Sun Blade 6000 Ethernet Switched NEM 24p 10GbE 1.1

Product Notes

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Contents

Sun Blade 6000 Ethernet Switched NEM 24p 10GbE Product Notes 1.1

These product notes provide information about the Sun Blade 6000 Ethernet Switched NEM 24p 10GbE and direct you to a patch update that has been released since the initial release of the software.

New Features in Release 1.1.0

These new features are supported for this release:

- Exclusive VLAN (XVLAN) provides a discrete isolation within a traditional VLAN. For more information about configuring XVLAN, refer to the *Sun Ethernet Fabric Operating System XVLAN Administration Guide*. For information about supported XVLAN commands, refer to the *Sun Ethernet Fabric Operating System CLI Base Reference Manual*.

Note – See "CR 7015004: Changing the Default Value for default-vlan-id Could Result in VLAN Misconfiguration" on page 20 for information about the required settings for `default-vlan-id` in XVLAN configurations.

- Data center bridging (DCB) Ethernet enhancements are available to improve Ethernet networking and management in data center environments. For more information about configuring DCB, refer to the *Sun Ethernet Fabric Operating System DCB Administration Guide*. For information about supported DCB commands, refer to the *Sun Ethernet Fabric Operating System CLI Base Reference Manual*.
- Protocol Independent Multicast (PIM) is a multicast routing protocol designed to provide scalable interdomain multicast routing across the internet. There are two main PIM protocols, PIM Sparse Mode (PIM-SM) and PIM Dense Mode (PIM-DM). Release 1.1 provides support for PIM Sparse Mode (RFC 2362).
- The Internet Group Management Protocol (IGMP) (RFC 4604) implementation is used to learn and proxy group membership information. IGMP proxy substitutes the information to upstream router interface, based on the requirements of IGMP hosts. Release 1.1 provides support for IGMP proxy.
- Q-in-Q tunneling expands the VLAN space in the service provider network. This feature enables the service provider to assign a VLAN ID to each customer, without losing the original customer VLAN IDs within the service provider network (tunnel).

Note – See "CR 6989048: Packets Might be Dropped When Using Q-in-Q Interop in Certain Configurations" on page 19 for information about special requirements for third-party switches.

- SAS2 functionality is now supported. See "Enabling SAS2 Functionality" on page 5 for information about upgrading your firmware to enable SAS2.
- The following Oracle Integrated Lights Out Manager 3.0 (Oracle ILOM) 3.0 features are now supported:
  - Privileged users can now stop and start SEFOS. This functionality is needed to load a different SEFOS configuration without rebooting the NEM.
  - Remote Authentication Dial-In User Service (RADIUS) authentication of system administrators is supported. RADIUS is an authentication protocol that facilitates centralized user administration. RADIUS provides many servers shared access to user data in a central database, providing better security and

easier administration. The NEM system acts as a RADIUS client and relies on an external RADIUS server to perform the user authentication. Refer to the *Sun Blade 6000 Ethernet Switched NEM 24p 10GbE User's Guide* for details.

- Administrators can now choose to receive system alerts through email (in addition to the previously supported SNMP and IPMI alert mechanisms).
- The Oracle ILOM backup and restore feature has been enhanced to support backing up and restoring SEFOS configurations along with the rest of the Oracle ILOM configuration data. See "Include the SEFOS Configuration in Backups" on page 15.
- DNS is now enabled, allowing users to use host names when running Oracle ILOM commands that reference external systems (firmware upgrade, backup and restore, snapshot, and so on).

Updates to 1.1.0 in Patch Update 1.1.0.11

This patch update contains these changes:

- Bug fixes (see "Issues Corrected in the 1.1.0.11 Patch" on page 20)
- Updated supported configurations (see "Supported Configurations, Operating Systems, and Required Patches" on page 3)
- Updated supported server modules and REMs for SAS2 functionality (see "Supported Server Modules and REMs" on page 5)

Supported Configurations, Operating Systems, and Required Patches

The following table lists the server modules (blades) and fabric expansion modules (FEMs) that are supported for use 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.

Download and unzip the patches from `https://www.support.oracle.com`. Install the patches using the directions provided in the associated readme files.

