

IBM System Storage™ DS8000 series



Interoperability Matrix

February 27, 2008

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| e (logo) | Netfinity | System z |
| eServer | OS/390 | System x |
| ESCON | OS/400 | TotalStorage |
| ES/9000 | Redbooks | VSE/ESA |
| FICON | RS/6000 | xSeries |
| FlashCopy | S/390 | z/OS |
| IBM | S/390 Parallel Enterprise Server | z/VM |
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| | |
|--------------------------------------------------------|----|
| Introduction | 2 |
| DS8000 Series Interoperability Summary | 3 |
| Configuration Planning | 5 |
| DS8000 series Copy Services..... | 7 |
| Hewlett-Packard Servers – HP-UX..... | 11 |
| Hewlett-Packard Servers – OpenVMS | 13 |
| Hewlett-Packard Servers – Tru64 UNIX..... | 15 |
| IBM System i Servers..... | 17 |
| IBM System p and RS/6000 Servers..... | 19 |
| IBM Cluster 1600 Servers | 22 |
| IBM System z and S/390 Servers | 25 |
| Sun Servers | 30 |
| x86 Based Servers – NetWare..... | 32 |
| x86, x64, amd64 Based Servers – VMware | 34 |
| x86, em64t, ia64, and amd64 Based Servers - Linux..... | 36 |
| x86, x64, and ia64 Based Servers - Windows..... | 38 |
| Additional Storage Attachment..... | 42 |
| Apple Macintosh Servers | 43 |
| Fujitsu Primepower Servers | 44 |
| IBM N Series Servers..... | 45 |
| Network Attached Storage (NAS)..... | 46 |
| SGI Servers..... | 47 |
| Appendix A: DS8000 Host Adapters and Cables | 48 |
| Appendix B: Host Adapters and Cables | 50 |
| Appendix C: SAN Fabric Products | 52 |
| Appendix D: Revision History..... | 54 |

About this Document

This document lists interoperable environments and configurations for the IBM System Storage DS8000 series.

The document is for informational and planning purposes only and may change at anytime. This version supersedes and replaces all previous versions. The latest version of this document is available at:

<http://www.ibm.com/servers/storage/disk/ds8000/index.html>

Not all combinations created from interoperable components are supported, nor will they necessarily function properly together. The customer is responsible for confirming that a specific configuration (i.e. server model, operating system level, patches, host adapter, and fabric product combination) is a valid and supported configuration by each of the vendors whose products are included in the configuration.

This document is not intended to be the sole resource for configuration information, requirements, and prerequisites. Refer to DS8000 series publications, vendor documentation, or your IBM Sales Representative or IBM Business Partner for additional information.

End-of-Service / End-of-Support

Throughout this document, this symbol – @ – indicates that the product vendor has announced that they no longer provide support for the product. If problems are encountered with existing installations, you may be required to update your configuration to a supported level before problem determination can take place.

Request for Price Quotations (RPQ)

If a desired configuration is not represented in this document, a RPQ should be submitted to IBM to request approval. To submit a RPQ, contact your local IBM Storage Specialist or Business Partner.

What's New

This version is dated February 27, 2008 and has been updated as noted below. It replaces the version dated February 6, 2007. Unless stated otherwise, these items are recommended with DS8000 LMC level 5.3.0xx.xx, bundle version 63.0.xx.xx, or later.

Operating Systems, Path Management, and Clustering

- Microsoft Windows 2008 Standard, Enterprise and Datacenter (without Hyper V)
- SDD DSM available for Microsoft Windows 2008 Standard, Enterprise and Datacenter (without Hyper V)

DS8000 SERIES INTEROPERABILITY SUMMARY

For convenience, the following tables summarize the interoperable environments and configurations for the DS8000 series. Refer to the individual server pages for additional information, including prerequisites and limitations.

Table 1: Open Systems

| | DS8100 Model 921 & Turbo Model 931 | DS8300 Model 922 & Turbo Model 932 | DS8300 Model 9A2 & Turbo Model 9B2 | Fibre Channel | Clustering | SAN Boot Support | Subsystem Device Driver (SDD) | DS Application Program Interface (API) | DS Command Line Interface (DS CLI) |
|-----------------------------------------------|------------------------------------|------------------------------------|------------------------------------|---------------|------------|------------------|-------------------------------|----------------------------------------|------------------------------------|
| Fujitsu Primepower | ✓ | ✓ | ✓ | ✓ | | ✓ | ✓ | | |
| Hewlett-Packard (HP-UX) | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | ✓ |
| Hewlett-Packard AlphaServer (OpenVMS) | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | | ✓ |
| Hewlett-Packard AlphaServer (Tru64 UNIX) | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | | ✓ |
| IBM System i (AIX) | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | ✓ |
| IBM System i (OS/400, i5/OS) | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | | ✓ |
| IBM System i (Linux) | ✓ | ✓ | ✓ | ✓ | | ✓ | ✓ | | |
| IBM System p (i5/OS) | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | | ✓ |
| IBM System p (Linux) | ✓ | ✓ | ✓ | ✓ | | ✓ | ✓ | | |
| IBM System p, RS/6000, and Cluster 1600 (AIX) | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Linux (x86, x64, EM64, AMD64, iA64) | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Intel Servers (NetWare) | ✓ | ✓ | ✓ | ✓ | ✓ | | ✓ | | ✓ |
| AMD & Intel Servers (VMware) | ✓ | ✓ | ✓ | ✓ | | ✓ | | | ✓ |
| Windows (x86, x64, EM64, AMD64, iA64) | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Apple Macintosh (OSX) | ✓ | ✓ | ✓ | ✓ | | | | | |
| SGI Origin Servers (IRIX) | ✓ | ✓ | ✓ | ✓ | | | | | |
| Sun (Solaris) | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | ✓ |

Table 2: IBM System z

| | DS8100 Model 921 & Turbo Model 931 | DS8300 Model 922 & Turbo Model 932 | DS8300 Model 9A2 & Turbo Model 9B2 | ESCON | Fibre Channel Protocol (FCP) | FICON |
|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|-------|------------------------------|-------|
| z/OS | ✓ | ✓ | ✓ | ✓ | | ✓ |
| z/VM | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| VSE/ESA | ✓ | ✓ | ✓ | ✓ | | ✓ |
| z/VSE | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Transaction Processing Facility (TPF) | ✓ | ✓ | ✓ | ✓ | | ✓ |
| Linux | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |

DS8000 Licensed Machine Code (LMC)

This document contains references to minimum DS LMC levels. In many cases, the minimum level listed does not represent the latest available LMC level.

Customers are encouraged to keep their DS8000 series at the latest LMC level to take advantage of quality, reliability, and serviceability enhancements and to receive problem determination and fix support.

All items listed in this version of the document are recommended with DS8000 LMC level 5.3.0xx.xx, bundle version 63.0.xx.xx, or later, unless otherwise noted in the individual sections.

Host Systems Attachment Guide

The IBM System Storage DS8000 Host Systems Attachment Guide should be referenced to obtain detailed information on attaching servers to the DS8000 series.

Host Adapters

This document contains only limited information regarding host adapter driver levels and other prerequisites. Host adapter firmware, driver, and fix level information is documented in the Fibre Channel Host Bus Adapter (HBA) Support Matrix. This matrix can be found at:

<http://www.ibm.com/servers/storage/support/config/hba/index.wss>

Additionally, review host adapter vendor documentation and web pages to obtain information regarding host adapter configuration planning, hardware and software requirements, driver levels, and release notes.

ATTO: <http://www.attotech.com/>
Emulex: <http://www.emulex.com/ts/dds.html>
AMCC/JNI: <http://www.jni.com/>
QLogic: http://www.qlogic.com/support/oem_detail_all.asp?oemid=22

SAN Fabric Products

Fabric product vendor documentation and web pages should be reviewed to obtain information regarding configuration planning, hardware and software requirements, firmware and driver levels, and release notes.

IBM: <http://www.ibm.com/storage/ibmsan/products/sanfabric.html>
Cisco: <http://www.cisco.com/go/ibm/storage>

Channel Extension Technology Products

Channel extension technology product vendor documentation and web pages should be reviewed to obtain information regarding configuration planning, hardware and software requirements, firmware and driver levels, and release notes.

ADVA: <http://www.advaoptical.com>
Cisco: <http://www.cisco.com/go/ibm/storage>
CIENA: <http://www.ciena.com/products/transport/shorthaul/cn2000/index.asp>
Huawei: <http://www.huawei.com>
Nortel: <http://www.nortelnetworks.com>

IBM System Storage SAN Volume Controller

The IBM System Storage SAN Volume Controller is supported with the DS8100 and DS8300 and requires SVC code levels 1.2.1.1 and 2.1.0, or later. The SAN Volume Controller is not interoperable with DS Copy Services. Refer to the following web pages for specific interoperability information on the SAN Volume Controller: <http://www.ibm.com/storage/support/2145>

IBM TotalStorage SAN File System

The IBM TotalStorage SAN File System supports the DS8100 and DS8300. For more information on support, please refer to the following link: <http://www.ibm.com/support/docview.wss?rs=575&uid=ssq1S1002299>

IBM System Storage Multipath Subsystem Device Driver (SDD)

The SDD is designed to provide load balancing and enhanced data availability capability in configurations with more than one I/O path between the host server and the DS8000 series system. Load balancing can reduce or eliminate I/O bottlenecks that occur when many I/O operations are directed to common devices via the same I/O path. SDD also helps eliminate a potential single point of failure by automatically rerouting I/O operations when a path failure occurs, thereby supporting enhanced data availability capability. The SDD is provided with the DS8000 series at no additional charge.

Refer to the individual server pages within this document for operating system level requirements and for DS8000 series LMC prerequisites. Refer to the IBM System Storage Multipath Subsystem Device Driver User's Guide for additional information.

Additional SDD information is also available at: <http://www.ibm.com/servers/storage/support/software/sdd/downloading.html>

IBM System Storage DS Open API (Application Program Interface)

The DS Open API supports routine LUN management activities, such as LUN creation, mapping, and masking, and the management of point in time copy and remote mirroring. It supports these activities through the use of a standard interface as defined by the Storage Networking Industry Association (SNIA) Storage Management Initiative Specification (SMI-S). It is implemented through the IBM System Storage Common Information Model Agent (CIM Agent) for the DS8000 series, a middleware application that provides a CIM-compliant interface. The DS Open API and CIM Agent are provided with the DS8100 and DS8300 at no additional charge.

- The DS API coordinates with Microsoft Volume Shadow (VSS) Copy Service and the DS8000 series FlashCopy function to create a consistent, point-in-time shadow copy of a Windows 2003 Server volume or group of volumes. This ensures consistency for VSS aware applications.
- The DS API also coordinates with Microsoft Virtual Disk Service (VDS). Microsoft VDS is a software interface that manages block storage virtualization. This interface module makes it possible for the DS8000 series to interoperate with applications that utilize the VDS Application Programming Interface in a Windows 2003 environment.

Refer to the individual server pages within this document for operating system level requirements and for DS8000 series LMC prerequisites. While the CIM Agent is available for only selected operating system environments, it can be used to manage all LUNs within an DS8000 series.

Refer to the IBM System Storage DS Open Application Programming Interface Reference for additional information.

IBM System Storage DS Command Line Interface (CLI)

The DS CLI is a single CLI that has the ability to perform a full set of commands for both configuration and copy services activities. The DS CLI is provided with the DS8000 series at no additional charge.

Refer to the individual server pages within this document for operating system level requirements and for DS8000 series LMC prerequisites. Refer to the IBM System Storage DS Command-Line Interface User's Guide for additional information.

IBM TotalStorage Continuous Availability

IBM TotalStorage Continuous Availability for Windows (formerly IBM TotalStorage Geographically Dispersed Clusters for Microsoft Cluster Server) is designed to allow Microsoft Cluster installations to span geographically dispersed sites and help protect clients from site disasters or storage subsystem failures. It is designed to enable a tier 7 disaster recovery solution and provide high availability for applications and data running in Windows clustered server environments by extending the distance that cluster nodes and storage can be separated, mirroring data between DS8000 series systems. Support for IBM TotalStorage Continuous Availability is available via an IBM services contract to implement and customize the solution for your environment. Contact your local IBM representative or Business Partner and request IBM RPQ.

IBM TotalStorage Productivity Center for Replication

IBM TotalStorage Productivity Center (TPC) for Replication V3.1 provides optional management of DS8000 series business continuance solutions, including FlashCopy and Remote Mirror and Copy functions. IBM TPC for Replication Two Site BC V3.1 also provides disaster recovery management support in a two-site DS8000 configuration. This management support is available with the IBM TPC for Replication software program (purchased separate from the DS8000 series).

IBM System Storage FlashCopy

IBM System Storage FlashCopy is designed to provide a point-in-time copy capability for DS8000 series logical volumes. FlashCopy creates a physical point-in-time copy of the data, with minimal interruption to applications, and makes it possible to access both the source and target copies immediately. FlashCopy is an optional capability, and is available with the point in time features on the DS8000 series.

Remote Mirror and Copy Solutions

The DS8000 series supports several hardware-based remote mirror and copy solutions. They are optional capabilities of the DS8000 series and are available with the remote mirror and copy features on the DS8000 series.

IBM supports the following remote mirror and copy solutions. Refer to Table 3 for DS8000 series model support and prerequisites.

IBM System Storage Metro Mirror

Metro Mirror is designed to provide real time mirroring between two systems that can be located up to 300 km from each other. It is a synchronous copy solution where write operations are completed on both copies (local and remote site) before they are considered to be done.

Extending distances beyond 300 km is also possible. However, due to network configuration variability, the customer must work with the channel extender vendor to determine the appropriate configuration to meet their performance requirements. IBM support approval for these longer distances can be requested by submitting a Request for Price Quotation (RPQ). The RPQ should include information on distance between sites, the channel extension technology, the type of telecom line, the amount of network bandwidth, the DS8100 or DS8300 system capacity, and a general description of the workload.

IBM System Storage Global Copy

Global Copy is a non-synchronous long-distance copy option for data migration and backup. With a non-synchronous operation, the distance between the primary and secondary DS8000 series system will have only a minimal effect on the application response time. Therefore, Global Copy can operate at very long distances.

IBM System Storage Global Mirror

Global Mirror is a high performance, asynchronous remote-mirroring copy solution. It is designed to provide a two-site disaster recovery and backup solution at virtually unlimited distances. Since the distance between the primary and secondary DS8000 series system has little impact to host applications at the primary site, the remote site can be located at distances from the local site well beyond those supported with Metro Mirror. The distances are typically limited only by the capabilities of the network and channel extension technologies.

IBM System Storage Metro/Global Mirror (MGM)

The Metro and Global Mirror function utilizes synchronous mirroring (Metro Mirror), from a local A-site to a metro distance B-site and asynchronous mirroring (Global Mirror) from an intermediate B-site to a remote C-site. This function, referred to as Metro/Global Mirror, is designed to provide planned and unplanned outage three-site enterprise disk data replication - which can help meet rigorous three-site business resiliency needs of the enterprise data center. Metro/Global Mirror can support synchronous replication at distances up to 303 KM using IBM System Storage Metro Mirror, and can maintain the asynchronous third site for out of region recovery, at a data currency that can be within 3-5 seconds (bandwidth permitting), using IBM System Storage Global Mirror.

IBM System Storage Remote Mirror and Copy Solutions for z/OS

The DS8000 series supports the following remote mirror and copy solutions for the z/OS environment:

IBM System Storage z/OS Global Mirror

This is a combined hardware and software business continuance solution for the System z environment providing asynchronous mirroring between systems at two sites located global distances apart. z/OS Global Mirror is an optional capability of the DS8000 series and is available with the remote mirror for z/OS features on the DS8000 series. Refer to Table 4 for DS8000 series model support and MC prerequisites.

