

# Oracle ILOM Feature Updates and Release Notes Firmware Release 5.1.x



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Primary Author: Cheryl Smith, Heidi Hall

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# 1

## Using This Documentation

- **Overview** – This guide describes firmware enhancements, known issues, and workarounds for Oracle Integrated Lights Out Manager (ILOM) 5.0.x firmware.
- **Audience** – Technicians, system administrators, and authorized Oracle service providers.
- **Required knowledge** – Users should have experience managing system hardware.

## Product Documentation Library

Documentation and resources for this product and related products are available on this site [Systems Management and Diagnostics Documentation](#).

## Feedback

Provide feedback about this documentation at [Oracle Feedback](#).

# 2

## Product Accessibility

This section describes the accessibility features that are part of Oracle Integrated Lights Out Manager (ILOM) and related documentation.

Oracle strives to make its products, services, and supporting documentation usable and accessible to the disabled community. To that end, products, services, and documentation include features that make the product accessible to users of assistive technology.

For more information about Oracle's commitment to accessibility, see [Oracle's Accessibility Program](#).

### Oracle ILOM Accessibility

You can use ILOM browser user interface (BUI) to monitor and manage the server hardware. The Oracle ILOM BUI does not require a special accessibility mode; rather, its accessibility features are always available. The BUI was developed using standard HTML and JavaScript and its features conform to accessibility guidelines.

To navigate a BUI page and select items or enter commands, you can use standard keyboard inputs, such as using the Tab key to go to a selection, or the up and down arrow keys to scroll through the page. You can also make menu selections by using standard keyboard combinations.

For example, using the Oracle ILOM Open Problems BUI page, you can identify faulted memory modules (DIMMs) or processors (CPUs) that would otherwise be identified by a lit LED indicator on the motherboard. Likewise, you can use the Oracle ILOM BUI to monitor the hardware power states that are also indicated by flashing LED indicators on the hardware.

The Oracle ILOM command-line interface (CLI) is an alternative and equivalent way to access the Oracle ILOM BUI features and functionality. Because the operating systems that run on the Oracle server hardware support assistive technologies to read the content of the screen, you can use the CLI as an equivalent means to access the color-based, mouse-based, and other visual-based utilities that are part of the BUI. For example, you can use a keyboard to enter CLI commands to identify faulted hardware components, check system status, and monitor system health.

You can use the Oracle ILOM Remote Console Plus to access both a text-based serial console and a graphics-based video console that enable you to remotely redirect host server system keyboard, video, mouse, and storage devices. Note however, that the Oracle ILOM Java Remote Console Plus keyboard, video, and mouse do not support scaling of the content on a BUI page by default. You need to use assistive technology to enlarge or reduce the content in the Java Remote Console Plus display.

As an alternative method to using the BIOS Setup Utility to configure BIOS settings, Oracle ILOM provides a set of configurable properties that can help you manage the BIOS configuration parameters on an Oracle x86 server. Using Oracle ILOM, you can:

- Back up a copy of the BIOS configuration parameters to an XML file using the Oracle ILOM BUI.

- Edit the XML file using a standard XML editor. The BIOS XML tags correlate directly to the BIOS screen labels.
- Restore the XML file of the backed up or edited configuration parameters to BIOS.

The BUI and CLI methods for using Oracle ILOM are described in the accessible HTML Oracle ILOM documentation at:

- [Systems Management and Diagnostics Documentation](#)

## Documentation Accessibility

Documentation for Oracle hardware is provided in HTML and PDF formats. The HTML documents are accessible using standard operating system controls and assistive technology. PDF documents are also provided; however, PDF is not an accessible format. PDF documents are considered support documents because the PDF content is available in accessible HTML format.

Product documentation provides figures, other types of images, and screenshots that do not rely on color for interpretation. Within the figures, callouts indicate the referenced component information. The callouts are mapped within a table to provide text descriptions of the referenced parts of the figures. In addition, alternative text is provided for all tables and images that provides the context of the information and images.

