

Sun Network 10GbE Switch 72p

Security Guide



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Sun Network 10GbE Switch 72p Security Guide

This document provides an overview of the product and general security guidelines for the Sun Network 10GbE Switch 72p.

The following sections are in this chapter:

- [“Product Overview” on page 1](#)
- [“Understanding Security Principles” on page 2](#)
- [“Understanding Security Features” on page 3](#)
- [“Understanding Security Considerations for Developers” on page 4](#)
- [“Download Updates Securely” on page 4](#)

Product Overview

The Sun Network 10GbE Switch 72p is a 72 port 10 gigabit Ethernet top-of-rack switch that offers system and network administrators unprecedented density and functionality in a single rack unit.

The switch has a unique front panel arrangement designed to accommodate 72 10GbE wire rate ports. The front panel switch ports are composed of eight conventional SFP+ ports combined with 16 QSFP cages. Each QSFP cage supplies four individual 10GbE connections (contributing 64 additional ports) that can be carried in a single cable or split into individual 10GbE interconnects using a variety of copper and fiber cabling options.

This high-density switch enables cost efficient and scalable connectivity to servers, storage, and existing data center networks. It has enough density to build a sizable fabric within a single tier that operates at full bandwidth without the need for

spanning tree protocol. A single switch can easily displace three discrete 24-port or two discrete 48-port switches.

Additionally, the switch represents a single point of management for up to 72 servers, which helps further reduce costs when compared to meshes of 24-port and 48-port solutions. It is tightly integrated with Oracle's standard server management interface, Oracle Integrated Lights Out Manager (Oracle ILOM), for initialization and physical management, enabling you to manage networks and servers from the same interface.

Understanding Security Principles

The principles described in this section are fundamental to using any switch securely.

Keep Software Up To Date

Keeping all software and firmware versions and patches up to date is one of the primary principles of good security. It is important that you keep the embedded firmware on the switch up to date. Firmware is only accessible to system administrators who have access to Oracle ILOM after logging in.

Monitor System Activity

Oracle ILOM has a message log that logs system activity. Switch firmware upgrade activity will be included in the system log.

After three consecutive crashes of the configuration, the system will save the failing configuration file and revert to factory-default configuration to ensure availability. Oracle ILOM generates an alert message in the message log when this happens.

Keep Up To Date on Latest Security Information

Oracle continually improves its software and documentation. Check the product release notes often for updates:

<http://www.oracle.com/pls.topic/lookup?ctx=SN-10GbE-72p>

Understanding Security Features

You cannot access the switch firmware directly. All requests are managed by proxy through Oracle ILOM.

The following sections describe the features that are available to securely use the switch.

AAA

Switch security features are accessible only through the CMM ILOM. The following critical security features provided by Oracle ILOM:

- Authentication ensures that only authorized individuals get access to the system and data.
- Authorization is required to access system privileges and data. Authorization builds on authentication to ensure that individuals get only appropriate access.
- Audits allow administrators to detect attempted breaches of the authentication mechanisms and attempted or successful breaches of access control.

For more information, refer to the Oracle ILOM 3.0 documentation collection at:

<http://www.oracle.com/pls/topic/lookup?ctx=ilom30>

Logging Information

All logging information is available only through Oracle ILOM.

Switch Configuration

Custom configurations can be saved, and settings can be reset to factory defaults.

Firmware/EEPROM Upgrades

Upgrades are allowed only through Oracle ILOM. For detailed instructions for installing firmware, refer to the *Sun Network 10GbE Switch 72p Security Guide* at:

<http://www.oracle.com/pls.topic/lookup?ctx=SN-10GbE-72p>

Understanding Security Considerations for Developers

All software and firmware running on Oracle's Sun Network 10GbE Switch 72p are provided by Oracle. Customers cannot develop their own software to run on the switch.

Download Updates Securely

The switch ships with all firmware installed. No installation is required. You must download all software components for update (such as patches and new firmware releases) from the Oracle web download site after logging in. You will be required to provide service contract information and credentials.

Note that the switch firmware is only upgradeable through Oracle ILOM.

For information about installing new firmware, refer to the *Sun Network 10GbE 72p Product Notes*. For detailed instructions for installing firmware, refer to the *Sun Network 10GbE 72p User's Guide*. Access both documents at:

<http://www.oracle.com/pls.topic/lookup?ctx=SN-10GbE-72p>