Server Module (Blade)	FEM on Server Blade	Operating Systems and Required Patches
Sun Blade X6275 M2 10GbE	Built in Mellanox ConnectX-2 controller	• Open Solaris 10 08/11 • SLES 10 SP3 (64 bit only) • SLES 11 SP1 (64 bit only) • Microsoft Windows server 2008 R2 Note: Server-specific driver available on the server tools and drivers ISO image or the Mellanox web site is required for 10GbE support.
Sun Blade X6270	Sun Dual 10GbE PCIe 2.0	• Oracle Solaris 10 10/09 (with `ixgbe` driver patches 143355-03 and 143354-03 or later) and Oracle Solaris 10 5/09 • OpenSolaris 2009.06 • Windows 2008 32/64 bit, Windows Server 2008 R2, and Windows 2003 32/64 bit • VMware ESX 4.0 and VMware ESX 3.5 • RHEL 5.3 32/64 bit and RHEL 4.8 32/64 bit • SLES 11 32/64 bit, SLES 10 SP3 64 bit, and SLES 9 SP5 64 bit
Sun Blade T6340	Sun Dual 10GbE PCIe 2.0	• Oracle Solaris 10 10/09 (with `ixgbe` driver patches 143355-03 and 143354-03 or later) and Oracle Solaris 10 5/09 • OpenSolaris 2009.06
Sun Blade T6320	Sun Dual 10GbE PCIe 2.0	• Oracle Solaris 10 10/09 (with `ixgbe` driver patches 143355-03 and 143354-03 or later) and Oracle Solaris 10 5/09 • OpenSolaris 2009.06
Sun Blade T6320	Sun Dual 10-GbE XAUI Pass-Thru	• Oracle Solaris 10 10/09 (`nxge` driver patches 143521-02 and 143522-02 or later) and Oracle Solaris 10 5/09 • OpenSolaris 2009.06

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.

Enabling SAS2 Functionality

The SAS2 upgrade package enables SAS2 functionality and also upgrades the NEM firmware to version 1.1. If you want to enable SAS2 functionality and upgrade your NEM firmware to version 1.1, download and install the `Sun_Blade_6000_Ethernet_Switched_NEM_24p_10GE_sefos-1_1_0_11-SAS2-5_3_7_0.pkg` package as described in "Upgrade SAS2 and NEM Firmware" on page 8.

Note – 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 13 for more information.

These topics provide information about enabling SAS2 functionality on the NEM:

Supported Server Modules and REMs

The following 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)	SAS2 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

The following minimum software versions are required to use SAS2 with the Sun Blade 6000 Ethernet Switched NEM 24p 10GbE.

- 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:
  - MPT firmware: 5.00.17.00-IR
  - NVDATA: 05.02.00.14
- SG(X)-SAS6-R-REM-Z:
  - Firmware: 2.120.63-1242
  - Firmware and drivers can be downloaded from: http://www.lsi.com/sep/Pages/oracle/sg_x_sas6-r-rem-z.aspx

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 SAS2 external ports on a NEM is unsupported. For information on setting up storage zoning, refer to the *Oracle Integrated Lights Out Manager (Oracle ILOM) 3.0 Administration Guide*.

▼ 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.

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.

Note – The final part of this step (disabling the incremental-save feature) must be completed to save the configuration correctly prior to upgrade.

---

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 incremental-save (required):

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

3. Save the current configuration for restoration.

```
SEFOS(config)# write startup-config
```

4. Copy the configuration file to a remote location.

```
SEFOS(config)# copy startup-config
fttp://12.0.0.100/switch.conf
```

After you complete the upgrade, reconfigure the default IP address and restore the original configuration.

▼ Download the SAS2 Upgrade Package

After backing up your current configuration, download the NEM firmware upgrade package `Sun_Blade_6000_Ethernet_Switched_NEM_24p_10GE_sefos-1_1_0_11-SAS2-5_3_7_0.pkg` by completing the following steps:

1. **Log into My Oracle Support at:** `https://support.oracle.com`.

   If this is your first time logging in to Oracle Support, register as a new user, following the links and instructions on the site.

