

Intel® Omni-Path Fabric Switches GUI

User Guide

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October 2017



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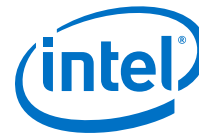
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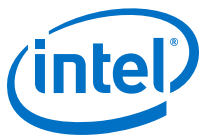
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Revision History

For the latest documentation, go to <http://www.intel.com/omnipath/SwitchPublications>.

Date	Revision	Description
October 2017	8.0	<p>Updates to this document include:</p> <ul style="list-style-type: none"> The <i>Intel® Omni-Path Fabric Suite FastFabric Command Line Interface Reference Guide</i> has been merged into the <i>Intel® Omni-Path Fabric Suite FastFabric User Guide</i>. See the Intel® Omni-Path Documentation Library for details. Updated toolbar buttons for Home Page for Intel® Omni-Path Director Class Switch 100 Series. Updated Displaying Chassis Details for Intel® Omni-Path Director Class Switch 100 Series. Added Getting Online Help. Added Viewing the Chassis Details. Moved Returning to the Home Page for the Intel® Omni-Path Director Class Switch 100 Series under Using Toolbar Commands. Updated Viewing the Log from the Toolbar. Updated Viewing the Log for the Intel® Omni-Path Director Class Switch 100 Series. Updated Viewing the Log for the Intel® Omni-Path Edge Switch 100 Series. Updated Common Log Messages. Removed "Creating a New Target Parameter" from Configuring SNMP Targets. Updated Setting the Switch OOB IP Address.
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April 2017	6.0	<p>Updates to this document include:</p> <ul style="list-style-type: none"> Updated filepath from <code>/etc/sysconfig/</code> to <code>/etc/</code> in Configuring the Syslog Server. Added new section Viewing the FRU Information on the Intel® Omni-Path Director Class Switch 100 Series. Updated toolbar information for the following sections: <ul style="list-style-type: none"> Home Page for Intel® Omni-Path Director Class Switch 100 Series Home Page and Chassis Details for Intel® Omni-Path Edge Switch 100 Series Logging Out of the Switch Using Toolbar Commands Details Area Overview
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continued...		



Date	Revision	Description
		<ul style="list-style-type: none">• Updated Viewing Port Statistics.• Updated Viewing the Filter Status.
August 2016	4.0	<p>Document has been updated as follows:</p> <ul style="list-style-type: none">• Restructured document as follows:<ul style="list-style-type: none">— Split out new chapters with task-oriented sections from the Introduction: Getting Started, Using Toolbar Commands, and Accessing Chassis Component Information.— Split out Director Class Switch information from Edge Switch information for clarity, where needed.— Removed Management Module Menu section.<ul style="list-style-type: none">• Moved View the Log and Purge the Log under Logging.• Moved Selecting the Boot Image under Maintenance.• Moved Accessing the Subnet Manager Control Window under Subnet Manager.• Added new section for Updating the Certificate.• Added section for Configuring the Syslog Server.
May 2016	3.0	<p>Document has been updated as follows:</p> <ul style="list-style-type: none">• Added new graphic for Intel® OP Director Class Switch 100 Series 24-port.• Added note in the respective sections that you can access the Subnet Manager Config File from both the Maintenance and Config File Admin menus.
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November 2015	1.0	Document has been updated.



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Preface

This manual is part of the documentation set for the Intel® Omni-Path Fabric (Intel® OP Fabric), which is an end-to-end solution consisting of Intel® Omni-Path Host Fabric Interfaces (HFIs), Intel® Omni-Path switches, and fabric management and development tools.

The Intel® OP Fabric delivers a platform for the next generation of High-Performance Computing (HPC) systems that is designed to cost-effectively meet the scale, density, and reliability requirements of large-scale HPC clusters.

Both the Intel® OP Fabric and standard InfiniBand* are able to send Internet Protocol (IP) traffic over the fabric, or *IPoFabric*. In this document, however, it is referred to as *IP over IB* or *IPoIB*. From a software point of view, IPoFabric and IPoIB behave the same way and, in fact, use the same `ib_ipoib` driver to send IP traffic over the `ib0` and/or `ib1` ports.

Intended Audience

The intended audience for the Intel® Omni-Path (Intel® OP) document set is network administrators and other qualified personnel.

Intel® Omni-Path Documentation Library

Intel® Omni-Path publications are available at the following URLs:

- Intel® Omni-Path Switches Installation, User, and Reference Guides
<http://www.intel.com/omnipath/SwitchPublications>
- Intel® Omni-Path Software Installation, User, and Reference Guides (includes HFI documents)
<http://www.intel.com/omnipath/FabricSoftwarePublications>
- Drivers and Software (including Release Notes)
<http://www.intel.com/omnipath/Downloads>

Use the tasks listed in this table to find the corresponding Intel® Omni-Path document.

Task	Document Title	Description
Key: Shading indicates the URL to use for accessing the particular document.		
• Intel® Omni-Path Switches Installation, User, and Reference Guides	http://www.intel.com/omnipath/SwitchPublications	
• Intel® Omni-Path Software Installation, User, and Reference Guides (includes HFI documents)	http://www.intel.com/omnipath/FabricSoftwarePublications (no shading)	
• Drivers and Software (including Release Notes)	http://www.intel.com/omnipath/Downloads	
continued...		



Task	Document Title	Description
Using the Intel® OPA documentation set	<i>Intel® Omni-Path Fabric Quick Start Guide</i>	A roadmap to Intel's comprehensive library of publications describing all aspects of the product family. It outlines the most basic steps for getting your Intel® Omni-Path Architecture (Intel® OPA) cluster installed and operational.
Setting up an Intel® OPA cluster	<i>Intel® Omni-Path Fabric Setup Guide</i> (Old title: <i>Intel® Omni-Path Fabric Staging Guide</i>)	Provides a high level overview of the steps required to stage a customer-based installation of the Intel® Omni-Path Fabric. Procedures and key reference documents, such as Intel® Omni-Path user guides and installation guides are provided to clarify the process. Additional commands and BKMs are defined to facilitate the installation process and troubleshooting.
Installing hardware	<i>Intel® Omni-Path Fabric Switches Hardware Installation Guide</i>	Describes the hardware installation and initial configuration tasks for the Intel® Omni-Path Switches 100 Series. This includes: Intel® Omni-Path Edge Switches 100 Series, 24 and 48-port configurable Edge switches, and Intel® Omni-Path Director Class Switches 100 Series.
	<i>Intel® Omni-Path Host Fabric Interface Installation Guide</i>	Contains instructions for installing the HFI in an Intel® OPA cluster. A cluster is defined as a collection of nodes, each attached to a fabric through the Intel interconnect. The Intel® HFI utilizes Intel® Omni-Path switches and cabling.
Installing host software Installing HFI firmware Installing switch firmware (externally-managed switches)	<i>Intel® Omni-Path Fabric Software Installation Guide</i>	Describes using a Text-based User Interface (TUI) to guide you through the installation process. You have the option of using command line interface (CLI) commands to perform the installation or install using the Linux* distribution software.
Managing a switch using Chassis Viewer GUI Installing switch firmware (managed switches)	<i>Intel® Omni-Path Fabric Switches GUI User Guide</i>	Describes the Intel® Omni-Path Fabric Chassis Viewer graphical user interface (GUI). It provides task-oriented procedures for configuring and managing the Intel® Omni-Path Switch family. Help: GUI online help.
Managing a switch using the CLI Installing switch firmware (managed switches)	<i>Intel® Omni-Path Fabric Switches Command Line Interface Reference Guide</i>	Describes the command line interface (CLI) task information for the Intel® Omni-Path Switch family. Help: -help for each CLI.
Managing a fabric using FastFabric	<i>Intel® Omni-Path Fabric Suite FastFabric User Guide</i> (Merged with: <i>Intel® Omni-Path Fabric Suite FastFabric Command Line Interface Reference Guide</i>)	Provides instructions for using the set of fabric management tools designed to simplify and optimize common fabric management tasks. The management tools consist of TUI menus and command line interface (CLI) commands. Help: -help and man pages for each CLI. Also, all host CLI commands can be accessed as console help in the Fabric Manager GUI.
Managing a fabric using Fabric Manager	<i>Intel® Omni-Path Fabric Suite Fabric Manager User Guide</i>	The Fabric Manager uses a well defined management protocol to communicate with management agents in every Intel® Omni-Path Host Fabric Interface (HFI) and switch. Through these interfaces the Fabric Manager is able to discover, configure, and monitor the fabric.
	<i>Intel® Omni-Path Fabric Suite Fabric Manager GUI User Guide</i>	Provides an intuitive, scalable dashboard and set of analysis tools for graphically monitoring fabric status and configuration. It is a user-friendly alternative to traditional command-line tools for day-to-day monitoring of fabric health. Help: Fabric Manager GUI Online Help.

continued...



Task	Document Title	Description
Configuring and administering Intel® HFI and IPoIB driver Running MPI applications on Intel® OPA	<i>Intel® Omni-Path Fabric Host Software User Guide</i>	Describes how to set up and administer the Host Fabric Interface (HFI) after the software has been installed. The audience for this document includes both cluster administrators and Message-Passing Interface (MPI) application programmers, who have different but overlapping interests in the details of the technology.
Writing and running middleware that uses Intel® OPA	<i>Intel® Performance Scaled Messaging 2 (PSM2) Programmer's Guide</i>	Provides a reference for programmers working with the Intel® PSM2 Application Programming Interface (API). The Performance Scaled Messaging 2 API (PSM2 API) is a low-level user-level communications interface.
Optimizing system performance	<i>Intel® Omni-Path Fabric Performance Tuning User Guide</i>	Describes BIOS settings and parameters that have been shown to ensure best performance, or make performance more consistent, on Intel® Omni-Path Architecture. If you are interested in benchmarking the performance of your system, these tips may help you obtain better performance.
Designing an IP or storage router on Intel® OPA	<i>Intel® Omni-Path IP and Storage Router Design Guide</i>	Describes how to install, configure, and administer an IPoIB router solution (Linux* IP or LNet) for inter-operating between Intel® Omni-Path and a legacy InfiniBand* fabric.
Building a Lustre* Server using Intel® OPA	<i>Building Lustre* Servers with Intel® Omni-Path Architecture Application Note</i>	Describes the steps to build and test a Lustre* system (MGS, MDT, MDS, OSS, OST, client) from the HPDD master branch on a x86_64, RHEL*/CentOS* 7.1 machine.
Building Containers for Intel® OPA fabrics	<i>Building Containers for Intel® Omni-Path Fabrics using Docker* and Singularity* Application Note</i>	Provides basic information for building and running Docker* and Singularity* containers on Linux*-based computer platforms that incorporate Intel® Omni-Path networking technology.
Writing management applications that interface with Intel® OPA	<i>Intel® Omni-Path Management API Programmer's Guide</i>	Contains a reference for programmers working with the Intel® Omni-Path Architecture Management (Intel OPAMGT) Application Programming Interface (API). The Intel OPAMGT API is a C-API permitting in-band and out-of-band queries of the FM's Subnet Administrator and Performance Administrator.
Learning about new release features, open issues, and resolved issues for a particular release	<i>Intel® Omni-Path Fabric Software Release Notes</i>	
	<i>Intel® Omni-Path Fabric Manager GUI Release Notes</i>	
	<i>Intel® Omni-Path Fabric Switches Release Notes</i> (includes managed and externally-managed switches)	

Cluster Configurator for Intel® Omni-Path Fabric

The Cluster Configurator for Intel® Omni-Path Fabric is available at: <http://www.intel.com/content/www/us/en/high-performance-computing-fabrics/omni-path-configurator.html>.

This tool generates sample cluster configurations based on key cluster attributes, including a side-by-side comparison of up to four cluster configurations. The tool also generates parts lists and cluster diagrams.

Documentation Conventions

The following conventions are standard for Intel® Omni-Path documentation:

- **Note:** provides additional information.
- **Caution:** indicates the presence of a hazard that has the potential of causing damage to data or equipment.



- **Warning:** indicates the presence of a hazard that has the potential of causing personal injury.
- Text in **blue** font indicates a hyperlink (jump) to a figure, table, or section in this guide. Links to websites are also shown in blue. For example:
See [License Agreements](#) on page 14 for more information.
For more information, visit www.intel.com.
- Text in **bold** font indicates user interface elements such as menu items, buttons, check boxes, key names, key strokes, or column headings. For example:
Click the **Start** button, point to **Programs**, point to **Accessories**, and then click **Command Prompt**.
Press **CTRL+P** and then press the **UP ARROW** key.
- Text in **Courier** font indicates a file name, directory path, or command line text. For example:
Enter the following command: `sh ./install.bin`
- Text in *italics* indicates terms, emphasis, variables, or document titles. For example:
Refer to *Intel® Omni-Path Fabric Software Installation Guide* for details.
In this document, the term *chassis* refers to a managed switch.

Procedures and information may be marked with one of the following qualifications:

- **(Linux)** – Tasks are only applicable when Linux* is being used.
- **(Host)** – Tasks are only applicable when Intel® Omni-Path Fabric Host Software or Intel® Omni-Path Fabric Suite is being used on the hosts.
- **(Switch)** – Tasks are applicable only when Intel® Omni-Path Switches or Chassis are being used.
- Tasks that are generally applicable to all environments are not marked.

Laser Safety Information

This product may use Class 1 laser optical transceivers to communicate over the fiber optic conductors. The U.S. Department of Health and Human Services (DHHS) does not consider Class 1 lasers to be hazardous. The International Electrotechnical Commission (IEC) 825 Laser Safety Standard requires labeling in English, German, Finnish, and French stating that the product uses Class 1 lasers. Because it is impractical to label the transceivers, the following label is provided in this manual.



CLASS 1 LASER PRODUCT
LASER KLASSE 1
LUOKAN 1 LASERLAITE
APPAREIL A LASER DE CLASSE 1
TO IEC 825 (1984) + CENELEC HD 482 S1

Electrostatic Discharge Sensitivity (ESDS) Precautions

The assemblies used in the switch chassis are ESD sensitive. Observe ESD handling procedures when handling any assembly used in the switch chassis.

License Agreements

This software is provided under one or more license agreements. Please refer to the license agreement(s) provided with the software for specific detail. Do not install or use the software until you have carefully read and agree to the terms and conditions of the license agreement(s). By loading or using the software, you agree to the terms of the license agreement(s). If you do not wish to so agree, do not install or use the software.

Technical Support

Technical support for Intel® Omni-Path products is available 24 hours a day, 365 days a year. Please contact Intel Customer Support or visit <http://www.intel.com/omnipath/support> for additional detail.



1.0 Introduction

This manual describes the Intel® Omni-Path Fabric Chassis Viewer graphical user interface (GUI). It provides task-oriented procedures for configuring and managing the Intel® Omni-Path Switch family.

For details about the other documents for the Intel® Omni-Path product line, refer to [Intel® Omni-Path Documentation Library](#) on page 10 of this document.

1.1 Document Organization

This manual is organized as follows:

- This **Introduction** provides an overview of this document, its structure, and the Intel® Omni-Path Fabric Chassis Viewer GUI.
- **Getting Started** provides tasks and information for starting the Intel® Omni-Path Fabric Chassis Viewer GUI and accessing the switches and components.
- **Accessing Chassis Component Information** provides tasks accessing general information on each component of the switch.
- **Using Toolbar Commands** describes the common hardware commands such as logging out, rebooting and viewing logs, commonly accessed through the Toolbar.
- **Configuring and Monitoring the Switch** describes the configuration and administration tasks for the Director Class Switches and Edge Switches.

1.2 Overview

The Intel® Omni-Path Fabric Chassis Viewer is browser-based device management software. Chassis Viewer provides the primary management interface for the Intel® Omni-Path Switch family, allowing you to perform management, configuration, and monitoring tasks.

The Chassis Viewer runs on the firmware of the Intel® Omni-Path Switch family. The browser must be on a workstation that has IP connectivity to the LAN port (RJ-45 connector) on the switch.

Chassis Viewer manages:

- The switch chassis
- Each director-class leaf module
- Each director-class spine module
- Each director-class management module
- Logging and monitoring functionality

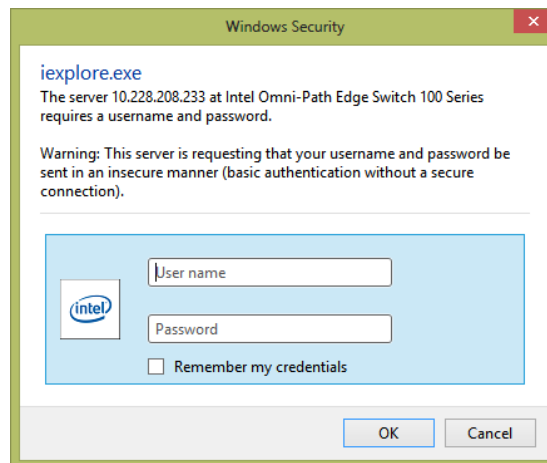
2.0 Getting Started

This section provides tasks and information for getting started with the Intel® Omni-Path Fabric Chassis Viewer GUI.

2.1 Accessing Chassis Viewer

The Chassis Viewer runs on Internet Explorer. For additional supported browsers, refer to the Release Notes.

1. To access Chassis Viewer, point your browser to the IP address of the switch.
Note: The default IP address is 192.168.100.9 and the default netmask is 255.255.255.0.
2. If user authentication is enabled, a **User Authentication** window is displayed.



Enter the user name and password. Default values are:

- User name: admin
- Password: adminpass

The Chassis Viewer home page is displayed.

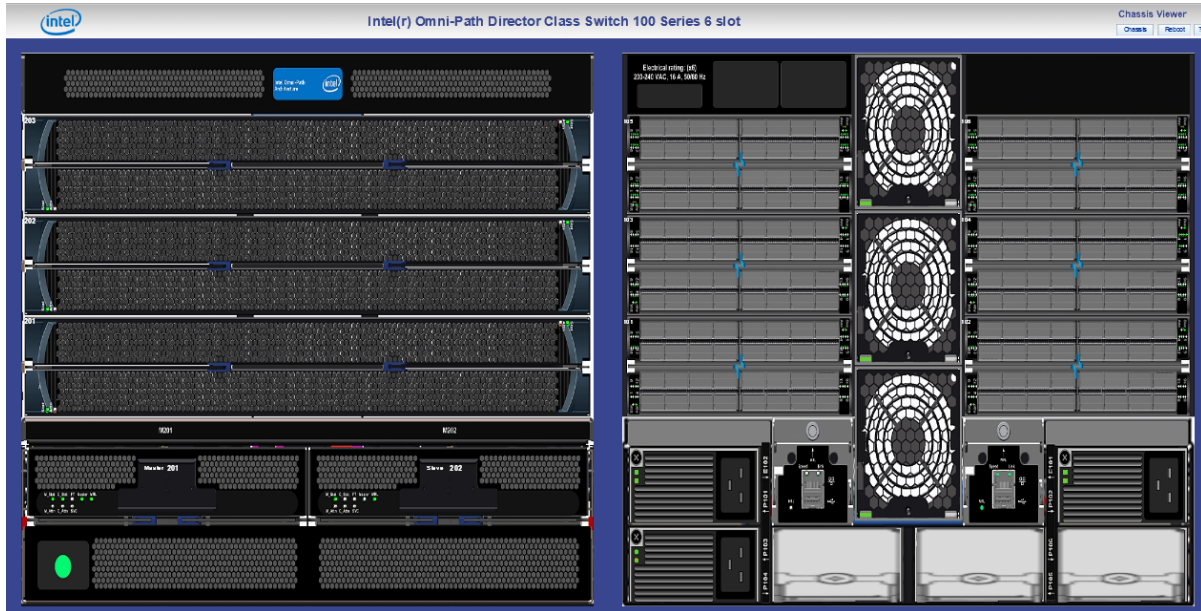
2.1.1 Home Page for Intel® Omni-Path Director Class Switch 100 Series

The Chassis Viewer home page provides a high-level overview of the Director Class Switch. This area is the starting point for more detailed information for the chassis and its components. The graphical representation shows the chassis, front and rear view, and its components (leaf, spine, management modules).



Click on the chassis or a component to view the status and information related to that chassis or component.

Figure 1. Intel® Omni-Path Director Class Switch 100 Series Home Page



The Details view includes a graphical display of the module with LEDs indicating the status of the module and its components.

- A white LED means the module or a component is off.
- A green LED means the module or a component is functioning normally.
- An amber LED means the module or a component needs attention from a user.

Refer to the *Intel® Omni-Path Fabric Switches Hardware Installation Guide* for additional details about a module's LEDs.

Chassis Viewer Banner Toolbar

The Chassis Viewer banner toolbar is the top-level toolbar that appears on all screens.

- The **Chassis** button allows the user to access the Chassis Details page.
Note: This button only appears on the Intel® Omni-Path Director Class Switch 100 Series home page.
- The **Reboot** button allows the user to reboot selected components or the entire switch.
- The **Logout** button allows the user to log out of the current session.
Note: The Logout button is only displayed if you have set the User Authentication parameter to **Login Enabled** through the HTTP Session Configuration submenu.
- The **?** (Help) button displays the context sensitive online help.



2.1.2 Home Page and Chassis Details for Intel® Omni-Path Edge Switch 100 Series

The Chassis Viewer home page provides a high-level overview of the switch and the Chassis Details.

