

Oracle® Integrated Lights Out Manager (ILOM) 2.0

Supplement for the Sun Netra T5440 Server



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Adobe PostScript

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Preface

This supplement contains information about Oracle Integrated Lights Out Manager (ILOM) for the Sun Netra T5440 server from Oracle®. The ILOM service processor enables you to remotely manage and administer your servers. You should be an experienced system administrator with a knowledge of UNIX commands.

Using UNIX Commands

This document might not contain information on basic UNIX commands and procedures such as shutting down the system, booting the system, and configuring devices. See the following for this information:

- Software documentation that you received with your system
- Oracle Solaris OS documentation, which is at:
(<http://docs.sun.com>)

Shell Prompts

Shell	Prompt
C shell	<i>machine-name%</i>
C shell superuser	<i>machine-name#</i>
Bourne shell and Korn shell	\$
Bourne shell and Korn shell superuser	#
ILOM service processor	->
OpenBoot PROM firmware	ok

Typographic Conventions

Typeface	Meaning	Examples
AaBbCc123	The names of commands, files, and directories; on-screen computer output	Edit your <code>.login</code> file. Use <code>ls -a</code> to list all files. % You have mail.
AaBbCc123	What you type, when contrasted with on-screen computer output	% su Password:
<i>AaBbCc123</i>	Book titles, new words or terms, words to be emphasized. Replace command-line variables with real names or values.	Read Chapter 6 in the <i>User's Guide</i> . These are called <i>class</i> options. You <i>must</i> be superuser to do this. To delete a file, type <code>rm filename</code> .

Note – Characters display differently depending on browser settings. If characters do not display correctly, change the character encoding in your browser to Unicode UTF-8.

Related Documentation

The following table lists the documentation for this product. The online documentation is available at:

(<http://docs.sun.com/app/docs/prod/server.nebs>)

Application	Title	Part Number	Format	Location
Planning	<i>Sun Netra T5440 Server Site Planning Guide</i>	820-4441	PDF	Online
Installation	<i>Sun Netra T5440 Server Installation Guide</i>	820-4442	PDF, HTML	Online
Administration	<i>Sun Netra T5440 Server Administration Guide</i>	820-4443	PDF, HTML	Online
ILOM Reference	<i>Oracle Integrated Lights Out Manager (ILOM) 2.0 Supplement for the Sun Netra T5440 Server</i>	820-4444	PDF, HTML	Online
ILOM Reference	<i>Oracle Integrated Lights Out Manager (ILOM) 3.0 Supplement for the Sun Netra T5440 Server</i>	820-6891	PDF, HTML	Online
Issues & Updates	<i>Sun Netra T5440 Server Service Manual</i>	820-4445	PDF, HTML	Online
Service	<i>Sun Netra T5440 Server Safety and Compliance Guide</i>	820-4446	PDF, HTML	Online
Compliance	<i>Sun Netra T5440 Server Product Notes</i>	816-4447	PDF, HTML	Online
Overview	<i>Sun Netra T5440 Server Getting Started Guide</i>	820-3016	Printed PDF	Ship kit & Online

Documentation, Support, and Training

Sun Function	URL
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Oracle Integrated Lights Out Manager 2.0 Supplement for the Sun Netra T5440 Server,
part number 820-4444-11

ILOM for the Sun Netra T5440 Server

This chapter introduces ILOM for Oracle's Sun Netra T5440 server.

This chapter contains the following sections:

- [“SPARC Specific ILOM Features” on page 1](#)
- [“ILOM Features Not Supported in Sun Netra Servers” on page 1](#)

SPARC Specific ILOM Features

ILOM operates on many platforms, supporting features that are common to all platforms. There are some ILOM features that belong to a subset of platforms and not to all. This document describes features that belong to the Sun Netra T5440 server, augmenting the set of features described in the *Sun Integrated Lights Out Manager 2.0 User's Guide*.

ILOM Features Not Supported in Sun Netra Servers

Among the ILOM features supported on other platforms, ILOM does not support the following features on the server:

- ILOM Remote Console
- Chassis Monitoring Module (CMM) features, such as single sign on

The remainder of this document describes the ILOM features that are supported on the server.

Managing the Host

This chapter contains information on ILOM features on the Sun Netra T5440 server that augment the array of properties that are common to ILOM on other platforms. In particular, this chapter describes the properties in the /HOST namespace. Topics include:

- [“Managing Host Boot Mode” on page 3](#)
- [“Viewing Host Information and Setting System Policy Concerning Error Conditions” on page 7](#)
- [“Managing Host Diagnostics” on page 11](#)
- [“Managing System User Interactions” on page 15](#)

Managing Host Boot Mode

Use the remote control properties to specify how ILOM handles boot.

- [“To Manage the Host’s Boot Mode LDOMs Configuration Using the CLI” on page 4](#)
- [“To Manage the Host’s Boot Mode Script Using the CLI” on page 5](#)
- [“To Change the Host’s Boot Mode Behavior at Reset Using the CLI” on page 5](#)
- [“To Display Host’s Boot Mode Expiration Date Using the CLI” on page 6](#)
- [“To Change Boot Mode Configuration Settings Using the Web Interface” on page 6](#)

Boot Mode

Boot mode (`bootmode`) properties enable you to override the default method the server uses when it boots. This ability is useful to override particular OpenBoot or LDOMs settings that might be incorrect, to set up OpenBoot variables using a script, or similar tasks.

For example, if the OpenBoot settings have become corrupt, you can set the `bootmode state` property to `reset_nvram`, then reset the server with factory default OpenBoot settings.

Service personnel might instruct you to use the `bootmode script` property for problem resolution. The full extent of script capabilities are not documented and exist primarily for debugging.

Because `bootmode` is intended to be used for a single boot only, to correct a problem with the OpenBoot or LDOMs settings, the `bootmode` takes effect for a single boot only. Additionally, to prevent an administrator from setting a `bootmode state` property and forgetting about it, a `bootmode state` property expires if the host is not reset within 10 minutes of the `bootmode state` property being set.

▼ To Manage the Host's Boot Mode LDOMs Configuration Using the CLI

- **Type:**

```
-> set /HOST/bootmode config=value
```

where the `config` property takes a *configname* value such as a named logical domain configuration downloaded to the SP using the Logical Domains software.

For example, if you have created a logical domain configuration called `ldm-set1`:

```
-> bootmode config=ldm-set1
```

To return the boot mode `config` to the factory default configuration, specify `factory-default`.

For example:

```
-> bootmode config=factory-default
```


▼ To Manage the Host's Boot Mode Script Using the CLI

- **Type:**

```
-> set /HOST/bootmode script=value
```

where *script* controls the host server OpenBoot PROM firmware method of booting.

The script does not affect the current `/HOST/bootmode` setting. *string* can be up to 64 bytes in length. You can specify a `/HOST/bootmode` setting and set the script within the same command.

For example:

```
-> set /HOST/bootmode state=reset_nvram script="setenv diag-switch? true"
```

After the server resets and OpenBoot PROM reads the values stored in the script, firmware sets the OpenBoot PROM variable `diag-switch?` to the user-requested value of `true`.

Note – Note: If you set `/HOST/bootmode script=""`, ILOM sets the `script` to empty. If you set `/HOST/bootmode config=""`, ILOM sets the `config` to empty.

▼ To Change the Host's Boot Mode Behavior at Reset Using the CLI

The `/HOST/bootmode state` property controls how OpenBoot nonvolatile random access memory (NVRAM) variables are used. Normally the current settings of these variables are retained. Setting `/HOST/ bootmode state=reset_nvram` changes the OpenBoot NVRAM variables to their default settings at the next reset.

- **Type:**

```
-> set /HOST/bootmode state=value
```

where *value* is one of the following:

- `normal` – At next reset, retains current NVRAM variable settings
- `reset_nvram` – At next reset, returns OpenBoot variables to default settings

Note – `state=reset_nvram` will return to normal after the next server reset (or 10 minutes (see `expires` property in the *Integrated Lights Out Management 2.0 User's Guide*). `config` and `script` properties do not expire and will be cleared upon the next server reset or manually by setting `string` to " ".

