



PRODUCT BULLETIN

CISCO MDS RELEASE FEATURE MATRIX

The Cisco® MDS release feature matrix (Table 1) identifies the minimum Cisco MDS 9000 Family SAN-OS release required for each major Cisco MDS 9000 Family software and hardware feature.

Table 1. Release Feature Matrix

Feature (Part Number)	Minimum Software Release Required						
	1.0(1)	1.1(1)	1.2(1)	1.2(2)	1.3(1)	2.0(1)	2.1(1)
Hardware							
Cisco MDS 9000 16-Port Fibre Channel Switching Module (DS-X9016)	X						
Cisco MDS 9000 32-Port Fibre Channel Switching Module (DS-X9032)	X						
Cisco MDS 9216 Multilayer Fabric Switch (DS-C9216-K9)	X						
Cisco MDS 9509 Multilayer Director Switch (DS-C9509)	X						
Cisco MDS 9500 Series Supervisor Module 1 (DS-X9530-SF1-K9)	X						
Cisco MDS 9000 8-Port IP Storage Services Module (DS-X9308-SMIP)		X					
4-Wavelength Add/Drop Multiplexer (ADM) (CWDM-MUX-4)		X					
8-Wavelength ADM (CWDM-MUX-8)		X					
Cisco MDS 9506 Multilayer Director Switch (DS-C9506)		X					
Coarse Wavelength-Division (CWDM) Multiplexer Chassis (CWDM-CHASSIS-2)		X					
Cisco MDS 9000 Port Analyzer Adapter (DS-PAA)		X					
Cisco MDS 9120 20-Port Multilayer Fabric Switch (DS-C9120-K9)			X				
Cisco MDS 9140 40-Port Multilayer Fabric Switch (DS-C9140-K9)			X				
Cisco MDS 9000 Advanced Services Module (DS-X9032-SMV)				X			
Cisco MDS 9000 Caching Services Module (DS-X9560-SMC)					X		
Cisco MDS 9000 4-Port IP Storage Services Module (DS-X9304-SMIP)					1.3(4a)		
Cisco MDS 9216A Multilayer Fabric Switch (DS-C9216A-K9)						X	
Cisco MDS 9216i Multilayer Fabric Switch (DS-C9216i-K9)						X	
Cisco MDS 9000 14/2-Port Multiprotocol Services Module (DS-X9302-14K9)					X		
Cisco MDS 9000 Storage Services Module (DS-X9032-SSM)						2.0(2b)	

Feature (Part Number)	Minimum Software Release Required						
	1.0(1)	1.1(1)	1.2(1)	1.2(2)	1.3(1)	2.0(1)	2.1(1)
Fabric Services							
Fibre Channel Protocol	X						
PortChannels	X						
SAN-OS High Availability	X						
Virtual Storage Area Networks (VSANs)	X						
Quality of Service (QoS), Two Fibre Channel Priority Levels	X						
B-Port Device Interoperability		X					
IBM Fiber Connection (FICON) with Control Unit Port (CUP) Interface				X			
QoS, 4 Fibre Channel Priority Levels					X		
Fibre Channel Port Rate Limiting					X		
Per-VSAN Timers					X		
Dynamic Port VSAN Membership					X		
Distributed Device Alias Services					X		
Port Tracking					X		
Extended Credits					X		
Zone-Based QoS						X	
PortChannel Protocol						X	
Cisco Fabric Services Protocol						X	
Graceful Port Shutdown						X	
Fibre Channel Identifier (FC-ID) Persistence by Default						X	
Fibre Channel Write Acceleration (FC-WA)						2.0(2b)	
Small Computer System Interface (SCSI) Flow Statistics						2.0(2b)	
Network-Accelerated Serverless Backup							X
Fabric Application Interface Standard (FAIS)-Based Application Programming Interface (API)							X
SANTap Protocol							X
IP Storage Services							
Fibre Channel over IP (FCIP) Protocol		X					
SCSI over IP (iSCSI) Protocol		X					
Auto-Trespass				X			
FCIP Compression					X		
FCIP Write Acceleration					X		
iSCSI Proxy Initiator					X		
Internet Storage Name Service (iSNS) Client					X		

Feature (Part Number)	Minimum Software Release Required						
	1.0(1)	1.1(1)	1.2(1)	1.2(2)	1.3(1)	2.0(1)	2.1(1)
FCIP Tape Acceleration						X	
Storage-Area-Network (SAN) Extension Tuner						X	
iSNS Services						X	
Hardware-Based FCIP Compression						X	
Auto-Compression							X
iSCSI Cut-Through							X
iSCSI Immediate Data							X
Network Security							
RADIUS	X						
Role-Based Access Control (RBAC)	X						
Zoning	X						
Access Control Lists (ACLs) for iSCSI Targets		X					
Challenge Handshake Authentication Protocol (CHAP)		X					
Zoning, iSCSI		X					
Port Security		X					
ACLs for Management Ports			X				
RBAC, Common Simple Network Management Protocol (SNMP) and Command-Line Interface (CLI) Roles			X				
RBAC, VSAN-Based			X				
Zoning, Logical Unit Numbers (LUNs)			X				
Zoning, Read-Only			X				
Fabric Binding					X		
Inter-VSAN Routing (IVR)					X		
Switch-to-Switch and Host-to-Switch Authentication					X		
TACACS+					X		
Zoning, Domain and Port					X		
IP Security (IPsec) for FCIP and iSCSI						X	
Advanced Encryption Standard (AES) for Traffic Management						X	
Unified Users and Passwords						X	
IVR with Network Address Translation (NAT)							X

Feature (Part Number)	Minimum Software Release Required						
	1.0(1)	1.1(1)	1.2(1)	1.2(2)	1.3(1)	2.0(1)	2.1(1)
Switch Management							
CLI	X						
IP over Fibre Channel	X						
Cisco Discovery Protocol		X					
Enterprise and SAN Extension over IP License Packages			X				
Cisco Fabric Manager Server (FMS)					X		
Common Information Model (CIM) Extensible Markup Language (XML) Management Interface, Storage Management Initiative Specification (SMI-S) 1.0 Compliant					X		
Fabric Device Management Interface (FDMI) Support					X		
Mainframe and FMS License Packages					X		
Cisco MDS 9000 Family Storage Services Enabler (SSE) License Package						X	
FDMI Host-Name Attribute						X	
Enhanced CIM XML, SMI-S 1.0.2-Compliant						X	
Cisco FMS Web Client for Operational View						X	
Cisco FMS Performance Thresholds						X	
Cisco FMS Proxy Services							X
User-Interface Modes							X
Troubleshooting							
Call Home	X						
Cisco Fabric Analyzer	X						
Fibre Channel Ping and Traceroute	X						
Port-Loopback Testing	X						
Switched Port Analyzer (SPAN)	X						
Remote SPAN (RSPAN)			X				
Call Home Enhancements				X			
Online Diagnostics					X		
Small Form-Factor Pluggable (SFP) Diagnostics					X		
SPAN for IP Services					X		

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