Figure 2. Intel® Omni-Path Edge Switch 100 Series 48-Port Home Page

Chassis Units Test

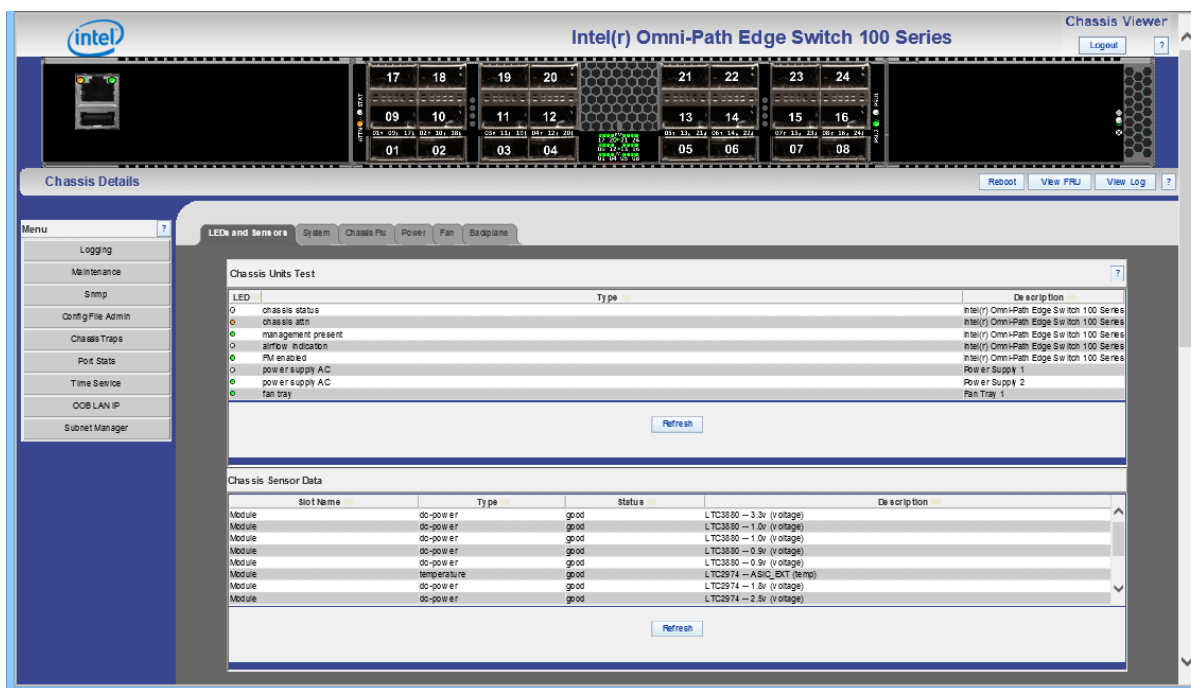
LED	Type	Description
chassis status		Intel Omni-Path Edge Switch 100 Series
chassis atm		Intel Omni-Path Edge Switch 100 Series
management present		Intel Omni-Path Edge Switch 100 Series
airflow indication		Intel Omni-Path Edge Switch 100 Series
FM enabled		Intel Omni-Path Edge Switch 100 Series
power supply AC		Power Supply 1
power supply AC		Power Supply 2
fan tray		Fan Tray 1

Chassis Sensor Data

Slot Name	Type	Status	Description
Intel Omni-Path Edge Switch 100 Series	dc-power	good	LTC3880 -- 3.3v (voltage)
Intel Omni-Path Edge Switch 100 Series	dc-power	good	LTC3880 -- 1.0v (voltage)
Intel Omni-Path Edge Switch 100 Series	dc-power	good	LTC3880 -- 1.0v (voltage)
Intel Omni-Path Edge Switch 100 Series	dc-power	good	LTC3880 -- 0.9v (voltage)
Intel Omni-Path Edge Switch 100 Series	dc-power	good	LTC3880 -- 0.9v (voltage)
Intel Omni-Path Edge Switch 100 Series	temperature	good	LTC2974 -- ASIC_EXT (temp)
Intel Omni-Path Edge Switch 100 Series	dc-power	good	LTC2974 -- 1.0v (voltage)
Intel Omni-Path Edge Switch 100 Series	dc-power	good	LTC2974 -- 2.5v (voltage)
Intel Omni-Path Edge Switch 100 Series	dc-power	good	LTC2974 -- 5.0v (voltage)



Figure 3. Intel® Omni-Path Edge Switch 100 Series 24-Port Home Page



The Details view includes a graphical display of the module with LEDs indicating the status of the module and its components.

- A white LED means the module or a component is off.
- A green LED means the module or a component is functioning normally.
- An amber LED means the module or a component needs attention from a user.

Refer to the *Intel® Omni-Path Fabric Switches Hardware Installation Guide* for additional details about a module's LEDs.

Click on a port in the graphic to open the Port Stats window displaying status and performance information related to that port.

Chassis Viewer Banner Toolbar

The Chassis Viewer banner toolbar is the top-level toolbar that appears on all screens.

- The **Logout** button allows the user to log out of the current session.
The Logout button is only displayed if you have set the User Authentication parameter to **Login Enabled** through the HTTP Session Configuration submenu.
- The **?** (Help) button displays the context sensitive online help.

2.2 Navigating Chassis Components

The Intel® Omni-Path Director Class Switch 100 Series is comprised of multiple components that are accessible from the Chassis Viewer.

- Chassis



- Leaf
- Spine
- Management Module

2.2.1 Displaying Chassis Details for Intel® Omni-Path Director Class Switch 100 Series

There are two ways to display the chassis details for the Intel® Omni-Path Director Class Switch 100 Series.

Chassis Details Button

To access the Chassis Details window, perform the following step:

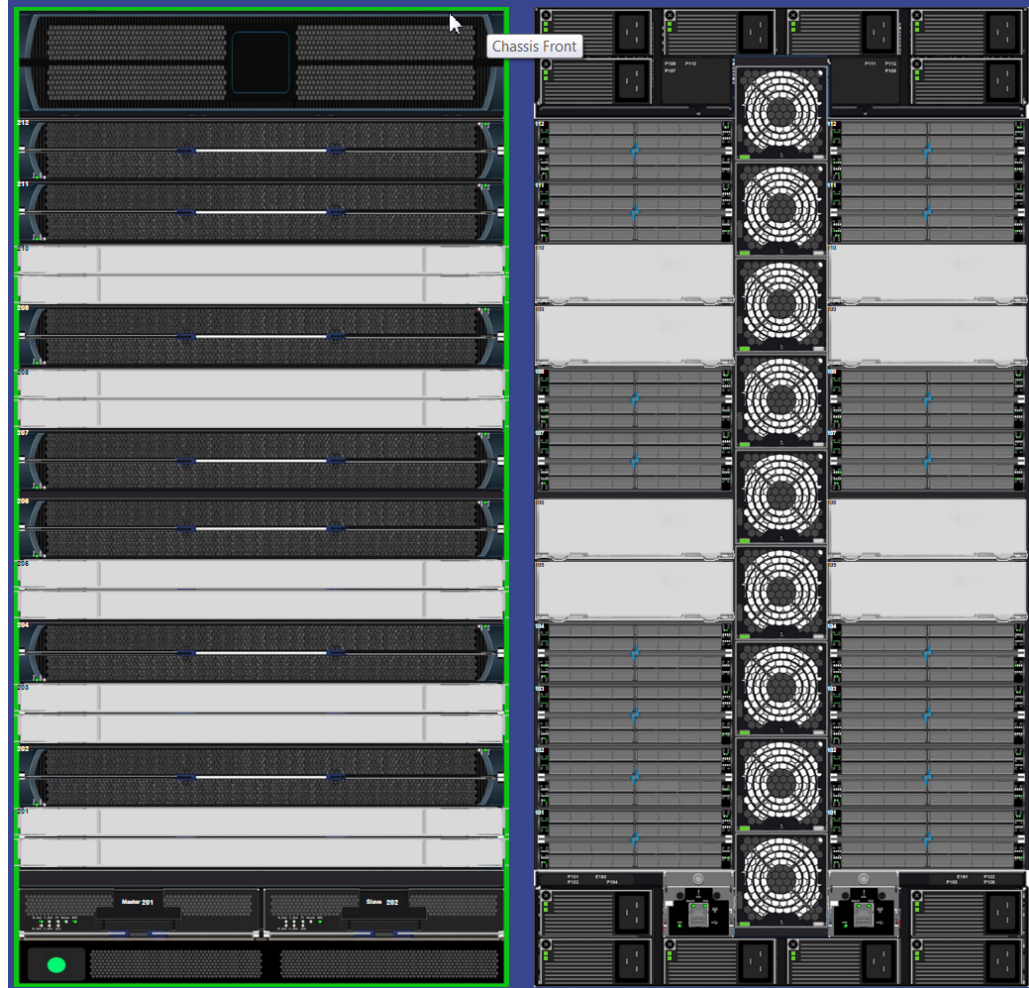
1. From the Home Page Chassis Viewer banner toolbar, click the **Chassis** button.
The Chassis Details window is displayed.

Chassis Display Graphic

The left side of the chassis display graphic shows the front of the chassis called "Chassis Front"; the right side view shows the "Chassis Back".

To access the Chassis Details window, perform the following steps:

1. Move your cursor over the outer region of the chassis display. The edges of the chassis are highlighted green and display text states "Chassis Front" (as shown in the following diagram) or Chassis Back".



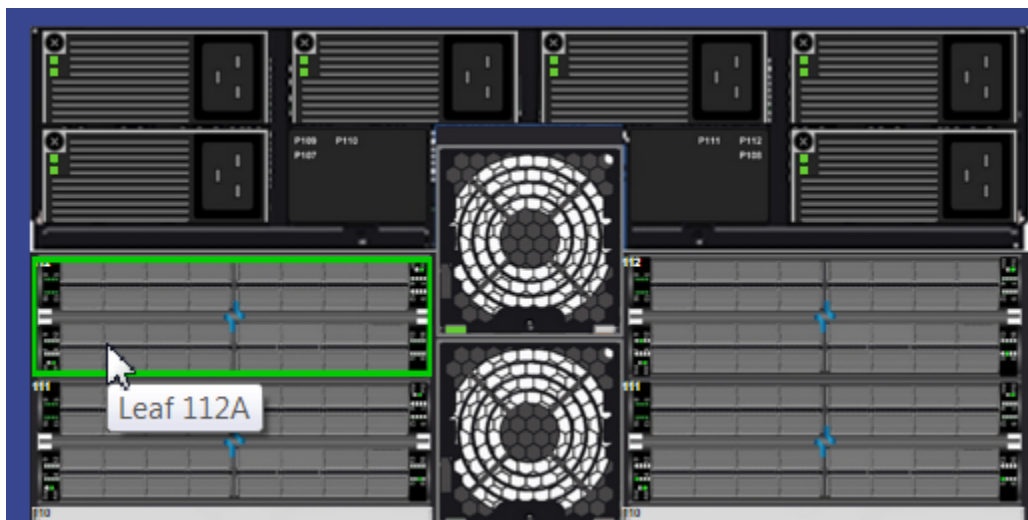
2. Click the green highlight.
The Chassis Details window is displayed.

2.2.2 Displaying Leaf Details

Leafs consist of access switches that connect to devices such as servers, firewalls, load balancers, and edge routers.

To display the leaf details:

1. From the Intel® Omni-Path Director Class Switch 100 Series Home Page, move your cursor over the leaf module.
The edges of the leaf module are highlighted green and display text identifies the specific Leaf as shown in the following diagram:



2. Click the leaf module.
The Leaf Details view is displayed.

Figure 4. Leaf Details

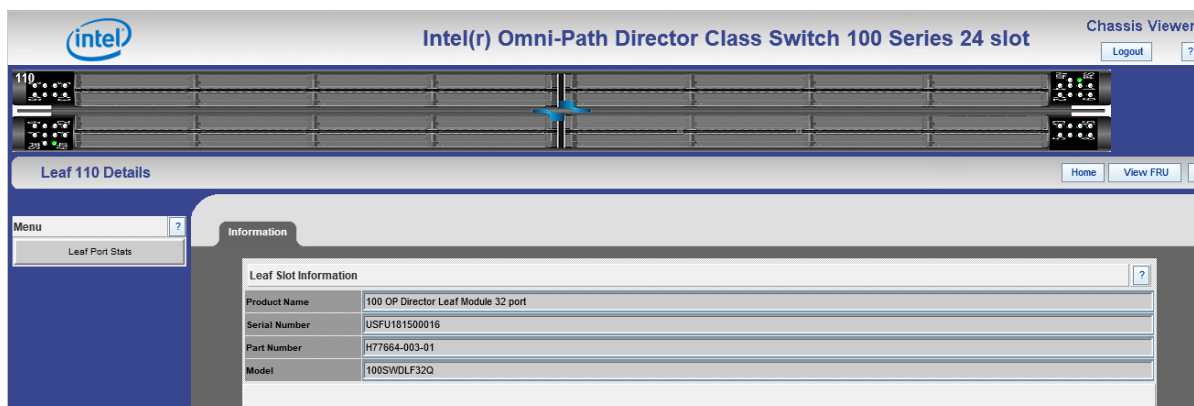


Table 1. Leaf Details Information Field Descriptions

Name	Description
Product Name	Displays the product name, assigned by an administrator.
Serial Number	Displays the component serial number.
Part Number	Displays the part number of the component.
Model	Displays the model of the component.
Refresh Button	Refreshes all fields in the Information tab.

2.2.3 Displaying Spine Details

Spines are switches that perform routing functions. They are the backbone of the network interconnecting with every leaf.



To display the spine details:

1. From the Intel® Omni-Path Director Class Switch 100 Series Home Page, move your cursor over the spine module.

The edges of the spine module are highlighted green and display text identifies the specific Spine as shown in the following diagram.



2. Click the spine module.
The Spine Details view is displayed.

Figure 5. Spine Details

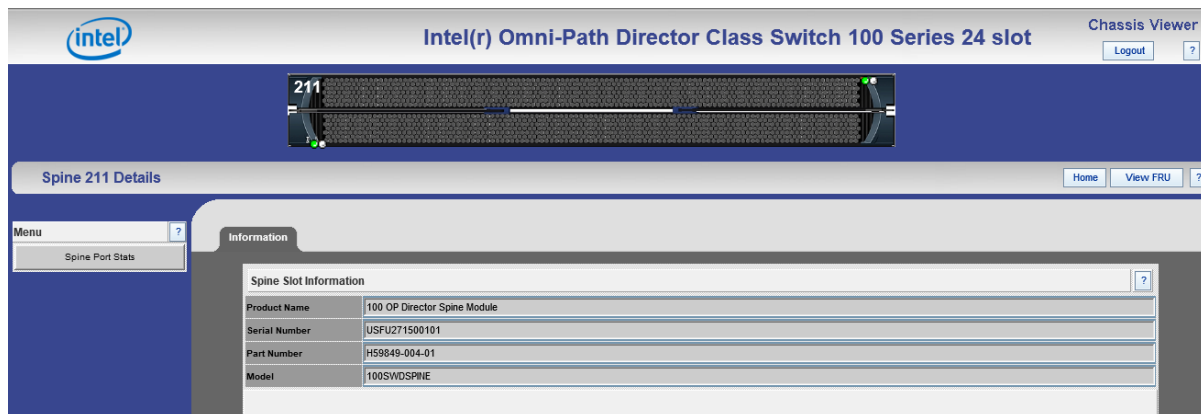


Table 2. Spine Details Information Field Descriptions

Name	Description
Product Name	Displays the product name, assigned by an administrator.
Serial Number	Displays the component serial number.
Part Number	Displays the part number of the component.
Model	Displays the model of the component.

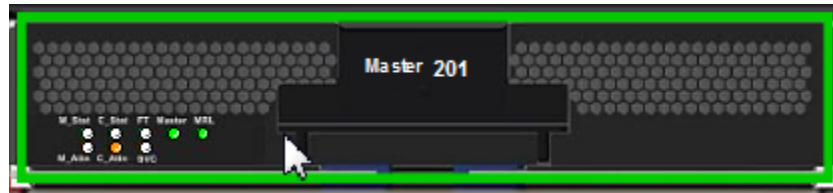
2.2.4 Displaying Management Module Details

The Management Module provides the management functions for the Intel® Omni-Path Director Class Switch 100 Series.

To display the management module details:

1. From the Intel® Omni-Path Director Class Switch 100 Series Home Page, move your cursor over the management module.

The edges of the module are highlighted green and display text identifies the specific management module as shown in the following diagram:



2. Click the management module.
- The Management Module Details view is displayed.

Figure 6. Management Module Details

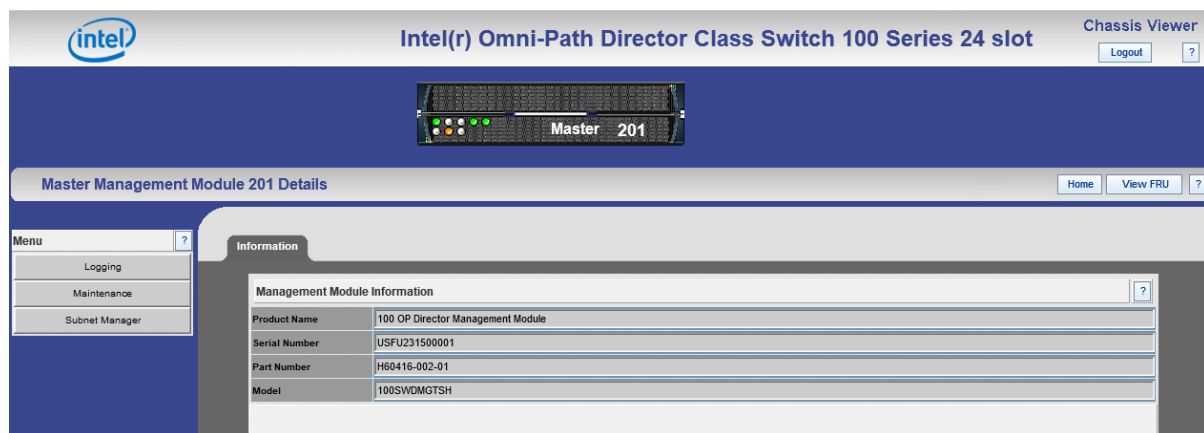


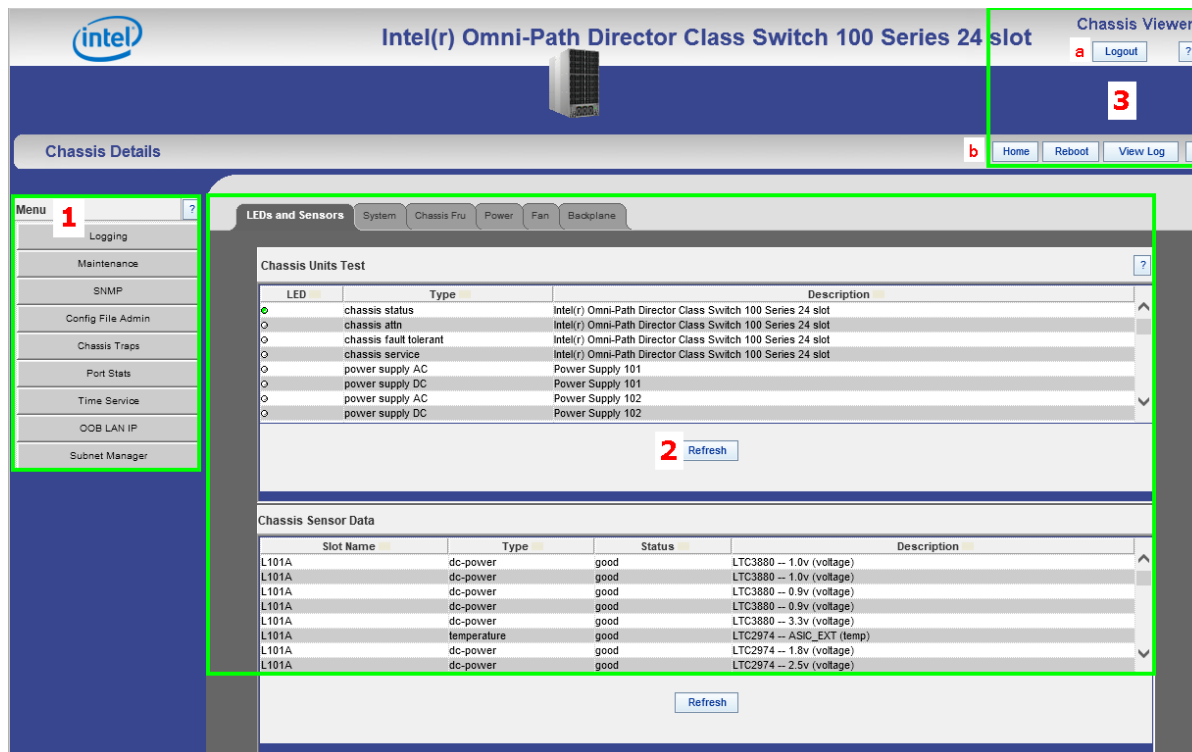
Table 3. Management Module Information Field Descriptions

Name	Description
Product Name	Displays the product name, assigned by an administrator.
Serial Number	Displays the component serial number.
Part Number	Displays the part number of the component.
Model	Displays the model of the component.

2.3 Details Area Overview

The Details area has three major sections, which are marked in the following example.

Figure 7. Example of Chassis Details for Intel® OP Director Class Switch 100 Series



Note: The content of this window will be different depending on the type of switch and the particular component.

1. The **Menu** (referred to as the "main menu"), on the left, allows you to configure and monitor the system components.
2. The **Component Information Area**, in the center, allows you to monitor important information for each specific hardware component, as well as important system information.
3. The Toolbars, on the upper right of the window, allow you to run command tasks for each hardware component.
 - a. The **Chassis Viewer Banner Toolbar** buttons appear at the top in line with the switch title.
 - b. The **Details Toolbar** buttons appear below the banner toolbar in line with the Details heading.

Each of these sections has an associated Help button as denoted by "?".



3.0 Accessing Chassis Component Information

The chassis Component Information area comprises fields that are tied to live data from the selected hardware component as well as live system information. You can access general information about each component.

3.1 Displaying LEDs and Sensors Information

The **LEDs and Sensors** tab displays information about the switch LEDs and Sensors.