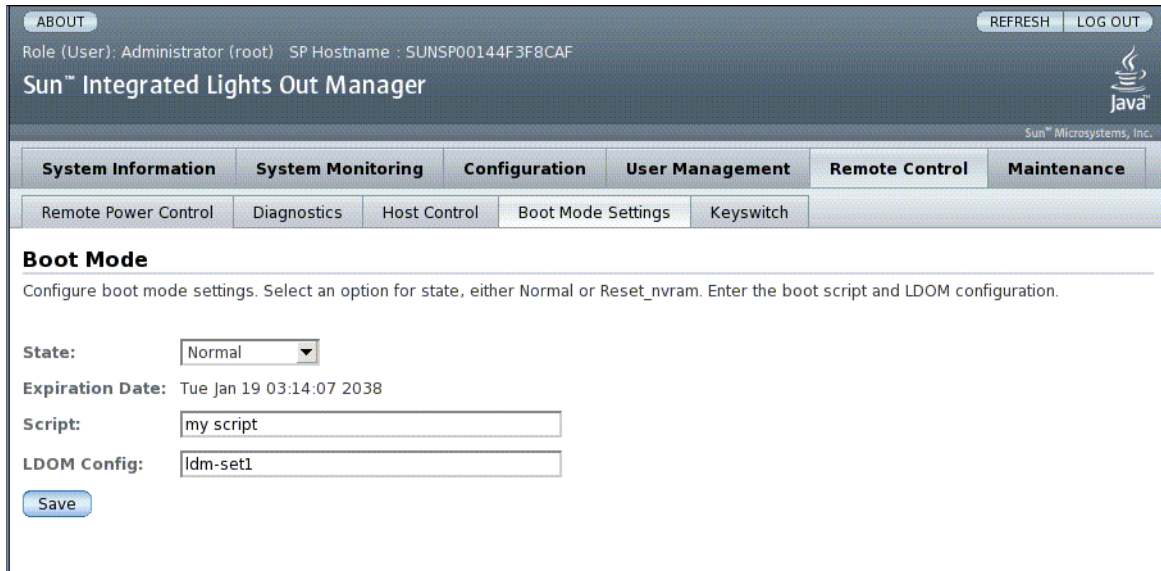
▼ To Display Host's Boot Mode Expiration Date Using the CLI

- At the `->` prompt, type the following command:

```
-> show /HOST/bootmode expires
Properties:
expires = Thu Oct 18 18:24:16 2007/
```

where `expires` is the date at which the current bootmode state expires.

▼ To Change Boot Mode Configuration Settings Using the Web Interface



The screenshot shows the Sun Integrated Lights Out Manager (ILOM) web interface. At the top, there are links for 'ABOUT', 'REFRESH', and 'LOG OUT'. The user role is 'Administrator (root)' and the SP Hostname is 'SUNSP00144F3F8CAF'. The main navigation bar includes 'System Information', 'System Monitoring', 'Configuration', 'User Management', 'Remote Control', and 'Maintenance'. Under 'Configuration', there are sub-links for 'Remote Power Control', 'Diagnostics', 'Host Control', 'Boot Mode Settings', and 'Keyswitch'. The 'Boot Mode' section is active, showing a configuration form with the following fields: 'State' (Normal), 'Expiration Date' (Tue Jan 19 03:14:07 2038), 'Script' (my script), and 'LDOM Config' (ldm-set1). A 'Save' button is located at the bottom left of the form.

ILOM provides several ways to configure the server's firmware environment. There are four aspects to configuring the boot mode:

- State
 - Expiration Date
 - Script
 - LDom Configuration
1. **Log into the ILOM web interface as Administrator (root) to open the web interface.**
 2. **Select Remote Control -> Boot Mode Settings.**
 3. **Select the Boot Mode State.**
 4. **View the Expiration Date.**
 5. **Specify a boot script.**
 6. **Specify an LDom configuration file.**
 7. **Click Save.**
-

Viewing Host Information and Setting System Policy Concerning Error Conditions

Use the system information properties to view system configuration and firmware version information.

- [“To Display the Host’s MAC Address Using the CLI” on page 8](#)
- [“To Display the Host’s OpenBoot Version Using the CLI” on page 8](#)
- [“To Display the Host’s POST Version Using the CLI” on page 8](#)
- [“To Specify Host Behavior When the Watchdog Timer Expires Using the CLI” on page 9](#)
- [“To Specify Host Behavior When an Error Is Discovered During Diagnostics Using the CLI” on page 9](#)
- [“To View Host Information Using the Web Interface” on page 9](#)

▼ To Display the Host's MAC Address Using the CLI

The `/HOST macaddress` property is automatically configured by the system software, so you cannot set it or change it. The value is read and determined from the server's MAC address and then stored as a property in ILOM.

`/HOST macaddress` is the MAC address for the `net0` port. The MAC addresses for each additional port increments from the `/HOST macaddress`. For example, `net1` is equal to the value of `/HOST macaddress` plus one (1).

- To view the current setting for this property, type:

```
-> show /HOST macaddress
```

▼ To Display the Host's OpenBoot Version Using the CLI

The `/HOST obp_version` property displays information about the version of OpenBoot on the host.

1. To view the current setting for this property, type:

```
-> show /HOST obp_version
```

- 2.

▼ To Display the Host's POST Version Using the CLI

The `/HOST post_version` property displays information about the version of POST on the host.

- To view the current setting for this property, type:

```
-> show /HOST post_version
```

▼ To Specify Host Behavior When the Watchdog Timer Expires Using the CLI

Use the `/HOST autorestart` property to specify how ILOM should handle expiration of the Solaris watchdog timer.

- To set this property, type:

```
-> set /HOST autorestart=value
```

where *value* can be as follows:

- `none` – ILOM takes no action other than to issue a warning.
- `reset` – ILOM attempts to reset the system when the Solaris watchdog timer expires (the default).
- `dumpcore` – ILOM attempts to force a core dump of the OS when the watchdog timer expires.

▼ To Specify Host Behavior When an Error Is Discovered During Diagnostics Using the CLI

Use the `/HOST autorunonerror` property to specify whether the host should continue to boot after system diagnostics have discovered an error.

- To set this property, type:

```
-> set /HOST autorunonerror=value
```

where *value* can be as follows:

- `true` – The system stops booting after an error has been discovered (the default).
- `false` – The system attempts to continue booting after an error has been discovered.


▼ To View Host Information Using the Web Interface

This procedure describes how to view and configure several kinds of host information.

ABOUT REFRESH LOG OUT

Role (User): Administrator (root) SP Hostname : SUN5P00144F3F8CAF

Sun™ Integrated Lights Out Manager


Sun™ Microsystems, Inc.

System Information	System Monitoring	Configuration	User Management	Remote Control	Maintenance
Remote Power Control	Diagnostics	Host Control	Boot Mode Settings	Keyswitch	

Host Control

View and configure the host control information. Auto Run on Error determines whether the host should continue to boot in the event of a non-fatal POST error. Auto Restart Policy determines what action the Service Processor should take when it discovers the host is hung.

MAC Address: 00:14:4f:3f:8c:a6

OBP Version: OBP ***n2 build_100 PROTOTYPE BUILD*** 2007/05/16 18:19 [stacie obp #0]

POST Version: Sun Fire[™] Huron POST 4.x.o.n2.build_100 2007/05/16 19:23

Post Status: OS Running

Auto Run On Error:

Auto Restart Policy:

ILOM provides several ways to view or configure host control features. There are six aspects to host control:

- MAC address
- OpenBoot version
- POST version
- POST status
- Auto Run On Error
- Auto Restart Policy

1. **Log into the ILOM web interface as Administrator (root) to open the web interface.**
2. **Select Remote Control -> Host Control.**
3. **View the MAC address.**
4. **View the OpenBoot version.**
5. **View the POST version.**
6. **Select a value for Auto Run On Error.**
7. **Select a value for Auto Restart Policy.**
8. **Click on Save.**

Managing Host Diagnostics

Use the diagnostic control properties to specify how ILOM behaves when it encounters an error on the host server.

ILOM uses the following diagnostic system interface property:

- [“To Specify the Level of Diagnostics Using the CLI” on page 11](#)
- [“To Change the Diagnostics Mode Using the CLI” on page 11](#)
- [“To Specify Diagnostic Trigger Conditions Using the CLI” on page 12](#)
- [“To Choose the Amount of Verbosity in Diagnostic Output Using the CLI” on page 13](#)
- [“To Manage Diagnostics Settings Using the Web Interface” on page 13](#)

▼ To Specify the Level of Diagnostics Using the CLI

Use the `/HOST/diag level` property to specify the level of diagnostic testing to be executed when diagnostics are enabled.

- **Type:**

```
-> set /HOST/diag level=value
```

where *value* is one of the following:

- `min` – Run the minimum level of diagnostics to verify the system (the default value).
- `max` – Run the maximum set of diagnostics to fully verify system health.

▼ To Change the Diagnostics Mode Using the CLI

Use the `/HOST/diag mode` property to control whether diagnostics are enabled and to specify which diagnostic mode is enabled.

