Cisco MDS 9000 Storage Services Enabler Package

Package Description

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

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

- **Network-assisted storage applications (SANTap):** For the Cisco MDS 9222i and MDS 9000 18/4-Port MSM, 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 MDS 9000 SANTap provides a reliable copy of storage write operations, which enables Continuous Data Protection (CDP), Continuous Remote Replication (CRR), and Concurrent Local and Remote Replication (CLR) 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 installation of the corresponding Cisco MDS 9000 SSE Package on the services nodes.

Use the Cisco MDS 9000 18/4-Port MSM for an intelligent fabric service core design, or the Cisco MDS 9222i for an intelligent fabric service edge design. Alternatively, use a Cisco MDS 9000 18/4-Port MSM to expand the second slot (empty by default) in the Cisco MDS 9000 9222i to increase the performance and capabilities of the intelligent fabric service at the edge of the fabric. Multiple Cisco MDS 9000 18/4-Port MSMs can be used to increase performance of the intelligent fabric service in the core of the fabric.

- **Cisco Secure Erase:** For the Cisco MDS 9000 18/4-Port MSM, the Cisco MDS 9000 SSE Package enables an effective SAN-based data erasure feature for storage logical unit numbers (LUNs).Secure data erasure is required by many government, industry, and corporate privacy and security laws (such as HIPAA, Sarbanes-Oxley, the European Data Protection Directive (EDPD), and U.S. Department of Defense [DOD] regulations). Given their broad applicability, these regulations require scalable performance and full data erasure, Cisco MDS 9000 Secure Erase is based on industry best-practice algorithms and erases LUNs in such a way that reconstructing erased data is essentially impossible. By meeting this critical security and regulatory requirement in the SAN, users can achieve higher performance and significantly shorten the operational timeframe, while lowering cost by using existing infrastructure that requires no host interruption and that has no explicit or server storage system dependencies.

Software Release

To use the Cisco MDS 9000 SSE Package on the second-generation Cisco MDS 9222i or MDS 9000 18/4-Port MSM, Cisco MDS 9000 NX-OS Software Release 4.1(1) or later must be installed on the Cisco MDS 9000 Family switch. To use Cisco MDS 9000 NX-OS 4.1(1) and second-generation services nodes, EMC RecoverPoint 3.1 SP1 or later is required. For details, please consult the EMC RecoverPoint with Cisco MDS 9000 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 MSM or MDS 9222i, 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 MSMs. For the Cisco MDS 9222i, the Cisco MDS 9000 SSE Package is licensed per switch.

Ordering Information

Table 1 provides ordering information.

Table 1.   Ordering Information

Description	Cisco Part Number	EMC Part Number
Cisco MDS 9000 18/4-Port Multiservice Module	DS-X9304-18K9=	MDS-PBFI-1804
SSE license for the 18x4 module on MDS 95XX	M9500SSE184K9=	MDS-SSE-95MSM
Cisco MDS 9222i Multiservice Modular Switch	DS-C9222i-K9=	MDS-9222i
SSE License for native 9222i (slot 1)	M9200SSE184K9=	MDS-SSE-9222i
SSE License for MSM-18/4 in 9222i expansion (slot 2)	DS-C9222i-K9=	MDS-9222i

For More Information

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