Note that screen readers might not always correctly read the code examples in the documentation. The conventions for writing code require that closing braces should appear on an otherwise empty line. However, some screen readers might not always read a line of text that consists solely of a bracket or brace.

The documentation might contain links to web sites of other companies and organizations that Oracle does not own or control. Oracle neither evaluates nor makes any representations regarding the accessibility of these web sites.

You can access the accessible HTML documentation for Oracle x86 products at:

- [Servers Documentation](#)

## Diversity and Inclusion

Oracle is fully committed to diversity and inclusion. Oracle recognizes the influence of ethnic and cultural values and is working to remove language from our products and documentation that might be considered insensitive. While doing so, we are also mindful of the necessity to maintain compatibility with our customers' existing technologies and the need to ensure continuity of service as Oracle's offerings and industry standards evolve. Because of these technical constraints, our effort to remove insensitive terms is an ongoing, long-term process.



# 3

## Oracle ILOM Firmware Versions and Download Methods

- [Oracle ILOM Firmware Version Numbering Scheme](#)
- [System Firmware Downloads Using MOS](#)
- [SPARC System Firmware Downloads Using Solaris IPS](#)

### Oracle ILOM Firmware Version Numbering Scheme

Oracle ILOM uses a firmware version numbering scheme that helps you to identify the firmware version you are running on your server. This numbering scheme includes a five-field string, for example, a.b.c.d.e, where:

- a – Represents the major version of Oracle ILOM.
- b – Represents a minor version of Oracle ILOM.
- c – Represents the update version of Oracle ILOM.
- d – Represents a micro version of Oracle ILOM. Micro versions are managed per platform or group of platforms. See your platform product notes for details.
- e – Represents a nano version of Oracle ILOM. Nano versions are incremental iterations of a micro version.

For example, Oracle ILOM 5.0.2.1 would designate:

- Oracle ILOM 5 as the major version
- Oracle ILOM 5.1 as a minor version
- Oracle ILOM 5.1.2 as the first update version
- Oracle ILOM 5.1.2.1 as a micro version of 5.0.2
- Oracle ILOM 5.1.2.1.a as a nano version of 5.0.2.1

#### **Tip:**

To identify the Oracle ILOM firmware version installed on your Oracle server, click System Information > Firmware in the web interface, or type `version` in the command-line interface.

### System Firmware Downloads Using MOS

Updates to the Oracle ILOM firmware are available through standalone software updates that you can download from the My Oracle Support (MOS) web site for each Oracle server. To download these software updates from the MOS web site, see the instructions that follow.

**Note:**

For instructions on how to perform the firmware update, see Updating Oracle ILOM Firmware.

## Download Product Software and Firmware

1. Go to <http://support.oracle.com>.
2. Sign in to My Oracle Support.
3. At the top of the page, click the Patches & Updates tab.
4. In the Patch Search panel, click Product or Family (Advanced).
5. In the Product Is list box, type a full or partial product name until a list of product matches appears in the list box, and then select the product name of interest.

**Example Product Names:** Oracle Server X7-2 or SPARC M6-32.

6. In the Release Is list box:
  - a. Click the Down arrow in the Release Is list box to display a list of matching product folders.

A list of one or more product software releases appears.
  - b. Select the check box next to the software release of interest.

**For example:** X7-2 SW 1.0.1 or SPARC M6-32 Sun Systems Firmware 9.2

7. Click Search.

A Patch Search Results screen appears displaying a list of patch names and descriptions.
8. In the Patch Search Results screen, select the Patch Name of interest.
9. In the Patch Name selection, click one of the following actions:
  - **Readme** – Opens the selected patch Readme file.
  - **Add to Plan** – Adds the selected patch to a new or existing plan.
  - **Download** – Downloads the selected patch.