To display Chassis Units Test information and Chassis Sensor Data, perform the following steps:

1. From the Chassis Details window, select the **LEDs and Sensors** tab in the Component Information Area.

Note: This is the start-up tab for the Chassis Details.

Figure 8. LEDs and Sensors Tab

The screenshot shows the 'LEDs and Sensors' tab selected in the top navigation bar. Below the navigation bar, there are two main sections: 'Chassis Units Test' and 'Chassis Sensor Data'. The 'Chassis Units Test' section contains a table with columns 'LED', 'Type', and 'Description'. The 'Chassis Sensor Data' section contains a table with columns 'Slot Name', 'Type', 'Status', and 'Description'. Both sections have a 'Refresh' button below them.

LED	Type	Description
chassis status		Intel Omni-Path Edge Switch 100 Series
chassis attn		Intel Omni-Path Edge Switch 100 Series
management present		Intel Omni-Path Edge Switch 100 Series
airflow indication		Intel Omni-Path Edge Switch 100 Series
FM enabled		Intel Omni-Path Edge Switch 100 Series
power supply AC		Power Supply 1
power supply AC		Power Supply 2
fan tray		Fan Tray 1

Refresh

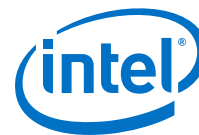
Slot Name	Type	Status	Description
Intel Omni-Path Edge Switch 100 Series	dc-power	good	LTC3880 -- 3.3v (voltage)
Intel Omni-Path Edge Switch 100 Series	dc-power	good	LTC3880 -- 1.0v (voltage)
Intel Omni-Path Edge Switch 100 Series	dc-power	good	LTC3880 -- 1.0v (voltage)
Intel Omni-Path Edge Switch 100 Series	dc-power	good	LTC3880 -- 0.9v (voltage)
Intel Omni-Path Edge Switch 100 Series	dc-power	good	LTC3880 -- 0.9v (voltage)
Intel Omni-Path Edge Switch 100 Series	temperature	good	LTC2974 -- ASIC_EXT (temp)
Intel Omni-Path Edge Switch 100 Series	dc-power	good	LTC2974 -- 1.8v (voltage)
Intel Omni-Path Edge Switch 100 Series	dc-power	good	LTC2974 -- 2.5v (voltage)
Intel Omni-Path Edge Switch 100 Series	dc-power	good	LTC2974 -- 5.0v (voltage)

Refresh

2. Click **Refresh** to refresh information in the fields.

Field Descriptions

Descriptions for each field are listed in the following table.

**Table 4. LEDs and Sensors Tab Descriptions**

Name	Description
Chassis Units Test:	Displays switch component LED information for chassis status, fan, and power supplies. <i>Note:</i> For a detailed explanation of physical LEDs on the hardware components, refer to the <i>Intel® Omni-Path Fabric Switches Hardware Installation Guide</i> .
LED	Displays a green or white circle icon specifying whether the LED is activated.
Type	Displays the component type.
Description	Displays a description of the component, assigned by an administrator.
Chassis Sensor Data:	Displays slot-based temperature and AC-power sensor data for the internal switching complex.
Slot Name	Displays the slot name of the sensor.
Type	Displays the sensor type.
Status	Displays the status of the sensor.
Description	Displays a description of the sensor.

3.2 Displaying and Modifying System Information

The **System** tab displays overall system information for the applicable switch chassis.

Displaying the Chassis System Information

To display chassis system information, perform the following steps:

1. From the Chassis Details window, select the **System** tab in the Component Information Area.

Figure 9. System Tab

LEDs and Sensors **System** Chassis Fru Power Fan Backplane

Chassis System Information

Out of Band LAN IP	10.228.198.211
Net Mask	255.255.252.0
Mac Address	00:13:95:16:02:50
Out of Band LAN IPv6	IPv6 Address is not set
Link-Local Address	fe80::213:95ff:fe16:250
System Description	Intel(r) Omni-Path Director Class Switch 100 Series 24 slot - Firmware Version: 10.3.0.0.66, Oct 13 2016
Node Description	phs1swivd10u07 Field Default
System Uptime	0 Day(s), 18 Hour(s), 24 Minute(s), 49 Second(s)
System Contact	--Empty; No Value Set--
System Name	phs1swivd10u07
System Location	--Empty; No Value Set--

Apply Refresh

2. Click **Refresh** to refresh information in the fields.



Modifying the Chassis System Information

Notes:

- White fields (Read/Write) allow you to add or modify applicable general and system information that is specific to your environment.
- Gray fields (Read Only) are tied to live data from the selected hardware component as well as live system information.

To modify information, perform the following steps:

1. Click in the field to be modified.
Note: You can only modify fields that are not grayed out.
2. Enter information for your network environment.
3. Click **Apply** to apply changes.
4. Click **Refresh** to refresh information in the fields.

Field Descriptions

Descriptions for each field are listed in the following table.

Table 5. System Tab and Descriptions

Name	Description
Out of Band LAN IP	The IP address of the switch. The IP address of the switch can be changed by the administrator.
Net Mask	The current net mask settings for the Chassis. The net mask of the chassis can be changed by the administrator.
Mac Address	The MAC address of the switch.
Out of Band LAN IPv6	The IP v6 address of the switch. The out of band LAN address can be changed by the administrator.
Link-Local Address	The IP v6 Link-Local address of the switch.
System Description	A read-only textual description of the system.
Node Description	Assigned by the administrator, the node description is a fabric-applicable name that will be displayed within the Intel® Omni-Path Fabric Chassis Viewer. To reset this field to the default setting, click the Field Default button. <i>Note:</i> If this field has been changed since the last reboot of either management module, the next reboot will be treated as disruptive.
System Uptime	The elapsed time since the master management module was re-initialized.
System Contact	The textual identification of the contact person and their contact information for this system, assigned by the administrator.
System Name	The name for the system, assigned by an administrator. One convention is to use the system's fully qualified domain name.
System Location	The location of the system, assigned by an administrator.

3.3 Displaying and Modifying Chassis FRU Information

The **Chassis FRU** tab displays information about the switch Field Replaceable Unit (FRU).



Displaying the Chassis FRU Information

To display FRU information, perform the following steps:

1. From the Chassis Details window, select the **Chassis FRU** tab in the Component Information Area.

Figure 10. Chassis FRU Tab

Type	Description	Alias Name	Serial Num	Detail
main chassis	Intel(r) Omni-Path Director Class Switch 100 Series 24 slot	--Empty; No Value Set--	USA1231500005	Detail
power supply unit	Power Supply 101	--Empty; No Value Set--	15CS26175482	Detail
power supply unit	Power Supply 102	--Empty; No Value Set--	15CS11807691	Detail
power supply unit	Power Supply 103	--Empty; No Value Set--	15CS26175501	Detail
power supply unit	Power Supply 104	--Empty; No Value Set--	15CS11807670	Detail
power supply unit	Power Supply 105	--Empty; No Value Set--	15CS26175487	Detail

Apply Refresh

2. Click **Detail** to view more information about the FRU.
3. Click **Back** to return to the main window.

Modifying the Chassis FRU Information

Notes:

- White fields (Read/Write) allow you to add or modify applicable general and system information that is specific to your environment.
- Gray fields (Read Only) are tied to live data from the selected hardware component as well as live system information.

To modify information, perform the following steps:

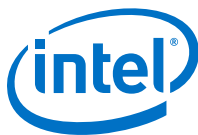
1. Click on the row to be modified.
The row's information will be displayed in the top row allowing you to modify fields that are not grayed out.
2. Enter information for your network environment.
3. Click **Apply** to apply changes.
4. Click **Refresh** to refresh information in the fields.

Field Descriptions

Descriptions for each field are listed in the following table.

Table 6. Chassis FRU Tab and Descriptions

Name	Description
Type	The type of component.
Description	A description of the component, assigned by an administrator.
<i>continued...</i>	



Name	Description
Alias Name	Name of the component, assigned by an administrator.
Serial Number	Component serial number.
Detail	A button for each row that displays additional detail about the component.
Part Number	Displays the part number of the component.
Model	Displays the model of the component.
Version	Displays the version of the component.
Manufacturer Name	Displays the manufacturer's name of the component.
Product Name	Displays the product name of the component.
Manufacturing ID	Displays the manufacturer's ID of the component.
Manufacturing Date	Displays the manufacturing date of the component.

3.4 Displaying and Modifying Chassis Power Supply Information

The **Power** tab displays information about the switch power supply.

Displaying the Chassis Power Supply Information

To display chassis power supply information, perform the following steps:

1. From the Chassis Details window, select the **Power** tab in the Component Information Area.

Figure 11. Power Tab

Chassis Power Supply Information			
Description	Status	Part Num	Detail
Power Supply 101	engaged	H64238-001	Detail
Power Supply 102	engaged	H64238-001	Detail
Power Supply 103	engaged	H64238-001	Detail
Power Supply 104	engaged	H64238-001	Detail
Power Supply 105	engaged	H64238-001	Detail
Power Supply 106	engaged	H64238-001	Detail

2. Click **Detail** to view more information about the Power Supply.
3. Click **Back** to return to the main window.

Modifying the Chassis Power Supply Information

Notes:

- White fields (Read/Write) allow you to add or modify applicable general and system information that is specific to your environment.
- Gray fields (Read Only) are tied to live data from the selected hardware component as well as live system information.



To modify information, perform the following steps:

1. Click on the row to be modified.
The row's information will be displayed in the top row allowing you to modify fields that are not grayed out.
2. Enter information for your network environment.
3. Click **Apply** to apply changes.
4. Click **Refresh** to refresh information in the fields.

Field Descriptions

Descriptions for each field are listed in the following table.

Table 7. Power Tab and Descriptions

Name	Description
Description	A description of the component, assigned by an administrator.
Status	Displays the status of the component.
Part Number	Displays the part number of the component.
Detail	A button for each row that displays additional detail about the component.
Manufacturer Name	Displays the manufacturer's name of the component.
Product Name	Displays the product name of the component.
Manufacturing ID	Displays the manufacturer's ID of the component.

3.5 Displaying and Modifying Chassis Fan Information

The **Fan** tab displays information about the switch fan.

Displaying the Chassis Fan Information

To display chassis fan information, perform the following steps:

1. From the Chassis Details window, select the **Chassis Fan** tab in the Component Information Area.

Figure 12. Fan Tab

Description	Status	Part Num	Detail
Fan 101	operational	H61413-002-01	Detail
Fan 101	operational	H61413-002-01	Detail
Fan 102	operational	H61413-002-01	Detail
Fan 102	operational	H61413-002-01	Detail
Fan 103	operational	H61413-002-01	Detail
Fan 103	operational	H61413-002-01	Detail



2. Click **Detail** to view more information about the Fan.
3. Click **Back** to return to the main window.

Modifying the Chassis Fan Information

Notes:

- White fields (Read/Write) allow you to add or modify applicable general and system information that is specific to your environment.
- Gray fields (Read Only) are tied to live data from the selected hardware component as well as live system information.

To modify information, perform the following steps:

1. Click on the row to be modified.
The row's information will be displayed in the top row allowing you to modify fields that are not grayed out.
2. Enter information for your network environment.
3. Click **Apply** to apply changes.
4. Click **Refresh** to refresh information in the fields.

Field Descriptions

Descriptions for each field are listed in the following table.

Table 8. Fan Tab and Descriptions

Name	Description
Description	A description of the component, assigned by an administrator.
Status	Displays the status of the component.
Part Number	Displays the part number of the component.
Detail	A button for each row that displays additional detail about the component.
Manufacturer Name	Displays the manufacturer's name of the component.
Product Name	Displays the product name of the component.
Manufacturing ID	Displays the manufacturer's ID of the component.

3.6 Displaying and Modifying Chassis Backplane Information

The **Backplane** tab displays information about the switch backplane.

Displaying the Chassis Backplane Information

To display chassis backplane information, perform the following steps:

1. From the Chassis Details window, select the **Backplane** tab in the Component Information Area.

**Figure 13. Backplane Tab**

Description	Serial Num	Part Num	Model	Detail
Backplane	USA1231500005	H59005-003-01	100SWD24CHS	Detail

Apply Refresh

2. Click **Detail** to view more information about the Backplane.
3. Click **Back** to return to the main window.

Modifying the Chassis Backplane Information

Notes:

- White fields (Read/Write) allow you to add or modify applicable general and system information that is specific to your environment.
- Gray fields (Read Only) are tied to live data from the selected hardware component as well as live system information.

To modify information, perform the following steps:

1. Click on the row to be modified.
The row's information is displayed in the top row allowing you to modify fields that are not grayed out.
2. Enter information for your network environment.
3. Click **Apply** to apply changes.
4. Click **Refresh** to refresh information in the fields.

Field Descriptions

Descriptions for each field are listed in the following table.

Table 9. Backplane Tab and Descriptions

Name	Description
Description	A description of the component, assigned by an administrator.
Serial Number	Displays the serial number of the component.
Part Number	Displays the part number of the component.
Model	Displays the model of the component.
Details Button	A button for each row that displays additional details about the component.
Version	Displays the version of the component.
Manufacturer Name	Displays the manufacturer's name of the component.

continued...



Name	Description
Product Name	Displays the product name of the component.
Manufacturing ID	Displays the manufacturer's ID of the component.
Manufacturing Date	Displays the manufacturing date of the component.



4.0 Using Toolbar Commands

Chassis Viewer provides two levels of toolbars. Buttons may vary according to configuration and the selected component.

- The **Chassis Viewer Banner Toolbar** is the top-level toolbar that appears on all screens inline with the title of the switch.
- The **Details Toolbar** appears below the banner toolbar, inline with the Details heading.

This section describes how to run the toolbar commands.

4.1 Getting Online Help

The ? (help) button allows you to learn more about the associated window or dialog.

In general, the help button appears in the Chassis Viewer banner toolbar, the Details toolbar, and almost every pop-up window and dialog.

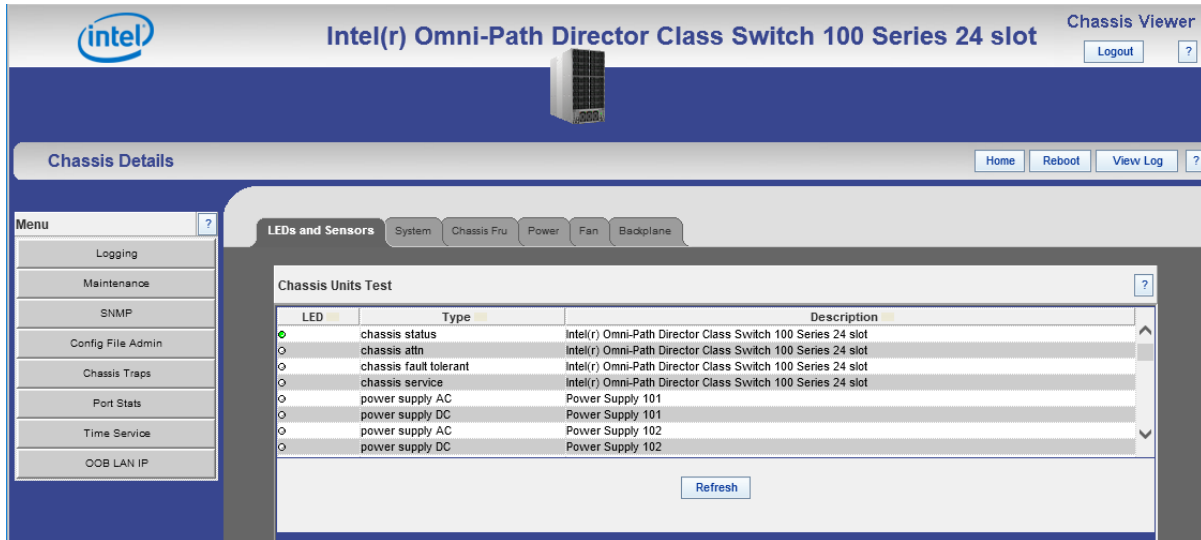
1. Click the ? button to view the context sensitive online help.



4.2 Viewing the Chassis Details

The **Chassis** button takes you to the Chassis Details page of the Intel® Omni-Path Director Class Switch 100 Series.

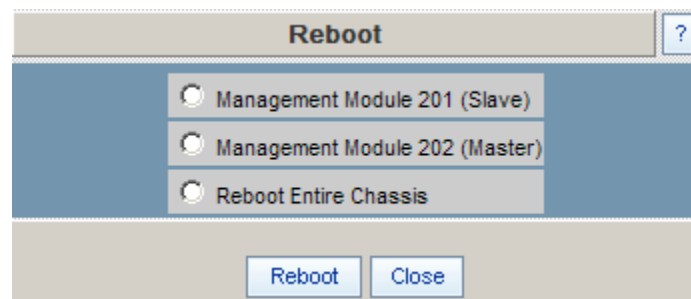
1. From the Chassis Viewer banner toolbar, click **Chassis**.
The Chassis Details page is displayed.



4.3 Rebooting the Intel® Omni-Path Director Class Switch 100 Series

The **Reboot** button allows you to reboot selected components or the entire switch.

1. From the Chassis Viewer banner toolbar, click **Reboot**.
The reboot dialog is displayed:



2. Select the management module to be rebooted, or select **Reboot Entire Chassis** to reboot the switch and all management modules.
3. Click **Reboot** to start the reboot or **Close** to cancel the dialog.

4.4 Rebooting the Intel® Omni-Path Edge Switch 100 Series

The **Reboot** button allows you to reboot the switch.

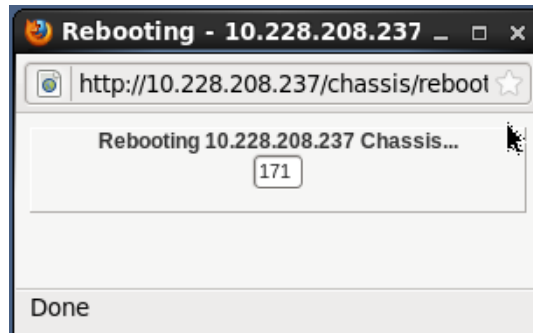
1. From the Chassis Viewer banner toolbar, click **Reboot**.



A confirmation window is displayed.

2. Click **OK** to reboot.

The following rebooting status window is displayed.



4.5 Logging Out of the Switch

Note:

The **Logout** button is displayed only if you have set the User Authentication parameter to **Login Enabled** through the HTTP Session Configuration submenu.

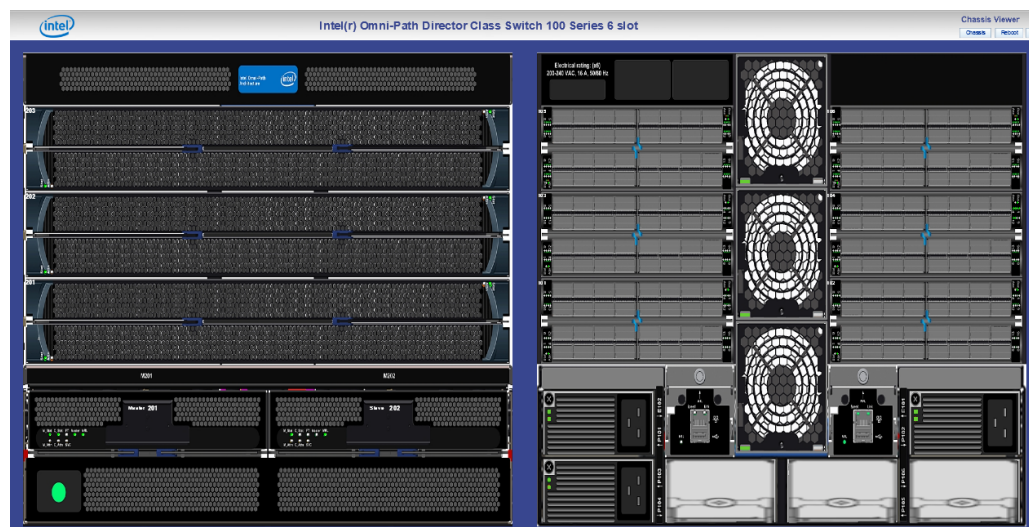
1. From the Chassis Viewer banner toolbar, click **Logout** to log out of the system.

4.6 Returning to the Home Page for the Intel® Omni-Path Director Class Switch 100 Series

The **Home** button takes you to the home page of the Intel® Omni-Path Director Class Switch 100 Series. From there, you can access other modules in the switch.

1. From the Chassis Details toolbar, click **Home**.

The Home page is displayed showing the different modules in the switch.





4.7 Viewing the FRU Information on the Intel® Omni-Path Director Class Switch 100 Series

The **View FRU** button provides a information about Field Replaceable Units (FRUs) of the Intel® Omni-Path Director Class Switch 100 Series, which could be useful when servicing or replacing a unit.

1. After selecting either Leaf, Spine, or Management Module from the Intel® Omni-Path Director Class Switch 100 Series Home Page, the **View FRU** button is available.
2. Click **View FRU**.

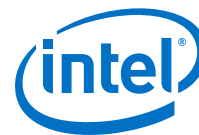
The FRU Information window is displayed.

Figure 14. FRU Information for Leaf and Spine

FRU Information - Spine 211		?
Product Name	100 OP Director Spine Module	
Fru Guid	00117501fd6c27b0	
Serial Number	USFU271500101	
Part Number	H59849-004-01	
Model	100SWDSPINE	
Version	004-01	
Manufacturer Name	Intel Corporation	
Manufacturer ID	001175	
Manufacturer Date/Time	2015/07/02 10:00	
<div>RefreshClose</div>		

Figure 15. FRU Information for Management Module

FRU Information - M201		?
Product Name	--Empty; No Value Set--	
Fru Guid	02000000fe00bad0	
Serial Number	--Empty; No Value Set--	
Part Number	--Empty; No Value Set--	
Model	--Empty; No Value Set--	
Version	--Empty; No Value Set--	
Manufacturer Name	--Empty; No Value Set--	
Manufacturer ID	--Empty; No Value Set--	
Manufacturer Date/Time	--Empty; No Value Set--	
Firmware Version	0rmna.013117.0040	
Firmware Date	Jan 27 2017	
<div>RefreshClose</div>		



3. Click **Refresh** to ensure latest information if required.
4. Click **Close** to dismiss the window.

Field Descriptions

Descriptions for each field are listed in the following table.

