

Netra Modular System Product Notes

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Using This Documentation

- **Overview** – Provides late-breaking information about Oracle's Netra Modular System.
- **Audience** – Trained technicians and authorized Oracle service personnel.
- **Required Knowledge** – Training on the hazards within the equipment and how to remove and replace the hardware.

Product Documentation Library

Documentation and resources for this product and related products are available at <http://www.oracle.com/goto/netra-modular-system/docs>.

Feedback

Provide feedback about this documentation at <http://www.oracle.com/goto/docfeedback>.

Late-Breaking Information

- [“Supported Configurations” on page 9](#)
- [“Preinstalled Software” on page 10](#)
- [“IMPORTANT - Install Latest OS Updates, Patches, and Firmware” on page 10](#)
- [“Accessing Software” on page 11](#)
- [“Installing Software Updates” on page 14](#)
- [“Known Issues” on page 17](#)

Supported Configurations

Software	Product and Version
Operating Systems	<ul style="list-style-type: none">■ Oracle Linux OS 6.7 and 7.0■ Oracle Solaris 11.2 for x86■ Red Hat Enterprise Linux 6.6 and 7.0■ SUSE Linux Enterprise Server SLES 11 SP 3 and SLES 11 P3 with Xen■ Microsoft Windows Server 2012 R2 for x64
Virtualization Software	<ul style="list-style-type: none">■ Oracle VM Server 3.4.1■ VMware ESXi5.5 U2 and ESXi6.0■ KVM in Red Hat Enterprise Linux 6.6 or 7.0■ Hyper-V in Windows 12R2 x64
Configuration Software	Oracle System Assistant 1.0.0
Administration Firmware	<ul style="list-style-type: none">■ Oracle ILOM 3.2.4.40 if using NMS 1.0■ Oracle ILOM 3.2.4.56 if using NMS 1.0.1■ Oracle ILOM 3.2.6.28 if using NMS 1.1.0■ Oracle ILOM 3.2.7.24 and newer if using NMS 1.2.0 or 1.3.0
Cloud Management Software	Red Hat Enterprise Linux OpenStack Platform (x86_64) 7.0
Hardware Management Software	Oracle Hardware Management Pack is supported on: <ul style="list-style-type: none">■ Oracle Linux OS 6.7 and 7.0■ Red Hat Enterprise Linux 6.6 and 7.0■ SUSE Linux Enterprise Server SLES 11 SP 3, SLES 11 P3, and SLES 12■ Oracle VM Server 3.4.1

Preinstalled Software

The management nodes are preinstalled with an OS, software, and firmware. You can either update these, or remove them and install other supported OS, software, and firmware. For more information, refer to the [Netra Modular System Installation Guide](#).

Product	Preinstalled Version and Description
Oracle VM Server for x86	V3.4.1 http://docs.oracle.com/cd/E48724_01/index.html
Oracle System Assistant	V1.0.0 or newer http://docs.oracle.com/cd/E29422_01/
Oracle ILOM	V3.2.6.28 on management nodes, embedded on the SPs. https://docs.oracle.com/cd/E37444_01/

▼ **IMPORTANT - Install Latest OS Updates, Patches, and Firmware**

Some product features are enabled only when the latest versions of patches or firmware are installed. To retain optimal performance, security, and stability, installing the latest available patches or firmware is required.

A version release is considered a full release, which includes new features. New releases supersede previous releases and typically contain all software updates (also known as patches and point or dash releases) previously published.

The newest release of the Netra Modular System is version 1.3.0. As subsequent releases and product phases are made available, they will be posted on My Oracle Support (MOS) for download.

Software updates are made available to maintain support, add enhancements, or correct issues. See [“Accessing Software” on page 11](#).

Confirm that the newest server firmware version is installed.

- 1. Check the software and firmware.**
See [“View Node Software Versions” on page 15](#).
- 2. Ensure that the software and firmware version are at the minimum required versions or a newer releases, if available.**
See [“Preinstalled Software” on page 10](#).

3. **If required, download the latest available software release and patches from My Oracle Support at:**

<https://support.oracle.com>

See “Accessing Software” on page 11.

4. **If required, update the software and firmware.**

See “Installing Software Updates” on page 14.

Refer to the information about performing firmware updates in the *Oracle ILOM Administrator's Guide for Configuration and Maintenance*. Ensure that you perform the preparatory steps described in that document before updating the firmware.

Accessing Software

Downloads on MOS are grouped by product family, then product, then version.

Each Netra Modular System version is a bundle that contains multiple software packages and subdirectories containing software files.