### Related Information

- [Firmware Downloads and Release History for Oracle Systems](#)
- [Firmware Resources](#)

## SPARC System Firmware Downloads Using Solaris IPS

The latest versions of platform firmware for selected SPARC servers are now available in the Solaris 11.3 Image Packaging System (IPS) Support Repository. System administrators can use the `pkg install` command to access the latest server platform firmware versions. The IPS firmware server packages deliver the exact same files that are currently available for download from [My Oracle Support](#). The installation of the firmware packages will only place the firmware files into the Solaris file system hierarchy. The administrator of the system must manually run the firmware update process, and then power-cycle the server to complete the firmware update process.

For more information about how to download SPARC platform firmware using the Oracle Solaris IPS method, see the following sections:

- [Before You Begin](#)
- [Download SPARC Firmware From the Solaris IPS Support Repository](#)

## Before You Begin

- Oracle Solaris 11.3 or later must be installed on the SPARC server.
- Users must have an Oracle Solaris support contract to access the Support Package Repository.
- For more information about Solaris IPS, refer to the Solaris 11.x IPS product documentation ([Oracle Solaris Life Cycle Management](#)).

## Download SPARC Firmware From the Solaris IPS Support Repository

1. Access the Oracle Solaris Support Package Repository.
2. Use the `pkg list` command to identify firmware update packages for server.

**Command Example:** `pkg list -af firmware/system/ServerType`

Package names include the name of the server.

3. Use the `pkg install` command to download the firmware package files.

**Command Example:** `pkg install firmware/system/T5-4`

The `pkg install` command places the files in the Solaris file system under `/var/firmware/ServerType`.

*Tips:*

- For subsequent downloads to the same package name, use the `pkg update` command.
  - To query the package manifest, use the `pkg contents` command.
4. Refer to the README file for instructions on how to apply the firmware update.

**Path Example:**

`/var/firmware/system/T5-4/sysfw9-0/p21342653_942e/README.html`

 **Note:**

For further firmware update instructions, see [Updating Oracle ILOM Firmware](#).

Related Information

- [Firmware Downloads and Release History for Oracle Systems](#)

# 4

## Updates to Oracle ILOM 5.1.0 Firmware

This section includes the following information about the Oracle ILOM firmware release 5.1.0.

- [Feature Enhancements and Other Changes As of Firmware Version 5.1.0](#)
- [Important Operating Notice](#)

### Feature Enhancements and Other Changes As of Firmware Version 5.1.0

The following table lists feature enhancements as well as other changes as of Oracle ILOM firmware version 5.1.0.

**Table 4-1 Feature Enhancement and Change Summary as of Oracle ILOM firmware version 5.1.0**

Feature Update	Enhancement Description	For More Details, See:
New Session Log and Changes to Audit Log	As of Oracle ILOM firmware version 5.1.0, all user session login and logout events for all Oracle ILOM user interfaces (web, CLI, and API) will be captured in the Session Log. Any user session login and logout events captured in the Audit log prior to Oracle ILOM 5.1.0 will continue to remain in the Audit Log.	<ul style="list-style-type: none"><li>• <a href="#">Managing Oracle ILOM Log Entries</a></li><li>• <a href="#">Retrieve Log-Style Resources Using GET Requests</a></li><li>• <a href="#">System Monitoring and Status</a></li></ul>
Updated Third Party Licenses	As of Oracle ILOM 5.1.0, third party license information was updated.	<ul style="list-style-type: none"><li>• <a href="#">Licensing Information</a></li></ul>

### Important Operating Notice

Updated Web Browser Support

#### **Microsoft Internet Explorer (IE) replaced by Microsoft Edge**

Microsoft has deprecated IE 11 in Windows 10 and recommends using Edge as the default browser.