Table 10. FRU Information Field Descriptions for Intel® Omni-Path Director Class Switch 100 Series

Name	Description
Product Name	The name of the product
Fru Guid	The globally unique identifier for the product
Serial Number	A unique number identifying the product
Part Number	A number identifying the product line
Model	A descriptor identifying a specific model within the product line
Version	A number identifying the version of the component
Manufacturer Name	A field identifying the company that is manufacturing and/or selling the product
Manufacturer ID	A number that identifies the original manufacturer
Manufacturer Date/Time	A date and time stamp identifying when the product was manufactured
Firmware Version	A number identifying the firmware embedded in the card. Firmware may be updated without replacing the card. NOTE: This field displays only for the Management Module FRU.
Firmware Date	A date identifying when the Firmware was released NOTE: This field displays only for the Management Module FRU.

4.8 Viewing the FRU Information on the Intel® Omni-Path Edge Switch 100 Series

The **View FRU** button provides a information about Field Replaceable Units (FRUs) of the Intel® Omni-Path Edge Switch 100 Series, which could be useful when servicing or replacing a unit.

1. From the Chassis Details toolbar, click **View FRU**.

The FRU Information window is displayed.



FRU Information - Module ?	
Product Name	100 OPA Edge 24p Mngd Fwd 2PS
Fru Guid	00117501f866f2c4
Serial Number	USFU491500038
Part Number	H89530-002-01
Model	100SWE24QF
Version	002-01
Manufacturer Name	Intel Corporation
Manufacturer ID	001175
Manufacturer Date/Time	15/12/03 10:00
Firmware Version	10.2.0.0.29
Firmware Date	May 31 2016
<div>Refresh Close</div>	

2. Click **Refresh** to ensure latest information if required.
3. Click **Close** to dismiss the window.

Field Descriptions

Descriptions for each field are listed in the following table.

Table 11. FRU Information Field Descriptions for Intel® Omni-Path Edge Switch 100 Series

Name	Description
Product Name	The name of the product
Fru Guid	The globally unique identifier for the product
Serial Number	A unique number identifying the product
Part Number	A number identifying the product line
Model	A descriptor identifying a specific model within the product line
Version	A number identifying the version of the component
Manufacturer Name	A field identifying the company that is manufacturing and/or selling the product
Manufacturer ID	A number that identifies the original manufacturer
Manufacturer Date/Time	A date and time stamp identifying when the product was manufactured
Firmware Version	A number identifying the firmware embedded in the card. Firmware may be updated without replacing the card.
Firmware Date	A date identifying when the Firmware was released

4.9 Viewing the Log from the Toolbar

The **View Log** button located on the Chassis Details toolbar provides a list of the log messages for the chassis.

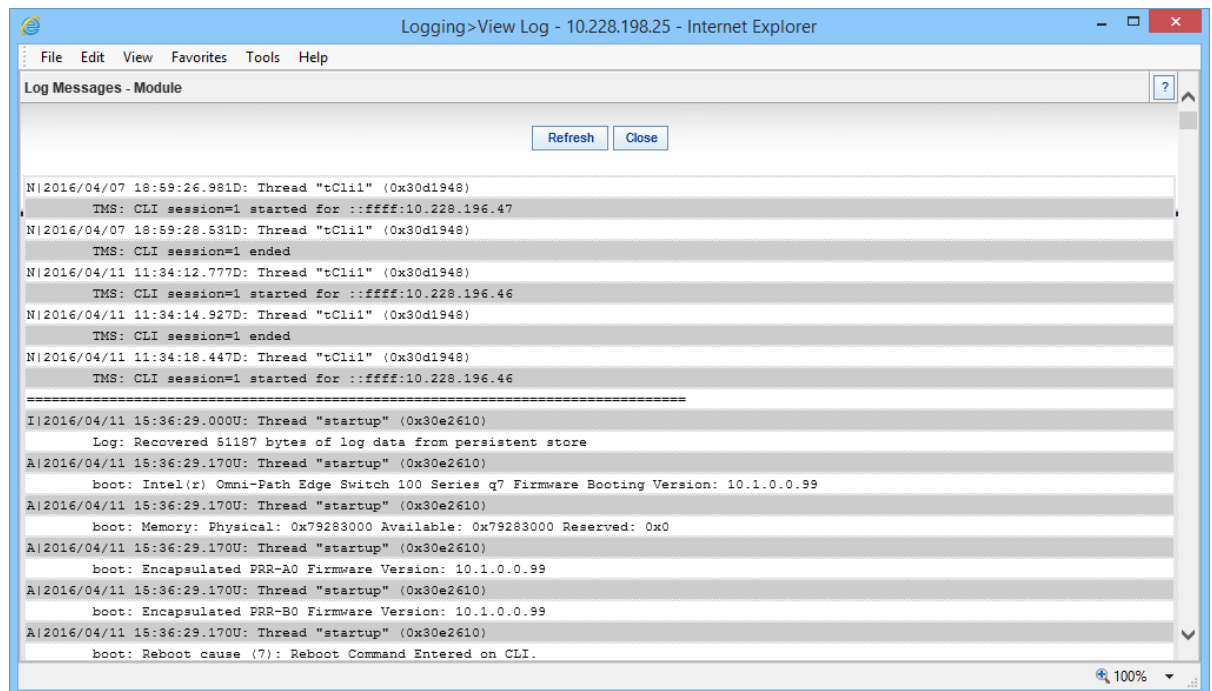


Note: Enhanced logging can be used to capture user activities (such as logging in and out) and operational commands (such as upgrading software or restarting the system) in the log file. You enable or disable enhanced logging using the `auditLog` CLI command discussed in the *Intel® Omni-Path Fabric Switches Command Line Interface Reference Guide*.

Viewing the Log

To view the message log:

1. From the Chassis Details toolbar on the Home Page, click the **View Log**. The **Log Message** window is displayed.



2. Click **Refresh** to ensure latest information, if required.
3. Click **Close** to dismiss the window.

Saving the Log

To save a log message for further analysis, perform the following steps:

1. Use your Web Browser's capabilities to select and copy the text.
2. In a text editing package, such as Notepad, paste the text.
3. Save as a plain text (.txt) file.

5.0 Configuring and Monitoring the Switch

This section presents tasks using the Chassis Viewer for configuring and monitoring switch components.

Tasks are organized in the following categories:

- Logging
- Maintenance
- SNMP
- Configuration File Administration
- Chassis Traps
- Port Statistics
- Time Service
- OOB LAN IP
- Subnet Manager

5.1 Logging

The **Logging** menu allows you to manage logging for the Switch.

Figure 16. Chassis Detail Logging Menu for Intel® Omni-Path Edge Switch 100 Series

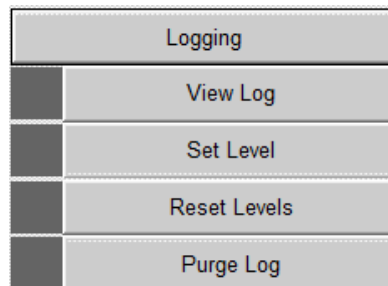
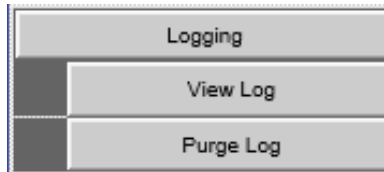


Figure 17. Chassis Detail Logging Menu for Intel® Omni-Path Director Class Switch 100 Series





Figure 18. Management Module Logging Menu



5.1.1 Configuring the Syslog Server

To avoid losing log information in the event of a hardware failure, Intel recommends that you configure a syslog server.

Note: To centralize logging for all switches in a fabric, you can configure each switch to point to the same syslog server, which has the syslog daemon (`syslogd`) running.

1. Edit the `/etc/syslog` file and ensure that the `-r` option is included in `SYSLOGD_OPTIONS`. This allows logging from a remote system.

```
SYSLOGD_OPTIONS="-r -m 0"
```

2. Add or un-comment the following two lines from `/etc/rsyslog.conf` to provide UDP syslog reception:

```
$ModLoad imudp
$UDPServerRun 514
```

3. In the `/etc/rsyslog.conf` file, add the following text as the first rule:

```
$template ChassisBasedLog, "/var/log/chassis/%HOSTNAME%.log"
if $fromhost-ip != '<DNS_PREFIX' then -?ChassisBasedLog
&~
```

For example, if the DNS name for the switches is prefixed with `phemb`, then the rule reads:

```
$template ChassisBasedLog, "/var/log/chassis/%HOSTNAME%.log"
if $fromhost-ip != 'phemb' then -?ChassisBasedLog
&~
```

4. Type `/etc/init.d/syslog restart`, and press **Enter**.

Post-requisites: To test that the message is being sent/received:

- Run the following command line at the server:

```
tcpdump udp port 514
```

- Run the following command line at the switch:

```
logSyslogTest -e
```



5.1.2 Viewing the Log for the Intel® Omni-Path Director Class Switch 100 Series

The **View Log** menu allows you to view a recent snapshot of the log. Currently, the log displays the last 25 K of messages it contains. Each management module maintains a separate log.

Note: Enhanced logging can be used to capture user activities (such as logging in and out) and operational commands (such as upgrading software or restarting the system) in the log file. You enable or disable enhanced logging using the `auditLog CLI` command discussed in the *Intel® Omni-Path Fabric Switches Command Line Interface Reference Guide*.

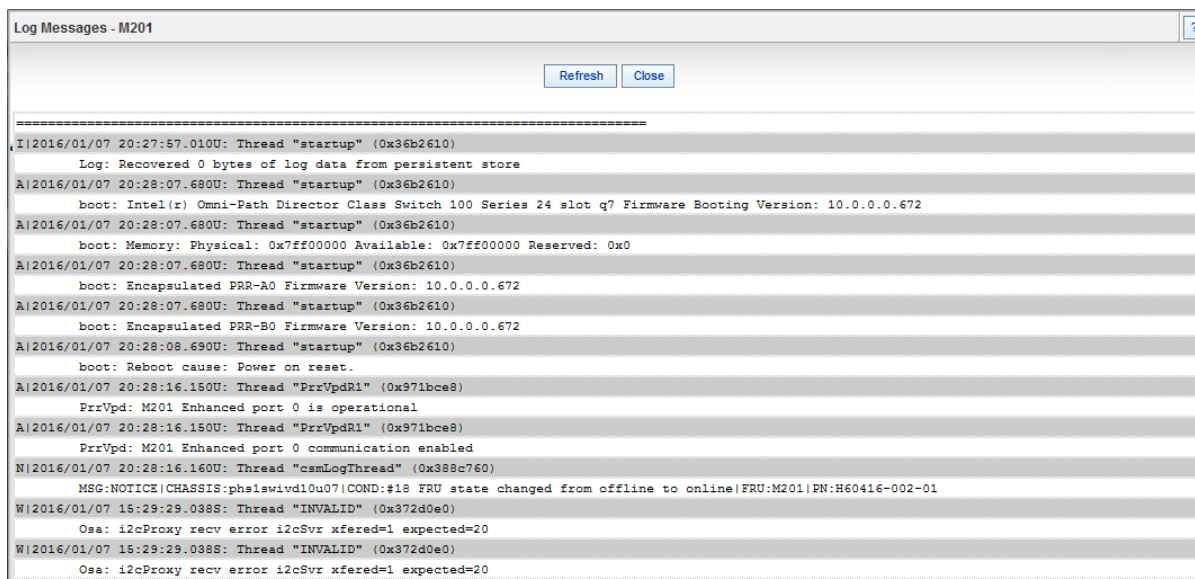
Note: You can also quickly view the message log by clicking the **View Log** button located on the Chassis Details toolbar.

Viewing the Log

To view the message log, perform the following steps:

1. From the Maintenance Module main menu, select **Logging**.
2. Click **View Log**.

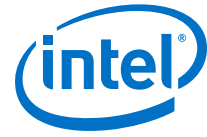
The **Log Message** window is displayed.



3. Refer to [Common Log Messages](#) on page 46 for a list of elements found in the log.
4. Click **Refresh** to refresh the messages.
5. Click **Close** to dismiss the window.

Saving the Log

To save a log message for further analysis, perform the following steps:



1. Use your Web Browser's capabilities to select and copy the text.
2. In a text editing package, such as Notepad, paste the text.
3. Save as a plain text (.txt) file.

5.1.3 Viewing the Log for the Intel® Omni-Path Edge Switch 100 Series

The **View Log** menu allows you to view a recent snapshot of the log. Currently, the log displays the last 25K of messages it contains.

Note: Enhanced logging can be used to capture user activities (such as logging in and out) and operational commands (such as upgrading software or restarting the system) in the log file. You enable or disable enhanced logging using the `auditLog` CLI command discussed in the *Intel® Omni-Path Fabric Switches Command Line Interface Reference Guide*.

Note: You can also quickly view the message log by clicking the **View Log** button located on the Chassis Details toolbar.

Viewing the Log

To view the message log, perform the following steps:

1. From the Chassis Details main menu, select **Logging**.
2. Click **View Log**.

The **Log Message** window is displayed.

```

Log Messages - Intel Omni-Path Edge Switch 100 Series

=====
I|2014/11/09 22:15:16.000U: Thread "startup" (0x3694a20), Log_PersistentRamDevice.cpp, Line 72
Log: Recovered 0 bytes of log data from persistent store
A|2014/11/09 22:15:16.430U: Thread "startup" (0x3694a20), Ics_Init.cpp, Line 236
boot: Intel Omni-Path Edge Switch 100 Series q7 Firmware Booting Version: 0usha.110215.0911
A|2014/11/09 22:15:16.440U: Thread "startup" (0x3694a20), Ics_Init.cpp, Line 240
boot: Memory: Physical: 0x7ff00000 Available: 0x7ff00000 Reserved: 0x0
A|2014/11/09 22:15:16.450U: Thread "startup" (0x3694a20), Ics_Init.cpp, Line 245
boot: Encapsulated PRR-A0 Firmware Version: 0usha.110215.0911
A|2014/11/09 22:15:16.470U: Thread "startup" (0x3694a20), Ics_Init.cpp, Line 245
boot: Encapsulated PRR-B0 Firmware Version: 0usha.110215.0911
A|2014/11/09 22:15:16.490U: Thread "startup" (0x3694a20), BootCfgMgr.c, Line 698
boot: Reboot cause: Power on reset.
W|2014/11/09 22:15:22.920U: Thread "csnLogThread" (0x43c58c0), ../bspcommon/csmChassisEventLog.c, Line 687
MSG:WARNING|CHASSIS:OmniPth00117501ff513201(COND:#6 Power Supply N+1 redundancy not available|FRU:Chassis|PN:H50565-003
A|2014/11/09 22:15:31.320U: Thread "PrrVpdR1" (0x7115cf0), PrrVpd.c, Line 10745
PrrVpd: Enhanced port 0 is operational
A|2014/11/09 22:15:31.320U: Thread "PrrVpdR1" (0x7115cf0), PrrVpd.c, Line 10745
PrrVpd: Enhanced port 0 communication enabled
N|2014/11/09 22:15:32.050U: Thread "csnLogThread" (0x43c58c0), ../bspcommon/csmChassisEventLog.c, Line 691
MSG:NOTICE|CHASSIS:OmniPth00117501ff513201(COND:#18 FRU state changed from offline to online|FRU:Intel Omni-Path Edge Switch 100 Series|PN:H50565-003
W|2014/11/09 22:16:16.650U: Thread "csnLogThread" (0x43c58c0), ../bspcommon/csmChassisEventLog.c, Line 687
MSG:WARNING|CHASSIS:OmniPth00117501ff513201(COND:#17 FRU state changed from online to offline|FRU:Power Supply 1|PN:N/A
=====

```

3. Refer to [Common Log Messages](#) on page 46 for a list of elements found in the log.
4. Click **Refresh** to refresh the messages.
5. Click **Close** to dismiss the window.



Saving the Log

To save a log message for further analysis, perform the following steps:

1. Use your Web Browser's capabilities to select and copy the text.
2. In a text editing package, such as Notepad, paste the text.
3. Save as a plain text (.txt) file.

5.1.4 Common Log Messages

The Messages window currently displays the last 25K of messages that the log file contains.

Messages are displayed in rows. Each row may contain one or more of the following elements:

- **Severity**

Severity may be one of the following values:

- Dump (D): Indicates that a problem has caused the system to produce a system dump file. In most circumstances, it is recommended that the user retrieve the dump that was produced. Support engineers may require the information contained in the dump file to diagnose the cause of the problem.
- Fatal (F): Indicates that a non-recoverable system problem has occurred. The user should reboot the system or component and verify that the subsystem is fully functional to determine whether the fault has been corrected. If the problem persists, the user should contact the supplier.
- Error (E): Indicates that a serious system error has occurred which might be recoverable. If the system exhibits any instability, the user should reboot the system or component. If errors persist, the user should immediately contact the supplier's technical support.
- Alarm (A): Indicates that a serious problem has occurred that degrades capacity or service. The error is recoverable, however the user should correct the failure. If the alarm/failure persists, the user should reboot the system at a convenient time. If the problem is still not cleared, the user should contact the supplier.
- Warning (W): Indicates that a recoverable problem has occurred. The user does not need to take action.
- Partial (P): When more information is available, Partial causes additional message-related details to be displayed.
- Configuration (C): An informational message indicating changes that a user has made to the system configuration. The user does not need to take any action.
- Informational (I): Messages that occur during a system or component boot. The user does not need to take any action.
- Periodic (P): An informational message containing periodic statistics. The user does not need to take action.
- Notice (N): Events that can be interpreted as either user-influenced or an actual failure.



- Debug message levels 1 through 5: Debug messages are for supplier and/or manufacturer engineering use and are not necessarily indicative of actions that an end user may need to take.
 - Debug 1 - Messages that describe the states of connections and links.
 - Debug 2 - Messages that describe major configuration changes or operations.
 - Debug 3 - Messages that describe the I/O flow.
 - Debug 4 - Messages that contain the packet dumps within an I/O flow. I/O flows contain multiple packets.
 - Debug 5 - Messages that contain low level details relating to the packets or I/O flow.

Important: When configuring the log levels to display debug messages, care should be taken to ensure that system performance issues are weighed against troubleshooting requirements. Generally, the higher the debug number the more information is written to the log. Specifically, debug 3-5 have the most impact on system performance.

- **Timestamp**

The Timestamp provides an indication of when the event/message occurred.

Timestamp may have one of two formats, depending on whether a real time clock is available and configured.

- **Thread**

The Thread field indicates the processing context of the message.

- **Source File**

When it is present in the message, the Source File field indicates the name of the programming source file initiating the message.

- **Source Line**

When it is present in the message, the Source Line field indicates the line of code within the programming source file initiating the message.

- **Description**

The Description field provides information about the message. Information may include any of the following items

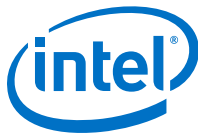
- Information: Details describing the system or one of its components.
- Problem: Details about a problem that has occurred.
- Response: An indication about what the system will do in response to a problem.
- Correction: Possible actions that the user should take in response to a problem.

- **Enhanced Logging Fields**

These fields only appear when enhanced logging is enabled through the CLI command "auditLog". Refer to the *Intel® Omni-Path Fabric Switches Command Line Interface Reference Guide* for more details.

- **User**

The User field indicates the user name of the person who issued the operation.



— **Client_IP**

The Client_IP field indicates the IP address of the client that issued the operation.

— **GUI Activity**

The GUI Activity field provides a short description of the operation and is limited to 127 characters.

Note: If the description is greater than 127 characters, it will expand to multiple log messages.

5.1.5 Setting Log Levels

The **Set Level** menu allows you to set log level configuration parameters for all software modules.

To efficiently set up log filtering, enable only those levels that need to appear in the log. The levels are handled by two layers:

- **Device Levels:** This allows you to select the levels of log messages to be saved.
- **Preset Layer:** This layer allows you to select the levels of messages the switch will generate. If the level is selected here, it can be logged against the Ram Device or the Syslog Device. Any unselected levels will not be logged against any device.

Setting Device Log Levels

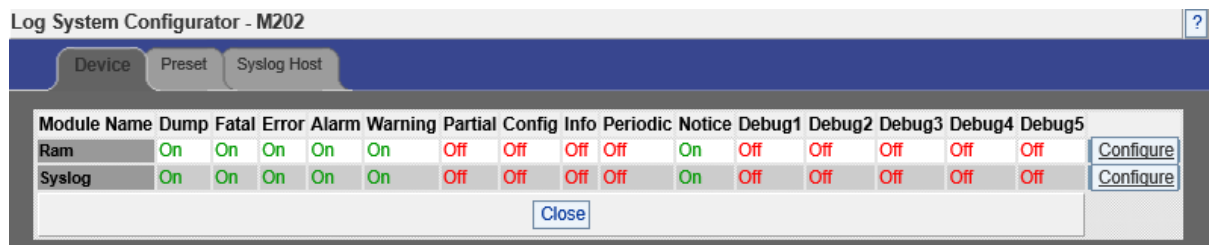
The **Device** tab presents current log level configuration settings for the following software modules:

- **RAM:** The circular log buffer contained in memory. To access the contents of this buffer, use the Chassis Viewer **View Log** button.
- **Syslog:** Messages that are sent to the syslog host.