- **Type:**

```
-> set /HOST/diag mode=value
```

where *value* is one of the following:

- off – Run no diagnostics.
- normal – Run diagnostics (the default value).
- service – Run service-technician diagnostics, equivalent to using the preset values of /HOST/diag trigger=all-resets, /HOST/diag verbosity, and /HOST/diag level=max. Setting /HOST/diag mode=service has the same effect as issuing the set /SYS keyswitch_state=diag command.

▼ To Specify Diagnostic Trigger Conditions Using the CLI

Use the /HOST/diag trigger property to control the conditions under which POST runs if diagnostics are enabled.

● Type:

```
-> set /HOST/diag trigger=value
```

where *value* is one (or a combination, supplied within quote marks) of the following:

- user-reset – Run diagnostics when the system is reset.
- error-reset – Run diagnostics when the system takes a fatal error that requires the system to reset itself to recover.
- power-on-reset – Run diagnostics when the system is powered on.
- all-resets – Run all of the diagnostics specified by user-reset, error-reset, and power-on-reset [the default value].
- none – Skip diagnostics.

The default value is the combination of power-on-reset error-reset.

For example:

```
-> set /HOST/diag trigger="user-reset power-on-reset"
-> show /HOST/diag trigger
user-reset power-on-reset
```

▼ To Choose the Amount of Verbosity in Diagnostic Output Using the CLI

Use the /HOST/diag verbosity property to specify the verbosity level of the output from POST diagnostics, if diagnostics are enabled.

- **Type:**

```
-> set /HOST/diag verbosity=value
```

where *value* is one of the following:

- none – Diagnostics do not print any output on the system console when running, unless a fault is detected.
- min – Diagnostics print a limited amount of output on the system console.
- max – Diagnostics print full output on the system console, including the name and results of each test being run.
- normal – Diagnostics print a moderate amount of output on the system console (the default value).
- debug – Diagnostics print extensive debugging output on the system console, including devices being tested and debug output of each test.

▼ To Manage Diagnostics Settings Using the Web Interface

This procedure describes how to view and configure diagnostics settings.

The screenshot shows the Sun Integrated Lights Out Manager (ILOM) web interface. At the top, there is a navigation bar with 'ABOUT', 'REFRESH', and 'LOG OUT' buttons. Below this, the user role is 'Administrator (root)' and the SP Hostname is 'SUNSP00144F3F8CAF'. The main title is 'Sun™ Integrated Lights Out Manager' with the Sun Microsystems, Inc. logo and 'Java™' branding. A navigation menu includes 'System Information', 'System Monitoring', 'Configuration', 'User Management', 'Remote Control', and 'Maintenance'. Under 'Configuration', there are sub-menus for 'Remote Power Control', 'Diagnostics', 'Host Control', 'Boot Mode Settings', and 'Keyswitch'. The 'Diagnostics' sub-menu is selected, and the page title is 'Diagnostics'. Below the title, there is a descriptive paragraph: 'Select the level of embedded diagnostics to run on the host during start up. The Trigger contains all possible states to cause diagnostics to be run. The Verbosity level will define how much information will be given. The Update Mode contains all the possible OPS modes specified to POST.' The configuration fields are: 'Trigger:' with a dropdown menu set to 'All Resets'; 'Verbosity:' with a dropdown menu set to 'Normal'; 'Level:' with a dropdown menu set to 'Max'; 'Current Mode:' with a text input field containing 'off'; and 'Update Mode:' with a dropdown menu set to 'Off'. A 'Save' button is located at the bottom left of the configuration area.

ILOM provides several ways to view or configure diagnostics. There are four aspects to host control:

- Trigger
 - Verbosity
 - Level
 - Mode
1. **Log into the ILOM web interface as Administrator (`root`) to open the web interface.**
 2. **Select Remote Control -> Diagnostics.**
 3. **Select a value for Trigger.**
 4. **Select a value for Verbosity.**
 5. **Select a value for Level.**
 6. **View the Current Mode.**
 7. **Select a value for Update Mode.**

Managing System User Interactions

The system user properties enable you to customize the way ILOM identifies and interacts with the host server.

- [“To Enable the System to Send a Break Signal or Force a Core Dump Using the CLI” on page 15](#)
- [“To Display Host Status Information Using the CLI” on page 15](#)

▼ To Enable the System to Send a Break Signal or Force a Core Dump Using the CLI

Use the `set /HOST send_break_action` command to bring the server to a menu from which you can choose to go to the OpenBoot PROM prompt (`ok`). If you have configured the `kmdb` debugger, then specifying the `send_break_action=break` brings the server into debug mode. Specify `send_break_action=dumpcore` to force a core dump.

- **Type:**

```
-> set /HOST send_break_action=value
```

where *value* is one of the following:

- `break` – Sends a break to the host.
- `dumpcore` – Forces a panic core dump of the managed system OS (not supported by all OS versions).

▼ To Display Host Status Information Using the CLI

Use the `show /HOST status` command to display information about the host server's platform ID and status.

- **Type:**

```
-> show /HOST status
```

The command returns information similar to the following:

```
-> show /HOST status
  Properties:
    status = Solaris Running

  Commands:
    cd
    set
    show
    show ->
```


Managing the Service Processor

This chapter contains information on ILOM properties on the Sun Netra T5440 server that augment the array of properties that are common to ILOM on other platforms. In particular, this chapter covers properties in the /SP namespace. This chapter consists of:

- “Storing Customer Information” on page 17
- “Changing Service Processor Settings to Factory Defaults” on page 19
- “Modifying Console Escape Characters” on page 20
- “Changing Configuration Policy Settings” on page 21
- “Displaying Power Management Metrics” on page 24
- “Managing Network Access” on page 26
- “Managing SSH Server Settings” on page 28

Storing Customer Information

This section describes ILOM features that enable you to store information (for purposes such as inventory control or site resource management) on the SP and FRU PROMs.

- “To Change Customer FRU Data Using the CLI” on page 18
- “To Change System Identification Information Using the CLI” on page 18
- “To Change Customer Identification Information Using the Web Interface” on page 18

▼ To Change Customer FRU Data Using the CLI

Use the /SP customer_fru data property to store information in all FRU PROMs.

- Type:

```
-> set /SP customer_fru data="data"
```

Note – The data string ("data") must be enclosed in quote marks.

▼ To Change System Identification Information Using the CLI

Use the /SP system_identifier property to store customer identification information.

- Type:

```
-> set /SP system_identifier="data"
```

▼ To Change Customer Identification Information Using the Web Interface



The screenshot shows the Sun Integrated Lights Out Manager (ILOM) web interface. At the top, there is a navigation bar with "ABOUT", "REFRESH", and "LOG OUT" buttons. Below this, the user role is "Administrator (root)" and the SP Hostname is "SUNSP00144F3F8CAF". The main title is "Sun™ Integrated Lights Out Manager" with the Java logo and "Sun™ Microsystems, Inc." below it. A menu bar contains "System Information", "System Monitoring", "Configuration", "User Management", "Remote Control", and "Maintenance". Under "System Information", there are sub-menus: "Versions", "Session Time-Out", "Components", "Fault Management", and "Identification Information". The "Identification Information" sub-menu is selected, showing the title "Identification Information" and the instruction "Configure identification information." Below this, there are three input fields: "Customer FRU Data:" with the value "my fru data", "SP Hostname:" with the value "SUNSP00144F3F8CAF", and "SP System Identifier:" with the value "my system". A "Save" button is located at the bottom left of the form.

ILOM provides features that enable you to store information on FRUs and the SP.

1. Log into the ILOM web interface as Administrator (`root`) to open the web interface.
2. Select System Information --> Identification Information.
3. Edit the Customer FRU data field.
4. View the SP Hostname.
5. Edit the SP System Identifier field.
6. Click Save.

Changing Service Processor Settings to Factory Defaults

This section describes how to set service processor settings back to the factory defaults.

- [“To Reset the Service Processor Settings to Factory Default Values Using the CLI” on page 19](#)
- [“To Reset the Service Processor Settings to Factory Defaults Using the Web Interface” on page 20](#)

▼ To Reset the Service Processor Settings to Factory Default Values Using the CLI

Use the `reset_to_defaults` property to set all ILOM configuration properties back to their factory default values. The `all` option sets the ILOM configuration and all user information back to the factory default values.