IBM System Storage z/OS Metro/Global Mirror (3-site z/OS Global Mirror and Metro Mirror)

This mirroring capability utilizes z/OS Global Mirror to mirror primary site data to a location that is a long distance away and also uses Metro Mirror to mirror primary site data at a location within the metropolitan area. This enables a 3-site high availability and disaster recovery z/OS solution for even greater protection from unplanned outages. z/OS Metro/Global Mirror is an optional capability of the DS8000 series, and is available with the remote mirror for z/OS and remote mirror and copy features on the DS8000 series. Refer to Table 4 for DS8000 series model support and LMC prerequisites for z/OS Global Mirror and Table 3 for DS8000 series model support and LMC prerequisites for Metro Mirror.

Remote Mirror and Copy Channel Extension, DWDM, and Network Connectivity

Distances beyond 300 km will require the use of channel extension technology, and the channel extender vendor will determine the maximum distance supported. The vendor should be contacted for its distance capability, line quality requirements, and WAN attachment capabilities.

IBM supports the use of the following products, in Table 3, with remote mirror and copy. Additionally, the product vendors should also be consulted regarding hardware and software prerequisites when using their products in a DS8000 series remote mirror and copy configuration. IBM is not responsible for third-party products.

When using remote mirror and copy with channel extenders, IBM supports the use of remote mirror and copy over all the network technologies that are currently supported by the channel extender products, including Fibre Channel, Ethernet/IP, ATM-OC3, and T1/T3. Evaluation, qualification, approval, and support of remote mirror and copy configurations using channel extender products are the sole responsibility of the channel extender vendor. The vendor should be contacted for its distance capability, line quality requirements, as well as SAN and WAN attachment capabilities.

Table 3: Remote mirror and copy over Fibre Channel (FCP)

| | Metro Mirror | Global Copy | Global Mirror | Metro/Global Mirror (MGM) |
|--------------------------------------------------|--------------|-------------|---------------|---------------------------|
| DS8100 Model 921 and Turbo Model 931 | ✓ | ✓ | ✓ | ✓ |
| DS8300 Model 922 and Turbo Model 932 | ✓ | ✓ | ✓ | ✓ |
| DS8300 Model 9A2 and Turbo Model 9B2 | ✓ | ✓ | ✓ | ✓ |
| ADVA FSP 2000 | ✓ | ✓ | ✓ | ✓ |
| CIENA CN 2000™ Storage Extension Platform | ✓ | ✓ | ✓ | ✓ |
| Cisco IP Storage Service Modules | ✓ | ✓ | ✓ | ✓ |
| Cisco CWDM Distance Solution | ✓ | ✓ | ✓ | ✓ |
| Cisco ONS 15530 / 15540 / 15454 | ✓ | ✓ | ✓ | ✓ |
| CNT Edge Storage Router | ✓ | ✓ | ✓ | ✓ |
| CNT UltraNet Storage Director-eXtended | ✓ | ✓ | ✓ | ✓ |
| Huawei OptiX Metro 6040 / 6100 (WDM) | ✓ | ✓ | ✓ | ✓ |
| Huawei OptiX Metro OSN 1500 / 2500 / 3500 / 7500 | ✓ | ✓ | ✓ | ✓ |
| IBM 2005 Model R18 | ✓ | ✓ | ✓ | ✓ |
| IBM 2027 Models R04 and R16 ² | ✓ | ✓ | ✓ | ✓ |
| IBM 2109 Model A16 | ✓ | ✓ | ✓ | ✓ |
| IBM 2109 Model M48 ¹ | ✓ | ✓ | ✓ | ✓ |
| Nortel Networks OPTera Metro 5200 | ✓ | ✓ | ✓ | ✓ |
| Nortel OM3500 | ✓ | ✓ | ✓ | ✓ |

¹ IBM 2109 Model M48 requires Fibre Channel Routing Blade.

² Both the IBM 2027 R04 and R16 require direct attach support only.

z/OS Global Mirror Channel Extension, DWDM, and Network Connectivity

Distances beyond 3 km for ESCON, and 10 km for FICON will require the use of channel extension technology, and the channel extender vendor will determine the maximum distance supported. The vendor should be contacted for its distance capability, line quality requirements, and SAN and WAN attachment capabilities.

IBM supports the use of the following products, in Table 4, with z/OS Global Mirror. The product vendors should also be consulted regarding hardware and software prerequisites when using their products in a DS8000 Series System z/OS Global Mirror configuration. IBM is not responsible for third-party products.

When using z/OS Global Mirror with channel extenders, IBM supports the use of z/OS Global Mirror over all the network technologies that are currently supported by the channel extender products, including Fibre Channel, Ethernet/IP, ATM-OC3, and T1/T3. Evaluation, qualification, approval, and support of z/OS Global Mirror configurations using channel extender products are the sole responsibility of the channel extender vendor. The vendor should be contacted for its distance capability, line quality requirements, as well as SAN and WAN attachment capabilities.

Table 4: z/OS Global Mirror

| | z/OS Global Mirror - ESCON | z/OS Global Mirror - FICON |
|-------------------------------------------------------------|----------------------------|----------------------------|
| DS8100 Model 921 and Turbo Model 931 | ✓ | ✓ |
| DS8300 Model 922 and Turbo Model 932 | ✓ | ✓ |
| DS8300 Model 9A2 and Turbo Model 9B2 | ✓ | ✓ |
| ADVA FSP 2000 | Not Available | ✓ |
| CIENA CN 2000™ Storage Extension Platform | Not Available | ✓ |
| Cisco ONS 15530 / 15540 / 15454 | ✓ | ✓ |
| Cisco CWDM | Not Available | ✓ |
| Cisco IP Storage Service Modules ² | Not Available | ✓ |
| CNT (INRANGE) 9811 Storage Networking System | ✓ | Not Available |
| CNT UltraNet Edge Storage Router | Not Available | ✓ |
| CNT UltraNet Storage Director (USD) | ✓ | Not Available |
| CNT UltraNet Storage Director eXtended (USD-X) ¹ | ✓ | ✓ |
| IBM 2029 Fiber Saver | ✓ | Not Available |
| Nortel Networks OPTera Metro 5200 | ✓ | ✓ |
| Nortel OM3500 | Not Available | ✓ |

¹ Requires firmware level 3.2.1

² Maximum distance is 300 km

HEWLETT-PACKARD SERVERS – HP-UX

Fibre Channel

| Servers | Operating Systems | Host Adapters | Fabric Support |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>HP Server</p> <ul style="list-style-type: none"> • rp2400 series • rp3400 series • rp4400 series • rp5400 series • rp7400 series • rp8400 series • Superdome <p>HP 9000 Enterprise Servers</p> <ul style="list-style-type: none"> • K-Class • L-Class • N-Class • V-Class <p>Itanium II Servers</p> <ul style="list-style-type: none"> • rx1600 series • rx2600 series • rx4600 series • rx5600 series • rx7600 series • rx8600 series • Superdome | <p>HP-UX</p> <ul style="list-style-type: none"> • 11i @ <ul style="list-style-type: none"> • PVLINKS • MC/Serviceguard 11.12, 11.13, and 11.14 • 11iv2 (11.23) <ul style="list-style-type: none"> • PVLINKS • MC/Serviceguard 11.16 • 11iv3 (11.31)² <ul style="list-style-type: none"> • MC/Serviceguard 11.17 | <p>Hewlett-Packard</p> <ul style="list-style-type: none"> • A5158A • A6685A¹ • A6795A • A6826A • A9782A • A9784A • AB378A • AB379A | <p>Cisco</p> <ul style="list-style-type: none"> • MDS 9020, 9120, 9124, 9140 • MDS 9216, 9216A, 9216I • MDS 9506, 9509, 9513 • MDS 9134, 9222i <p>CNT (Inrange)</p> <ul style="list-style-type: none"> • FC/9000-64, -128, - 256 • 2042-N16 <p>IBM</p> <ul style="list-style-type: none"> • 2005 Model B16, B32, B64, B5K • 2005 Models H08, H16, R18 • 2026 Model E12, 224 • 2026 Models 12E, 16E, 416 • 2026 Models 32E, 432 • 2027 Models 140, 232 • 2027 Models R04, R16, 256 • 2045 Model N16 • 2109 Model A16 • 2109 Models F16, F32 • 2109 Model M12 • 2109 Model M14 • 2109 Model M48 • 2109 Models S08, S16 • 3534 Model F08 <p>McDATA</p> <ul style="list-style-type: none"> • ED-5000 • ES-3016, ES-3032 • Intrepid <ul style="list-style-type: none"> • 6064, 6140 • Sphereon <ul style="list-style-type: none"> • 3216, 3232 • 4300, 4500 |

¹ Supported with K-Class servers only.

² RPQ required for HPUX 11iv3 support.

General notes:

This Interoperability file will be sunseting, please begin to use and familiarize yourself with the System Storage Interoperation Center (SSIC): <http://www.ibm.com/servers/storage/support/config/ess/index.jsp>

DS Open API – (CIM Agent): Not available for HP-UX.

DS CLI: Available for HP-UX 11i, 11iV2 and 11iV3.

SDD:

- Available for HP-UX 11i and 11iV2. HP-UX 11iV3 is not supported with SDD.
- Available for MC/Serviceguard.
- Multi-path support is natively available in HP-UX (PVLINKS) for HP-UX 11i and 11iV2.
- Multi-Path for HP-UX 11iV3 is natively supported with the Operating System.
- SAN Boot not supported

HEWLETT-PACKARD SERVERS – OPENVMS

Fibre Channel

| Servers | Operating Systems | Host Adapters | Fabric Support |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|
| AlphaServer <ul style="list-style-type: none">• 800• 1200• 4000, 4000A• 4100• 8200, 8400• DS10, DS20, DS20E• ES40, ES45, ES47, ES80• GS60, GS60E, GS140• GS80, GS160, GS320• GS1280 | OpenVMS <ul style="list-style-type: none">• 7.3• 7.3-1• 7.3-2• 8.2 OpenVMS itanium <ul style="list-style-type: none">• 8.2, 8.2.1 | StorageWorks <ul style="list-style-type: none">• KGPSA-CA (FCA2354)• KGPSA-DA (FCA2384)• KGPSA-EA• FCA 2684 | IBM <ul style="list-style-type: none">• 2109 Model F16• 2109 Model F32• 2109 Models S08 and S16• 3534 Model F08 |
| Itanium Server ¹ <ul style="list-style-type: none">• RX2600• RX7620 | | | |

¹ Itanium servers require 8.2 Operating System and above.

HEWLETT-PACKARD SERVERS - OPENVMS

General notes:

This Interoperability file will be sunseting, please begin to use and familiarize yourself with the System Storage Interoperation Center (SSIC): <http://www.ibm.com/servers/storage/support/config/ess/index.jsp>

DS Open API – (CIM Agent): Not available for HP OpenVMS.

DS CLI: Available for HP OpenVMS.

SDD: Not available for HP OpenVMS.

HEWLETT-PACKARD SERVERS – TRU64 UNIX

Fibre Channel

| Servers | Operating Systems | Host Adapters | Fabric Support |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|
| AlphaServer <ul style="list-style-type: none">• 800• 1200• 2100• 4000, 4000A• 4100• 8200, 8400• DS10, DS20, DS20E• ES40, ES45, ES47, ES80• GS60, GS60E, GS140• GS80, GS160, GS320• GS1280 | Tru64 UNIX <ul style="list-style-type: none">• 5.0A<ul style="list-style-type: none">• TruCluster 5.0A• 5.1<ul style="list-style-type: none">• TruCluster 5.1• 5.1A<ul style="list-style-type: none">• TruCluster 5.1A• 5.1B<ul style="list-style-type: none">• TruCluster 5.1B• 5.1B3<ul style="list-style-type: none">• TruCluster 5.1B3• 5.1B4<ul style="list-style-type: none">• TruCluster 5.1B4 | StorageWorks <ul style="list-style-type: none">• KGPSA-CA (FCA2354)• KGPSA-DA (FCA2384)• KGPSA-EA | IBM <ul style="list-style-type: none">• 2109 Model F16• 2109 Model F32• 2109 Models S08, S16• 3534 Model F08 |

HEWLETT-PACKARD SERVERS – TRU64 UNIX

General notes:

This Interoperability file will be sunseting, please begin to use and familiarize yourself with the System Storage Interoperation Center (SSIC): <http://www.ibm.com/servers/storage/support/config/ess/index.jsp>

DS Open API – (CIM Agent): Not available for HP Tru64 UNIX.

DS CLI: Available for HP Tru64 UNIX.

SDD:

- Not available for HP Tru64 UNIX.
- Multi-path support is natively available in Tru64 UNIX.

SAN Boot support:

- The DS8000 can be used as a boot device on servers running Tru64 UNIX 5.0A and 5.1. Refer to the *IBM System Storage DS8000 Host Systems Attachment Guide* for additional information.

Fibre Channel

| Servers | Operating Systems | Host Adapters | Fabric Support |
|------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| System i <ul style="list-style-type: none"> • 270 • 820, 830, 840 • 800, 810, 825, 870, 890 | AIX ³ <ul style="list-style-type: none"> • Version 5 <ul style="list-style-type: none"> • 5.2 ML5 • 5.3 ML1 | System i <ul style="list-style-type: none"> • FC 0611³ • FC 0612¹ • FC 0625³ • FC 0626¹ • FC 0629³ • FC 0646³ • FC 2766 • FC 2787 • FC 5759⁴ • FC 5760⁴ | Cisco <ul style="list-style-type: none"> • MDS 9020, 9120, 9124, 9140 • MDS 9216, 9216A, 9216I • MDS 9506, 9509, 9513 • MDS 9134, 9222i |
| System i5 <ul style="list-style-type: none"> • 520, 550, 570, 595 | OS/400 <ul style="list-style-type: none"> • Version 5 <ul style="list-style-type: none"> • V5R2 | | CNT (Inrange) <ul style="list-style-type: none"> • FC/9000-64, -128,-256 • 2042-N16 |
| System i (POWER6) ⁵ <ul style="list-style-type: none"> • 570 (9406-MMA) | i5/OS <ul style="list-style-type: none"> • Version 5 <ul style="list-style-type: none"> • V5R3 • V5R4 • V5R4 M5 | | IBM <ul style="list-style-type: none"> • 2005 Model B16, B32, B64, B5K • 2005 Models H08, H16, R18 • 2026 Models E12, 224 • 2026 Models 12E, 16E, 416 • 2026 Models 32E, 432 • 2027 Models 140, 232 • 2027 Models R04, R16, 256 • 2045 Model N16 • 2109 Model A16 • 2109 Model F16 • 2109 Model F32 • 2109 Model M12, M14, M48 • 2109 Models S08, S16 • 3534 Model F08 |
| | Red Hat Enterprise Linux ^{1, 2} <ul style="list-style-type: none"> • 3 U7, U8 • 4 U2, U3, 4.4, 4.5, 4.6 • 5, 5.1 | | |
| | SUSE ^{1, 2} <ul style="list-style-type: none"> • SLES 9 SP2, SP3 • Linux Enterprise 10, SP1 | | |
| | | | McDATA <ul style="list-style-type: none"> Intrepid <ul style="list-style-type: none"> • 6064, 6140 Sphereon <ul style="list-style-type: none"> • 3216, 3232 • 4300, 4500 |

¹ Linux is supported on the System i5 only.

² Refer to the following link for details on Linux kernel levels:
http://www.ibm.com/support/docview.wss?rs=540&context=ST52G7&dc=D430&uid=ssq1S4000107&loc=en_US&cs=utf-8&lang=en

³ AIX 5.2 ML5 (or later), 5.3 ML1 (or later) and Linux supported with System i5.

⁴ Host adapter 5760 requires i5/OS V5R3 or V5R4 and above and Host adapter 5759 requires Linux or AIX partitions only on Regatta and System i5 servers.