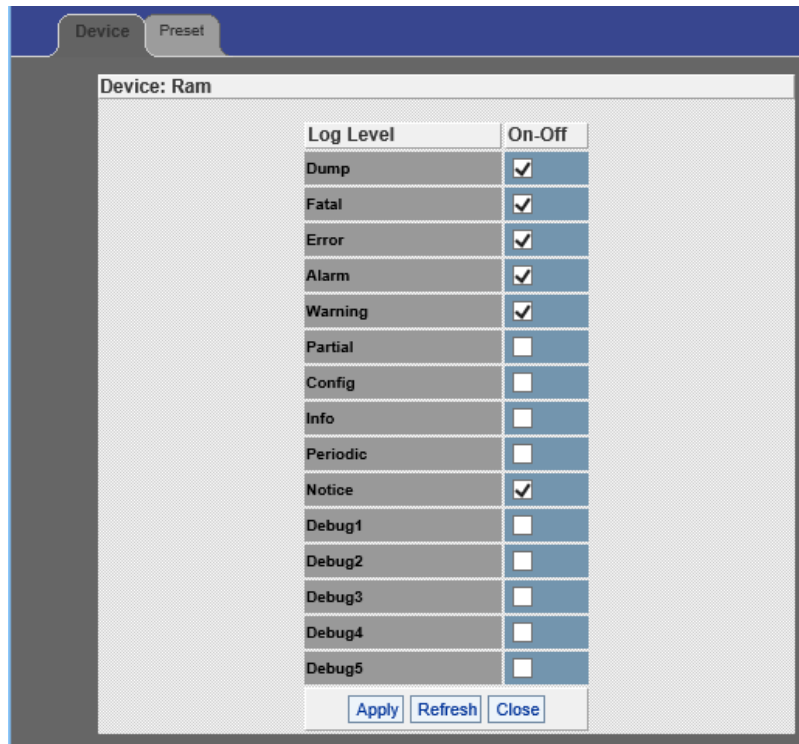
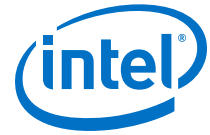
To set device log levels, perform the following steps:

1. From the Chassis Details main menu, select **Logging**.
2. Click **Set Level**.

The **Log System Configurator** window (**Device** tab) is displayed.



3. For each module to be configured, click the **Configure** button. (Refer to [Field Descriptions](#) on page 51 for field descriptions.)

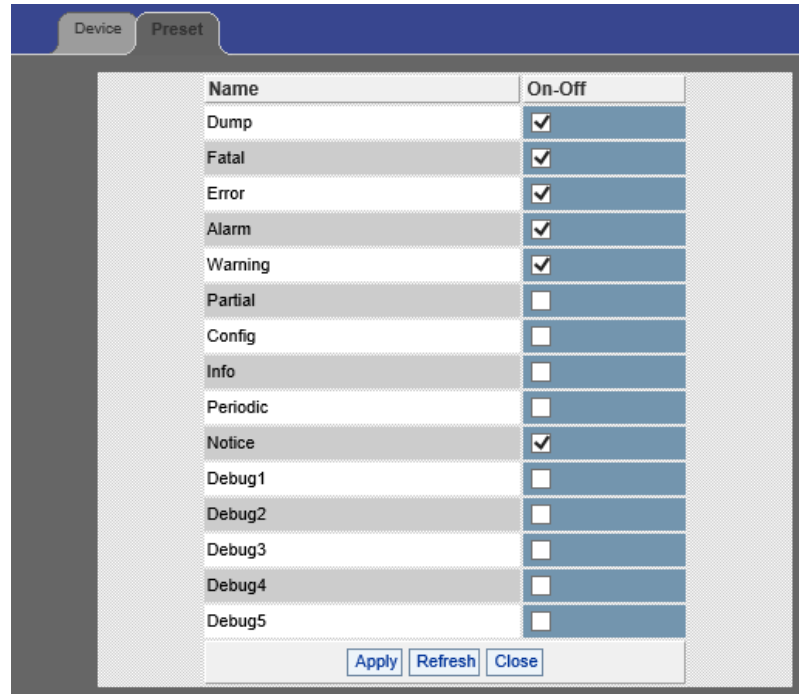


- Select or clear the On-Off checkbox to set target log levels.
 - Click **Apply**.
 - Click **Close** to close the dialog and go back to the **Device** tab.
- Click **Close** to dismiss the window.

Setting Preset Log Levels

To set preset log levels, perform the following steps:

- From the Chassis Details main menu, select **Logging**.
- Click **Set Level**.
- Click on the **Preset** tab.



Name	On-Off
Dump	<input checked="" type="checkbox"/>
Fatal	<input checked="" type="checkbox"/>
Error	<input checked="" type="checkbox"/>
Alarm	<input checked="" type="checkbox"/>
Warning	<input checked="" type="checkbox"/>
Partial	<input type="checkbox"/>
Config	<input type="checkbox"/>
Info	<input type="checkbox"/>
Periodic	<input type="checkbox"/>
Notice	<input checked="" type="checkbox"/>
Debug1	<input type="checkbox"/>
Debug2	<input type="checkbox"/>
Debug3	<input type="checkbox"/>
Debug4	<input type="checkbox"/>
Debug5	<input type="checkbox"/>

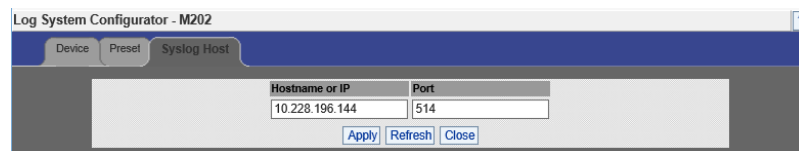
Apply Refresh Close

4. Select or clear the On-Off checkbox to set preset log levels. (Refer to [Field Descriptions](#) for field descriptions.)
5. Click **Apply**.
6. Click **Close** to close the dialog and go back to the **Preset** tab.
7. Click **Close** to dismiss the window.

Setting the Syslog Host

To set syslog host, perform the following steps:

1. From the Chassis Details main menu, select **Logging**.
2. Click **Set Level**.
3. Click on the **Syslog Host** tab.



Hostname or IP	Port
10.228.196.144	514

Apply Refresh Close

4. Enter the hostname or IP address for the syslog server.
5. Enter the port number.
6. Click **Apply** to apply changes.
7. Click **Refresh** to refresh information in the fields.
8. Click **Close** to dismiss the window.



Field Descriptions

Descriptions for each field in the **Log System Configurator, Device** and **Preset** windows are listed in the following table.

Table 12. Log System Configurator Field Descriptions

Name	Description
DUMP	Indicates that a problem has caused the system to produce a system dump file. Intel recommends that you retrieve the dump that was produced. Support engineers may require the information contained in the dump file to diagnose the cause of the problem.
FATAL	Indicates that a non-recoverable system problem has occurred. You should reboot the system or component and verify that the subsystem is fully functional to determine whether the fault has been corrected. If the problem persists, you should contact the supplier.
ERROR	Indicates that a serious system error has occurred that might be recoverable. If the system exhibits any instability, you should reboot the system or component. If errors persist, you should immediately contact the supplier's technical support.
ALARM	Indicates that a serious problem has occurred that degrades capacity or service. If the error is recoverable, you should correct the failure. If the alarm/failure persists, you should reboot the system at a convenient time. If the problem is still not cleared, you should contact the supplier.
WARNING	Indicates that a recoverable problem has occurred. You do not need to take action.
PARTIAL	When more information is available, Partial causes additional message-related details to be displayed.
CONFIGURATION	An informational message indicating changes that a user has made to the system configuration. You do not need to take any action.
INFO	Informational messages that occur during a system or component boot. You do not need to take any action.
PERIODIC	An informational message containing periodic statistics. You do not need to take action.
NOTICE	Notice is used for failures that could be a result of "frequent" user actions, such as a server reboot.
Debug Message Levels 1 through 5 Debug messages are for supplier and engineering use and are not necessarily indicative of actions that you may need to take.	
DEBUG1	Messages that describe the states of connections and links.
DEBUG2	Messages that describe major configuration changes or operations.
DEBUG3	Messages that describe the I/O flow.
DEBUG4	Messages that contain the packet dumps within an I/O flow. I/O flows contain multiple packets.
DEBUG5	Messages that contain the packet dumps within an I/O flow. I/O flows contain multiple packets.
Syslog Host	
Hostname or IP	The hostname or IP address of the syslog server.
Port	The port number for the syslog server. The default is 514.



Caution: When configuring the log levels to display debug messages, be careful to ensure that system performance issues are weighed against troubleshooting requirements. Generally, the higher the debug number, the more information is written to the log. Specifically, DEBUG3 through DEBUG5 have the most effect on system performance.

5.1.6 Resetting Log Levels

The **Reset Levels** menu resets the logging levels to their factory default values.

To reset the logging levels, perform the following steps:

1. From the Chassis Details main menu, select **Logging**.
2. Click **Reset Levels**.
3. Click **OK** to reset logging or **Cancel**.

5.1.7 Purging the Log for the Intel® Omni-Path Director Class Switch 100 Series

The **Purge Log** menu purges the RAM, clearing the log files. For example, in order to clearly document the results of a troubleshooting test, the user would first purge the existing message log file.

To purge the log, perform the following steps:

1. From the Maintenance Module main menu, select **Logging**.
2. Click **Purge Log**.
3. Click **OK** to confirm purge.

The message log file is purged.

5.1.8 Purging the Log for the Intel® Omni-Path Edge Switch 100 Series

The **Purge Log** menu purges the RAM, clearing the log files. For example, in order to clearly document the results of a troubleshooting test, the user would first purge the existing message log file.

To purge the log, perform the following steps:

1. From the Chassis Details main menu, select **Logging**.
2. Click **Purge Log**.
3. Click **OK** to confirm purge.

The message log file is purged.

5.2 Maintenance

The **Maintenance** menu allows you to perform maintenance functions for the switch, including selecting an alternate firmware file for the switch and setting HTTP and CLI session time out parameters.

Note that submenu options may be different depending on the type of switch. The tasks in this section will note the applicable switch.



Figure 19. Chassis Detail Maintenance Menu for Intel® Omni-Path Edge Switch 100 Series

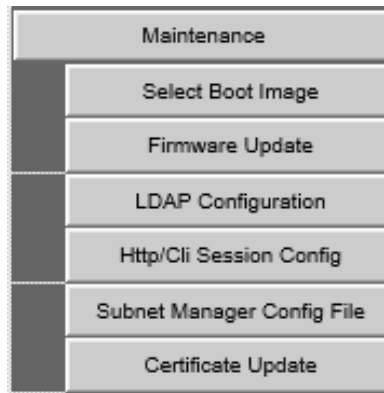


Figure 20. Chassis Detail Maintenance Menu for Intel® OP Director Class Switch 100 Series

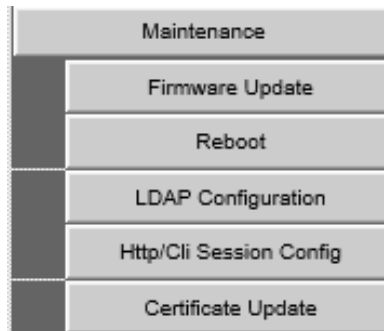
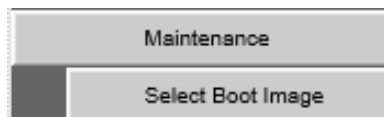


Figure 21. Management Module Maintenance Menu



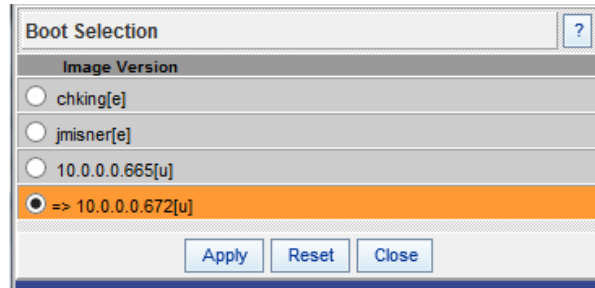
5.2.1 Selecting the Boot Image for the Intel® Omni-Path Director Class Switch 100 Series

The **Select Boot Image** menu allows you to choose an alternative boot image for the management module.

To select a boot image, perform the following steps:

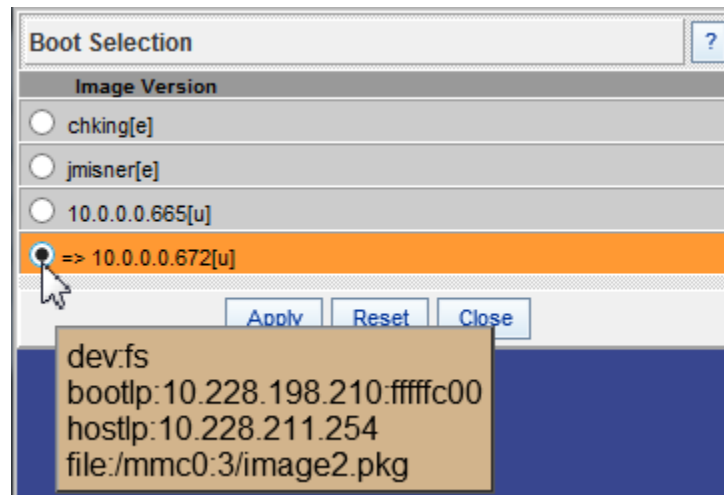
1. From the Management Module main menu, select **Maintenance**.
2. Click **Select Boot Image**.

The **Boot Image Selection** window is displayed.



Note: The boot image that is currently active is indicated with an arrow (=>) to the left of the listing.

3. You can view additional information about each file by placing your cursor over the image options in the **Boot Selection** window.



4. Select the new boot image.
5. Click **Apply** to activate the image the next time the card is rebooted or click **Reset** to return the window to its original state.
6. Click **Close** to close the window.

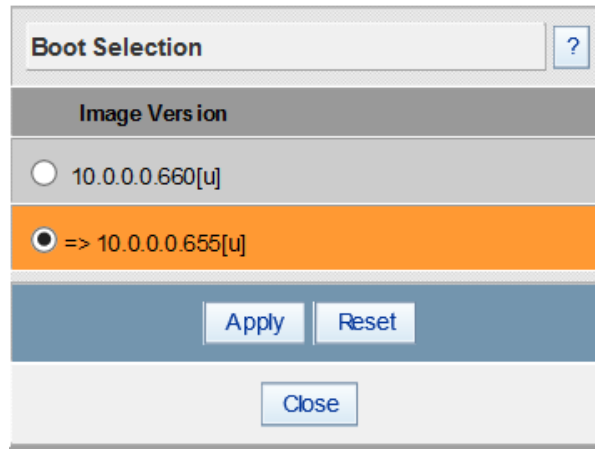
5.2.2 Selecting the Boot Image for the Intel® Omni-Path Edge Switch 100 Series

The **Select Boot Image** menu allows you to choose an alternative boot image for the switch.

To select a boot image, perform the following steps:

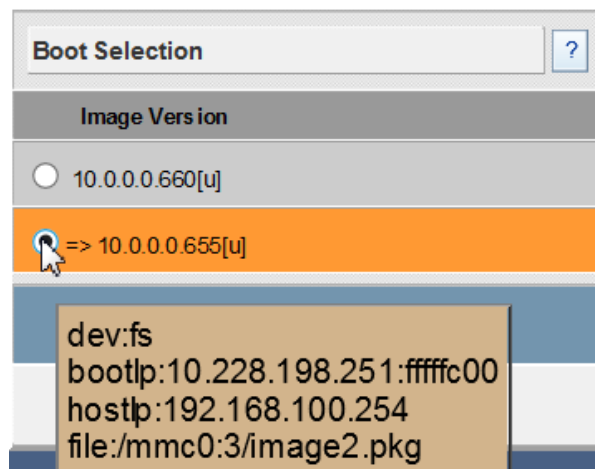
1. From the Chassis Details main menu, select **Maintenance**.
2. Click **Select Boot Image**.

The **Boot Image Selection** window is displayed.



Note: The boot image that is currently active is indicated with an arrow (=>) to the left of the listing.

3. You can view additional information about each file by placing your cursor over the radio button in the **Boot Selection** window.



4. Select the new boot image radio button.
5. Click **Apply** to activate the image the next time the card is rebooted or click **Reset** to return the window to its original state.
6. Click **Close** to close the window.

5.2.3 Updating the Firmware for Intel® Omni-Path Director Class Switch 100 Series

The **Firmware Update** menu allows you to update firmware files and select an alternate firmware file to run at the next boot. The firmware files are listed in the **Firmware Update** window.



Note: Two firmware images are installed on each module: one is the active booted image and the other is available to be overwritten. You cannot update the active booted image.

To update both firmware images on each module, first update the Image to be Overwritten, reboot the switch to make it the booted image, then update the new Image to be Overwritten.

To update a firmware image, perform the following steps:

1. From the Chassis Details main menu, select **Maintenance**.
2. Click **Firmware Update**.

The **Firmware Update** window is displayed.

Select Target Slot	Image to Overwrite	Booted Image	Run at Next Boot	Completion State
<input type="checkbox"/> M201	10.2.0.0.29[2]	10.2.0.0.52[1]	<input type="checkbox"/>	
<input type="checkbox"/> M202	10.2.0.0.29[2]	10.2.0.0.52[1]	<input type="checkbox"/>	

Firmware Update Package:

3. In the **Select Target Slot** column, select the hardware component to change its firmware.
Note: If there are multiple modules of the same type, you can select all slots that apply.
4. In the Firmware Update Package text box, enter the path to the alternate firmware file. If the path is not known, you can use the **Browse...** button to locate it.
Note: Before using the **Browse...** button, make certain that the browser is tied to an SFTP server where the firmware files reside (that is, if the firmware file does not reside on the local computer).
5. Select the **Run at Next Boot** checkbox to have the new image become active after the next reboot.
6. Click the **Update Firmware** button.
7. Click **Refresh** to monitor the Completion State of the update.
8. Click **Close** to dismiss the **Firmware Update** window.
9. Reboot the management modules or entire chassis (refer to [Rebooting the Intel® Omni-Path Director Class Switch 100 Series](#) on page 36).

The updated firmware is now the booted image.

Field Descriptions

Descriptions for each field are listed below.

**Table 13. Firmware Update Field Descriptions**

Name	Description
Select Target Slot	Provides a list of hardware to which firmware can be applied by selecting the appropriate checkboxes.
Image to be Overwritten	Lists the current inactive images to which a new image can be written. The product contains two images, an active image and inactive image. Since only inactive images can be overwritten, the list contains a single image.
Booted Image	Lists the active image.
Run at Next Boot	Allows the user to boot from the image specified in the Image to Overwrite column. If the check box is selected, the card boots from the new image specified in the Image to Overwrite column. Otherwise, the card boots from the image listed in the Booted Image column.
Completion State	Describes the status of the update for the specified hardware. Possible values include the following states: <ul style="list-style-type: none"> • Not Selected: Displays when a slot contains a card but the card is not selected in the Select Target Slot column. • N/A Empty: Displays when the slot does not contain a card • Completed: Displays when the image in the Image to Overwrite column is successfully overwritten. • Failed: Displays when an update fails. If the update should fail, a message displays indicating failure and the Firmware Update Status area will report Failed as the Completion State. This Failed state persists until the specific image has been successfully updated. If the Boot? column is selected, the card attempts to boot from the incomplete image. To prevent this from occurring, ensure the Boot? column is deselected before rebooting any card that has a failed update status.
Firmware Updated Package	Allows you to enter the path and filename of the firmware image.

5.2.4 Updating the Firmware for Intel® Omni-Path Edge Switch 100 Series

The **Firmware Update** menu allows you to update the firmware file by uploading an alternate firmware file to run at the next boot.

Note: Two firmware images are installed on each module: one is the active booted image and the other is available to be overwritten. You cannot update the active booted image.

To update both firmware images, first update the Image to be Overwritten, reboot the switch to make it the booted image, then update the new Image to be Overwritten.

To update a firmware file, perform the following steps:

1. From the Chassis Details main menu, select **Maintenance**.
2. Click **Firmware Update**.

The **Firmware Update** window is displayed.



Firmware Update - Intel(r) Omni-Path Edge Switch 100 Series

Image To Be Overwritten:	10.1.0.0.133 (@ Flash Image #2)
Booted Image:	10.2.0.0.29

Firmware Update Package: [Browse...](#)

[Update Firmware](#) [Close](#) [Refresh](#)

3. In the Firmware Update Package text box, enter the path to the alternate firmware file. If the path is not known, you can use the **Browse...** button to locate it.

Note: Before using the **Browse...** button, make certain that the browser is tied to an SFTP server where the firmware files reside (that is, if the firmware file does not reside on the local computer).

4. Click the **Update Firmware** button.
5. Click **Refresh** to monitor the Completion State of the update.
6. Click **Close** to dismiss the **Firmware Update** window.
7. Reboot the switch (refer to [Rebooting the Intel® Omni-Path Edge Switch 100 Series](#) on page 36).

The updated firmware is now the booted image.

Field Descriptions

Descriptions for each field are listed below.

Table 14. Firmware Update Field Descriptions

Name	Description
Image to be Overwritten	Lists the current inactive image(s) to which a new image can be written. The product contains two images, an active image and inactive image. Since only inactive images can be overwritten, the list contains a single image.
Booted Image	Lists the active image.
Firmware Updated Package	Allows you to enter the path and filename of the firmware image.

5.2.5 Rebooting the Intel® Omni-Path Director Class Switch 100 Series

The **Reboot** button allows you to reboot selected components or the entire switch.



1. From the Chassis Details main menu, click **Maintenance**.
2. Click **Reboot**.
The reboot dialog is displayed:

Reboot	
<input type="radio"/>	Management Module 201 (Slave)
<input type="radio"/>	Management Module 202 (Master)
<input type="radio"/>	Reboot Entire Chassis
<input type="button" value="Reboot"/> <input type="button" value="Close"/>	

3. Select the management module to be rebooted, or select **Reboot Entire Chassis** to reboot the switch and all management modules.
4. Click **Reboot** to start the reboot or **Close** to cancel the dialog.

