI)" on page 49
- "Display Internal Temperatures (SNMP)" on page 204

▼ Display Fan Status (Web)

1. **Access the Oracle ILOM web interface.**

   See "Access Oracle ILOM From the Web Interface" on page 120.

2. **Click the System Monitoring tab.**
3. **Click the Sensor Readings subtab.**

   The Sensor Readings window opens.

4. **Select Type: Fan from the All Sensors drop-down menu.**

   The fan speed sensor target, type, and reading are displayed.

5. **Click a fan speed sensor's target link in the table.**

   A new window opens and displays the fan speed sensor's properties and values.

6. **Click Close.**

Related Information

- "Display Fan Status (CLI)" on page 50
- "Display Fan Status (SNMP)" on page 207

▼ Display the Oracle ILOM Sessions (Web)

1. **Access the Oracle ILOM web interface.**

   See "Access Oracle ILOM From the Web Interface" on page 120.

2. **Click the User Management tab.**
3. **Click the Active Sessions subtab.**

   The Active Sessions window opens.

   In the Active Sessions table, the session's user name, the user's role, the session start time, and the session type and mode are displayed.

Related Information

- "Display the Oracle ILOM Sessions (CLI)" on page 52
- "Display Oracle ILOM Sessions (SNMP)" on page 214

▼ Display the Oracle ILOM Event Log (Web)

1. **Access the Oracle ILOM web interface.**

   See "Access Oracle ILOM From the Web Interface" on page 120.

2. **Click the System Monitoring tab.**

3. **Click the Event Logs subtab.**

   The event log is displayed.

   The Filter drop-down menu filters events by type.

Related Information

- "Display the Oracle ILOM Event Log (CLI)" on page 53
- "Display the Oracle ILOM Event Log (SNMP)" on page 215
- "Display the System Event Log (IPMI)" on page 253
- "Clear the Oracle ILOM Event Log (Web)" on page 139

Checking the Status of Services (Web)

These topics enable you to display the status of the services supported by Oracle ILOM.

- "Display the HTTP Service Status (Web)" on page 127
- "Display the HTTPS Service Status (Web)" on page 127
- "Display the SSL Certificates (Web)" on page 127
- "Display the SNMP Service Status (Web)" on page 128
- "Display the SNMP Service User Accounts (Web)" on page 128
- "Display the SNMP Service Communities (Web)" on page 129
- "Display the IPMI Service Status (Web)" on page 129
- "Display the DNS Client Status (Web)" on page 129
- "Display the SMTP Client Status (Web)" on page 130
- "Display the Network Time Protocol Servers (Web)" on page 130

Related Information

- "Checking the Status of Services (CLI)" on page 54
- "Performing Daily Tasks (Web)" on page 121
- "Verifying Other Aspects With Oracle ILOM (Web)" on page 131

▼ Display the HTTP Service Status (Web)

1. **Access the Oracle ILOM web interface.**
   See "Access Oracle ILOM From the Web Interface" on page 120.
2. **Click the Configuration tab.**
3. **Click the Systems Management Access subtab.**
4. **Click the Web Server subtab.**
   The Web Server Settings window opens.
   The HTTP web server status and port are displayed.

Related Information

- "Display the HTTP Service Status (CLI)" on page 54
- "Display the HTTP Service Status (SNMP)" on page 217

▼ Display the HTTPS Service Status (Web)

1. **Access the Oracle ILOM web interface.**
   See "Access Oracle ILOM From the Web Interface" on page 120.
2. **Click the Configuration tab.**
3. **Click the Systems Management Access subtab.**
4. **Click the Web Server subtab.**
   The Web Server Settings window opens.
   The HTTPS web server status and port are displayed.

Related Information

- "Display the HTTPS Service Status (CLI)" on page 55
- "Display the HTTP Service Status (SNMP)" on page 217

▼ Display the SSL Certificates (Web)

1. **Access the Oracle ILOM web interface.**
   See "Access Oracle ILOM From the Web Interface" on page 120.
2. **Click the Configuration tab.**
3. **Click the Systems Management Access subtab.**

4. **Click the SSL Certificate subtab.**

   The SSL Certificate Upload window opens.

   The certificate status and information about the default certificate, custom certificate, and custom private key are displayed.

Related Information

- "Display the SSL Certificates (CLI)" on page 55

▼ Display the SNMP Service Status (Web)

1. **Access the Oracle ILOM web interface.**

   See "Access Oracle ILOM From the Web Interface" on page 120.

2. **Click the Configuration tab.**
3. **Click the Systems Management Access subtab.**
4. **Click the SNMP subtab.**

   The SNMP Management window opens.

   Under Settings, the service status and operating parameters are displayed.

Related Information

- "Display the SNMP Service Status (CLI)" on page 56

▼ Display the SNMP Service User Accounts (Web)

1. **Access the Oracle ILOM web interface.**

   See "Access Oracle ILOM From the Web Interface" on page 120.

2. **Click the Configuration tab.**
3. **Click the Systems Management Access subtab.**
4. **Click the SNMP subtab.**

   The SNMP Management window opens.

5. **Click the Users link.**

   The page scrolls to the SNMP Users table, where the configured SNMP users, their authentication protocols, permissions, and privacy protocols are displayed.

Related Information

- "Display the SNMP User Accounts (CLI)" on page 56

▼ Display the SNMP Service Communities (Web)

1. **Access the Oracle ILOM web interface.**

   See "Access Oracle ILOM From the Web Interface" on page 120.

2. **Click the Configuration tab.**
3. **Click the Systems Management Access subtab.**
4. **Click the SNMP subtab.**

   The SNMP Management window opens.

5. **Click the Communities link.**

   The page scrolls to the SNMP Communities table, where the configured SNMP communities and permissions are displayed.

Related Information

- "Display the SNMP Service Communities (CLI)" on page 57

▼ Display the IPMI Service Status (Web)

1. **Access the Oracle ILOM web interface.**

   See "Access Oracle ILOM From the Web Interface" on page 120.

2. **Click the Configuration tab.**
3. **Click the Systems Management Access subtab.**
4. **Click the IPMI subtab.**

   The IPMI Settings window opens.

   The status of the IPMI server is displayed.

Related Information

- "Display the IPMI Service Status (CLI)" on page 58

▼ Display the DNS Client Status (Web)

1. **Access the Oracle ILOM web interface.**

   See "Access Oracle ILOM From the Web Interface" on page 120.

2. **Click the Configuration tab.**

3. **Click the DNS subtab.**

   The DNS Configuration window opens.

   The DNS client configuration settings are displayed.

Note – If Auto DNS via DHCP is enabled, then the Name Server and Search Path fields are greyed-out.

Related Information

- "Display the DNS Client Status (CLI)" on page 58
- "Display the DNS Client Status (SNMP)" on page 218
- "Configure the DNS Client (Web)" on page 140

▼ Display the SMTP Client Status (Web)

1. **Access the Oracle ILOM web interface.**

   See "Access Oracle ILOM From the Web Interface" on page 120.

2. **Click the Configuration tab.**

3. **Click the SMTP Client subtab.**

   The SMTP Client Settings window opens.

   The status of the SMTP client is displayed.

Related Information

- "Display the SMTP Client Status (CLI)" on page 59
- "Display the SMTP Client Status (SNMP)" on page 219
- "Configure the SMTP Client (Web)" on page 141

▼ Display the Network Time Protocol Servers (Web)

1. **Access the Oracle ILOM web interface.**

   See "Access Oracle ILOM From the Web Interface" on page 120.

2. **Click the Configuration tab.**

3. **Click the Clock subtab.**

   The Clock Settings window opens.

   The Network Time Protocol status and server IP addresses are displayed.

Related Information

- "Display the NTP Servers (CLI)" on page 59
- "Display the NTP State (SNMP)" on page 219
- "Display the NTP Servers (SNMP)" on page 220
- "Set the Date and Time (Web)" on page 137

Verifying Other Aspects With Oracle ILOM (Web)

These topics enable you to display the status of aspects of Oracle ILOM not included in "Performing Daily Tasks (Web)" on page 121 or "Checking the Status of Services (Web)" on page 126.

- "Display the Alert Properties (Web)" on page 131
- "Display the Oracle ILOM User Accounts (Web)" on page 132
- "Display the Remote Log Hosts (Web)" on page 132
- "Display the Network Management Configuration (Web)" on page 133
- "Display the CLI Session Timeout (Web)" on page 133
- "Display System Component FRU ID (Web)" on page 134
- "Display the Firmware Version (Web)" on page 134
- "Display System Identification Properties (Web)" on page 135

Related Information

- "Verifying Other Aspects With Oracle ILOM (CLI)" on page 60
- "Performing Daily Tasks (Web)" on page 121
- "Checking the Status of Services (Web)" on page 126

▼ Display the Alert Properties (Web)

Alerts can provide advance notice of a system failure. The Oracle ILOM implementation in the management controller supports 15 alert rules, which configure alert properties. Supported alert types are SNMP traps, IPMI PETs, and email alerts. For SNMP traps and PETs, the alert destination must have the relevant Oracle ILOM MIBs installed and must support SNMP traps.

1. **Access the Oracle ILOM web interface.**

   See "Access Oracle ILOM From the Web Interface" on page 120.

2. **Click the Configuration tab.**

3. **Click the Alert Management subtab.**

   The Alert Settings window opens.

   In the Alerts table, the Alert ID, Level, Alert Type, and Destination Summary are displayed for each alert.

Related Information

- "Display the Alert Properties (CLI)" on page 62
- "Display the Alert Properties (SNMP)" on page 221
- "Enable Alerts to Send SNMP Traps (Web)" on page 162
- "Enable Alerts to Send PETs (Web)" on page 163
- "Enable Alerts to Send Email Alerts (Web)" on page 164
- "Disable Alerts (Web)" on page 164

▼ Display the Oracle ILOM User Accounts (Web)

1. **Access the Oracle ILOM web interface.**

   See "Access Oracle ILOM From the Web Interface" on page 120.

2. **Click the User Management tab.**

3. **Click the User Accounts subtab.**

   The User Account Settings window opens.

4. **Click the Users link.**

   The page scrolls and the Users table is displayed.

   In the Users table, the user's name and role are displayed.

Related Information

- "Display the Oracle ILOM User Accounts (CLI)" on page 63
- "Display Oracle ILOM User Accounts (SNMP)" on page 222

▼ Display the Remote Log Hosts (Web)

1. **Access the Oracle ILOM web interface.**

   See "Access Oracle ILOM From the Web Interface" on page 120.

2. **Click the Configuration tab.**

3. **Click the Syslog subtab.**

   The Syslog window opens.

   The remote log host IP addresses are displayed.

Related Information

- "Display the Remote Log Hosts (CLI)" on page 64
- "Display the Remote Log Hosts (SNMP)" on page 223
- "Set the Remote Log Hosts (Web)" on page 140

▼ Display the Network Management Configuration (Web)

1. **Access the Oracle ILOM web interface.**

   See "Access Oracle ILOM From the Web Interface" on page 120.

2. **Click the Configuration tab.**

3. **Click the Network subtab.**

   The Network Settings window opens.

   The network status, MAC address, IP discovery mode, IP address, netmask, and switch are displayed.

Related Information

- "Display the Network Management Configuration (CLI)" on page 65
- "Display the Network Management Configuration (SNMP)" on page 223

▼ Display the CLI Session Timeout (Web)

1. **Access the Oracle ILOM web interface.**

   See "Access Oracle ILOM From the Web Interface" on page 120.

2. **Click the Configuration tab.**

3. **Click the Systems Management Access subtab.**

4. **Click the CLI subtab.**

   The CLI Settings window opens.

   The CLI session timeout is displayed.

Related Information

- "Display the CLI Session Timeout (CLI)" on page 66
- "Set the CLI Session Timeout (Web)" on page 165

▼ Display System Component FRU ID (Web)

Note – You can only display FRU ID information for currently present fans and power supplies.

1. **Access the Oracle ILOM web interface.**

   See "Access Oracle ILOM From the Web Interface" on page 120.

2. **Click the System Information tab.**

3. **Click the Components subtab.**

   The Components Management window opens.

   In the Component Status table, the component names (targets) and type are listed.

4. **Click a component name (target) link in the table.**

   A new window opens and displays the component's properties and values.

5. **Click Close.**

Related Information

- "Display Switch FRU ID (CLI)" on page 66
- "Display Power Supply FRU ID (CLI)" on page 67
- "Display Switch FRU ID (SNMP)" on page 224
- "Display Power Supply FRU ID (SNMP)" on page 226
- "Display FRU ID Information (IPMI)" on page 254

▼ Display the Firmware Version (Web)

1. **Access the Oracle ILOM web interface.**

   See "Access Oracle ILOM From the Web Interface" on page 120.

2. **Click the System Information tab.**

3. **Click the Versions subtab.**

   The Versions window opens.

   In the Version Information table, the firmware, build, date, and file system version information are displayed.

Related Information

- "Display the Firmware Version (CLI)" on page 68
- "Display the Firmware Version (SNMP)" on page 231

▼ Display System Identification Properties (Web)

1. **Access the Oracle ILOM web interface.**

   See "Access Oracle ILOM From the Web Interface" on page 120.

2. **Click the System Information tab.**

3. **Click the Identification Information subtab.**

   The Identification Information window opens.

   The host name, system identifier, system contact, system location, and system description are displayed.

Related Information

- "Display System Identification Properties (CLI)" on page 68
- "Display System Identification Properties (SNMP)" on page 231
- "Set the System Identification Properties (Web)" on page 146

Controlling Oracle ILOM Targets (Web)

These topics enable you to change the behavior or configuration of many Oracle ILOM targets.

- "Performing General Tasks on Oracle ILOM Targets (Web)" on page 136
- "Performing Oracle ILOM User Tasks (Web)" on page 146
- "Managing HTTP Services (Web)" on page 149
- "Managing HTTPS Services (Web)" on page 151
- "Managing SNMP Services (Web)" on page 153
- "Managing IPMI Services (Web)" on page 160
- "Managing Other Aspects With Oracle ILOM (Web)" on page 162

Related Information

- "Access Oracle ILOM From the Web Interface" on page 120
- "Controlling Oracle ILOM Targets (CLI)" on page 69
- "Monitoring Oracle ILOM Targets (Web)" on page 121
- "Understanding Oracle ILOM Targets" on page 4

Performing General Tasks on Oracle ILOM Targets (Web)

You can perform these tasks periodically on a few Oracle ILOM targets.

Related Information

- "Performing General Tasks on Oracle ILOM Targets (CLI)" on page 69
- "Performing Oracle ILOM User Tasks (Web)" on page 146

▼ Restart the Management Controller (Web)

Note – Restarting the management controller severs any management console link to the management controller. You must reaccess the management controller to regain administrative control.

---

1. **Access the Oracle ILOM web interface.**

   See "Access Oracle ILOM From the Web Interface" on page 120.

2. **Click the Maintenance tab.**

3. **Click the Reset SP subtab.**

   The Reset Service Processor window opens.

4. **Click Reset SP.**

   A dialog box opens and asks you to confirm.

5. **Click OK.**

   A message describing the reset action is displayed with a link, and the management controller is reset.

Related Information

- *Switch Administration*, restarting the management controller
- "Restart the Management Controller (CLI)" on page 70

▼ Set the Date and Time (Web)

1. **Access the Oracle ILOM web interface.**

   See "Access Oracle ILOM From the Web Interface" on page 120.

2. **Click the Configuration tab.**

3. **Click the Clock subtab.**

   The Clock Settings window opens.

4. **Type the date into the Date field.**

5. **Select the time from the Time drop-down menus.**

6. **(Optional) If you want to use a time server, follow these steps:**

   a. **Check the Enabled box for Synchronize Time Using NTP.**

   b. **Type the IP address of the first time server into the Server 1 field.**

   c. **Type the IP address of the second time server into the Server 2 field.**

7. **Click Save.**

Related Information

- "Set the Date and Time (CLI)" on page 71
- "Set the Date and Time (SNMP)" on page 233

▼ Set the Time Zone (Web)

1. **Access the Oracle ILOM web interface.**

   See "Access Oracle ILOM From the Web Interface" on page 120.

2. **Click the Configuration tab.**
3. **Click the Timezone subtab.**

   The Timezone Settings window opens.

4. **Select the time zone from the Timezone drop-down menu.**
5. **Click Save.**

Related Information

- "Set the Date and Time (CLI)" on page 71
- "Set the Time Zone (SNMP)" on page 233

▼ Enable the Locator LED (Web)

1. **Access the Oracle ILOM web interface.**

   See "Access Oracle ILOM From the Web Interface" on page 120.

2. **Click the System Monitoring tab.**
3. **Click the Indicators subtab.**

   The Indicators window opens.

   In the Indicators table, the `/SYS/I_LOCATOR` target identifies the Locator LED.

4. **Click the radio button to the left of the target, and from the Actions drop-down menu, select Set LED to On.**

   A dialog box opens and asks you to confirm.

5. **Click OK.**

   The Locator LED flashes.

Related Information

- "Enable the Locator LED (CLI)" on page 72
- "Enable the Locator LED (IPMI)" on page 256
- "Disable the Locator LED (Web)" on page 139
- "Display the Switch Status LEDs States (Web)" on page 122

▼ Disable the Locator LED (Web)

1. **Access the Oracle ILOM web interface.**

   See "Access Oracle ILOM From the Web Interface" on page 120.

2. **Click the System Monitoring tab.**

3. **Click the Indicators subtab.**

   The Indicators window opens.

   In the Indicators table, the `/SYS/I_LOCATOR` target identifies the Locator LED.

4. **Click the radio button to the left of the target, and from the Actions drop-down menu, select Turn LED Off.**

   A dialog box opens and asks you to confirm.

5. **Click OK.**

   The Locator LED is unlit.

Related Information

- "Disable the Locator LED (CLI)" on page 73
- "Disable the Locator LED (IPMI)" on page 256
- "Enable the Locator LED (Web)" on page 138
- "Display the Switch Status LEDs States (Web)" on page 122

▼ Clear the Oracle ILOM Event Log (Web)

1. **Access the Oracle ILOM web interface.**

   See "Access Oracle ILOM From the Web Interface" on page 120.

2. **Click the System Monitoring tab.**

3. **Click the Event Logs subtab.**

   The Event Log window opens.

4. **In the Event Log table, click Clear Log.**

   A dialog box opens and asks you to confirm.

5. **Click OK.**

   The event log is cleared.

Related Information

- "Clear the Oracle ILOM Event Log (CLI)" on page 73
- "Clear the Oracle ILOM Event Log (SNMP)" on page 235

- "Display the Oracle ILOM Event Log (Web)" on page 126
- "Set the Remote Log Hosts (Web)" on page 140

▼ Set the Remote Log Hosts (Web)

The Oracle ILOM implementation in the management controller provides a protocol for transmitting Oracle ILOM events to a remote log host. The events transmitted are similar to those displayed in the local log.

1. **Access the Oracle ILOM web interface.**

   See "Access Oracle ILOM From the Web Interface" on page 120.

2. **Click the Configuration tab.**

3. **Click the Syslog subtab.**

   The Syslog window opens.

4. **Type the IP address or hostname of the remote log hosts into the respective fields.**

Note – Setting a remote log host IP address to 0.0.0.0 disables that functionality.

---

5. **Click Save.**

   The remote log hosts are set.

Related Information

- "Set the Remote Log Hosts (CLI)" on page 74
- "Set the Remote Log Hosts (SNMP)" on page 235
- "Display the Remote Log Hosts (Web)" on page 132

▼ Configure the DNS Client (Web)

To enable name services within the management controller, Oracle ILOM must be configured as a DNS client.

1. **Access the Oracle ILOM web interface.**

   See "Access Oracle ILOM From the Web Interface" on page 120.

2. **Click the Configuration tab.**

3. **Click the DNS subtab.**

   The DNS Configuration window opens.

4. **If you want the DHCP server to provide the DNS client configuration, check the Enabled box to the right of Auto DNS via DHCP.**

Note – If Auto DNS via DHCP is enabled, then the Name Server and Search Path fields are greyed-out.

---

5. **In the DNS Name Server: field, type up to three IP addresses of name servers, separated by commas.**

Note – List the IP address in order of search preference.

---

6. **In the DNS Search Path: field, type up to six domains or search suffixes, separated by commas.**

Note – List the domains or search suffixes in order of search preference.

---

7. **In the DNS Timeout: and DNS Retries: field, you can configure timeout and retry values.**

Note – The default values provide optimal performance.

---

8. **Click Save.**

Related Information

- "Configure the DNS Client (CLI)" on page 75
- "Configure the DNS Client (SNMP)" on page 236
- "Display the DNS Client Status (Web)" on page 129

▼ Configure the SMTP Client (Web)

To enable email alerts, you must configure Oracle ILOM as an SMTP client.

1. **Access the Oracle ILOM web interface.**

   See "Access Oracle ILOM From the Web Interface" on page 120.

2. **Click the Configuration tab.**

3. **Click the SMTP Client subtab.**

   The SMTP Client Settings window opens.

4. **Select the Enabled checkbox and provide the SMTP server IP address or hostname, the SMTP server port, and the custom sender string into the respective fields.**
5. **Click Save.**
6. **(Optional) Send a test email to verify SMTP client settings.**
   a. **Type an accessible email address into the Address field.**
   b. **Click Send Test.**
   c. **Verify that the email was received.**

Related Information

- "Configure the SMTP Client (CLI)" on page 76
- "Configure the SMTP Client (SNMP)" on page 237
- "Display the SMTP Client Status (Web)" on page 130

▼ Back Up the Configuration (Web)

Note – See "Switch Configuration Information Backed Up" on page 78 for what switch-specific configuration information is backed up when a passphrase is used.

---

1. **Access the Oracle ILOM web interface.**
   See "Access Oracle ILOM From the Web Interface" on page 120.
2. **Click the Maintenance tab.**
3. **Click the Back Up/Restore subtab.**
   The Configuration Back Up/Restore window opens.
4. **Select Back Up from the Operation drop-down menu.**
5. **Select the transfer protocol from the Transfer Method drop-down menu.**
6. **For the protocol selected, type the file, host IP address, file path, user name, and password into the respective fields.**
7. **If you want to back up sensitive information in addition to the configuration, type a passphrase into the Passphrase and Confirm Passphrase fields.**
8. **Click Run.**
   A dialog box opens and asks you to confirm.

9. **Click OK.**

   The configuration is backed up in the specified file on the specified host using the specified protocol.

Related Information

- "Switch Configuration Information Backed Up" on page 78
- "Back Up the Configuration (CLI)" on page 77
- "Restore the Configuration (Web)" on page 143

▼ Restore the Configuration (Web)

1. **Access the Oracle ILOM web interface.**

   See "Access Oracle ILOM From the Web Interface" on page 120.

2. **Click the Maintenance tab.**

3. **Click the Back Up/Restore subtab.**

   The Configuration Back Up/Restore window opens.

4. **Select Restore from the Operation drop-down menu.**

5. **Select the transfer protocol from the Transfer Method drop-down menu.**

6. **For the protocol selected, type the file, host IP address, file path, user name, and password into the respective fields.**

7. **If you used a passphrase with the backup, type the passphrase into the Passphrase and Confirm Passphrase fields so that sensitive information is also restored.**

8. **Click Run.**

   A dialog box opens and asks you to confirm.

9. **Click OK.**

   The configuration is restored from the specified file on the specified host using the specified protocol.

Related Information

- "Restore the Configuration (CLI)" on page 78
- "Back Up the Configuration (Web)" on page 142

▼ Create a Snapshot of the Switch State (Web)

The snapshot utility collects log files, executes various commands and collects their output, and sends the data collected to a user-defined location as a `.zip` file. The data set selected determines what data is to be included in the snapshot. See "Snapshot Dataset Information (Web)" on page 144.

The snapshot describes the state of the switch at a particular moment in time. This can be used for fault diagnosis.

1. **Access the Oracle ILOM web interface.**

   See "Access Oracle ILOM From the Web Interface" on page 120.

2. **Click the Maintenance tab.**
3. **Click the Snapshot subtab.**

   The Service Snapshot Utility window opens.

4. **Select the data set from the Data Set drop-down menu.**

   See the table in "Snapshot Dataset Information (Web)" on page 144.

5. **If you chose the Custom data set, check the data that you want to include in the snapshot.**
6. **If you want only log files, select the Enabled checkbox to the right of Collect Only Log Files From Data Set.**
7. **Select the transfer protocol from the Transfer Method drop-down menu.**
8. **Type the host IP address or host name, file path, user name, and password into the respective fields.**
9. **Click Run.**

Related Information

- "Snapshot Dataset Information (Web)" on page 144
- "Create a Snapshot of the Switch State (CLI)" on page 79

Snapshot Dataset Information (Web)

This table provides a listing of the data sets you can choose and the respective data that is included in the snapshot.

Data Set	Description
Normal	Contains Oracle ILOM data, basic operating system data, and switch configuration data.
FRUID	Contains normal dataset information, with additional FRUID data.
Full	Contains normal dataset information, with additional FRUID data and diagnostic data.
Custom	Contains the user's choice of Oracle ILOM data, basic operating system data, switch hardware data, additional FRUID data, and diagnostic data.

The snapshot is stored as a `.zip` file with a filename of this format:

hostname_IP_address_year-month-day`T`*hour-minute-second*`.zip`

For example:

```
magnum_123.45.67.89_2011-01-07T14-43-15.zip
```

Note – The Normal, FRUID, and Full datasets of the snapshot utility are currently equivalent and contain the same data in the snapshot.

Related Information

- "Create a Snapshot of the Switch State (Web)" on page 144

▼ Set the Network Management Parameters (Web)

1. **Access the Oracle ILOM web interface.**

   See "Access Oracle ILOM From the Web Interface" on page 120.

2. **Click the Configuration tab.**
3. **Click the Network subtab.**

   The Network Settings window opens.

4. **Select the IP Discovery Mode, DHCP, or Static.**
5. **If you select Static, type the IP address, netmask, and switch into their respective fields.**

6. **Click Save.**

Note – Changing some network management properties terminates the NET MGT connection to the management controller (web interface). You must re-establish the connection to continue administering the management controller.

---

7. **Re-establish the NET MGT connection to continue administering the management controller.**

   See "Access Oracle ILOM From the Web Interface" on page 120.

Related Information

- "Set the Network Management Parameters (CLI)" on page 82
- "Set the Network Parameters (SNMP)" on page 238

▼ Set the System Identification Properties (Web)

1. **Access the Oracle ILOM web interface.**

   See "Access Oracle ILOM From the Web Interface" on page 120.

2. **Click the System Information tab.**

3. **Click the Identification Information subtab.**

   The Identification Information window opens.

