

**Sun Blade 6000 Ethernet Switched NEM  
24p 10GbE Release 1.2.2 Product Notes**

**ORACLE**

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## Using This Documentation

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- **Overview** – Contains important late-breaking information about this release of Oracle's Sun Blade 6000 Ethernet Switched NEM 24p 10GbE
- **Audience** – Technicians, system administrators, and authorized service providers
- **Required knowledge** – Advanced experience troubleshooting and replacing hardware

## Product Documentation Library

Documentation and resources for this product and related products are available at <http://docs.oracle.com/cd/E19934-01/index.html>.

## Feedback

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# Sun Blade 6000 Ethernet Switched NEM 24p 10GbE Release 1.2.2 Product Notes

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These product notes provide important late-breaking information and instructions for upgrading the firmware to the latest version.

- “NEM Documentation Reading Order” on page 9
- “Introducing What's New in Release 1.2” on page 10
- “Updates to 1.2 Release From Patch Update ” on page 13
- “Supported Configurations, Operating Systems, and Required Patches” on page 14
- “Required Firmware and Kernel Drivers” on page 15
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- “Configuring TACACS+” on page 29
- “Issues Corrected in the Patch Update” on page 30
- “Issues Corrected in Prior Updates” on page 31
- “Known Issues” on page 35

## NEM Documentation Reading Order

All of the NEM product documentation and related documentation can be found at: <http://docs.oracle.com/cd/E19285-01/index.html>

Read the documentation in this order.

| Step | Document Title or Type   | Information Provided  |
|------|--|---|
| 1.   | Sun Blade 6000 Ethernet Switched NEM 24p 10GbE Release 1.2.2 Product Notes | Late-breaking information, supported configurations, and system limitations |

| Step | Document Title or Type  | Information Provided                                   |
|------|---|--|
| 2.   | Sun Blade 6000 Ethernet Switched NEM 24p 10GbE User's Guide                 | Installation instructions                              |
| 3.   | Sun Blade 6000 Ethernet Switched NEM 24p 10GbE Software Configuration Guide | Software configuration instructions                    |
| 4.   | Administration guides   | Reference and administration material for the software |

## Introducing What's New in Release 1.2

These new features are supported for this release.

- [“IPv6 Switching and Routing” on page 10](#)
- [“ONET Protocol” on page 11](#)
- [“PVRST+ Protocol” on page 11](#)
- [“Server Load Balancer” on page 12](#)
- [“Oracle ILOM 3.0 Features” on page 13](#)

## IPv6 Switching and Routing

- **Multicast Listener Discovery**

Multicast listener discovery (MLD) works with IPv6 to control the reception of multicast data in a network. MLD functions similarly to IGMP, which manages multicast groups for IPv4. The MLD snooping (MLDS) function supported in this release enables switches to forward multicast data to only hosts that need to receive the data, rather than to all ports. MLDS enables a switch to snoop or capture information from MLD packets that are being sent back and forth between hosts and a router. Based on this information, the switch adds or deletes the multicast addresses from its address table, thereby enabling or disabling multicast traffic that is flowing to individual host ports.

Refer to the *Sun Ethernet Fabric Operating System MLDS Administration Guide* for more information about this feature.

- **Open Shortest Path First version 3**

Open Shortest Path First version 3 (OSPFv3) adds support for IPv6 in the OSPF protocol. As described in RFC 2740, the fundamental mechanisms of OSPF (flooding, DR election, area support, and SPF calculations) remain unchanged in OSPFv3. However, some changes to OSPF were made to handle changes in protocol semantics between IPv4 and IPv6 and increased IPv6 address sizes.

Refer to the *Sun Ethernet Fabric Operating System OSPFv3 Administration Guide* for more information about this feature.

- **Routing Information Protocol Next Generation**

Routing Information Protocol next generation (RIPng), supported in this release, adds support for IPv6. RIPng functions similarly to RIP in IPv4 and offers the same dynamic route learning benefits. RIPng enhancements for IPv6, as detailed in RFC 2080, include support for IPv6 addresses and prefixes and the use of an all-RIP-routers multicast group address as the destination address for RIPng update messages. The IPv6 RIPng local routing table (RIB) contains a set of IPv6 RIP routes learned from all its neighboring networking devices.

Refer to the *Sun Ethernet Fabric Operating System RIPng Administration Guide* for more information about this feature.

- **Protocol Independent Multicast v6**

Protocol Independent Multicast v6 (PIMv6) adds support for IPv6 in the PIM routing protocol. PIM is designed to provide scalable inter-domain multicast routing across the internet. PIM is a collection of multicast routing protocols, each optimized for a different environment. PIM provides multicast routing and forwarding capability to a router that runs IP along with Internet Group Management Protocol (IGMP). PIM depends on IGMP for multicast group membership information. PIM routes the multicast data packets independent of any unicast routing protocol.

Release 1.2 provides support for PIMv6 Sparse Mode.

Refer to the *Sun Ethernet Fabric Operating System PIMv6 Administration Guide* for more information about this feature.

## ONET Protocol

ONET is an isolated logical grouping of downlink and uplink ports. ONET provides an internal and external isolated network connectivity for blade servers by bridging downlink ports with uplink ports that are connected to an external switched network.

In this release, only a one-to-one mapping of a downlink port to an uplink port is supported. External ports 11 to 14 are unusable.

Refer to the *Sun Ethernet Fabric Operating System ONET Administration Guide* for more information about this feature.

## PVRST+ Protocol

For an Ethernet network to function properly, only one active path must exist between two stations. Multiple active paths between stations in a bridged network can cause loops in which Ethernet frames can endlessly circulate. STP can logically break such loops and prevent looping traffic from clogging the network. The dynamic control of the topology provides continued network operation in the presence of redundant or unintended looping paths.

Rapid spanning tree is a link management protocol that provides path redundancy while preventing undesirable loops in the network, such as multiple active paths between stations by forcing redundant paths into a standby or blocked state. PVRST+, which is supported in this release of the switch, is an enhancement of RSTP that works in conjunction with VLANs to provide better control over traffic in the network. A separate spanning tree is maintained for each active VLAN in the network, providing load balancing through multiple instances of the spanning tree, fault tolerance (because failure of one spanning tree instance does not affect other spanning trees), and rapid reconfiguration support through the RSTP.

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**Note** - In PVRST+ spanning tree mode, the interface trunk encapsulation type ISL is not supported.

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Refer to the *Sun Ethernet Fabric Operating System PVRST+ Administration Guide* for more information about this feature.

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**Note** - When using the PVRST+ feature, create the entire configuration from scratch to avoid possible conflicts with features from an existing configuration saved from the previous release of the firmware.

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## Server Load Balancer

Server load balancer (SLB) provides traffic load distribution functionality for this release of the switch. Load distribution can be performed at layer 2 or layer 3 of the protocol layer.

- **SLB at layer 2.**

When used at layer 2, load balancing groups (LBGs) consist of switch port members. Load distribution is performed through the link aggregation group (LAG) hash function of the switch. Load distribution policies are based on the contents of the L2/3/4 packet header. Failover is supported at the switch port members level. Depending on the fail-over method chosen, a failed member within an LBG is replaced by another switch port or by a group of switch ports within the group. Connectivity between the switch port and the server is monitored by a health check mechanism. The access control list (ACL) capability is extended such that a LBG can be set as a target when a switch port accepts a packet. Level 2 SLB is supported only in this NEM.