1. At the `->` prompt, type the following command:

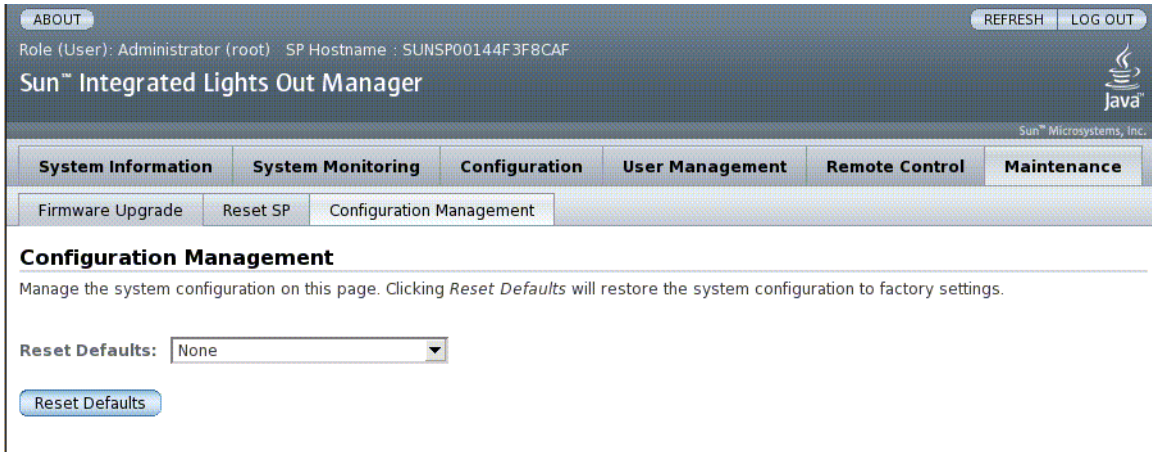
```
-> set /SP reset_to_defaults=all
```

where for `reset_to_defaults` can be set to one of the following:

- `none` – Make no changes.
- `configuration` – Preserve the user database.
- `all` – Reset (clear) the user database.

2. Reset the service processor so that the new property value can take effect.

▼ To Reset the Service Processor Settings to Factory Defaults Using the Web Interface



The screenshot shows the Sun Integrated Lights Out Manager (ILOM) web interface. At the top, there is a navigation bar with "ABOUT" on the left and "REFRESH" and "LOG OUT" on the right. Below this, the user role is "Administrator (root)" and the SP Hostname is "SUNSP00144F3F8CAF". The main title is "Sun™ Integrated Lights Out Manager" with the Java logo and "Sun™ Microsystems, Inc." on the right. A horizontal menu contains "System Information", "System Monitoring", "Configuration", "User Management", "Remote Control", and "Maintenance". Under "Configuration", there are sub-tabs for "Firmware Upgrade", "Reset SP", and "Configuration Management". The "Configuration Management" section is active, showing the heading "Configuration Management" and a sub-heading "Reset Defaults". Below this, there is a text box labeled "Reset Defaults:" with a dropdown menu currently set to "None". A "Reset Defaults" button is located below the dropdown.

1. Log into the ILOM web interface as Administrator (`root`) to open the web interface.
2. Select Maintenance --> Configuration Management.
3. Select a Reset Defaults value.
4. Click Save.

Modifying Console Escape Characters

This section describes creating new character combinations for use as escape characters.

▼ To Change Console Escape Characters Using the CLI

Use the `/SP/console escapechars` property to change the escape character sequence to switch from a system console session back to ILOM.

- **Type:**

```
-> set /SP/console escapechars=x.
```

where `xx` are any printable characters.

The sequence is limited to two characters. The second character is always `.` (Period). The default value is `#.` (Hash-Period). The sequence can be customized.

Note – Changing the escape character does not take effect in a currently active console session.

Changing Configuration Policy Settings

This section describes managing configuration system policies using ILOM.

- [“To Specify Backup of the User Database Using the CLI” on page 21](#)
- [“To Specify Host Power-On Policy Using the CLI” on page 22](#)
- [“To Disable or Re-Enable Power On Delay Using the CLI” on page 23](#)
- [“To Manage Configuration Policy Settings Using the Web Interface” on page 23](#)

▼ To Specify Backup of the User Database Using the CLI

The `/SP/policy BACKUP_USER_DATA` property specifies whether the local user database on ILOM (that is, user, password, and permission information) should be backed up. When this property is set to `enable`, this data is backed up on the removable system configuration card (SCC PROM) on the system.

- **Type:**

```
-> set /SP/policy BACKUP_USER_DATA=value
```

where the *value* can be one of the following:

- enabled – Backs up the user database to the SCC (This is the default value).
- disabled – No backup.

For example, if you want the local user database on ILOM to be backed up, type the following command:

```
-> set /SP/policy BACKUP_USER_DATA=enabled
```

▼ To Specify Host Power-On Policy Using the CLI

Use the `/SP/policy HOST_LAST_POWER_STATE` property to control the behavior of the server after an unexpected power outage. When external power is restored, the ILOM service processor starts to run automatically. Normally, the host power is not turned on until you use ILOM to turn it on.

ILOM records the current power state of the server in non-volatile storage. If the `HOST_LAST_POWER_STATE` policy is enabled, ILOM can restore the host to the previous power state. This policy is useful in the event of a power failure, or if you physically move the server to a different location.

For example, if the host server is running when power is lost and the `/SP/policy HOST_LAST_POWER_STATE` property is set to `disabled`, the host server remains off when power is restored. If the `/SP/policy HOST_LAST_POWER_STATE` property is set to `enabled`, the host server restarts when the power is restored.

- **At the `->` prompt, type the following command:**

```
-> set /SP/policy HOST_LAST_POWER_STATE=enabled
```

where the value for this property can be one of the following:

- enabled – When power is restored, returns the server to the state it was in before the power was removed.
- disabled – Keeps the server off when power is applied.

If you enable this property, you must configure `/SP/policy HOST_POWER_ON_DELAY` as well. For further information, see [“To Disable or Re-Enable Power On Delay Using the CLI” on page 23](#)

▼ To Disable or Re-Enable Power On Delay Using the CLI

Use the `/SP/policy HOST_POWER_ON_DELAY` property to cause the server to wait for a short time before powering on automatically. The delay is a random interval of one to five seconds. Delaying the server poweron helps minimize current surges on the main power source. This poweron delay is important when multiple servers in racks power on after a power outage.

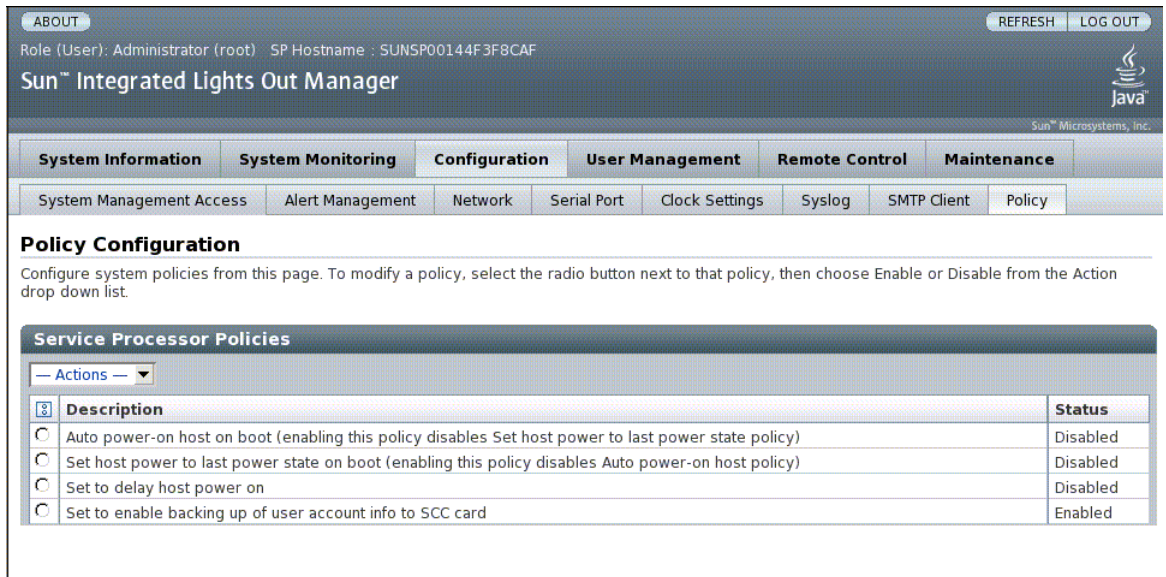
This property takes effect only if `/SP/policy HOST_LAST_POWER_STATE` is set to enabled.

- **Type:**

```
-> set /SP/policy HOST_POWER_ON_DELAY=value
```

where *value* can be enabled or disabled (default).