4. **Type the host name, system identifier, system contact, and system location into their respective fields.**

5. **Click Save.**

Related Information

- "Set the System Identification Properties (CLI)" on page 84
- "Set the System Identification Properties (SNMP)" on page 240
- "Display System Identification Properties (Web)" on page 135

Performing Oracle ILOM User Tasks (Web)

These topics enable you to change and configure Oracle ILOM user targets.

- "Add an Oracle ILOM User Account (Web)" on page 147
- "Change an Oracle ILOM User's Password and or Role (Web)" on page 148
- "Delete an Oracle ILOM User Account (Web)" on page 148

Related Information

- "Performing Oracle ILOM User Tasks (CLI)" on page 85
- "Performing General Tasks on Oracle ILOM Targets (Web)" on page 136

▼ Add an Oracle ILOM User Account (Web)

1. **Access the Oracle ILOM web interface.**
   See "Access Oracle ILOM From the Web Interface" on page 120.
2. **Click the User Management tab.**
3. **Click the User Accounts subtab.**
   The User Accounts Settings window opens.
4. **Click the Users link.**
   The page scrolls to the Users table.
5. **In the Users table, click Add.**
   A new window opens.
6. **In the window, type the name of the new user account into the User Name field.**
7. **Select the abilities of the new user from the Roles drop-down menu.**
   If a checkbox is not grayed out, you can add that ability to the selected role.
8. **Type the password into the Password fields.**
9. **Click Save.**
   The new user account is created and the window closes.

Related Information

- "Add an Oracle ILOM User Account (CLI)" on page 86
- "Add an Oracle ILOM User Account (SNMP)" on page 241
- "Delete an Oracle ILOM User Account (Web)" on page 148

▼ Change an Oracle ILOM User's Password and or Role (Web)

1. **Access the Oracle ILOM web interface.**
   See "Access Oracle ILOM From the Web Interface" on page 120.
2. **Click the User Management tab.**

3. **Click the User Accounts subtab.**

   The User Accounts Settings window opens.

4. **Click the Users link.**

   The page scrolls to the Users table.

5. **In the Users table, select the user whose password and role you want to change and click Edit.**

   A new window opens.

6. **In the window, type the new password for the user and or select the new abilities of the user from the Roles drop-down menu.**

   If a checkbox is not grayed out, you can add that ability to the selected role.

7. **Click Save.**

   The new settings are saved and the window closes.

Related Information

- "Change an Oracle ILOM User's Password and or Role (CLI)" on page 86

▼ Delete an Oracle ILOM User Account (Web)

1. **Access the Oracle ILOM web interface.**

   See "Access Oracle ILOM From the Web Interface" on page 120.

2. **Click the User Management tab.**

3. **Click the User Accounts subtab.**

   The User Accounts Settings window opens.

4. **Click the Users link.**

   The page scrolls to the Users table.

5. **In the Users table, select the user to delete and click Delete.**

   A dialog box opens and asks for confirmation.

6. **Click OK.**

   The user account is deleted.

Related Information

- "Delete an Oracle ILOM User Account (CLI)" on page 87
- "Delete an Oracle ILOM User Account (SNMP)" on page 242
- "Add an Oracle ILOM User Account (Web)" on page 147

Managing HTTP Services (Web)

These tasks help you manage the Oracle ILOM HTTP service targets.

- "Enable the HTTP Service (Web)" on page 149
- "Disable the HTTP Service (Web)" on page 150

Related Information

- "Managing HTTP Services (CLI)" on page 88
- "Managing HTTPS Services (Web)" on page 151
- "Managing SNMP Services (Web)" on page 153
- "Managing IPMI Services (Web)" on page 160

▼ Enable the HTTP Service (Web)

Note – Performing this task on an already active HTTP server effectively resets the server.

Note – The HTTP service is disabled and the HTTPS service is enabled by default.

---

1. **Access the Oracle ILOM web interface.**

   See "Access Oracle ILOM From the Web Interface" on page 120.

2. **Click the Configuration tab.**
3. **Click the System Management Access subtab.**
4. **Click the Web Server subtab.**

   The Web Server Settings window opens.

5. **Select either Enabled or Redirect HTTP Connection to HTTPS from the HTTP Web server drop-down menu.**
6. **Type the web server port number into the HTTP Port field.**
7. **Click Save.**

Related Information

- "Enable the HTTP Service (CLI)" on page 88
- "Set the HTTP Service State (SNMP)" on page 243

- "Disable the HTTP Service (Web)" on page 150

▼ Disable the HTTP Service (Web)

Note – Performing this task on an already active HTTPS server effectively resets the server.

Note – The HTTP service is disabled by default.

1. **Access the Oracle ILOM web interface.**

   See "Access Oracle ILOM From the Web Interface" on page 120.

2. **Click the Configuration tab.**
3. **Click the System Management Access subtab.**
4. **Click the Web Server subtab.**

   The Web Server Settings window opens.

5. **Select Disabled from the HTTP web server drop-down menu.**
6. **Click Save.**

Related Information

- "Disable the HTTP Service (CLI)" on page 89
- "Set the HTTP Service State (SNMP)" on page 243
- "Enable the HTTP Service (Web)" on page 149

Managing HTTPS Services (Web)

These tasks help you manage the Oracle ILOM HTTPS service targets.

- "Enable the HTTPS Service (Web)" on page 151
- "Install a Custom SSL Certificate (Web)" on page 152
- "Remove the Custom SSL Certificate (Web)" on page 152
- "Disable the HTTPS Service (Web)" on page 153

Related Information

- "Managing HTTPS Services (CLI)" on page 90

- "Managing HTTP Services (Web)" on page 149
- "Managing SNMP Services (Web)" on page 153
- "Managing IPMI Services (Web)" on page 160

▼ Enable the HTTPS Service (Web)

Note – Performing this task on an already active HTTPS server effectively resets the server.

Note – The HTTPS service is enabled by default.

1. **Access the Oracle ILOM web interface.**
   See "Access Oracle ILOM From the Web Interface" on page 120.
2. **Click the Configuration tab.**
3. **Click the System Management Access subtab.**
4. **Click the Web Server subtab.**
   The Web Server Settings window opens.
5. **Check the Enabled box for the HTTPS web server.**
6. **Type the web server port into the HTTPS Port field.**
7. **Click Save.**

Related Information

- "Enable the HTTPS Service (CLI)" on page 90
- "Set the HTTPS Service State (SNMP)" on page 243
- "Disable the HTTPS Service (Web)" on page 153

▼ Install a Custom SSL Certificate (Web)

1. **Access the Oracle ILOM web interface.**
   See "Access Oracle ILOM From the Web Interface" on page 120.
2. **Click the Configuration tab.**
3. **Click the System Management Access subtab.**

4. **Click the SSL Certificate subtab.**

   The SSL Certificate Upload window opens.

5. **Under Custom Certificate, click Load.**

   The Custom Certificate Upload window opens.

6. **Select the transfer protocol from the Transfer Method drop-down menu.**

7. **For the protocol selected, type the file, host IP address, file path, user name, and password into the respective fields.**

8. **Click Load.**

   The custom certificate is loaded and the window closes.

Related Information

- "Install a Custom SSL Certificate (CLI)" on page 91
- "Remove the Custom SSL Certificate (Web)" on page 152

▼ Remove the Custom SSL Certificate (Web)

1. **Access the Oracle ILOM web interface.**

   See "Access Oracle ILOM From the Web Interface" on page 120.

2. **Click the Configuration tab.**

3. **Click the System Management Access subtab.**

4. **Click the SSL Certificate subtab.**

   The SSL Certificate Upload window opens.

5. **Under Custom Certificate, click Remove.**

   A dialog box opens and asks for you to confirm.

6. **Click OK.**

   The custom SSL certificate is removed.

Related Information

- "Remove the Custom SSL Certificate (CLI)" on page 91
- "Install a Custom SSL Certificate (Web)" on page 152

▼ Disable the HTTPS Service (Web)

Note – Performing this task on an already active HTTPS server effectively resets the server.

1. **Access the Oracle ILOM web interface.**

   See "Access Oracle ILOM From the Web Interface" on page 120.

2. **Click the Configuration tab.**
3. **Click the System Management Access subtab.**
4. **Click the Web Server subtab.**

   The Web Server Settings window opens.

5. **Clear the Enabled checkbox for the HTTPS web server.**
6. **Click Save.**

Related Information

- "Disable the HTTPS Service (CLI)" on page 92
- "Set the HTTPS Service State (SNMP)" on page 243
- "Enable the HTTPS Service (Web)" on page 151

Managing SNMP Services (Web)

These tasks help you manage the Oracle ILOM SNMP service targets.

- "Enable the SNMP Service (Web)" on page 154
- "Configure the SNMP Service (Web)" on page 154
- "Add SNMP Service User Accounts (Web)" on page 155
- "Modify SNMP Service User Accounts (Web)" on page 156
- "Delete SNMP Service User Accounts (Web)" on page 157
- "Add SNMP Service Communities (Web)" on page 157
- "Modify SNMP Service Communities (Web)" on page 158
- "Delete SNMP Service Communities (Web)" on page 159
- "Download SNMP Service MIBs (Web)" on page 159
- "Disable the SNMP Service (Web)" on page 160

Related Information

- "Managing SNMP Services (CLI)" on page 93
- "Managing HTTP Services (Web)" on page 149
- "Managing HTTPS Services (Web)" on page 151
- "Managing IPMI Services (Web)" on page 160

▼ Enable the SNMP Service (Web)

Note – The SNMP service is enabled by default.

1. **Access the Oracle ILOM web interface.**
   See "Access Oracle ILOM From the Web Interface" on page 120.
2. **Click the Configuration tab.**
3. **Click the System Management Access subtab.**
4. **Click the SNMP subtab.**
   The SNMP Management window opens.
5. **Under Settings, select the Enabled checkbox for State.**
6. **Click Save.**

Related Information

- "Enable the SNMP Service (CLI)" on page 93
- "Disable the SNMP Service (Web)" on page 160

▼ Configure the SNMP Service (Web)

1. **Access the Oracle ILOM web interface.**
   See "Access Oracle ILOM From the Web Interface" on page 120.
2. **Click the Configuration tab.**
3. **Click the System Management Access subtab.**
4. **Click the SNMP subtab.**
   The SNMP Management window opens.
5. **Type the port number into the Port field.**

6. **Select the Enabled checkbox for Set Requests to enable set requests.**
7. **Select the checkboxes for the protocols you want to enable.**
8. **Click Save.**

Related Information

- "Configure the SNMP Service (CLI)" on page 94

▼ Add SNMP Service User Accounts (Web)

1. **Access the Oracle ILOM web interface.**

   See "Access Oracle ILOM From the Web Interface" on page 120.
2. **Click the Configuration tab.**
3. **Click the System Management Access subtab.**
4. **Click the SNMP subtab.**

   The SNMP Management window opens.
5. **Click the Users link.**

   The page scrolls to the SNMP Users table.
6. **In the SNMP Users table, click Add.**

   A new window opens.
7. **Type the user name into the User Name field.**
8. **Select the authentication protocol from the Authentication Protocol drop-down menu.**
9. **Type the authentication password into the Authentication Password field.**
10. **Type the password again into the Confirm Password field.**
11. **Select the user permissions from the Permission drop-down menu.**
12. **(Optional) Select the privacy protocol from the Privacy Protocol drop-down menu.**
13. **If required, type the privacy password into the Privacy Password field.**
14. **Type the password again into the Confirm Password field.**
15. **Click Save.**

    The user is created and the window closes.

Related Information

- "Add SNMP Service User Accounts (CLI)" on page 95
- "Delete SNMP Service User Accounts (Web)" on page 157

▼ Modify SNMP Service User Accounts (Web)

1. **Access the Oracle ILOM web interface.**

   See "Access Oracle ILOM From the Web Interface" on page 120.

2. **Click the Configuration tab.**
3. **Click the System Management Access subtab.**
4. **Click the SNMP subtab.**

   The SNMP Management window opens.

5. **Click the Users link.**

   The page scrolls to the SNMP Users table.

6. **In the SNMP Users table, select the user to modify and click Edit.**

   A new window opens.

7. **Select the authentication protocol from the Authentication Protocol drop-down menu.**
8. **Type the authentication password into the Authentication Password field.**
9. **Type the password again into the Confirm Password field.**
10. **Select the user permissions from the Permission drop-down menu.**
11. **(Optional) Select the privacy protocol from the Privacy Protocol drop-down menu.**
12. **If required, type the privacy password into the Privacy Password field.**
13. **Type the password again into the Confirm Password field.**
14. **Click Save.**

    The user is modified and the window closes.

Related Information

- "Modify SNMP Service User Accounts (CLI)" on page 96

▼ Delete SNMP Service User Accounts (Web)

1. **Access the Oracle ILOM web interface.**
   See "Access Oracle ILOM From the Web Interface" on page 120.
2. **Click the Configuration tab.**
3. **Click the System Management Access subtab.**
4. **Click the SNMP subtab.**
   The SNMP Management window opens.
5. **Click the Users link.**
   The page scrolls to the SNMP Users table.
6. **Select the user to delete and click Delete.**
   A dialog box opens and asks you to confirm.
7. **Click OK.**
   The user is deleted.

Related Information

- "Delete SNMP Service User Accounts (CLI)" on page 97
- "Add SNMP Service User Accounts (Web)" on page 155

▼ Add SNMP Service Communities (Web)

1. **Access the Oracle ILOM web interface.**
   See "Access Oracle ILOM From the Web Interface" on page 120.
2. **Click the Configuration tab.**
3. **Click the System Management Access subtab.**
4. **Click the SNMP subtab.**
   The SNMP Management window opens.
5. **Click the Communities link.**
   The page scrolls to the SNMP Communities table.
6. **In the SNMP Communities table, click Add.**
   A new window opens.
7. **Type the community name into the Community Name field.**

8. **Select the permissions from the Permission drop-down menu.**
9. **Click Save.**

   The community is created and the window closes.

Related Information

- "Add SNMP Service Communities (CLI)" on page 97
- "Delete SNMP Service Communities (Web)" on page 159

▼ Modify SNMP Service Communities (Web)

1. **Access the Oracle ILOM web interface.**

   See "Access Oracle ILOM From the Web Interface" on page 120.
2. **Click the Configuration tab.**
3. **Click the System Management Access subtab.**
4. **Click the SNMP subtab.**

   The SNMP Management window opens.
5. **Click the Communities link.**

   The page scrolls to the SNMP Communities table.
6. **In the SNMP Communities table, select the community to modify and click Edit.**

   A new window opens.
7. **Select the permissions from the Permission drop-down menu.**
8. **Click Save.**

   The community is modified and the window closes.

Related Information

- "Modify SNMP Service Communities (CLI)" on page 98

▼ Delete SNMP Service Communities (Web)

1. **Access the Oracle ILOM web interface.**

   See "Access Oracle ILOM From the Web Interface" on page 120.
2. **Click the Configuration tab.**
3. **Click the System Management Access subtab.**

4. **Click the SNMP subtab.**

   The SNMP Management window opens.

5. **Click the Communities link.**

   The page scrolls to the SNMP Communities table.

6. **Select the community to delete and click Delete.**

   A dialog box opens and asks you to confirm.

7. **Click OK.**

   The community is deleted.

Related Information

- "Delete SNMP Service Communities (CLI)" on page 98
- "Add SNMP Service Communities (Web)" on page 157

▼ Download SNMP Service MIBs (Web)

This procedure creates a compressed file, `ilom-mibs.zip`, that contains these MIBs:

- `ENTITY-MIB.mib`
- `SUN-HW-TRAP-MIB.mib`
- `SUN-ILOM-CONTROL-MIB.mib`
- `SUN-PLATFORM-MIB.mib`
- `SUN-FABRIC-MIB.mib`
- `SUN-DCS-IB-MIB.txt`

1. **Access the Oracle ILOM web interface.**

   See "Access Oracle ILOM From the Web Interface" on page 120.

2. **Click the Configuration tab.**

3. **Click the System Management Access subtab.**

4. **Click the SNMP subtab.**

   The SNMP Management window opens.

5. **Click the MIBs link.**

   The page scrolls to MIBs.

6. **Click Download.**

   Depending on how your web browser is configured, you might either open the file or save the file.

Related Information

- "Download SNMP Service MIBs (CLI)" on page 99

▼ Disable the SNMP Service (Web)

1. **Access the Oracle ILOM web interface.**

   See "Access Oracle ILOM From the Web Interface" on page 120.

2. **Click the Configuration tab.**
3. **Click the System Management Access subtab.**
4. **Click the SNMP subtab.**

   The SNMP Management window opens.

5. **Under Settings, clear the Enabled checkbox for State.**
6. **Click Save.**

Related Information

- "Disable the SNMP Service (CLI)" on page 100
- "Enable the SNMP Service (Web)" on page 154

Managing IPMI Services (Web)

These tasks help you manage the Oracle ILOM IPMI service target.

- "Enable the IPMI Service (Web)" on page 161
- "Disable the IPMI Service (Web)" on page 161

Related Information

- "Managing IPMI Services (CLI)" on page 100
- "Managing HTTP Services (Web)" on page 149
- "Managing HTTPS Services (Web)" on page 151
- "Managing SNMP Services (Web)" on page 153

▼ Enable the IPMI Service (Web)

Note – The IPMI service is enabled by default.

1. **Access the Oracle ILOM web interface.**
   See "Access Oracle ILOM From the Web Interface" on page 120.
2. **Click the Configuration tab.**
3. **Click the System Management Access subtab.**
4. **Click the IPMI subtab.**
   The IPMI Settings window opens.
5. **Select the Enabled checkbox for State.**
6. **Click Save.**

Related Information

- "Enable the IPMI Service (CLI)" on page 101
- "Disable the IPMI Service (Web)" on page 161

▼ Disable the IPMI Service (Web)

1. **Access the Oracle ILOM web interface.**
   See "Access Oracle ILOM From the Web Interface" on page 120.
2. **Click the Configuration tab.**
3. **Click the System Management Access subtab.**
4. **Click the IPMI subtab.**
   The IPMI Settings window opens.
5. **Unselect the Enabled checkbox for State.**
6. **Click Save.**
   The IPMI service is disabled.

Related Information

- "Disable the IPMI Service (CLI)" on page 101
- "Enable the IPMI Service (Web)" on page 161

Managing Other Aspects With Oracle ILOM (Web)

These tasks help you manage other aspects of Oracle ILOM.

- "Enable Alerts to Send SNMP Traps (Web)" on page 162
- "Enable Alerts to Send PETs (Web)" on page 163
- "Enable Alerts to Send Email Alerts (Web)" on page 164
- "Disable Alerts (Web)" on page 164
- "Set the CLI Session Timeout (Web)" on page 165

Related Information

- "Managing Other Aspects With Oracle ILOM (CLI)" on page 102
- "Managing Other Aspects With Oracle ILOM (SNMP)" on page 242
- "Performing General Tasks on Oracle ILOM Targets (Web)" on page 136

▼ Enable Alerts to Send SNMP Traps (Web)

1. **Access the Oracle ILOM web interface.**
   See "Access Oracle ILOM From the Web Interface" on page 120.
2. **Click the Configuration tab.**
3. **Click the Alert Management subtab.**
   The Alert Settings window opens.
4. **In the Alerts table, select the alert to enable and click Edit.**
   A new window opens.
5. **Select the alert level from the Level drop-down menu.**
6. **Select the SNMP Trap alert type from the Type drop-down menu.**
7. **Type the SNMP trap destination address or host name into the Address field.**
8. **Select the SNMP version from the SNMP Version drop-down menu.**
9. **Type the SNMP community name into the Community Name field.**
10. **Click Save.**
    The alert is enabled.

Related Information

- "Enable Alerts to Send SNMP Traps (CLI)" on page 102

- "Enable Alerts to Send SNMP Traps (SNMP)" on page 244
- "Enable Alerts to Send PETs (Web)" on page 163
- "Enable Alerts to Send Email Alerts (Web)" on page 164
- "Display the Alert Properties (Web)" on page 131
- "Disable Alerts (Web)" on page 164

▼ Enable Alerts to Send PETs (Web)

1. **Access the Oracle ILOM web interface.**
   See "Access Oracle ILOM From the Web Interface" on page 120.
2. **Click the Configuration tab.**
3. **Click the Alert Management subtab.**
   The Alert Settings window opens.
4. **In the Alerts table, select the alert to modify and click Edit.**
   A new window opens.
5. **Select the alert level from the Level drop-down menu.**
6. **Select the IPMI PET alert type from the Type drop-down menu.**
7. **Type the IPMI PET destination IP address into the IP Address field.**
8. **Click Save.**
   The alert is enabled.

Related Information

- "Enable Alerts to Send PETs (CLI)" on page 104
- "Enable Alerts to Send PETs (SNMP)" on page 245
- "Enable Alerts to Send SNMP Traps (Web)" on page 162
- "Enable Alerts to Send Email Alerts (Web)" on page 164
- "Display the Alert Properties (Web)" on page 131
- "Disable Alerts (Web)" on page 164

▼ Enable Alerts to Send Email Alerts (Web)

1. **Access the Oracle ILOM web interface.**
   See "Access Oracle ILOM From the Web Interface" on page 120.

2. **Click the Configuration tab.**
3. **Click the Alert Management subtab.**

   The Alert Settings window opens.
4. **In the Alerts table, select the alert to modify and click Edit.**

   A new window opens.
5. **Select the alert level from the Level drop-down menu.**
6. **Select the email alert type from the Type drop-down menu.**
7. **Type the destination email address into the Email Address field.**
8. **(Optional) Select the Event Class Filter and Event Type Filter from their respective drop-down menus.**
9. **Type a custom sender identifier into the Custom Sender field to override the default value.**
10. **(Optional) Type a message prefix into the Message Prefix field.**
11. **Click Save.**

    The alert is enabled.

Related Information

- "Enable Alerts to Send Email Alerts (CLI)" on page 105
- "Enable Alerts to Send Email Alerts (SNMP)" on page 246
- "Enable Alerts to Send SNMP Traps (Web)" on page 162
- "Enable Alerts to Send PETs (Web)" on page 163
- "Display the Alert Properties (Web)" on page 131
- "Disable Alerts (Web)" on page 164

▼ Disable Alerts (Web)

1. **Access the Oracle ILOM web interface.**

   See "Access Oracle ILOM From the Web Interface" on page 120.
2. **Click the Configuration tab.**
3. **Click the Alert Management subtab.**

   The Alert Settings window opens.
4. **In the Alerts table, select the alert to disable and click Edit.**

   A new window opens.

5. **Select the Disable level from the Level drop-down menu.**
6. **Click Save.**

   The alert is disabled.

Related Information

- "Disable Alerts (CLI)" on page 106
- "Disable Alerts (SNMP)" on page 248
- "Enable Alerts to Send SNMP Traps (Web)" on page 162
- "Enable Alerts to Send PETs (Web)" on page 163
- "Enable Alerts to Send Email Alerts (Web)" on page 164
- "Display the Alert Properties (Web)" on page 131

▼ Set the CLI Session Timeout (Web)

1. **Access the Oracle ILOM web interface.**

   See "Access Oracle ILOM From the Web Interface" on page 120.
2. **Click the Configuration tab.**
3. **Click the System Management Access subtab.**
4. **Click the CLI subtab.**

   The CLI Settings window opens.
5. **Check the Enabled box for Session timeout and type the number of minutes into the Minutes field.**
6. **Click Save.**

Related Information

- "Set the Oracle ILOM CLI Session Timeout (CLI)" on page 107
- "Display the CLI Session Timeout (Web)" on page 133

▼ Upgrade the Switch Firmware (Web)

Note – If you are going to downgrade the firmware to a version earlier than 2.0, you must remove user partitions and depopulate the Subnet Manager nodes list. See *Switch Administration*, removing partitions for firmware downgrade.

1. **Acquire the firmware package.**

   See "Acquire the Switch Firmware Package (CLI)" on page 109.

2. **Open an SSH session and connect to the management controller by specifying the controller's host name.**

   For example:

```
% ssh -l root nm2name
root@nm2name's password: password
#
```

   where *nm2name* is the host name of the management controller. Initially, the password is `changeme`.

3. **If the Subnet Manager is running on the management controller, disable it with the `disablesm` command.**

```
# disablesm
Stopping partitiond daemon.                                [  OK  ]
Stopping IB Subnet Manager..                               [  OK  ]
#
```

4. **Verify that there is at least 80 MB available in the `/` filesystem.**

```
# df -m /
Filesystem           1M-blocks      Used Available Use% Mounted on
/dev/hda2                  471       287       161      65%      /
#
```

   In this example, there are 161 MB available. If not enough space is available, you must delete or move files from the `/` filesystem.

5. **Verify that there is at least 120 MB available in the `/tmp` directory.**

```
# df -h /tmp
Filesystem            Size  Used Avail Use% Mounted on
tmpfs                 250M  240K 249M 1% /tmp
#
```

In this example, there are 249 MB available. If not enough space is available, you must delete files from the `/tmp` directory.

6. **If you will perform a local file upload, perform these steps.**

Otherwise, go to Step 7.

a. Verify that there is at least 120 MB available in the `/dev/shm` directory.

```
# df -h /dev/shm
Filesystem            Size  Used Avail Use% Mounted on
tmpfs                 250M   16K  250M   1% /dev/shm
#
```

In this example, there are 250 MB available. If not enough space is available, you must delete or move files from the `/dev/shm` directory.

b. Verify that there is at least 240 MB free memory available.

```
# free -m
             total       used       free     shared    buffers     cached
Mem:           498        104        393          0         12         47
-/+ buffers/cache:         45        453
Swap:            0          0          0
#
```

In the `-/+ buffers/cache:` row of the `free` column, there should be at least 240 MB free memory. In this example, there are 453 MB available. If not enough memory is available, you must exit non-essential applications that are running.

c. Go to Step 8.

7. **Verify that there is at least 120 MB free memory available.**

```
# free -m
             total       used       free     shared    buffers     cached
Mem:           498        104        393          0         12         47
-/+ buffers/cache:         45        453
Swap:            0          0          0
#
```

In the `-/+ buffers/cache:` row of the `free` column, there should be at least 120 MB free memory. In this example, there are 453 MB available. If not enough memory is available, you must exit nonessential applications that are running.

8. **Access the Oracle ILOM web interface.**

See "Access Oracle ILOM From the Web Interface" on page 120.

9. **Click the Maintenance tab.**

10. **Click the Firmware Upgrade subtab.**

The Firmware Upgrade window opens.

11. **Click Enter Upgrade Mode.**

A dialog box opens and asks you to confirm.

12. **Click OK.**

The Firmware Upgrade window changes to Upgrade mode and now accepts either a local file path and file name, or a URL and file name of the switch firmware package.