For additional information, see the following:

- [Supported Web Browsers for Oracle ILOM](#)
- [Oracle Software Web Browser Support Policy](#)

# 5

## Updates to Oracle ILOM 5.1.1 Firmware

This section includes the following information about the Oracle ILOM firmware release 5.1.1.

- [Feature Enhancements and Other Changes As of Firmware Version 5.1.1](#)

### Feature Enhancements and Other Changes As of Firmware Version 5.1.1

The following table lists feature enhancements as well as other changes as of Oracle ILOM firmware version 5.1.1.

**Table 5-1 Feature Enhancement and Change Summary as of Oracle ILOM firmware version 5.1.1**

Feature Update	Enhancement Description	For More Details, See:
New Device Monitoring Properties	As of Oracle ILOM firmware version 5.1.1, new diagnostic and communication mode properties are available for configuration on supported Oracle servers.	<ul style="list-style-type: none"><li>• <a href="#">Setting Device Monitoring Configuration Properties</a></li></ul>
Updated Third Party Licenses	As of Oracle ILOM 5.1.1, third party license information was updated.	<ul style="list-style-type: none"><li>• <a href="#">Licensing Information</a></li></ul>

# 6

## Updates to Oracle ILOM 5.1.2 Firmware

This section includes the following information about the Oracle ILOM firmware release 5.1.2.

- [Feature Enhancements and Other Changes As of Firmware Version 5.1.2](#)

### Feature Enhancements and Other Changes As of Firmware Version 5.1.2

The following table lists feature enhancements as well as other changes as of Oracle ILOM firmware version 5.1.2.

**Table 6-1 Feature Enhancement and Change Summary as of Oracle ILOM firmware version 5.1.2**

Feature Update	Enhancement Description	For More Details, See:
Asynchronous Firmware Update for CLI	As of Oracle ILOM firmware version 5.1.2, the <code>-nowait</code> option can be used to upload a new firmware image in the background when using the CLI interface. After the upload has completed, manually reboot the server. To determine if the upload has completed, use command <code>show /SP/firmware/update_status</code> .	<ul style="list-style-type: none"><li>• <a href="#">Update the Server SP Firmware Image</a></li></ul>
Updated Third Party Licenses	As of Oracle ILOM 5.1.2, third party license information was updated.	<ul style="list-style-type: none"><li>• <a href="#">Licensing Information</a></li></ul>

# 7

## Updates to Oracle ILOM 5.1.3 Firmware

This section includes the following information about the Oracle ILOM firmware release 5.1.3.

- [Feature Enhancements and Other Changes As of Firmware Version 5.1.3](#)

### Feature Enhancements and Other Changes As of Firmware Version 5.1.3

The following table lists feature enhancements as well as other changes as of Oracle ILOM firmware version 5.1.3.

**Table 7-1 Feature Enhancement and Change Summary as of Oracle ILOM firmware version 5.1.3**

Feature Update	Enhancement Description	For More Details, See:
TLSv1.3 Protocol Support	<p>As of Oracle ILOM firmware version 5.1.3, web server configuration property <code>tlsv1_2</code> was replaced with properties <code>minimum_tls_version</code> and <code>maximum_tls_version</code> to support TLSv1.3, in addition to TLSv1.2, for OpenSSL 3.0.</p> <p>The <code>min</code> option for <code>minimum_tls_version</code> and the <code>max</code> option for <code>maximum_tls_version</code> are default settings that do not specify a version, but respectively use the lowest and highest protocol versions presently supported. This provides flexibility for future upgrades.</p> <p><b>Note:</b> Unlike the deprecated TLS property, it is not possible to disable web server connections using the new TLS properties.</p>	<ul style="list-style-type: none"><li>• <a href="#">Table 4-5 in <i>Modifying Default Management Access Configuration Properties</i></a></li></ul>
Updated Third Party Licenses	As of Oracle ILOM 5.1.3, third party license information was updated.	<ul style="list-style-type: none"><li>• <a href="#">Licensing Information</a></li></ul>