⁵ Requires Operating System i5/OS V5R4m5

General notes:

This Interoperability file will be sunseting, please begin to use and familiarize yourself with the System Storage Interoperation Center (SSIC): <http://www.ibm.com/servers/storage/support/config/ess/index.jsp>

DS Open API – (CIM Agent):

- Not available.

DS CLI:

- Available for System i AIX, OS/400 V5R2, i5/OS V5R3, and V5R4 platforms.

SAN Boot support:

- Requires IOP 2847 and V5R3 M5 or later for i5servers. See the IBM System i Redbook for more information.

SDD:

- Not available. Multipath support is provided in i5/OS V5R3.
- Available when running the System i5 platforms with supported AIX, SUSE SLES 9, 10, Red Hat Enterprise Linux 3, 4 (32-bit, x64-bit) operating systems.

Device Mapper Multipath (DMM):

- Available for SUSE Linux Enterprise 10 and Red Hat RHEL 5. For more information, refer to: http://www.ibm.com/support/docview.wss?rs=540&context=ST52G7&dc=D430&uid=ssg1S4000107&loc=en_US&cs=utf-8&lang=en#DM

SAN Boot Support:

- The DS8100 and DS8300 models are supported as a boot device on System i5 platforms that support Fibre Channel boot capability. SAN Boot Support is available for AIX and Linux operating systems with SDD. Refer to the *IBM System Storage DS8000 Host Systems Attachment Guide* for additional information.

Path Control Module (SDDPCM):

- Available for System i5 platforms running AIX 5.2 ML5 (or later) and AIX 5.3 ML1 (or later) with latest released maintenance levels. (Default PCM not supported).

IBM SYSTEM P AND RS/6000 SERVERS

Fibre Channel

| Servers | Operating Systems | Host Adapters | Fabric Support |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| System p <ul style="list-style-type: none"> 610 Models 6C1, 6E1 615 Models 6C3, 6E3 620 Models 6F0, 6F1 630 Models 6C4, 6E4 640 Model B80 650 Model 6M2 655 Model 651 660 Models 6H0, 6H1, 6M1 670 Model 671 680 Model S85 690 Model 681 | AIX⁵ <ul style="list-style-type: none"> 5.1 ML7 <ul style="list-style-type: none"> VERITAS Volume Manager with DMP 4, VERITAS Cluster Server 4, 5.2 ML5 <ul style="list-style-type: none"> VERITAS Volume Manager with DMP 4, 5, VERITAS Cluster Server 4, 5, SFRAC 5.0 5.3 ML1 <ul style="list-style-type: none"> VERITAS Volume Manager with DMP 4, 5, VERITAS Cluster Server 4, 5, SFRAC 5.0 6.1 SP2 | System p and RS/6000 <ul style="list-style-type: none"> FC 1905 FC 1910 FC 1957 FC 1977 FC 5716 FC 5758 FC 5759 FC 5773 FC 5774 FC 6228 FC 6239 | Cisco² <ul style="list-style-type: none"> MDS 9020, 9120, 9124, 9140 MDS 9216, 9216A, 9216I MDS 9506, 9509, 9513 MDS 9134, 9222i CNT (Inrange) <ul style="list-style-type: none"> FC/9000-64, -128, -256 2042-N16 IBM <ul style="list-style-type: none"> 2005 Models B16, B32, B64, B5K 2005 Models H08, H16, R18 2026 Models E12, 224 2026 Models 12E, 16E, 416 2026 Models 32E, 432 2027 Models 140, 232 2027 Models R04, R16, 256 2045 Model N16 2109 Model A16 2109 Models F16, F32 2109 Models M12, M14, M48 2109 Models S08, S16 3534 Model F08 |
| System p5 <ul style="list-style-type: none"> A50, 510, 520, 550, 560, 570, 590, 595 710, 720 | HACMP <ul style="list-style-type: none"> 5.1.0, 5.2.0, 5.3.0, 5.4 | BladeCenter¹ <ul style="list-style-type: none"> IBM <ul style="list-style-type: none"> 13N2203 26R0884 39Y9186 48P7061 | IBM BladeCenter¹ <ul style="list-style-type: none"> P/N 02R9080 P/N 48P7062 |
| System p (POWER6)³ <ul style="list-style-type: none"> System p570 (9117-MMA) | i5/OS⁷ <ul style="list-style-type: none"> V5R3, V5R4 | | McDATA <ul style="list-style-type: none"> ED-5000 ES-3016, ES-3032 Intrepid <ul style="list-style-type: none"> 6064, 6140 Sphereon <ul style="list-style-type: none"> 3216, 3232 4300, 4500 |
| IBM BladeCenter¹ <ul style="list-style-type: none"> BladeCenter JS20 <ul style="list-style-type: none"> 8842 BladeCenter JS21¹ <ul style="list-style-type: none"> 8844, 7988 BladeCenter JS22³ <ul style="list-style-type: none"> 7998 | IBM Virtual I/O Server (VIOS)⁶ <ul style="list-style-type: none"> 1.1 | | |
| RS/6000 <ul style="list-style-type: none"> 7013: S70, S7A 7015: S70, S7A 7017: S70, S7A, S80 7025: F50, F80, H70 7026: H50, H70, H80, M80 7043: 270 7044: 170, 270 | Red Hat Enterprise Linux⁴ <ul style="list-style-type: none"> 3 U7, U8 <ul style="list-style-type: none"> VxVM/VCS 5.0⁸ 4 U2, U3, 4.4, 4.5, 4.6 5, 5.1 | | |
| | SUSE⁴ <ul style="list-style-type: none"> SLES 8 @ SLES 9 SP2, SP3 <ul style="list-style-type: none"> VxVM/VCS 5.0⁸ Linux Enterprise 10, SP1 | | |

¹ BladeCenter is supported with AIX 5.2 ML5 (or later), and Linux operating systems only. For more information on BladeCenter SAN support, refer to the following website: <http://www.ibm.com/servers/eserver/serverproven/compat/us/>

² Supports the IP Storage Service Module for iSCSI on Cisco MDS fabric products. Refer to the following link for more details: <ftp://service.boulder.ibm.com/storage/san/cisco/ipStorServMod.pdf>

³ The POWER6 IBM System p and JS22 are supported with the following: AIX 5.2 ML10, AIX 5.3 ML6, AIX 6.1 SP2, Linux SLES 10 sp1, Red Hat 4.5, 4.6 and 5.1.

⁴ Refer to the following link for details on Linux kernel levels: http://www.ibm.com/support/docview.wss?rs=540&context=ST52G7&dc=D430&uid=ssg1S4000107&loc=en_US&cs=utf-8&lang=en

⁵ Refer to the most current APARs for AIX 5.2 ML5 (or later) and AIX 5.3 ML1 (or later).

⁶ Refer to the following link for details on IBM VIOS: <http://www14.software.ibm.com/webapp/set2/sas/ft/vios/home.html>

⁷ The i5/OS operating systems are only supported with System p5 servers, and System i host adapter FC2787.

⁸ Fencing is currently not supported.

IBM SYSTEM P AND RS/6000 SERVERS

General Notes:

This Interoperability file will be sunset, please begin to use and familiarize yourself with the System Storage Interoperation Center (SSIC): <http://www.ibm.com/servers/storage/support/config/ess/index.jsp>

DS Open API – (CIM Agent): Available for AIX 5.1 ML7 (or later).

DS CLI: Available for AIX 5.1 ML7 (or later), 5.2 ML5 (or later), 5.3 ML1 (or later), 6.2 sp2, HACMP 5.1.0, 5.2.0, 5.3.0, and 5.4.0, and i5/OS operating systems.

DS Copy Services: HACMP running with Remote Mirror and Copy functions (including HACMP-XD) is supported.

SDD:

- Available for AIX 5.1 ML7 (or later), 5.2 ML5 (or later), 5.3 ML1 (or later) and 6.2 sp2.
- Available for SUSE SLES 8, SLES 9, Red Hat RHEL 3, and 4 (32-bit and x64-bit).
- Available for HACMP-XD
- Not available with i5/OS operating systems.
- Available for coexistence with Veritas Volume Mgr 4.0 with AIX 5.2 and 5.3

Device Mapper Multipath (DMM):

- Available for SUSE Linux Enterprise 10 and Red Hat RHEL 5 and above. For more information, refer to: http://www.ibm.com/support/docview.wss?rs=540&context=ST52G7&dc=D430&uid=ssg1S4000107&loc=en_US&cs=utf-8&lang=en#DM

SAN Boot support:

- The DS8100 and DS8300 models are supported as a boot device on System p, and RS/6000 servers that support Fibre Channel boot capability. Boot Support is available for AIX and Linux operating systems with SDD. Boot support is not available for SDD with BladeCenter JS20. Refer to the *IBM System Storage DS8000 Host Systems Attachment Guide* for additional information.

Path Control Module (SDDPCM):

- Available for AIX 5.2 ML5 (or later), AIX 5.3 ML1 (or later) and AIX 6 sp2 with latest released maintenance levels.

IBM SYSTEM P AND RS/6000 SERVERS

Table 5: AIX and HACMP Support Matrix

| | DS8100 Model 921 & Turbo Model 931 | DS8300 Model 922 & Turbo Model 932 | DS8300 Model 9A2 & Turbo Model 9B2 | SDD | SDD PCM |
|------------------------------|------------------------------------|------------------------------------|------------------------------------|-----|----------------|
| AIX 5.1 ML7 with HACMP 5.1.0 | ✓ | ✓ | ✓ | ✓ | -- |
| AIX 5.2 ML5 with HACMP 5.1.0 | ✓ | ✓ | ✓ | ✓ | -- |
| AIX 5.1 ML7 with HACMP 5.2.0 | ✓ | ✓ | ✓ | ✓ | ✓ ¹ |
| AIX 5.2 ML5 with HACMP 5.2.0 | ✓ | ✓ | ✓ | ✓ | ✓ ¹ |
| AIX 5.2 ML5 with HACMP 5.4 | ✓ | ✓ | ✓ | ✓ | ✓ ¹ |
| AIX 5.3 ML1 with HACMP 5.2.0 | ✓ | ✓ | ✓ | ✓ | ✓ ¹ |
| AIX 5.2 ML7 with HACMP 5.3.0 | ✓ | ✓ | ✓ | ✓ | ✓ ¹ |
| AIX 5.3 ML3 with HACMP 5.3.0 | ✓ | ✓ | ✓ | ✓ | ✓ ¹ |
| AIX 5.3 ML3 with HACMP 5.4.0 | ✓ | ✓ | ✓ | ✓ | ✓ ¹ |
| AIX 6.1 SP2 with HACMP 5.3.0 | ✓ | ✓ | ✓ | ✓ | ✓ ¹ |
| AIX 6.1 SP2 with HACMP 5.4.1 | ✓ | ✓ | ✓ | ✓ | ✓ ¹ |

Table 6: AIX Clustering for System p servers

| | DS8100 Model 921 & Turbo Model 931 | DS8300 Model 922 & Turbo Model 932 | DS8300 Model 9A2 & Turbo Model 9B2 | SDD | SDD PCM |
|------------------------|------------------------------------|------------------------------------|------------------------------------|-----|---------|
| AIX 5.1 ML7 with: | | | | | |
| • PSSP 3.4, 3.5 | ✓ | ✓ | ✓ | ✓ | -- |
| • GPFS 2.2 | | | | | |
| AIX 5.2 ML5 with: | | | | | |
| • GPFS 2.2, 2.3 or 3.1 | ✓ | ✓ | ✓ | ✓ | ✓ |
| • RVSD 3.5 or 4.1 | | | | | |
| AIX 5.3 ML1 with: | | | | | |
| • CSM 1.3.n | ✓ | ✓ | ✓ | ✓ | ✓ |
| • GPFS 2.3 or 3.1 | | | | | |
| • RVSD 4.1 | | | | | |
| AIX 6.1 SP2 with: | | | | | |
| • CSM 1.7.0.1 | ✓ | ✓ | ✓ | ✓ | ✓ |

¹ Enhanced concurrent mode volume groups only. HACMP-XD is not supported with SDD PCM.

IBM CLUSTER 1600 SERVERS

Fibre Channel

| Servers | Operating Systems | Host Adapters | Fabric Support |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| System p <ul style="list-style-type: none">• 610 Models 6C1, 6E1• 615 Models 6C3, 6E3• 620 Models 6F0, 6F1• 630 Models 6C4, 6E4• 640 Model B80• 650 Model 6M2• 655 Model 651• 660 Models 6H0, 6H1, 6M1• 670 Model 671• 680 Model S85• 690 Model 681 | AIX ¹ <ul style="list-style-type: none">• Version 5<ul style="list-style-type: none">• 5.1 ML7• 5.2 ML5• 5.3 ML1 | IBM RS/6000 <ul style="list-style-type: none">• FC 5716• FC 5758• FC 5759• FC 6228• FC 6239 | Cisco <ul style="list-style-type: none">• MDS 9020, 9120, 9124, 9140• MDS 9216, 9216A, 9216I• MDS 9506, 9509, 9513• MDS 9134, 9222i CNT (Inrange) <ul style="list-style-type: none">• FC/9000-64, -128, -256• 2042-N16 IBM <ul style="list-style-type: none">• 2005 Models B16, B32, B64, B5K• 2005 Models H08, H16, R18• 2026 Models E12, 224• 2026 Models 12E, 16E, 416• 2026 Models 32E, 432• 2027 Models 140, 232• 2027 Models R04, R16, 256• 2045 Model N16• 2109 Model A16• 2109 Models F16, F32• 2109 Model M12, M14, M48• 2109 Models S08, S16• 3534 Model F08 McDATA <ul style="list-style-type: none">• ED-5000• ES-3016, ES-3032• Intrepid<ul style="list-style-type: none">• 6064, 6140• Sphereon<ul style="list-style-type: none">• 3216, 3232• 4300, 4500 |

¹ Refer to the most current APARs for AIX 5.2 ML5 (or later) and AIX 5.3 ML1 (or later).

General Notes:

This Interoperability file will be sunset, please begin to use and familiarize yourself with the System Storage Interoperation Center (SSIC): <http://www.ibm.com/servers/storage/support/config/ess/index.jsp>

DS Open API – (CIM Agent): Available for AIX 5.1 ML7 (or later).

DS CLI: Available for AIX 5.1 ML7 (or later), 5.2 ML5 (or later) and 5.3 ML1 (or later).

SDD:

- Available for AIX 5.1 ML7 (or later), 5.2 ML5 (or later), and 5.3 ML1 (or later)

SAN Boot support:

- The DS8100 and DS8300 are supported as a boot device on IBM Cluster 1600 servers that support Fibre Channel boot capability. Refer to the *IBM System Storage DS8000 Host Systems Attachment Guide* for additional information.

Path Control Module (SDDPCM):

- Available for AIX 5.1 ML7 (or later), 5.2 ML5 (or later), and 5.3 ML1 (or later. MPIO with latest released maintenance levels.