2. **Select Patches & Updates.**

3. **Under the Patch Search area, click the Product or Family (Advanced Search) link.**

4. **For Product, select Sun Blade 6000 10GbE Switched NEM.**

5. **For Release, select Sun Blade 6000 10GbE Switched NEM and click the 1.1 release.**

6. **Click the Search button.**

7. **From Patch Search Results, select and download the package or patch you want and its associated README.**

▼ Upgrade SAS2 and NEM Firmware

SAS2 links are disabled, by default, on the SAS2 expander firmware for the Sun Blade 6000 Ethernet Switched NEM 24p 10GbE. To enable SAS2 links and to allow server modules with supported REMs to communicate with the Sun Blade 6000 Ethernet Switched NEM 24p 10GbE, you must upgrade to firmware version 5.3.7.0.

Note – The SAS2 upgrade package also upgrades the NEM firmware to version 1.1. Before upgrading the NEM firmware, back up the current configuration by following the instructions provided in "Back Up the Current Configuration Before Upgrading" on page 6.

---

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. **Copy the following firmware image to your server and use TFTP, FTP, or the Oracle ILOM web interface:**
   `Sun_Blade_6000_Ethernet_Switched_NEM_24p_10GE_sefos-1_1_0_11-SAS2-5_3_7_0.pkg`

3. **Answer the questions that appear on the screen as you proceed through the installation.**

   This example illustrates the SAS2/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_1_0_11-SAS2-5_3_7_0.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.

Checking "SAS2x image"

Starting SAS firmware upgrade
.
SAS firmware version 5.3.2.0 currently installed.

Installing SAS firmware version 5.3.7.0 and enabling SAS
interfaces.

tftp SAS firmware (0)
tftp SAS firmware (1)
tftp SAS config page (0)
..
Checking "jffs2 root file system image"

Starting Root File System upgrade
Upgrading Root File System image to partition 2
.nand_erase: attempt to erase a bad block at page 0x00053b00
.............................................................
.............................................................
.............................................................
Checking "compressed kernel image"

Starting kernel upgrade
Upgrading kernel image to partition 2
.......
Checking "U-Boot image"

Starting U-Boot upgrade
Upgrading NEMUbootImage at reboot
```

```
.......
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
```

Upgrading the NEM Firmware

The `Sun_Blade_6000_Ethernet_Switched_NEM_24p_10GE_sefos-1_1_0_11.pkg` upgrades the NEM software and required components to version 1.1. Download this package if you want to upgrade the NEM firmware without enabling SAS2 functionality.

If, in addition to upgrading the NEM firmware, you also want to enable SAS2 functionality, instead, download the SAS2 upgrade package as described in "Download the SAS2 Upgrade Package" on page 7.

▼ 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_1_0_11.pkg`.

1. **Log into 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 1.1 release.**
7. **Click the "Search" button.**

▼ Upgrade the NEM Firmware

Follow these steps to upgrade the NEM firmware without enabling SAS2.

Note – Before upgrading the switch firmware, back up the current configuration as described in "Back Up the Current Configuration Before Upgrading" on page 6.

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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. **Use TFTP, FTP, or the Oracle ILOM Web interface to copy the following firmware image to your server:**
   `Sun_Blade_6000_Ethernet_Switched_NEM_24p_10GE_sefos-1_1_0_11.pkg`

3. **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_1_0_11.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.

Starting Root File System upgrade
Upgrading Root File System image to partition 1
.nand_erase: attempt to erase a bad block at page 0x00002e80
nand_erase: attempt to erase a bad block at page 0x0001b500
.............................................................
.............................................................
.......
Starting kernel upgrade
Upgrading kernel image to partition 1
.......
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
```

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

The following limitations apply to the Sun Blade 6000 Ethernet Switched NEM 24p 10GbE 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 5 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.

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/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.

Finetuning 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.

The default port configuration appears as follows:

```
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
-----------------------------------------------------
```

This example illustrates configuring 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
```

Include the SEFOS Configuration in Backups

By default, only the Oracle ILOM configuration is backed up when the backup feature is used. Complete these 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 tasks:
   - Save the NEM configuration.

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

   - Set a passphrase.

```
-> cd /SP/config
/SP/config

-> set passphrase=abc123
Set 'passphrase' to 'abc123'
```

   - Ensure that you have proper login credentials for the server where the configuration will be backed up.

2. Back up the configuration to remote server.

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

Note – The password you provide must not contain the @, ' (apostrophe), " (qoutes), and / (backslash) symbols.

Restore the Configuration

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.