▼ To Manage Configuration Policy Settings Using the Web Interface



The screenshot shows the Sun Integrated Lights Out Manager (ILOM) web interface. The top navigation bar includes "ABOUT", "REFRESH", and "LOG OUT". The user role is "Administrator (root)" and the SP Hostname is "SUNSP00144F3F8CAF". The main menu includes "System Information", "System Monitoring", "Configuration", "User Management", "Remote Control", and "Maintenance". The "Configuration" menu is expanded, showing "System Management Access", "Alert Management", "Network", "Serial Port", "Clock Settings", "Syslog", "SMTP Client", and "Policy". The "Policy Configuration" section is active, displaying "Service Processor Policies". A table lists four policies with their descriptions and current status.

Description	Status
<input type="radio"/> Auto power-on host on boot (enabling this policy disables Set host power to last power state policy)	Disabled
<input type="radio"/> Set host power to last power state on boot (enabling this policy disables Auto power-on host policy)	Disabled
<input type="radio"/> Set to delay host power on	Disabled
<input type="radio"/> Set to enable backing up of user account info to SCC card	Enabled

1. Log into the ILOM web interface as Administrator (`root`) to open the web interface.

2. Select Configuration --> Policy.
 3. Click the Policy radio button of the policy you want to change.
 4. Select an Action value to apply the Action (enable or disable) you have chosen.
-

Displaying Power Management Metrics

This section describes using ILOM to view the server's power metrics. Topics include:

- ["To View Power Management Properties Using the CLI" on page 25](#)
- ["To View the Total Power Consumed By the System" on page 25](#)
- ["To View Power Management Properties Using the Web Interface" on page 26](#)

▼ To View Power Management Properties Using the CLI

- Type:

```
-> show /SP/powermgmt
```

For example,

```
-> show /SP/powermgmt

/SP/powermgmt
  Targets:

  Properties:
    actual_power = 280
    permitted_power = (none)
    available_power = (none)
    control = local
    policy = performance
    regulated_budget = (none)
    elastic_budget = (none)

  Commands:
    cd
    set
    show
```

where

- `actual_power` displays the input power (in watts) consumed by all power supplies in the system.
- `available_power` displays the input power capacity (in watts) that is available to system components.
- `permitted_power` displays the maximum power consumption (in watts) expected.

▼ To View the Total Power Consumed By the System

The value of `/SYS/VPS` is equivalent to the value of `/SP/powermgmt actual_power`.

- **Type:**

```
-> show /SYS/VPS
```

For example,

```
-> show /SYS/VPS
/SYS/VPS
  Targets:
  Properties:
    type = Power Unit
    class = Threshold Sensor
    value = 306.800 Watts
    upper_nonrecov_threshold = 1451.40 Watts
    upper_critical_threshold = 1433.70 Watts
    upper_noncritical_threshold = 1298.00 Watts
    lower_noncritical_threshold = N/A
    lower_critical_threshold = N/A
    lower_nonrecov_threshold = N/A
  Commands:
    cd
    show
```

▼ To View Power Management Properties Using the Web Interface

1. Log in to the ILOM web interface as Administrator (root) to open the web interface.
2. Select System Monitoring -> Power Management.
3. View the Actual Power consumption.
4. View the Permitted Power consumption.
5. View the Available Power.

Managing Network Access

This section describes managing network access to the SP using ILOM.

- [“To Disable or Re-Enable Network Access to the SP Using the CLI” on page 27](#)
- [“To Display the DHCP Server’s IP Address” on page 27](#)

▼ To Disable or Re-Enable Network Access to the SP Using the CLI

Use the `/SP/network state` property to enable or disable the service processor's network interface.

- **Type:**

```
-> set /SP/network state=value
```

where *value* can be enabled (default) or disabled.

▼ To Display the DHCP Server's IP Address

To display the IP address of the DHCP server that provided the dynamic IP address requested by the service processor, view the `dhcp_server_ip` property. To see the `dhcp_server_ip` property, do the following:

- **Type:**

```
-> show /SP/network
```

For example,

```
-> show /SP/network
/SP/network
Targets:
Properties:
  commitpending = (Cannot show property)
  dhcp_server_ip = 10.8.31.5
  ipaddress = 10.8.31.188
  ipdiscovery = dhcp
  ipgateway = 10.8.31.248
  ipnetmask = 255.255.252.0
  macaddress = 00:14:4F:7E:83:4F
  pendingipaddress = 10.8.31.188
  pendingipdiscovery = dhcp
  pendingipgateway = 10.8.31.248
  pendingipnetmask = 255.255.252.0
  state = enabled
Commands:
  cd
  set
  show
```

Managing SSH Server Settings

- “To Change the Type of SSH Keys Using the CLI” on page 28
- “To Generate a New Set of SSH Keys Using the CLI” on page 28
- “To Restart the SSH Server Using the CLI” on page 28
- “To Enable or Disable the SSH Service Using the CLI” on page 29
- “To Manage SSH Server Settings Using the Web Interface” on page 30

▼ To Change the Type of SSH Keys Using the CLI

Use the `set /SP/services/ssh generate_new_key_type` command to change the type of Secure Shell (SSH) host keys generated on your server. After changing the type, you must use the `set /SP/services/ssh generate_new_key_action` command to generate a new set of keys of the new type.

- **Type:**

```
-> set /SP/services/ssh generate_new_key_type=value
```

where *value* can be `rsa` or `dsa`.

▼ To Generate a New Set of SSH Keys Using the CLI

Use the `set /SP/services/ssh generate_new_key_action` command to generate a new set of Secure Shell (SSH) host keys.

- **Type:**

```
-> set /SP/services/ssh generate_new_key_action=true
```

▼ To Restart the SSH Server Using the CLI

Use the `set /SP/services/ssh restart_sshd_action` command to restart the SSH server after you have generated new host keys using the `set /SP/services/ssh generate_new_key_action` command. This reloads the keys into the server's dedicated data structure in memory.

- **Type:**

```
-> set /SP/services/ssh restart_sshd_action=true
```

▼ To Enable or Disable the SSH Service Using the CLI

Use the `/SP/services/ssh state` property with the `set` command to enable or disable the SSH service. If the SSH service has been disabled, you can re-enable it through the Serial Management (SER MGT) port or the ILOM web interface.

- **Type:**

```
-> set /SP/services/ssh state=value
```

where *value* is enabled (default) or disabled.

▼ To Manage SSH Server Settings Using the Web Interface

The screenshot displays the Sun Integrated Lights Out Manager (ILOM) web interface. At the top, it shows the user role as Administrator (root) and the SP Hostname as SUNSP00144F3F8CAF. The main navigation bar includes tabs for System Information, System Monitoring, Configuration, User Management, Remote Control, and Maintenance. Under the Configuration tab, there are sub-tabs for System Management Access, Alert Management, Network, Serial Port, Clock Settings, Syslog, SMTP Client, and Policy. The SSH Server sub-tab is selected, showing the SSH Server Settings page. The page includes a description of SSH server access and key generation, and fields for enabling the SSH server, generating RSA and DSA keys, and displaying their fingerprints and lengths. The RSA Public Key and DSA Public Key fields contain long alphanumeric strings.

SSH Server Settings

Configure Secure Shell server access and key generation. Newly generated keys are not used until the SSH server is restarted. When the SSH server is restarted or disabled, any CLI sessions running over SSH will be immediately terminated.

SSH Server:

RSA Key:

RSA Fingerprint: e1:92:e7:b2:dc:74:95:e1:7e:f9:18:3a:ab:54:7e:16

RSA Key Length: 1024 bits

RSA Public Key:

```
AAAAAB3NzaC1yc2EAAAABIwAAAEAAvERT9pFEm3sUg78KI7Qr
+1ws1mbwv15S01/hMTj++1jw1ebI8+u+jvHfM3z1hOROURRJc
V9KymcJnRWe1jWRjmc+UcLJWUez9xg7Mi.jfMsjqHQbmswh61
6FrSDhpcRV0kHS7L8yDT58HgHIIly6pprakG7Yd9cHek221uO
ErEqUVU=
```

DSA Key:

DSA Fingerprint: d7:03:28:55:cc:cc:4f:c5:06:99:da:7b:ec:4c:77:1a

DSA Key Length: 1024 bits

DSA Public Key:

```
AAAAAB3NzaC1kc3MAAACBAIbgDF+t1ghTF1L1tvSHN4ELU5ZQ
mX0KUL7E4KwNf0iqTgWqo6FupvBsB1k29UFVJAP2FEnw6kA0
GgFN2UC3yzzr1HtLw4Ufg00bncZwLoI0Sg8ETZGypLL1H8OFo
xJzGtqcmKxSALcy+Gwf4WMB1QOo4sblcnA3AY+jazT1ehxnRD
AAAAFQDAvFdkEm+3/xqh34ThPCq7YhnxHwAAAIb5+aiYIHhE0
GgR8SG19HvDDD1cC70p0x91rFR/r1V011ZCPecCVJ6663E6q
k+PwHoFSSJ4Op1XhHauLo6uxH6AatLgHK6br7zrjH1D6wZED
IdFXT4YTyEa8+uoRQ1KoorDggKByOq+g71s+uW/A5oEcVKFy
QxKeRp1YQI+6gmKR/QAAAIbzt6knhe1RcZyA0dtIw8APlnHr
L3cu7Z110Zn1rKpc7IOo21UUPO5JF21MEVHE8Qc/4gxjZvmP
PHOCLmqdJjQMfcmHizUheZGpHsIe9q2/qhET8UoBSQ9T0VaQ
qQhJr1r5jotcBDxRwHRTHF11FEAptNaQiC+a865P8VY8PPUo
MQ==
```

1. Log into the ILOM web interface as Administrator (root) to open the web interface.
2. Select Configuration --> SSH Server Settings.