- **SLB at layer 3.**

When used at layer 3, LBGs consist of server members identified by layer 3 protocol (IP) addresses. Server members are next hop targets of a targeted equal cost multiple path (ECMP) route. The LBG is identified by a Virtual IP address prefix (VIP) which is used to represent a virtual server. From the clients' point of view, the virtual server is a highly available server entity with expandable resource. Load distribution is performed through the routing hash function of the switch. Load distribution policies are based on the contents of the L3/4 packet header. Failover is supported at the server member's level. A failed member

within an LBG is replaced by another server member that is part of the same group. Health check is performed by the switch through an ICMP ping.

Refer to the *Sun Ethernet Fabric Operating System SLB Administration Guide* for more information about this feature.

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**Note** - When using the SLB feature, create the entire configuration from scratch to avoid possible conflicts with features from an existing configuration saved from the previous release of the product.

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## Oracle ILOM 3.0 Features

- **TACACS+**

TACACS+ (Terminal Access Controller Access-Control System Plus) is an access control protocol for routers, network access servers, and other networked computing devices. TACACS+ provides separate authentication, authorization and accounting services. See [“Configuring TACACS+” on page 29](#).

- **LDAP and LDAP over SSL**

Oracle ILOM supports LDAP authentication for users, based on the OpenLDAP software. LDAP is a general-purpose directory service. A directory service is a centralized database for distributed applications designed to manage the entries in a directory. Thus, multiple applications can share a single-user database. LDAP over SSL offers enhanced security to LDAP users by way of SSL technology.

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**Note** - SEFOS supports nonlocal usernames up to 14 characters.

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- **SAS2**

The SAS2 feature that was delivered in the 1.1 release of this switch can now be enabled or disabled from the Oracle ILOM CLI. See [“Enable or Disable SAS2 From Oracle ILOM” on page 23](#).

- **Oracle ILOM**

Banner configuration support.

## Updates to 1.2 Release From Patch Update

This patch update includes enhancements, change requests, and corrected issues.

- Logical Link Aggregation (LLA) is a layer 2 feature providing the aggregation of links from a server connected to two physical switches resulting in increased redundancy and capacity. LLA is only supported when the switch is running a Layer 2 configuration. LLA is

not supported in Layer 3 configurations. Refer to the *Sun Ethernet Fabric Operating System LLA Administration Guide* for more information.

- Uplink Port Trailing Feature monitors the state of the uplink port and manages the downlink ports according to the state of the uplink port. When the uplink goes down, the downlink port(s) will be shut down, providing the HA feature the feedback it needs to switch over to alternate link or path. For more details, refer to the *Uplink Trailing Administration Guide*.
- Change Request (CR) fixes. See [“Issues Corrected in the Patch Update” on page 30](#).

## Supported Configurations, Operating Systems, and Required Patches

This table lists the server modules (blades) and FEMs that are supported in a Sun Blade 6000 modular system or Sun Netra 6000 modular system chassis.

**Note** - In these product notes, the term "modular system" refers to both the Sun Blade 6000 modular system chassis and the Sun Netra 6000 modular system chassis.

| Server Module (Blade)    | FEM on Server Blade                     | Operating Systems and Required Patches   |
|--------------------------|---|--|
| Sun Blade X6275 M2 10GbE | Built in Mellanox ConnectX-2 controller | <ul style="list-style-type: none"> <li>■ Open Solaris 10 08/11</li> <li>■ SLES 10 SP3 (64 bit only)</li> <li>■ SLES 11 SP1 (64 bit only)</li> <li>■ Microsoft Windows server 2008 R2</li> </ul> <p><b>Note</b> - A server-specific driver available on the server tools and drivers ISO image or the Mellanox web site is required for 10GbE support.</p>  |
| Sun Blade X6270          | Sun Dual 10GbE PCIe 2.0                 | <ul style="list-style-type: none"> <li>■ Oracle Solaris 10 10/09 (with ixgbe driver patches 143355-03 and 143354-03 or later) and Oracle Solaris 10 5/09</li> <li>■ OpenSolaris 2009.06</li> <li>■ Windows 2008 32/64 bit, Windows Server 2008 R2, and Windows 2003 32/64 bit</li> <li>■ VMware ESX 4.0 and VMware ESX 3.5</li> <li>■ RHEL 5.3 32/64 bit and RHEL 4.8 32/64 bit</li> <li>■ SLES 11 32/64 bit, SLES 10 SP3 64 bit, and SLES 9 SP5 64 bit</li> </ul> |
| Sun Blade T6340          | Sun Dual 10GbE PCIe 2.0                 | <ul style="list-style-type: none"> <li>■ Oracle Solaris 10 10/09 (with ixgbe driver patches 143355-03 and 143354-03 or later) and Oracle Solaris 10 5/09</li> <li>■ OpenSolaris 2009.06</li> </ul>   |
| Sun Blade T6320          | Sun Dual 10GbE PCIe 2.0                 | <ul style="list-style-type: none"> <li>■ Oracle Solaris 10 10/09 (with ixgbe driver patches 143355-03 and 143354-03 or later) and Oracle Solaris 10 5/09</li> </ul>  |

| Server Module (Blade) | FEM on Server Blade            | Operating Systems and Required Patches  |
|-----------------------|--------------------------------|---|
| Sun Blade T6320       | Sun Dual 10-GbE XAUI Pass-Thru | <ul style="list-style-type: none"> <li>■ OpenSolaris 2009.06</li> <li>■ Oracle Solaris 10 10/09 (nxge driver patches 143521-02 and 143522-02 or later) and Oracle Solaris 10 5/09</li> <li>■ OpenSolaris 2009.06</li> </ul> |

**Note** - When using the Sun Blade T6320 server module with the Sun Dual 10-GbE XAUI Pass-Thru FEM and the Sun Blade 6000 Ethernet Switched NEM 24p 10GbE, firmware 7.2.5 or later is required to enable network booting. Refer to the *Sun Blade T6320 G2 and Sun Blade T6320 Server Modules Product Notes* for details.

Download and unzip the patches from <https://support.oracle.com>. Install the patches using the directions provided in the associated README files.

## Required Firmware and Kernel Drivers

- Sun Blade 6000 Ethernet Switched NEM 24p 10GbE firmware, version 1.0.0.0 or higher
- Sun Blade 6000 modular system CMM firmware version 3.1.2 or higher
- Sun Blade X6270 server module service processor firmware version 3.0.6.10 or higher
- Sun Dual 10GbE PCIe 2.0 FEM:
  - The Oracle Solaris driver, which is bundled in the Oracle Solaris 10 10/09 OS.
  - The Linux driver, version 2.0.44.14, which is available for download from the Intel web site.
  - ixgbe patches 143355-03 and 143354-03 or later. Refer to the *Sun Dual 10GbE SFP +PCIe ExpressModule Release Notes* for more information.
- Sun Dual 10-Gigabit Ethernet XAUI Pass-Thru FEM:
  - nxge driver patches 143521-02 and 143522-02 or later
  - System firmware version 7.2.5 or higher, for netboot support

## Modular System Limitations

These limitations apply to the NEM when installed in a Sun Blade 6000 modular system or Sun Netra 6000 modular system chassis.

- This NEM cannot be installed in a modular system chassis with any other type of NEM. If any other type of NEM is installed in a modular system chassis, remove those NEMs before installing this NEM.

- External SAS2 ports are not supported. Only the internal SAS2 links with appropriate REM and storage modules are supported. See [“Enabling SAS2 Functionality” on page 16](#) for more information.
- In NEBS environments, only optical links to QSFP ports of this NEM are supported. Using optical links ensures that NEBS thermal limits are met.

