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# Cisco MDS 9000 Family Storage Management Initiative - Specification (SMI-S) Configuration Note

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The Cisco MDS 9000 Family of multilayer directors and fabric switches provide an industry standard application programming interface (API) using the Storage Management Initiative Specification (SMI-S).

This configuration note includes the following sections:

- [SMI-S Specifications, page 2](#)
- [Embedded SIM-S Agent Overview, page 3](#)
- [SMI-S Configuration, page 3](#)
- [Obtaining Technical Assistance, page 4](#)
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# SMI-S Specifications

The following SMI-S specifications are described:

- [Licensing Requirements, page 2](#)
- [SMI-S Upgrades, page 2](#)
- [HTTP Requirements, page 2](#)
- [Device Software, page 2](#)

## Licensing Requirements

Licenses are not required to use the SMI-S interface.

## SMI-S Upgrades

The embedded agent is part of Cisco MDS 9000 SAN-OS and is upgraded along with the entire Cisco SAN-OS.

## HTTP Requirements

HTTP version 1.1 is required.

## Device Software

Cisco MDS 9000 SAN-OS Release 3.0(1) and later provide SMI-S support.

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# Embedded SIM-S Agent Overview

Third party applications can communicate with the embedded SMI server to provide SAN management functionality compatible with SMI-S. The embedded server includes the following standard profiles, subprofiles, and features as defined in SMI-S:

- Service Location Protocol version 2 (SLPv2)
- Server profile
- Indications
- Fabric profile
- Switch profile, including the Blade subprofile and Access Point subprofile
- HTTPS, which uses Secure Socket Layer (SSL)

## SMI-S Configuration

SMI-S configuration instructions are included in the [Cisco MDS 9000 Family CLI Configuration Guide](#). For information on the following topics, see the appropriate sections.

- SSL Support—*Configuring Added Security on a CIM Server*
- Port Information and Configuration—*Configuring Interfaces*
- User/Password configuration—*Configuring Users and Common Roles*
- Verification and Troubleshooting—*Troubleshooting Your Fabric*
- SLP Setup—Not applicable (N/A), because no setup is required

For additional information on SMI-S, refer to the [Cisco MDS 9000 Family SMI-S Programming Reference Guide](#).

For namespace information and usage, refer to the *Configuring and Using the CIM Server* chapter.

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## Obtaining Technical Assistance

Cisco Technical Support provides 24-hour-a-day award-winning technical assistance. The Cisco Technical Support & Documentation website on Cisco.com features extensive online support resources. In addition, if you have a valid Cisco service contract, Cisco Technical Assistance Center (TAC) engineers provide telephone support. If you do not have a valid Cisco service contract, contact your Cisco MDS 9000 Family reseller.

## Related Documentation

The documentation set for the Cisco MDS 9000 Family includes the following documents.

## Release Notes

- *Cisco MDS 9000 Family Release Notes for Cisco MDS SAN-OS Releases*
- *Cisco MDS 9000 Family Release Notes for Storage Services Interface Images*
- *Cisco MDS 9000 Family Release Notes for Cisco MDS 9000 EPLD Images*

## Compatibility Information

- *Cisco MDS 9000 SAN-OS Hardware and Software Compatibility Information*
- *Cisco MDS 9000 Family Interoperability Support Matrix*
- *Cisco MDS Storage Services Module Interoperability Support Matrix*
- *Cisco MDS SAN-OS Release Compatibility Matrix for Storage Service Interface Images*

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## Regulatory Compliance and Safety Information

- *Regulatory Compliance and Safety Information for the Cisco MDS 9000 Family*

## Hardware Installation

- *Cisco MDS 9124 Multilayer Fabric Switch Quick Start Guide*
- *Cisco MDS 9500 Series Hardware Installation Guide*
- *Cisco MDS 9200 Series Hardware Installation Guide*
- *Cisco MDS 9100 Series Hardware Installation Guide*

## Cisco Fabric Manager

- *Cisco MDS 9000 Family Fabric Manager Quick Configuration Guide*
- *Cisco MDS 9000 Family Fabric Manager Configuration Guide*
- *Cisco MDS 9000 Family Fabric Manager Database Schema*
- *Cisco MDS 9000 Family Data Mobility Manager Configuration Guide*

## Command-Line Interface

- *Cisco MDS 9000 Family Software Upgrade and Downgrade Guide*
- *Cisco MDS 9000 Family Storage Services Module Software Installation and Upgrade Guide*
- *Cisco MDS 9000 Family CLI Quick Configuration Guide*
- *Cisco MDS 9000 Family CLI Configuration Guide*
- *Cisco MDS 9000 Family Command Reference*

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## Troubleshooting and Reference

- *Cisco MDS 9000 Family Troubleshooting Guide*
- *Cisco MDS 9000 Family MIB Quick Reference*
- *Cisco MDS 9000 Family SMI-S Programming Reference*
- *Cisco MDS 9000 Family System Messages Reference*

## Installation and Configuration Note

- *Cisco MDS 9000 Family SSM Configuration Note*
- *Cisco MDS 9000 Family Port Analyzer Adapter Installation and Configuration Note*
- *Cisco 10-Gigabit X2 Transceiver Module Installation Note*
- *Cisco MDS 9000 Family CWDM Installation Note*
- *Cisco MDS 9000 Family CWDM Passive Optical System Installation Note*

## Obtaining Documentation, Obtaining Support, and Security Guidelines

For information on obtaining documentation, obtaining support, providing documentation feedback, security guidelines, and also recommended aliases and general Cisco documents, see the monthly *What's New* in Cisco Product Documentation, which also lists all new and revised Cisco technical documentation, at:

<http://www.cisco.com/en/US/docs/general/whatsnew/whatsnew.html>

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This document is to be used in conjunction with the documents listed in the [Related Documentation](#) section.

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