```
-> 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 will be overwritten by values supplied by the DHCP server upon restoration.

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.

Known Issues

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

CR 6936742: When Multiple Configuration Scripts Are Run in Parallel, SEFOS Can Crash

The current release of 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, you should use only one of these sessions to configure and update the switch.

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.

CR 6873825: Unlit Link/Activity LEDs for the SFP+ Ports

Unlit Link/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.

CR 6968484: Using `vlan 1` as Shown in Various Examples in the Documentation Generates Error Codes

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

CR 6977266: CMM Reports SAS2 on the NEM as Faulty if SAS2 is Not Enabled

In the event that you choose to upgrade to the NEM 1.1 firmware, but keep the SAS2 feature disabled, the CMM would report it as a fault when you run the "show faulty" command.

```
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 are 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'
```

CR 6985100: SEFOS CLI Does Not Have a Command to Access Audit Logs

Workaround: To read the SEFOS audit log offline, use the ILOM snapshot feature, transfer the snapshot to the host, and review it there.

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

Workaround: Ignore the keyword "short" when it appears in the syntax of any command and execute the command without it. For example, in the above example, you should use, instead, `no default-metric 1`.

CR 6989048: Packets Might be Dropped When Using Q-in-Q Interop in Certain Configurations

Workaround: If you use Q-in-Q interop between the Sun Blade 6000 Ethernet Switched NEMP 24p 10GbE and a third-party switch, manually turn on the Jumbo Frame feature on the third-party switch.

CR 6991230: QoS - set algo-type tailDrop queue-drop-algo Does Not Work

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

CR 6992127: Ports Lock and Corresponding LEDs Stay Lit or NEM Fails to Power On After Doing Consecutive Hardware Resets

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

CR 6997415 and 7006297: Some of the IGMP Conformance Results Don't Match Expectations

The Sun Blade 6000 Ethernet Switched NEM 24p 10GbE does not fully adhere to the University of New Hampshire (UNH) IGMPv3 Conformance Test Suite. We are working with UNH to determine if this represents a product defect, a bug in their tests, or if the test case is applicable for this product. We have not observed any interoperability issues with the Sun Blade 6000 Ethernet Switched NEM 24p 10GbE in our tests.

Workaround: No workaround is available. Should you experience a suspected IGMP interoperability problem or other issue with the Sun Blade 6000 Ethernet Switched NEM 24p 10GbE, contact your authorized Oracle service provider.

CR 7015004: Changing the Default Value for `default-vlan-id` Could Result in VLAN Misconfiguration

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.

Issues Corrected in the 1.1.0.11 Patch

These issues that existed in earlier releases of the product have been corrected in this update.

TABLE 1 Issues Corrected in This Update

Issue Number	Description of Corrected Problem
2213237	Bad values are returned in the SEFOS MIB.
6872119	The output of the "show interfaces int counters" are not aligned.
6920781	MakeOracle ILOM enterprise MIBs available on standard SNMP ports.
6990073	NEM SP does not blink OK led while SP is booting.
7008862	The port-channel configuration is incompatible with range mode.
7029946	IPv4/IPv6 static route is unstable after upgrade. This fix requires you to recreate your configuration from scratch before installing the 1.1.10.11 firmware.
7057085	Add an option to show VLANs in ascending order (new token: show vlan ascending).
7068895	[CSR 5417] NEM0 Hung and required power cycling to recover. Config lost.
7078601	RIP packets should not be trapped if the RIP feature is disabled.
7082585	PVRST+: Remove unused tokens.

The following issues corrected in this update apply to configurations created from scratch after installing the 1.1.0.11 firmware update.

TABLE 2 Issues Corrected After Recreating Configuration and Updating

Issue number	Description of Corrected Problem
6901521	Untagged ports can show up on default VLAN as well as where they are actually assigned.
6988496	Assigning a port to a VLAN does not remove the port as a member of VLAN 1.
7082599	SEFOS: disable the hardware flow control by default.

Issues Corrected in Prior Updates

The following issues were corrected in prior product updates.