13. **Consider your next step:**

- # If you are performing a local file upload, click Browse and locate the file.
- # If the switch firmware package is located remotely, click Specify URL and type the fully qualified URL for the package.

Note – Clicking Specify URL also changes the button to Local File Upload. Clicking Local File Upload changes the button back to Specify URL.

Note – For the specified URL, only the FTP or HTTP protocols are supported.

---

14. **Click Upload.**

Oracle ILOM transfers the switch firmware package to the management controller. Oracle ILOM verifies the package integrity and displays the current versions of the firmware and versions in the package.

15. **Click Start Upgrade.**

    A dialog box opens and asks you to confirm.

16. **Click OK.**

    The upgrade begins and the status of the upgrade is reported.

    When the upgrade process ends, a log and summary report are displayed.

17. **Click OK.**

    A final status is displayed, the upgrade either:

    - Succeeded
    - Partially succeeded
    - Failed

18. **Reboot the switch to enable the new firmware.**

    See *Switch Administration*, restarting the entire switch.

Note – The restart process takes between 4 to 5 minutes to complete. The Oracle ILOM stack requires at least 2 minutes to become operational after a reboot.

---

19. **If the Subnet Manager was previously disabled, open an SSH session, connect to the management controller, and enable the Subnet Manager.**

```
% ssh -l root switch_name
root@switch_name's password: password
# enablesm
Starting IB Subnet Manager.                                [  OK  ]
Starting partitiond daemon.                                [  OK  ]
# exit
```

20. **Access the Oracle ILOM web interface.**

    See "Access Oracle ILOM From the Web Interface" on page 120.

21. **Verify the success of the firmware update.**

    See "Display the Firmware Version (Web)" on page 134.

22. **Verify the firmware integrity.**

    See "Verify Firmware Integrity (CLI)" on page 108.

Related Information

- "Upgrade the Switch Firmware (CLI)" on page 111

Using the Fabric Monitor

The Fabric Monitor enables you to visually monitor the status of the switch, the I4 switch chip, and the connectors through a web-based interface. The Fabric Monitor is accessible from the Oracle ILOM web interface.

These topics describe how to use the fabric monitor.

Related Information

- "Understanding Oracle ILOM on the Switch" on page 1
- "Administering Oracle ILOM (CLI)" on page 33
- "Administering Oracle ILOM (Web)" on page 117
- "Administering Oracle ILOM (SNMP)" on page 191
- "Administering Hardware (IPMI)" on page 249
- "Understanding Oracle ILOM Commands" on page 257

▼ Access the Fabric Monitor

1. **Access the Oracle ILOM web interface.**

   See "Access Oracle ILOM From the Web Interface" on page 120.

Note – If the login page is not displayed or an error is displayed, verify that the web interface is enabled. See "Enable the HTTP Service (CLI)" on page 88 and "Enable the HTTPS Service (CLI)" on page 90.

2. **Click the Switch/Fabric Monitoring Tools tab.**

   The SUN DCS 36p Monitor page is displayed.

3. **Click Launch SUN DCS 36p Monitor.**

   The Fabric Monitor GUI is displayed.

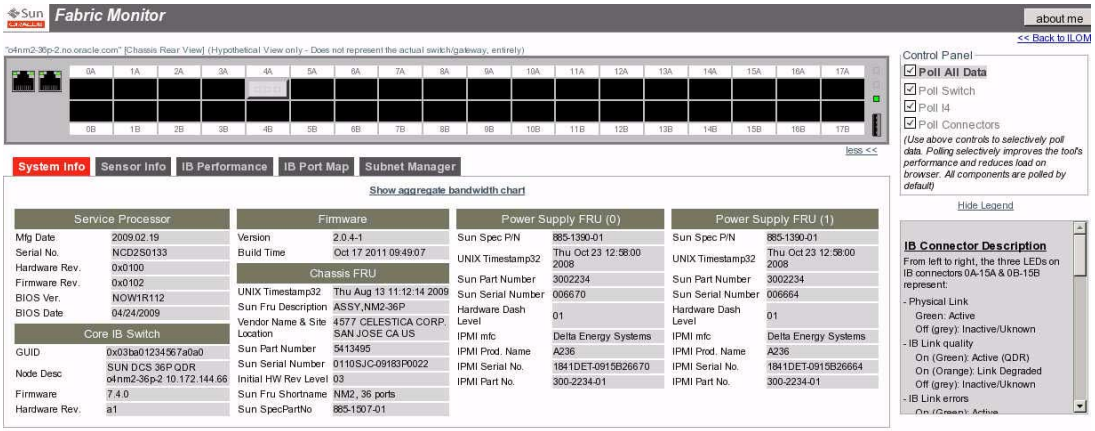
Note – To return to ILOM, click the `<<Back to ILOM` link in the upper-right corner of the Fabric Monitor.

Related Information

- "Fabric Monitor Features" on page 172
- "Accessing the Rear Panel Diagram" on page 173
- "Accessing Status Pane Information" on page 177
- "Control Panel Function" on page 183
- "Monitoring Parameters and Status" on page 184

Fabric Monitor Features

This figure displays the basic aspects of the FM interface.



1	Rear panel diagram
2	Control panel
3	Status pane
4	Legend

Note – Both the control panel and legend are hidden by default. Clicking the more>> link makes them visible.

The FM also has status windows for:

- **Connector indicators** – Moving the mouse cursor over an indicator that is orange or red opens a small window that provides the reason for the respective state.
- **InfiniBand connector status** – Clicking on a gray InfiniBand connector opens a window that displays connector FRU, port state, error, and statistical information for that connection.

These status windows are explained in depth in "Accessing the Rear Panel Diagram" on page 173.

Related Information

- "Access the Fabric Monitor" on page 171
- "Accessing the Rear Panel Diagram" on page 173
- "Accessing Status Pane Information" on page 177
- "Control Panel Function" on page 183
- "Monitoring Parameters and Status" on page 184

Accessing the Rear Panel Diagram

The rear panel diagram provides a visual representation of the switch's connector and link status. Aspects of the diagram are discussed in these topics:

- "Rear Panel Diagram Overview" on page 174
- "InfiniBand Connector Status Window" on page 174

Related Information

- "Access the Fabric Monitor" on page 171
- "Fabric Monitor Features" on page 172
- "Accessing Status Pane Information" on page 177
- "Control Panel Function" on page 183
- "Monitoring Parameters and Status" on page 184

Rear Panel Diagram Overview

This figure provides an example of the rear panel diagram.

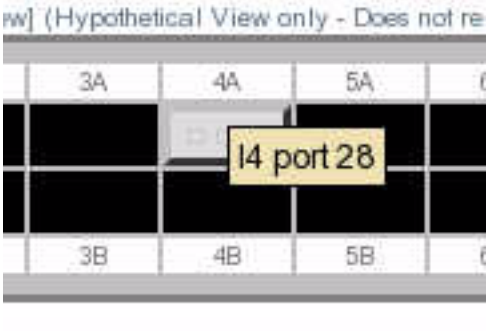
The rear panel diagram displays the presence of connectors and their status within a mockup of the switch rear panel. The diagram displays the management controller's IP address, and the connector receptacles and their respective connector names. When a cable is attached to a receptacle, a connection is made. That connection is displayed in the diagram as a gray rectangle, with three or four smaller indicators. Moving the mouse cursor over an indicator, clicking on an indicator, or clicking on a connection opens a window that provides additional information about that indicator or connection.

Related Information

- "InfiniBand Connector Status Window" on page 174

InfiniBand Connector Status Window

In the rear panel diagram, there are 32 InfiniBand receptacles displayed, labeled 0A to 15A and 0B to 15B. Moving the mouse cursor over a connector name opens a small window that states the respective I4 switch chip port for that connector. This figure provides an example of moving the mouse cursor over the `0A` for connection 0A.



When a connector is physically present in an InfiniBand receptacle, the receptacle changes from a black rectangle to a gray rectangle with three indicators.

This table describes the three indicators of the InfiniBand connection rectangle.

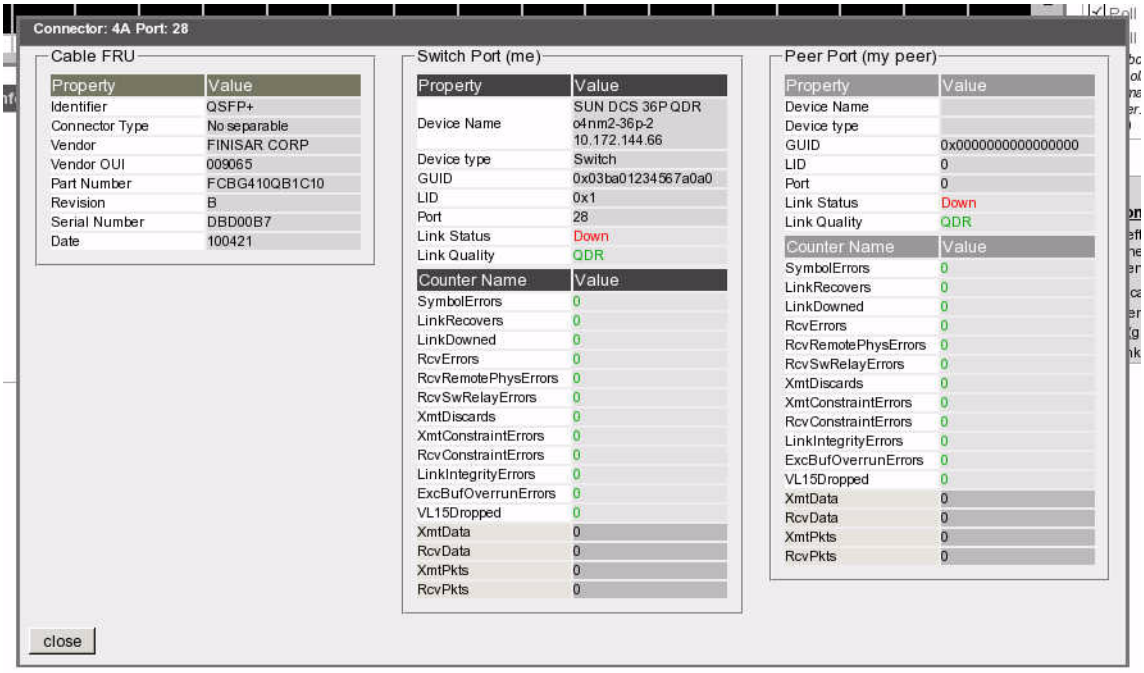
Object	Left Indicator	Center Indicator	Right Indicator
Description	Physical link	InfiniBand link quality	InfiniBand link errors
Color	• Gray – No link • Green – Link established	• Gray – No activity • Green – QDR • Orange – DDR, SDR	• Gray – No activity • Green – No errors • Red – Errors

Moving the mouse cursor over an indicator that is orange or red opens a small window that states the reason for the respective state:

- A center indicator is orange because the link is at a speed slower than QDR, such as SDR or DDR.
- A right indicator is red because there are errors (symbol, recovery, and so on) on the link.

This figure provides an example of moving the mouse cursor over the red right indicator for connection 8A.

Clicking on the connection opens the InfiniBand connector status window for that connector. This figure provides an example of an InfiniBand connector status window.



At the top of the window are the connector name and the respective I4 switch chip port. There are three sets of information in the window, the cable FRU ID information, information about the I4 switch chip port (Switch Port), and similar information about the port's InfiniBand peer (Peer Port).

The cable FRU ID information includes:

- Identifier
- Connector type
- Vendor
- Vendor OUI
- Part number
- Revision
- Serial number
- Date of manufacture

The port information includes:

- Device name and type
- GUID, LID, and respective port
- Link status and quality
- Symbol errors
- Recovery errors
- Errors of various categories
- Throughput statistics

Clicking Close dismisses the InfiniBand connector status window.

Related Information

- "Rear Panel Diagram Overview" on page 174

Accessing Status Pane Information

At the center of the FM is the status pane, which displays the majority of information regarding the switch. The status pane has five tabs:

- "System Info Tab" on page 178
- "Sensor Info Tab" on page 179
- "IB Performance Tab" on page 180
- "IB Port Map Tab" on page 181
- "Subnet Manager Tab" on page 182

Related Information

- "Access the Fabric Monitor" on page 171
- "Fabric Monitor Features" on page 172
- "Accessing the Rear Panel Diagram" on page 173
- "Control Panel Function" on page 183
- "Monitoring Parameters and Status" on page 184

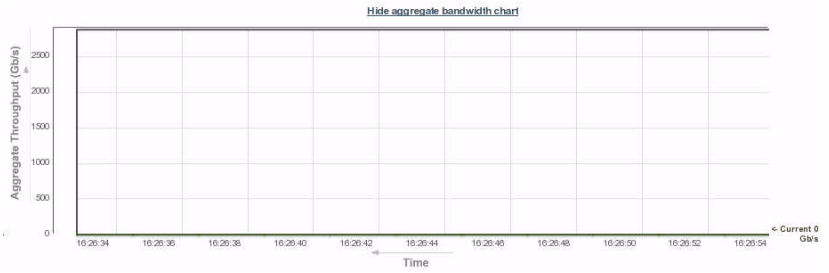
System Info Tab

This figure provides an example of the System Info tab.

The System Info tab displays status information regarding the switch hardware. The information is categorized in these groups:

- **Service Processor** – Basic information about the management controller
- **Core IB Switch** – Basic information about the I4 switch chip
- **Firmware** – Version and build date
- **Chassis FRU** – FRU ID information about the chassis
- **Power Supply FRU (0)** – FRU ID information about the left power supply
- **Power Supply FRU (1)** – FRU ID information about the right power supply

If the Poll I4 checkbox in the control panel is selected (default), then you can click `Show aggregate bandwidth chart` to display the historic total bandwidth. This figure provides an example of the aggregate bandwidth.



Note – The aggregate bandwidth chart has a dynamic time scale. The scale is continually adjusting for the initiation time on the left and the current time on the right.

Clicking `Hide aggregate bandwidth chart` removes the bandwidth chart.

Related Information

- "Sensor Info Tab" on page 179
- "IB Performance Tab" on page 180
- "IB Port Map Tab" on page 181
- "Subnet Manager Tab" on page 182

Sensor Info Tab

This figure provides an example of the Sensor Info tab.

System Info | Sensor Info | IB Performance | IB Port Map | Subnet Manager

Power Sensors

Name	Present	A/C Present	Status
PSU 0	true	true	OK
PSU 1	true	true	OK

Fan Sensors

Name	Present	RPM	Status
FAN 0	true	12426	OK
FAN 1	false	-	-
FAN 2	true	12426	OK
FAN 3	false	-	-
FAN 4	true	14388	OK

Voltage Sensors

Name	Value	Status
ECB	-	OK
3.3V Main	3.27	OK
3.3V Stby	3.35	OK
12V	11.97	OK
5V	5.02	OK
VBAT	3.24	OK
2.5V	2.52	OK
1.8V	1.78	OK
I4 1.2V	1.22	OK

Temperature Sensors

Name	Value	Status
Back	33	OK
Front	33	OK
SP	44	OK
Switch	45	OK

IB Device Sensors

Name	Status
Switch	OK

The Sensor Info tab displays status information regarding the switch sensors. The information is categorized in these groups:

- **Voltage Sensors** – Assorted voltages on the main board

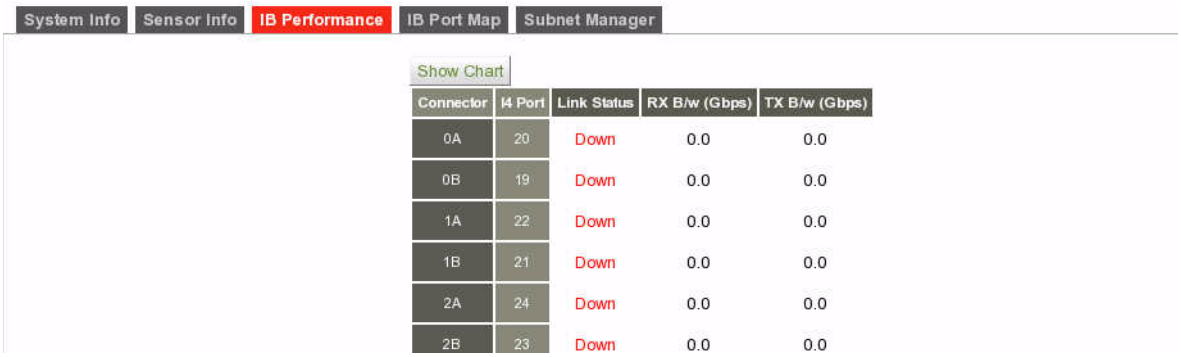
- Power Sensors – Presence, AC presence, and status for both power supply slots
- Fan Sensors – Presence, RPM, and status for each fan slot
- Temperature Sensors – Back, front, management controller, and I4 switch chip
- **IB Device Sensors** – I4 switch chip status

Related Information

- "System Info Tab" on page 178
- "IB Performance Tab" on page 180
- "IB Port Map Tab" on page 181
- "Subnet Manager Tab" on page 182

IB Performance Tab

This figure provides an example of the IB Performance tab.



The IB Performance tab displays the status of the I4 switch chip ports. A table describes this information:

- **Connector** – Rear panel connector respective to the I4 switch chip port
- **I4 Port** – Port of the I4 switch chip
- **Link Status** – Present link state of the that port. Either Down (red) or Active (green)
- **RX B/w (Gbps)** – Instantaneous receive link bandwidth for that port
- **TX B/w (Gbps)** – Instantaneous transmit link bandwidth for that port

By clicking `Show Chart`, a sixth column for the table is displayed:

- **B/W (Gbps)** – Running bandwidth of the link for that port (0 to 40 Gbps)

Note – You must select the Poll I4 checkbox (default) in the control panel to populate the table with current information.

When displaying the B/W (Gbps) column, the added resource demand on the management controller slows its ability to display the information. Clicking `Hide Chart` removes the bandwidth charts.

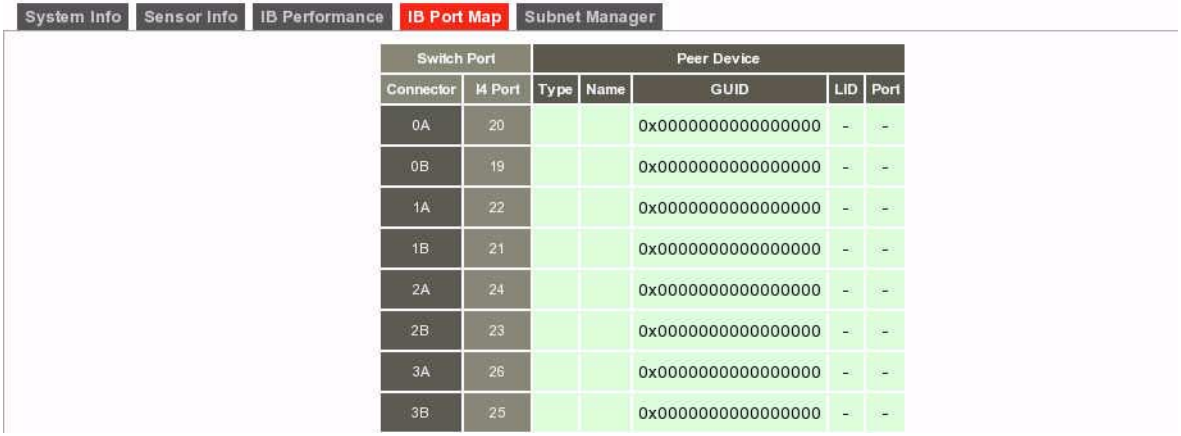
By clicking on a column heading, the information in the table is sorted according to that column heading, either in ascending or descending order. For example, clicking the I4 Port heading sorts the information in the table according to the numeric sequence of the I4 ports. Clicking the Link Status heading sorts the information in the table according to the state of the links.

Related Information

- "System Info Tab" on page 178
- "Sensor Info Tab" on page 179
- "IB Port Map Tab" on page 181
- "Subnet Manager Tab" on page 182

IB Port Map Tab

This figure provides an example of the IB Port Map tab.



The IB Port Map tab displays information about peer devices attached to the switch. A table describes this information:

- **Connector** – Rear panel connector respective to the I4 switch chip port

- **I4 Port** – Port of the I4 switch chip
- **Type** – Type of peer device attached to the connector or I4 switch chip port
- **Name** – Contents of the peer device's NodeDescription field
- **GUID** – GUID of the peer device
- **LID** – LID assigned to the peer device
- **Port** – Port of the node identified by the GUID or LID

Note – You must select the Poll I4 checkbox (default) in the control panel to populate the table with current information.

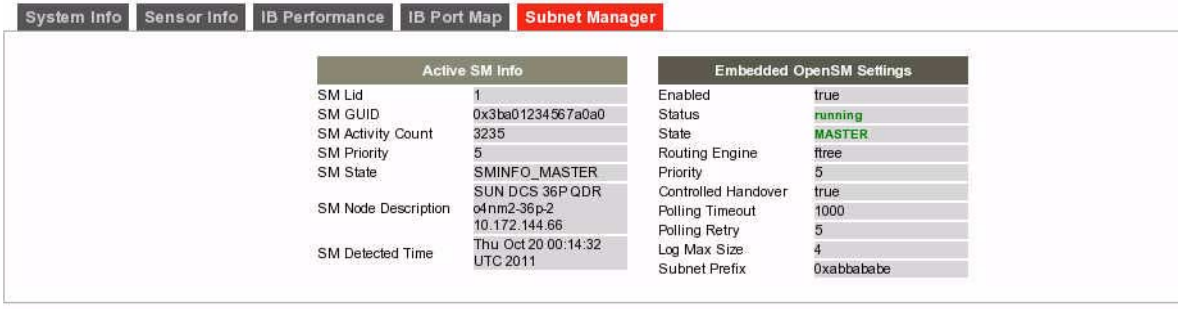
By clicking on a column heading, the information in the table is sorted according to that column heading, either in ascending or descending order. For example, clicking the Connector heading sorts the information in the table according to the numeric sequence of the connectors. Clicking the peer device Name heading sorts the information in the table according to the NodeDescription field of the peer device.

Related Information

- "System Info Tab" on page 178
- "Sensor Info Tab" on page 179
- "IB Performance Tab" on page 180
- "Subnet Manager Tab" on page 182

Subnet Manager Tab

This figure provides an example of the Subnet Manager tab.



The Subnet Manager tab displays information about the Subnet Manager within the switch. Information displayed is categorized into these groups:

- **Active SM Info** – Information about the active Subnet Manager, LID, GUID, activity, priority, and state.
- **Embedded OpenSM Settings** – Information about the management controller's Subnet Manager's configuration.

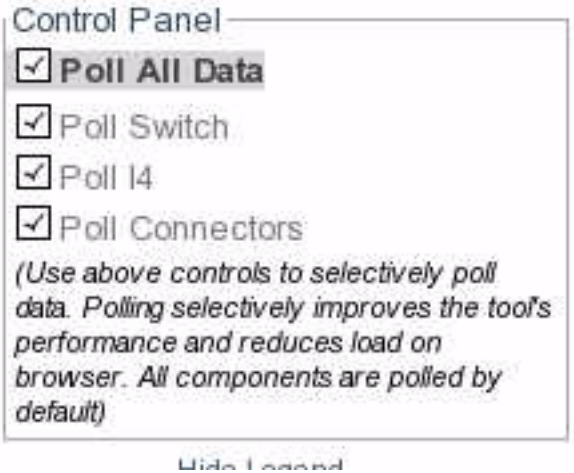
The active Subnet Manager might not be the embedded Subnet Manager within the management controller.

Related Information

- "System Info Tab" on page 178
- "Sensor Info Tab" on page 179
- "IB Performance Tab" on page 180
- "IB Port Map Tab" on page 181

Control Panel Function

Hidden on the right side of the FM is the control panel. Clicking the more>> link opens the control panel and legend. This figure provides an example of the control panel.



The control panel has five checkboxes that enable you to select what aspect of the switch is to be monitored. You can select to monitor:

Note – All checkboxes are enabled by default. By clearing the checkboxes that are not necessary for your monitoring needs, you reduce the load on the interface and optimize the operation of the FM.

- **Poll All Data** – Selecting this checkbox enables all polling. Consequently, all checkboxes are selected. When all checkboxes are selected, the added resource demand on the management controller slows its ability to display the information.
- **Poll Switch** – Selecting this checkbox enables you to monitor the status of the switch hardware and the Subnet Manager. By checking this box, the System Info, Sensor Info, and Subnet Manager tabs of the status pane become active and are populated with information.
- **Poll I4** – Selecting this checkbox enables you to monitor the status of the I4 switch chip and the links its ports negotiate. By checking this box, the IB Performance and IB Port Map tabs of the status pane become active and are populated with information. Additionally, the Show Aggregate Bandwidth Chart link under the System Info tab becomes active.
- **Poll Connectors** – Selecting this checkbox enables you to monitor the status of the connectors on the switch rear panel. By checking this box, the rear panel diagram becomes active and displays present connectors and their condition.

Related Information

- "Access the Fabric Monitor" on page 171
- "Fabric Monitor Features" on page 172
- "Accessing the Rear Panel Diagram" on page 173
- "Accessing Status Pane Information" on page 177
- "Monitoring Parameters and Status" on page 184

Monitoring Parameters and Status

These tables help you quickly find a switch parameter or status value using the FM.

- "Chassis Parameters and Status" on page 185
- "InfiniBand Connector Parameters and Status" on page 187
- "I4 Switch Chip Port Parameters and Status" on page 189

Related Information

- "Access the Fabric Monitor" on page 171
- "Fabric Monitor Features" on page 172
- "Accessing the Rear Panel Diagram" on page 173
- "Accessing Status Pane Information" on page 177
- "Control Panel Function" on page 183

Chassis Parameters and Status

Use this table to determine chassis status with the FM. Find the parameter or status in the left column, then perform the steps from left to right.

Parameter or Status to Monitor	Action in Status Pane	Information Location
Battery voltage.	Click Sensor Info tab.	Look in the second column, Voltage Sensors, in the middle.
Chassis FRU description.	Click System Info tab.	Look in the second column, Chassis FRU, at the top.
Chassis part number.	Click System Info tab.	Look in the second column, Chassis FRU, in the middle.
Chassis serial number.	Click System Info tab.	Look in the second column, Chassis FRU, in the middle.
Chassis temperatures.	Click Sensor Info tab.	Look in the third column, Temperature Sensors.
Controlled handover state.	Click Subnet Manager tab.	Look in the second column, Embedded OpenSM Settings, in the middle.
Fan presence.	Click Sensor Info tab.	Look in the first column, Fan Sensors, second column.
Fan speed.	Click Sensor Info tab.	Look in the first column, Fan Sensors, third column.
Fan status.	Click Sensor Info tab.	Look in the first column, Fan Sensors, fourth column.
I4 switch chip firmware version.	Click System Info tab.	Look in the first column, Core IB Switch, in the middle.
I4 switch chip GUID.	Click System Info tab.	Look in the first column, Core IB Switch, at the top.
I4 switch chip historic aggregate bandwidth.	Click System Info tab. Click Show Aggregate Bandwidth Chart.	Look in the center.
I4 switch chip LID.	Click Subnet Manager tab.	Look in the first column, Active SM Info, at the top.