IBM CLUSTER 1600 SERVERS

Table 7: AIX Clustering for IBM Cluster 1600 Servers

| | DS8100 Model 921 & Turbo Model 931 | DS8300 Model 922 & Turbo Model 932 | DS8300 Model 9A2 & Turbo Model 9B2 | SDD | SDDPCM |
|------------------------|---------------------------------------|---------------------------------------|---------------------------------------|-----|--------|
| AIX 5.1 ML7 with: | | | | | |
| • GPFS 2.2 | ✓ | ✓ | ✓ | ✓ | -- |
| • PSSP 3.4 | | | | | |
| • RVSD 3.5 | | | | | |
| AIX 5.2 ML5 with: | | | | | |
| • GPFS 2.2, 2.3 or 3.1 | ✓ | ✓ | ✓ | ✓ | ✓ |
| • PSSP3.4, 3.5 | | | | | |
| • RVSD 3.5 or 4.1 | | | | | |
| AIX 5.3 ML1 with: | | | | | |
| • GPFS 2.3 or 3.1 | ✓ | ✓ | ✓ | ✓ | ✓ |
| • CSM 1.3.n | | | | | |
| • RVSD 4.1 | | | | | |
| AIX 6.2 SP2 with: | | | | | |
| • CSM 1.7.0.1 | ✓ | ✓ | ✓ | ✓ | ✓ |

IBM SYSTEM Z AND S/390 SERVERS

ESCON

| Servers | Operating Systems | Host Adapters | Fabric Support |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------|
| <p>System z z800</p> <ul style="list-style-type: none"> IBM 2066 | <p>z/OS</p> <ul style="list-style-type: none"> Version 1 Release 4 Version 1 Release 5 Version 1 Release 6 Version 1 Release 7 Version 1 Release 8 Version 1 Release 9 | <p>All ESCON host adapter features offered on the servers are supported.</p> | <p>IBM</p> <ul style="list-style-type: none"> 9032 Model 002 9032 Model 003 9032 Model 005 |
| <p>System z z890</p> <ul style="list-style-type: none"> IBM 2086 | | | |
| <p>System z z900 and z990 ¹</p> <ul style="list-style-type: none"> IBM 2064 IBM 2084 | <p>z/OS.e</p> <ul style="list-style-type: none"> Version 1 Release 4 Version 1 Release 5 Version 1 Release 6 Version 1 Release 7 Version 1 Release 8 Version 1 Release 9 | | |
| <p>z9 BC</p> <ul style="list-style-type: none"> IBM 2096 | | | |
| <p>z9 EC</p> <ul style="list-style-type: none"> IBM 2094 | | | |
| <p>S/390 Parallel Enterprise Server</p> <ul style="list-style-type: none"> IBM 9672 Generation 3 IBM 9672 Generation 4 IBM 9672 Generation 5 IBM 9672 Generation 6 | <p>z/VM</p> <ul style="list-style-type: none"> Version 4 Release 4 Version 5 Release 1 Version 5 Release 2 Version 5 Release 3 | | |
| <p>ES/9000</p> <ul style="list-style-type: none"> IBM 9021 IBM 9121 IBM 9221 | <p>z/VSE</p> <ul style="list-style-type: none"> Version 3 Release 1 Version 4 Release 1 | | |
| <p>ES/3090</p> <ul style="list-style-type: none"> IBM 3090 | <p>VSE/ESA</p> <ul style="list-style-type: none"> Version 2 Release 7@ | | |
| <p>S/390 Multiprise 3000 Enterprise Server</p> <ul style="list-style-type: none"> IBM 7060 | <p>Transaction Processing Facility (TPF)</p> <ul style="list-style-type: none"> Version 4 Release 1 | | |
| <p>S/390 Multiprise 2000 Enterprise Server</p> <ul style="list-style-type: none"> IBM 2003 | <p>Red Hat Enterprise Linux</p> <ul style="list-style-type: none"> 3 and above 4 U2, U3, and above | | |
| | <p>SUSE</p> <ul style="list-style-type: none"> SLES 8 and above SLES 9 SP2, SP3 and above SLES 10, SP1 and above | | |

¹ z990 requires driver level 55.

IBM SYSTEM Z AND S/390 SERVERS

FICON

| Servers | Operating Systems | Host Adapters | Fabric Support |
|-------------------------------------|---------------------------------------|------------------------|----------------------------|
| System z z800 | z/OS | System z | Cisco |
| • IBM 2066 | • Version 1 Release 4 | • FC 2315 | • MDS 9216 |
| | • Version 1 Release 5 | • FC 2318 | • MDS 9506, 9509, 9513 |
| System z z890 | • Version 1 Release 6 | • FC 2319 | • MDS 9134, 9222i |
| • IBM 2086 | • Version 1 Release 7 | • FC 2320 | |
| | • Version 1 Release 8 | • FC 3319 ¹ | CNT (Inrange) |
| System z z900 and z990 ² | • Version 1 Release 9 | • FC 3320 ¹ | • FC/9000-64, -128, -256 |
| • IBM 2064 | | • FC 3321 | • 2042-N16 |
| • IBM 2084 | z/OS.e | • FC 3322 | |
| | • Version 1 Release 4 | • FC 3323 | IBM |
| z9 BC | • Version 1 Release 5 | • FC 3324 | • 2005 Model B32, B64 |
| • IBM 2096 | • Version 1 Release 6 | | • 2026 Models 32E, 432 |
| | • Version 1 Release 7 | S/390 | • 2027 Models 140, 232 |
| z9 EC | • Version 1 Release 8 | • FC 2314 | • 2027 Models R16, 256 |
| • IBM 2094 | • Version 1 Release 9 | • FC 2316 | • 2045 Model N16 |
| | | | • 2109 Model F32 |
| S/390 Parallel Enterprise Server | z/VM | | • 2109 Model M12, M14, M48 |
| • IBM 9672 Generation 5 | • Version 4 Release 4 | | |
| • IBM 9672 Generation 6 | • Version 5 Release 1 | | McDATA |
| | • Version 5 Release 2 | | • ED-5000 |
| | • Version 5 Release 3 | | • Intrepid |
| | | | • 6064, 6140 |
| | z/VSE | | • Sphereon |
| | • Version 3 Release 1 | | • 3232 |
| | • Version 4 Release 1 | | |
| | VSE/ESA | | |
| | • Version 2 Release 7@ | | |
| | Transaction Processing Facility (TPF) | | |
| | • Version 4 Release 1 | | |
| | Red Hat Enterprise Linux | | |
| | • 3 and above | | |
| | • 4 U2, U3, U4, U5 and above | | |
| | • 5.1 | | |
| | SUSE | | |
| | • SLES 8 and above | | |
| | • SLES 9 SP2, SP3 and above | | |
| | • SLES 10, SP1 and above | | |

¹ FC 3319 and FC 3320 Host Adapters are supported only on the IBM System z 890 and IBM System z 990 Servers.

² z990 requires driver level 55.

IBM SYSTEM Z AND S/390 SERVERS

Fibre Channel Protocol (FCP)

| Servers | Operating Systems | Host Adapters | Fabric Support |
|------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| System z z800 <ul style="list-style-type: none"> IBM 2066 | z/VM <ul style="list-style-type: none"> Version 4 Release 4 Version 5 Release 1 | System z <ul style="list-style-type: none"> FC 2315 FC 2318 | Cisco <ul style="list-style-type: none"> MDS 9216, 9216A, 9216I MDS 9506, 9509, 9513 MDS 9134, 9222i |
| System z z890 <ul style="list-style-type: none"> IBM 2086 | <ul style="list-style-type: none"> Version 5 Release 2 Version 5 Release 3 | <ul style="list-style-type: none"> FC 2319 FC 2320 FC 3319¹ FC 3320¹ | CNT (Inrange) <ul style="list-style-type: none"> FC/9000-64, -128, -256 2042-N16 |
| System z z900 and z990 ² <ul style="list-style-type: none"> IBM 2064 IBM 2084 | z/VSE <ul style="list-style-type: none"> Version 3 Release 1 Version 3 Release 1.1 Version 4 Release 1 | <ul style="list-style-type: none"> FC 3321 FC 3322 FC 3324 | IBM <ul style="list-style-type: none"> 2005 Models B16, B32, B64, B5K 2005 Models H08, H16, R18 2026 Models 32E, 432 2045 Model N16 2109 Model F16 2109 Models S08, S16 |
| z9 BC <ul style="list-style-type: none"> IBM 2096 | Red Hat Enterprise Linux <ul style="list-style-type: none"> 4.4, 4.5 and above | | |
| z9 EC <ul style="list-style-type: none"> IBM 2094 | SUSE <ul style="list-style-type: none"> SLES 8 Submarine and above SLES 9, SP2, SP3 and above SLES 10 SP1 and above | | McDATA <ul style="list-style-type: none"> Intrepid <ul style="list-style-type: none"> 6064 |

¹ FC 3319 and FC 3320 Host Adapters are supported only on the IBM System z 890 and IBM System z 990 Servers.

² z990 requires driver level 55.

IBM SYSTEM Z AND S/390 SERVERS

General Notes:

This Interoperability file will be sunseting, please begin to use and familiarize yourself with the System Storage Interoperation Center (SSIC): <http://www.ibm.com/servers/storage/support/config/ess/index.jsp>

DS Open API – (CIM Agent): Not available for System z.

DS CLI: Not available for System z.

Fibre Channel Protocol (FCP):

- Multi-path support is available with LVM.
- Multi-path support for RHEL 4.4 and above, RHEL 5.1 and above, SLES 9 sp3 and above, and SLES 10 sp1 and above are all available with DMM.

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Fibre Channel

| Servers | Operating Systems | Host Adapters | Fabric Support |
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| Enterprise <ul style="list-style-type: none"> • 220R, 250, 420R, 450 • 3000, 4000, 5000, 6000 • 3500, 4500, 5500, 6500 • 10000 | Solaris <ul style="list-style-type: none"> • 8 <ul style="list-style-type: none"> • Sun Cluster 3.1 • MPxIO 4.4.2 thru 4.4.11² • VERITAS Volume Manager with DMP⁴ <ul style="list-style-type: none"> • 3.5, 4.0 MP2, 4.1 • VERITAS Cluster Server <ul style="list-style-type: none"> • 3.5, 4.0, 4.1 | AMCC/JNI ³ <ul style="list-style-type: none"> • FCX-6562 / FCX2-6562 • FCE-1473-N • FCE-6460-N | Cisco <ul style="list-style-type: none"> • MDS 9020, 9120, 9124, 9140 • MDS 9216, 9216A, 9216I • MDS 9506, 9509, 9513 • MDS 9134, 9222i |
| Netra <ul style="list-style-type: none"> • 1125 | | Emulex <ul style="list-style-type: none"> • LP9002L / LP9002DC • LP9002S • LP9402DC • LP9802 • LP10000 / LP10000DC • LP11000 • LP11002 | CNT (Inrange) <ul style="list-style-type: none"> • FC/9000-64, -128, -256 • 2042-N16 |
| SPARCcenter / SPARCserver <ul style="list-style-type: none"> • 1000, 1000E • 2000, 2000E | <ul style="list-style-type: none"> • 9¹ <ul style="list-style-type: none"> • Sun Cluster 3.1 • MPxIO 4.4.2 thru 4.4.11² • VERITAS Volume Manager with DMP⁴ <ul style="list-style-type: none"> • 3.5, 4.0 MP2, 4.1, 5.0 • VERITAS Cluster Server <ul style="list-style-type: none"> • 3.5, 4.0, 4.1, 5.0 • SF RAC 4.1, 5.0 | | IBM <ul style="list-style-type: none"> • 2005 Models B16, B32, B64, B5K • 2005 Models H08, H16, R18 • 2026 Models E12, 224 • 2026 Models 12E, 16E, 416 • 2026 Models 32E, 432 • 2027 Models 140, 232 • 2027 Models R04, R16, 256 • 2045 Model N16 • 2109 Model A16 • 2109 Models F16, F32 • 2109 Model M12, M14, M48 • 2109 Models S08, S16 • 3534 Model F08 |
| Sun Fire <ul style="list-style-type: none"> • V120, V210, V240, V250 • V280R • V440, V480, V490 • V880, V890, V1280 • 3800 • 4800, 4810, 6800, 6900 • 12000, 15000 • E20K, E25K • E2900, E4900, E6900 • T1000, T2000 | <ul style="list-style-type: none"> • 10, u1, u2, u3⁵ <ul style="list-style-type: none"> • Sun Cluster 3.1, 3.2⁷ • MPxIO (Driver Bundled with OS)² • VERITAS Volume Manager with DMP <ul style="list-style-type: none"> • 4.1, 5.0 • VERITAS Cluster Server <ul style="list-style-type: none"> • 4.1, 5.0 • SF RAC 4.1, 5.0 | QLLogic <ul style="list-style-type: none"> • QLA2310F/QLA2310FL • QLA2340/L / QLA2342/L • QLA2460 • QLA2462 | |
| Ultra <ul style="list-style-type: none"> • 1, 2, 5, 10, 20, 30, 60, 80 | | Sun <ul style="list-style-type: none"> • 6727A • 6757A • 6767A (SG-XPCI1FC-QF2) • 6768A (SG-XPCI2FC-QF2) • 6799A • SG-XPCI1FC-EM2 • SG-XPCI1FC-EM4-Z • SG-XPCI2FC-EM2 • SG-XPCI2FC-EM4-Z • SG-XPCI1FC-QL2 • SG-XPCI1FC-QF4 • SG-XPCI2FC-QF2-Z • SG-XPCI2FC-QF4 | |
| Opteron ⁶ <ul style="list-style-type: none"> • x4100, x4200, x4600 • V20z & V40z | | | McDATA <ul style="list-style-type: none"> • ED 5000 • ES-3016, ES-3032 • Intrepid <ul style="list-style-type: none"> • 6064, 6140 • Sphereon <ul style="list-style-type: none"> • 3216, 3232 • 4300, 4500 |

¹ The Sun filesystem requires patch 113454-14.

² MPxIO is supported with the Sun host adapters as well as generic adapter as supported by Sun. MPxIO 4.4.9 is not supported. MPxIO 4.4.10 and 4.4.11 are required for 4 node support.

³ Not interoperable with DS8100 or DS8300 Fibre Channel ports shared with remote mirror and copy configurations.

⁴ CDSDisk is supported with VERITAS VxVM 4.0 maintenance pack 2, or contact VERITAS Support for latest Hot Fix.

⁵ Sun Solaris 10 is not supported with AMCC / JNI host adapters.

⁶ Sun Solaris 10 OS support with Host Adapters LP10000DC and QLA2462 only.

⁷ Sun Cluster 3.2 is supported with 2 thru 4 nodes. A SCSI-3 reservation is recommended.

General Notes:

This Interoperability file will be sunset, please begin to use and familiarize yourself with the System Storage Interoperation Center (SSIC): <http://www.ibm.com/servers/storage/support/config/ess/index.jsp>

DS Open API – (CIM Agent): Not available for Solaris.

DS CLI: Available for Solaris 8, 9, and 10.

SAN Boot is supported with Solaris 8, 9 and 10.

SDD:

- Available for Solaris 8, 9, and 10
- Available for Solaris 10 with Opteron x64 Servers
- Available to coexist with Veritas Volume Manager 4.1 for Solaris 9 and 10
- Solaris 10 Container not supported.
- SDD is not supported in Sun Cluster environments.
- SDD does not support Sun adapters.
- SDD is not supported with SAN Boot.