## Enabling SAS2 Functionality

If you plan to install this NEM with SAS2 enabled into a chassis that contains SAS1 components, you must upgrade the Sun Blade 6000 disk module firmware of your SAS1 components. See [“Important Firmware Upgrade Before Mixing SAS1 and SAS2 Components” on page 16](#) for more information.

These topics provide information about enabling SAS-2 functionality on the NEM:

- [“Important Firmware Upgrade Before Mixing SAS1 and SAS2 Components” on page 16](#)
- [“Supported Server Modules and REMs” on page 16](#)
- [“Minimum Required Software” on page 17](#)
- [“Sun Blade ZoneManager” on page 17](#)
- [“Back Up the Current Configuration Before Upgrading” on page 18](#)
- [“Enable or Disable SAS2 From Oracle ILOM” on page 23](#)

## Important Firmware Upgrade Before Mixing SAS1 and SAS2 Components

You must upgrade the Sun Blade 6000 Disk Module firmware of your SAS1 components (SAS1 NEMs and disk modules) to a firmware version that supports SAS1 and SAS2 coexistence. This upgrade must be done before you insert a SAS2 component such as this NEM into the chassis.

Refer to the *SAS1/SAS2 Compatibility Upgrade Guide* and NEM software release links for details on which devices require the upgrade, how to obtain the firmware, and how to perform the upgrade.

## Supported Server Modules and REMs

This table lists the server modules and associated REMs that are supported for use with the Sun Blade 6000 Ethernet Switched NEM 24p 10GbE.



| Server Modules (Blades)                     | SAS-2 REM          |
|---|--------------------|
| Sun Blade Server X6270 M2                   | SG-SAS6-R-REM-Z    |
|   | SG(X)-SAS6-R-REM-Z |
| Sun Blade Server T6320, T6340, T6340, T6360 | SG-SAS6-REM-Z      |
| Sun Blade Storage Module M2                 | SG-SAS6-REM-Z      |

## Minimum Required Software

This table lists minimum software versions are required to use SAS-2 with the NEM.

| Component                   | Software Version   |
|-----------------------------|--|
| CMM                         | v3.0.10.15.b r57573  |
| Sun Blade Storage Module M2 | 5.3.7  |
| Sun Blade Server X6270 M2SP | v3.0.14.12 r58608  |
| SG-SAS6-REM-Z               | <ul style="list-style-type: none"> <li>■ MPT firmware: 5.00.17.00-IR</li> <li>■ NVDATA: 05.02.00.14</li> <li>■ Util version: 7.05.05.00 (2010.05.19)</li> </ul>                  |
| G(X)-SAS6-R-REM-Z           | <ul style="list-style-type: none"> <li>■ Firmware: 2.120.63-1242</li> <li>■ Utility version: 7.05.05.00 (2010.05.19)</li> </ul>  |
|                             | Firmware and drivers can be downloaded from: <a href="http://www.lsi.com/sep/Pages/oracle/sg_x_sas6-r-rem-z.aspx">http://www.lsi.com/sep/Pages/oracle/sg_x_sas6-r-rem-z.aspx</a> |

## Sun Blade ZoneManager

Sun Blade ZoneManager is available through the Sun Blade 6000 CMM. This utility enables you to assign storage devices located on Sun Blade storage modules with SAS2-enabled server blades installed in the Sun Blade 6000 chassis.

A SAS2-enabled NEM must be installed in the chassis to enable a server blade to be zoned with storage devices on a storage blade. At this time, zoning of SAS2 external ports on the NEM is not supported. For information on setting up storage zoning, refer to the Oracle ILOM 3.0 documentation.

## Upgrading the NEM Firmware

The `Sun_Blade_6000_Ethernet_Switched_NEM_24p_10GE_sefos-1_2_2_15.pkg` package upgrades the NEM software and required components to the newest version.

If, in addition to upgrading the NEM firmware, you also want to enable SAS2 functionality, perform the additional steps noted in [“Enable or Disable SAS2 From Oracle ILOM” on page 23](#).

---

**Note** - You must be logged in as root to do the upgrade. Before upgrading the switch firmware, back up the current configuration as described in [“Back Up the Current Configuration Before Upgrading” on page 18](#).

---

Perform these tasks to upgrade the NEM firmware.

- [“Back Up the Current Configuration Before Upgrading” on page 18](#)
- [“Download the NEM Firmware Package” on page 20](#)
- [“Upgrade the NEM Firmware” on page 21](#)
- [“Enable or Disable SAS2 From Oracle ILOM” on page 23](#)

## ▼ Back Up the Current Configuration Before Upgrading

Save the current NEM configuration to a remote site before upgrading the NEM software. Refer to the *Sun Blade 6000 Ethernet Switched NEM 24p 10GbE Software Configuration Guide* for additional information.

If the switch is running the 1.1.0.x release, you can also use the backup and restore feature from Oracle ILOM to save the current Oracle ILOM and SEFOS configurations to a remote server. You can then restore the switch configuration after upgrading the firmware. See [“Include the SEFOS Configuration in Backups” on page 27](#).

---

**Note** - During the upgrade, if you answer yes to the question `Preserve existing configuration (y/n)?`, the Oracle ILOM and SEFOS configurations is automatically preserved and there is no need to explicitly restore the configuration. If a syslog server address was configured in Oracle ILOM, the address is not preserved (see CR 7022286), and you must reconfigure the syslog server setting after the upgrade or restore.

---

### 1. Configure the default IP address.

#### a. Enter Global Configuration mode.

```
SEFOS# configure terminal
```

#### b. Configure the default IP address and subnet mask as 10.0.0.100 and 255.255.0.0.

```
SEFOS(config)# default ip address 10.0.0.100 subnet-mask 255.255.0.0
```

**c. Exit Global Configuration mode.**

```
SEFOS(config)# end
```

**2. Configure the restoration file name.**



---

**Caution** - If you are upgrading the NEM from the 1.0.x.x version, you must complete [Step 2d](#) (disabling the incremental-save feature) to save the configuration correctly before upgrading.

---

**a. Enter Global Configuration mode.**

```
SEFOS# configure terminal
```

**b. Configure a configuration restoration file name for the NEM.**

```
SEFOS(config)# default restore-file myconfig.conf
```

**c. Exit Global Configuration mode.**

```
SEFOS(config)# end
```

**d. Disable the incremental save feature.**

```
SEFOS# configure terminal
SEFOS(config)# incremental-save disable
SEFOS(config)# end
```

**3. Save the current configuration for restoration.**

```
SEFOS# write startup-config
```

**4. Copy the configuration file to a remote location.**

```
SEFOS# copy startup-config tftp://12.0.0.100/switch.conf
```

**5. Exit and restart the NEM.**

---

**Note** - The NEM might currently be low on memory. The restart frees up memory for a more reliable upgrade.

---

```
SEFOS# exit
-> reset /SP
Are you sure you want to reset /SP y
Performing reset on /SP
```

6. **Log in and save the current configuration again before starting the upgrade.**

```
SEFOS# write startup-config
SEFOS# copy startup-config tftp://12.0.0.100/switch.conf
```

7. **Download the NEM firmware package.**  
See [“Download the NEM Firmware Package”](#) on page 20.

## ▼ Download the NEM Firmware Package

After backing up your current configuration, download the NEM firmware upgrade package `Sun_Blade_6000_Ethernet_Switched_NEM_24p_10GE_sefos-1_2_2_15.pkg`.