Parameter or Status to Monitor	Action in Status Pane	Information Location
I4 switch chip status.	Click Sensor Info tab.	Look in the third column, IB Device Sensors, at the top.
I4 switch chip temperature.	Click Sensor Info tab.	Look in the third column, Temperature Sensors, at the bottom.
I4 switch chip voltage.	Click Sensor Info tab.	Look in the second column, Voltage Sensors, at the bottom.
Main board voltages.	Click Sensor Info tab.	Look in the second column, Voltage Sensors.
Management controller BIOS version.	Click System Info tab.	Look in the first column, Service Processor, at the bottom.
Management controller firmware version.	Click System Info tab.	Look in the second column, Firmware.
Management controller serial number.	Click System Info tab.	Look in the first column, Service Processor, at the top.
Power supply presence.	Click Sensor Info tab.	Look in the first column, Power Sensors, second column.
Power supply line voltage presence.	Click Sensor Info tab.	Look in the first column, Power Sensors, third column.
Power supply status.	Click Sensor Info tab.	Look in the first column, Power Sensors, fourth column.
Subnet Manager controlled handover.	Click Subnet Manager tab.	Look in the second column, Embedded OpenSM Settings, in the middle.
Subnet Manager GUID.	Click Subnet Manager tab.	Look in the first column, Active SM Info, at the top.
Subnet Manager LID.	Click Subnet Manager tab.	Look in the first column, Active SM Info, at the top.
Subnet Manager priority.	Click Subnet Manager tab.	Look in the first column, Active SM Info, in the middle. Look in the second column, Embedded OpenSM Settings, in the middle.
Subnet Manager routing algorithm.	Click Subnet Manager tab.	Look in the second column, Embedded OpenSM Settings, in the middle.
Subnet Manager status.	Click Subnet Manager tab.	Look in the first column, Active SM Info, in the middle. Look in the second column, Embedded OpenSM Settings, at the top.
Subnet Manager subnet prefix.	Click Subnet Manager tab.	Look in the second column, Embedded OpenSM Settings, at the bottom.

Related Information

- "InfiniBand Connector Parameters and Status" on page 187

■ "I4 Switch Chip Port Parameters and Status" on page 189

InfiniBand Connector Parameters and Status

Use this table to determine InfiniBand connector status for all connectors with the FM. Find the parameter or status in the left column, then perform the steps from left to right.

Parameter or Status to Monitor	Action at Rear Panel Diagram or Status Pane	Information Location
All connectors - cable present.	Check rear panel diagram.	If gray, connector present. If black, connector absent.
All connectors - current receive bandwidth.	Click IB Performance tab.	Look in the first column, Connector. Look in the fourth column, RX B/w (Gbps).
All connectors - current transmit bandwidth.	Click IB Performance tab.	Look in the first column, Connector. Look in the fifth column, TX B/w (Gbps).
All connectors - link active.	Check rear panel diagram.	If left indicator gray, link down. If left indicator green, link up.
All connectors - link quality.	Check rear panel diagram.	If center indicator gray, no activity. If center indicator green, QDR. If center indicator orange, less than QDR.
All connectors - link errors.	Check rear panel diagram.	If right indicator gray, no activity. If right indicator green, insignificant errors. If right indicator red, significant errors.
All connectors - link state.	Click IB Performance tab.	Look in the first column, Connector. Look in the third column, Link Status.
All connectors - peer device GUID and port.	Click IB Port Map tab.	Look in the first column, Connector. Look in the fifth column, GUID. Look in the seventh column, Port.
All connectors - peer device LID and port.	Click IB Port Map tab.	Look in the first column, Connector. Look in the sixth column, LID. Look in the seventh column, Port.

Parameter or Status to Monitor	Action at Rear Panel Diagram or Status Pane	Information Location
All connectors - peer device type and name.	Click IB Port Map tab.	Look in the first column, Connector. Look in the third column, Type. Look in the fourth column, Name.
All connectors - running bandwidth.	Click IB Performance tab.	Click Show Chart. Look in the first column, Connector. Look in the sixth column, B/W (Gbps).
All connector to I4 switch chip port mapping.	Click IB Port Map tab.	Look in the first column, Connector. Look in the second column, I4 Port.

Use this table to determine InfiniBand connector status for individual connectors with the FM. Find the parameter or status in the left column, then perform the steps from left to right.

Parameter or Status to Monitor	Action at Rear Panel Diagram or Status Pane	Information Location
Individual connector - data throughput.	Check rear panel diagram. Click connection rectangle.	Look in the second column, Switch Port. Look under Counter Name, at the bottom.
Individual connector - device name and type.	Check rear panel diagram. Click connection rectangle.	Look in the second column, Switch Port. Look under Property, at the top.
Individual connector - FRU ID information.	Check rear panel diagram. Click connection rectangle.	Look in the first column, Cable FRU.
Individual connector - GUID and port.	Check rear panel diagram. Click connection rectangle.	Look in the second column, Switch Port. Look under Property, in the middle.
Individual connector - LID and port.	Check rear panel diagram. Click connection rectangle.	Look in the second column, Switch Port. Look under Property, in the middle.
Individual connector - link status and link quality.	Check rear panel diagram. Click connection rectangle.	Look in the second column, Switch Port. Look under Property, at the bottom.
Individual connector - symbol and recovery errors.	Check rear panel diagram. Click connection rectangle.	Look in the second column, Switch Port. Look under Counter Name, at the top.
Individual connector - peer device data throughput.	Check rear panel diagram. Click connection rectangle.	Look in the third column, Peer Port. Look under Counter Name, at the bottom.
Individual connector - peer device GUID and port.	Check rear panel diagram. Click connection rectangle.	Look in the third column, Peer Port. Look under Property, in the middle.

Parameter or Status to Monitor	Action at Rear Panel Diagram or Status Pane	Information Location
Individual connector - peer device LID and port.	Check rear panel diagram. Click connection rectangle.	Look in the third column, Peer Port. Look under Property, in the middle.
Individual connector - peer device link status and link quality.	Check rear panel diagram. Click connection rectangle.	Look in the third column, Peer Port. Look under Property, at the bottom.
Individual connector - peer device name and type.	Check rear panel diagram. Click connection rectangle.	Look in the third column, Peer Port. Look under Property, at the top.
Individual connector - peer device symbol and recovery errors.	Check rear panel diagram. Click connection rectangle.	Look in the third column, Peer Port. Look under Counter Name, at the top.

Related Information

- "Chassis Parameters and Status" on page 185
- "I4 Switch Chip Port Parameters and Status" on page 189

I4 Switch Chip Port Parameters and Status

Use this table to determine I4 switch chip port status with the FM. Find the parameter or status in the left column, then perform the steps from left to right.

Parameter or Status to Monitor	Action at Status Pane	Information Location
I4 switch chip port to connector mapping.	Click IB Performance tab. Click I4 Port heading.	Look in the first column, Connector. Look in the second column, I4 Port.
I4 switch chip port - current receive bandwidth.	Click IB Performance tab. Click I4 Port heading.	Look in the second column, I4 Port. Look in the fourth column, RX B/w (Gbps).
I4 switch chip port - current transmit bandwidth.	Click IB Performance tab. Click I4 Port heading.	Look in the second column, I4 Port. Look in the fifth column, TX B/w (Gbps).
I4 switch chip port - link state.	Click IB Performance tab. Click I4 Port heading.	Look in the second column, I4 Port. Look in the third column, Link.
I4 switch chip port - peer device GUID and port.	Click IB Port Map tab. Click I4 Port heading.	Look in the second column, I4 port. Look in the fifth column, GUID. Look in the seventh column, Port

Parameter or Status to Monitor	Action at Status Pane	Information Location
I4 switch chip port - peer device LID and port.	Click IB Port Map tab. Click I4 Port heading.	Look in the second column, I4 port. Look in the sixth column, LID. Look in the seventh column, Port
I4 switch chip port - peer device type and name.	Click IB Port Map tab. Click I4 Port heading.	Look in the second column, I4 port. Look in the third column, Type. Look in the fourth column, Name.
I4 switch chip port - running bandwidth.	Click IB Performance tab. Click I4 Port heading. Click Show Chart.	Look in the second column, I4 Port. Look in the sixth column, B/W (Gbps).

Related Information

- "Chassis Parameters and Status" on page 185
- "InfiniBand Connector Parameters and Status" on page 187

Administering Oracle ILOM (SNMP)

These topics describe how to administer Oracle ILOM through the Simple Network Management Protocol (SNMP).

Related Information

- "Administering Oracle ILOM (CLI)" on page 33
- "Administering Oracle ILOM (Web)" on page 117
- "Using the Fabric Monitor" on page 171
- "Administering Hardware (IPMI)" on page 249
- "Understanding Oracle ILOM Commands" on page 257

SNMP Overview

The Oracle ILOM implementation on the management controller within the switch can communicate the state of and enable remote management of Oracle ILOM through SNMP.

An SNMP client is required to interface with the Oracle ILOM SNMP agent on the management controller. The SNMP client must have the appropriate Oracle ILOM MIBs installed. These MIBs are included in the `SUN_DCS_36p_`*`x`*`.`*`y`*`.`*`z`*`_`*`w`*`.tar.gz` file, the Oracle ILOM firmware package that you downloaded. See "Acquire the Switch Firmware Package (CLI)" on page 109.

The MIBs are also available using the CLI or web interface. See "Download SNMP Service MIBs (CLI)" on page 99 or "Download SNMP Service MIBs (Web)" on page 159.

Using the SNMP protocol, the client sends requests in the form of object identifiers (OIDs) to the server on the management controller. The tables in *Switch Reference*, understanding MIB OIDs, provide a listing of object identifiers.

For more information about and use of SNMP with Oracle ILOM, refer to the *Oracle Integrated Lights Out Manager (ILOM) 3.0 Protocol Management -- SNMP, IPMI,CIM,WS-MAN* , available online at:

`http://www.oracle.com/pls/topic/lookup?ctx=E19860-01&id=homepage`

Related Information

- "Understanding SNMP Commands" on page 192
- "Monitoring Oracle ILOM Targets (SNMP)" on page 195
- "Controlling Oracle ILOM Targets (SNMP)" on page 232

Understanding SNMP Commands

These topics describe how the SNMP command format is affected by the specified SNMP protocol:

- "SNMP Commands" on page 192
- "V1 and V2c Protocol Command Format" on page 193
- "V3 Protocol Command Format" on page 194

Related Information

- "SNMP Overview" on page 191
- "Monitoring Oracle ILOM Targets (SNMP)" on page 195
- "Controlling Oracle ILOM Targets (SNMP)" on page 232
- "Understanding Oracle ILOM Commands" on page 257

SNMP Commands

You can use several NetSNMP CLI client commands to perform tasks:

- `snmpget` – Returns the value of an SNMP object identifier.
- `snmpset` – Sets the value of an SNMP object identifier.
- `snmpwalk` – Returns values for multiple SNMP object identifiers.

Related Information

- "V1 and V2c Protocol Command Format" on page 193
- "V3 Protocol Command Format" on page 194

V1 and V2c Protocol Command Format

The majority of SNMP command examples provided use the V2c protocol for ease of demonstration. To perform the examples, you must enable the `v2c` protocol and sets properties in the Oracle ILOM SNMP service, and the SNMP community `public` has `rw` permission. See these tasks for instructions on how to configure these parameters:

- "Configure the SNMP Service (CLI)" on page 94
- "Configure the SNMP Service (Web)" on page 154
- "Add SNMP Service Communities (CLI)" on page 97
- "Add SNMP Service Communities (Web)" on page 157

The command format for both the V1 and V2c protocols is as follows:

`$` *command* `-v1|-v2c -c public` *mc_IP MIB_name*`::`*object_id argument*

where:

- *command* is one of the commands described in "SNMP Commands" on page 192.
- *mc_IP* is the IP address of the management controller.
- *MIB_name* is the name of the MIB.
- *object_id* is the object identifier.
- *argument* is a combination of options and variables that support the object identifier.

Note – When the SNMP command example uses the V2c protocol, the management controller IP address variable *mc_IP* is not defined, as this is different for each switch installation.

For example:

```
$ snmpset -v2c -c public mc_IP SUN-ILOM-CONTROL-MIB::ilomCtrlTimezone.0 s "GMT"
```

While simple in execution, the command and returned information is not encrypted or secure.

Related Information

- "SNMP Commands" on page 192
- "V3 Protocol Command Format" on page 194

V3 Protocol Command Format

In situations where a secure exchange is required, the V3 protocol supports authentication and encryption. The V3 protocol is enabled on the management controller by default. Some of the SNMP command examples in this domain use the V3 protocol. The command format for the V3 protocol is as follows:

`$` *command* `-v3 -u` *snmp_user* `-l` *security_level* `-a` *authentication_protocol* `-A` *authentication_password* `-x DES -X` *privacy_password mc_IP MIB_name*`::`*object_id argument*

where:

- *command* is one of the commands described in "SNMP Commands" on page 192.
- *snmp_user* is a configured user of the SNMP services.
- *security_level* is:
  - `noAuthNoPriv` – There is no authentication or privacy.
  - `authNoPriv` – There is authentication, but no privacy.
  - `authPriv` – There is authentication and privacy.
- *authentication_protocol* is either `MD5` or `SHA`.
- *authentication_password* is the *snmp_user*'s authentication password.
- *privacy_password* is the *snmp_user*'s privacy password.
- *mc_IP* is the IP address of the management controller.
- *MIB_name* is the name of the MIB.
- *object_id* is the object identifier.
- *argument* is a combination of options and variables that support the object identifier.

Note – For simplification, when an SNMP command example uses the V3 protocol, the *snmp_user*, *security_level*, *authentication_protocol*, *authentication_password*, and *privacy_password* variables are identified as `usersnmp`, `authPriv`, `MD5`, `authpass`, and `privpass` respectively. You must use unique values for *snmp_user*, *authentication_password*, and *privacy_password* variables, specific to the SNMP users of your switch. Additionally, the management controller IP address variable *mc_IP* is not defined, as this is different for each switch installation.

For example:

```
$ snmpset -v3 -u usersnmp -l authPriv -a MD5 -A authpass -x DES -X privpass mc_IP
SUN-ILOM-CONTROL-MIB::ilomCtrlTimezone.0 s "GMT"
```

Note – See "Add SNMP Service User Accounts (CLI)" on page 95 or "Add SNMP Service User Accounts (Web)" on page 155 for instructions to configure an SNMP user and their authentication and privacy passwords.

Related Information

- "SNMP Commands" on page 192
- "V1 and V2c Protocol Command Format" on page 193

Monitoring Oracle ILOM Targets (SNMP)

These topics enable you to display the status of many Oracle ILOM targets.

- "Performing Daily Tasks (SNMP)" on page 196
- "Checking the Status of Services (SNMP)" on page 217
- "Verifying Other Aspects With Oracle ILOM (SNMP)" on page 220

Related Information

- "Monitoring Oracle ILOM Targets (CLI)" on page 41
- "Monitoring Oracle ILOM Targets (Web)" on page 121
- "Controlling Oracle ILOM Targets (SNMP)" on page 232

Performing Daily Tasks (SNMP)

These tasks help you see the status of Oracle ILOM targets that are continually changing.

Related Information

▼ Display the Date and Time (SNMP)

- **From the SNMP client, type.**

```
$ snmpget -v2c -c public mc_IP SUN-ILOM-CONTROL-MIB::ilomCtrlDateAndTime.0
SUN-ILOM-CONTROL-MIB::ilomCtrlDateAndTime.0 = STRING: 2010-1-20,12:19:19.0
$
```

If you use the V3 protocol, type.

```
$ snmpget -v3 -u usersnmp -l authPriv -a MD5 -A authpass -x DES -X privpass mc_IP
SUN-ILOM-CONTROL-MIB::ilomCtrlDateAndTime.0
SUN-ILOM-CONTROL-MIB::ilomCtrlDateAndTime.0 = STRING: 2010-1-20,12:19:19.0
$
```

Related Information

- "Display the Time Zone (SNMP)" on page 197

▼ Display the Time Zone (SNMP)

- **From the SNMP client, type.**

```
$ snmpget -v2c -c public mc_IP SUN-ILOM-CONTROL-MIB::ilomCtrlTimezone.0
SUN-ILOM-CONTROL-MIB::ilomCtrlTimezone.0 = STRING: PST (US/Pacific)
$
```

If you use the V3 protocol, type.

```
$ snmpget -v3 -u usersnmp -l authPriv -a MD5 -A authpass -x DES -X privpass mc_IP
SUN-ILOM-CONTROL-MIB::ilomCtrlTimezone.0
SUN-ILOM-CONTROL-MIB::ilomCtrlTimezone.0 = STRING: PST (US/Pacific)
$
```

Related Information

- "Display the Date (CLI)" on page 42
- "Display the Date (Web)" on page 122
- "Display the Date and Time (SNMP)" on page 196
- "Set the Time Zone (SNMP)" on page 233

▼ Display the Aggregate Sensors State (SNMP)

Note – The entity numbers used in this procedure are for example only. Your entity numbers might differ, depending on the switch firmware and configuration.

1. **Determine the entity number of the aggregate sensor.**

   See "Display the Entity Numbers" on page 211.

2. **From the SNMP client, display the aggregate sensor's state.**

```
$ snmpget -v2c -c public mc_IP
SUN-PLATFORM-MIB::sunPlatDiscreteSensorCurrent.number
```

where *number* is the entity number.

For example, to determine the overall switch state, use the entity number respective to the `/SYS/CHASSIS_STATUS` aggregate sensor target. This example uses entity number 25:

```
$ snmpget -v2c -c public mc_IP SUN-PLATFORM-MIB::sunPlatDiscreteSensorCurrent.25
SUN-PLATFORM-MIB::sunPlatDiscreteSensorCurrent.25 = INTEGER: 1
$
```

In the output, `INTEGER: 1` indicates the sensor is in `Deasserted` state. `INTEGER: 2` means the sensor is in `Asserted` state.

Related Information

- "Display the Aggregate Sensors State (CLI)" on page 44
- "Display the Aggregate Sensors State (Web)" on page 122
- "Display Power Supply Status (SNMP)" on page 198
- "Display Board-Level Voltages (SNMP)" on page 200
- "Display Internal Temperatures (SNMP)" on page 204
- "Display Fan Status (SNMP)" on page 207
- "Display the Sensor Alarm State (SNMP)" on page 210
- "Display the Sensor States (IPMI)" on page 250
- "Display the Entity Numbers" on page 211

▼ Display Power Supply Status (SNMP)

Note – The entity numbers used in this procedure are for example only. Your entity numbers might differ, depending on the switch firmware and configuration. For more information about entity numbers, see "Display the Entity Numbers" on page 211.

1. **From the SNMP client, check for the presence of the power supply.**

```
$ snmpget -v2c -c public mc_IP
SUN-PLATFORM-MIB::sunPlatDiscreteSensorCurrent.number
```

where *number* is is the entity number for the /SYS/PSU*x*/PRSNT presence sensor target for the respective power supply. This example uses entity number 35 for the left power supply:

```
$ snmpget -v2c -c public mc_IP SUN-PLATFORM-MIB::sunPlatDiscreteSensorCurrent.35
SUN-PLATFORM-MIB::sunPlatDiscreteSensorCurrent.35 = INTEGER: 2
$
```

In the output, the INTEGER: 2 means the power supply is present. INTEGER: 1 means the power supply is not present.

2. **Check for the presence of input power.**

```
$ snmpget -v2c -c public mc_IP
SUN-PLATFORM-MIB::sunPlatDiscreteSensorCurrent.number
```

where *number* is is the entity number for the /SYS/PSU*x*/AC_PRESENT fault sensor target for the respective power supply. This example uses entity number 37 for the left power supply:

```
$ snmpget -v2c -c public mc_IP SUN-PLATFORM-MIB::sunPlatDiscreteSensorCurrent.37
SUN-PLATFORM-MIB::sunPlatDiscreteSensorCurrent.37 = INTEGER: 1
$
```

In the output, the INTEGER: 1 means State Deasserted, or input power is present. INTEGER: 2 means State Asserted, or input power is not present.

3. **Check for an alert.**

```
$ snmpget -v2c -c public mc_IP
SUN-PLATFORM-MIB::sunPlatDiscreteSensorCurrent.number
```

where *number* is is the entity number for the `/SYS/PSUx/ALERT` fault sensor target for the respective power supply. This example uses entity number 36 for the left power supply:

```
$ snmpget -v2c -c public mc_IP SUN-PLATFORM-MIB::sunPlatDiscreteSensorCurrent.36
SUN-PLATFORM-MIB::sunPlatDiscreteSensorCurrent.36 = INTEGER: 1
$
```

In the output, the `INTEGER: 1` means State Deasserted, or there are no faults with the power supply. `INTEGER: 2` means State Asserted, or there is a fault with the power supply.

Related Information

- "Display Power Supply Status (CLI)" on page 46
- "Display Power Supply Status (Web)" on page 123
- "Display the Aggregate Sensors State (SNMP)" on page 197
- "Display Board-Level Voltages (SNMP)" on page 200
- "Display Internal Temperatures (SNMP)" on page 204
- "Display Fan Status (SNMP)" on page 207
- "Display the Sensor Alarm State (SNMP)" on page 210
- "Display the Entity Numbers" on page 211

▼ Display Board-Level Voltages (SNMP)

Note – The entity numbers used in this procedure are for example only. Your entity numbers might differ, depending on the switch firmware and configuration.

Note – The voltage values displayed for this procedure are in millivolts.

1. **Determine the entity number of the voltage sensor.**

   See "Display the Entity Numbers" on page 211.

2. **Display the basic board-level voltage data.**

```
$ snmpget -v2c -c public mc_IP
SUN-PLATFORM-MIB::sunPlatNumericSensorCurrent.number
```

where *number* is the entity number.

For example, to display the current 3.3 VDC voltage, use the entity number respective to the `/SYS/MB/V_3.3VMain` voltage sensor target. This example uses entity number 4:

```
$ snmpget -v2c -c public mc_IP SUN-PLATFORM-MIB::sunPlatNumericSensorCurrent.4
SUN-PLATFORM-MIB::sunPlatNumericSensorCurrent.4 = INTEGER: 3249
$
```

The 3.3 VDC voltage displayed in the output of the example is 3249 millivolts, or 3.249 volts.

3. **Display comprehensive board-level voltages.**

```
$ snmpwalk -v2c -c public mc_IP SUN-PLATFORM-MIB::sunPlatNumericSensorTable
SUN-PLATFORM-MIB::sunPlatNumericSensorBaseUnits.4 = INTEGER: volts(6)
SUN-PLATFORM-MIB::sunPlatNumericSensorBaseUnits.6 = INTEGER: volts(6)
SUN-PLATFORM-MIB::sunPlatNumericSensorBaseUnits.7 = INTEGER: volts(6)
SUN-PLATFORM-MIB::sunPlatNumericSensorBaseUnits.8 = INTEGER: volts(6)
SUN-PLATFORM-MIB::sunPlatNumericSensorBaseUnits.10 = INTEGER: volts(6)
SUN-PLATFORM-MIB::sunPlatNumericSensorBaseUnits.11 = INTEGER: volts(6)
SUN-PLATFORM-MIB::sunPlatNumericSensorBaseUnits.13 = INTEGER: volts(6)
SUN-PLATFORM-MIB::sunPlatNumericSensorBaseUnits.15 = INTEGER: volts(6)
.
.
.
SUN-PLATFORM-MIB::sunPlatNumericSensorExponent.4 = INTEGER: -3
SUN-PLATFORM-MIB::sunPlatNumericSensorExponent.6 = INTEGER: -3
SUN-PLATFORM-MIB::sunPlatNumericSensorExponent.7 = INTEGER: -3
SUN-PLATFORM-MIB::sunPlatNumericSensorExponent.8 = INTEGER: -3
SUN-PLATFORM-MIB::sunPlatNumericSensorExponent.10 = INTEGER: -3
SUN-PLATFORM-MIB::sunPlatNumericSensorExponent.11 = INTEGER: -3
SUN-PLATFORM-MIB::sunPlatNumericSensorExponent.13 = INTEGER: -3
SUN-PLATFORM-MIB::sunPlatNumericSensorExponent.15 = INTEGER: -3
.
.
.
SUN-PLATFORM-MIB::sunPlatNumericSensorRateUnits.4 = INTEGER: none(1)
SUN-PLATFORM-MIB::sunPlatNumericSensorRateUnits.6 = INTEGER: none(1)
SUN-PLATFORM-MIB::sunPlatNumericSensorRateUnits.7 = INTEGER: none(1)
SUN-PLATFORM-MIB::sunPlatNumericSensorRateUnits.8 = INTEGER: none(1)
```

```
SUN-PLATFORM-MIB::sunPlatNumericSensorRateUnits.10 = INTEGER: none(1)
SUN-PLATFORM-MIB::sunPlatNumericSensorRateUnits.11 = INTEGER: none(1)
SUN-PLATFORM-MIB::sunPlatNumericSensorRateUnits.13 = INTEGER: none(1)
SUN-PLATFORM-MIB::sunPlatNumericSensorRateUnits.15 = INTEGER: none(1)
.
.
.
SUN-PLATFORM-MIB::sunPlatNumericSensorCurrent.4 = INTEGER: 3266
SUN-PLATFORM-MIB::sunPlatNumericSensorCurrent.6 = INTEGER: 3351
SUN-PLATFORM-MIB::sunPlatNumericSensorCurrent.7 = INTEGER: 11965
SUN-PLATFORM-MIB::sunPlatNumericSensorCurrent.8 = INTEGER: 5018
SUN-PLATFORM-MIB::sunPlatNumericSensorCurrent.10 = INTEGER: 3213
SUN-PLATFORM-MIB::sunPlatNumericSensorCurrent.11 = INTEGER: 2527
SUN-PLATFORM-MIB::sunPlatNumericSensorCurrent.13 = INTEGER: 1784
SUN-PLATFORM-MIB::sunPlatNumericSensorCurrent.15 = INTEGER: 1216
.
.
.
SUN-PLATFORM-MIB::sunPlatNumericSensorRestoreDefaultThresholds.4 = INTEGER:
reset(1)
SUN-PLATFORM-MIB::sunPlatNumericSensorRestoreDefaultThresholds.6 = INTEGER:
reset(1)
SUN-PLATFORM-MIB::sunPlatNumericSensorRestoreDefaultThresholds.7 = INTEGER:
reset(1)
SUN-PLATFORM-MIB::sunPlatNumericSensorRestoreDefaultThresholds.8 = INTEGER:
reset(1)
SUN-PLATFORM-MIB::sunPlatNumericSensorRestoreDefaultThresholds.10 = INTEGER:
reset(1)
SUN-PLATFORM-MIB::sunPlatNumericSensorRestoreDefaultThresholds.11 = INTEGER:
reset(1)
SUN-PLATFORM-MIB::sunPlatNumericSensorRestoreDefaultThresholds.13 = INTEGER:
reset(1)
SUN-PLATFORM-MIB::sunPlatNumericSensorRestoreDefaultThresholds.15 = INTEGER:
reset(1)
.
.
.
$
```

4. **Look through the output for the entity numbers respective to the voltage sensors.**

   You can also filter the output of the `snmpwalk` command for a specific entity number. This is an example of filtering the `snmpwalk` command output:

```
$ snmpwalk -v2c -c public mc_IP SUN-PLATFORM-MIB::sunPlatNumericSensorTable
|grep -F '.number ='
```

   where *number* is the entity number.