X86 BASED SERVERS – NETWARE

Fibre Channel

| Servers | Operating Systems | Host Adapters | Fabric Support |
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| Intel Pentium II Xeon and above <ul style="list-style-type: none"> • 1.5 Ghz or faster • 2 – 16 processors • 512 MB RAM or higher | Novell NetWare <ul style="list-style-type: none"> • 5.1 SP 7 <ul style="list-style-type: none"> • Cluster Services 1.01 • 6.0 <ul style="list-style-type: none"> • Cluster Services 1.6 • 6.5 SP 3, 4, 5 <ul style="list-style-type: none"> • Cluster Services 1.70, 1.80 • OES SP1 | BladeCenter ¹ <ul style="list-style-type: none"> • IBM <ul style="list-style-type: none"> • 13N2203 • 26K4841 • 39Y9186 • 48P7061 • Emulex <ul style="list-style-type: none"> • LP1005DC • 43W6859 | Cisco <ul style="list-style-type: none"> • MDS 9020, 9120, 9124, 9140 • MDS 9216, 9216A, 9216I • MDS 9506, 9509, 9513 • MDS 9134, 9222i |
| IBM BladeCenter ¹ <ul style="list-style-type: none"> • HS20 <ul style="list-style-type: none"> • 8678 • 8832 • 8843 • HS21 <ul style="list-style-type: none"> • 8853 • HS21 XM <ul style="list-style-type: none"> • 7995 • HS40 <ul style="list-style-type: none"> • 8839 • LS20 ² <ul style="list-style-type: none"> • 8850 • LS21 <ul style="list-style-type: none"> • 7971 • LS41 <ul style="list-style-type: none"> • 7972 | | Emulex <ul style="list-style-type: none"> • LP9002L / LP9002DC • LP9402DC • LP9802 • LP10000/10000DC • LP11000 • LP11002 | CNT (Inrange) <ul style="list-style-type: none"> • FC/9000-64, -128, -256 |
| | | IBM Netfinity / System x <ul style="list-style-type: none"> • P/N 19K1246 • P/N 24P0960 | IBM <ul style="list-style-type: none"> • 2005 Models H08, H16 • 2026 Models E12, 224 • 2026 Models 12E, 16E, 416 • 2026 Models 32E, 432 • 2027 Models 140, 232 • 2027 Models R04, R16, 256 • 2045 Model N16 • 2109 Models F16, F32 • 2109 Model M12, M14, M48 • 2109 Models S08, S16 • 3534 Model F08 |
| | | QLogic <ul style="list-style-type: none"> • QLA2310F / QLA2310FL • QLA2340/L / QLA2342/L • QLA2460 • QLA2462 | IBM BladeCenter ¹ <ul style="list-style-type: none"> • P/N 02R9080 • P/N 26K5601 • P/N 26R0881 • P/N 32R1812 • P/N 32R1813 • P/N 32R1833 • P/N 48P7062 |
| IBM System x Servers ¹ <ul style="list-style-type: none"> • 100 • 206/206m • 225/226 • 235/236 • 255 • 260/3800 • 306/306m • 335/336 • 345/346 • 360/365 • 366/3850 • 440/445 • 450/455 • 460/3950/3950E | | | McDATA <ul style="list-style-type: none"> • ED-5000 • ES-3016, ES-3032 • Intrepid <ul style="list-style-type: none"> • 6064, 6140 • Sphereon <ul style="list-style-type: none"> • 3216, 3232 • 4300, 4500 |

¹ For information on OS and HBA support, refer to the following link: <http://www.ibm.com/servers/eserver/serverproven/compat/us/>

² The IBM BladeCenter LS20 supports Novell 6.5, but does not support Novell Cluster Services.

General Notes:

This Interoperability file will be sunset, please begin to use and familiarize yourself with the System Storage Interoperation Center (SSIC): <http://www.ibm.com/servers/storage/support/config/ess/index.jsp>

DS Open API – (CIM Agent): Not Available

DS CLI: Available with NetWare 5.1, 6.0, 6.5, and OES SP1.

SDD:

- Available with NetWare 5.1, 6.0, 6.5, and OES SP1.
- Clustering Support: Available with NetWare 5.1, 6.0, and 6.5.

X86, X64, AMD64 BASED SERVERS – VMWARE

Fibre Channel

| Servers | Operating Systems | Host Adapters | Fabric Support |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>Intel Pentium II Xeon and above ¹</p> <ul style="list-style-type: none"> 1.5 Ghz or faster 2 – 16 processors 512 MB RAM or higher <p>AMD Chipset</p> <ul style="list-style-type: none"> 1.6 GHz or faster 512 MB RAM or higher <p>IBM BladeCenter ⁴</p> <ul style="list-style-type: none"> HS20 <ul style="list-style-type: none"> 8678 8832 8843 HS21 <ul style="list-style-type: none"> 8853 HS21 XM <ul style="list-style-type: none"> 7995 HS40 <ul style="list-style-type: none"> 8839 LS20 <ul style="list-style-type: none"> 8850 LS21 <ul style="list-style-type: none"> 7971 LS41 <ul style="list-style-type: none"> 7972 <p>IBM System x Servers ⁴</p> <ul style="list-style-type: none"> 100, 206, 206m, 225, 226, 235, 236, 255, 260, 306, 325, 326, 326m, 335, 336, 345, 346, 360, 365, 366, 440, 445, 450, 455, 460, 3105, 3200, 3250, 3400, 3455, 3500, 3550, 3650, 3655, 3755, 3800, 3850, 3950, 3950E, | <p>VMware</p> <ul style="list-style-type: none"> ESX 2.5.0 ESX 2.5.1 ³ <ul style="list-style-type: none"> Vmotion ³ ESX 2.5.2, 2.5.3 ³ <ul style="list-style-type: none"> Vmotion ³ ESX 3.0 ³ <ul style="list-style-type: none"> Vmotion ³ ESX 3.0.1 ³ <ul style="list-style-type: none"> Vmotion ³ ESX 3.0.2 ³ <ul style="list-style-type: none"> Vmotion ⁶ ESX 3.5 ³ <ul style="list-style-type: none"> Vmotion ³ ESX 3i ³ <ul style="list-style-type: none"> Vmotion ³ <p>VMware guest support ²</p> <ul style="list-style-type: none"> Windows 2000 Windows 2003 R2 SUSE SLES 8, 9, 10 Red Hat Enterprise Linux 2.1, 3, 4 | <p>BladeCenter ⁴</p> <ul style="list-style-type: none"> IBM <ul style="list-style-type: none"> 13N2203 26K4841 26R0884 26R0890 39Y9186 39Y9306 41Y8527 48P7061 Emulex <ul style="list-style-type: none"> LP1005DC 43W6859 <p>Emulex</p> <ul style="list-style-type: none"> LP9402DC LP9802 LP9002 / LP9002DC LP10000 / LP10000DC LP11000 / LPE11002⁵ LPE11000 / LPE11002⁵ <p>IBM Netfinity / System x</p> <ul style="list-style-type: none"> P/N 19K1246 P/N 24P0960 <p>QLogic</p> <ul style="list-style-type: none"> QLA2310F / QLA2310FL QLA2340/L / QLA2342/L QLA2460 / QLA2462⁵ QLE2460 / QLE2462⁵ | <p>Cisco</p> <ul style="list-style-type: none"> MDS 9120, 9140 MDS 9216, 9216A, 9216I MDS 9506, 9509 MDS 9134, 9222i <p>IBM</p> <ul style="list-style-type: none"> 2026 Models E12, 224 2027 Models 140, 232 2027 Models R16, 256 2109 Models F16, F32 2109 Model M12 2109 Models S08, S16 3534 Model F08 <p>IBM BladeCenter ⁴</p> <ul style="list-style-type: none"> P/N 02R9080 P/N 26K5601 P/N 26K6477 P/N 26R0881 P/N 32R1790 P/N 32R1812 P/N 32R1813 P/N 32R1831 P/N 32R1835 P/N 39Y9208 P/N 39Y9280 P/N 39Y9284 P/N 48P7062 P/N 90P0165 <p>McDATA</p> <ul style="list-style-type: none"> ES-3016, ES-3032 Intrepid <ul style="list-style-type: none"> 6064, 6140 Sphereon <ul style="list-style-type: none"> 3216, 3232 4300, 4500 |

¹ For more information on server minimum requirements, refer to: http://www.vmware.com/products/server/esx_specs.html

² For more information on VMware guest support, refer to: http://www.vmware.com/support/pubs/vi_pubs.html

³ Supported via RPQ only.

⁴ For information on OS and HBA support, refer to the following link: <http://www.ibm.com/servers/eserver/serverproven/compat/us/>

⁵ Requires VMWare ESX 3.0 and above

⁶ For the official support date for this release, check the VMware Website.

X86, X64, AMD64 BASED SERVERS – VMWARE

General Notes:

This Interoperability file will be sunseting, please begin to use and familiarize yourself with the System Storage Interoperation Center (SSIC): <http://www.ibm.com/servers/storage/support/config/ess/index.jsp>

DS Open API – (CIM Agent): Not available with VMware.

DS CLI: Available for VMware 3.n.n.

SDD: Not available for VMware.

SAN Boot is supported with ESX 2.5.n and ESX 3.n

X86, EM64T, IA64, AND AMD64 BASED SERVERS - LINUX

Fibre Channel

| Servers | Operating Systems | Host Adapters | Fabric Support |
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| <p>Intel Pentium II Xeon and above⁴</p> <ul style="list-style-type: none"> • 1.5 Ghz or faster • 2 – 16 processors • 512 MB RAM or higher <p>AMD Chipset⁴</p> <ul style="list-style-type: none"> • 1.6 GHz or faster • 512 MB RAM or higher <p>IBM BladeCenter¹</p> <ul style="list-style-type: none"> • 7981 • 8678 • 8832 • 8843 • HS21 • 8853 • HS21 XM • 7995 • HS40 • 8839 • LS20 • 8850 • LS21 • 7971 • LS41 • 7972 <p>IBM System x Servers¹</p> <ul style="list-style-type: none"> • 100, 206, 206m, 225, 226, 235, 236, 255, 260, 306, 325, 326, 326m, 335, 336, 345, 346, 360, 365, 366, 440, 445, 450, 455, 460, 3105, 3200, 3250, 3400, 3455, 3500, 3550, 3650, 3655, 3755, 3800, 3850, 3950, 3950E, | <p>Red Hat Enterprise Linux³</p> <ul style="list-style-type: none"> • 2.1 • 3 U6, U7, U8 <ul style="list-style-type: none"> • VERITAS Volume Manager with DMP • 4.0 MP2, 4.1⁵ • VERITAS Cluster Server <ul style="list-style-type: none"> • 4.0 MP2, 4.1⁵ • 4 (AS, ES) U2, U3, 4.4, 4.5, 4.6 <ul style="list-style-type: none"> • VERITAS Volume Manager with DMP <ul style="list-style-type: none"> • 4.1⁵, 5.0 • VERITAS Cluster Server <ul style="list-style-type: none"> • 4.1⁵, 5.0 • 5, 5.1 <p>SUSE³</p> <ul style="list-style-type: none"> • SLES 8 SP4 • SLES 9 SP2, SP3 <ul style="list-style-type: none"> • VERITAS Volume Manager with DMP <ul style="list-style-type: none"> • 4.1⁶, 5.0 • VERITAS Cluster Server <ul style="list-style-type: none"> • 4.1⁶, 5.0 • Linux Enterprise 10, sp1 <p>Asianux 1.0³</p> <ul style="list-style-type: none"> • Red Flag Linux DataCenter <ul style="list-style-type: none"> • v4.1 <p>Red Flag Linux Advanced Server²</p> <ul style="list-style-type: none"> • v4.1 | <p>BladeCenter¹</p> <ul style="list-style-type: none"> • IBM <ul style="list-style-type: none"> • 13N2203 • 26K4841 • 26R0884 • 26R0890 • 39Y9186 • 39Y9306 • 41Y8527 • 48P7061 • Emulex <ul style="list-style-type: none"> • LP1005DC • 43W6859 <p>Emulex</p> <ul style="list-style-type: none"> • LP9002L / LP9002DC • LP9402DC • LP9802 • LP10000/LP10000DC • LP11000 (IBM P/N 42D0405) • LP11002 (IBM P/N 42D0407) • LPE11000 (IBM P/N 42C2069) • LPE11002 (IBM P/N 42C2071) <p>IBM Netfinity/ System x</p> <ul style="list-style-type: none"> • P/N 19K1246 • P/N 24P0960 • P/N 39M5894 • P/N 39M5895 <p>QLogic</p> <ul style="list-style-type: none"> • QLA2310F / QLA2310FL • QLA2340/L / QLA2342/L • QLA2460 • QLA2462 • QLE2460 (IBM P/N 39R6525) • QLE2462 (IBM P/N 39R6527) | <p>Cisco²</p> <ul style="list-style-type: none"> • MDS 9020, 9120, 9124, 9140 • MDS 9216, 9216A, 9216I • MDS 9506, 9509, 9513 • MDS 9134, 9222i <p>CNT (Inrange)</p> <ul style="list-style-type: none"> • FC/9000-64, -128, -256 • 2042-N16 <p>IBM</p> <ul style="list-style-type: none"> • 2005 Models B16, B32, B64, B5K • 2005 Models H08, H16, R18 • 2026 Models E12, 224 • 2026 Models 12E, 16E, 416 • 2026 Models 32E, 432 • 2027 Models 140, 232 • 2027 Models R04, R16, 256 • 2045 Model N16 • 2109 Model A16, F16, F32 • 2109 Model M12, M14, M48 • 2109 Models S08, S16 • 3534 Model F08 <p>IBM BladeCenter¹</p> <ul style="list-style-type: none"> • P/N 02R9080 • P/N 26K5601¹, 26K6477 • P/N 26R0881 • P/N 32R1790, 32R1812 • P/N 32R1813, 32R1833 • P/N 39Y9208, 39Y9280 • P/N 39Y9284 • P/N 43W6723 • P/N 48P7062 • P/N 90P0165 <p>McDATA</p> <ul style="list-style-type: none"> • ED-5000, ES-3016, ES-3032 • Intrepid <ul style="list-style-type: none"> • 6064, 6140 • Sphereon <ul style="list-style-type: none"> • 3216, 3232 • 4300, 4500 |

¹ For information on OS and HBA support, refer to the following link: <http://www.ibm.com/servers/eserver/serverproven/compat/us/>

² Supports the IP Storage Service Module for iSCSI on Cisco MDS fabric products. Refer to the following link for more details: <ftp://service.boulder.ibm.com/storage/san/cisco/ipStorServMod.pdf>

³ Refer to the following link for details on Linux kernel levels: http://www.ibm.com/support/docview.wss?rs=540&context=ST52G7&dc=D430&uid=ssg1S4000107&loc=en_US&cs=utf-8&lang=en

⁴ Includes Blades with generic Qlogic and Emulex chip sets with IBM supported Drivers.

⁵ Supported with x86-bit server only.

⁶ Supported with x86-bit and x64-bit servers.

X86, EM64T, IA64, AND AMD64 BASED SERVERS - LINUX

General Notes:

This Interoperability file will be sunset, please begin to use and familiarize yourself with the System Storage Interoperation Center (SSIC): <http://www.ibm.com/servers/storage/support/config/ess/index.jsp>

DS Open API – (CIM Agent): Available with Red Hat Enterprise Linux 3.

DS CLI: Available with Red Hat Enterprise Linux 2.1, 3, 4, 5 SUSE SLES 8, 9 and SLES 10.¹

SDD:

- Available for 32-bit with Red Hat Enterprise Linux 2.1, 3, 4, SUSE SLES 8, SUSE SLES 9, Asianux, and Red Flag.
- Available for ia64-bit with Red Hat Enterprise Linux 3, and SUSE SLES 8.
- Available with AMD based servers 325, 326, and x86_64 with Red Hat Enterprise Linux 4 and SUSE SLES 9.

Device Mapper Multipath (DMM):

- Available for SUSE Linux Enterprise 10, sp1, SLES 9 sp3 and RHEL 5, 5.1, 4.4 and 4.6. For more information, refer to : http://www.ibm.com/support/docview.wss?rs=540&context=ST52G7&dc=D430&uid=ssg1S4000107&loc=en_US&cs=utf-8&lang=en#DM

SAN Boot support:

- The DS8100 and DS8300 are supported as a boot device on Red Hat Enterprise Linux 2.1, 3, 4, and 5, SUSE SLES 8, 9 and 10 which supports Fibre Channel boot capability. Refer to the *IBM System Storage DS8000 Host Systems Attachment Guide* for additional information.