1. **Sign in to My Oracle Support at: <http://support.oracle.com>.**
2. **Select the Patches & Updates tab.**
3. **Under the Patch Search section, select Product or Family (Advanced Search).**
4. **Type `nem` in the Product field and select Sun Blade 6000 10GbE Switch NEM.**
5. **Select the down arrow in the Release field and select the Sun Blade 6000 10GbE Switch NEM folder.**
6. **Select the 1.2 release.**
7. **Click the Search button.**
8. **Click the number in the Patch Name column.**
9. **Click Download.**
10. **Click the filename of the .zip file to begin the download.**
11. **Save the file to an appropriate location.**

12. **Upgrade the firmware.**  
See [“Upgrade the NEM Firmware” on page 21.](#)

## ▼ Upgrade the NEM Firmware

---

**Note** - You must be logged in as root to perform the upgrade.

---



---

**Note** - Before upgrading the NEM firmware, back up the current configuration as described in [“Back Up the Current Configuration Before Upgrading” on page 18.](#)

---

1. **Ensure that you have a network configuration in place on the NEM.**  
For more information, refer to the *Sun Blade 6000 Ethernet Switched NEM 24p 10GbE User's Guide*.
2. **(Optional) If you have not restarted the NEM as part of backing up the configuration, restart the NEM now.**

---

**Note** - The NEM might currently be low on memory. The restart frees up memory for a more reliable upgrade.

---

```
SEFOS# exit
-> reset /SP
Are you sure you want to reset /SP y
Performing reset on /SP
```

3. **Use TFTP, FTP, or the Oracle ILOM web interface to copy the firmware image to your server.**  
The firmware image file is `Sun_Blade_6000_Ethernet_Switched_NEM_24p_10GE_sefos-1_2_2_15.pkg`.
4. **Answer the questions that appear on the screen as you proceed through the installation.**  
This example illustrates the NEM upgrade process using FTP from a server with an IP address of `192.168.1.100`.

```
-> load -source ftp://username:password@192.168.1.100/
Sun_Blade_6000_Ethernet_Switched_NEM_24p_10GE_sefos-1_2_2_15.pkg

Downloading firmware image. This will take several minutes.
...
```

NOTE: An upgrade takes about 6 minutes to complete. ILOM will enter a special mode to load new firmware. No other tasks can be performed in ILOM until the firmware upgrade is complete and ILOM is reset.

Are you sure you want to load the specified file (y/n)? **y**  
Preserve existing configuration (y/n)? **y**  
Starting FW upgrade. This will take approximately 3 minutes.

Checking "jffs2 root file system image"

Starting Root File System upgrade  
Upgrading Root File System image to partition 2  
.....  
.....  
.....  
.....  
Validating File System and updating Time Stamp.  
This will take 2-3 minutes, please wait.

Checking "compressed kernel image"

Starting kernel upgrade  
Upgrading kernel image to partition 2  
.....  
Syncing configuration files.  
.....  
Checking "FPGA image"

Starting FPGA upgrade  
Skip upgrading FPGA (same version).

Checking "U-Boot image"

Starting U-Boot upgrade  
Skip upgrading U-Boot (same version).  
Firmware update is complete.  
The system must be reset for the new image to be loaded

-> **reset /SP**  
Are you sure you want to reset /SP (y/n)? **y**  
Performing reset on /SP

If the upgrade was done while in ONET mode, you must explicitly restart ONET from Oracle ILOM after the upgrade as follows:

-> **start /NEM/onet**  
Are you sure you want to start /NEM/onet (y/n)? **y** start:  
start: Please wait while onet comes up, this can take  
anywhere from 30 seconds to 2 minutes depending on the  
configuration  
.....  
start: ONET Enabled successfully.

5. **When the NEM reboots after the upgrade, type the version command to verify that software version is upgraded.**
6. **To show the system information, type these commands.**

```
-> cd /NEM/fs_cli/
cd: Connecting to Fabric Switch CLI

ORACLESP-0110SJC-0938CB0081 SEFOS# show system information

Hardware Version           : 2.5.8_00209384
Firmware Version          : ONEM-
Switch Name                : C10 NEM 24P
System Contact             :
System Location            :
Logging Option             : Console Logging
Login Authentication Mode  : Local
Config Save Status        : Not Initiated
Remote Save Status        : Not Initiated
Config Restore Status     : Not Initiated
```

## ▼ Enable or Disable SAS2 From Oracle ILOM

By default SAS2 links are disabled on the SAS2 expander firmware for the NEM. To enable SAS2 links and to allow server modules with supported REMs to communicate with the Sun Blade Storage Module M2, you must enable SAS2 from Oracle ILOM.

---

**Note** - If you enabled SAS2 during a prior release, it stays enabled during and after the upgrade, and no other steps are required. When SAS2 is disabled, the `fru_extra_1` field shows SAS 5.3.2.0 in the output of the `show /CH/NEMx` command (where `x` is the NEM's slot number) from the CMM level. When SAS2 is enabled, the `fru_extra_1` field shows SAS 5.3.7.0 in the output of the `show /CH/NEMx` command (where `x` is the NEM's slot number) from the CMM level.

---

1. **Display the current SAS2 status.**

```
-> cd /NEM/SAS/
/NEM/SAS
/NEM/SAS-> ls
Targets:

Properties:
type = SAS Expander
sas_status = disabled
Commands:
cd
```

```
show
start
stop
```

## 2. Enable or disable SAS2 links.

### ■ To enable SAS2, select start.

```
-> cd /NEM/SAS/
/NEM/SAS
-> start
Are you sure you want to start /NEM/SAS (y/n)? y
Enabling the device will take approximately 2 minutes...

start: SAS Enabled successfully.

-> ls

/NEM/SAS
  Targets:

  Properties:
    type = SAS Expander
    sas_status = enabled
  Commands:
    cd
    show
    start
    stop
```

### ■ To disable SAS2, select stop.

```
-> cd /NEM/SAS/
/NEM/SAS
Are you sure you want to stop /NEM/SAS (y/n)? y
-> stop
Disabling the device will take approximately 2 minutes...

stop: SAS Disabled successfully.

-> ls

/NEM/SAS
  Targets:

  Properties:
    type = SAS Expander
    sas_status = disabled
  Commands:
    cd
```



```
show
start
stop
```

---

**Note** - See [“CMM Reports SAS2 on the NEM as Faulty if SAS2 Is Not Enabled \(6977266\)”](#) on page 38 for important information about upgrading the NEM firmware if you are not enabling the SAS2 functionality.

---

## ▼ Configure 1Gbps Mode on SFP+ Interfaces

The two SFP+ ports, 1 and 2 are dual-speed capable ports and can provide 1Gbps connectivity when used with the supported transceivers and configured for 1Gbps operation from the SEFOS CLI.

- To configure a 1G-MMF link, use the supported 10G/1G SFP+ transceiver (PN x2129a). The speed must be changed to 1G on the appropriate port (see example below).
- To configure a 1G-Cu (RJ45) link, use the supported SFP transceiver (PN x2123a), which provides a RJ45 interface. This is a 1G-only transceiver and the speed must be changed to 1G on the appropriate port (see the following example).




---

**Caution** - When using 1Gbps mode, autonegotiation must be disabled on the link-partner. The link-partner must be configured in 1Gbps-Forced-FDX mode.