Note – The manner in which you can filter the output varies according to your operating system.

   To filter voltage information for the 3.3 VDC main voltage, use the entity number respective to the `/SYS/MB/V_3.3VMain` voltage sensor target. This filtering example uses entity number 4:

```
$ snmpwalk -v2c -c public mc_IP SUN-PLATFORM-MIB::sunPlatNumericSensorTable
|grep -F '.4 ='
SUN-PLATFORM-MIB::sunPlatNumericSensorBaseUnits.4 = INTEGER: volts(6)
SUN-PLATFORM-MIB::sunPlatNumericSensorExponent.4 = INTEGER: -3
SUN-PLATFORM-MIB::sunPlatNumericSensorRateUnits.4 = INTEGER: none(1)
SUN-PLATFORM-MIB::sunPlatNumericSensorCurrent.4 = INTEGER: 3266
SUN-PLATFORM-MIB::sunPlatNumericSensorNormalMin.4 = INTEGER: 0
SUN-PLATFORM-MIB::sunPlatNumericSensorNormalMax.4 = INTEGER: 255
SUN-PLATFORM-MIB::sunPlatNumericSensorAccuracy.4 = INTEGER: 0
SUN-PLATFORM-MIB::sunPlatNumericSensorLowerThresholdNonCritical.4 = INTEGER:
3112
SUN-PLATFORM-MIB::sunPlatNumericSensorUpperThresholdNonCritical.4 = INTEGER:
3402
SUN-PLATFORM-MIB::sunPlatNumericSensorLowerThresholdCritical.4 = INTEGER: 3060
SUN-PLATFORM-MIB::sunPlatNumericSensorUpperThresholdCritical.4 = INTEGER: 3454
SUN-PLATFORM-MIB::sunPlatNumericSensorLowerThresholdFatal.4 = INTEGER: 2958
SUN-PLATFORM-MIB::sunPlatNumericSensorUpperThresholdFatal.4 = INTEGER: 3539
SUN-PLATFORM-MIB::sunPlatNumericSensorHysteresis.4 = Gauge32: 0
SUN-PLATFORM-MIB::sunPlatNumericSensorEnabledThresholds.4 = BITS: FC
lowerThresholdNonCritical(0) upperThresholdNonCritical(1)
lowerThresholdCritical(2) upperThresholdCritical(3) lower
SUN-PLATFORM-MIB::sunPlatNumericSensorRestoreDefaultThresholds.4 = INTEGER:
reset(1)
$
```

Related Information

- "Display Board-Level Voltages (CLI)" on page 47
- "Display Board-Level Voltages (Web)" on page 124

▼ Display Internal Temperatures (SNMP)

Note – The entity numbers used in this procedure are for example only. Your entity numbers might differ, depending on the switch firmware and configuration.

Note – The temperature values displayed for this procedure are in degrees celsius.

1. **Determine the entity number of the temperature sensor.**

   See "Display the Entity Numbers" on page 211.

2. **Display the basic temperature data.**

```
$ snmpget -v2c -c public mc_IP
SUN-PLATFORM-MIB::sunPlatNumericSensorCurrent.number
```

where *number* is the entity number.

For example, to display the current I4 switch chip temperature, use the entity number respective to the `/SYS/MB/T_I4A` temperature sensor target. This example uses entity number 21.

```
$ snmpget -v2c -c public mc_IP SUN-PLATFORM-MIB::sunPlatNumericSensorCurrent.21
SUN-PLATFORM-MIB::sunPlatNumericSensorCurrent.21 = INTEGER: 36
$
```

The I4 switch chip temperature displayed in the output of the example is 36 degrees celsius.

Note – Temperature readings can vary and are influenced by the switch environment and loading.

3. Display comprehensive temperature information:

```
$ snmpwalk -v2c -c public mc_IP SUN-PLATFORM-MIB::sunPlatNumericSensorTable
SUN-PLATFORM-MIB::sunPlatNumericSensorBaseUnits.4 = INTEGER: volts(6)
SUN-PLATFORM-MIB::sunPlatNumericSensorBaseUnits.6 = INTEGER: volts(6)
SUN-PLATFORM-MIB::sunPlatNumericSensorBaseUnits.7 = INTEGER: volts(6)
SUN-PLATFORM-MIB::sunPlatNumericSensorBaseUnits.8 = INTEGER: volts(6)

.
.
.
SUN-PLATFORM-MIB::sunPlatNumericSensorExponent.4 = INTEGER: -3
SUN-PLATFORM-MIB::sunPlatNumericSensorExponent.6 = INTEGER: -3
SUN-PLATFORM-MIB::sunPlatNumericSensorExponent.7 = INTEGER: -3
SUN-PLATFORM-MIB::sunPlatNumericSensorExponent.8 = INTEGER: -3
.
.
.
SUN-PLATFORM-MIB::sunPlatNumericSensorExponent.17 = INTEGER: 0
SUN-PLATFORM-MIB::sunPlatNumericSensorExponent.18 = INTEGER: 0
SUN-PLATFORM-MIB::sunPlatNumericSensorExponent.19 = INTEGER: 0
SUN-PLATFORM-MIB::sunPlatNumericSensorExponent.21 = INTEGER: 0
.
.
.
SUN-PLATFORM-MIB::sunPlatNumericSensorRateUnits.17 = INTEGER: none(1)
SUN-PLATFORM-MIB::sunPlatNumericSensorRateUnits.18 = INTEGER: none(1)
SUN-PLATFORM-MIB::sunPlatNumericSensorRateUnits.19 = INTEGER: none(1)
SUN-PLATFORM-MIB::sunPlatNumericSensorRateUnits.21 = INTEGER: none(1)
.
.
.
SUN-PLATFORM-MIB::sunPlatNumericSensorCurrent.17 = INTEGER: 31
SUN-PLATFORM-MIB::sunPlatNumericSensorCurrent.18 = INTEGER: 29
SUN-PLATFORM-MIB::sunPlatNumericSensorCurrent.19 = INTEGER: 45
SUN-PLATFORM-MIB::sunPlatNumericSensorCurrent.21 = INTEGER: 44
.
.
.
SUN-PLATFORM-MIB::sunPlatNumericSensorRestoreDefaultThresholds.17 = INTEGER:
reset(1)
SUN-PLATFORM-MIB::sunPlatNumericSensorRestoreDefaultThresholds.18 = INTEGER:
reset(1)
SUN-PLATFORM-MIB::sunPlatNumericSensorRestoreDefaultThresholds.19 = INTEGER:
reset(1)
SUN-PLATFORM-MIB::sunPlatNumericSensorRestoreDefaultThresholds.21 = INTEGER:
reset(1)
.
```

```
.
.
$
```

4. **Look through the output for the entity numbers respective to the temperature sensors.**

   You can also filter the output of the `snmpwalk` command for a specific entity number. This is an example of filtering the `snmpwalk` command output.:

```
$ snmpwalk -v2c -c public mc_IP SUN-PLATFORM-MIB::sunPlatNumericSensorTable
|grep -F '.number ='
```

   where *number* is the entity number.

Note – The manner in which you can filter the output varies according to your operating system.

   To filter temperature information for the I4 switch chip, use the entity number respective to the `/SYS/MB/T_I4A` temperature sensor target. This filtering example uses entity number 21:

```
$ snmpwalk -v2c -c public mc_IP SUN-PLATFORM-MIB::sunPlatNumericSensorTable
|grep -F '.21 ='
SUN-PLATFORM-MIB::sunPlatNumericSensorBaseUnits.21 = INTEGER: degC(3)
SUN-PLATFORM-MIB::sunPlatNumericSensorExponent.21 = INTEGER: 0
SUN-PLATFORM-MIB::sunPlatNumericSensorRateUnits.21 = INTEGER: none(1)
SUN-PLATFORM-MIB::sunPlatNumericSensorCurrent.21 = INTEGER: 36
SUN-PLATFORM-MIB::sunPlatNumericSensorNormalMin.21 = INTEGER: 0
SUN-PLATFORM-MIB::sunPlatNumericSensorNormalMax.21 = INTEGER: 255
SUN-PLATFORM-MIB::sunPlatNumericSensorAccuracy.21 = INTEGER: 0
SUN-PLATFORM-MIB::sunPlatNumericSensorLowerThresholdNonCritical.21 = INTEGER:
0
SUN-PLATFORM-MIB::sunPlatNumericSensorUpperThresholdNonCritical.21 = INTEGER:
0
SUN-PLATFORM-MIB::sunPlatNumericSensorLowerThresholdCritical.21 = INTEGER: 0
SUN-PLATFORM-MIB::sunPlatNumericSensorUpperThresholdCritical.21 = INTEGER: 70
SUN-PLATFORM-MIB::sunPlatNumericSensorLowerThresholdFatal.21 = INTEGER: 0
SUN-PLATFORM-MIB::sunPlatNumericSensorUpperThresholdFatal.21 = INTEGER: 100
SUN-PLATFORM-MIB::sunPlatNumericSensorHysteresis.21 = Gauge32: 0
SUN-PLATFORM-MIB::sunPlatNumericSensorEnabledThresholds.21 = BITS: 14
upperThresholdCritical(3) upperThresholdFatal(5)
SUN-PLATFORM-MIB::sunPlatNumericSensorRestoreDefaultThresholds.21 = INTEGER:
reset(1)
$
```

Related Information

- "Display Internal Temperatures (CLI)" on page 49
- "Display Internal Temperatures (Web)" on page 124
- "Display the Aggregate Sensors State (SNMP)" on page 197
- "Display Power Supply Status (SNMP)" on page 198
- "Display Board-Level Voltages (SNMP)" on page 200
- "Display Fan Status (SNMP)" on page 207
- "Display the Sensor Alarm State (SNMP)" on page 210
- "Display the Entity Numbers" on page 211

▼ Display Fan Status (SNMP)

Note – The entity numbers used in this procedure are for example only. Your entity numbers might differ, depending on the switch firmware and configuration. For more information about entity numbers, see "Display the Entity Numbers" on page 211.

Note – The fan speed values displayed for this procedure are in RPM.

1. From the SNMP client, check for the presence of the fan.

```
$ snmpget -v2c -c public mc_IP
SUN-PLATFORM-MIB::sunPlatDiscreteSensorCurrent.number
```

where *number* is is the entity number for the `/SYS/FANx/PRSNT` presence sensor target for the respective fan. This example uses entity number 43 for the left fan (FAN1):

```
$ snmpget -v2c -c public mc_IP SUN-PLATFORM-MIB::sunPlatDiscreteSensorCurrent.43
SUN-PLATFORM-MIB::sunPlatDiscreteSensorCurrent.43 = INTEGER: 2
$
```

In the output, the `INTEGER: 2` means the fan is present. `INTEGER: 1` means the fan is not present.

2. Check the speed of the fan.

```
$ snmpget -v2c -c public mc_IP
SUN-PLATFORM-MIB::sunPlatNumericSensorCurrent.number
```

where *number* is is the entity number for the /SYS/FAN*x*/TACH speed sensor target for the respective fan. This example uses entity number 44 for the left fan (FAN1):

```
$ snmpget -v2c -c public mc_IP SUN-PLATFORM-MIB::sunPlatNumericSensorCurrent.44
SUN-PLATFORM-MIB::sunPlatNumericSensorCurrent.44 = INTEGER: 12099
$
```

The FAN1 speed displayed in the output of the example is 12099 RPM.

Note – Fan speed readings can vary and are influenced by the switch environment and loading.

---

3. Display comprehensive fan information.

```
$ snmpwalk -v2c -c public mc_IP SUN-PLATFORM-MIB::sunPlatNumericSensorTable
SUN-PLATFORM-MIB::sunPlatNumericSensorBaseUnits.4 = INTEGER: volts(6)
SUN-PLATFORM-MIB::sunPlatNumericSensorBaseUnits.6 = INTEGER: volts(6)
SUN-PLATFORM-MIB::sunPlatNumericSensorBaseUnits.7 = INTEGER: volts(6)
SUN-PLATFORM-MIB::sunPlatNumericSensorBaseUnits.8 = INTEGER: volts(6)
SUN-PLATFORM-MIB::sunPlatNumericSensorBaseUnits.10 = INTEGER: volts(6)
.
.
.
SUN-PLATFORM-MIB::sunPlatNumericSensorBaseUnits.44 = INTEGER: rpm(20)
SUN-PLATFORM-MIB::sunPlatNumericSensorBaseUnits.47 = INTEGER: rpm(20)
SUN-PLATFORM-MIB::sunPlatNumericSensorBaseUnits.50 = INTEGER: rpm(20)
.
.
.
SUN-PLATFORM-MIB::sunPlatNumericSensorExponent.44 = INTEGER: 0
SUN-PLATFORM-MIB::sunPlatNumericSensorExponent.47 = INTEGER: 0
SUN-PLATFORM-MIB::sunPlatNumericSensorExponent.50 = INTEGER: 0
.
.
.
SUN-PLATFORM-MIB::sunPlatNumericSensorRateUnits.44 = INTEGER: none(1)
SUN-PLATFORM-MIB::sunPlatNumericSensorRateUnits.47 = INTEGER: none(1)
SUN-PLATFORM-MIB::sunPlatNumericSensorRateUnits.50 = INTEGER: none(1)
.
```

```
.
.
SUN-PLATFORM-MIB::sunPlatNumericSensorCurrent.44 = INTEGER: 12208
SUN-PLATFORM-MIB::sunPlatNumericSensorCurrent.47 = INTEGER: 11772
SUN-PLATFORM-MIB::sunPlatNumericSensorCurrent.50 = INTEGER: 12099
.
.
.
SUN-PLATFORM-MIB::sunPlatNumericSensorRestoreDefaultThresholds.44 = INTEGER:
reset(1)
SUN-PLATFORM-MIB::sunPlatNumericSensorRestoreDefaultThresholds.47 = INTEGER:
reset(1)
SUN-PLATFORM-MIB::sunPlatNumericSensorRestoreDefaultThresholds.50 = INTEGER:
reset(1)
$
```

4. **Look though the output for the entity numbers respective to the fans.**

   You can also filter the output of the `snmpwalk` command for a specific entity number. This is an example of filtering the `snmpwalk` command output.:

```
$ snmpwalk -v2c -c public mc_IP SUN-PLATFORM-MIB::sunPlatNumericSensorTable
|grep -F '.number ='
```

   where *number* is the entity number.

Note – The manner in which you can filter the output varies according to your operating system.

   To filter speed information for the left fan (FAN1), use the entity number respective to the `/SYS/FAN1/TACH` speed sensor target. This filtering example uses entity number 44:

```
$ snmpwalk -v2c -c public mc_IP SUN-PLATFORM-MIB::sunPlatNumericSensorTable
|grep -F '.44 ='
SUN-PLATFORM-MIB::sunPlatNumericSensorBaseUnits.44 = INTEGER: rpm(20)
SUN-PLATFORM-MIB::sunPlatNumericSensorExponent.44 = INTEGER: 0
SUN-PLATFORM-MIB::sunPlatNumericSensorRateUnits.44 = INTEGER: none(1)
SUN-PLATFORM-MIB::sunPlatNumericSensorCurrent.44 = INTEGER: 12208
SUN-PLATFORM-MIB::sunPlatNumericSensorNormalMin.44 = INTEGER: 0
SUN-PLATFORM-MIB::sunPlatNumericSensorNormalMax.44 = INTEGER: 255
SUN-PLATFORM-MIB::sunPlatNumericSensorAccuracy.44 = INTEGER: 0
SUN-PLATFORM-MIB::sunPlatNumericSensorLowerThresholdNonCritical.44 = INTEGER:
6322
SUN-PLATFORM-MIB::sunPlatNumericSensorUpperThresholdNonCritical.44 = INTEGER:
0
SUN-PLATFORM-MIB::sunPlatNumericSensorLowerThresholdCritical.44 = INTEGER: 0
```

```
SUN-PLATFORM-MIB::sunPlatNumericSensorUpperThresholdCritical.44 = INTEGER:
26705
SUN-PLATFORM-MIB::sunPlatNumericSensorLowerThresholdFatal.44 = INTEGER: 0
SUN-PLATFORM-MIB::sunPlatNumericSensorUpperThresholdFatal.44 = INTEGER: 0
SUN-PLATFORM-MIB::sunPlatNumericSensorHysteresis.44 = Gauge32: 0
SUN-PLATFORM-MIB::sunPlatNumericSensorEnabledThresholds.44 = BITS: 90
lowerThresholdNonCritical(0) upperThresholdCritical(3)
SUN-PLATFORM-MIB::sunPlatNumericSensorRestoreDefaultThresholds.44 = INTEGER:
reset(1)
$
```

Related Information

- "Display Fan Status (CLI)" on page 50
- "Display Fan Status (Web)" on page 125
- "Display the Aggregate Sensors State (SNMP)" on page 197
- "Display Power Supply Status (SNMP)" on page 198
- "Display Board-Level Voltages (SNMP)" on page 200
- "Display Internal Temperatures (SNMP)" on page 204
- "Display Fan Status (SNMP)" on page 207
- "Display the Sensor Alarm State (SNMP)" on page 210
- "Display the Entity Numbers" on page 211

▼ Display the Sensor Alarm State (SNMP)

Note – The entity numbers used in this procedure are for example only. Your entity numbers might differ, depending on the switch firmware and configuration.

1. **Determine the entity number of the sensor.**

   See "Display the Entity Numbers" on page 211.

2. **From the SNMP client, display the sensor's alarm state.**

```
$ snmpget -v2c -c public mc_IP
SUN-PLATFORM-MIB::sunPlatEquipmentAlarmStatus.number
```

where *number* is the entity number.

For example, to determine the overall switch alarm state, use the entity number respective to the `/SYS/CHASSIS_STATUS` aggregate sensor target. This example uses entity number 25:

```
$ snmpget -v2c -c public mc_IP SUN-PLATFORM-MIB::sunPlatEquipmentAlarmStatus.25
SUN-PLATFORM-MIB::sunPlatEquipmentAlarmStatus.25 = INTEGER: cleared(7)
$
```

In the output, the `INTEGER: cleared(7)` indicates the alarm state for the sensor is clear. These alarm states are possible:

- `INTEGER: critical(1)` – A critical alarm has occurred.
- `INTEGER: major(2)` – A major alarm has occurred.
- `INTEGER: minor(3)` – A minor alarm has occurred.
- `INTEGER: indeterminate(4)` – The alarm is indeterminate, or not applicable.
- `INTEGER: cleared(7)` – The alarm has been cleared.

Related Information

- "Display the Aggregate Sensors State (CLI)" on page 44
- "Display the Aggregate Sensors State (Web)" on page 122
- "Display the Aggregate Sensors State (SNMP)" on page 197
- "Display Power Supply Status (SNMP)" on page 198
- "Display Board-Level Voltages (SNMP)" on page 200
- "Display Internal Temperatures (SNMP)" on page 204
- "Display Fan Status (SNMP)" on page 207
- "Display the Sensor States (IPMI)" on page 250
- "Display the Entity Numbers" on page 211

▼ Display the Entity Numbers

This procedure outputs the entity numbers and their respective Oracle ILOM targets.

Note – The entity numbers displayed in this procedure are for example only. Your entity numbers might differ, depending on the switch firmware and configuration.

1. **From the SNMP client, type.**

```
$ snmpwalk -v2c -c public mc_IP ENTITY-MIB::entPhysicalName
ENTITY-MIB::entPhysicalName.1 = STRING: /SYS
ENTITY-MIB::entPhysicalName.2 = STRING: /SYS/MB
ENTITY-MIB::entPhysicalName.3 = STRING: /SYS/MB/V_ECB
ENTITY-MIB::entPhysicalName.4 = STRING: /SYS/MB/V_3.3VMain
ENTITY-MIB::entPhysicalName.5 = STRING: /SYS/MB/V_3.3VMainOK
.
.
.
ENTITY-MIB::entPhysicalName.51 = STRING: /SYS/I_POWER
ENTITY-MIB::entPhysicalName.52 = STRING: /SYS/I_ATTENTION
ENTITY-MIB::entPhysicalName.53 = STRING: /SYS/I_LOCATOR
$
```

You can also filter the output of the `snmpwalk` command to display just entity numbers and their respective Oracle ILOM targets. This is an example of filtering the `snmpwalk` command output:

Note – The manner in which you can filter the output varies according to your operating system.

```
$ snmpwalk -v2c -c public mc_IP ENTITY-MIB::entPhysicalName| awk -F"me." '{print
$2}'| awk '{print $1 " " $4}'
1 /SYS
2 /SYS/MB
3 /SYS/MB/V_ECB
4 /SYS/MB/V_3.3VMain
5 /SYS/MB/V_3.3VMainOK
.
.
.
51 /SYS/I_POWER
52 /SYS/I_ATTENTION
53 /SYS/I_LOCATOR
$
```

2. **Use the entity numbers for daily tasks.**

   See:

- "Display the Aggregate Sensors State (SNMP)" on page 197
- "Display Power Supply Status (SNMP)" on page 198
- "Display Board-Level Voltages (SNMP)" on page 200
- "Display Internal Temperatures (SNMP)" on page 204
- "Display Fan Status (SNMP)" on page 207
- "Display the Sensor Alarm State (SNMP)" on page 210

Related Information

- "Display Switch FRU ID (SNMP)" on page 224
- "Display Power Supply FRU ID (SNMP)" on page 226
- "Display the System Components (SNMP)" on page 228

▼ Display Oracle ILOM Sessions (SNMP)

- **From the SNMP client, type.**

```
$ snmpwalk -v2c -c public mc_IP SUN-ILOM-CONTROL-MIB::ilomCtrlSessions
SUN-ILOM-CONTROL-MIB::ilomCtrlSessionsUsername.118 = STRING: user1
SUN-ILOM-CONTROL-MIB::ilomCtrlSessionsUsername.119 = STRING: root
SUN-ILOM-CONTROL-MIB::ilomCtrlSessionsUsername.126 = STRING: root
SUN-ILOM-CONTROL-MIB::ilomCtrlSessionsConnectionType.118 = INTEGER: web(2)
SUN-ILOM-CONTROL-MIB::ilomCtrlSessionsConnectionType.119 = INTEGER: shell(1)
SUN-ILOM-CONTROL-MIB::ilomCtrlSessionsConnectionType.126 = INTEGER: other(3)
SUN-ILOM-CONTROL-MIB::ilomCtrlSessionsLoginTime.118 = STRING:
2010-1-20,12:14:27.0
SUN-ILOM-CONTROL-MIB::ilomCtrlSessionsLoginTime.119 = STRING:
2010-1-20,12:17:40.0
SUN-ILOM-CONTROL-MIB::ilomCtrlSessionsLoginTime.126 = STRING:
2010-1-20,12:27:4.0
$
```

If you use the V3 protocol, type.

```
$ snmpwalk -v3 -u usersnmp -l authPriv -a MD5 -A authpass -x DES -X privpass
mc_IP SUN-ILOM-CONTROL-MIB::ilomCtrlSessions
SUN-ILOM-CONTROL-MIB::ilomCtrlSessionsUsername.118 = STRING: user1
SUN-ILOM-CONTROL-MIB::ilomCtrlSessionsUsername.119 = STRING: root
SUN-ILOM-CONTROL-MIB::ilomCtrlSessionsUsername.126 = STRING: root
SUN-ILOM-CONTROL-MIB::ilomCtrlSessionsConnectionType.118 = INTEGER: web(2)
SUN-ILOM-CONTROL-MIB::ilomCtrlSessionsConnectionType.119 = INTEGER: shell(1)
SUN-ILOM-CONTROL-MIB::ilomCtrlSessionsConnectionType.126 = INTEGER: other(3)
SUN-ILOM-CONTROL-MIB::ilomCtrlSessionsLoginTime.118 = STRING:
2010-1-20,12:14:27.0
SUN-ILOM-CONTROL-MIB::ilomCtrlSessionsLoginTime.119 = STRING:
2010-1-20,12:17:40.0
SUN-ILOM-CONTROL-MIB::ilomCtrlSessionsLoginTime.126 = STRING:
2010-1-20,12:27:4.0
$
```

The output displays three users. `user1` is using the web interface, and the `root` user is using the CLI interface.