TABLE 3 Issues Corrected in Prior Updates

Issue number	Description of problem that has been corrected
6885891	Disable the service account by default.
6899100	Unnecessary characters are displayed with use of the backspace key in the login prompt on the console.
6916366	Re-enable PVRST+.
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	Oracle ILOM backup/restore feature should support switch config files too.
6951536	Add the ability to set fs_privilege attribute from the WEB UI.
6952228	Allow SEFOS to be stopped/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 telnet console restarts the session and user can't login again.
6966772	Oracle ILOM restore from BUI restarts the session and user can't login again.

TABLE 3 Issues Corrected in Prior Updates *(Continued)*

Issue number	Description of problem that has been corrected
6970627	Enable Oracle ILOM advanced user authentication methods (Radius, etc.)
6972856	running-config 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 /var /tmp to tmpfs.
6979532	The servicetag should use the swordfish uuid rather than the part number.
6980869	“create user password=password" does not create the fs_privilege attribute.
6985379	Enable DNS.
6985524	SEFOS MIB access is lost due to the agentx 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.
6989048	Packets might be dropped when using Q-in-Q interoperability in certain configurations.
6993233	MIB files are missing for OSPF and some bridge OIDs.
6994749	The “help password” command shows some unnecessary characters.
6994852	Disabling ServiceTag doesn’t close ServiceTag Listener port.
6994875	Issue with “stop /NEM/fs_cli” and “stop /NEM/sefos”
6990073	The switch’s SP OK LED does not blink while the SP is booting.
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.
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 Ilom-Role="aucr", the show command in Oracle ILOM does not work properly on the switch.
6996351	Need remote IP address to be included in Oracle ILOM logging.

TABLE 3 Issues Corrected in Prior Updates *(Continued)*

Issue number	Description of problem that has been corrected
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.
7014291	Change SEFOS “incremental save” SW default to disabled.
7030305	IP ACLs block ARP.
7030991	Make hostname part of the SEFOS prompt.

Using the Sun Blade 6000 Ethernet Switched NEM 24p 10GbE Documentation Set

All of the Sun Blade 6000 Ethernet Switched NEM 24p 10GbE product documentation and related documentation can be found at:
http://www.oracle.com/pls/topic/lookup?ctx=E19285-01

Read the documentation in this order:

No.	Document Title or Type	Information Provided
1.	*Sun Blade 6000 Ethernet Switched NEM 24p 10GbE Product Notes 1.1*	Late-breaking information, supported configurations, and system limitations.

No.	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	Software reference and administration information

Related Documentation

Information Provided	Title
NEM installation and configuration	*Sun Blade 6000 Ethernet Switched NEM 24p 10GbE User's Guide*
Software configuration	*Sun Blade 6000 Ethernet Switched NEM 24p 10GbE Software Configuration Guide*
Server module installation and configuration:	
• Sun Blade X6270 server module	• *Sun Blade X6270 Server Module Installation Guide*
• Sun Blade X6275 server module	• *Sun Blade X6275 Server Module Installation Guide*
• Sun Blade T6340 server module	• *Sun Blade T6340 Server Module Installation Guide*
• Sun Blade T6320 server module	• *Sun Blade T6320 Server Module Installation Guide*
FEM installation and configuration	
• Sun Dual 10GbE PCIe 2.0 Fabric Expansion Module	• *Sun Blade T63X0 PCIe Pass-Through Fabric Expansion Module User's Guide*
• Sun Dual 10-Gigabit Ethernet XAUI Pass-Thru Fabric Expansion Module	• *Sun Blade T6320 XAUI Pass-Thru Fabric Expansion Module User's Guide*

Information Provided	Title
System monitoring and management	http://www.oracle.com/pls/topic/lookup?ctx=E19860-01 *Oracle Integrated Lights Out Manager (Oracle ILOM) 3.0 Getting Started Guide* *Oracle Integrated Lights Out Manager (Oracle ILOM) CMM Administration Guide for the Sun Blade 6000 and 6048 Modular Systems* Refer to the Oracle ILOM documents for your Sun Blade modular system.
Sun Blade 6000 modular system and Sun Netra 6000 modular system information	http://www.oracle.com/pls/topic/lookup?ctx=E19938-01
Sun Blade 6000 Virtualized Multi-Fabric 10GbE M2 Network Express Module information	• *Sun Blade Storage Module M2 Administration Guide* • *SFP+ Module Installation Guide for the Sun Blade 6000 Virtualized Multi-Fabric 10GbE M2 Network Express Module*