5.2.6 Configuring LDAP Authentication

The lightweight directory access protocol (LDAP) configuration feature allows you to set and configure authentication for the switch. The LDAP service resides on a server that has access to a usercode and password database.

When a user attempts to log into either the Chassis Viewer or the console, the LDAP client intercepts the login attempt and rather than authenticating internally, encrypts and packages the information in an LDAP packet and sends it to a pre-configured LDAP server over TCP/IP (that is, the out-of-band LAN). The LDAP server receives the request, passes it on to the authentication services, and responds to the client with a yes or no, either allowing or denying the user access.

When LDAP is disabled, internal authentication becomes the default.

To set up LDAP authentication, perform the following steps:

1. From the Chassis Details main menu, select **Maintenance**.
2. Click **LDAP Configuration**.

The **LDAP Authentication** window is displayed.

LDAP Authentication - Module	
Field Name	Value
LDAP Server IP Address	<input type="text"/>
LDAP Server Port	<input type="text"/>
<input type="button" value="Apply"/> <input type="button" value="Refresh"/> <input type="button" value="Close"/>	



3. In the **LDAP Server IP Address** field, enter the address of the applicable LDAP server.
4. In the **LDAP Server Port** field, enter the applicable server port number (the default is 389).
5. Click **Apply** to update the IP Address and Port of the server.
6. Click **Refresh** to refresh the window.
7. Click **Close** to close the window.

5.2.7 Configuring the HTTP/CLI Session

The hypertext transfer protocol (HTTP) and command line interface (CLI) session configuration feature allows you to set HTTP and CLI session time out parameters, as well as set security requirements for the switch.

The session time out duration is the length of time that a session remains active if there is no user interaction. If a session is inactive for a time exceeding the time out duration, you are logged out.

To configure the HTTP/CLI session, perform the following steps:

1. From the Chassis Details main menu, select **Maintenance**.
2. Click **HTTP/CLI Session Config**.

The **HTTP/CLI Session Configuration** window is displayed.

Http Session Configuration - M201					?	
Http Timeout Duration (Seconds)	Cli Timeout Duration (Seconds)	User Authentication	Http Mode	Https Mode		
0	600	Username and password required	Disabled	Disabled		
		Username / password are not required	Enabled	Enabled		
<div>Apply Refresh Close</div>						

3. To modify any of the settings, click on the existing configuration row. The row changes to orange.

Http Session Configuration - M201					?	
Http Timeout Duration (Seconds)	Cli Timeout Duration (Seconds)	User Authentication	Http Mode	Https Mode		
0	600	Username / password are not required	Enabled	Enabled		
0	600	Username / password are not required	Enabled	Enabled		
<div>Apply Refresh Close</div>						

4. In the **HTTP Timeout Duration** field, enter the new timeout duration, in seconds. The default is 0 seconds (no timeout).
5. In the **CLI Timeout Duration** field, enter the new timeout duration, in seconds. The default is 600 seconds.



6. To change the **User Authentication** parameter, click the **User Authentication** drop-down button.

Select the preferred user authentication method.

- **Username and password required** - UserName and Password must be entered, and must match what is in the database of the local switch.
- **Password is not required** - According to the local switch database, a valid username must be entered. A password is not required.
- **Username / Password are not required** - Does not require username or password.
- **LDAP Authentication** - Use an LDAP server. If the user name/password validation fails to complete successfully, check the database of the local switch.

7. To change the **HTTP Mode** parameter, click the drop-down menu and select **Enabled** or **Disabled**.
8. To change the **HTTPs Mode** parameter, click the drop-down menu and select **Enabled** or **Disabled**.
9. Click **Apply** to apply settings.
10. Click **Refresh** to refresh all fields with the latest information.
11. Click **Close** to close the window.

5.2.8 Managing the Subnet Manager Configuration File for the Intel® Omni-Path Edge Switch 100 Series

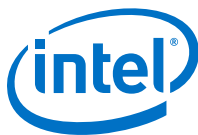
The **Subnet Manager Configuration File** window allows you to upload Intel® Omni-Path Fabric Suite Fabric Manager embedded subnet manager configuration files, as well as start and restart the subnet manager using the new file.

Note: This window also can be accessed from the main menu through the **Config File Admin** menu.

To upload a new configuration file, perform the following steps:

1. From the Chassis Details main menu, select **Config File Admin**.
2. Click **Subnet Manager Config File**.

The **Subnet Manager Configuration** window is displayed.



The screenshot displays two windows from the Intel Omni-Path Fabric GUI. The top window, titled "Upload/Download Esm config file - Intel Omni-Path Edge Switch 100 Series", contains a "Current config file:" field with the value "opa_fm.xml" and an "Upload config file:" field with a "Browse..." button. Below these fields are "Refresh", "Upload", and "Close" buttons. The bottom window, titled "Subnet Manager Control - Intel Omni-Path Edge Switch 100 Series", features a table with three rows: "Uptime" showing "0 Day(s), 0 Hour(s), 0 Minute(s), 0 Second(s)", "Status" showing "Not Started.", and "SM State" showing "Not Active.". Below the table are "Restart", "Start", and "Stop" buttons, and a "Refresh" button at the bottom.

3. In the Upload Config File text box, enter the path to the alternate embedded subnet manager file (`opa_fm.xml`). If the path is not known, you can use the **Browse...** button to locate it.
4. Once the new file is located, click the **Upload** button.
5. Click the **Refresh** button to refresh the window.
6. In the **Subnet Manager Control** window, click **Stop**, **Refresh**, then **Restart** to activate the new file.
7. Click **Close** to dismiss the window.

Field Descriptions

Descriptions for each field are listed in the following table.

Table 15. Subnet Manager Control Field Descriptions

Name	Description
Uptime	Indicates the amount of time the SM has been running.
Status	Provides information about the status of the Fabric OS, including: <ul style="list-style-type: none">• Starting Up• Running• Shutting Down• Not Started
SM State	Indicates whether the SM is the Master (Active) Subnet Manager in the Fabric.

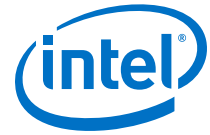
5.2.9 Updating the Certificate

The **Update Https certification file** window allows you to upload a new HTTPS certificate.

To update the certificate, perform the following steps:

1. From the Chassis Details main menu, select **Maintenance**.
2. Click **Certificate Update**.

The **Update Https certification file** window is displayed.



3. In the Upload certificate file field, enter the path to the certificate. If the path is not known, you can use the **Browse...** button to locate it.
4. Once the new file is located, click the **Upload** button.
5. Click **Refresh** to refresh the window.
6. Click **Close** to close the window.

Field Descriptions

Descriptions for each field are listed below.

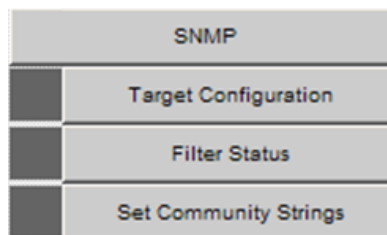
Table 16. Update Https Certificate Field Descriptions

Name	Description
Current certificate file	Provides information on the current certificate field. Information includes: <ul style="list-style-type: none"> • Issue to - The receiver of the certificate. • Issued by - The issuer of the certificate. • Valid - The period of time for which the certificate is valid.
Upload certificate file	Allows you to upload a new certificate file.

5.3 SNMP

The **SNMP** menu allows you to view and modify SNMP trap configuration information.

Figure 22. Chassis Detail SNMP Menu



5.3.1 Configuring SNMP Targets

The **Target Configuration** menu displays the **SNMP Target Configuration** window, allowing you to manage SNMP trap destinations and target parameters.

Note: Though you can create new target addresses with this menu, you cannot create new target parameters.



SNMP Target Address - M201									
Addr Name	Transport Dom	Transport Addr	Port	Timeout	Retry Cnt	Tag List	Params	Storage Type	Status
nms v1	1.3.6.1.6.1.1	0.0.0.0	162	1500	3	rfc1493 rfc1757 rfc1907 rfc2233 tmscomv1	params	nonVolatile	Not In Service
nms v2	1.3.6.1.6.1.1	0.0.0.0	162	1500	3	rfc1493 rfc1757 rfc1907 rfc2233 tmscomv2	params	nonVolatile	Not In Service
nms v3	1.3.6.1.6.1.1	0.0.0.0	162	1500	3	rfc1493 rfc1757 rfc1907 rfc2233 tmscomv3	params	nonVolatile	Not In Service

Apply Refresh Delete Close

New SNMP Address Form - M201									
Addr Name	Transport Dom	Transport Addr	Port	Timeout	Retry Cnt	Tag List	Params	Storage Type	Status

Refresh Add Close

SNMP Target Parameters - M201						
Parameter Name	MP Model	Security Model	Security Name	Security Level	Storage Type	Status
v1 params	0	1	public	No Auth No Priv	nonVolatile	Active
v2 params	1	2	public	No Auth No Priv	nonVolatile	Active
v3 params	3	3	initialnone	No Auth No Priv	nonVolatile	Active

Apply Refresh Close

The **SNMP Target Configuration** window is split into three panes:

- **SNMP Target Addresses** (top) allows you to determine what type of SNMP traps are sent, and where they are sent. The rows provide an area for specifying multiple trap destinations.
- **New SNMP Address Form** (middle) allows you to record new SNMP address information for the applicable module.
- **SNMP Target Parameters** (bottom) allows you to configure each trap destination with version, optional security information, and filtering mechanisms.

Modifying an SNMP Target Address

To modify an SNMP Target Address, perform the following steps:

1. From the Chassis Details main menu, select **SNMP**.
2. Click **Target Configuration**.
The **SNMP Target Configuration** window is displayed.
3. In the SNMP Target Addresses pane, select the row to be modified.
4. Edit the following fields as necessary (refer to [Field Descriptions](#) on page 66 for field descriptions):
 - Transport Address
 - Port
 - Timeout
 - Retry Count
 - Tag List
 - Parameters
 - Storage Type
 - Status
5. Click **Apply** to apply settings.
6. Click **Refresh** to refresh settings.
7. Click **Close** to close the window.



Deleting an SNMP Target Address

To delete an SNMP Target Address, perform the following steps:

1. From the main menu, select **SNMP**.
2. Click **Target Configuration**.
The **SNMP Target Configuration** window is displayed.
3. In the SNMP Target Addresses pane, select the row to be deleted.
4. Click **Delete** to delete an address.
5. Click **Refresh** to refresh settings.
6. Click **Close** to close the window.

Adding a New SNMP Address

To add a new SNMP Address, perform the following steps:

- From the main menu, select **SNMP**.
- Click **Target Configuration**.
The **SNMP Target Configuration** window is displayed.
- In the New SNMP Address Form pane, enter the following information (refer to [Field Descriptions](#) on page 66 for field descriptions):
 - Address Name
 - Transport Address
 - Port
 - Timeout
 - Retry Count
 - Tag List
 - Parameters
 - Storage Type
- Click **Add** to add the address.
- Click **Refresh** to refresh settings.
- Click **Close** to close the window.

Modifying an SNMP Target Parameter

Note: Changes can be made only to rows that have a status of **Not In Service**.

To modify an SNMP Target Parameter, perform the following steps:

1. From the main menu, select **SNMP**.
2. Click **Target Configuration**.
The **SNMP Target Configuration** window is displayed.
3. In the SNMP Target Parameters pane, select the row to be modified.
4. For Status, select *Not In Service* from the drop-down menu.
5. Edit the following fields as necessary (refer to [Field Descriptions](#) on page 66 for field descriptions):



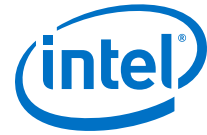
- Parameter Name
 - MP Model
 - Security Model
 - Security Name
 - Security Level
 - Retry Count
 - Storage Type
6. For Status, select *Active* from the drop-down menu.
 7. Click **Apply** to apply settings.
 8. Click **Refresh** to refresh settings.
 9. Click **Close** to close the window.

Field Descriptions

Descriptions for each field are listed in the following table.

Table 17. SNMP Target Configuration Field Descriptions

Name	Description
SNMP Target Addresses and New SNMP Address Form	
Address Name	Specifies a unique, administrator-defined name the system uses to identify a row.
Transport Domain	Specifies the transport type of the address contained in the snmpTargetAddrTAddress object (for example, 1.3.6.1.6.1.1 = udp, 1.3.6.1.4.1.1977.200.1 = tcp).
Transport Address	Specifies the IP address in dotted decimal format. <i>Note:</i> The combination of the Transport Domain and the Transport Address determines the trap destination.
Port	Specifies the TCP or UDP port where the SNMP trap is sent.
Timeout	Specifies the time (in milliseconds) that the trap sender waits on a response before re-sending the trap.
Retry Count	Specifies the number of attempts to be made to send the trap after a timeout condition occurs. <i>Note:</i> Timeout and Retry Count are SNMP v2.c and above (not applicable for v1 traps).
Tag List	Specifies which traps will be sent to this particular destination. <i>Note:</i> RFC2233 specifies the link up/down traps. Including RFC2233 in the Tag List specifies that the trap receiver gets link up/down traps.
Parameters	Specifies a mapping to an entry in the SNMP Target Parameters table, determining the version of SNMP to use.
Storage Type	Determines whether or not the entry is saved for each reboot of the switch. <ul style="list-style-type: none">• <i>Nonvolatile</i> means that the value is saved, and remains after each subsequent reboot.• <i>Volatile</i> or <i>Other</i> indicates it is not saved.
Status	Indicates the current status of the row. The row may be in one of three states: <ul style="list-style-type: none">• <i>Active</i>
continued...	



Name	Description
	<ul style="list-style-type: none"> <i>Not In Service</i> <i>Not Ready</i> <p><i>Note:</i> A status of <i>Not In Service</i> indicates that the current row is not used in the event a trap is generated by the system. Toggling a trap to <i>Not In Service</i>, which temporarily suspends trap forwarding, may be useful to keep values intact.</p>
SNMP Target Parameters	
Parameter Name	Specifies a mapping to an entry in the SNMP Target Parameters table, determining the version of SNMP to use.
MP Model	Specifies the Message Processing Model to be used when generating SNMP messages for entry. Values for this field are 0 for SNMP v1, 1 for SNMP v2 and 3 for SNMP v3.
Security Model	Specifies the Security Model to be used when generating SNMP messages using this entry. Values for this field are 1 for SNMP v1, 2 for SNMP v2, or 3 for SNMP v3.
Security Name	Specifies the entity for whom SNMP messages are generated. <i>Note:</i> This is equivalent to the community string in an SNMP get.
Security Level	One of three options: <ul style="list-style-type: none"> <i>NoAuthNoPriv</i>: No Authentication, no privacy. <i>AuthNoPriv</i>: Authentication, no privacy. <i>AuthPriv</i>: Authentication and privacy
Storage Type	Specifies whether or not the entry is saved for each reboot of the switch. <ul style="list-style-type: none"> <i>Nonvolatile</i> means that the value is saved, and remains after each subsequent reboot. <i>Volatile</i> or <i>Other</i> indicates it is not saved.
Status	Indicates the current status of the row. The row may be in one of three states: <ul style="list-style-type: none"> <i>Active</i> <i>Not In service</i> <i>Not Ready</i> <p><i>Note:</i> A status of <i>Not In Service</i> indicates that the current row is not used in the event a trap is generated by the system. Toggling a trap to <i>Not In Service</i>, which temporarily suspends trap forwarding, may be useful to keep values intact.</p>

5.3.2 Viewing the Filter Status

The **SNMP Filter Status** menu allows you to view parameters for RFC 2273 (SNMP-NOTIFICATION-MIB).

To view the **SNMP Filter Status**, perform the following steps:

1. From the Chassis Details main menu, select **SNMP**.
2. Click **Filter Status**.

The **SNMP Filter Status** window is displayed.



SNMP Filter Parameters - M201						?
Notify Name	Tag	Type	Storage Type	Status		
bridge	rfc1493	Trap	nonVolatile	Active		
interfaces	rfc2233	Trap	nonVolatile	Active		
rmon	rfc1757	Trap	nonVolatile	Active		
snmp	rfc1907	Trap	nonVolatile	Active		
tms	tmscom	Trap	nonVolatile	Active		
<div>RefreshClose</div>						
SNMP Filter Parameters - M201						
Filter Profile Name Parameter			Storage Type	Status		
v1 params			nonVolatile	Active		
v2 params			nonVolatile	Active		
v3 params			nonVolatile	Active		
<div>RefreshClose</div>						
SNMP Filter Parameters - M201						
Filter Subtree	Filter Mask	Filter Type	Storage Type	Status		
0		1	nonVolatile	Active		
0		1	nonVolatile	Active		
0		1	nonVolatile	Active		
<div>RefreshClose</div>						

3. Click **Refresh** to refresh the status window.
4. Click **Close** to close the status window.

Field Descriptions

Descriptions for each field are listed in the following table.

Table 18. SNMP Filter Status Field Descriptions

Name	Description
Top Pane	
Notify Name	Only traps and informs are generated for notify names of interfaces, SNMP and TMS. All traps originating from a line card fall into the TMS group.
Tag	Specifies the MIB tag.
Type	Specifies the type of messages to be sent to a management workstation. <ul style="list-style-type: none">• <i>Trap</i> (1)• <i>Inform</i> (2)
Storage Type	Determines whether or not the entry is saved for each reboot of the switch. <ul style="list-style-type: none">• <i>Nonvolatile</i> means that the value is saved, and remains after each subsequent reboot.• <i>Volatile</i> or <i>Other</i> indicates it is not saved.
Status	Indicates the current status of the row. The row may be in one of several states: <ul style="list-style-type: none">• <i>Not In Service</i>• <i>Active</i>
Middle Pane	
Filter Profile Name Parameter	The name of the filter profile to be used when generating notifications using the corresponding entry in the snmpTargetAddrTable.
Storage Type	Determines whether or not the entry is saved for each reboot of the switch.
<i>continued...</i>	



Name	Description
	<ul style="list-style-type: none"> <i>Nonvolatile</i> means that the value is saved, and remains after each subsequent reboot. <i>Volatile</i> or <i>Other</i> indicates it is not saved.
Status	Indicates the current status of the row. The row may be in one of several states: <ul style="list-style-type: none"> <i>Not In Service</i> <i>Active</i>
Bottom Pane	
Filter Subtree	The MIB subtree which, in combination with the corresponding instance of snmpNotifyFilterMask, defines a family of subtrees that are included in or excluded from the filter profile.
Filter Mask	The bit mask which, in combination with the corresponding instance of snmpNotifyFilterSubtree, defines a family of subtrees that are included in or excluded from the filter profile.
Filter Type	This object indicates whether the family of filter subtrees defined by this entry are included in or excluded from a filter.
Storage Type	Determines whether or not the entry is saved for each reboot of the switch. <ul style="list-style-type: none"> <i>Nonvolatile</i> means that the value is saved, and remains after each subsequent reboot. <i>Volatile</i> or <i>Other</i> indicates it is not saved.
Status	Indicates the current status of the row. The row may be in one of several states: <ul style="list-style-type: none"> <i>Not In Service</i> <i>Active</i>

5.3.3 Setting Community Strings

The **Set Community Strings** menu allows you to set two SNMP community names:

- Read Only Community Name
Read Only Comm. Name is the community string that, when specified in an SNMP client, allows read-only access to SNMP fields exported by the SNMP server.
- Read/Write Community Name
Read/Write Comm. Name is the community string that, when specified in an SNMP client, allows read and write access to SNMP fields exported by the SNMP server.

To set the Community Strings, perform the following steps:

- From the Chassis Details main menu, select **SNMP**.
- Click **Set Community Strings**.

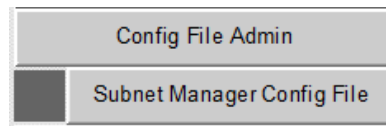
The **Set Community Strings** window is displayed.

3. For **Read Only Comm. Name** field, enter a meaningful name (for example, **public**).
4. For **Read/Write Comm. Name** field, enter a meaningful name (for example, **private**).
5. Click **Apply** to apply the settings.
6. Click **Refresh** to refresh the settings.
7. Click **Close** to close the window.

5.4 Configuration File Administration

The **Config File Admin** menu allows you to upload and download new Fabric Manager embedded subnet manager files, as well as start and restart all applicable master and standby subnet managers using the new file via the **Subnet Manager Configuration File** menu option.

Figure 23. Chassis Detail Config File Admin Menu



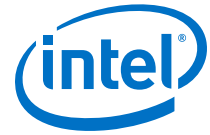
5.4.1 Managing the Subnet Manager Configuration File for the Intel® Omni-Path Director Class Switch 100 Series

The **Subnet Manager Configuration File** window allows you to upload Intel® Omni-Path Fabric Suite Fabric Manager embedded subnet manager configuration files, as well as start and restart all applicable master and standby subnet managers using the new file.

To upload a new configuration file, perform the following steps:

1. From the Chassis Details main menu, select **Config File Admin**.
2. Click **Subnet Manager Config File**.

The **Subnet Manager Configuration File Upload/Download** window is displayed.



Upload/Download Esm config file - M201

Current config file: opafm.xml

Upload config file: Browse...

Refresh Upload Close

Subnet Manager Control - M201 (Master)

Uptime	0 Day(s), 0 Hour(s), 0 Minute(s), 0 Second(s)
Status	Not Started.
SM State	Not Active.

Restart Start Stop

Refresh

Subnet Manager Control - M202 (Slave)

Uptime	0 Day(s), 0 Hour(s), 0 Minute(s), 0 Second(s)
Status	Not Started.
SM State	Not Active.