Related Information

- "Display the Oracle ILOM Sessions (CLI)" on page 52
- "Display the Oracle ILOM Sessions (Web)" on page 125
- "Display Oracle ILOM User Accounts (SNMP)" on page 222

▼ Display the Oracle ILOM Event Log (SNMP)

The event log displays:

- type
- timestamp
- class
- severity
- description

- **From the SNMP client, type.**

```
$ snmpwalk -v2c -c public mc_IP SUN-ILOM-CONTROL-MIB::ilomCtrlEventLogTable
SUN-ILOM-CONTROL-MIB::ilomCtrlEventLogType.1 = INTEGER: log(1)
SUN-ILOM-CONTROL-MIB::ilomCtrlEventLogType.2 = INTEGER: log(1)
SUN-ILOM-CONTROL-MIB::ilomCtrlEventLogType.3 = INTEGER: log(1)
SUN-ILOM-CONTROL-MIB::ilomCtrlEventLogType.4 = INTEGER: log(1)
SUN-ILOM-CONTROL-MIB::ilomCtrlEventLogType.5 = INTEGER: log(1)
SUN-ILOM-CONTROL-MIB::ilomCtrlEventLogTimestamp.1 = STRING:
2010-1-20,10:22:28.0
SUN-ILOM-CONTROL-MIB::ilomCtrlEventLogTimestamp.2 = STRING:
2010-1-20,10:22:50.0
SUN-ILOM-CONTROL-MIB::ilomCtrlEventLogTimestamp.3 = STRING:
2010-1-20,10:22:56.0
SUN-ILOM-CONTROL-MIB::ilomCtrlEventLogTimestamp.4 = STRING:
2010-1-20,10:23:20.0
SUN-ILOM-CONTROL-MIB::ilomCtrlEventLogTimestamp.5 = STRING:
2010-1-20,10:23:20.0
SUN-ILOM-CONTROL-MIB::ilomCtrlEventLogClass.1 = INTEGER: audit(1)
SUN-ILOM-CONTROL-MIB::ilomCtrlEventLogClass.2 = INTEGER: audit(1)
SUN-ILOM-CONTROL-MIB::ilomCtrlEventLogClass.3 = INTEGER: audit(1)
SUN-ILOM-CONTROL-MIB::ilomCtrlEventLogClass.4 = INTEGER: audit(1)
SUN-ILOM-CONTROL-MIB::ilomCtrlEventLogClass.5 = INTEGER: audit(1)
SUN-ILOM-CONTROL-MIB::ilomCtrlEventLogSeverity.1 = INTEGER: minor(4)
SUN-ILOM-CONTROL-MIB::ilomCtrlEventLogSeverity.2 = INTEGER: minor(4)
SUN-ILOM-CONTROL-MIB::ilomCtrlEventLogSeverity.3 = INTEGER: minor(4)
SUN-ILOM-CONTROL-MIB::ilomCtrlEventLogSeverity.4 = INTEGER: minor(4)
SUN-ILOM-CONTROL-MIB::ilomCtrlEventLogSeverity.5 = INTEGER: minor(4)
SUN-ILOM-CONTROL-MIB::ilomCtrlEventLogDescription.1 = STRING: user1 : Set :
object = /logs/event/clear : value = true : success
SUN-ILOM-CONTROL-MIB::ilomCtrlEventLogDescription.2 = STRING: root : Create :
object = /users/user4 : value = N/A : success
SUN-ILOM-CONTROL-MIB::ilomCtrlEventLogDescription.3 = STRING: root : Set :
object = /users/user4/password : value = ***** : success
SUN-ILOM-CONTROL-MIB::ilomCtrlEventLogDescription.4 = STRING: root : Set :
object = /services/snmp/users/snmpuser/permission : value = rw : success
SUN-ILOM-CONTROL-MIB::ilomCtrlEventLogDescription.5 = STRING: root : Set :
object = /services/snmp/users/snmpuser/adminstate : value = enabled : success
$
```

If you use the V3 protocol, type.

```
$ snmpwalk -v3 -u usersnmp -l authPriv -a MD5 -A authpass -x DES -X privpass
mc_IP SUN-ILOM-CONTROL-MIB::ilomCtrlEventLogTable
SUN-ILOM-CONTROL-MIB::ilomCtrlEventLogType.1 = INTEGER: log(1)
SUN-ILOM-CONTROL-MIB::ilomCtrlEventLogType.2 = INTEGER: log(1)
SUN-ILOM-CONTROL-MIB::ilomCtrlEventLogType.3 = INTEGER: log(1)
SUN-ILOM-CONTROL-MIB::ilomCtrlEventLogType.4 = INTEGER: log(1)
```

```
SUN-ILOM-CONTROL-MIB::ilomCtrlEventLogType.5 = INTEGER: log(1)
.
.
.
$
```

Related Information

- "Display the Oracle ILOM Event Log (CLI)" on page 53
- "Display the Oracle ILOM Event Log (Web)" on page 126
- "Display the System Event Log (IPMI)" on page 253
- "Clear the Oracle ILOM Event Log (SNMP)" on page 235
- "Set the Remote Log Hosts (SNMP)" on page 235

Checking the Status of Services (SNMP)

These topics enable you to display the status of the many services supported by Oracle ILOM.

- "Display the HTTP Service Status (SNMP)" on page 217
- "Display the HTTPS Service Status (SNMP)" on page 218
- "Display the DNS Client Status (SNMP)" on page 218
- "Display the SMTP Client Status (SNMP)" on page 219
- "Display the NTP State (SNMP)" on page 219
- "Display the NTP Servers (SNMP)" on page 220

Related Information

- "Performing Daily Tasks (SNMP)" on page 196
- "Verifying Other Aspects With Oracle ILOM (SNMP)" on page 220

▼ Display the HTTP Service Status (SNMP)

- **From the SNMP client, type.**

```
$ snmpwalk -v2c -c public mc_IP SUN-ILOM-CONTROL-MIB::ilomCtrlHttp
SUN-ILOM-CONTROL-MIB::ilomCtrlHttpEnabled.0 = INTEGER: false(2)
SUN-ILOM-CONTROL-MIB::ilomCtrlHttpPortNumber.0 = INTEGER: 80
SUN-ILOM-CONTROL-MIB::ilomCtrlHttpSecureRedirect.0 = INTEGER: true(1)
$
```

Related Information

- "Display the HTTP Service Status (CLI)" on page 54
- "Display the HTTP Service Status (Web)" on page 127
- "Display the HTTPS Service Status (SNMP)" on page 218
- "Set the HTTP Service State (SNMP)" on page 243

▼ Display the HTTPS Service Status (SNMP)

- **From the SNMP client, type.**

```
$ snmpwalk -v2c -c public mc_IP SUN-ILOM-CONTROL-MIB::ilomCtrlHttps
SUN-ILOM-CONTROL-MIB::ilomCtrlHttpsEnabled.0 = INTEGER: true(1)
SUN-ILOM-CONTROL-MIB::ilomCtrlHttpsPortNumber.0 = INTEGER: 443
$
```

Related Information

- "Display the HTTPS Service Status (CLI)" on page 55
- "Display the HTTPS Service Status (Web)" on page 127
- "Display the HTTP Service Status (SNMP)" on page 217

▼ Display the DNS Client Status (SNMP)

- **From the SNMP client, type.**

```
$ snmpwalk -v2c -c public mc_IP SUN-ILOM-CONTROL-MIB::ilomCtrlDNS
SUN-ILOM-CONTROL-MIB::ilomCtrlDNSNameServers.0 = STRING: 129.158.227.31,
129.158.227.32
SUN-ILOM-CONTROL-MIB::ilomCtrlDNSSearchPath.0 = STRING: india.sun.com,
norway.sun.com
SUN-ILOM-CONTROL-MIB::ilomCtrlDNSdhcpAutoDns.0 = INTEGER: true(1)
SUN-ILOM-CONTROL-MIB::ilomCtrlDNSTimeout.0 = INTEGER: 5
SUN-ILOM-CONTROL-MIB::ilomCtrlDNSRetries.0 = INTEGER: 1
$
```

Related Information

- "Display the DNS Client Status (CLI)" on page 58
- "Display the DNS Client Status (Web)" on page 129
- "Configure the DNS Client (SNMP)" on page 236

▼ Display the SMTP Client Status (SNMP)

1. **From the SNMP client, display the state of the SMTP client.**

Note – This example shows that the SMTP client is not enabled.

```
$ snmpget -v2c -c public mc_IP SUN-ILOM-CONTROL-MIB::ilomCtrlSMTPEnabled.0
SUN-ILOM-CONTROL-MIB::ilomCtrlSMTPEnabled.0 = INTEGER: false(2)
$
```

2. **Display the SMTP server IP address.**

```
$ snmpget -v2c -c public mc_IP SUN-ILOM-CONTROL-MIB::ilomCtrlSMTPServerIP.0
SUN-ILOM-CONTROL-MIB::ilomCtrlSMTPServerIP.0 = IpAddress: 10.18.223.35
$
```

3. **Display the SMTP server port.**

```
$ snmpget -v2c -c public mc_IP SUN-ILOM-CONTROL-MIB::ilomCtrlSMTPPortNumber.0
SUN-ILOM-CONTROL-MIB::ilomCtrlSMTPPortNumber.0 = INTEGER: 25
$
```

Related Information

- "Display the SMTP Client Status (CLI)" on page 59
- "Display the SMTP Client Status (Web)" on page 130
- "Configure the SMTP Client (SNMP)" on page 237

▼ Display the NTP State (SNMP)

- **From the SNMP client, type.**

```
$ snmpget -v2c -c public mc_IP SUN-ILOM-CONTROL-MIB::ilomCtrlNTPEnabled.0
SUN-ILOM-CONTROL-MIB::ilomCtrlNTPEnabled.0 = INTEGER: true(1)
$
```

Note – The `true(1)` in the output signifies that NTP is enabled.

Related Information

- "Display the NTP Servers (CLI)" on page 59

- "Display the Network Time Protocol Servers (Web)" on page 130
- "Display the NTP Servers (SNMP)" on page 220
- "Set the Network Time Protocol State (SNMP)" on page 234

▼ Display the NTP Servers (SNMP)

- **From the SNMP client, type.**

```
$ snmpget -v2c -c public mc_IP
SUN-ILOM-CONTROL-MIB::ilomCtrlDeviceNTPServerOneIP.0
SUN-ILOM-CONTROL-MIB::ilomCtrlDeviceNTPServerOneIP.0 = IpAddress: 123.45.67.90
$ snmpget -v2c -c public mc_IP
SUN-ILOM-CONTROL-MIB::ilomCtrlDeviceNTPServerTwoIP.0
SUN-ILOM-CONTROL-MIB::ilomCtrlDeviceNTPServerTwoIP.0 = IpAddress: 0.0.0.0
$
```

Note – The IP address of `0.0.0.0` for NTP server two in the output signifies that a second NTP server is not configured.

Related Information

- "Display the NTP Servers (CLI)" on page 59
- "Display the Network Time Protocol Servers (Web)" on page 130
- "Display the NTP State (SNMP)" on page 219
- "Set the Network Time Protocol Servers (SNMP)" on page 234

Verifying Other Aspects With Oracle ILOM (SNMP)

These tasks display the status of aspects of Oracle ILOM not included in "Performing Daily Tasks (SNMP)" on page 196 or "Checking the Status of Services (SNMP)" on page 217.

- "Display the Alert Properties (SNMP)" on page 221
- "Display Oracle ILOM User Accounts (SNMP)" on page 222
- "Display the Remote Log Hosts (SNMP)" on page 223
- "Display the Network Management Configuration (SNMP)" on page 223
- "Display Switch FRU ID (SNMP)" on page 224
- "Display Power Supply FRU ID (SNMP)" on page 226

- "Display the System Components (SNMP)" on page 228
- "Display the Additional System Component Information (SNMP)" on page 230
- "Display the Firmware Version (SNMP)" on page 231
- "Display System Identification Properties (SNMP)" on page 231

Related Information

- "Performing Daily Tasks (SNMP)" on page 196
- "Checking the Status of Services (SNMP)" on page 217

▼ Display the Alert Properties (SNMP)

Alerts can provide advance notice of a system failure. The Oracle ILOM implementation in the management controller supports 15 alert rules, which configure alert properties. Supported alert types are SNMP traps, IPMI PETs, and email alerts. For SNMP traps and PETs, the alert destination must have the relevant Oracle ILOM MIBs installed and must support SNMP traps.

- **From the SNMP client, type.**

```
$ snmpwalk -v2c -c public mc_IP SUN-ILOM-CONTROL-MIB::ilomCtrlAlerts
SUN-ILOM-CONTROL-MIB::ilomCtrlAlerts
SUN-ILOM-CONTROL-MIB::ilomCtrlAlertSeverity.1 = INTEGER: major(3)
SUN-ILOM-CONTROL-MIB::ilomCtrlAlertSeverity.2 = INTEGER: critical(2)
SUN-ILOM-CONTROL-MIB::ilomCtrlAlertSeverity.3 = INTEGER: disable(1)
.
.
.
SUN-ILOM-CONTROL-MIB::ilomCtrlAlertSeverity.14 = INTEGER: disable(1)
SUN-ILOM-CONTROL-MIB::ilomCtrlAlertSeverity.15 = INTEGER: disable(1)
SUN-ILOM-CONTROL-MIB::ilomCtrlAlertType.1 = INTEGER: snmptrap(2)
SUN-ILOM-CONTROL-MIB::ilomCtrlAlertType.2 = INTEGER: snmptrap(2)
SUN-ILOM-CONTROL-MIB::ilomCtrlAlertType.3 = INTEGER: snmptrap(2)
.
.
.
SUN-ILOM-CONTROL-MIB::ilomCtrlAlertType.14 = INTEGER: snmptrap(2)
SUN-ILOM-CONTROL-MIB::ilomCtrlAlertType.15 = INTEGER: snmptrap(2)
SUN-ILOM-CONTROL-MIB::ilomCtrlAlertDestinationIP.2 = IpAddress: 10.60.33.40
SUN-ILOM-CONTROL-MIB::ilomCtrlAlertDestinationIP.3 = IpAddress: 0.0.0.0
.
.
.
$
```

Note – The output seen in the example is a portion of the full output and might be different for your environment.

Related Information

- "Display the Alert Properties (CLI)" on page 62
- "Display the Alert Properties (Web)" on page 131
- "Enable Alerts to Send SNMP Traps (SNMP)" on page 244
- "Modify Alert SNMP Version (SNMP)" on page 247
- "Disable Alerts (SNMP)" on page 248

▼ Display Oracle ILOM User Accounts (SNMP)

- **From the SNMP client, type.**

```
$ snmpwalk -v2c -c public mc_IP SUN-ILOM-CONTROL-MIB::ilomCtrlLocalUserTable
SUN-ILOM-CONTROL-MIB::ilomCtrlLocalUserPassword."root" = STRING: "(Not
Viewable)"
SUN-ILOM-CONTROL-MIB::ilomCtrlLocalUserPassword."ilom-admin" = STRING: "(Not
Viewable)"
SUN-ILOM-CONTROL-MIB::ilomCtrlLocalUserPassword."ilom-operator" = STRING:
"(Not Viewable)"
SUN-ILOM-CONTROL-MIB::ilomCtrlLocalUserRoles."root" = STRING: "aucro"
SUN-ILOM-CONTROL-MIB::ilomCtrlLocalUserRoles."ilom-admin" = STRING: "aucro"
SUN-ILOM-CONTROL-MIB::ilomCtrlLocalUserRoles."ilom-operator" = STRING: "o"
SUN-ILOM-CONTROL-MIB::ilomCtrlLocalUserRowStatus."root" = INTEGER: active(1)
SUN-ILOM-CONTROL-MIB::ilomCtrlLocalUserRowStatus."ilom-admin" = INTEGER:
active(1)
SUN-ILOM-CONTROL-MIB::ilomCtrlLocalUserRowStatus."ilom-operator" = INTEGER:
active(1)
SUN-ILOM-CONTROL-MIB::ilomCtrlLocalUserCLIMode."root" = INTEGER: default(1)
SUN-ILOM-CONTROL-MIB::ilomCtrlLocalUserCLIMode."ilom-admin" = INTEGER:
default(1)
SUN-ILOM-CONTROL-MIB::ilomCtrlLocalUserCLIMode."ilom-operator" = INTEGER:
default(1)
$
```

Note – The output identifies three users. Of them, users `root` and `ilom-admin` have an administrative role.

Related Information

- "Display the Oracle ILOM User Accounts (CLI)" on page 63
- "Display the Oracle ILOM User Accounts (Web)" on page 132
- "Add an Oracle ILOM User Account (SNMP)" on page 241
- "Delete an Oracle ILOM User Account (SNMP)" on page 242

▼ Display the Remote Log Hosts (SNMP)

- **From the SNMP client, type.**

```
$ snmpget -v2c -c public mc_IP SUN-ILOM-CONTROL-MIB::ilomCtrlRemoteSyslogDest1.0
SUN-ILOM-CONTROL-MIB::ilomCtrlRemoteSyslogDest1.0 = IpAddress: 123.45.67.89
$ snmpget -v2c -c public mc_IP SUN-ILOM-CONTROL-MIB::ilomCtrlRemoteSyslogDest2.0
SUN-ILOM-CONTROL-MIB::ilomCtrlRemoteSyslogDest2.0 = IpAddress: 0.0.0.0
$
```

Related Information

- "Display the Remote Log Hosts (CLI)" on page 64
- "Display the Remote Log Hosts (Web)" on page 132
- "Set the Remote Log Hosts (SNMP)" on page 235

▼ Display the Network Management Configuration (SNMP)

- **From the SNMP client, type.**

```
$ snmpwalk -v2c -c public mc_IP SUN-ILOM-CONTROL-MIB::ilomCtrlNetwork
SUN-ILOM-CONTROL-MIB::ilomCtrlNetworkMacAddress."SP/network" = STRING:
46:46:41:39:00:FF
SUN-ILOM-CONTROL-MIB::ilomCtrlNetworkIpDiscovery."SP/network" = INTEGER:
static(1)
SUN-ILOM-CONTROL-MIB::ilomCtrlNetworkIpAddress."SP/network" = IpAddress:
123.45.67.89
SUN-ILOM-CONTROL-MIB::ilomCtrlNetworkIpGateway."SP/network" = IpAddress:
123.45.67.5
SUN-ILOM-CONTROL-MIB::ilomCtrlNetworkIpNetmask."SP/network" = IpAddress:
255.255.255.0
SUN-ILOM-CONTROL-MIB::ilomCtrlNetworkPendingIpDiscovery."SP/network" =
INTEGER: static(1)
SUN-ILOM-CONTROL-MIB::ilomCtrlNetworkPendingIpAddress."SP/network" =
IpAddress: 123.45.67.89
```

```
SUN-ILOM-CONTROL-MIB::ilomCtrlNetworkPendingIpGateway."SP/network" =
IpAddress: 123.45.67.5
SUN-ILOM-CONTROL-MIB::ilomCtrlNetworkPendingIpNetmask."SP/network" =
IpAddress: 255.255.255.0
SUN-ILOM-CONTROL-MIB::ilomCtrlNetworkCommitPending."SP/network" = INTEGER:
false(2)
$
```

Related Information

- "Display the Network Management Configuration (CLI)" on page 65
- "Display the Network Management Configuration (Web)" on page 133
- "Set the Network Parameters (SNMP)" on page 238

▼ Display Switch FRU ID (SNMP)

Note – The entity number for the `/SYS` switch container target might change with different firmware releases or switch configurations. Verify the switch entity number (1) with the procedure in "Display the Entity Numbers" on page 211.

1. From the SNMP client, type.

```
$ snmpwalk -v2c -c public mc_IP ENTITY-MIB::entPhysicalTable
ENTITY-MIB::entPhysicalDescr.1 = STRING: Sun Datacenter InfiniBand Switch 36
ENTITY-MIB::entPhysicalDescr.2 = STRING: Motherboard
ENTITY-MIB::entPhysicalDescr.3 = STRING: Fault Sensor
ENTITY-MIB::entPhysicalDescr.4 = STRING: Voltage Sensor
ENTITY-MIB::entPhysicalDescr.5 = STRING: Fault Sensor
.
.
.
ENTITY-MIB::entPhysicalVendorType.1 = OID: SNMPv2-SMI::zeroDotZero
.
.
.
ENTITY-MIB::entPhysicalContainedIn.1 = INTEGER: 0
.
.
.
ENTITY-MIB::entPhysicalClass.1 = INTEGER: chassis(3)
.
.
.
ENTITY-MIB::entPhysicalParentRelPos.1 = INTEGER: -1
.
```

```
.
.
ENTITY-MIB::entPhysicalName.1 = STRING: /SYS
.
.
.
ENTITY-MIB::entPhysicalHardwareRev.1 = STRING:
.
.
.
ENTITY-MIB::entPhysicalFirmwareRev.1 = STRING: 2.0.5-1
.
.
.
$
```

2. **Look through the output for entity number** `1`**.**

   You can also filter the output of the `snmpwalk` command for entity number `1`. This is an example of filtering the `snmpwalk` command output:

Note – The manner in which you can filter the output varies according to your operating system.

```
$ snmpwalk -v2c -c public mc_IP ENTITY-MIB::entPhysicalTable | grep -F '.1 ='
ENTITY-MIB::entPhysicalDescr.1 = STRING: Sun Datacenter InfiniBand Switch 36
ENTITY-MIB::entPhysicalVendorType.1 = OID: SNMPv2-SMI::zeroDotZero
ENTITY-MIB::entPhysicalContainedIn.1 = INTEGER: 0
ENTITY-MIB::entPhysicalClass.1 = INTEGER: chassis(3)
ENTITY-MIB::entPhysicalParentRelPos.1 = INTEGER: -1
ENTITY-MIB::entPhysicalName.1 = STRING: /SYS
ENTITY-MIB::entPhysicalHardwareRev.1 = STRING:
ENTITY-MIB::entPhysicalFirmwareRev.1 = STRING: 2.0.5-1
ENTITY-MIB::entPhysicalSoftwareRev.1 = STRING:
ENTITY-MIB::entPhysicalSerialNum.1 = STRING: 0110SJC-1099XY9992
ENTITY-MIB::entPhysicalMfgName.1 = STRING: Sun Microsystems, Inc.
ENTITY-MIB::entPhysicalModelName.1 = STRING: 5111402
ENTITY-MIB::entPhysicalAlias.1 = STRING:
ENTITY-MIB::entPhysicalAssetID.1 = STRING:
ENTITY-MIB::entPhysicalIsFRU.1 = INTEGER: true(1)
$
```

Related Information

- "Display Switch FRU ID (CLI)" on page 66
- "Display System Component FRU ID (Web)" on page 134
- "Display FRU ID Information (IPMI)" on page 254

- "Display the Entity Numbers" on page 211

▼ Display Power Supply FRU ID (SNMP)

Note – You can only display FRU ID information for currently present power supplies.

Note – The entity numbers for the `/SYS/PSU`*x* power supply FRU targets might change with different firmware releases or switch configurations. Verify the power supply entity numbers with the procedure in "Display the Entity Numbers" on page 211.

1. From the SNMP client, type.

```
$ snmpwalk -v2c -c public mc_IP ENTITY-MIB::entPhysicalTable
ENTITY-MIB::entPhysicalDescr.1 = STRING: Sun Datacenter InfiniBand Switch 36
ENTITY-MIB::entPhysicalDescr.2 = STRING: Motherboard
ENTITY-MIB::entPhysicalDescr.3 = STRING: Fault Sensor
ENTITY-MIB::entPhysicalDescr.4 = STRING: Voltage Sensor
ENTITY-MIB::entPhysicalDescr.5 = STRING: Fault Sensor
.
.
.
ENTITY-MIB::entPhysicalDescr.34 = STRING: Power Supply FRU
.
.
.
ENTITY-MIB::entPhysicalDescr.38 = STRING: Power Supply FRU
.
.
.
ENTITY-MIB::entPhysicalVendorType.34 = OID: SNMPv2-SMI::zeroDotZero
.
.
.
ENTITY-MIB::entPhysicalVendorType.38 = OID: SNMPv2-SMI::zeroDotZero
.
.
.
ENTITY-MIB::entPhysicalContainedIn.34 = INTEGER: 1
.
.
.
```

```
ENTITY-MIB::entPhysicalContainedIn.38 = INTEGER: 1
.
.
.
ENTITY-MIB::entPhysicalClass.34 = INTEGER: powerSupply(6)
.
.
.
ENTITY-MIB::entPhysicalClass.38 = INTEGER: powerSupply(6)
.
.
.
ENTITY-MIB::entPhysicalParentRelPos.34 = INTEGER: 1
.
.
.
ENTITY-MIB::entPhysicalParentRelPos.38 = INTEGER: 2
.
.
.
ENTITY-MIB::entPhysicalName.34 = STRING: /SYS/PSU0
.
.
.
ENTITY-MIB::entPhysicalName.38 = STRING: /SYS/PSU1
.
.
.
$
```

2. **Look though the output for the entity numbers respective to the power supplies.**

   You can also filter the output of the `snmpwalk` command for a specific entity number. This is an example of filtering the `snmpwalk` command output.:

```
$ snmpwalk -v2c -c public mc_IP ENTITY-MIB::entPhysicalTable | grep -F '.number ='
```

   where *number* is the entity number.

Note – The manner in which you can filter the output varies according to your operating system.

To filter voltage information for the left power supply (PSU0), use the entity number respective to the `/SYS/PSU0` power supply FRU target. This filtering example uses entity number 34:

```
$ snmpwalk -v2c -c public mc_IP ENTITY-MIB::entPhysicalTable | grep -F '.34 ='
ENTITY-MIB::entPhysicalDescr.34 = STRING: Power Supply FRU
ENTITY-MIB::entPhysicalVendorType.34 = OID: SNMPv2-SMI::zeroDotZero
ENTITY-MIB::entPhysicalContainedIn.34 = INTEGER: 1
ENTITY-MIB::entPhysicalClass.34 = INTEGER: powerSupply(6)
ENTITY-MIB::entPhysicalParentRelPos.34 = INTEGER: 1
ENTITY-MIB::entPhysicalName.34 = STRING: /SYS/PSU0
ENTITY-MIB::entPhysicalHardwareRev.34 = STRING:
ENTITY-MIB::entPhysicalFirmwareRev.34 = STRING:
ENTITY-MIB::entPhysicalSoftwareRev.34 = STRING: 02
ENTITY-MIB::entPhysicalSerialNum.34 = STRING: 001180
ENTITY-MIB::entPhysicalMfgName.34 = STRING: Delta Energy Systems
ENTITY-MIB::entPhysicalModelName.34 = STRING: 3002233
ENTITY-MIB::entPhysicalAlias.34 = STRING: A247
ENTITY-MIB::entPhysicalAssetID.34 = STRING:
ENTITY-MIB::entPhysicalIsFRU.34 = INTEGER: true(1)
$
```

Related Information

- "Display Power Supply FRU ID (CLI)" on page 67
- "Display System Component FRU ID (Web)" on page 134
- "Display FRU ID Information (IPMI)" on page 254
- "Display the Entity Numbers" on page 211

▼ Display the System Components (SNMP)

1. From the SNMP client, type.

```
$ snmpwalk -v2c -c public mc_IP ENTITY-MIB::entPhysicalName
ENTITY-MIB::entPhysicalName.1 = STRING: /SYS
ENTITY-MIB::entPhysicalName.2 = STRING: /SYS/MB
ENTITY-MIB::entPhysicalName.3 = STRING: /SYS/MB/V_ECB
ENTITY-MIB::entPhysicalName.4 = STRING: /SYS/MB/V_3.3VMain
ENTITY-MIB::entPhysicalName.5 = STRING: /SYS/MB/V_3.3VMainOK
ENTITY-MIB::entPhysicalName.6 = STRING: /SYS/MB/V_3.3VStby
ENTITY-MIB::entPhysicalName.7 = STRING: /SYS/MB/V_12V
```

```
.
.
.
ENTITY-MIB::entPhysicalName.51 = STRING: /SYS/I_POWER
ENTITY-MIB::entPhysicalName.52 = STRING: /SYS/I_ATTENTION
ENTITY-MIB::entPhysicalName.53 = STRING: /SYS/I_LOCATOR
$
```

Note – The example is a portion of the full output.

