

Cisco MDS 9000 Storage Services Enabler Package

Package Description

The Cisco® MDS 9000 Storage Services Enabler (SSE) Package provides the underlying infrastructure and programmatic interface to enable intelligent fabric applications when used with the following second-generation Cisco MDS 9000 Family services nodes: the Cisco MDS 9222i Multiservice Modular Switch (MMS); the Cisco MDS 9000 18/4-Port Multiservice Module (MSM); and the first-generation Cisco MDS 9000 Storage Services Module (SSM). The Cisco MDS 9000 SSE Package enables the following storage applications:

- **Network-hosted storage applications:** The Cisco MDS 9222i Multiservice Modular Switch, MDS 9000 18/4-Port Multiservice Module, and MDS 9000 Storage Services Module enable network-hosted storage applications on Cisco MDS 9500 Series Multilayer Directors and MDS 9200 Series Multilayer Switches.

The Cisco MDS 9000 SSE Package enables these devices to host network-hosted storage applications by enabling the Intelligent Storage Application Programmatic Interface (ISAPI). Partner virtualization applications for heterogeneous storage such as EMC Invista (<http://www.emc.com/collateral/software/data-sheet/h1437-invista.pdf>) and Incipient iNSP (<http://www.incipient.com/resource/IncipientNSPDataSheet.pdf>) are enabled by the Cisco MDS 9000 SSE Package.

- **Network-assisted storage applications (SANTap):** For the Cisco MDS 9222i Multiservice Modular Switch, MDS 9000 18/4-Port Multiservice Module, and Storage Services Module, the Cisco MDS 9000 SSE Package enables a services node to run storage applications through the SANTap interface.

The Cisco MDS 9000 SANTap service enables customers to deploy EMC RecoverPoint using SANTap services to replicate heterogeneous storage without compromising the integrity, availability, and performance of the I/O operations between the host and the primary storage target. Cisco SANTap provides a reliable copy of storage write operations, which enables continuous data protection (CDP) and continuous remote replication (CRR) for mission-critical applications, without the drawbacks associated with deployment of in-band data-path-based or out-of-band host-based devices. The Cisco MDS 9000 SANTap service integrates with partner network-assisted storage replication applications for heterogeneous storage such as EMC RecoverPoint (<http://www.emc.com/collateral/software/data-sheet/h2769-emc-recoverpoint-family.pdf>), and requires the corresponding Cisco MDS 9000 SSE Package to be installed on the services nodes.

- **Cisco Secure Erase:** For the Cisco MDS 9000 Storage Services Module, the Cisco MDS 9000 SSE Package enables an effective SAN-based data erasure feature for storage logical unit numbers (LUNs).

The secure erasure of data is required by many government, industry, and corporate privacy and security laws and regulations worldwide (for example, HIPAA, Sarbanes-Oxley, European Data Protection Directive, and U.S. Department of Defense [DoD] regulations).

Other data erasure tools can be slow and do not always fully erase the data. The Cisco MDS 9000 Family Secure Erase feature is based on industry-best-practice algorithms (RCMP, Zeroes, DoD522022m, DoD522022m-s, NIST-800-88, and the Gutmann method) that leave no remnants of the data after the operation has been completed successfully. By meeting this critical security and regulatory requirement in the SAN, users can achieve higher performance and significantly shorten the operational time frame, while lowering cost by using existing infrastructure that requires no host interruption and that has no explicit storage system dependencies.

Software Release

To use the Cisco MDS 9000 SSE Package on the second-generation Cisco MDS 9222i Multiservice Modular Switch or MDS 9000 18/4-Port Multiservice Module, Cisco MDS 9000 NX-OS Software Release 4.1(1) or later must be installed on the Cisco MDS 9000 Family switch. To use the Cisco MDS 9000 SSE Package on the first-generation Cisco MDS 9000 Storage Services Module, Cisco MDS 9000 SAN-OS Software Release 1.3(5) or later must be installed.

To use Cisco MDS 9000 NX-OS 4.1(1) and second-generation services nodes, EMC RecoverPoint 3.1 SP1 is required. For details, please consult the EMC RecoverPoint with Cisco MDS 9000 Family SANTap Design Guide: (http://www.cisco.com/en/US/products/ps5989/products_implementation_design_guides_list.html).

License Information

For the Cisco MDS 9000 18/4-Port Multiservice Module or MDS 9000 Storage Services Module, the Cisco MDS 9000 SSE Package is licensed on a per-module basis and is tied to the chassis. The number of licenses needed is equal to the number of MDS 9000 18/4-Port Multiservice Modules or Storage Services Modules on which the intelligent fabric application feature is used. For the Cisco MDS 9222i Multiservice Modular Switch, the Cisco MDS 9000 SSE Package is licensed per chassis.

Ordering Information

The following product numbers are associated with the Cisco MDS 9000 SSE Package:

- M9222ISSE1K9= Storage Services Enabler on Cisco MDS 9222i, spare
- M9200SSE184K9= Storage Services Enabler for Cisco MDS 9000 18/4-Port Multiservice Module on Cisco MDS 9200, spare
- M9500SSE184K9= Storage Services Enabler for Cisco MDS 9000 18/4-Port Multiservice Module on Cisco MDS 9500, spare
- M9500SSE1K9= Storage Service Enabler for Storage Services Module on Cisco MDS 9500, spare
- M9200SSE1K9= Storage Service Enabler for Storage Services Module on Cisco MDS 9200, spare

The following product numbers are associated with the Cisco MDS 9000 Multiservice Modules and Multiservice Modular Switch:

- DS-X9304-18K9= Second-Generation Cisco MDS 9000 18/4-Port Multiservice Module
- DS-C9222i-K9 Second-Generation Cisco MDS 9000 9222i Multiservice Modular Switch
- DS-X9032-SSM= First-Generation Cisco MDS 9000 Storage Services Module

For More Information

For more information, please refer to the Cisco MDS 9000 Series Multilayer Switch data sheets http://www.cisco.com/en/US/products/hw/ps4159/ps4358/products_data_sheets_list.html.



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