¹ RHEL 4 & 5 require IBM Java version 1.4.2 to load DSCLI which can be obtained from this website: <http://www-128.ibm.com/developerworks/java/jdk/linux/download.html>

X86, X64, AND IA64 BASED SERVERS - WINDOWS

Fibre Channel

| Servers | Operating Systems | Host Adapters | Fabric Support |
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| <p>Intel Pentium II Xeon and above⁵</p> <ul style="list-style-type: none"> 1.5 Ghz or faster 2 – 16 processors 512 MB RAM or higher <p>AMD Chipset⁵</p> <ul style="list-style-type: none"> 1.6 GHz or faster 512 MB RAM or higher <p>IBM BladeCenter¹</p> <ul style="list-style-type: none"> HS20 <ul style="list-style-type: none"> 7981 8678 8832 8843 HS21 <ul style="list-style-type: none"> 8853 HS21 XM <ul style="list-style-type: none"> 7995 HS40 <ul style="list-style-type: none"> 8839 LS20 <ul style="list-style-type: none"> 8850 LS21 <ul style="list-style-type: none"> 7971 LS41 <ul style="list-style-type: none"> 7972 <p>IBM System x Servers¹</p> <ul style="list-style-type: none"> 100, 206, 206m, 225, 226, 235, 236, 255, 260, 306, 325, 326, 326m, 335, 336, 345, 346, 360, 365, 366, 440, 445, 450, 455, 460, 3105, 3200, 3250, 3400, 3455, 3500, 3550, 3650, 3655, 3755, 3800, 3850, 3950, 3950E | <p>Microsoft Windows 2000</p> <ul style="list-style-type: none"> Server <ul style="list-style-type: none"> VERITAS Volume Manager⁴ 4.2, 4.3 with DMP or SDD VERITAS Cluster Server 4.3⁴ Advanced Server including Cluster service <ul style="list-style-type: none"> VERITAS Volume Manager⁴ 4.2, 4.3 with DMP or SDD VERITAS Cluster Server 4.3⁴ Datacenter Server including Cluster service <p>Microsoft Windows 2003 SP1, R2, SP2</p> <ul style="list-style-type: none"> Standard Edition <ul style="list-style-type: none"> VERITAS Volume Manager⁴ 4.2, 4.3 with DMP or SDD VERITAS Cluster Server 4.3⁴ Enterprise Edition including cluster service <ul style="list-style-type: none"> VERITAS Volume Manager⁴ 4.2, 4.3, with DMP or SDD VERITAS Cluster Server 4.3⁴ VERITAS Volume Manager 5.0 with DMP or SDD DSM x64 VERITAS Cluster Server 5.0 with x64 MSCS with x64 Datacenter Edition including cluster service <p>Microsoft Windows 2008 Standard, Enterprise and Datacenter (without Hyper V)</p> | <p>BladeCenter¹</p> <ul style="list-style-type: none"> IBM <ul style="list-style-type: none"> 13N2203 26K4841 26R0884 26R0890 39Y9186 39Y9306 41Y8527 48P7061 Emulex <ul style="list-style-type: none"> LP1005DC 43W6859 <p>Emulex</p> <ul style="list-style-type: none"> LP9002L / LP9002DC LP9402DC LP9802 LP10000/LP10000DC LP11000 (IBM P/N 42D0405) LP11002 (IBM P/N 42D0407) LPE11000 (IBM P/N 42C2069) LPE11002 (IBM P/N 42C2071) <p>IBM Netfinity / System x</p> <ul style="list-style-type: none"> P/N 19K1246 P/N 24P0960 P/N 39M5894 P/N 39M5895 <p>QLogic</p> <ul style="list-style-type: none"> QLA2310F / QLA2310FL QLA2340L / QLA2342L QLA2460 QLA2462 QLE2460 (IBM P/N 39R6525) QLE2462 (IBM P/N 39R6527) | <p>Cisco¹</p> <ul style="list-style-type: none"> MDS 9020, 9120, 9124, 9140 MDS 9216, 9216A, 9216I MDS 9506, 9509, 9513 MDS 9134, 9222i <p>CNT</p> <ul style="list-style-type: none"> FC/9000-64, -128, -256 2042-N16 <p>IBM</p> <ul style="list-style-type: none"> 2005 Models B16, B32, B64, B5K 2005 Models H08, H16, R18 2026 Model E12, 224 2026 Models 12E, 16E, 416 2026 Models 32E, 432 2027 Models 140, 232 2027 Models R04, R16, 256 2045 Model N16 2109 Models A16³, F16, F32 2109 Model M12, M14, M48 2109 Models S08, S16 3534 Model F08 <p>IBM BladeCenter¹</p> <ul style="list-style-type: none"> P/N 02R9080 P/N 26K5601, 26K6477 P/N 26R0881 P/N 32R1790, 32R1812 P/N 32R1813, 32R1831 P/N 32R1835 P/N 39Y9208, 39Y9280 P/N 39Y9284 P/N 43W6723 P/N 48P7062 P/N 90P0165 <p>McDATA</p> <ul style="list-style-type: none"> ED-5000 ES-3016, ES-3032 Intrepid <ul style="list-style-type: none"> 6064, 6140 Sphereon <ul style="list-style-type: none"> 3216, 3232 4300, 4500 |

¹ For information on OS and HBA support, refer to the following link: <http://www.ibm.com/servers/eserver/serverproven/compat/us/>

² Supported with the IP Storage Service Module for iSCSI on Cisco fabric products. Refer to the following link for more details: <ftp://service.boulder.ibm.com/storage/san/cisco/ipStorServMod.pdf>

³ The IBM 2109 Model A16 is supported with iSCSI on Windows 2000 and Windows 2003.

⁴ VERITAS Cluster Services clustering supports 2 nodes maximum.

⁵ Includes Blades with Qlogic and Emulex generic chip sets with IBM supported Drivers.

X86, X64, AND IA64 BASED SERVERS - WINDOWS

Fibre Channel

General Notes:

This Interoperability file will be sunset, please begin to use and familiarize yourself with the System Storage Interoperation Center (SSIC): <http://www.ibm.com/servers/storage/support/config/ess/index.jsp>

DS Open API – (CIM Agent): Available for Microsoft Windows 2000 and 2003.

DS CLI: Available for Microsoft Windows 2000 and Microsoft Windows Server 2003 (32-bit only).

SDD:

- Available for Microsoft Windows 2000 32-bit, Microsoft Windows Server 2003, sp1, 2, R2 for 32-bit and ia64-bit.
- Not supported on 64-bit AMD or EM64T servers.
- Not supported with IBM BladeCenter LS20, and BladeCenter HS20 8832. Storport drivers are not supported.

SAN Boot support:

- The DS8100 and DS8300 models are supported as a boot device on Windows 2000 (32-bit) or Windows Server 2003 (32-bit or ia64-bit) servers that support Fibre Channel boot capability. It is supported with host adapters QLA 23xx (32-bit or ia64-bit) and LP9xxx (32-bit support only). Refer to the *IBM System Storage DS8000 Host Systems Attachment Guide* for additional information
- Not available for IBM BladeCenter LS20, and BladeCenter HS20 8832.

SDD DSM:

- Available for Microsoft Windows 2003 SP1, 2, and R2 32-bit and x64 (AMD or EM64T servers). Requires Storport drivers.
- Available for Microsoft Windows 2008 Standard, Enterprise and Datacenter (without Hyper V)
- Available for IBM BladeCenter LS20, and BladeCenter HS20 8832.

Boot device support:

- The DS8100 and DS8300 models are supported as a boot device on Microsoft Windows 2003 SP1, 32-bit and x64 (AMD or EM64T servers). Refer to the *IBM System Storage DS8000 Host Systems Attachment Guide* for additional information.

X86, X64, AND IA64 BASED SERVERS - WINDOWS

Hewlett Packard Fibre Channel

| Servers | Operating Systems | Host Adapters | Fabric Support |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| HP ProLiant 32-bit Servers <ul style="list-style-type: none"> DL 145 G2 DL 320 G3, G4 DL 360 G4, G4p DL 380 G4 DS 560 DL 580 G3 DL 740 ML 110 ML 150 G2 ML 310 G2, G3 ML 350 G4, G4p ML 370 G4 ML 570 G3 ML 580 G3 | Microsoft Windows 2000 <ul style="list-style-type: none"> Server <ul style="list-style-type: none"> VERITAS Volume Manager⁴ 4.2, 4.3 with DMP or SDD VERITAS Cluster Server <ul style="list-style-type: none"> 4.3⁴ Advanced Server including Cluster service <ul style="list-style-type: none"> VERITAS Volume Manager⁴ 4.2, 4.3 with DMP or SDD VERITAS Cluster Server <ul style="list-style-type: none"> 4.3⁴ Datacenter Server including Cluster service Microsoft Windows 2003 SP1, 2, R2, Standard Edition <ul style="list-style-type: none"> VERITAS Volume Manager² 4.2, 4.3 with DMP or SDD VERITAS Cluster Server <ul style="list-style-type: none"> 4.3² Enterprise Edition including cluster service <ul style="list-style-type: none"> VERITAS Volume Manager⁴ 4.2, 4.3, with DMP or SDD VERITAS Cluster Server 4.3⁴ VERITAS Volume Manager 5.0 with DMP or SDD DSM x64 <ul style="list-style-type: none"> VERITAS Cluster Server 5.0 with x64 MSCS with x64 Datacenter Edition including cluster service Microsoft Windows 2008 Standard, Enterprise and Datacenter (without Hyper V) | Emulex ⁵ <ul style="list-style-type: none"> LP9002L / LP9002DC LP9402DC LP9802 LP10000 / LP10000DC LP11000 LP11002 LPE11000 LPE11002 HP ProLiant Blade System <ul style="list-style-type: none"> 300874-B21 354054-B21 361426-B21 381881-B21 394588-B21 QLogic ⁵ <ul style="list-style-type: none"> QLA2310F / QLA2310FL QLA2340L / QLA2342L QLA2460 QLA2462 QLE2460 QLE2462 | Cisco ¹ <ul style="list-style-type: none"> MDS 9120, 9124, 9140 MDS 9216, 9216A, 9216I MDS 9506, 9509, 9513 MDS 9134, 9222i CNT <ul style="list-style-type: none"> FC/9000-64, -128, -256 2042-N16 IBM <ul style="list-style-type: none"> 2005 Models B16, B32, B64, B5K 2005 Models H08, H16, R18 2026 Model E12, 224 2026 Models 12E, 16E, 416 2026 Models 32E, 432 2027 Models 140, 232 2027 Models R04, R16, 256 2045 Model N16 2109 Model A16³ 2109 Models F16, F32 2109 Model M12, M14, M48 2109 Models S08, S16 3534 Model F08 McDATA <ul style="list-style-type: none"> ED-5000 ES-3016, ES-3032 Intrepid <ul style="list-style-type: none"> 6064, 6140 Sphereon <ul style="list-style-type: none"> 3216, 3232 4300, 4500 |
| HP ProLiant 64-bit Servers <ul style="list-style-type: none"> DL 385 DL 585 G1, G2 | | | |
| HP Integrity ia64-bit Servers <ul style="list-style-type: none"> RX7600 | | | |
| HP ProLiant 32-bit Blade System <ul style="list-style-type: none"> BL 20 p BL 30 p BL 40 p | | | |
| HP ProLiant 64-bit Blade System <ul style="list-style-type: none"> BL 25p, 35p, 45 p BL 460c, 465c, 480c BL 685c | | | |

¹ Supported with the IP Storage Service Module for iSCSI on Cisco fabric products. Refer to the following link for more details:
<ftp://service.boulder.ibm.com/storage/san/cisco/ipStorServMod.pdf>

² Supports 32-bit only, and VERITAS Cluster Services clustering supports 2 nodes maximum.

³ The IBM 2109 Model A16 is supported with iSCSI on Windows 2003.

⁴ VERITAS Cluster Services clustering supports 2 nodes maximum.

⁵ HP equivalent adapters are supported for QLogic and Emulex.

X86, X64, AND IA64 BASED SERVERS - WINDOWS

Hewlett Packard – Fibre Channel

General Notes:

This Interoperability file will be sunseting, please begin to use and familiarize yourself with the System Storage Interoperation Center (SSIC): <http://www.ibm.com/servers/storage/support/config/ess/index.jsp>

DS Open API – (CIM Agent): Available for Microsoft Windows 2003.

DS CLI: Available for Microsoft Windows 2003 (32-bit only).

SDD:

- Available for Microsoft Windows Server 2003, sp1, 2, R2 for 32-bit and ia64-bit.
- Not supported on 64-bit AMD or EM64T servers.
- Storport drivers are not supported.

Boot device support:

- The DS8100 and DS8300 models are supported as a boot device on Windows Server 2003 (32-bit or ia64-bit) servers that support Fibre Channel boot capability. It is supported with host adapters QLA 23xx (32-bit or ia64-bit) and LP9xxx (32-bit support only). Refer to the *IBM System Storage DS8000 Host Systems Attachment Guide* for additional information.

SDD DSM:

- Available for Microsoft Windows 2003 SP1, 32-bit and x64 (AMD or EM64T servers). Requires Storport drivers.
- Microsoft Windows 2008 Standard, Enterprise and Datacenter (without Hyper V)

SAN Boot support:

- The DS8100 and DS8300 models are supported as a boot device on Microsoft Windows 2003 SP1, 32-bit and x64 (AMD or EM64T servers). Refer to the *IBM System Storage DS8000 Host Systems Attachment Guide* for additional information.

ADDITIONAL STORAGE ATTACHMENT

Fibre Channel

| Servers | Operating Systems | Host Adapters | Fabric Support |
|---------------------|-------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Macintosh G4 and G5 | OS X 10.3 | Apple <ul style="list-style-type: none">Fibre Channel PCI-X card065-5136 ATTO ¹ <ul style="list-style-type: none">33003321 | IBM <ul style="list-style-type: none">2109 Model F162109 Model M12 McDATA <ul style="list-style-type: none">Intrepid6064 |

General Notes:

This Interoperability file will be sunsetting, please begin to use and familiarize yourself with the System Storage Interoperation Center (SSIC): <http://www.ibm.com/servers/storage/support/config/ess/index.jsp>

DS Open API – (CIM Agent): Not available.

DS CLI: Not available.

SDD: Not available.

¹ Only one PCI slot on the G5 can be used with the ATTO Host Adapter.

FUJITSU PRIMEPOWER SERVERS

Fibre Channel

| Servers | Operating Systems | Host Adapters | Fabric Support |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Primepower <ul style="list-style-type: none">• 200, 250• 400,450• 650• 800, 850• 900• 1000, 1500• 2000, 2500 | Solaris <ul style="list-style-type: none">• 8• 9• 10 | Emulex <ul style="list-style-type: none">• LP9002DC• LP9002L• LP9402DC• LP9802• LP10000• LP10000DC QLogic <ul style="list-style-type: none">• 2340• 2342 | Cisco <ul style="list-style-type: none">• MDS 9020, 9120, 9124, 9140• MDS 9216, 9216A, 9216I• MDS 9506, 9509, 9513• MDS 9134, 9222i CNT (Inrange) <ul style="list-style-type: none">• FC/9000-64, -128, -256 IBM <ul style="list-style-type: none">• 2005 Models B16, B32, B64, B5K• 2005 Models H08, H16, R18• 2026 Models E12, 224• 2026 Models 12E, 16E, 416• 2026 Models 32E, 432• 2027 Models 140, 232• 2027 Models R04, R16, 256• 2045 Model N16• 2109 Models F16, F32• 2109 Model M12, M14, M48• 2109 Models S08, S16• 3534 Model F08 McDATA <ul style="list-style-type: none">• ED-5000• ES-3016, ES-3032• Intrepid<ul style="list-style-type: none">• 6064, 6140• Sphereon<ul style="list-style-type: none">• 3216, 3232• 4300, 4500 |

General Notes:

This Interoperability file will be sunset, please begin to use and familiarize yourself with the System Storage Interoperation Center (SSIC): <http://www.ibm.com/servers/storage/support/config/ess/index.jsp>

DS Open API – (CIM Agent): Not available.

DS CLI: Not available.

SDD:

- Available for Solaris 8, 9, and 10
- Solaris 10 Container not supported.
- SDD is not supported in Sun Cluster environments.
- SDD does not support Sun adapters.
- SDD is not supported with SAN Boot.