3. Select an action from the SSH Server pulldown menu.

- Enable the SSH server
- Disable the SSH server
- Restart the SSH server

4. Click **Generate RSA Key** or **Click Generate DSA Key** to generate a new key type and a new key.

If you have generated a new key, you must restart the SSH server for the new key to take effect.

Note – When the SSH server is restarted or disabled, any CLI sessions running over SSH will be terminated immediately.

Managing Devices

This chapter contains information on ILOM properties for Oracle's Sun Netra T5440 server that augment the array of properties that are common to ILOM on other platforms. In particular, this chapter covers properties in the `/SYS` namespace.

Managing Virtual Keyswitch Settings

- [“To Control the Virtual Keyswitch Using the CLI” on page 33](#)
- [“To Control the Virtual Keyswitch Using the Web Interface” on page 34](#)

▼ To Control the Virtual Keyswitch Using the CLI

Use the `/SYS setkeyswitch_state` property to control the virtual keyswitch position of the system.

- At the `->` prompt, type the following command:

```
-> set /SYS keyswitch_state=value
```

where the `setkeyswitch_state` property has the following values:

Option	Description
normal	The system can power itself on and start the boot process.
standby	The system cannot power itself on.
diag	The system can power itself on using preset values of diagnostic properties (<code>/HOST/diag level=max</code> , <code>/HOST/diag mode=max</code> , <code>/HOST/diag verbosity=max</code>) to provide thorough fault coverage. This option overrides the values of diagnostic properties that you might have set.
locked	The system can power itself on, however you are prohibited from updating any of the flash devices or setting <code>/HOST send_break_action=break</code> .

▼ To Control the Virtual Keyswitch Using the Web Interface

You can use the web interface to control the virtual keyswitch position of the system.

The screenshot shows the Sun Integrated Lights Out Manager (ILOM) web interface. At the top, there is a navigation bar with 'ABOUT', 'REFRESH', and 'LOG OUT' buttons. Below this, the user role is 'Administrator (root)' and the SP Hostname is 'SUNSP00144F3F8CAF'. The main title is 'Sun™ Integrated Lights Out Manager' with the Sun logo and 'Sun™ Microsystems, Inc.' below it. A menu bar contains 'System Information', 'System Monitoring', 'Configuration', 'User Management', 'Remote Control', and 'Maintenance'. Under 'Remote Control', there are sub-menus: 'Remote Power Control', 'Diagnostics', 'Host Control', 'Boot Mode Settings', and 'Keyswitch'. The 'Keyswitch' sub-menu is selected, showing a 'Keyswitch' section with the text 'Configure keyswitch'. A dropdown menu for 'Keyswitch:' is set to 'Normal', and a 'Save' button is visible below it.

1. Log into the ILOM web interface as Administrator (`root`) to open the web interface.
2. Select Remote Control --> Keyswitch.

3. Select the Keyswitch state value.
4. Click Save.

IPMI Sensor Reference

Your server includes a number of IPMI-compliant sensors and indicators that measure voltages temperature ranges, and detection of when components are installed and removed. Indicators, such as Light Emitting Diodes (Leds) notify you of important server conditions, such as when service is required.

TABLE A-1 Sensors on the Sun Netra T5440 Server

Name	Path	Description
V_+3V3_STBY	/SYS/MB/V_+3V3_STBY	3.3V Standby Voltage Threshold Sensor
V_+3V3_MAIN	/SYS/MB/V_+3V3_MAIN	3.3V Main Voltage Threshold Sensor
V_+12V0_MAIN	/SYS/MB/V_+12V0_MAIN	12V Main Voltage Threshold Sensor
V_VBAT	/SYS/MB/V_VBAT	Voltage Threshold Sensor
V_VDDIO	/SYS/MB/V_VDDIO	Voltage Threshold Sensor
T_AMB	/SYS/MB/T_AMB	Ambient Temperature Threshold Sensor
I_USB <i>n</i>	/SYS/MB/I_USB <i>n</i>	USB Port (0-1) Current Sensor
PS <i>n</i> /AC_POK	/SYS/PS <i>n</i> /AC_POK	Power Supply (0-1) Power Within Specification Sensor
V_VCOREL	/SYS/MB/V_VCOREL	CPU Core Voltage Threshold Sensor
V_VCORER	/SYS/MB/V_VCORER	CPU Core Voltage Threshold Sensor
V_VMEML	/SYS/MB/V_VMEML	Left Branch Voltage Threshold Sensor
V_VMEMR	/SYS/MB/V_VMEMR	Right Branch Voltage Threshold Sensor

TABLE A-1 Sensors on the Sun Netra T5440 Server (Continued)

Name	Path	Description
VCOREL_POK	/SYS/MB/VCOREL_POK	Core Power Within Specification Sensor
VCORER_POK	/SYS/MB/VCORER_POK	Core Power Within Specification Sensor
VMEML_POK	/SYS/MB/VMEML_POK	Left Branch Power Within Specification Sensor
VMEMR_POK	/SYS/MB/VMEMR_POK	Right Branch Power Within Specification Sensor
BRn/CH0/D0/PRSNT	/SYS/MB/CMP0/BRn/CH0/D0/PRSNT	Branch (0-3) Presence Sensor
PSn/VOLT_FAULT	/SYS/PSn/VOLT_FAULT	Power Supply (0-1) Voltage Fault Sensor
PSn/TEMP_FAULT	/SYS/PSn/TEMP_FAULT	Power Supply (0-1) Temperature Fault Sensor
PSn/CUR_FAULT	/SYS/PSn/CUR_FAULT	Power Supply (0-1) Current Fault Sensor
PSn/DC_POK	/SYS/PSn/DC_POK	Power Supply (0-1) DC Power Sensor
PSn/FAN_FAULT	/SYS/PSn/FAN_FAULT	Power Supply (0-1) Fan Fault Sensor
T_TCORE	/SYS/MB/CMP0/T_TCORE	Top of Core Temperature Sensor
T_BCORE	/SYS/MB/CMP0/T_BCORE	Bottom of Core Temperature Sensor
PSn/PRSNT	/SYS/PSn/PRSNT	Power Supply (0-1) Presence Sensor
BRn/CH0/D0/T_AMB	/SYS/MB/CMP0/BRn/CH0/D0/T_AMB	Branch (0-3) Temperature Sensor
HDDn/PRSNT	/SYS/HDDn/PRSNT	Hard Disk (0-7) Presence Sensor

TABLE A-2 Indicators on Sun Netra T5440 Server

Name	Path	Description
LOCATE	/SYS/LOCATE	Locate Indicator
ACT	/SYS/ACT	System Power Activity Indicator
SERVICE	/SYS/SERVICE	Service Indicator

TABLE A-2 Indicators on Sun Netra T5440 Server (Continued) (Continued)

Name	Path	Description
CRITICAL	/SYS/CRITICAL_ALARM	Critical Alarm
MAJOR	/SYS/MAJOR_ALARM	Major Alarm
MINOR	/SYS/MINOR_ALARM	Minor Alarm
USER	/SYS/USER_ALARM	User alarm
BR _n /CH0/D0/SERVICE	/SYS/MB/CMP0/BR _n /CH0/D0/SERVICE	Branch Service Indicator
HDD _n /SERVICE	/SYS/HDD _n /SERVICE	Hard Disk (0-7) Service Indicator
HDD _n /OK2RM	/SYS/HDD _n /OK2RM	Hard Disk (0-7) Okay to Remove Indicator

ALOM CMT Compatibility Shell

Oracle's Sun Integrated Lights Out Manager (ILOM) for Oracle's Sun Netra T5440 server supports some of the features of the ALOM CMT command-line interface by means of a compatibility shell. There are significant differences between ILOM and ALOM CMT. This appendix describes those differences.