---

1. **Obtain the SEFOS prompt.**
2. **Type these commands to configure the speed to 1G.**

For example, to configure ports 1 and 2.

```
SEFOS# config terminal
SEFOS(config)# interface range extreme-ethernet 0/1-2
SEFOS(config-if)# shutdown
SEFOS(config-if)# speed 1000
SEFOS(config-if)# no shutdown
SEFOS(config-if)# end
SEFOS# write startup-config
```

## ▼ Fine Tune the VLAN Setup

The NEM provides flexibility in managing ingress VLAN traffic. For example, you can set port ingress filtering to enabled and can also specify the acceptable frame type to implement fine-grained control on the ingress traffic. Refer to the *Sun Ethernet Fabric Operating System CLI Base Reference Manual* for details.

1. **Obtain the SEFOS prompt.**
2. **Display the default port configuration.**

For example:

```
SEFOS# show vlan port config port extreme-ethernet 0/3

Vlan Port configuration table
-----
Port Ex0/3
Port Vlan ID           : 1
Port Acceptable Frame Type : Admit All
Port Ingress Filtering  : Disabled
Port Mode               : Hybrid
Port Gvrp Status        : Enabled
Port Gmrp Status        : Enabled
Port Gvrp Failed Registrations : 0
Gvrp last pdu origin    : 00:00:00:00:00:00
Port Restricted Vlan Registration : Disabled
Port Restricted Group Registration : Disabled
Mac Based Support       : Disabled
Subnet Based Support    : Disabled
Port-and-Protocol Based Support : Enabled
Default Priority         : 0
Filtering Utility Criteria : Default
Port Protected Status   : Disabled
-----
```

3. **Reconfigure the port.**

For example, to reconfigure the 10GbE port Ex0/3 as a tagged port in vlan 3 and allowing only tagged frames.

```
SEFOS# config terminal
SEFOS(config)# vlan 3
SEFOS(config-vlan)# port extreme-ethernet 0/3
SEFOS(config-vlan)# exit
SEFOS(config)# interface extreme-ethernet 0/3
SEFOS(config-if)# switchport ingress-filter
SEFOS(config-if)# switchport acceptable-frame-type tagged
SEFOS(config-if)# end
SEFOS# show vlan port config port extreme-ethernet 0/3

Vlan Port configuration table
-----
Port Ex0/3
Port Vlan ID           : 1
Port Acceptable Frame Type : Admit
Only Vlan Tagged
Port Ingress Filtering  : Enabled
Port Mode               : Hybrid
```

```

Port Gvrp Status           : Enabled
Port Gmrp Status          : Enabled
Port Gvrp Failed Registrations : 0
Gvrp last pdu origin      : 00:00:00:00:00:00
Port Restricted Vlan Registration : Disabled
Port Restricted Group Registration : Disabled
Mac Based Support         : Disabled
Subnet Based Support      : Disabled
Port-and-Protocol Based Support : Enabled
Default Priority          : 0
Filtering Utility Criteria : Default
Port Protected Status     : Disabled

```

## Managing SEFOS Configurations

These tasks assist in managing SEFOS configurations:

- [“Include the SEFOS Configuration in Backups” on page 27](#)
- [“Restore the Configuration” on page 28](#)

### ▼ Include the SEFOS Configuration in Backups

By default, only the Oracle ILOM configuration is backed up when the backup feature is used. Complete the following tasks to include the SEFOS configuration in this backup.

1. **Before backing up your SEFOS configuration using the Oracle ILOM backup feature, complete the following steps:**

- a. **Save the NEM configuration.**

```

SEFOS# write startup-config
Building configuration ...
[OK]

```

- b. **Set a passphrase.**

```

-> cd /SP/config
/SP/config
-> set passphrase=abc123
Set 'passphrase' to 'abc123'

```

---

**Note** - The passphrase you provide must not contain the @, ' (apostrophe), " (quotes), or \ (back slash) symbols.

---

2. **Ensure that you have proper login credentials for the server where the configuration is to be backed up.**
3. **Back up the configuration to remote server.**

```
-> set dump_uri=ftp://username:password@192.168.1.100/tmp/myNEMconfig.bak
Dump successful
```

## ▼ Restore the Configuration

---

**Note** - The administrator must always reset the SNMP engine ID prior to doing the backup or restore operation. Because of CR 6934622, the SNMP engine ID (even when previously set) is not visible after a reset of the system, and the administrator must record and set the ID explicitly.

---

1. **Configure the network settings on the Oracle ILOM network management interface to communicate with the backup server.**

```
-> cd /SP/network
```

2. **Set the passphrase to the same value that was used for backup.**

See [“Include the SEFOS Configuration in Backups”](#) on page 27.

```
-> cd /SP/config
/SP/config
-> set passphrase=abc123
Set 'passphrase' to 'abc123'
```

3. **Restore the configuration from the server.**

```
-> set load_uri=ftp://username:password@192.168.1.100/tmp/myNEMconfig.bak
Load successful.
```

---

**Note** - If DHCP is used for network configuration, the DNS setting is overwritten with values supplied by the DHCP server upon restoration.

---

---

**Note** - If a syslog server address was configured in Oracle ILOM, the address is not retained when upgrading from the 1.1.0.x release (see CR 7022286). The syslog server setting must be reconfigured after the upgrade or restore.

---

## Configuring TACACS+

These topics describe how to configure TACACS+:

- [“TACACS+ Properties” on page 29](#)
- [“Configure TACACS+ Settings” on page 30](#)

## TACACS+ Properties

| CLI Property  | Default Value | Description  |
|---|---------------|--|
| address [ <i>tacacs+_server_IP_address</i> ]              | 0.0.0.0       | Specifies the IP address or DNS name of the TACACS+ server. If you use DNS, ensure that DNS is configured and functional.  |
| Defaultrole [ <i>a u o c r s Administrator Operator</i> ] | Operator      | Specifies the access role that is granted to all authenticated TACACS+ users.<br><br>This property supports the following legacy roles: <ul style="list-style-type: none"> <li>■ Administrator</li> <li>■ Operator</li> <li>■ Any individual role ID combinations where a = Admin, u = User Management, o = Operator, c = Console, r = Reset and Host Control, and s = Service.</li> </ul> |
| fs_privilege [ <i>1 15</i> ]                              | 1             | Specifies the <i>fs_privilege</i> that is used for TACACS+ authenticated users to access and control SEFOS.  |
| port [ <i>port_number</i> ]                               | 49            | Specifies the port number used to communicate with the TACACS+ server.   |
| protocol  | ip            | <i>protocol</i> identifies the TACACS+ protocol type. <i>service</i> identifies the TACACS+ service type. (see footnote) <sup>†</sup>  |
| service   | ppp           |  |
| secret [ <i>tacacs+_secret</i> ]                          | [none]        | Specifies the shared secret that is used to protect sensitive data and to ensure that the client and server recognize each other.  |
| state [ <i>enabled disabled</i> ]                         | Disabled      | Specifies whether the TACACS+ client is enabled or disabled.   |

<sup>†</sup>In the TACACS+ server, the combination of *ppp* and *ip* can be configured to send additional fields in packet data. For Oracle ILOM clients this is used to send Oracle ILOM-specific fields like *sefos-fs-privilege* and *ilom-role*.

## ▼ Configure TACACS+ Settings

### Before You Begin

**Note** - Before you configure TACACS+ settings for use with SEFOS ensure that the User Management (u) role is enabled. Also ensure that you have collected all relevant information about your TACACS+ environment, then configure the appropriate settings from Oracle ILOM to enable authentication using TACACS+.

