



**Cisco MDS 9506, 9509, 9513, 9216i, 9222i, 9148, 9134, and 9124 for IBM System Storage™ Directors and Switches**

# Interoperability Matrix

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## What has changed?

1. Updated NX-OS support with 5.0(1a)
2. Updated NX-OS support with 4.2(7)
3. Updated Fabric Manager support with 5.0(1a)
4. Updated Cisco MDS 9148 support with 5.0(1a)
5. Updated BladeCenter Qlogic 8Gb IPM support with 4.2(5)
6. NX-OS support for 5.0(1a) will include p7 support for both System i and p.

## Notes:

1. The **MDS 9506/9509/9513** Multilayer Directors and **MDS 9216i/9222i/9124/9134** Fabric Switches **latest firmware level is 4.2(7)**. The latest *FICON* or *Intermix fabrics* **firmware level is 4.2(1b)**. SAN-OS Release notes are found [http://www.cisco.com/en/US/products/ps5989/prod\\_release\\_notes\\_list.html](http://www.cisco.com/en/US/products/ps5989/prod_release_notes_list.html)
2. Installation and upgrade information: [http://www.cisco.com/en/US/products/hw/ps4159/ps4358/prod\\_installation\\_guides\\_list.html](http://www.cisco.com/en/US/products/hw/ps4159/ps4358/prod_installation_guides_list.html)
3. Product datasheets: [http://www.cisco.com/en/US/products/hw/ps4159/ps4358/products\\_data\\_sheets\\_list.html](http://www.cisco.com/en/US/products/hw/ps4159/ps4358/products_data_sheets_list.html)
4. Configuration Guides: [http://www.cisco.com/en/US/products/ps5989/products\\_installation\\_and\\_configuration\\_guides\\_list.html](http://www.cisco.com/en/US/products/ps5989/products_installation_and_configuration_guides_list.html)
5. Maximum ISLs (physical hops): 7 (maximum 1 Longwave ISL)
6. Blade module information: [http://www.cisco.com/en/US/products/ps5991/prod\\_models\\_home.html](http://www.cisco.com/en/US/products/ps5991/prod_models_home.html)
7. Technical support on **SAN Volume Controller (SVC)** can be found at: <http://www-03.ibm.com/systems/storage/software/virtualization/svc/index.html>
8. This SAN product line can not attach to public telecom networks and is not intended to attach to public telecom networks
9. **Note** - Customers that **do not** require an upgrade to NX-OS 4.2(5), but require field updates, may install SAN-OS 3.3(5). **FICON** customers that **do not** require an upgrade to NX-OS 4.2(1b), but require field updates may install SAN-OS 3.3(1c)
10. The MDS 9216, 9216A and Supervisor-1 are not NX-OS compatible. SAN-OS 3.3.5 must be used.
11. Please note limited support claims on the p7 for system p

# ESS Connectivity

1. Please see **IBM TotalStorage Enterprise Storage Server [Interoperability Matrix](#)** for Licensed Internal Code (LIC) level.
2. For **PPRC** FC Direct, FC-CWDM and FCIP support see table 4 of **ESS Interoperability Matrix**.

## IBM [System z](#) Models

Description	Operating Systems	Additional Information
<b>IBM TotalStorage <a href="#">Enterprise Storage Servers</a></b> <b>IBM 2105 Model</b> <ul style="list-style-type: none"> <li>• 750</li> <li>• 800</li> <li>• F10/F20</li> </ul>	IBM z/OS level 1.4.1 or later	Available <sup>1</sup>  <b>Cascading:</b> Maximum of 1 hop (Inter Switch Links) is supported.  Taking the <b>CUP</b> off-line prior to a concurrent software update.  <b>zSeries <a href="#">I/O Connectivity</a></b>

## IBM [System z](#)

Description	Operating Systems	Additional Information
<b>IBM TotalStorage Enterprise Storage Servers</b> <b>IBM 2105 Model</b> <ul style="list-style-type: none"> <li>• 750</li> <li>• 800</li> <li>• F10/F20</li> </ul>	UnitedLinux (FCP) SLES (FCP) RedHat EL (FCP)	Available.

<sup>1</sup> When the Cisco switch is to be used in a FICON/Open intermixed environment, the user should manage the fabric from the Cisco Device and Fabric Managers. Disable host port control with the following procedure.

From the switch Device Manager Window:

1. Go to FICON ->
2. Select VSANs ->
3. Find "Port Control by", then Uncheck the left hand side box labeled "Host"

The user still has the capability of using IBM's SA OS/390 application for viewing the FICON related portions of the fabric.

It is recommended that network-admin privilege be strictly controlled.