- ["Backward Compatibility Limits" on page 41](#)
 - ["Creating an ALOM CMT Shell" on page 42](#)
 - ["ILOM and ALOM CMT Command Comparison" on page 44](#)
 - ["ALOM CMT Variable Comparison" on page 52](#)
-

Backward Compatibility Limits

The backward compatibility shell supports some, but not all features of ALOM CMT. Some of the more significant differences between ILOM and ALOM CMT are described here or in the product notes for your server.

Adding a Commit Step to Procedures That Configure ILOM Network Configuration Properties

When changing the values of some ALOM CMT variables (such as network and serial port configuration variables), it was necessary to reset the system controller before the changes took effect. By comparison, in ILOM it is not necessary to reset the service processor after changing the values of comparable properties. In ILOM, if you change the value of the property and then reset the SP, you will lose the new property setting.

Instead, change the network configuration property then *commit* it using `setsc netsc_commit` in the the ALOM compatibility CLI or `set /SP/network commitpending` using the ILOM CLI. To change the serial port configuration property then commit it using `setsc ser_commit` in the the ALOM compatibility CLI or `set /SP/serial/external commitpending` using the ILOM CLI..

For example, set a static IP address using the ALOM compatibilitiy CLI:

```
sc> setsc netsc_ipaddr xxx.xxx.xxx.xxx
sc> setsc netsc_commit
```

To set the same property using the ILOM CLI:

```
-> set /SP/network pendingipaddress=xxx.xxx.xxx.xxx
Set 'pendingipaddress' to 'xxx.xxx.xxx.xxx'
-> set /SP/network commitpending=true
Set 'commitpending' to 'true'
->
```

In summary, you must *commit* the changes before they can take effect.

TABLE B-1 ALOM CMT `commit` Variables and Comparable ILOM Properties

ALOM CMT Variable	Comparable ILOM Property
<code>netsc_commit</code>	<code>/SP/network commitpending</code>
<code>ser_commit</code>	<code>/SP/serial/external commitpending</code>

Creating an ALOM CMT Shell

Your server is configured to operate under an ILOM shell, by default. You can create an ALOM compatibility shell if you prefer to use commands that resemble ALOM CMT commands to administer your server.

▼ To Create an ALOM CMT Compatibility Shell

1. Log onto the service processor with the username: root.

When powered on, the SP boots to the ILOM login prompt. The factory default password is changeme.

```
SUNSPxxxxxxxxxx login: root
Password:
Waiting for daemons to initialize...
Daemons ready

Sun(TM) Integrated Lights Out Manager

Version 2.0.0.0

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Warning: password is set to factory default.
```

2. Create a user named admin, and set the admin account role to Administrator and the CLI mode to alom.

```
-> create /SP/users/admin Enter new password: *****
Creating user...-> set /SP/users/admin role=Administrator
Set 'role' to 'Administrator'-> set /SP/users/admin cli_mode=
alomSet 'cli_mode' to 'alom'
Enter new password again: *****
Created /SP/users/admin
```

Note – The asterisks in the example will not appear when you enter your password.

You can combine the create and set commands on a single line:

```
-> create /SP/users/admin role=Administrator cli_mode=alomEnter
new password: *****
Creating user...
Creating user...
Enter new password again: *****
Created /SP/users/admin
```

3. Log out of the root account after you have finished creating the admin account.

```
-> exit
```

4. Log in to the ALOM CLI shell (indicated by the `sc>` prompt) from the ILOM login prompt

```
SUNSPxxxxxxxxxx login: admin
Password:
Waiting for daemons to initialize...

Daemons ready

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sc>
```

Using the ALOM CMT compatibility shell (with few exceptions) you can use commands that resemble the commands of ALOM CMT. Remember that the ALOM CMT compatibility shell is an ILOM interface. The comparisons between the ILOM CLI and ALOM CMT compatibility CLI are described in [“ILOM and ALOM CMT Command Comparison”](#) on page 44.

ILOM and ALOM CMT Command Comparison

The following table provides a command-by-command comparison between the command sets of ALOM CMT and the default ILOM CLI command set. Only the supported ALOM CMT command options are listed in [TABLE B-2](#). Where there are ALOM CMT command-line arguments that have no corresponding ILOM properties, those ALOM CMT arguments have been omitted. The command set of the ALOM compatibility shell provides a close approximation of the equivalent commands and arguments (where supported) in ALOM CMT.

TABLE B-2 ALOM CMT Shell Commands by Function

ALOM CMT Command	Summary	Comparable ILOM Command
Configuration Commands		
password	Changes the login password of the current user.	<code>set /SP/users/username password</code>
restartssh	Restarts the SSH server so that new host keys generated by the <code>ssh-keygen</code> command are reloaded.	<code>set /SP/services/ssh restart_sshd_action=true</code>
setalarm critical major minor user on off	Turns the alarm and associated LED on and off.	<code>set /SYS/MINOR_ALARM value=on</code>
setdate [[<i>m</i> <i>m</i> <i>d</i> <i>d</i>] <i>HHMM</i> <i>m</i> <i>m</i> <i>d</i> <i>d</i> <i>HHMM</i> [<i>cc</i>] <i>yy</i>][. <i>SS</i>]	Sets ALOM CMT date and time.	<code>set /SP/clock datetime=<i>value</i></code>
setdefaults [-a]	Resets all ALOM CMT configuration parameters to their default values. The <code>-a</code> option resets the user information to the factory default (one admin account only).	<code>set /SP reset_to_defaults=all</code>
setkeyswitch [normal stby diag locked]	Set the status of the virtual keyswitch. Setting the virtual keyswitch to standby (<code>stby</code>) powers off the server. Before powering off the host server, ALOM CMT asks for a confirmation.	<code>set /SYS keyswitch_state=<i>value</i></code>
setsc [<i>param</i>] [<i>value</i>]	Sets the specified ALOM CMT parameter to the assigned value.	<code>set <i>target</i> <i>property</i>=<i>value</i></code>
setupsc	Runs the interactive configuration script. This script configures the ALOM CMT configuration variables.	No equivalent in ILOM

TABLE B-2 ALOM CMT Shell Commands by Function (*Continued*)

ALOM CMT Command	Summary	Comparable ILOM Command
showplatform [-v]	Displays information about the host system's hardware configuration, and whether the hardware is providing service. The -v option displays verbose information about the displayed components.	show /HOST
showfru	Displays information about the field-replaceable units (FRUs) in a host server.	No equivalent in ILOM
showusers [-g <i>lines</i>]	Displays a list of users currently logged in to ALOM CMT. The display for this command has a similar format to that of the UNIX command <i>who</i> . The -g option pauses the display after the number of lines you specify for <i>lines</i> .	show /SP/sessions
showhost [<i>version</i>]	Displays version information for host-side components	show /HOST
showkeyswitch	Displays status of virtual keyswitch.	show /SYS keyswitch_state
showsc [<i>param</i>]	Displays the current non-volatile read-only memory (NVRAM) configuration parameters.	show <i>target property</i>
showdate	Displays the ALOM CMT date. ALOM CMT time is expressed in Coordinated Universal Time (UTC) rather than local time. The Solaris OS and ALOM CMT time are not synchronized.	show /SP/clock datetime

TABLE B-2 ALOM CMT Shell Commands by Function (Continued)

ALOM CMT Command	Summary	Comparable ILOM Command
ssh-keygen -l -t (rsa dsa)	Generates Secure Shell (SSH) host keys and displays the host key fingerprint on the SC.	show /SP/services/ssh/keys/dsa show /SP/services/ssh/keys/rsa
usershow [username]	Displays a list of all user accounts, permission levels, and whether passwords are assigned.	show /SP/users
useradd username	Adds a user account to ALOM CMT.	create /SP/users/username
userdel username	Deletes a user account from ALOM CMT. The -y option enables you to skip the confirmation question.	delete /SP/users/username
userdel -y username		delete -script /SP/users/username
userpassword [username]	Sets or changes a user password.	set /SP/users/username password
userperm [username] [c] [u] [a] [r]	Sets the permission level for a user account.	set /SP/users/username role=permissions (where <i>permissions</i> are Administrator or Operator)
Log Commands		
showlogs [-p logtype [p]]	Displays the history of all events logged in the ALOM CMT RAM event log, or major and critical events in the persistent log. The -p option selects whether to display entries only from the RAM event log (<i>logtype r</i>) or the persistent event log (<i>logtype p</i>).	show /SP/logs/event/list
consolehistory [-b lines -e lines -v] [-g lines] [boot run]	Displays the host server console output buffers.	No equivalent in ILOM