---

1. **Log in to the Oracle ILOM CLI.**
2. **Navigate to the tacacs+ directory.**
3. **Use the set command to configure the TACACS+ properties.**
4. **Use the show command to view the TACACS+ properties.**

```
-> cd /SP/clients/tacacs+
```

```
-> set/SP/clients/tacacs+ state=enabled address=10.12.235.32
Set 'state' to 'enabled'
Set 'address' to '10.12.235.32'
```

```
-> show /SP/clients/tacacs+
/SP/clients/tacacs+
Targets:
```

```
Properties:
  address = 10.12.235.32
  defaultrole = 0
  fs_privilege = 1
  port = 49
  protocol = ip
  secret = *****
  service = ppp
  state = enabled
```

```
Commands:
  cd
  set
  show
```

## Issues Corrected in the Patch Update

These issues have been corrected in this update.

| Issue Number | Description of Corrected Issue                             |
|--------------|--|
| 22543509     | Fix for CVE-2015-5600 Bug 22686043. Fix for CVE-2015-3197. |

| Issue Number | Description of Corrected Issue                                       |
|--------------|--|
| 21164486     | sefos crashing when an snmpwalk is performed on NEM using OID sefos. |

## Issues Corrected in Prior Updates

These issues were corrected in prior product updates.

| Issue number | Description of Corrected Issue   |
|--------------|--|
| 21445917     | Fix for CVE-2015-1793.   |
| 20440855     | CVE-2015-0235 - "GHOST" Vulnerability in GLIBC   |
| 19888525     | Provide support for LLA feature on NEM.  |
| 19884205     | Please provide link-trailing feature   |
| 19689330     | Apply fixes for BASH software threat: CVE-2014-7169 / CVE-2014-6271  |
| 18976705     | CVE-2014-0224 ETC, MULTIPLE SECURITY BUGS - UPGRADE OPENSSEL   |
| 18756094     | Missing "#" in CLI Prompt  |
| 18391504     | Enhance the CLI to clear dynamic MAC addresses globally, per-VLAN, and per-interface.                                  |
| 18391464     | RIP: Triggered updates are sent from a passive interface.  |
| 18383281     | NEM restarts due to memory shortage.   |
| 18291821     | LDAPSSL, RADIUS, and TACACS+ client password authentication fails on even numbered occurrences of the password prompt. |
| 18262738     | root user login without password is possible when TACACS+ authentication is configured.                                |
| 18118742     | Unclean shutdown of the diagnostics does not release buffers/lock, can block Rx/Tx.                                    |
| 18118577     | VLAN name cannot be specified for a new VLAN in PVRST mode.  |
| 18038564     | Display CPU, memory, and disk usage from Oracle ILOM CLI.  |
| 18038543     | Display host name in an Oracle ILOM prompt.  |
| 18038361     | Copy SEFOS files from Oracle ILOM.   |
| 18038350     | Implement reset for /SYS/sefos.  |
| 18038336     | IPv6: ND/RA packets only get trapped to CPU and do not get switched to other ports.                                    |
| 18038328     | show debugging 2019 command always shows output OSPF3 - Critical debugging is on.                                      |
| 18038322     | debug npapi command: Added Rx and Tx packet dump options.  |
| 18038311     | When applying ACL to block RA from source server it blocks all ICMP.   |
| 18038285     | Support for multiple RADIUS servers.   |
| 18038275     | Support for multiple TACACS+ servers.  |
| 17943395     | NEM configuration is not restored after a power failure.   |
| 16239036     | fs_privilege accepts extra nonnumerical characters after valid value.  |
| 17435862     | A session's state is not cleaned up in SEFOS when remotely authenticated sessions exit.                                |
| 17435883     | Remotely authenticated user removed from SEFOS prematurely.  |
| 17435892     | QSFP MMF transceiver and QSFP Cu Twinax cables are not recognized by SEFOS.  |

| Issue number | Description of Corrected Issue   |
|--------------|--|
| 17435909     | Dynamic MAC entries of the port do not get flushed on STP status change.                                 |
| 17435930     | The port-channel state might not get reflected correctly by the <code>show ether summary</code> command. |
| 17435949     | Ping to broadcast IP fails over NEM.   |
| 7128865      | 1.2.1 IPv6 PMTU is restored after reboot.  |
| 7101943      | 1.2.1 shutdown opus interface does not cause <code>nxge</code> to show link down messages.               |
| 7096178      | ACLv6 permit/deny combination is not blocking traffic.   |
| 7128877      | ONEM does not return to ONET mode after reset.   |
| 7116342      | SEFOS/ONET needs to be started after upgrading firmware in ONET mode and resetting SP.                   |
| 7116607      | SNMP error messages display wrong OID.   |
| 7100720      | SLB L2: Error is seen when re-assigning a port from one LBG group to another.                            |
| 7153553      | Allow special characters to be included in the VLAN name.  |
| 2221780      | XVLAN port delete is not handled correctly.  |
| 7152313      | Watchdog exception on ONEM after shutting down Cisco 6509 port.  |
| 2221270      | Add L3 functionality to XVLAN interfaces.  |
| 7174488      | STP: Need to support the loop guard.   |
| 7167700      | ONEM link doesn't come up after repetitive shut/no shut.   |
| 2222974      | Allow debug print prior to debug thread start.   |
| 7174466      | <code>ping ipv4</code> : Add ping command options to accept source as VLAN ID or IP address.             |
| 7174467      | <code>set port gvrp disable</code> : Gobar gvrp disabled, but still needs to disable it on interface.    |
| 7007423      | Incorrect message seen when assigning ports to port-channel repeatedly.                                  |
| 7042329      | Save important log files so they exist even after a <code>reset /SP</code> command.                      |
| 7174501      | Better error message needed when <code>fs_cli</code> cannot be started.                                  |
| 7174602      | Show CRC counters.   |
| 7174820      | Do not show repeated history.  |
| 7174823      | Use Oracle ILOM source for NTPD.   |
| 2221780      | XVLAN port delete is not handled correctly.  |
| 2221270      | Add L3 functionality to XVLAN interfaces.  |
| 7035740      | Implement TACACS+ access control.  |
| 7187305      | RIP with MD5 authentication: Keychain value is not preserved after save and reboot.                      |
| 7187304      | RIP with 2k routes: Not learning all the routes from the neighbor, and crashing after a while.           |
| 7184848      | XVLAN+RIP: Route is not distributed or learned after save and reboot.                                    |
| 7179258      | Issue with <code>spanning-tree mst forward-time</code> , <code>spanning-tree mst max-age</code> .        |
| 7187210      | STP: MSTP port role and state not converged correctly during failover testing.                           |
| 7206488      | SLB: failover does not happen when standby node is available again.                                      |
| 7179564      | SLB: failover does not happen when standby node is available again.                                      |
| 7186136      | Make switch uptime and SEFOS uptime visible from Oracle ILOM.  |
| 7207591      | SEFOS restarts with PVRST config.  |
| 2198812      | SEFOS MIB access is lost due to the Agentx subagent dropping packets.                                    |
| 6899100      | Garbage characters are displayed with backspace key at the login prompt.                                 |