Fibre Channel

| Servers | Operating Systems | Fabric Support |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>N Series</p> <ul style="list-style-type: none"> • N5200-G10 (2864-G10) • N5200-G20 (2864-G20) • N5300 G10 (2869 G10) • N5300 G20 (2869 G20) • N5500-G10 (2865-G10) • N5500-G20 (2865-G20) • N5600 G10 (2868-G10) • N5600 G20 (2868-G20) | <p>DataONTAP</p> <ul style="list-style-type: none"> • 7.1 • 7.1.0.1 | <p>Cisco</p> <ul style="list-style-type: none"> • MDS 9120, 9140 • MDS 9216, 9216A, 9216I • MDS 9506, 9509 • MDS 9134, 9222i <p>CNT</p> <ul style="list-style-type: none"> • FC/9000-64, -128, -256 • 2042-N16 <p>IBM</p> <ul style="list-style-type: none"> • 2005 Models B16, B32 • 2005 Models H08, H16 • 2109 Models F16, F32 • 2109 Model M12, M14, M48 • 2109 Models S08, S16 • 3534 Model F08 <p>McDATA</p> <ul style="list-style-type: none"> • ED-5000 • ES-3016, ES-3032 • Intrepid <ul style="list-style-type: none"> • 6064, 6140 • Sphereon <ul style="list-style-type: none"> • 3216, 3232 • 4300, 4500 |

NETWORK ATTACHED STORAGE (NAS)

| NAS Gateway | Fabric Support |
|--------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| NAS Gateway 500 <ul style="list-style-type: none">5198 Model 001 | Cisco <ul style="list-style-type: none">MDS 9120, 9140, 9506, 9509, 9216 CNT <ul style="list-style-type: none">FC/9000-64FC/9000-128FC/9000-256 IBM <ul style="list-style-type: none">2109 Models F16, F322109 Model M123534 Model F08 McDATA <ul style="list-style-type: none">Intrepid 6064, 6140Sphereon 3216, 3232, 4300, 4500 |

Fibre Channel

| Servers | Operating Systems | Host Adapters | Fabric Support |
|----------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Origin Servers <ul style="list-style-type: none"> • 200 • 2100 • 2200 • 2400 • 2800 | IRIX <ul style="list-style-type: none"> • 6.5.13 • 6.5.14 • 6.5.15 • 6.5.16 • 6.5.17 • 6.5.18 • 6.5.19 • 6.5.20 • 6.5.21 • 6.5.22 • 6.5.28 | SGI <ul style="list-style-type: none"> • PCI-FC-1P-OPT • PCI-FC-1P-OPT-A • PCI-FC-1POPT-B • PCX-FC-2POPT-B | IBM <ul style="list-style-type: none"> • 2109 Model M12 • 2109 Models S08, S16 • 2109 Model F16 • 3534 Model F08 |

General Notes:

This Interoperability file will be sunset, please begin to use and familiarize yourself with the System Storage Interoperation Center (SSIC): <http://www.ibm.com/servers/storage/support/config/ess/index.jsp>

DS Open API – (CIM Agent): Not available for SGI Servers.

DS CLI: Not available for SGI Servers.

SDD: Not available for SGI Servers.

APPENDIX A: DS8000 HOST ADAPTERS AND CABLES

Table 8: DS8000 series Host Adapter Features

| Feature Number | Features Description | Supported Models | Minimum LMC Level |
|----------------|-----------------------------------|------------------------------|--------------------------|
| 3111 | 2Gb SW FCP/FICON adapter | 921 / 922 / 92E 931 / 932 | 5.0.0 5.2.2.00.x |
| 3113 | 4Gb SW FCP/FICON adapter | 921 / 922 / 92E 931 / 932 | 5.2.2.00.x 5.2.2.00.x |
| 3121 | 2Gb SW FCP/FICON adapter - A | 9A2 / 9AE 9B2 | 5.0.0 5.2.2.00.x |
| 3123 | 4Gb SW FCP/FICON adapter - A | 9A2 / 9AE 9B2 | 5.2.2.00.x 5.2.2.00.x |
| 3131 | 2Gb SW FCP/FICON adapter - B | 9A2 / 9AE 9B2 | 5.0.0 5.2.2.00.x |
| 3133 | 4Gb SW FCP/FICON adapter - B | 9A2 / 9AE 9B2 / 9BD / 9BE | 5.2.0 5.2.0 |
| 3211 | 2Gb LW FCP/FICON adapter | 921 / 922 / 92E 931 / 932 | 5.0.0 5.2.2.00.x |
| 3213 | 4Gb LW FCP/FICON adapter | 921 / 922 / 92E 931 / 932 | 5.2.2.00.x 5.2.2.00.x |
| 3215 | 4Gb 10km LW FCP/FICON adapter | 921 / 922 / 92E 931 / 932 | 5.2.2.00.x 5.2.2.00.x |
| 3221 | 2Gb LW FCP/FICON adapter - A | 9A2 / 9AE 9B2 | 5.0.0 5.2.2.00.x |
| 3223 | 4Gb LW FCP/FICON adapter - A | 9A2 / 9AE 9B2 | 5.2.2.00.x 5.2.2.00.x |
| 3225 | 4Gb 10km LW FCP/FICON adapter - A | 9A2 / 9AE 9B2 | 5.2.2.00.x 5.2.2.00.x |
| 3231 | 2Gb LW FCP/FICON adapter - B | 9A2 / 9AE 9B2 | 5.0.0 5.2.2.00.x |
| 3233 | 4Gb LW FCP/FICON adapter - B | 9A2 / 9AE 9B2 | 5.2.0 5.2.0 |
| 3235 | 4Gb 10km LW FCP/FICON adapter - B | 9A2 / 9AE 9B2 | 5.2.0 5.2.2.00.x |
| 3311 | ESCON adapter | 921 / 922 / 92E 931 / 932 | 5.0.0 5.2.2.00.x |
| 3321 | ESCON adapter - A | 9A2 / 9AE 9B2 | 5.0.0 5.2.2.00.x |
| 3331 | ESCON adapter - B | 9A2 / 9AE 9B2 | 5.0.0 5.2.2.00.x |

Table 9: DS8000 series Fibre Channel / FICON Cable Features

| Feature Number | Feature Description | Cable Length |
|----------------|-----------------------------|--------------------|
| 1410 | 50 um Fibre cable (LC) | 31 meters |
| 1411 | 50 um Fibre cable (LC / SC) | 31 meters |
| 1412 | 50 um Fibre cable (jumper) | 2 meters (pigtail) |
| 1420 | 9 um Fibre cable (LC) | 31 meters |
| 1421 | 9 um Fibre cable (LC/SC) | 31 meters |
| 1422 | 9 um Fibre cable (jumper) | 2 meters (pigtail) |
| 1430 | ESCON cable (MT-RJ) | 31 meters |
| 1431 | ESCON cable (MT-RJ/DUP) | 31 meters |
| 1432 | ESCON cable (jumper) | 2 meters (pigtail) |
| 1440 | ESCON PL cable (MT-RJ) | 31 meters |
| 1441 | ESCON PL cable (MT-RJ/DUP) | 31 meters |

APPENDIX B: HOST ADAPTERS AND CABLES

Table 10: DS8000 series Fibre Channel Host Adapters

| Adapter | Description |
|---------------------------|---------------------------------------------------------------------|
| AMCC/JNI FCX-6562 | FibreStar PCI-X-to-Fibre Channel Host Bus Adapter (2Gb) |
| AMCC/JNI FCX2-6562 | FibreStar PCI-X-to-Fibre Channel Host Bus Adapter (2Gb) (two ports) |
| AMCC/JNI FCE-1473-N | FibreStar 2Gb 64-bit SBus-to-Fibre Channel Host Bus Adapter |
| AMCC/JNI FCE-6460-N | FibreStar 2Gb 64-bit PCI-to-Fibre Channel Host Bus Adapter |
| Apple 065-5136 | Apple PCI-X Fibre Channel Host Adapter |
| ATTO 3300 | ATTO ExpressPCI Fibre Channel Host Adapter |
| ATTO 3321 | ATTO ExpressPCI Fibre Channel Host Adapter |
| Emulex LP9002L | LightPulse Fibre Channel PCI Host Adapter (2Gb) |
| Emulex LP9002DC | Light Pulse Fibre Channel PCI Host Adapter (2Gb) (two ports) |
| Emulex LP9402DC | LightPulse Fibre Channel PCI-X Host Adapter (2Gb) (two ports) |
| Emulex LP9802 | LightPulse Fibre Channel PCI-X Host Adapter (2GB) |
| Emulex LP10000 | LightPulse Fibre Channel PCI-X Host Adapter (2Gb) |
| Emulex LP10000DC | LightPulse Fibre Channel PCI-X Host Adapter (2Gb) (two ports) |
| Emulex LP11000 | LightPulse 4Gb Fibre Channel PCI-X Host Adapter |
| Emulex LP11002 | LightPulse 4GB Fibre Channel PCI-X Host Adapter (two ports) |
| Emulex LPE11000 | LightPulse 4Gb Fibre Channel PCI Express Host Adapter |
| Emulex LPE11002 | LightPulse 4Gb Fibre Channel PCI Express Host Adapter (two ports) |
| Emulex 43W6859 | 4Gb Fibre Channel Expansion Card (CFFv) for IBM BladeCenter |
| Hewlett-Packard A5158A | PCI Tachlite Fibre Channel Adapter |
| Hewlett-Packard A6684A | HSC Tachlite Fibre Channel Adapter |
| Hewlett-Packard A6685A | HSC Tachlite Fibre Channel Adapter |
| Hewlett-Packard A6795A | PCI Tachlite 2Gb Fibre Channel Adapter |
| Hewlett-Packard A6826A | PCI 2Gb Fibre Channel Adapter |
| Hewlett-Packard A9782A | PCI-x 2Gb Fibre Channel Adapter |
| Hewlett-Packard AB378A | PCI-x 4gb Fibre Channel Adapter |
| Hewlett-Packard AB379A | PCI-x 4gb dual port Fibre Channel Adapter |
| Hewlett-Packard FC 2684 | PCI-x 2gb Fibre Channel Adpater |
| IBM P/N 39R6525 | Qlogic 4Gb FC (single port) PCIe HBA for IBM System x |
| IBM P/N 39R6527 | Qlogic 4Gb FC (dual port) PCIe HBA for IBM System x |
| IBM P/N 42C2069 | Emulex 4 Gb FC HBA PCI-E Controller Single Port (LPE11000) |
| IBM P/N 42C2071 | Emulex 4 Gb FC HBA PCI-E Controller Dual Port (LPE11002) |
| IBM P/N 42D0405 | Emulex 4 Gb FC HBA PCI-X Controller Single Port (LPA11000) |
| IBM P/N 42D0407 | Emulex 4 Gb FC HBA PCI-X Controller Dual Port (LPA11002) |
| IBM System i FC 0612 | Linux Direct Attachment (PCI Fibre Channel Disk Controller) |
| IBM System i FC 0626 | Linux Direct Attachment (PCI-X Fibre Channel Disk Controller) |
| IBM System i FC 0629 | PCI Fibre Channel Disk Controller (4 Gb) |
| IBM System i FC 2766 | PCI Fibre Channel Disk Controller |
| IBM System i FC 2787 | PCI-X Fibre Channel Disk Controller |
| IBM System i FC 5760 | PCI Fibre Channel Disk Controller (4 Gb) |
| IBM Netfinity P/N 19K1246 | Netfinity FASTt FC2/66 Fibre Channel Adapter |

| | |
|----------------------------|--------------------------------------------------------------------|
| IBM Netfinity P/N 24P0960 | Netfinity FAStT FC2/133 Fibre Channel Adapter |
| IBM System p FC 1905 | 4Gb Fibre Channel 1-port PCI-X DDR Adapter |
| IBM System p FC 1910 | 4Gb Fibre Channel 2-port PCI-X DDR Adapter |
| IBM System p FC 1957 | 2Gb Fibre Channel 1-port PCI-X Low Profile Adapter |
| IBM System p FC 1977 | 2Gb Fibre Channel 1-port PCI-X Adapter |
| IBM System p FC 5716 | Fibre Channel Adapter 64-bit for PCI-x Bus (2 Gb) |
| IBM System p FC 5758 | 4Gb Fibre Channel 1-port PCI-X DDR Adapter |
| IBM System p FC 5759 | 4Gb Fibre Channel 2-port PCI-X DDR Adapter |
| IBM System p FC 5773 | 4Gb Fibre Channel 1-port PCI-E DDR Adapter |
| IBM System p FC 5774 | 4Gb Fibre Channel 2-port PCI-E DDR Adapter |
| IBM System p FC 6228 | Fibre Channel Adapter 64-Bit for PCI Bus (2Gb) |
| IBM System p FC 6239 | Fibre Channel Adapter 64-bit for PCI Bus (2Gb) |
| IBM System z FC 3319 | FICON Express2 LX |
| IBM System z FC 3320 | FICON Express2 SX |
| QLogic QLA2310F | 66MHz PCI-X Fibre Channel Adapter |
| QLogic QLA2310FL | 66MHz PCI-X Fibre Channel Adapter (low profile) |
| QLogic QLA2340/L | 133MHz PCI-X Fibre Channel Adapter (low profile) |
| QLogic QLA2342/L | 133MHz PCI-X Fibre Channel Adapter (two ports; low profile) |
| QLogic QLA2460 | 4Gb Fibre Channel to PCI-X 2.0 266 MHZ, multi-mode optic (1-port) |
| QLogic QLA2462 | 4Gb Fibre Channel to PCI-X 2.0 266 MHZ, multi-mode optic (2-ports) |
| QLogic QLE2460 | 4Gb Fibre Channel to x4 PCI Express, multi-mode optic (1-port) |
| QLogic QLE2462 | 4Gb Fibre Channel to x4 PCI Express, multi-mode optic (2-ports) |
| SGI PCI-FC-1P-OPT | Optical SW 1GB Fibre Channel Adapter |
| SGI PCI-FC-1P-OPT-A | Optical SW 1GB Fibre Channel Adapter |
| SGI PCI-FC-1POPT-B | Optical SW 2 GB Fibre Channel Adapter |
| SGI PCX-FC-2POPT-B | Optical SW 2GB Fibre Channel Adapter (two ports) |
| StorageWorks KGPSA-CA | 64-bit / 33 MHz PCI-to-Fibre Channel Host Bus Adapter |
| StorageWorks KGPSA-DA | 64-bit / 66MHz PCI 2Gb Fibre Channel Adapter |
| StorageWorks KGPSA-EA | PCI-x 2Gb Fibre Channel Adapter |
| Sun 6727A | 64-Bit PCI-to-Fibre Channel Adapter (33MHz or 66 MHz) (dual port) |
| Sun 6757A | 25 MHz SBus Fibre Channel Adapter (dual port) |
| Sun 6767A (SG-XPCI1FC-QF2) | 66MHz PCI-X 2Gb Fibre Channel Adapter |
| Sun 6768A (SG-XPCI2FC-QF2) | 133MHz PCI-X 2Gb Fibre Channel Adapter (two ports; low profile) |
| Sun 6799A | 64-Bit PCI-to-Fibre Channel Adapter (33MHz or 66 MHz) |
| Sun SG-XPCI1FC-EM2 | LightPulse Fibre Channel PCI-X Host Adapter (4Gb) (single port) |
| Sun SG-XPCI1FC-EM4-Z | PCI-X Fibre Channel Host Adapter (4Gb, single port) |
| Sun SG-XPCI1FC-EM2 | LightPulse Fibre Channel PCI-X Host Adapter (4 Gb) (dual port) |
| Sun SG-XPCI2FC-EM4-Z | PCI-X FC Host Adapter (4 Gb, Dual port) |
| Sun SG-XPCI1FC-QL2 | 2Gb Fibre Channel to x4 PCI -X, multi-mode optic (single port) |
| Sun SG-XPCI2FC-QF2-Z | 2Gb Fibre Channel to x4 PCI -X, multi-mode optic (dual port) |
| Sun SG-XPCI1FC-QF4 | 4Gb PCI-X Fibre Channel Host Adapter (single port) |
| Sun SG-XPCI2FC-QF4 | 4Gb PCI-X Fibre Channel Host Adapter (dual port) |

APPENDIX C: SAN FABRIC PRODUCTS

Fibre Channel / FICON Intermix

The DS8000 series supports Fibre Channel / FICON intermix. With intermix, both FCP (Fibre Channel Protocol) and FICON upper level protocols can be supported within the same director when deployed independently by port.