2. Display the physical entity descriptions.

```
$ snmpwalk -v2c -c public mc_IP ENTITY-MIB::entPhysicalDescr
ENTITY-MIB::entPhysicalDescr.1 = STRING: Sun Datacenter InfiniBand Switch 36
ENTITY-MIB::entPhysicalDescr.2 = STRING: Motherboard
ENTITY-MIB::entPhysicalDescr.3 = STRING: Fault Sensor
ENTITY-MIB::entPhysicalDescr.4 = STRING: Voltage Sensor
ENTITY-MIB::entPhysicalDescr.5 = STRING: Fault Sensor
ENTITY-MIB::entPhysicalDescr.6 = STRING: Voltage Sensor
ENTITY-MIB::entPhysicalDescr.7 = STRING: Voltage Sensor
.
.
.
ENTITY-MIB::entPhysicalDescr.51 = STRING: Indicator
ENTITY-MIB::entPhysicalDescr.52 = STRING: Indicator
ENTITY-MIB::entPhysicalDescr.53 = STRING: Indicator
$
```

Note – The example is a portion of the full output.

3. Display the physical entity classes.

Note – The example is a portion of the full output.

```
$ snmpwalk -v2c -c public mc_IP ENTITY-MIB::entPhysicalClass
ENTITY-MIB::entPhysicalClass.1 = INTEGER: chassis(3)
ENTITY-MIB::entPhysicalClass.2 = INTEGER: container(5)
ENTITY-MIB::entPhysicalClass.3 = INTEGER: sensor(8)
ENTITY-MIB::entPhysicalClass.4 = INTEGER: sensor(8)
ENTITY-MIB::entPhysicalClass.5 = INTEGER: sensor(8)
ENTITY-MIB::entPhysicalClass.6 = INTEGER: sensor(8)
ENTITY-MIB::entPhysicalClass.7 = INTEGER: sensor(8)
```

```
.
.
.
ENTITY-MIB::entPhysicalClass.51 = INTEGER: other(1)
ENTITY-MIB::entPhysicalClass.52 = INTEGER: other(1)
ENTITY-MIB::entPhysicalClass.53 = INTEGER: other(1)
$
```

Related Information

- "Display System Component FRU ID (Web)" on page 134
- "Display the Additional System Component Information (SNMP)" on page 230
- "Display the Entity Numbers" on page 211

▼ Display the Additional System Component Information (SNMP)

- **From the SNMP client, type.**

```
$ snmpwalk -v2c -c public mc_IP SUN-PLATFORM-MIB::sunPlatEquipmentTable
SUN-PLATFORM-MIB::sunPlatEquipmentAdministrativeState.1 = INTEGER: unlocked(2)
SUN-PLATFORM-MIB::sunPlatEquipmentAdministrativeState.2 = INTEGER: unlocked(2)
.
.
.
SUN-PLATFORM-MIB::sunPlatEquipmentOperationalState.1 = INTEGER: enabled(2)
SUN-PLATFORM-MIB::sunPlatEquipmentOperationalState.2 = INTEGER: enabled(2)
.
.
.
SUN-PLATFORM-MIB::sunPlatEquipmentAlarmStatus.1 = INTEGER: indeterminate(4)
SUN-PLATFORM-MIB::sunPlatEquipmentAlarmStatus.2 = INTEGER: indeterminate(4)
.
.
.
SUN-PLATFORM-MIB::sunPlatEquipmentUnknownStatus.1 = INTEGER: false(2)
SUN-PLATFORM-MIB::sunPlatEquipmentUnknownStatus.2 = INTEGER: false(2)
.
.
.
SUN-PLATFORM-MIB::sunPlatEquipmentLocationName.1 = STRING: unknown
SUN-PLATFORM-MIB::sunPlatEquipmentLocationName.2 = STRING: /SYS
.
.
.
$
```

Note – The output has been truncated to display the information for the first two entities.

Related Information

- "Display the System Components (SNMP)" on page 228

▼ Display the Firmware Version (SNMP)

- **From the SNMP client, display the firmware version.**

```
$ snmpget -v2c -c public mc_IP ENTITY-MIB::entPhysicalFirmwareRev.1
ENTITY-MIB::entPhysicalFirmwareRev.1 = STRING: 2.0.5-1
$
```

Related Information

- "Display the Firmware Version (CLI)" on page 68
- "Display the Firmware Version (Web)" on page 134
- "Display the Entity Numbers" on page 211

▼ Display System Identification Properties (SNMP)

1. **From the SNMP client, display the host name.**

```
$ snmpget -v2c -c public mc_IP SUN-ILOM-CONTROL-MIB::ilomCtrlHostName.0
SUN-ILOM-CONTROL-MIB::ilomCtrlHostName.0 = STRING: us-36p-1
$
```

2. **Display the system identifier.**

```
$ snmpget -v2c -c public mc_IP SUN-ILOM-CONTROL-MIB::ilomCtrlSystemIdentifier.0
SUN-ILOM-CONTROL-MIB::ilomCtrlSystemIdentifier.0 = STRING: (none)
$
```

Related Information

- "Display System Identification Properties (CLI)" on page 68
- "Display System Identification Properties (Web)" on page 135
- "Set the System Identification Properties (SNMP)" on page 240

Controlling Oracle ILOM Targets (SNMP)

These topics enable you to change the behavior or configuration of many Oracle ILOM targets.

Related Information

- "Controlling Oracle ILOM Targets (CLI)" on page 69
- "Controlling Oracle ILOM Targets (Web)" on page 135
- "Monitoring Oracle ILOM Targets (SNMP)" on page 195

Performing General Tasks (SNMP)

You can perform these tasks periodically on a few Oracle ILOM targets.

Related Information

- "Performing User Tasks (SNMP)" on page 240
- "Managing Other Aspects With Oracle ILOM (SNMP)" on page 242

▼ Set the Date and Time (SNMP)

- **From the SNMP client, type.**

```
$ snmpset -v2c -c public mc_IP SUN-ILOM-CONTROL-MIB::ilomCtrlDateAndTime.0 s
"YYYY-MM-DD,hh:mm:ss.0"
```

where *YYYY-MM-DD,hh:mm:ss* is the year as four digits, and the month, date, hour, minute, and seconds as two digits.

For example:

```
$ snmpset -v2c -c public mc_IP SUN-ILOM-CONTROL-MIB::ilomCtrlDateAndTime.0 s
"2010-1-28,13:24:31.0"
SUN-ILOM-CONTROL-MIB::ilomCtrlDateAndTime.0 = STRING: 2010-1-28,13:24:31.0
$
```

Related Information

- "Set the Date and Time (CLI)" on page 71
- "Set the Date and Time (Web)" on page 137
- "Display the Date and Time (SNMP)" on page 196

▼ Set the Time Zone (SNMP)

- **From the SNMP client, type.**

```
$ snmpset -v2c -c public mc_IP SUN-ILOM-CONTROL-MIB::ilomCtrlTimezone.0 s
"timezone"
```

where *timezone* is the time zone. For example, to set for Greenwich Mean Time:

```
$ snmpset -v2c -c public mc_IP SUN-ILOM-CONTROL-MIB::ilomCtrlTimezone.0 s "GMT"
SUN-ILOM-CONTROL-MIB::ilomCtrlTimezone.0 = STRING: GMT
$
```

Related Information

- "Set the Date and Time (CLI)" on page 71
- "Set the Time Zone (Web)" on page 138
- "Display the Time Zone (SNMP)" on page 197

▼ Set the Network Time Protocol State (SNMP)

- **From the SNMP client, type.**

```
$ snmpset -v2c -c public mc_IP SUN-ILOM-CONTROL-MIB::ilomCtrlNTPEnabled.0 i state
```

where *state* is either `1` for enabled or `2` for disabled. For example, to enable NTP:

```
$ snmpset -v2c -c public mc_IP SUN-ILOM-CONTROL-MIB::ilomCtrlNTPEnabled.0 i 1
SUN-ILOM-CONTROL-MIB::ilomCtrlNTPEnabled.0 = INTEGER: true(1)
$
```

Related Information

- "Set the Network Time Protocol Servers (SNMP)" on page 234
- "Display the NTP State (SNMP)" on page 219

▼ Set the Network Time Protocol Servers (SNMP)

- **From the SNMP client, type.**

```
$ snmpset -v2c -c public mc_IP
SUN-ILOM-CONTROL-MIB::ilomCtrlDeviceNTPServernumberIP.0 = "IP_address"
```

where:

- *number* is the string for the number of the server, either `One` or `Two`.
- *IP_address* is the IP address of the NTP server.

For example, to set the NTP server One to the address of 123.45.67.90:

```
$ snmpset -v2c -c public mc_IP
SUN-ILOM-CONTROL-MIB::ilomCtrlDeviceNTPServerOneIP.0 = "123.45.67.90"
SUN-ILOM-CONTROL-MIB::ilomCtrlDeviceNTPServerOneIP.0 = IpAddress: 123.45.67.90
$
```

Note – Setting the NTP server IP address parameter to 0.0.0.0 effectively disables that parameter.

Related Information

- "Set the Date and Time (CLI)" on page 71
- "Set the Date and Time (Web)" on page 137

- "Set the Network Time Protocol State (SNMP)" on page 234
- "Display the NTP Servers (SNMP)" on page 220

▼ Clear the Oracle ILOM Event Log (SNMP)

- **From the SNMP client, type.**

```
$ snmpset -v2c -c public mc_IP SUN-ILOM-CONTROL-MIB::ilomCtrlEventLogClear.0 i 1
SUN-ILOM-CONTROL-MIB::ilomCtrlEventLogClear.0 = INTEGER: true(1)
$
```

Related Information

- "Clear the Oracle ILOM Event Log (CLI)" on page 73
- "Clear the Oracle ILOM Event Log (Web)" on page 139
- "Display the Oracle ILOM Event Log (SNMP)" on page 215
- "Set the Remote Log Hosts (SNMP)" on page 235

▼ Set the Remote Log Hosts (SNMP)

The Oracle ILOM implementation in the management controller provides a protocol for transmitting Oracle ILOM events to a remote log host. The events transmitted are similar to those displayed in the local log.

- **From the SNMP client, type.**

```
$ snmpset -v2c -c public mc_IP
SUN-ILOM-CONTROL-MIB::ilomCtrlRemoteSyslogDestnumber.0 a "IP_address"
```

where:

- *number* is the number of the remote log host.
- *IP_address* is the IP address of the remote log host.

For example, to set the IP address of remote log host 2:

```
$ snmpset -v2c -c public mc_IP SUN-ILOM-CONTROL-MIB::ilomCtrlRemoteSyslogDest2.0
a "123.45.67.90"
SUN-ILOM-CONTROL-MIB::ilomCtrlRemoteSyslogDest2.0 = IpAddress: 123.45.67.90
$
```

Note – Setting a remote log host IP address to `0.0.0.0` disables that functionality.

Related Information

- "Set the Remote Log Hosts (CLI)" on page 74
- "Set the Remote Log Hosts (Web)" on page 140
- "Display the Remote Log Hosts (SNMP)" on page 223

▼ Configure the DNS Client (SNMP)

To enable name services within the management controller, Oracle ILOM must be configured as a DNS client.

1. **From the SNMP client, set whether the DNS client will be configured via the DHCP server (`1`), or configured locally (`2`).**

```
$ snmpset -v2c -c public mc_IP SUN-ILOM-CONTROL-MIB::ilomCtrlDNSdhcpAutoDns.0 i
2
SUN-ILOM-CONTROL-MIB::ilomCtrlDNSdhcpAutoDns.0 = INTEGER: false(2)
$
```

2. **If configured locally, set the name server IP addresses.**

```
$ snmpset -v2c -c public mc_IP SUN-ILOM-CONTROL-MIB::ilomCtrlDNSNameServers.0 s
'IP_address'
```

where *IP_addresses* are a comma delimited list of up to three IP addresses of name servers in search order.

For example:

```
$ snmpset -v2c -c public mc_IP SUN-ILOM-CONTROL-MIB::ilomCtrlDNSNameServers.0 s
'123.45.67.89,123.45.67.90'
SUN-ILOM-CONTROL-MIB::ilomCtrlDNSNameServers.0 = STRING: 123.45.67.89,
123.45.67.90
$
```

3. **If configured locally, set the search path.**

```
$ snmpset -v2c -c public mc_IP SUN-ILOM-CONTROL-MIB::ilomCtrlDNSSearchPath.0 s
'domains'
```

where *domains* are a comma delimited list of up to six domains or search suffixes in search order.

For example:

```
$ snmpset -v2c -c public mc_IP SUN-ILOM-CONTROL-MIB::ilomCtrlDNSSearchPath.0 s
'india.sun.com,norway.sun.com'
SUN-ILOM-CONTROL-MIB::ilomCtrlDNSSearchPath.0 = STRING:
india.sun.com,norway.sun.com
$
```

Note – The timeout value and number of retries are configurable. The default values of 5 and 1, respectively, provide for optimal performance.

Related Information

- "Configure the DNS Client (CLI)" on page 75
- "Configure the DNS Client (Web)" on page 140
- "Display the DNS Client Status (SNMP)" on page 218

▼ Configure the SMTP Client (SNMP)

To enable email alerts, you must configre Oracle ILOM as an SMTP client.

1. **From the SNMP client, set the SMTP server IP address.**

```
$ snmpset -v2c -c public mc_IP SUN-ILOM-CONTROL-MIB::ilomCtrlSMTPServerIP.0 a
"IP_address"
```

where *IP_address* is the IP address of the SMTP server. For example:

```
$ snmpset -v2c -c public mc_IP SUN-ILOM-CONTROL-MIB::ilomCtrlSMTPServerIP.0 a
123.45.67.89
SUN-ILOM-CONTROL-MIB::ilomCtrlSMTPServerIP.0 = IpAddress: 123.45.67.89
$
```

2. **Set the SMTP server port.**

```
$ snmpset -v2c -c public mc_IP SUN-ILOM-CONTROL-MIB::ilomCtrlSMTPPortNumber.0 i
port
```

where *port* is the port of the SMTP server. For example:

```
$ snmpset -v2c -c public mc_IP SUN-ILOM-CONTROL-MIB::ilomCtrlSMTPPortNumber.0 i
25
SUN-ILOM-CONTROL-MIB::ilomCtrlSMTPPortNumber.0 = INTEGER: 25
$
```

3. **Enable the SMTP client.**

```
$ snmpset -v2c -c public mc_IP SUN-ILOM-CONTROL-MIB::ilomCtrlSMTPEnabled.0 i 1
SUN-ILOM-CONTROL-MIB::ilomCtrlSMTPEnabled.0 = INTEGER: true(1)
$
```

Related Information

- "Configure the SMTP Client (CLI)" on page 76
- "Configure the SMTP Client (Web)" on page 141
- "Display the SMTP Client Status (SNMP)" on page 219

▼ Set the Network Parameters (SNMP)

1. **From the SNMP client, set the network parameter.**

```
$ snmpset -v2c -c public mc_IP
SUN-ILOM-CONTROL-MIB::ilomCtrlNetworkPendingIpparameter.\"SP/network\" type "value"
```

where:

- *parameter* is the network parameter to configure:
  - `Discovery` – The IP address discovery method, `1` for static or `2` for DHCP.
  - `Address` – The IP address of the management controller, if static discovery is configured.
  - `Gateway` – The IP address of the subnet switch.
  - `Netmask` – The netmask for the subnet.
- *type* is the type of parameter, `i` for discovery and `a` for all others

- *value* is the value of the parameter

For example, to set the network netmask:

```
$ snmpset -v2c -c public mc_IP
SUN-ILOM-CONTROL-MIB::ilomCtrlNetworkPendingIpNetmask.\"SP/network\" a
"255.255.0.0"
SUN-ILOM-CONTROL-MIB::ilomCtrlNetworkPendingIpNetmask."SP/network" = IpAddress:
255.255.0.0
$
```

2. **Commit the pending netmask.**

```
$ snmpset -v2c -c public mc_IP
SUN-ILOM-CONTROL-MIB::ilomCtrlNetworkCommitPending.\"SP/network\" i 1
SUN-ILOM-CONTROL-MIB::ilomCtrlNetworkCommitPending."SP/network" = INTEGER:
true(1)
$
```

3. **Verify the netmask.**

```
$ snmpwalk -v2c -c public mc_IP SUN-ILOM-CONTROL-MIB::ilomCtrlNetwork
SUN-ILOM-CONTROL-MIB::ilomCtrlNetworkMacAddress."SP/network" = STRING:
46:46:41:39:00:FF
SUN-ILOM-CONTROL-MIB::ilomCtrlNetworkIpDiscovery."SP/network" = INTEGER:
static(1)
SUN-ILOM-CONTROL-MIB::ilomCtrlNetworkIpAddress."SP/network" = IpAddress:
123.45.67.89
SUN-ILOM-CONTROL-MIB::ilomCtrlNetworkIpGateway."SP/network" = IpAddress:
123.45.67.5
SUN-ILOM-CONTROL-MIB::ilomCtrlNetworkIpNetmask."SP/network" = IpAddress:
255.255.0.0
SUN-ILOM-CONTROL-MIB::ilomCtrlNetworkPendingIpDiscovery."SP/network" =
INTEGER: static(1)
SUN-ILOM-CONTROL-MIB::ilomCtrlNetworkPendingIpAddress."SP/network" =
IpAddress: 123.45.67.89
SUN-ILOM-CONTROL-MIB::ilomCtrlNetworkPendingIpGateway."SP/network" =
IpAddress: 123.45.67.5
SUN-ILOM-CONTROL-MIB::ilomCtrlNetworkPendingIpNetmask."SP/network" =
IpAddress: 255.255.0.0
SUN-ILOM-CONTROL-MIB::ilomCtrlNetworkCommitPending."SP/network" = INTEGER:
false(2)
$
```

Related Information

- "Set the Network Management Parameters (CLI)" on page 82

- "Set the Network Management Parameters (Web)" on page 145
- "Display the Network Management Configuration (SNMP)" on page 223

▼ Set the System Identification Properties (SNMP)

1. From the SNMP client, set the host name.

```
$ snmpset -v2c -c public mc_IP SUN-ILOM-CONTROL-MIB::ilomCtrlHostName.0 s
"hostname"
```

where *hostname* is the host name of the switch. For example:

```
$ snmpset -v2c -c public mc_IP SUN-ILOM-CONTROL-MIB::ilomCtrlHostName.0 s
"us-36p-1"
SUN-ILOM-CONTROL-MIB::ilomCtrlHostName.0 = STRING: us-36p-1
$
```

2. Set the system identifier.

```
$ snmpset -v2c -c public mc_IP SUN-ILOM-CONTROL-MIB::ilomCtrlSystemIdentifier.0
s "identity"
```

where *identity* is the string to identify the switch. For example:

```
$ snmpset -v2c -c public mc_IP SUN-ILOM-CONTROL-MIB::ilomCtrlSystemIdentifier.0
s "blr-03-36p-1"
SUN-ILOM-CONTROL-MIB::ilomCtrlSystemIdentifier.0 = STRING: blr-03-36p-1
$
```

Related Information

- "Set the System Identification Properties (CLI)" on page 84
- "Set the System Identification Properties (Web)" on page 146
- "Display System Identification Properties (SNMP)" on page 231

Performing User Tasks (SNMP)

These tasks enable you to add and delete Oracle ILOM users.

- "Add an Oracle ILOM User Account (SNMP)" on page 241
- "Delete an Oracle ILOM User Account (SNMP)" on page 242

Related Information

- "Performing General Tasks (SNMP)" on page 232
- "Managing Other Aspects With Oracle ILOM (SNMP)" on page 242

▼ Add an Oracle ILOM User Account (SNMP)

1. From the SNMP client, type.

```
$ snmpset -v2c -c public mc_IP
SUN-ILOM-CONTROL-MIB::ilomCtrlLocalUserRowStatus.\"username\" = 5
```

where *username* is the user name. For example, to create a user called `newuser`:

```
$ snmpset -v2c -c public mc_IP
SUN-ILOM-CONTROL-MIB::ilomCtrlLocalUserRowStatus.\"newuser\" = 5
SUN-ILOM-CONTROL-MIB::ilomCtrlLocalUserRoles.\"newuser\" = "o"
SUN-ILOM-CONTROL-MIB::ilomCtrlLocalUserPassword.\"newuser\" = "changeme"
SUN-ILOM-CONTROL-MIB::ilomCtrlLocalUserRowStatus."newuser" = INTEGER:
createAndWait(5)
SUN-ILOM-CONTROL-MIB::ilomCtrlLocalUserRoles."newuser" = STRING: "o"
SUN-ILOM-CONTROL-MIB::ilomCtrlLocalUserPassword."newuser" = STRING: "changeme"
$
```

2. Activate the user.

```
$ snmpset -v2c -c public mc_IP
SUN-ILOM-CONTROL-MIB::ilomCtrlLocalUserRowStatus.\"newuser\" = 1
SUN-ILOM-CONTROL-MIB::ilomCtrlLocalUserRowStatus."newuser" = INTEGER:
active(1)
$
```

Related Information

- "Add an Oracle ILOM User Account (CLI)" on page 86
- "Add an Oracle ILOM User Account (Web)" on page 147
- "Delete an Oracle ILOM User Account (SNMP)" on page 242
- "Display Oracle ILOM User Accounts (SNMP)" on page 222

▼ Delete an Oracle ILOM User Account (SNMP)

- **From the SNMP client, type.**

```
$ snmpset -v2c -c public mc_IP
SUN-ILOM-CONTROL-MIB::ilomCtrlLocalUserRowStatus.\"username\" = 6
```

where *username* is the user name. For example, to delete `newuser`:

```
$ snmpset -v2c -c public mc_IP
SUN-ILOM-CONTROL-MIB::ilomCtrlLocalUserRowStatus.\"newuser\" = 6
SUN-ILOM-CONTROL-MIB::ilomCtrlLocalUserRowStatus."newuser" = INTEGER:
destroy(6)
$
```

Related Information

- "Delete an Oracle ILOM User Account (CLI)" on page 87
- "Delete an Oracle ILOM User Account (Web)" on page 148
- "Add an Oracle ILOM User Account (SNMP)" on page 241
- "Display Oracle ILOM User Accounts (SNMP)" on page 222

Managing Other Aspects With Oracle ILOM (SNMP)

These tasks help you manage the Oracle ILOM services.

- "Set the HTTP Service State (SNMP)" on page 243
- "Set the HTTPS Service State (SNMP)" on page 243
- "Enable Alerts to Send SNMP Traps (SNMP)" on page 244
- "Enable Alerts to Send PETs (SNMP)" on page 245
- "Enable Alerts to Send Email Alerts (SNMP)" on page 246
- "Modify Alert SNMP Version (SNMP)" on page 247
- "Disable Alerts (SNMP)" on page 248

Related Information

- "Managing Other Aspects With Oracle ILOM (CLI)" on page 102
- "Managing Other Aspects With Oracle ILOM (Web)" on page 162
- "Performing General Tasks (SNMP)" on page 232

▼ Set the HTTP Service State (SNMP)

- **From the SNMP client, type.**

```
$ snmpset -v2c -c public mc_IP SUN-ILOM-CONTROL-MIB::ilomCtrlHttpEnabled.0 i state
```

where *state* is either `1` for enabled or `2` for disabled. For example, to enable the HTTP service:

```
$ snmpset -v2c -c public mc_IP SUN-ILOM-CONTROL-MIB::ilomCtrlHttpEnabled.0 i 1
SUN-ILOM-CONTROL-MIB::ilomCtrlHttpEnabled.0 = INTEGER: true(1)
$
```

Related Information

- "Enable the HTTP Service (CLI)" on page 88
- "Disable the HTTP Service (CLI)" on page 89
- "Enable the HTTP Service (Web)" on page 149
- "Disable the HTTP Service (Web)" on page 150
- "Display the HTTP Service Status (SNMP)" on page 217

▼ Set the HTTPS Service State (SNMP)

- **From the SNMP client, type.**

```
$ snmpset -v2c -c public mc_IP SUN-ILOM-CONTROL-MIB::ilomCtrlHttpsEnabled.0 i
state
```

where *state* is either `1` for enabled or `2` for disabled. For example, to enable the HTTPS service:

```
$ snmpset -v2c -c public mc_IP SUN-ILOM-CONTROL-MIB::ilomCtrlHttpsEnabled.0 i 1
SUN-ILOM-CONTROL-MIB::ilomCtrlHttpsEnabled.0 = INTEGER: true(1)
$
```

Related Information

- "Enable the HTTPS Service (CLI)" on page 90
- "Disable the HTTPS Service (CLI)" on page 92
- "Enable the HTTPS Service (Web)" on page 151
- "Disable the HTTPS Service (Web)" on page 153
- "Display the HTTPS Service Status (SNMP)" on page 218

▼ Enable Alerts to Send SNMP Traps (SNMP)

- **From the SNMP client, type.**

```
$ snmpset -v2c -c public mc_IP
SUN-ILOM-CONTROL-MIB::ilomCtrlAlertDestinationIP.number = "IP_address"
SUN-ILOM-CONTROL-MIB::ilomCtrlAlertDestinationPort.number = port
SUN-ILOM-CONTROL-MIB::ilomCtrlAlertSeverity.number = severity
```

where:

- *number* is the number of the alert.
- *IP_address* is the IP address of the host to receive the trap.
- *port* is the destination port.
- *severity* is the severity of the alert.