| Issue number | Description of Corrected Issue  |
|--------------|---|
| 6985493      | 64-bit counters in the interface MIB are not working.   |
| 7004715      | SEFOS audit log events should be routed to Oracle ILOM.   |
| 7004717      | Add cron job to allow log rotation.   |
| 7007791      | Route entry may not be added to a ECMP group when the next hop addresses are already resolved.  |
| 7015496      | Restore of SNMP community fails.  |
| 7019251      | Port speed change does not get saved across reboots if the port is a member of any LAG.   |
| 7020153      | RADIUS default role is not preserved across a reboot.   |
| 7022286      | Syslog target IP address is not preserved when upgrading firmware.  |
| 7029161      | Make hostname part of SEFOS prompt.   |
| 7029946      | [A-00002871][F-4746] IPv4/IPv6 static route is unstable after upgrade.<br><br>This fix requires you to recreate your configuration from scratch before installing the 1.1.0.11. firmware. |
| 7030829      | Routed traffic is trapped when multicast is shut down.  |
| 7033812      | Advertise hostname as system name in LLDP.  |
| 7035245      | Audit log should not display SEFOS passwords.   |
| 7036831      | Debug messages on the console are misaligned.   |
| 7038044      | RADIUS: Local root user is not able to get into SEFOS.  |
| 7039468      | Protect SEFOS special users.  |
| 7040207      | MAC learning is inconsistent across LAG (SDK 2.5.8).  |
| 7042329      | Save important log files so they exist even after a reset /SP command is issued.  |
| 7043345      | Debug messages are truncated to 80 bytes.   |
| 7043692      | SEFOS shutdown task sometimes hang forever.   |
| 7043940      | Increase maximum size of debug log file.  |
| 7046128      | cd /NEM/fs_cli accepts characters after the command without reporting an error.   |
| 7046583      | RADIUS root user can stop/start SEFOS.  |
| 7046586      | When logging in as local user with role=s the switch reports Unable to set session remote IP address.   |
| 7056299      | SEFOS is not sending a trap when CPU utilization exceeds the maximum threshold.   |
| 7058695      | Port-channel sometimes can not establish connections.   |
| 7067339      | SEFOS can not Restore if more than 10 IP addresses are used   |
| 7069057      | IP route is missing for some VLANs and breaks connectivity.   |
| 7072399      | Enable XVLAN/VLAN port sharing.   |
| 7078601      | RIP packets should not be trapped if the RIP feature is disabled.   |
| 7080854      | Creating a user with the string password displays an internal password in Oracle ILOM.  |
| 7080860      | Unable to create a user in Oracle ILOM starting with the string password.   |
| 7092642      | Static route sometimes not saved or restored correctly.   |
| 7097788      | Protocol packets on port-channels use out of range MAC addresses.   |
| 7098864      | SEFOS is not showing all PIMv4 neighbors.   |
| 7110231      | VLAN: Problem in adding VLAN entries after a save or reboot.  |

Issues Corrected in Prior Updates

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| Issue number | Description of Corrected Issue  |
|--------------|---|
| 7100755      | IP RIP authentication mode MD5 causes some routing tables not to sync or update.                                |
| 2213237      | Bad values are returned in the SEFOS MIB.   |
| 6872119      | The output of the <code>show interfaces int counters</code> command is not aligned.                             |
| 6885891      | Disable the service account by default.   |
| 6899100      | Unnecessary characters are displayed with use of the backspace key at the login prompt on the console.          |
| 6901521      | Untagged ports can show up on the default VLAN as well as where they are actually assigned.                     |
| 6916366      | Re-enable PVRST+.   |
| 6920781      | Make Oracle ILOM enterprise MIBs available on standard SNMP ports.  |
| 6920407      | SNMP request for unsupported feature MIB should not return resourceUnavailable message.                         |
| 6943438      | SNMP agent doesn't invoke the MIB handlers for Sun enterprise OIDs greater than 231.                            |
| 6947266      | ILOM backup and restore feature should support switch configuration files as well.                              |
| 6951536      | Add the ability to set <code>fs_privilege</code> attribute from the web browser.                                |
| 6952228      | Allow SEFOS to be stopped or started without a reboot.  |
| 6962823      | Upgrading switch firmware from 1.0.1.6 to version 1.1.0.0 through the web browser fails.                        |
| 6964907      | 64-bit counters in interface MIB are not working.   |
| 6966581      | Oracle ILOM restore from the telnet console restarts the session and the user can't login again.                |
| 6966772      | Oracle ILOM restore from BUI restarts the session and user can't login again.                                   |
| 6970627      | Enable Oracle ILOM advanced user authentication methods (RADIUS, etc.)  |
| 6972856      | <code>running-config</code> shows different interface type for port mirror monitor session configure.           |
| 6973258      | QoS: Weight is incorrectly calculated.  |
| 6979262      | Reduce writes to flash file system by moving <code>/var</code> and <code>/tmp</code> to <code>tmpfs</code> .    |
| 6979532      | ServiceTag should use the swordfish UUID rather than the part number.   |
| 6980869      | The <code>create user password=password</code> command does not create the <code>fs_privilege</code> attribute. |
| 6985379      | Enable DNS.   |
| 6985524      | SEFOS MIB access is lost due to the <code>agentx</code> subagent dropping packets.                              |
| 6985910      | Ping fails, the switch drops ICMP echo reply packets.   |
| 6987118      | Re-setting the same serial port configuration from the console causes the session to close.                     |
| 6987319      | Traffic is not what is expected when MTU is set to 1500 bytes.  |
| 6988059      | SSH v2 should be the only version in Oracle ILOM for the switch.  |
| 6988496      | Assigning a port to a VLAN does not remove the port as a member of VLAN 1.                                      |
| 6989048      | Packets might be dropped when using Q-in-Q interoperability in certain configurations.                          |
| 6990073      | The NEM SP does not blink the OK LED while the SP is booting.   |
| 6993233      | MIB files are missing for OSPF and some bridge OIDs.  |
| 6994749      | The <code>help password</code> command shows some unnecessary characters.                                       |
| 6994852      | Disabling ServiceTag doesn't close ServiceTag Listener port.  |
| 6994875      | Issue with <code>stop /NEM/fs_cli</code> and <code>stop /NEM/sefos</code> .                                     |
| 6991712      | The switch crashes when changing mtu size.  |
| 6992172      | CLI - The switch's CLI does not have any commands to show counter and packet types for a queue.                 |

| Issue number | Description of Corrected Issue  |
|--------------|---|
| 6992476      | Cannot login to Oracle ILOM.  |
| 6993232      | Enable Agentx to forward OIDs originating from SEFOS.   |
| 6993286      | User login name and login prompt are capitalized.   |
| 6993669      | QOS: set meter command does not work with some parameters.  |
| 6993790      | Email-alert is not working.   |
| 6994351      | When a RADIUS user has an Oracle ILOM role of <code>aucr</code> , the show command in Oracle ILOM does not work properly on the switch. |
| 6996351      | Need the remote IP address to be included in Oracle ILOM logging.   |
| 6997619      | Multiple administrators configuring the switch at the same time can generate a bad configuration file.                                  |
| 6998458      | Disabling SNMP can hang Oracle ILOM.  |
| 6999896      | Events are not generated for fan faults.  |
| 7000727      | Unexpected carriage return is added at end of the 1st line when displayed data spans 2 console lines.                                   |
| 7001228      | Timezone changes are not reflected in SEFOS without restart.  |
| 7002324      | QoS: set meter command failed.  |
| 7004641      | The console connection should always be available.  |
| 7005015      | The switch fails to power on during hot plug test.  |
| 7008862      | The port-channel configuration is incompatible with range mode.   |
| 7014291      | Change SEFOS incremental save SW default to disabled.   |
| 7030305      | IP ACLs block ARP.  |
| 7030991      | Make hostname part of the SEFOS prompt.   |
| 7057085      | Add an option to show VLANs in ascending order (new token: show VLAN ascending).  |
| 7068895      | NEM0 hung and required power cycling to recover. Configuration was lost.  |
| 7078601      | RIP packets should not be trapped if the RIP feature is disabled.   |
| 7082585      | PVRST+: Remove unused tokens.   |
| 7082599      | SEFOS: Disable the hardware flow control by default.  |

## Known Issues

The following known issues exist at the time of this release.