TABLE B-2 ALOM CMT Shell Commands by Function (*Continued*)

ALOM CMT Command	Summary	Comparable ILOM Command
Status and Control Commands		
showenvironment	Displays the environmental status of the host server. This information includes system temperatures, power supply status, front panel LED status, hard disk drive status, fan status, voltage, and current sensor status.	show -o table -level all /SYS
shownetwork [-v]	Displays the current network configuration information. The -v option shows additional information about your network, including information about your DHCP server.	show /SP/network
console [-f]	Connects to the host system console. The -f option forces the console write lock from one user to another.	start /SP/console
break [-c]	Drops the host server from running the Solaris OS software into OpenBoot PROM or kadb, depending upon the mode in which the Solaris software was booted.	set /HOST send_break_action=break
break [-D]	Drops the host server from running the Solaris OS software into OpenBoot PROM or kadb, depending upon the mode in which the Solaris software was booted.	set /HOST send_break_action=dumpcore
bootmode [normal] [reset_nvram] [config=configname] [bootscript=string]	Controls the host server OpenBoot PROM firmware method of booting.	set /HOST/bootmode <i>property=value</i> (where <i>property</i> is state, config, or script)

TABLE B-2 ALOM CMT Shell Commands by Function (Continued)

ALOM CMT Command	Summary	Comparable ILOM Command
<code>flashupdate -s IPaddr -f pathname [-v]</code>	Downloads and updates system firmware (both host firmware and ALOM CMT firmware). For ILOM, <i>ipaddr</i> must be a TFTP server. If DHCP is used, <i>ipaddr</i> can be replaced by the name of the TFTP host.	<code>load -source tftp://ipaddr/pathname</code>
<code>reset [-c]</code>	Attempts to gracefully reset the system. If that fails this option forcefully resets the system.	<code>reset /SYS</code>
<code>reset [-y] [-c]</code>		<code>reset -script /SYS</code>
<code>reset -f</code>	Forcefully resets the system	<code>reset -f /SYS</code>
<code>reset -d</code>	Attempts to gracefully reset the control domain. If that fails, this option forcefully resets the control domain.	<code>reset /HOST/domain/control</code>
<code>reset [-d] [-f]</code>	Forcefully resets the control domain.	<code>reset -f /HOST/domain/control</code>
<code>reset [-d] [-n]</code>	When resetting the control domain, this option may automatically boot, this is default behavior when the auto-boot option is not specified.	<code>set /HOST/domain/control auto-boot=disable</code> <code>reset /HOST/domain/control</code>

TABLE B-2 ALOM CMT Shell Commands by Function (*Continued*)

ALOM CMT Command	Summary	Comparable ILOM Command
reset [-d] [-f] [-n]	When resetting the control domain, this option does not automatically boot and stays at the OpenBoot ok prompt. This option overrides all reboot variables and stops the control domain at the OpenBoot ok prompt after host reset. The auto-boot? option remains unchanged, thus subsequent reset commands automatically reboot host if the auto-boot? option is set to true.	set /HOST/domain/control auto-boot= disable reset -f /HOST/domain/control
powercycle [-y] [-f]	poweroff followed by poweron. The -f option forces an immediate poweroff, otherwise the command attempts a graceful shutdown.	stop /SYS
powercycle -y		start /SYS
powercycle -f		stop -script /SYS start -script /SYS stop -force /SYS start -force /SYS
poweroff	Removes the main power from the host server. The -y option enables you to skip the confirmation question. ALOM CMT attempts to shut the server down gracefully. The -f option forces an immediate shutdown.	stop /SYS
poweroff -y		stop -script /SYS
poweroff -f		stop -force /SYS
poweron	Applies the main power to the host server or FRU.	start /SYS
setlocator [on/off]	Turns the Locator LED on the server on or off.	set /SYS/LOCATE value= <i>value</i>
showfaults [-v]	Displays current valid system faults.	show /SP/faultmgmt
clearfault <i>UUID</i>	Manually repairs system faults.	set /SYS/ <i>component</i> clear_fault_action=true

TABLE B-2 ALOM CMT Shell Commands by Function (*Continued*)

ALOM CMT Command	Summary	Comparable ILOM Command
showlocator	Displays the current state of the Locator LED as either on or off.	show /SYS/LOCATE
FRU Commands		
setfru -c <i>data</i>	The -c option enables you to store information (such as inventory codes) on all FRUs in a system.	set /SP customer_frudata= <i>data</i>
showfru [-g lines] [-s -d] [<i>FRU</i>]	Displays information about the FRUs in a host server.	No equivalent in ILOM
removefru [-y] [<i>FRU</i>]	Prepares a FRU (for example, a power supply) for removal. The -y option enables you to skip the confirmation question.	set /SYS/PS0 prepare_to_remove_action=true
Automatic System Recovery (ASR) Commands		
enablecomponent <i>asr-key</i>	Removes a component from the asr-db blacklist.	set /SYS/ <i>component</i> component_state=enabled
disablecomponent <i>asr-key</i>	Adds a component to the asr-db blacklist.	set /SYS/ <i>component</i> component_state=disabled
showcomponent <i>asr-key</i>	Displays system components and their test status (ASR state).	show /SYS/ <i>component</i> component_state
clearasrdb	Removes all entries from the asr-db blacklist.	No equivalent in ILOM
Other Commands		
help [<i>command</i>]	Displays a list of all ALOM CMT commands with their syntax and a brief description of how each command works. Specifying a command name as an option enables you to view the help for that command.	help

TABLE B-2 ALOM CMT Shell Commands by Function (*Continued*)

ALOM CMT Command	Summary	Comparable ILOM Command
resetsc	Reboots ALOM CMT. The <code>-y</code> option enables you to skip the confirmation question.	<code>reset /SP</code>
resetsc <code>-y</code>		<code>reset -script /SP</code>
userclimode	Sets the type of shell to <i>shelltype</i> , where <i>shelltype</i> is default or alom.	<code>set /SP/users/username cli_mode=<i>shelltype</i></code>
logout	Logs out from an ALOM CMT shell session.	<code>exit</code>

ALOM CMT Variable Comparison

The following table displays ALOM CMT variables and the ILOM properties to which they can be compared. The comparison does not imply a one-to-one mapping. To understand the ILOM properties it is necessary to view them in their own context, ILOM.

TABLE B-3 ALOM CMT Variables and Comparable ILOM Properties

ALOM CMT Variable	Comparable ILOM Property
diag_level	/HOST/diag level
diag_mode	/HOST/diag mode
diag_trigger	/HOST/diag trigger
diag_verbosity	/HOST/diag verbosity
if_connection	/SP/services/ssh state
if_emailalerts	/SP/clients/smtp state
if_network	/SP/network state
if_snmp	/SP/services/snmp
mgt_mailalert	/SP/alertmgmt/rules
mgt_mailhost	/SP/clients/smtp address
mgt_snmptraps	/SP/services/snmp v1 v2c v3
mgt_traphost	/SP/alertmgmt/rules /SP/services/snmp port

TABLE B-3 ALOM CMT Variables and Comparable ILOM Properties *(Continued)*

ALOM CMT Variable	Comparable ILOM Property
netsc_dhcp	/SP/network pendingipdiscovery
netsc_commit	/SP/network commitpending
netsc_enetaddr	/SP/network macaddress
netsc_ipaddr	/SP/network pendingipaddress
netsc_ipgateway	/SP/network pendingipgateway
netsc_ipnetmask	/SP/network pendingipnetmask
sc_backupuserdata	/SP/policy BACKUP_USER_DATA
sc_clieventlevel	N/A
sc_cliprompt	N/A
sc_clitimeout	N/A
sc_clipasswdecho	N/A
sc_customerinfo	/SP system_identifier
sc_escapechars	/SP/console escapechars
sc_powerondelay	/SP/policy HOST_POWER_ON_DELAY
sc_powerstatememory	/SP/policy HOST_LAST_POWER_STATE
ser_baudrate	/SP/serial/external pendingspeed
ser_data	N/A
ser_parity	/SP/serial/external pendingparity
ser_stopbits	/SP/serial/external pendingstopbits
sys_autorestart	/SP autorestart
sys_autorunonerror	/SP autorunonerror
sys_eventlevel	N/A
sys_enetaddr	/HOST macaddress

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