Restart Start Stop

Refresh

3. In the Upload Config File text box, enter the path to the alternate embedded subnet manager file (opafm.xml). If the path is not known, you can use the **Browse...** button to locate it.
4. Once the new file is located, click the **Upload** button.
5. Click the **Refresh** button to refresh the window.
6. In the **Subnet Manager Control (Master)** window, click **Stop**, **Refresh**, then **Restart** to activate the new file.
7. In the **Subnet Manager Control (Slave)**, click **Refresh** to have the new file become active.
8. Click **Close** to dismiss the window.

Field Descriptions

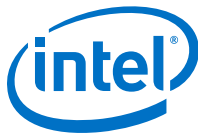
Descriptions for each field are listed in the following table.

Name	Description
Uptime	Indicates the amount of time the SM has been running.
Status	Provides information about the status of the Fabric OS, including: <ul style="list-style-type: none"> Starting Up Running Shutting Down Not Started
SM State	Indicates whether the SM is the Master (Active) Subnet Manager in the Fabric.

5.4.2 Managing the Subnet Manager Configuration File for the Intel® Omni-Path Edge Switch 100 Series

The **Subnet Manager Configuration File** window allows you to upload Intel® Omni-Path Fabric Suite Fabric Manager embedded subnet manager configuration files, as well as start and restart the subnet manager using the new file.

Note: This window also can be accessed from the main menu through the **Maintenance** menu.



To upload a new configuration file, perform the following steps:

1. From the Chassis Details main menu, select **Config File Admin**.
2. Click **Subnet Manager Config File**.

The **Subnet Manager Configuration** window is displayed.

3. In the Upload Config File text box, enter the path to the alternate embedded subnet manager file (opafm.xml). If the path is not known, you can use the **Browse...** button to locate it.
4. Once the new file is located, click the **Upload** button.
5. Click the **Refresh** button to refresh the window.
6. In the **Subnet Manager Control** window, click **Stop**, **Refresh**, then **Restart** to activate the new file.
7. Click **Close** to dismiss the window.

Field Descriptions

Descriptions for each field are listed in the following table.

Name	Description
Uptime	Indicates the amount of time the SM has been running.
Status	Provides information about the status of the Fabric OS, including: <ul style="list-style-type: none">• Starting Up• Running• Shutting Down• Not Started
SM State	Indicates whether the SM is the Master (Active) Subnet Manager in the Fabric.

5.5 Chassis Traps

The **Chassis Traps** menu allows you to set default trap scenarios related to the chassis, via the **Trap Control** menu option. Traps can be set for chassis performance, chassis power supplies, and chassis fans.

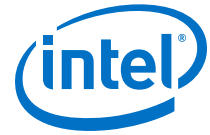
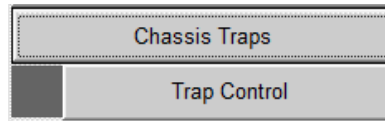


Figure 24. Chassis Detail Chassis Traps Menu



5.5.1 Setting Chassis Trap Scenarios

The **Chassis Trap Control** window allows you to set default trap scenarios related to the switch.

To set the chassis traps scenarios, perform the following steps:

1. From the Chassis Details main menu, select **Chassis Traps**.
2. Click **Trap Control**.

The **Chassis Trap Control** window is displayed.

Chassis Group - Intel Omni-Path Edge Switch 100 Series	
icsChassisTrapSystemSelfTestFailure	<input checked="" type="checkbox"/> Gen Trap
icsChassisTrapSystemReboot	<input checked="" type="checkbox"/> Gen Trap
icsChassisTrapSystemMgmtSrvcStarted	<input checked="" type="checkbox"/> Gen Trap
icsChassisTrapSystemMgmtSrvcAborted	<input checked="" type="checkbox"/> Gen Trap
icsChassisTrapSystemSwitchFailover	<input checked="" type="checkbox"/> Gen Trap

Slot Group - Intel Omni-Path Edge Switch 100 Series	
icsChassisTrapModuleNotResponding	<input checked="" type="checkbox"/> Gen Trap
icsChassisTrapModuleInserted	<input checked="" type="checkbox"/> Gen Trap
icsChassisTrapModuleRemoved	<input checked="" type="checkbox"/> Gen Trap
icsChassisTrapModuleFailed	<input checked="" type="checkbox"/> Gen Trap
icsChassisTrapModuleSelfTestFailure	<input checked="" type="checkbox"/> Gen Trap
icsChassisTrapModuleEEPROMReadFailure	<input checked="" type="checkbox"/> Gen Trap
icsChassisTrapModuleFPGAReadFailure	<input checked="" type="checkbox"/> Gen Trap
icsChassisTrapModuleBulkPowerFailure	<input checked="" type="checkbox"/> Gen Trap
icsChassisTrapModuleReboot	<input checked="" type="checkbox"/> Gen Trap

Power Group - Intel Omni-Path Edge Switch 100 Series	
icsChassisTrapPowerSupplyNotResponding	<input checked="" type="checkbox"/> Gen Trap
icsChassisTrapPowerSupplyInserted	<input checked="" type="checkbox"/> Gen Trap
icsChassisTrapPowerSupplyRemoved	<input checked="" type="checkbox"/> Gen Trap
icsChassisTrapPowerSupplyFailed	<input checked="" type="checkbox"/> Gen Trap
icsChassisTrapPowerSupplyEEPROMReadFailure	<input checked="" type="checkbox"/> Gen Trap
icsChassisTrapPowerSupplyFanFailed	<input checked="" type="checkbox"/> Gen Trap
icsChassisTrapPowerSupplyRedundancyLost	<input checked="" type="checkbox"/> Gen Trap
icsChassisTrapPowerSupplyRedundancyAvailable	<input checked="" type="checkbox"/> Gen Trap
icsChassisTrapPowerSupplyMinimumRequirementNotMet	<input checked="" type="checkbox"/> Gen Trap

Fan Group - Intel Omni-Path Edge Switch 100 Series	
icsChassisTrapFanNotResponding	<input checked="" type="checkbox"/> Gen Trap
icsChassisTrapFanTrayInserted	<input checked="" type="checkbox"/> Gen Trap
icsChassisTrapFanTrayRemoved	<input checked="" type="checkbox"/> Gen Trap
icsChassisTrapFanFailed	<input checked="" type="checkbox"/> Gen Trap
icsChassisTrapFanTrayEEPROMReadFailure	<input checked="" type="checkbox"/> Gen Trap

3. Select or clear the desired traps.
Refer to [Fan Group Field Descriptions](#) on page 75.
4. To generate an immediate trap, click the applicable **Gen Trap** button.
5. Click **Apply** to save settings for each category.
6. Click **Refresh** to refresh the settings.
7. Click **Close** to close the window.



Chassis Group Field Descriptions

Definitions for each trap are listed in the following table.

Table 19. Chassis Group Field Descriptions

Name	Description
icsChassisTrapSystemSelfTestFailure	The chassis failed one or more of its self-tests.
icsChassisTrapSystemReboot	The chassis is in the process of rebooting.
icsChassisTrapSystemMgmtSrvcStarted	The internal service used to support the management of the chassis is operational.
icsChassisTrapSystemMgmtSrvcAborted	The internal service used to support the management of the chassis has terminated abnormally.
icsChassisTrapSystemSwitchFailover	There was a fail over from one switch in the chassis to the other.

Slot Group Field Descriptions

Definitions for each trap are listed in the following table.

Table 20. Slot Group Field Descriptions

Name	Description
icsChassisTrapModuleNotResponding	A module is not responding to HEARTBEAT poll requests, that are issued by the internal chassis management service.
icsChassisTrapModuleInserted	A module was inserted into the chassis.
icsChassisTrapModuleRemoved	A module was removed from the chassis.
icsChassisTrapModuleFailed	A module has failed and is not operational.
icsChassisTrapModuleSelfTestFailure	The module failed one or more of its self tests.
icsChassisTrapModuleEEPROMReadFailure	An error condition was encountered when reading the EEPROM of the module.
icsChassisTrapModuleFPGAReadFailure	An error condition was encountered when reading the Field-Programmable Gate Array (FPGA) of the module.
icsChassisTrapModuleBulkPowerFailure	The bulk power used by a module has failed within the chassis.
icsChassisTrapModuleReboot	The module is in the process of rebooting.

Power Group Field Descriptions

Definitions for each trap are listed in the following table.

Table 21. Power Group Field Descriptions

Name	Description
icsChassisTrapPowerSupplyNotResponding	A power supply is not responding to HEARTBEAT poll requests that are issued by the internal chassis management service.
icsChassisTrapPowerSupplyInserted	A power supply was inserted into the chassis.
icsChassisTrapPowerSupplyRemoved	A power supply was removed from the chassis.
<i>continued...</i>	



Name	Description
icsChassisTrapPowerSupplyFailed	A power supply has failed and is not operational.
icsChassisTrapPowerSupplyEEPROMReadFailure	An error condition was encountered when reading the EEPROM of the power supply.
icsChassisTrapPowerSupplyFanFailed	A power supply fan has failed and is not operational.

Fan Group Field Descriptions

Definitions for each trap are listed in the following table.

Table 22. Fan Group Field Descriptions

Name	Description
icsChassisTrapFanNotResponding	A fan is not responding to HEARTBEAT poll requests that are issued by the internal chassis management service.
icsChassisTrapFanTrayInserted	A fan was inserted into the chassis.
icsChassisTrapFanTrayRemoved	A fan was removed from the chassis.
icsChassisTrapFanFailed	A fan has failed and is not operational.
icsChassisTrapFanTrayEEPROMReadFailure	An error condition was encountered when reading the EEPROM of the fan tray.

5.6 Port Statistics

The **Port Stats** menu allows you to monitor port statistics and to enable a port LEDs to flash, assisting a user in locating a port.

Figure 25. Chassis Detail Port Stats Menu

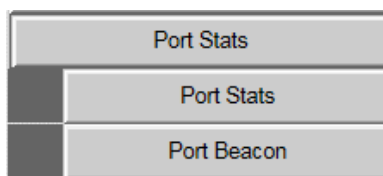
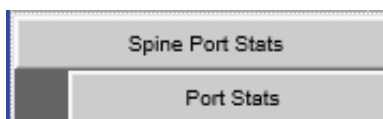


Figure 26. Leaf Port Stats Menu



Figure 27. Spine Port Stats Menu





5.6.1 Viewing Port Statistics

The **Port Stats** menu allows you to monitor various statistics pertaining to each port of the switch.

Note: On Intel® Omni-Path Director Class Switch 100 Series, the Port Stats feature can also be accessed using the Spine and Leaf module main menus.

To view port statistical information, perform the following steps:

1. From the Chassis Details main menu, click **Port Stats**.
2. Click **Port Stats**.

The **Port Statistics** window is displayed.

Note: It may take some time for all the ports to display since it is pulling information from multiple modules.

Note: The samples below show partial screenshots for both Intel® OP Edge Switch 100 Series and Intel® OP Director Class Switch 100 Series.


The example below shows the Intel® OP Edge Switch 100 Series:

Port Name	Phys State	Port State	Link Width	Link Width Tx	Link Width Rx	Link Speed	Link Qual Indicator	Xmit Data (P/s)	Xmit Data (MB)	Xmit Pkts	MC Xmit Pkts	Rcv Data (P/s)	Rcv Data (MB)	Rcv Pkts	MC Rcv Pkts	Uncommentable Errors	Link Downed	Rcv Errors	Exc. Buffer Overrun	FBI Config Corrupt	Link Error Recovery	Local Link Integ Err	Xmit Constraint	Rcv Constraint	Rcv Rcv Relay Err	Xmit Discards	Rcv Rcv Phys Err
Cable01	Offline	Down	---	---	---	---	NA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cable02	Offline	Down	---	---	---	---	NA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10
Cable03	Offline	Down	---	---	---	---	NA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cable04	Offline	Down	---	---	---	---	NA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	0	0
Cable05	Offline	Down	---	---	---	---	NA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	0	0
Cable06	Offline	Down	---	---	---	---	NA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	0	0
Cable07	Offline	Down	---	---	---	---	NA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cable08	Offline	Down	---	---	---	---	NA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cable09	Offline	Down	---	---	---	---	NA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cable10	LinkUp	Active	4X	4X	4X	250Gbps		2400094	19	25291	0	457259	3	25291	0	0	0	0	0	0	0	0	0	0	0	0	10
Cable11	Offline	Down	---	---	---	---	NA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cable12	Offline	Down	---	---	---	---	NA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cable13	Offline	Down	---	---	---	---	NA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cable14	Offline	Down	---	---	---	---	NA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cable15	Offline	Down	---	---	---	---	NA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10
Cable16	Offline	Down	---	---	---	---	NA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cable17	Offline	Down	---	---	---	---	NA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cable18	Offline	Down	---	---	---	---	NA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cable19	Offline	Down	---	---	---	---	NA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cable20	Offline	Down	---	---	---	---	NA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cable21	Offline	Down	---	---	---	---	NA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

The example below shows the Intel® OP Director Class Switch 100 Series:



Port Statistics - Unk0



Port Name	Phys State	Port State	Link Width	Link Width Tx	Link Width Rx	Link Speed	Link Qual Indicator	Xmit Data (Flits)	Xmit Data (MB)	MC Xmt Pkts	Rev Data (Flits)	Rev Data (MB)	Rev Pkts	MC Rcv Pkts	Uncorrectable Errors	Link Downed	Rev Errors	Exc. Buffer Overrun	FM Config Errors	Link Error Recovery	Local Link Integ Err	Xmit Constraint	Rev Constraint	Rev Sw Relay Err	Xmit Discards	Rev Rmt Phys Err
L101AP01	Offline	Down	--	--	--	--	NA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	0	0	10	top
L101AP02	Config	Down	--	--	--	--	NA	0	0	0	0	0	0	0	0	0	0	0	10	0	0	0	0	0	0	top
L101AP03	Offline	Down	--	--	--	--	NA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	top
L101AP04	LinkUp	Init	4X	4X	4X	25Gbps	NA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	top
L101AP05	LinkUp	Init	4X	4X	4X	25Gbps	NA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	top
L101AP06	Offline	Down	--	--	--	--	NA	0	0	0	0	0	0	0	10	0	0	0	0	10	0	0	10	0	0	top
L101AP07	Offline	Down	--	--	--	--	NA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	top
L101AP08	Offline	Down	--	--	--	--	NA	0	0	0	0	0	0	0	0	10	0	0	0	0	0	0	10	0	0	top
L101AP09	Offline	Down	--	--	--	--	NA	0	0	0	0	0	0	0	0	10	0	0	0	0	0	0	0	0	0	top
L101AP10	Offline	Down	--	--	--	--	NA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	top
L101AP11	Offline	Down	--	--	--	--	NA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	0	0	0	top
L101AP12	Offline	Down	--	--	--	--	NA	0	0	0	0	0	0	0	0	0	0	0	0	0	10	0	0	0	0	top
L101AP13	Offline	Down	--	--	--	--	NA	0	0	0	0	0	0	0	0	0	0	0	0	0	10	0	10	0	0	top
L101AP14	Offline	Down	--	--	--	--	NA	0	0	0	0	0	0	0	0	0	0	0	10	0	0	0	0	0	0	top
L101AP15	Offline	Down	--	--	--	--	NA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	top
L101AP16	Offline	Down	--	--	--	--	NA	0	0	0	0	0	0	0	0	0	0	0	0	10	0	0	0	0	0	top
L101BP01	Offline	Down	--	--	--	--	NA	0	0	0	0	0	0	0	0	10	0	0	0	0	0	0	0	0	10	top
L101BP02	Offline	Down	--	--	--	--	NA	0	0	0	0	0	0	0	10	0	0	0	0	0	0	0	0	0	0	top
L101BP03	Offline	Down	--	--	--	--	NA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	top

Refer to [Field Descriptions](#) on page 77 for definitions.

Note: If an error counter is a number other than zero, the table cell appears red.

- Click **top**, located on the right side of each row, to take you to the top of the window.
- Click **Clear** to clear the port statistics.
- Click **Refresh** to refresh the port statistics.
- Click **Close** to close the window.

Field Descriptions

The following table contains port statistics fields and descriptions.

Table 23. Port Statistics Fields and Descriptions

Field	Description
Port Name	<p>Indicates the port name.</p> <p>Port naming conventions are explained below:</p> <ul style="list-style-type: none"> Edge Switch ports: Cable ports: Cablexx For example, Cable12 is Switch <i>external</i> Port 12 to which a cable connects. Leaf modules/ports: L = Leaf module number, P = Leaf module port number For example, L12P01 is leaf module 12 port number 1. Interswitch Link (ISL) Ports: S = Spine module number, L = Leaf leaf module number, A = Spine module switch chip A, B = Spine module switch chip B For example, S3AL11 is the ISL between spine module 3, switch chip A and leaf module 11.

continued...



Field	Description
	<p>NOTE: Spine chips are referenced by the spine number and the switch chip identifier. Each spine module contains two switch chips (Switch chip A and B).</p>
Phys State	<p>Physical state: Indicates whether the internal connection to the port is up or down. Possible values are:</p> <ul style="list-style-type: none"> • No State Change • Sleep • Polling • Disabled • Training • Up • Error Recovery • Link Up • Offline
Port State	<p>Port state: Indicates whether the link associated with the physical port indicated by the tab is up or down. Possible values are:</p> <ul style="list-style-type: none"> • No state change • Down • Init • Armed • Active • Unknown
Link Width	<p>Link Width: Indicates the bandwidth of the link on the backplane. The bandwidth is specified as a multiplier of 2.5 Gbit/sec full duplex serial links. As an example, 4x specifies a bandwidth of 10 Gbit/sec.</p> <p>NOTE: Values of 1X are possible in this field with 4X cables if poor cable connections or defective 4X cables are used.</p>
Link Width Tx	Transmit link width
Link Width Rx	Receive link width
Link Speed	Link speed: Indicates the speed of the full duplex serial link.
Link Qual Indicator	Link quality indicator
Xmit Data (Flits)	Transmit data in Flits: Indicates the number of 32-bit data words transmitted by the port, not including flow control and VCRC data.
Xmit Data (MB)	Transmit data in MB: Indicates the number of 32-bit data words transmitted by the port, not including flow control and VCRC data.
Xmit Pkts	Transmit packets: Indicates the number of data packets transmitted by the port, not including flow control packets.
MC Xmit Pkts	Multicast transmit packets
Rcv Data (Flits)	Receive data, in Flits: Indicates the number of 32-bit data words received by the port, not including flow control and VCRC data.
Rcv Data (MB)	Receive data, in MB: Indicates the number of 32-bit data words received by the port, not including flow control and VCRC data.
Rcv Pkts	Receive packets: Indicates the number of data packets received by the port, not including flow control packets.
MC Rcv Pkts	Multicast receive packets
Uncorrectable Errors	Uncorrectable errors
Link Downed	Link downed: Number of times the link error recovery process failed.
Rcv Errors	Receive errors
continued...	



Field	Description
Exc. Buffer Overrun	Excessive buffer overrun: Indicates error detected when the Overrun Errors threshold is exceeded by the number of consecutive flow control update periods with at least one overrun error in each period given in the PortInfo attribute.
FM Config Errors	Fabric Manager configuration errors
Link Error Recovery	Link error recovery: Indicates the number of times the link error recovery process happened successfully.
Local Link Integ Err	Local link integrity error: Indicates error caused by a marginal link. Depending upon the number of code violations, physical switch problems are detected at the physical layer. These errors are based on a count of local physical errors.
Xmit Constraint	Transmit constraint
Rcv Constraint	Receive constraint.
Rcv Sw Relay Err	Receive switch relay error.
Xmit Discards	Transmit discards: Indicates the number of port transmit discards.
Rcv Rmt Phys Err	Receive remote physical error: Indicates bit errors on a link other than the physically attached link.

5.6.2 Viewing Leaf Module Port Statistics

The **Port Stats** option under the **Leaf Port Stats** menu allows you to view various port statistical information for a specific leaf.

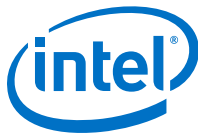
To view port statistical information for a leaf module, perform the following steps:

1. Access the Intel® Omni-Path Director Class Switch 100 Series Chassis Viewer Home Page by clicking the **Home** button from the toolbar.
2. Select the target leaf module.
The leaf module view is displayed.
3. From the Leaf main menu, select **Leaf Port Stats**.
4. Click **Port Stats**.

The **Port Statistics** window for the leaf is displayed.

Port Statistics - L112A

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Refer to [Field Descriptions](#) on page 77 for definitions.

5. Click **top**, located on the right side of each row, to take you to the top of the window.
6. Click **Clear** to clear the port statistics.
7. Click **Refresh** to refresh the port statistics.
8. Click **Close** to close the window.

5.6.3 Viewing Spine Module Port Statistics

The **Port Stats** option under the **Spine Port Stats** menu allows you to view various port statistical information for a specific spine.

To view port statistical information for a spine module, perform the following steps:

1. Access the Intel® Omni-Path Director Class Switch 100 Series Chassis Viewer Home Page by clicking the **Home** button from the toolbar.
2. Select the target spine module.
The spine module view is displayed.
3. From the Spine main menu, select **Spine Port Stats**.
4. Click **Port Stats**.

The **Port Statistics** window for the spine is displayed.

Port Statistics - L112A

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Refer to [Field Descriptions](#) on page 77 for definitions.

5. Click **top**, located on the right side of each row, to take you to the top of the window.
6. Click **Clear** to clear the port statistics.
7. Click **Refresh** to refresh the port statistics.
8. Click **Close** to close the window.