- [“SLB-L2 Error is Seen When Reassigning a Port From One LBG Group to Another \(7100720\)” on page 36](#)
- [“SLB Must Not Allow Different VLANs in the Same Group \(7095155\)” on page 36](#)
- [“SLB L2 Cannot Create More Than Two Groups, SLB L2 Limits to Two LBGs \(7092380\)” on page 36](#)
- [“Manually Deleting Static Route Does Not Affect the Corresponding SLB Entry \(7064092\)” on page 37](#)
- [“Changing the Default Value for `default-vlan-id` Could Result in VLAN Misconfiguration \(7015004\)” on page 37](#)

- “Some of the IGMP Conformance Results Don't Match Expectations (7006297 and 6997415)” on page 37
- “Ports Lock and Corresponding LEDs Stay Lit or NEM Fails to Power On After Doing Consecutive Hardware Resets (6992127)” on page 37
- “QoS - set algo-type tailDrop queue-drop-algo Does Not Work (6991230)” on page 38
- “Packets Might Be Dropped When Using Q-in-Q Interop in Certain Configurations (6989048)” on page 38
- “The no default-metric [,short(1-16)>] Command Does Not Work as Documented (6987482)” on page 38
- “CMM Reports SAS2 on the NEM as Faulty if SAS2 Is Not Enabled (6977266)” on page 38
- “Using vlan 1 as Shown in Various Examples in the Documentation Generates Error Codes (6968484)” on page 39
- “When Multiple Configuration Scripts Are Run in Parallel, SEFOS Application Can Crash (6936742)” on page 39
- “Unlit Link and Activity LEDs for the SFP+ Ports (6873825)” on page 39
- “The switch Command Line Option Is Unsupported” on page 39
- “SSL V3.0 POODLE DISABLE SSL V3 (19842641)” on page 39

## **SLB-L2 Error is Seen When Reassigning a Port From One LBG Group to Another (7100720)**

When a node member is reassigned from one SLB-L2 LBG to another SLB-L2 LBG, you must first remove the original LBGs and reestablish the two new groups.

## **SLB Must Not Allow Different VLANs in the Same Group (7095155)**

SLB does not support multiple VLANs in the same SLB group. Such a configuration has unexpected results for fail-over. Currently, there is no prevention mechanism in place for setting up such a configuration.

## **SLB L2 Cannot Create More Than Two Groups, SLB L2 Limits to Two LBGs (7092380)**

There is no workaround for this issue.

## Manually Deleting Static Route Does Not Affect the Corresponding SLB Entry (7064092)

SLB tracks and manages static route entries that correspond to a load balancing group created by the SLB commands. If a static route entry was created by executing SLB commands, do not use the `no ip route` command to remove that static route directly.

## Changing the Default Value for `default-vlan-id` Could Result in VLAN Misconfiguration (7015004)

**Workaround:** If you need to change `default-vlan-id` from 1 (the default value) to some other value, you must do so before doing any other VLAN configuration. When using XVLAN features, only `default-vlan-id 1` is supported. In order to use the XVLAN feature, you must restore the default value of 1 for `default-vlan-id` if it was changed.

## Some of the IGMP Conformance Results Don't Match Expectations (7006297 and 6997415)

The NEM does not fully adhere to the University of New Hampshire (UNH) IGMPv3 Conformance Test Suite.

**Workaround:** No workaround is available. If you experience a suspected IGMP interoperability problem or other issue with the NEM, contact your authorized Oracle service provider.

## Ports Lock and Corresponding LEDs Stay Lit or NEM Fails to Power On After Doing Consecutive Hardware Resets (6992127)

**Workaround:** In the unlikely event that the NEM's switch ports lock upon consecutive hardware resets through CMM, complete these steps:

1. Power off the NEM from CMM: `stop /CH/NEMx`.
2. Wait five minutes while the capacitance discharges and power the NEM back on:  
`start /CH/NEMx`
3. Remove the NEM, wait five minutes while the capacitance discharges, and reinstall the NEM in the chassis.

## QoS - set algo-type tailDrop queue-drop-algo Does Not Work (6991230)

The tailDrop keyword is not supported for use with this product.

## Packets Might Be Dropped When Using Q-in-Q Interop in Certain Configurations (6989048)

**Workaround:** If you use Q-in-Q interop between the NEM and a third-party switch, manually turn on the Jumbo Frame feature on the third-party switch.

## The no default-metric [,short(1-16)>] Command Does Not Work as Documented (6987482)

**Workaround:** Ignore the keyword short when it appears in the syntax of any command and execute the command without it. Using this CR's synopsis as an example, the command is issued as no default-metric 1.

## CMM Reports SAS2 on the NEM as Faulty if SAS2 Is Not Enabled (6977266)

If you choose to upgrade to the NEM 1.2 firmware, but keep the SAS2 feature disabled, the CMM reports a fault when you run the show faulty command. Upgrade the CMM firmware to version 3.0.12.11.b or higher to fix this issue, or use the following.

| Target            | Property | Value                       |
|-------------------|----------|-----------------------------|
| /CMM/faultmgmt/1  | fru      | /CH/NEM0                    |
| /CMM/faultmgmt/1/ | class    | fault.chassis.sas.comm.fail |

**Workaround:** Clear the fault each time the NEM or the CMM is rebooted.

```
-> set /CH/NEM0/ clear_fault_action=true
Are you sure you want to clear /CH/NEM0 (y/n)? y
Set 'clear_fault_action' to 'true'
```

## Using v`lan 1` as Shown in Various Examples in the Documentation Generates Error Codes (6968484)

**Workaround:** Instead of using `vlan 1` as shown in the product documentation, use any unused VLAN.

## When Multiple Configuration Scripts Are Run in Parallel, SEFOS Application Can Crash (6936742)

The current release of the SEFOS configuration and management application doesn't support multiple, concurrent updates to the configuration database.

**Workaround:** Multiple SEFOS login sessions are allowed to read the system status at any time, however, use only one of these sessions to configure and update the NEM.

## Unlit Link and Activity LEDs for the SFP+ Ports (6873825)

Unlit Link and Activity LEDs for the SFP+ ports might appear partially lit when the LEDs are viewed from an angle.

**Workaround:** View the LEDs directly from the front of the unit.

## The `switch` Command Line Option Is Unsupported

The `switch` option in various commands is not supported when you are connected to SEFOS. In the SEFOS documentation, disregard the `switch` option listed in any command and disregard any output examples that show multiple instances. Output examples that show a single instance are valid in SEFOS.

## SSL V3.0 POODLE DISABLE SSL V3 (19842641)

**Workaround:** Disable SSLv3 from ILOM under `/SP/service/https`.

```
-> cd /SP/services/https  
/SP/services/https
```

```
-> set sslv3=disabled
Set 'sslv3' to 'disabled'

-> show
/SP/services/https
  Targets:
    ssl

  Properties:
    port = 443
    servicestate = enabled
    sslv2 = disabled
    sslv3 = disabled
    tlsv1 = enabled
    weak_ciphers = disabled

  Commands:
    cd
    set
    show
```