For example, to enable alert 2 to send traps to the host at IP address 123.45.67.90:

```
$ snmpset -v2c -c public mc_IP
SUN-ILOM-CONTROL-MIB::ilomCtrlAlertDestinationIP.2 = "123.45.67.90"
SUN-ILOM-CONTROL-MIB::ilomCtrlAlertDestinationPort.2 = 162
SUN-ILOM-CONTROL-MIB::ilomCtrlAlertSeverity.2 = 4
SUN-ILOM-CONTROL-MIB::ilomCtrlAlertDestinationIP.2 = IpAddress: 123.45.67.90
SUN-ILOM-CONTROL-MIB::ilomCtrlAlertDestinationPort.2 = INTEGER: 162
SUN-ILOM-CONTROL-MIB::ilomCtrlAlertSeverity.2 = INTEGER: minor(4)
$
```

Related Information

- "Enable Alerts to Send SNMP Traps (CLI)" on page 102
- "Enable Alerts to Send SNMP Traps (Web)" on page 162
- "Enable Alerts to Send PETs (SNMP)" on page 245
- "Enable Alerts to Send Email Alerts (SNMP)" on page 246
- "Display the Alert Properties (SNMP)" on page 221
- "Disable Alerts (SNMP)" on page 248

▼ Enable Alerts to Send PETs (SNMP)

- **From the SNMP client, type.**

```
$ snmpset -v2c -c public mc_IP
SUN-ILOM-CONTROL-MIB::ilomCtrlAlertDestinationIP.number = "IP_address"
SUN-ILOM-CONTROL-MIB::ilomCtrlAlertType.number = 3
SUN-ILOM-CONTROL-MIB::ilomCtrlAlertSeverity.number = severity
```

where:

- *number* is the number of the alert.
- *IP_address* is the IP address of the host to receive the trap.
- *severity* is the severity of the alert.

For example, to enable alert 2 to send PET to the host at IP address 123.45.67.90:

```
$ snmpset -v2c -c public mc_IP
SUN-ILOM-CONTROL-MIB::ilomCtrlAlertDestinationIP.2 = "123.45.67.90"
SUN-ILOM-CONTROL-MIB::ilomCtrlAlertType.2 = 3
SUN-ILOM-CONTROL-MIB::ilomCtrlAlertSeverity.2 = 4
SUN-ILOM-CONTROL-MIB::ilomCtrlAlertDestinationIP.2 = IpAddress: 123.45.67.90
SUN-ILOM-CONTROL-MIB::ilomCtrlAlertType.2 = INTEGER: ipmipet(3)
SUN-ILOM-CONTROL-MIB::ilomCtrlAlertSeverity.2 = INTEGER: minor(4)
$
```

Related Information

- "Enable Alerts to Send PETs (CLI)" on page 104
- "Enable Alerts to Send PETs (Web)" on page 163
- "Enable Alerts to Send SNMP Traps (SNMP)" on page 244
- "Enable Alerts to Send Email Alerts (SNMP)" on page 246
- "Display the Alert Properties (SNMP)" on page 221
- "Disable Alerts (SNMP)" on page 248

▼ Enable Alerts to Send Email Alerts (SNMP)

- **From the SNMP client, type.**

```
$ snmpset -v2c -c public mc_IP
SUN-ILOM-CONTROL-MIB::ilomCtrlAlertDestinationEmail.number = "email_address"
SUN-ILOM-CONTROL-MIB::ilomCtrlAlertType.number = 1
SUN-ILOM-CONTROL-MIB::ilomCtrlAlertEmailCustomSender.number =
"ilom-36pl-hostname" SUN-ILOM-CONTROL-MIB::ilomCtrlAlertSeverity.number = severity
```

where:

- *number* is the number of the alert.
- *email_address* is the fully qualified email address to receive the trap.
- *hostname* is the host name of the management controller.
- *severity* is the severity of the alert.

For example, to enable alert 2 to send to `user@yahoo.com`:

```
$ snmpset -v2c -c public mc_IP
SUN-ILOM-CONTROL-MIB::ilomCtrlAlertDestinationEmail.2 = "user@yahoo.com"
SUN-ILOM-CONTROL-MIB::ilomCtrlAlertType.2 = 1
SUN-ILOM-CONTROL-MIB::ilomCtrlAlertEmailCustomSender.2 = "ilom-36pl-hostname"
SUN-ILOM-CONTROL-MIB::ilomCtrlAlertSeverity.2 = 4
SUN-ILOM-CONTROL-MIB::ilomCtrlAlertDestinationEmail.2 = STRING: user@yahoo.com
SUN-ILOM-CONTROL-MIB::ilomCtrlAlertType.2 = INTEGER: email(1)
SUN-ILOM-CONTROL-MIB::ilomCtrlAlertEmailCustomSender.2 = STRING:
ilom-36pl-hostname
SUN-ILOM-CONTROL-MIB::ilomCtrlAlertSeverity.2 = INTEGER: minor(4)
$
```

Related Information

- "Enable Alerts to Send Email Alerts (CLI)" on page 105
- "Enable Alerts to Send Email Alerts (Web)" on page 164
- "Enable Alerts to Send SNMP Traps (SNMP)" on page 244
- "Enable Alerts to Send PETs (SNMP)" on page 245
- "Display the Alert Properties (SNMP)" on page 221
- "Disable Alerts (SNMP)" on page 248

▼ Modify Alert SNMP Version (SNMP)

- **From the SNMP client, type.**

```
$ snmpset -v2c -c public mc_IP
SUN-ILOM-CONTROL-MIB::ilomCtrlAlertSNMPVersion.number = version
```

where:

- *number* is the number of the alert.
- *version* is the SNMP version, `1` is v1, `2` is v2c, or `3` is v3.

For example, to modify alert 2 for SNMP version v2c:

```
$ snmpset -v2c -c public mc_IP SUN-ILOM-CONTROL-MIB::ilomCtrlAlertSNMPVersion.2
= 2
SUN-ILOM-CONTROL-MIB::ilomCtrlAlertSNMPVersion.2 = INTEGER: v2c(2)
$
```

Note – You can modify all alert configuration parameters using SNMP. Refer to the *Oracle Integrated Lights Out Manager (ILOM) 3.0 Protocol Management -- SNMP, IPMI,CIM,WS-MAN*, for more information.

Related Information

- "Enable Alerts to Send SNMP Traps (SNMP)" on page 244
- "Enable Alerts to Send PETs (SNMP)" on page 245
- "Enable Alerts to Send Email Alerts (SNMP)" on page 246
- "Display the Alert Properties (SNMP)" on page 221
- "Disable Alerts (SNMP)" on page 248

▼ Disable Alerts (SNMP)

- **From the SNMP client, type.**

```
$ snmpset -v2c -c public mc_IP
SUN-ILOM-CONTROL-MIB::ilomCtrlAlertSeverity.number = 1
```

where *number* is the number of the alert. For example, to disable alert 2:

```
$ snmpset -v2c -c public mc_IP SUN-ILOM-CONTROL-MIB::ilomCtrlAlertSeverity.2 = 1
SUN-ILOM-CONTROL-MIB::ilomCtrlAlertSeverity.2 = INTEGER: disable(1)
$
```

Related Information

- "Disable Alerts (CLI)" on page 106
- "Disable Alerts (Web)" on page 164
- "Display the Alert Properties (SNMP)" on page 221
- "Enable Alerts to Send SNMP Traps (SNMP)" on page 244
- "Enable Alerts to Send PETs (SNMP)" on page 245
- "Enable Alerts to Send Email Alerts (SNMP)" on page 246
- "Modify Alert SNMP Version (SNMP)" on page 247

Administering Hardware (IPMI)

These topics describe how to administer the hardware of the switch using the `ipmitool` utility.

Related Information

- "Administering Oracle ILOM (CLI)" on page 33
- "Administering Oracle ILOM (Web)" on page 117
- "Using the Fabric Monitor" on page 171
- "Administering Oracle ILOM (SNMP)" on page 191
- "Understanding Oracle ILOM Commands" on page 257

`ipmitool` Overview

The Oracle ILOM implementation on the management controller within the switch provides an IPMI server, which can communicate the state of the switch hardware through the Intelligent Platform Management Interface.

An IPMI client is required to interface with the Oracle ILOM IPMI stack on the management controller. You must have administrator privileges to interface with the stack and the IPMI service must be enabled on the switch.

The `ipmitool` utility is the IPMI client used in these topics and has this format:

`$ ipmitool -v -I lan -H` *mc_IP* `-U` *user command option*

where:

- *mc_IP* is the IP address of the management controller.
- *user* is the user with administrative privileges. For example, `ilom-admin`.
- *command* is the command to be run on the management controller.
- *option* is an optional argument or parameter to the *command*.

Note – After typing the `ipmitool` command line, you must type the password of the user for the utility to continue. For the `ilom-admin` user, the default password is `ilom-admin`.

For more information about and use of IPMI with Oracle ILOM, refer to the *Oracle Integrated Lights Out Manager (ILOM) 3.0 Protocol Management -- SNMP, IPMI, CIM, WS-MAN*, available online at:

`http://www.oracle.com/pls/topic/lookup?ctx=E19860-01&id=homepage`

▼ Display the Sensor States (IPMI)

- **From the IPMI client, type.**

Note – This example is a portion of the full output.

```
$ ipmitool -v -I lan -H mc_IP -U ilom-admin sensor
Password: password
Sensor ID              : CHASSIS_STATUS (0x1)
 Entity ID             : 7.0
 Sensor Type (Discrete): OEM reserved #c0
 States Asserted       : Digital State
                        [State Deasserted]
Sensor ID              : PSU0/PRSNT (0x2)
 Entity ID             : 10.0
 Sensor Type (Discrete): Entity Presence
 States Asserted       : Availability State
                        [Device Present]
.
.
```

```
.
Sensor ID              : COOLING_REDUN (0x2b)
 Entity ID             : 7.0
 Sensor Type (Discrete): OEM reserved #c0
 States Asserted       : Digital State
                        [State Deasserted]
Sensor ID              : CABLE_CONN_STAT (0x2c)
 Entity ID             : 7.0
 Sensor Type (Discrete): OEM reserved #c0
 States Asserted       : Digital State
                        [State Deasserted]
$
```

Related Information

- "Display the Aggregate Sensors State (CLI)" on page 44
- "Display the Aggregate Sensors State (Web)" on page 122
- "Display the Aggregate Sensors State (SNMP)" on page 197
- "Display the Sensor Alarm State (SNMP)" on page 210
- "Display the Sensor Information (IPMI)" on page 251

▼ Display the Sensor Information (IPMI)

- **From the IPMI client, type.**

Note – This example is a portion of the full output.

```
$ ipmitool -v -I lan -H mc_IP -U ilom-admin sdr
Password: password
Sensor ID              : CHASSIS_STATUS (0x1)
 Entity ID             : 7.0 (System Board)
 Sensor Type (Discrete): OEM reserved #c0
 Sensor Reading        : 0h
 Event Message Control : Per-threshold
 States Asserted       : Digital State
                        [State Asserted]
 Assertions Enabled    : Digital State
                        [State Deasserted]
                        [State Asserted]
Sensor ID              : PSU0/PRSNT (0x2)
 Entity ID             : 10.0 (Power Supply)
```

```
 Sensor Type (Discrete): Entity Presence
 Sensor Reading        : 0h
 Event Message Control : Per-threshold
 States Asserted       : Availability State
                       [Device Present]
 Assertions Enabled    : Availability State
                       [Device Absent]
                       [Device Present]
.
.
.
Sensor ID              : COOLING_REDUN (0x2b)
 Entity ID             : 7.0 (System Board)
 Sensor Type (Discrete): OEM reserved #c0
 Sensor Reading        : 0h
 Event Message Control : Per-threshold
 States Asserted       : Digital State
                       [State Deasserted]
 Assertions Enabled    : Digital State
                       [State Deasserted]
                       [State Asserted]
Sensor ID              : CABLE_CONN_STAT (0x2c)
 Entity ID             : 7.0 (System Board)
 Sensor Type (Discrete): OEM reserved #c0
 Sensor Reading        : 0h
 Event Message Control : Per-threshold
 States Asserted       : Digital State
                       [State Deasserted]
 Assertions Enabled    : Digital State
                       [State Deasserted]
                       [State Asserted]
$
```

Related Information

- "Display the Sensor States (IPMI)" on page 250
- "Display the Sensor Alarm State (SNMP)" on page 210

▼ Display the System Event Log (IPMI)

- **From the IPMI client, type.**

```
$ ipmitool -v -I lan -H mc_IP -U ilom-admin sel list number
```

where *number* is the number of records to display. For example:

```
$ ipmitool -v -I lan -H mc_IP -U ilom-admin sel list 2
Password: password
SEL Record ID          : 0001
 Record Type           : 02
 Timestamp             : 01/19/2010 21:57:05
 Generator ID          : 0020
 EvM Revision          : 04
 Sensor Type           : OEM
 Sensor Number         : 01
 Event Type            : Generic Discrete
 Event Direction       : Assertion Event
 Event Data            : 00ffff
 Description           : State Deasserted

SEL Record ID          : 0002
 Record Type           : 02
 Timestamp             : 01/20/2010 03:17:11
 Generator ID          : 0020
 EvM Revision          : 04
 Sensor Type           : OEM
 Sensor Number         : 01
 Event Type            : Generic Discrete
 Event Direction       : Assertion Event
 Event Data            : 01ffff
 Description           : State Asserted
$
```

In the output, the events were both for sensor 1, the aggregate sensor. The events describe the sensor going from `State Deasserted` to `State Asserted`.

Related Information

- "Display the Oracle ILOM Event Log (CLI)" on page 53
- "Display the Oracle ILOM Event Log (Web)" on page 126
- "Display the Oracle ILOM Event Log (SNMP)" on page 215

▼ Display FRU ID Information (IPMI)

- **From the IPMI client, type.**

```
$ ipmitool -v -I lan -H mc_IP -U ilom-admin fru print
Password: password
FRU Device Description : Builtin FRU Device (ID 0)
 Product Manufacturer  : Sun Microsystems
 Product Name          : ILOM
 Product Version       : 2.0.5-1

FRU Device Description : SYS (ID 4)
 Product Manufacturer  : Sun Microsystems
 Product Name          : Sun Datacenter InfiniBand Switch 36
 Product Part Number   : 5413495
 Product Serial        : 0110SJC-09183P0022

FRU Device Description : PSU0 (ID 5)
 Board Mfg             : Delta Energy Systems
 Board Product         : A236
 Board Serial          : 006541
 Board Part Number     : 3002234
 Board Extra           : sun_spec_part_number - 885-1390-01

FRU Device Description : PSU1 (ID 6)
 Board Mfg             : Delta Energy Systems
 Board Product         : A236
 Board Serial          : 006653
 Board Part Number     : 3002234
 Board Extra           : sun_spec_part_number - 885-1390-01

FRU Device Description : MB (ID 7)
 Board Extra           : ComEx: manufacturing_date - 2009.02.20
 Product Manufacturer  : Sun Microsystems
 Product Name          : Sun Datacenter InfiniBand Switch 36
 Product Part Number   : 5413495
 Product Serial        : 0110SJC-09183P0022
 Product Extra         : ComEx: serial_number - NCD2T0271
$
```

In the output, the `FRU Device Description` field identifies the FRUs:

- `Builtin FRU Device (ID 0)` – Oracle ILOM firmware
- `SYS (ID 4)` – Management controller
- `PSU0 (ID 5)` – Power supply 0

- `PSU1 (ID 6)` – Power supply 1
- `MB (ID 7)` – Motherboard

Related Information

- "Display Switch FRU ID (CLI)" on page 66
- "Display Power Supply FRU ID (CLI)" on page 67
- "Display System Component FRU ID (Web)" on page 134
- "Display Switch FRU ID (SNMP)" on page 224
- "Display Power Supply FRU ID (SNMP)" on page 226

▼ Display Switch Status LED States (IPMI)

- **From the IPMI client, type.**

```
$ ipmitool -v -I lan -H mc_IP -U ilom-admin sunoem sbled get
Password: password
I_POWER           | ON
I_ATTENTION       | OFF
I_LOCATOR         | OFF
$
```

In the output, the Power LED is on, and the Attention and Locator LEDs are off.

Related Information

- "Display Switch Status LEDs States (CLI)" on page 43
- "Display the Switch Status LEDs States (Web)" on page 122
- "Enable the Locator LED (IPMI)" on page 256
- "Disable the Locator LED (IPMI)" on page 256

▼ Enable the Locator LED (IPMI)

- **From the IPMI client, type.**

```
$ ipmitool -v -I lan -H mc_IP -U ilom-admin sunoem sbled set I_LOCATOR ON
Password: password
I_LOCATOR         | ON
$
```

The Locator LEDs is lit.

Related Information

- "Enable the Locator LED (CLI)" on page 72
- "Enable the Locator LED (Web)" on page 138
- "Disable the Locator LED (IPMI)" on page 256
- "Display Switch Status LED States (IPMI)" on page 255

▼ Disable the Locator LED (IPMI)

- **From the IPMI client, type.**

```
$ ipmitool -v -I lan -H mc_IP -U ilom-admin sunoem sbled set I_LOCATOR OFF
Password: password
I_LOCATOR         | OFF
$
```

The Locator LEDs is unlit.

Related Information

- "Disable the Locator LED (CLI)" on page 73
- "Disable the Locator LED (Web)" on page 139
- "Enable the Locator LED (IPMI)" on page 256
- "Display Switch Status LED States (IPMI)" on page 255

Understanding Oracle ILOM Commands

Only the `ilom-admin` user of the Oracle ILOM shell can run all of the Oracle ILOM commands on the Sun Datacenter InfiniBand Switch 36. The format of the Oracle ILOM commands is typically as follows:

`->` *command* `[`*option*`][`*target*`][`*property*`=`*value*`]...`

where:

- *command* is the command being issued.
- *option* is any option to that command.
- *target* is the target and path to act upon.
- *property* is the property of the target to change.
- *value* is what to change the property to.

Command Syntax	Links
`cd [-default][`*target*`]`	"`cd` Command" on page 258
`create [`*target*`][`*property*`=`*value* *property*`=`*value* `...]`	"`create` Command" on page 259
`delete [-script][`*target*`]`	"`delete` Command" on page 260
`dump [-destination` *URI*`][`*target*`]`	"`dump` Command" on page 261
`exit`	"`exit` Command (ILOM)" on page 262
`help [-o terse|verbose][`*command*`|legal|targets|`*target*`|` *target property*`]`	"`help` Command (ILOM)" on page 263
`load [-force][-o verbose][-script]-source` *URI*`[`*target*`]`	"`load` Command" on page 264
`reset [-script][`*target*`]`	"`reset` Command" on page 265

Command Syntax	Links
`set [target]property=value[property=value...]`	"`set` Command" on page 266
`show [-d targets|properties|commands|all][-l 1|2|3...255|all][-o table][target][property property...]`	"`show` Command" on page 267
`version`	"`version` Command (ILOM)" on page 269

Related Information

- *Switch Reference*
- "Administering Oracle ILOM (CLI)" on page 33
- "Administering Oracle ILOM (Web)" on page 117
- "Using the Fabric Monitor" on page 171
- "Administering Oracle ILOM (SNMP)" on page 191
- "Administering Hardware (IPMI)" on page 249

`cd` Command

Changes the current target.

Syntax

`cd [-default]` *target*

where *target* is the target and path to act upon.

Description

This Oracle ILOM command changes the Oracle ILOM attention to the specified *target*. This command is similar to the change directory (`cd`) command of many operating systems.The `-default` option returns the attention to the default target.

Example

This example shows how to change to the `/SP/logs/event/list` target with the `cd` command.

Note – The output in the example is a portion of the full output.

```
-> cd /SP/logs/event/list
/SP/logs/event/list

-> show
  /SP/logs/event/list
     Targets:
     Properties:
     Commands:
         cd
 s       how
ID     Date/Time                  Class     Type      Severity
-----  -------------------------  --------  --------  --------
75     Wed Oct  7 20:12:31 2009  Audit     Log       minor
 root : Open Session : object = /session/type : value = shell : success
74     Wed Oct  7 20:12:28 2009  Audit     Log       minor
 root : Close Session : object = /session/type : value = shell : success
73     Wed Oct  7 20:11:21 2009  Audit     Log       minor
 root : Open Session : object = /session/type : value = shell : success
.
.
.
->
```

`create` Command

Creates a target or property.

Syntax

`create` *target* [*property* = *value* *property* = *value* ...]

where:

- *target* is the target and path to create or act upon.
- *property* is the property of the target to create.
- *value* is the value of the property created.

Description

This Oracle ILOM command creates the specified target with the specified properties. Your user must have administrator (a) privileges to use this command.

Example

This example shows how to create a /SP/users/test user target with the create command.

```
-> create /SP/users/test
Creating user...
Enter new password: password
Enter new password again: password
Created /SP/users/test
->
```

Related Information

- "delete Command" on page 260

delete Command

Deletes a target.

Syntax

delete [-script][*target*]

where *target* is the target and path to act upon.

Description

This Oracle ILOM command deletes the *target* and all subordinate targets. If no *target* is specified, the current target is affected. Your user must have administrator (a) privileges to use this command. The `-script` option skips confirmation of the target deletion and proceeds as if `y` was specified.

Example

This example shows how to delete the `/SP/users/test` target with the `delete` command.

```
-> delete /SP/users/test
Are you sure you want to delete /SP/users/test (y/n)? y
Deleted /SP/users/test.
->
```

Related Information

- "`create` Command" on page 259

`dump` Command

Dumps target information to a remote location.

Syntax

`dump [-destination` *URI*`][`*target*`]`

where:

- *URI* is the uniform resource indicator.
- *target* is the target and path to act upon.

Description

This Oracle ILOM command transfers *target* information to a remote location specified by the *URI*. If no *target* is specified, the current target is affected. Your user must have administrator (a) privileges to use this command. The `-destination` option specifies the location. If the `-destination` option is not used, then the information is transferred to `stdout`.

Example

This example shows how to transfer the `/SP/services/snmp/mibs` target information to the `ilom-mibs.zip` file on the host with IP address 123.45.67.89 using the FTP protocol with the `dump` command.

```
-> dump -destination ftp://root:changeme@123.45.67.89/tftpboot/ilom-mibs.zip
/SP/services/snmp/mibs
->
```

Related Information

- "`load` Command" on page 264

`exit` Command (ILOM)

Terminates the Oracle ILOM session.

Syntax

```
exit
```

Description

This Oracle ILOM command exits the Oracle ILOM shell and either:

- Returns the `root` user to the Linux `root` user prompt of the management controller.

- Logs off the `ilom-admin` user or `ilom-operator` user from the management controller.

Example

This example shows how to exit the Oracle ILOM session using the `exit` command.

```
-> exit
#
```

Related Information

- *Switch Reference*, `exit` command

`help` Command (ILOM)

Provides help with Oracle ILOM commands.

Syntax

`help [-o terse|verbose][`*command*`|legal|targets|`*target*`|`*target property*`]`

where:

- *command* is the Oracle ILOM command for which you are seeking help.
- *target* is the target for which you are seeking help.
- *property* is the property of the target for which you are seeking help.

Description

This Oracle ILOM command gives information and assistance about commands and targets. The `-o` option enables either terse or verbose output. The `help targets` command displays a basic list of targets. The `help legal` command displays the legal notice.

Example

This example shows how to display verbose help about the `exit` command with the `help` command.

```
-> help -o verbose exit
The exit command is used to terminate a session.
Usage: exit
Example:
  -> exit
  Connection to nyc-sp closed.
->
```

Related Information

- *Switch Reference*, `help` command

`load` Command

Transfers a file from a remote location to update a target.

Syntax

`load [-force][-o verbose][-script]-source` *URI*`[`*target*`]`

where:

- *URI* is the uniform resource indicator.
- *target* is the target and path to act upon.

Description

This Oracle ILOM command transfers information in a file from a remote location specified by the *URI* to update a *target*. If no *target* is specified, the current target is affected. Your user must have administrator (`a`) privileges to use this command.

Options

This table describes the options to the `load` command and their purposes:

Option	Purpose
`-force`	Disables the version number check for firmware updates.
`-o`	Enables verbose output.
`-script`	Skips confirmation of the action and proceeds as if `y` was specified.

Example

This example shows how to load a custom certificate file, `server.pem`, to the `/SP/services/https/ssl/custom_cert` target from the host at IP address 123.45.67.89 using the TFTP protocol with the `load` command.

```
-> load -source tftp://123.45.67.89/server.pem
/SP/services/https/ssl/custom_cert
Load successful.
->
```

Related Information

- "`dump` Command" on page 261

`reset` Command

Resets a target.

Syntax

`reset [-script][`*target*`]`

where *target* is the target and path to act upon.

Description

This Oracle ILOM command resets a resetable *target* to default conditions. If no *target* is specified, the current target is affected. The `-script` option skips confirmation of the action and proceeds as if `yes` was specified. Your user must have administrator (`a`) privileges to use this command.

Example

This example shows how to reset the custom SSL certificate with the `reset` command.

```
-> reset /SP/services/https/ssl/custom_cert
Are you sure you want to reset /SP/services/https/ssl/custom_cert (y/n)? y
Performing reset on /SP/services/https/ssl/custom_cert
->
```

Related Information

- "`set` Command" on page 266

`set` Command

Sets a property.

Syntax

`set` [*target*] *property*=*value* [*property*=*value* . . .]

where:

- *target* is the target and path to act upon.
- *property* is the property of the target to change.
- *value* is what to change the property to.

Description

This Oracle ILOM command sets the *property* of a *target*. If no *target* is specified, the current target is affected. Your user must have administrator (a) privileges to use this command.

Example

This example shows how to change the role of the `/SP/users/test` user to administrator with the `set` command.

```
-> set /SP/users/test role=a
Set 'role' to 'a'
->
```

Related Information

- "`show` Command" on page 267
- "`reset` Command" on page 265

`show` Command

Display information about targets, properties, and commands.

Syntax

`show [-d targets|properties|commands|all]|[-l 1|2|3...255|all][-o table][`*target*`][`*property property...*`]`

where:

- *target* is the target and path to act upon.
- *property* is the property of the target to show.

Description

This Oracle ILOM command displays information about targets, their properties, and associated commands. If no *target* is specified, information about the current target is displayed.

Options

This table describes the options to the `show` command and their purposes:

Option	Purpose
`-d`	Specifies what information to display. • `targets` – The subtargets of the target. • `properties` – The properties of the target. • `commands` – The supported commands of the target. • `all` – The subtargets, properties, and supported commands of the target.
`-l`	Specifies the relative level in the target hierarchy to which the action applies.
`-o`	Enables output in tabular form.

Example

This example shows how to display the Oracle ILOM user accounts with the `show` command.

```
-> show -d targets /SP/users
  /SP/users
     Targets:
        root
        ilom-admin
        ilom-operator
        for_Check
        test
->
```

Related Information

- "`set` Command" on page 266

`version` Command (ILOM)

Displays version information.

Syntax

```
version
```

Description

This Oracle ILOM command displays the version information within the management controller.

Example

This example shows how to display the version information with the `version` command.

```
-> version
SP firmware 1.3
SP firmware build number: 47111
SP firmware date: Wed Nov 11 18:21:29 IST 2009
SP filesystem version: 0.1.22
->
```

Related Information

- *Switch Reference*, `version` command

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