There are two methods for obtaining updated software:

- **My Oracle Support** – All system firmware and software are available from My Oracle Support at <https://support.oracle.com>. See “Download the Software” on page 11.
- **Physical media request (PMR)** – You can request a DVD that contains any of the downloads (patches) available from My Oracle Support. See “Request Physical Media (Online)” on page 13.

These topics describe how to obtain software updates:

- “Download the Software” on page 11
- “Requesting Physical Media” on page 12

▼ Download the Software

1. Go to <http://support.oracle.com>.
2. Sign in to My Oracle Support.
3. At the top of the page, click the Patches and Updates tab.

The Patches and Updates screen is displayed.

4. **In the Search screen, click Product or Family (Advanced Search).**
The screen is displayed with search fields.
5. **In the Product field, type a full or partial product name until a match is displayed.**
6. **In the Release field, select a software release from the drop-down list.**
Expand the folders to see all available software releases.
7. **Click Search.**
8. **To select a release or update, click the check box next to the release or update name (you can select more than one).**
A pop-up action panel is displayed. The panel contains several action options.
9. **To download the software, click Download in the pop-up panel.**
The download begins automatically.
10. **Review the downloaded bundle, which contains multiple software packages and a set of subdirectories containing software files.**
The system management software is in an .rpm package. The other packages, such as Oracle ILOM, are in binary packages.
You will need to install the applicable software packages as needed by following separate instructions.
11. **Install the updates.**
See [“Installing Software Updates” on page 14.](#)

Requesting Physical Media

If your processes do not allow downloads from Oracle web sites, you can access the newest software release through a physical media request (PMR).

The following table describes the high-level tasks for making a physical media request and provides links for further information.

Description	Link
Gather information you will need to provide for the request.	“Information Needed for a Physical Media Request” on page 13
Make the physical media request either online or by calling Oracle Support.	“Request Physical Media (Online)” on page 13

Description	Link
	"Request Physical Media (by Phone)" on page 14

Information Needed for a Physical Media Request

You must have support contract for your product in order to make a physical media request (PMR).

Before you make the PMR, gather the following information:

- **Obtain the product name, software release version, and updates required.** It will be easier to make the request if you know the newest software release and the name of the download packages that you are requesting.
- **Have the shipping information ready.** You will need to provide a contact, phone number, email address, company name, and shipping address for the request.

▼ Request Physical Media (Online)

1. Gather the information described in ["Information Needed for a Physical Media Request" on page 13](#).
2. Go to <https://support.oracle.com> and sign in.
3. Click the Contact Us link in the upper right corner of the page.
4. In the Request Description section, do the following:
 - a. Choose Request Category->Physical Media Request.
 - b. In the Request Summary field, type:

PMR for newest software release for Netra Modular System

5. Complete the Request Details section.

Question	Your Answer
Is this a physical software media shipment request?	Yes
Which product line does the media request involve?	Oracle Products
Are you requesting a required password for a patch download?	No
Are you requesting a patch on CD/DVD?	Yes
If requesting a release on CD/DVD, please provide the release number and OS/platform?	Type the number for each download that you want from the software release.

Question	Your Answer
List the product name and version requested for the physical media shipment?	<i>Product Name:</i> Netra Modular System. <i>Version:</i> Newest software release number.
What is the OS/platform for the requested media?	If you are requesting OS-specific downloads, specify the OS here. If you are requesting system firmware only, type Generic.
Are any languages required for this shipment?	No

6. **Complete the Ship-To contact, phone number, email address, company name, and shipping address information.**
7. **Click Next.**
8. **Click Submit.**

▼ Request Physical Media (by Phone)

1. **Gather the information described in “[Information Needed for a Physical Media Request](#)” on page 13.**
2. **Call Oracle support, using the appropriate number from the Oracle Global Customer Support Contacts Directory:**
<http://www.oracle.com/us/support/contact-068555.html>
3. **Advise Oracle support that you want to make a physical media request (PMR) for the Netra Modular System release packages.**
 - **If you are able to access the specific software release and patch number information from MOS, provide this information to the support representative.**
 - **If you are not able to access the software release information, request the latest software release for the Netra Modular System product.**

Installing Software Updates

If you have not downloaded the software update packages, see “[Accessing Software](#)” on page 11.