5.6.4 Enabling Port Beacons

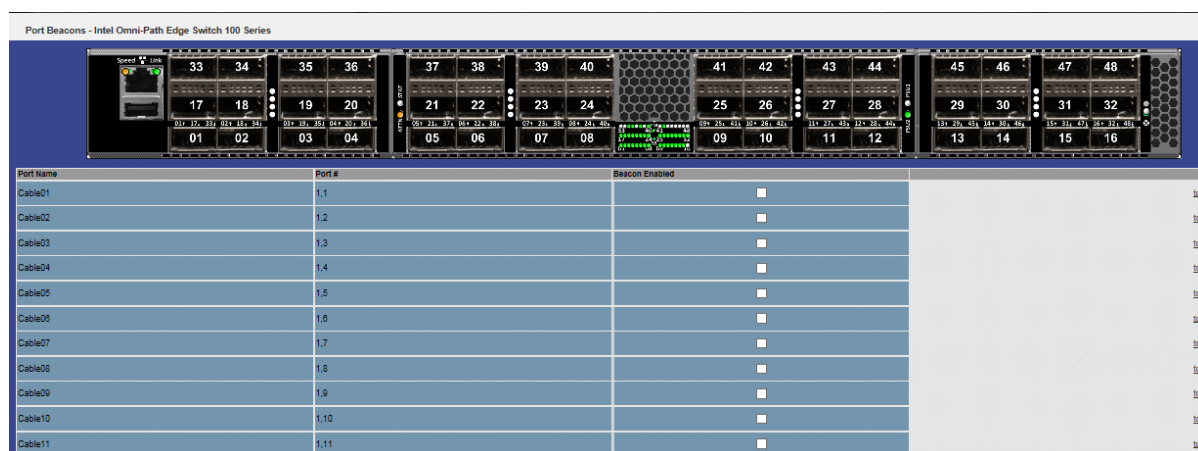
The **Port Beacon** menu allows you to enable port LEDs to flash, assisting you in locating a port.

Note: On Intel® Omni-Path Director Class Switch 100 Series, the Port Beacon feature can also be accessed using the Leaf module main menu.

To enable port beacons, perform the following steps:

1. From the Chassis Details main menu, click **Port Stats**.
2. Click **Port Beacon**.

The **Port Beacon** window is displayed.



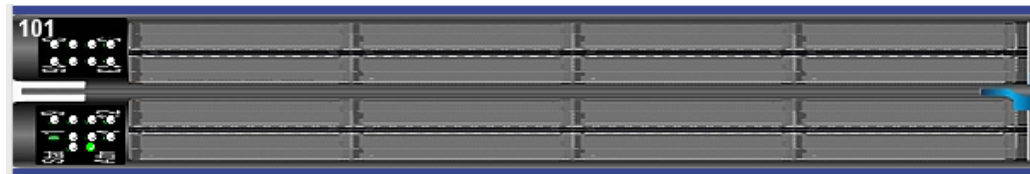
3. If required, select **Clear All** (located at the bottom of the window) to clear existing selections.
4. Select the port to be enabled. (Refer to [Table 23](#) on page 77 for port naming conventions.)
 - a. To select all ports, click **Select All** (located at the bottom of the window).
 - b. To select a subset of the ports, click the **Beacon Enabled** check box for each target port.
5. Click **Apply Selected** to apply the settings.

The physical port's LED blinks. In Chassis Viewer, the Link Status LED for the port is highlighted.

The example below shows LEDs enabled for Intel® Omni-Path Edge Switch 100 Series:



The example below shows LEDs enabled for a Intel® Omni-Path Director Class Switch 100 Series Leaf Module:



6. Click **Refresh** to refresh the window.
7. Click **Close** to close the window.

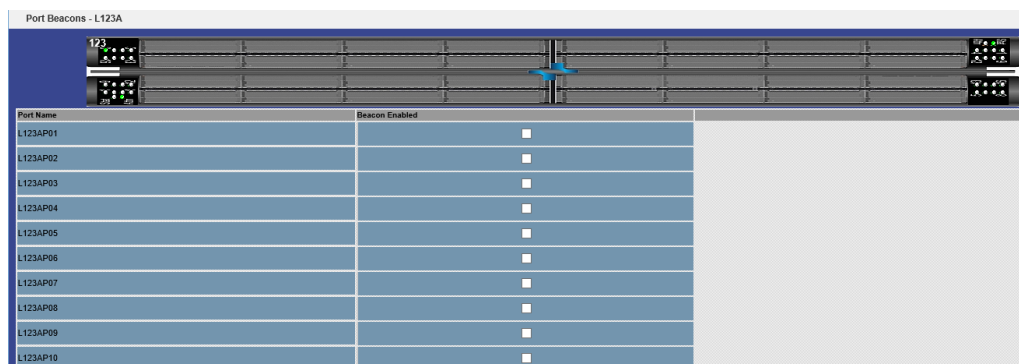
5.6.5 Enabling Leaf Module Port Beacon

The **Port Beacon** option under the **Leaf Port Stats** menu allows you to enable port LEDs to flash, assisting you in locating a port.

To enable port beacons, perform the following steps:

1. Access the Intel® Omni-Path Director Class Switch 100 Series Chassis Viewer Home Page by clicking the **Home** button from the toolbar.
2. Select the target leaf module.
The Leaf module view is displayed.
3. From the Leaf main menu, select **Leaf Port Stats**.
4. Click **Port Beacon**.

The **Port Beacon** window is displayed.



5. If required, select **Clear All** (located at the bottom of the window) to clear existing selections.
6. Select the port to be enabled. (Refer to [Table 23](#) on page 77 for port naming conventions.)
 - a. To select all ports, click **Select All** (located at the bottom of the window).
 - b. To select a subset of the ports, click the **Beacon Enabled** check box for each target port.
7. Click **Apply Selected** to apply the settings.

The physical port's LED blinks. In Chassis Viewer, the Link Status LED for the port is highlighted.

The example below shows LEDs enabled for a Intel® Omni-Path Director Class Switch 100 Series Leaf Module:

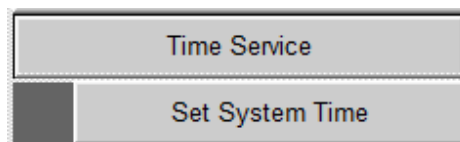


8. Click **Refresh** to refresh the window.
9. Click **Close** to close the window.

5.7 Time Service

The **Time Service** menu allows you to set system time options for the switch.

Figure 28. Chassis Detail Time Service Menu



5.7.1 Setting System Time

The **Set System Time** menu allows you to set the system time using either network time protocol (NTP) or manual overrides.

Setting NTP or Manual Override

To set the system time using NTP or the manual override, perform the following steps:

1. From the Chassis Details main menu, select **Time Service**.
2. Click **Set System Time**.

The **System Time Information** window is displayed.

Set System Time - M201

NTP Settings

Current Date & Time	Thu, 7 Jan 2016 15:17:07 (GMT -5)						
Use Network Time Protocol?	<input checked="" type="checkbox"/>						
NTP Hostname or IP	10.228.195.1						
Set Current Date and Time	Month	Day	Year	Hour	Minute	Second	AM/PM
	Jan	7	2016	03	16	58	PM

Apply

Time Zone and DST Settings

Time Zone	-5					
Daylight Saving Time	Start Date			End Date		
	Which	Day	in Month	Which	Day	in Month
	2nd	Sun	Mar	1st	Sun	Nov

Apply

Refresh

Close

3. To use NTP, click the **Use Network Time Protocol?** check box.

Note: If using Network Time Protocol (NTP) and host names (instead of IP addresses), DNS information must first be set up using the CLI command `dnsParamsSet`. Remember to reboot the switch after executing this command. For detailed information, refer to the *Intel® Omni-Path Fabric Switches Command Line Interface Reference Guide*.

- a. In the **NTP Hostname or IP** field, enter either the DNS host name or IP address for the NTP server.
- b. Click **Apply** to save the settings.



4. To manually set the system time, be sure the **Use Network Time Protocol?** check box is cleared.
 - a. Set the current date and time using the drop-downs menus for the following fields:
 - Month
 - Day
 - Year
 - Hour
 - Minute
 - Seconds
 - AM/PM
 - b. Click **Apply** to save the settings.

Setting Time Zone and Daylight Saving Time

To set time zone and daylight saving time (DST), perform the following steps:

1. In the **Time Zone** drop-down, select the target time zone based upon Greenwich Mean Time (GMT).

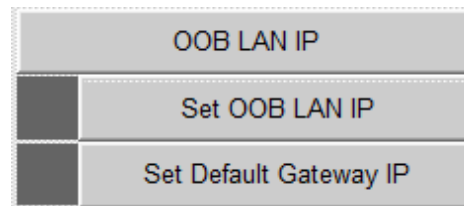
Set System Time - M201							
NTP Settings							
Current Date & Time	Thu, 7 Jan 2016 15:17:07 (GMT -5)						
Use Network Time Protocol?	<input checked="" type="checkbox"/>						
NTP Hostname or IP	10.228.195.1						
Set Current Date and Time	Month	Day	Year	Hour	Minute	Second	AM/PM
	Jan ▾	7 ▾	2016 ▾	03 ▾	16 ▾	58 ▾	PM ▾
<input type="button" value="Apply"/>							
Time Zone and DST Settings							
Time Zone	-5 ▾						
Daylight Saving Time	Start Date			End Date			
	Which	Day	in Month	Which	Day	in Month	
	2nd ▾	Sun ▾	Mar ▾	1st ▾	Sun ▾	Nov ▾	
<input type="button" value="Apply"/>							
<input type="button" value="Refresh"/> <input type="button" value="Close"/>							

2. Set the Start Date and End Date for Daylight Saving Time using the drop-downs menus for the following fields:
 - Which
 - Day
 - in Month
3. Click **Apply** to save the settings.
4. Click **Refresh** to refresh the window.
5. Click **Close** to close the window.

5.8 OOB LAN IP

The **OOB LAN IP** menu allows you to configure the OOB LAN IP address and Default Gateway IP in the switch.

Figure 29. Chassis Detail OOB LAN IP Menu



5.8.1 Setting the Switch OOB IP Address

The **Set OOB LAN IP** menu allows you to configure the IPv4 and IPv6 OOB LAN IP addresses.

Setting OOB LAN IP Address

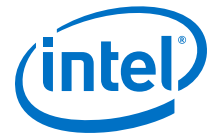
The **Set OOB LAN IP** pane allows you to configure the OOB LAN IPv4 address. This address is used to access the Chassis Viewer from the browser.

Note: The listed Mac Address is a read-only field that shows the MAC address of the module.

To set the Switch LAN IP address, perform the following steps:

1. From the Chassis Details main menu, select **OOB LAN IP**.
2. Click **Set OOB LAN IP**.

The **Set OOB LAN IP** window is displayed.



Set OOB LAN IP - Module		
Out of Band LAN IP	10.228.208.132	
Net Mask	255.255.252.0	
Mac Address	00:13:95:18:15:fb	
DHCP Enable/Disable		
	Enabled	Disabled
DHCP	<input type="radio"/>	<input checked="" type="radio"/>
<input type="button" value="Apply"/> <input type="button" value="Refresh"/> <input type="button" value="Close"/>		
Set OOB LAN IPv6 - Module		
Out of Band LAN IPv6	IPv6 Address is not set	
Link-Local Address	fe80::213:95ff:fe18:15fb	
IPv6 Autoconfig Enable/Disable		
	Enabled	Disabled
Auto Config	<input checked="" type="radio"/>	<input type="radio"/>
<input type="button" value="Apply"/> <input type="button" value="Refresh"/> <input type="button" value="Close"/>		

3. Click in the **Out of Band LAN IP** text box and enter an applicable switch IP address.
4. Click in the **Net Mask** text box, and enter an applicable switch net mask.
5. For **DHCP**, select **Enabled** or **Disabled** to automatically configure and assign addresses from an DHCP server.
6. Click **Apply** to apply the settings.
7. Click **Refresh** to refresh the window.
8. Click **Close** to close the window.

Setting OOB LAN IPv6

The **Set OOB LAN IPv6** pane allows the user to configure the switch with an IPv6 address.

Note: The listed Link-Local Address is a read-only field that shows the IPv6 Link-Local address of the module.

To set the IPv6 IP address, perform the following steps:

1. Under the Set OOB LAN IPv6 settings, click in the **Out of Band LAN IP** text box and enter an applicable static IPv6 address (in hexadecimal format address/prefix, for example, `fe80::211:7501:165:efa0/64`).
2. For **Auto Config**, select **Enabled** or **Disabled** to automatically configure and assign addresses from an IPv6 router.

Note: The IPv6 router must be configured to assign addresses using stateless address auto configuration.

3. Click **Apply** to apply the settings.
4. Click **Refresh** to refresh the window.

5. Click **Close** to close the window.

5.8.2 Setting the Switch Default Gateway IP Address

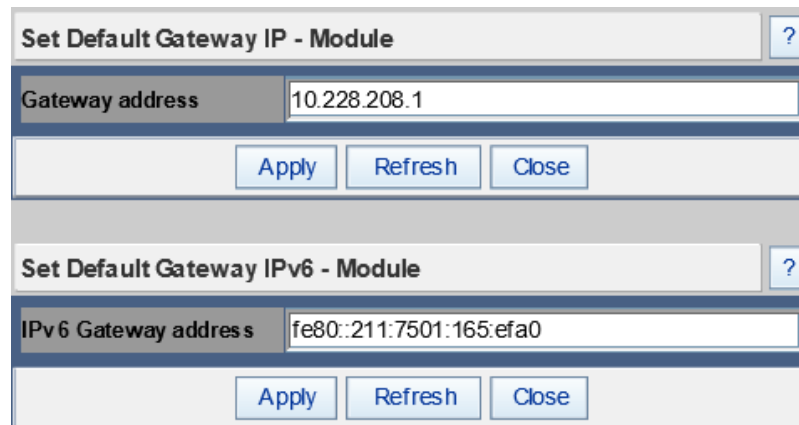
The **Set Default Gateway IP** menu allows you to configure the IP address for the default gateway to route packets from the OOB management port to an external network.

Setting the Default Gateway IP

To set the Switch default gateway IP address, perform the following steps:

1. From the Chassis Details main menu, select **OOB LAN IP**.
2. Click **Set Default Gateway IP**.

The **Set Default Gateway IP** window is displayed.



3. Click in the **Gateway address** text box and enter the IP address of the default gateway.
4. Click **Apply** to apply the setting.
Note: You must reboot the device for the setting to take effect.
5. Click **Refresh** to refresh the window.
6. Click **Close** to close the window.

Setting the Default Gateway IPv6

To set the Switch default gateway IPv6 address, perform the following steps:

1. Under the Set Default Gateway IPv6 settings, click in the **IPv6 Gateway address** text box and enter an applicable static IPv6 address (in hexadecimal format address, for example, fe80::211:7501:165:efa0).
2. Click **Apply** to apply the settings.
3. Click **Refresh** to refresh the window.
4. Click **Close** to close the window.



5.9 Subnet Manager

The **Subnet Manager** menu provides access to the embedded version of the Fabric Manager.

Figure 30. Chassis Detail Subnet Manager Menu for Intel® Omni-Path Edge Switch 100 Series

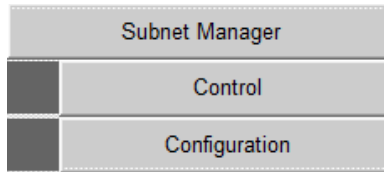


Figure 31. Chassis Detail Subnet Manager Menu for Intel® OP Director Class Switch 100 Series

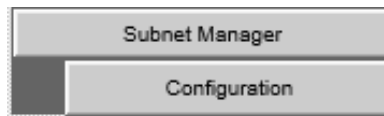
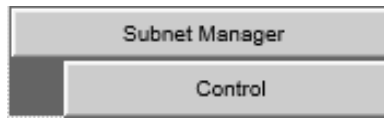


Figure 32. Management Module Subnet Manager Menu



5.9.1 Accessing the Fabric Manager for Intel® Omni-Path Director Class Switch 100 Series

The **Subnet Manager Control** window presents status information relating to the Intel® Omni-Path Fabric Suite Fabric Manager and provides a mechanism for starting, stopping, and restarting the Fabric Manager.

Viewing the Fabric Manager Status

To view the Fabric Manager status, perform the following steps:

1. From the Management Module main menu, click **Subnet Manager**.
2. Click **Control**.

The **Subnet Manager Control** window is displayed.



Subnet Manager - Control - M201

Uptime	0 Day(s), 0 Hour(s), 0 Minute(s), 0 Second(s)
Status	Not Started.
SM State	Not Active.

Restart Start Stop

Refresh Close

3. Click **Refresh** to refresh the window.
4. Click **Close** to close the window.

Field Descriptions

Descriptions for each field listed in the following table.

Table 24. Subnet Manager Control Field Descriptions

Name	Description
Uptime	Indicates the amount of time the SM has been running
Status	Provides information about the status of the SM, including Starting Up, Running, Shutting Down, and Not Started
SM State	Indicates whether the SM is the Master (Active) Subnet Manager in the Fabric.

Starting the Fabric Manager

1. To start the Fabric Manager, click **Start**.
The system responds by displaying **Starting up** in the **Status** box of the **Subnet Manager Control** window.
2. Click **Refresh** to confirm that the Fabric Manager has started.
Once the Fabric Manager is running, the system reports **Running** in the **Status** box and begins to increment the **Uptime** counter.
3. Click **Close** to close the window.

Stopping the Fabric Manager

1. To stop the Fabric Manager, click **Stop**.
The system responds by displaying **Shutting Down** in the **Status** box of the **Subnet Manager Control** window.
2. Click **Refresh** to confirm that the Fabric Manager has shut down.
Once the Fabric Manager has shut down, the system reports **Not Started** in the **Status** box of the **Subnet Manager Control** window.
3. Click **Close** to close the window.



Restarting the Fabric Manager

1. To restart the Fabric Manager, click **Restart**.
The system responds by displaying **Shutting Down** in the **Status** box of the **Subnet Manager Control** window.
2. Click **Refresh** to confirm that the Fabric Manager has restarted.
Once the Fabric Manager is running, the system reports **Running** in the **Status** box and begins to increment the **Uptime** counter.
3. Click **Close** to close the window.

5.9.2 Accessing the Fabric Manager for Intel® Omni-Path Edge Switch 100 Series

The **Subnet Manager Control** window presents status information relating to the Intel® Omni-Path Fabric Suite Fabric Manager and provides a mechanism for starting, stopping, and restarting the Fabric Manager.

Viewing the Fabric Manager Status

To view the Fabric Manager status, perform the following steps:

1. From the Chassis Details main menu, click **Subnet Manager**.
2. Click the **Control** button.

The **Subnet Manager Control** window is displayed.

3. Click **Refresh** to refresh the window.
4. Click **Close** to close the window.

Field Descriptions

Descriptions for each field are listed in the following table.

Name	Description
Uptime	Indicates the amount of time the SM has been running
Status	Provides information about the status of the SM, including Starting Up, Running, Shutting Down, and Not Started
SM State	Indicates whether the SM is the Master (Active) Subnet Manager in the Fabric.



Starting the Fabric Manager

1. To start the Fabric Manager, click **Start**.
The system responds by displaying **Starting up** in the **Status** box of the **Subnet Manager Control** window.
2. Click **Refresh** to confirm that the Fabric Manager has started.
Once the Fabric Manager is running, the system reports **Running** in the **Status** box and begins to increment the **Uptime** counter.
3. Click **Close** to close the window.

Stopping the Fabric Manager

1. To stop the Fabric Manager, click **Stop**.
The system responds by displaying **Shutting Down** in the **Status** box of the **Subnet Manager Control** window.
2. Click **Refresh** to confirm that the Fabric Manager has shut down.
Once the Fabric Manager has shut down, the system reports **Not Started** in the **Status** box of the **Subnet Manager Control** window.
3. Click **Close** to close the window.

Restarting the Fabric Manager

1. To restart the Fabric Manager, click **Restart**.
The system responds by displaying **Shutting Down** in the **Status** box of the **Subnet Manager Control** window.
2. Click **Refresh** to confirm that the Fabric Manager has restarted.
Once the Fabric Manager is running, the system reports **Running** in the **Status** box and begins to increment the **Uptime** counter.
3. Click **Close** to close the window.

5.9.3 Configuring Fabric Manager Automatic Start for Intel® Omni-Path Director Class Switch 100 Series

The **Subnet Manager Configuration** menu allows you to enable or disable the automatic start of the Fabric Manager at boot time.

To enable the Fabric Manager to automatically start at boot time, perform the following steps:

1. From the Chassis Details main menu, select **Subnet Manager**.
2. Click **Configuration**.

The **Subnet Manager Configuration** window is displayed.

	Enabled	Disabled
Start At Boot	<input checked="" type="radio"/>	<input type="radio"/>
Start On Slave	<input type="radio"/>	<input checked="" type="radio"/>

Apply Close



3. Click **Enabled** to automatically start the Fabric Manager with each boot.
4. Click **Disabled** to manually activate the Fabric Manager.
5. For switches in a redundant management configuration: Set the **Start On Slave** option to **Disabled**.

In the event that the Fabric Manager on the master Management Module is disabled, the Fabric Manager on the slave Management Module turns on automatically when it becomes the chassis management module.

6. Click **Apply** to save your settings.
7. Click **Close** to close the window.

5.9.4 Configuring Fabric Manager Automatic Start for Intel® Omni-Path Edge Switch 100 Series

The **Subnet Manager Configuration** menu allows you to enable or disable the automatic start of the Fabric Manager at boot time.

To enable the Fabric Manager to automatically start at boot time, perform the following steps:

1. From the Chassis Details main menu, select **Subnet Manager**.
2. Click **Configuration**.

The **Subnet Manager Configuration** window is displayed.

	Enabled	Disabled
Start At Boot	<input checked="" type="radio"/>	<input type="radio"/>

Apply Close

3. Click **Enabled** to automatically start the Fabric Manager with each boot.
4. Click **Disabled** to manually activate the Fabric Manager.
5. Click **Apply** to save your settings.
6. Click **Close** to close the window.