For specific support, implementation details and operational information for using intermix, refer to the Fibre Channel Director websites.

Table 11: SAN Fabric Products

| Product | IBM Machine Type and Model or Part Number | Description |
|---------------------------|-------------------------------------------|--------------------------------------------------------------------|
| Cisco MDS 9120 | IBM 2061 Model 020 | Cisco 9120 Multilayer Fabric Switch (2Gb, 20-port) |
| Cisco MDS 9124 | IBM 2053 Model 424 | Cisco 9124 Multilayer Fabric Switch (4Gb, 24-port) |
| Cisco MDS 9134 | IBM 2053 Model 434/S34 | Cisco 9134 Multilayer Fabric Switch (4Gb, 32-port) |
| Cisco MDS 9140 | IBM 2061 Model 040 | Cisco 9140 Multilayer Fabric Switch (2Gb, 40-port) |
| Cisco MDS 9216 | IBM 2062 Model D01 | Cisco 9216 Multilayer Fabric Switch (2Gb, 48-port) |
| Cisco MDS 9216A | IBM 2062 D1A / IBM 2054 D1A | Cisco 9216A Multilayer Fabric Switch (2Gb, multi-port) |
| Cisco MDS 9216i | IBM 2062 D1H / IBM 2054 D1H | Cisco 9216i Multilayer Fabric Switch (2Gb, multi-port) |
| Cisco MDS 9222i | IBM 2054 Model E01 | Cisco 9222i Multilayer Fabric Switch (4 GB, 18/4 ports FCP/IP) |
| Cisco MDS 9506 | IBM 2062 Models D04 / T04 | Cisco 9506 Multilayer Director (2Gb, 128-port) |
| Cisco MDS 9509 | IBM 2062 Models D07 / T07 | Cisco 9509 Multilayer Director (2Gb, 224-port) |
| Cisco MDS 9509 | IBM 2054 E07 | Cisco 9509 Multilayer Director (4Gb, 224-port) |
| Cisco MDS 9513 | IBM 2054 E11 / IBM 2062 E11 | Cisco 9513 Multilayer Director (4Gb, from 12 to 528 ports) |
| CNT (INRANGE) FC/9000-64 | IBM 2042 Model 001 | CNT (INRANGE) FC/9000 Fibre Channel Director (2Gb, 64-port) |
| CNT (INRANGE) FC/9000-128 | IBM 2042 Model 128 | CNT (INRANGE) FC/9000 Fibre Channel Director (2Gb, 128-port) |
| CNT (INRANGE) FC/9000-256 | IBM 2042 Model 256 | CNT (INRANGE) FC/9000 Fibre Channel Director (2Gb, 256-port) |
| CNT UMD | IBM 2042 Model N16 | CNT Ultraset Multi-service Director (2Gb, 256-port) |
| IBM 2005 Model B16 | 2005B16 | IBM TotalStorage SAN16B (4Gb, 8-, 12- & 16- port) |
| IBM 2005 Model B32 | P/N 2005B32 | IBM TotalStorage SAN32B-2 (4Gb, 32-port) |
| IBM 2005 Model B64 | P/N 2005B64 | IBM System Storage SAN Switch (4Gb 32, 48, and 64 ports) |
| IBM 2005 Model H08 | P/N 2005H08 | IBM TotalStorage SAN Switch H08 (2Gb, 8-port) |
| IBM 2005 Model H16 | P/N 2005H16 | IBM TotalStorage SAN Switch H16 (2Gb, 16-port) |
| IBM 2005 Model R18 | 2005R18 | IBM System Storage SAN Router SAN18B-R (4Gb, 16ports, GbE 2 ports) |
| IBM 2026 Model 12E | | IBM TotalStorage SAN Switch HVEC Model (4Gb, 12-port) |
| IBM 2026 Model 16E | | IBM TotalStorage SAN Switch HVEC Model (4Gb, 16-port) |
| IBM 2026 Model 416 | SAN416M-2 | IBM TotalStorage SAN Switch (4Gb, 16-port) |
| IBM 2026 Model 32E | | IBM TotalStorage SAN Switch HVEC Model (4Gb, 32-port) |
| IBM 2026 Model 432 | SAN432M-2 | IBM TotalStorage SAN Switch (4Gb, 32-port) |
| IBM 2026 Model 224 | P/N 2026224 | IBM TotalStorage SAN24M-1 (2Gb, 24-port) |
| IBM 2026 Model E12 | | IBM TotalStorage SAN12 (2 Gb, 12-port) |
| IBM 2027 Model 140 | P/N 2027140 | IBM TotalStorage SAN140M (2/4 Gb, 140-port) |
| IBM 2027 Model 232 | P/N 2027232 | IBM TotalStorage SAN32M-1 (2Gb, 32-port) |
| IBM 2027 Model 256 | SAN256M | IBM TotalStorage SAN256M (10Gb ISL capable, 2/4 GB 256 port) |
| IBM 2027 Model R04 | SAN04M-R | IBM SAN router 4 ports (iFCP x2 and iSCSI x2) |
| IBM 2027 Model R16 | SAN16M-R | IBM SAN Router 12 + 4 ports |

| Product | IBM Machine Type and Model or Part Number | Description |
|-------------------------|-------------------------------------------|----------------------------------------------------------|
| IBM 2045 Model N16 | P/N 2045N16 | IBM TotalStorage SAN256N (2Gb, 256-port) |
| IBM 2109 Model A16 | P/N 2109A16 | IBM TotalStorage SAN Switch (2Gb, 16-port, 1GbE 2 Ports) |
| IBM 2109 Model F16 | P/N 2109F16 | IBM TotalStorage SAN Switch F16 (2Gb, 16-port) |
| IBM 2109 Model F32 | P/N 2109F32 | IBM TotalStorage SAN Switch F32 (2Gb, 32-port) |
| IBM 2109 Model M12 | P/N 2109M12 | IBM TotalStorage SAN Switch M12 (2Gb, 64-port) |
| IBM 2109 Model M14 | P/N 2109M14 | IBM TotalStorage SAN Switch M14 (2Gb, 128-port) |
| IBM 2109 Model M48 | P/N 2109M48 | IBM TotalStorage SAN Switch M48 (4Gb, 256 port) |
| IBM 2109 Model S08 | P/N 2109S08 | IBM TotalStorage SAN Switch S08 (1Gb, 8-port) |
| IBM 2109 Model S16 | P/N 2109S16 | IBM TotalStorage SAN Switch S16 (1Gb, 16-port) |
| IBM 3534 Model F08 | P/N 3534F08 | IBM TotalStorage SAN Switch F08 (2Gb, 8-port) |
| IBM eServer BladeCenter | P/N 48P7062 | BladeCenter 2 Pt Fibre Channel Switch Module |
| IBM eServer BladeCenter | P/N 02R9080 | BladeCenter HS20 Optical Pass Thru Module |
| IBM eServer BladeCenter | P/N 90P0165 | BladeCenter Internal Brocade Switch |
| McDATA ED-5000 | IBM 2032 Model 001 | McDATA ED-5000 Fibre Channel Director |
| McDATA ES-3016 | IBM 2031 Model 016 | McDATA ES-3016 Fabric Switch (1Gb, 16-port) |
| McDATA ES-3032 | IBM 2031 Model 032 | McDATA ES-3016 Fabric Switch (1Gb, 32-port) |
| McDATA Intrepid 6064 | IBM 2032 Model 064 | McDATA Intrepid 6064 Director (2Gb, 64-port) |
| McDATA Intrepid 6140 | IBM 2032 Model 140 | McDATA Intrepid 6140 Director (2Gb, 140-port) |
| McDATA Sphereon 3216 | IBM 2031 Model 216 | McDATA Sphereon 3216 Fabric Switch (2Gb, 16-port) |
| McDATA Sphereon 3232 | IBM 2031 Model 232 | McDATA Sphereon 3232 Fabric Switch (2Gb, 32-port) |
| McDATA Sphereon 4300 | IBM 2034 Model 212 | McDATA Sphereon 4300 Fabric Switch (2Gb, 12-port) |
| McDATA Sphereon 4500 | IBM 2031 Model 224 | McDATA Sphereon 4500 Fabric Switch (2Gb, 24-port) |

APPENDIX D: REVISION HISTORY

February 6, 2008

Unless stated otherwise, these items are recommended with DS8000 LMC level 5.3.0xx.xx, bundle version 63.0.xx.xx, or later

Operating Systems, Path Management, and Clustering

- System z zLinux Red Hat RHEL 5.1 with FICON support
- VMware ESX 3i

SAN Fabric Support

- 2005 Model B5K, R18 (Fujitsu, Hewlett-Packard HP-UX, IBM System i, IBM Cluster 1600, IBM System p, IBM System z, Linux, Sun, and Windows)

Servers

- BladeCenter JS22
 - AIX 5.2 ML10, AIX 5.3 ML6, AIX 6.1 SP2, Linux SLES 10 sp1, Red Hat 4.5, 4.6 and 5.1
- 7998

December 10, 2007

Unless stated otherwise, these items are recommended with DS8000 LMC level 5.3.0xx.xx, bundle version 63.0.xx.xx, or later

Operating Systems, Path Management, and Clustering

- AIX 6.1 SP2 (IBM System p)
- AIX 6.1 SP2 with HACMP 5.4.1 (IBM System p)
- AIX 6.1 SP2 with CSM 1.7.0.1 (IBM System p)
- DS CLI available for VMware 3.n.n.
- IBM System z – z//OS Version 1 Release 9 (ESCON and FICON)
- Red Hat RHEL 4.6 (IBM System i, IBM System p, X86, EM64T, IA64, and AMD64 servers)
- Red Hat RHEL 5.1 (IBM System i, IBM System p, X86, EM64T, IA64, and AMD64 servers)
- VMware ESX 3.5

Servers

- BladeCenter HS21 XM (Linux, NetWare, VMware)
 - 7995
- Windows HP ProLiant 64-bit BL 460c, 465c, 480c

September 14, 2007

Unless stated otherwise, these items are recommended with DS8000 LMC bundle version 62.42.xx.x or later.

Operating Systems, Path Management, and Clustering

- i5/OS V5R4 M5
- VMWare ESX 3.0.2
- zLinux Red Hat RHEL 4.5 for ESCON, FICON, & FCP
- zLinux SLES 10 SP 1 for FCP

SAN Fabric Support

- BladeCenter 39Y9208
- BladeCenter 43W6723 with NPIV for Linux Red Hat RHEL 4, Novell SLES 9 and Windows 2003

SAN Fabric Support

- Cisco MDS 9134 (Fujitsu, Hewlett-Packard HP-UX, IBM System i, IBM Cluster 1600, IBM System p, IBM System z, Linux, N Series, NetWare, Sun, VMware, and Windows)
- Cisco MDS 9222i (Fujitsu, Hewlett-Packard HP-UX, IBM System i, IBM Cluster 1600, IBM System p, IBM System z, Linux, N Series, NetWare, Sun, VMware, and Windows)
- IBM 2005 Model B32 and B64 (IBM System z)

Host Adapters

- BladeCenter Emulex 43W6859 (Linux, NetWare, VMware)

Servers

- System I (POWER6) 570 (9406-MMA)
- HP Blades BL465c, BL685c with Microsoft Windows 2003

Host Adapters

- IBM BladeCenter 41Y8527 for Windows, Linux and VMWare
- QLA2460 / QLA2462 for VMWare ESX 3.0 and above
- QLE2460 / QLE2462 for VMWare ESX 3.0 and above
- LP11000 / LP11002 for VMWare ESX 3.0 and above
- LPE11000 / LPE11002 for VMWare ESX 3.0 and above

June 29, 2007

Unless stated otherwise, these items are recommended with DS8000 LMC bundle version 62.42.xx.x

Operating Systems, Path Management, and Clustering

- HP-UX 11iv3 (11.31) with MC/Serviceguard 11.17
- HP-UX 11iv3 native Multi-path
- z/VM Version 5 Release 3
- AIX 5.2 ML10 and AIX 5.3 ML6
- SUN Solaris 10 u3
- Sun Clustering 3.2
- Linux Red Hat RHEL 4.5 for System p/i/x
- Linux Red Hat RHEL 5 for System p and i
- Linux Novell SLES 10 SP1 for System p/i/x
- SFRAC 5.0 for AIX 5.2 & 5.3
- HP TRU64 5.1B4

SAN Fabric Support

- BladeCenter 39Y9284
- BladeCenter 39Y9280

Servers

- X Series Servers 3105, 3200, 3250, 3400, 3455, 3500, 3550, 3650, 3655, 3755
- System p (POWER6) p570 (9117-MMA)
- N5600 G10 (2868-G10)
- N5600 G20 (2868-G20)
- N5300 G10 (2869-G10)
- N5300 G20 (2869-G20)

Host Adapters

- FC 5773
- FC 5774
- IBM BladeCenter 39Y9306

April 30, 2007

Unless stated otherwise, these items require DS8000 LMC level 5.2.410.xx (bundle version 6.2.410.xx), or later.

Systems, Path Management, and Clustering

- Microsoft Windows 2003 SP2
- z/Linux SLES 10 with ESCON AND FICON
- GPFS 3.1 with AIX 5.2 AND 5.3 for System p
- SUN Solaris 8 and 9 MPxIO 4.4.2 thru 4.4.11 levels
- SUN Solaris 10 MPxIO driver support within OS bundle
- SAN boot support for System i added to Table 1
- Footnote for 2027 R04 & R16 - both require direct attach support only for Remote mirror and copy services

Fabric Support

- IBM 2026 Model 12E for HP-UX, System i, System p, Sun, Windows, Linux, Netware, and Fujitsu Primepower

Servers

- Opteron Servers x4600, V20z & V40z with Solaris 10

March 16, 2007

Unless stated otherwise, these items require DS8000 LMC level 5.2.410.xx (bundle version 6.2.410.xx), or later.

Operating Systems, Path Management, and Clustering

- Red Hat Enterprise Linux 5.0
- DMM Support for Red Hat Enterprise Linux 5 and 4.4
- DMM Support for SuSE SLES 9 sp3
- DSCLI Support for Red Hat Enterprise Linux 5, 4.4,
- DSCLI Support for SuSE SLES 9, and SLES 10
- HP Open VMS Operating System 8.2 for Alpha Servers
- HP Open VMS Operating System 8.2.1 for itanium Servers
- z/VSE Version 4 Release 1 for ESCON, FICON AND FCP
- Veritas Volume Manager 5.0 and Cluster Server 5.0 for Microsoft Windows 2003 with SDD DSM and DMP support
- Veritas Volume Manger and Cluster Server 5.0 for RHEL 3.0 and SLES 9 on P5 LoP
- Solaris 9 & 10 Veritas Volume Manager 4.1 SDD coexistence
- SDD Support for Solaris 10 with Opteron x64 Servers

Fabric Support

- Cisco ONS 15454
- Cisco MDS 9124 for HP-UX, System i & p, Sun, Windows, Linux, Netware, and Fujitsu Primepower

Servers

- Opteron Servers 4100 & 4200 with Solaris 10
- Hewlett Packard RX7620 itanium Server
- VMware support for x64 and AMD64 based Servers

Host Adapters

- Hewlett Packard AB378 and AB379 for HP UX
- Hewlett Packard FC2684 for HP Open VMS Alpha
- FC0611 and FC5759 for System I support