- “[View Node Software Versions](#)” on page 15
- “[Update the Node Software](#)” on page 15
- “[Update Other Software and Firmware](#)” on page 16

- [“Configure the Cacao Framework Environment”](#) on page 16

▼ View Node Software Versions

- Do one of the following:

- **Log in to each node's SP ILOM and type the version command.**
- **Log in as root to the FMM on a netconsole and type the show command.**

For example, show /Servers/ComputeNodes/ComputeNode_03/SP system_description

▼ Update the Node Software

For detailed instructions, refer to [“Install Software and Firmware Updates”](#) in *Oracle X5 Series Servers Administration Guide* or to [“Install Software and Firmware Updates”](#) in *Oracle X6 Series Servers Administration Guide*.

1. **From the node, log in to Oracle ILOM.**

Always refer to the update README file(s) for requirements and installation instructions.

2. **Install the update by typing:**

```
load -source protocol://
username-password@node-IP/path-to-image/image.pkg
```

where *protocol* is http, https, ftp, tftp, sftp, or scp.

where *username-password@node-IP* is the user's name and password with the node's ILOM IP address.

where *path-to-image* is the directory path.

where *image.pkg* is the name of the package being installed.

For example, load -source tftp://10.10.0.215/fw x5_2_ncn-rom.3.2.6.28.r110588.pkg

Refer to the following for firmware update instructions:

http://docs.oracle.com/cd/E37444_01/html/E37446/z400371a1482689.html#ILMCMz400371a1482689

3. **Verify that the updates were installed.**

See [“View Node Software Versions”](#) on page 15.

4. Repeat [Step 2](#) and [Step 3](#) on each node for which you want the update installed.
5. On the management nodes, update the system management software:
 - a. Boot the management host OS completely prior to updating the system management software.
 - b. Update the system management software using the `rpm` command.
6. (Optional) Install an OS update.
Refer to the [Netra Modular System Installation Guide](#) and to the OS documentation.

▼ Update Other Software and Firmware

1. Refer to the README files in the bundled packages, to the stand-alone component documentation, and to the documentation for each software product. A list of related product links are provided on the Netra Modular System documentation site: <http://www.oracle.com/goto/netra-modular-system/docs>
2. Configure the Cacao software.
See “[Configure the Cacao Framework Environment](#)” on page 16.

▼ Configure the Cacao Framework Environment

Before You Begin If not previously done, configuring the Cacao Framework version 2.4.7.0 or newer is required. Configure the environment by following this procedure.

1. Log in as root to the Cacao framework.
2. Using the following example, enter commands to configure the Cacao framework.

```
$cacaoadm list-params
$cacaoadm set-param network-bind-address=0.0.0.0
$cacaoadm set-param java-flags=-Xmx128M
-Dcom.sun.management.jmxremote
-Dfile.encoding=utf-8
-Djava.endorsed.dirs=/usr/lib/cacao/lib/endorsed
```

where `0.0.0.0` is the network address and `11166` is the port number.

3. Check the software versions to ensure the installation was successful.

Related Information

- [“Supported Configurations” on page 9](#)
- [“Known Issues” on page 17](#)

New Features

With release 1.3.0, the following new features are implemented.

- Availability of the MPO coupler panel (fiber), which can be installed in place of the Ethernet fiber switches.
For more information, refer to [Netra Modular System Installation Guide](#) and [Netra Modular System Service Manual Supplement](#).
- Support and documentation for the Netra Modular System plugin for the Oracle Fabric Manager.
The plugin provides a GUI for fault management, hotswap, alarm control, host power control, and server firmware upgrade for the modular system. For more information and instructions, refer to the [Netra Modular System Plugin User's Guide for Oracle Fabric Manager](#).

Enhancements

The RFE 21547853 for automatically updating node or switch Product Identity R is now implemented in firmware version 3.2.4.56.

Known Issues

These topics list known issues and workarounds (when available).

- [“Switch Node Trees Not Fully Populated for FMM CLI \(CR 23050061\)” on page 17](#)
- [“Oracle ILOM Alert Management Rules 1-3 Reserved” on page 18](#)

Switch Node Trees Not Fully Populated for FMM CLI (CR 23050061)

Only limited support for using remote CLI through FMM is available to access Oracle Switch ES2-64 and Oracle Switch ES2-72. You can access only the SP of these switches. To access `fs_cli` or `sefos` on these switches, log on these switches directly through an FSA node.

Oracle ILOM Alert Management Rules 1-3 Reserved

For both the FMM and compute nodes, do not customize rules 1, 2, and 3 from the Oracle ILOM CLI or GUI. These rules are reserved for software management system functions on the modular system. If you change these rules, errors will occur and management functions will be adversely affected. You can customize rules 4 through 15.