### IBM [System p](#) Servers

Description	Operating Systems	Additional Information
<b>IBM TotalStorage <a href="#">Enterprise Storage Servers</a></b> <b>IBM 2105 Model</b> <ul style="list-style-type: none"> <li>• 750</li> <li>• 800</li> <li>• F10/F20</li> </ul>	<b>AIX 5L</b>  <b>HACMP</b>	Available.  <b>IBM TotalStorage Enterprise Storage Server <a href="#">Interoperability Matrix</a></b>
	<b>Linux</b> <ul style="list-style-type: none"> <li>• SuSE Linux Enterprise Server</li> <li>• Red Hat Enterprise Linux</li> </ul>	Available.

### IBM [System i](#) Servers

Description	Platform/Operating Systems	Additional Information
<b>IBM TotalStorage <a href="#">Enterprise Storage Servers</a></b> <b>IBM 2105 Model</b> <ul style="list-style-type: none"> <li>• 750</li> <li>• 800</li> <li>• F10/F20</li> </ul>	<b>OS/400</b> <b>Linux</b>	Available.  <b>IBM TotalStorage Enterprise Storage Server <a href="#">Interoperability Matrix</a></b>  <b>System i SAN <a href="#">information</a></b>

**IBM [System x](#) and other Intel-based Servers**

Description	Operating Systems	Additional Information
<b>IBM TotalStorage <a href="#">Enterprise Storage Servers</a></b>  <b>IBM 2105 Model</b> <ul style="list-style-type: none"> <li>• 750</li> <li>• 800</li> <li>• F10/F20</li> </ul>	<b>Microsoft Windows</b>	Available.  <b>IBM TotalStorage Enterprise Storage Server <a href="#">Interoperability Matrix</a></b>  <b>IBM Server Proven <a href="#">Interoperability matrix</a></b>
	<b>Novell Netware</b>	Available.
	<b>Red Hat Enterprise Linux</b>  <b>SuSE Linux Enterprise Server (SLES)</b>  <b>UnitedLinux</b>	Available.

### SUN Microsystems Servers

Description	Operating Systems	Additional Information
<p>IBM TotalStorage <a href="#">Enterprise Storage Servers</a></p> <p>IBM 2105 Model</p> <ul style="list-style-type: none"> <li>• 750</li> <li>• 800</li> <li>• F10/F20</li> </ul>	Solaris	<p>Available.</p> <p>IBM TotalStorage Enterprise Storage Server <a href="#">Interoperability Matrix</a></p>

### Hewlett-Packard Servers – HP- UX

Description	Operating Systems	Additional Information
<p>IBM TotalStorage <a href="#">Enterprise Storage Servers</a></p> <p>IBM 2105 Model</p> <ul style="list-style-type: none"> <li>• 750</li> <li>• 800</li> <li>• F10/F20</li> </ul>	HP-UX	<p>Available.</p> <p>IBM TotalStorage Enterprise Storage Server <a href="#">Interoperability Matrix</a></p>

## DS8000 Connectivity

Please see **IBM TotalStorage DS 8000 [Interoperability Matrix](#)**

1. For Licensed Internal Code (LIC) level.
2. For **PPRC** FC Direct, FC-CWDM and FCIP support see table 4 of DS8000 **Interoperability Matrix**.

### IBM [System z](#)

Description	Operating Systems	Additional Information
<b>IBM TotalStorage <a href="#">DS 8000 Series</a></b> <b>IBM Model</b> <ul style="list-style-type: none"> <li>• 8100 Model 921</li> <li>• 8300 Model 922</li> <li>• 8300 Model 9A2</li> <li>• 8700 Model 941</li> </ul>	<b>IBM z/OS level 1.4.1 or later</b>	Available <sup>2</sup>  <b>Cascading:</b> Maximum of 1 hop (Inter Switch Links) is supported.  Taking the <b>CUP</b> off-line prior to a concurrent software update.  <b>zSeries <a href="#">I/O Connectivity</a></b>

### IBM [System z](#)

Description	Operating Systems	Additional Information
<b>IBM TotalStorage <a href="#">DS 8000 Series</a></b> <b>IBM Model</b> <ul style="list-style-type: none"> <li>• 8100 Model 921</li> <li>• 8300 Model 922</li> <li>• 8300 Model 9A2</li> <li>• 8700 Model 941</li> </ul>	<b>UnitedLinux (FCP)</b> <b>SLES (FCP)</b> <b>RedHat EL (FCP)</b>	Available.

<sup>2</sup> When the Cisco switch is to be used in a FICON/Open intermixed environment, the user should manage the fabric from the Cisco Device and Fabric Managers. Disable host port control with the following procedure.

From the switch Device Manager Window:

1. Go to FICON ->
2. Select VSANs ->
3. Find "Port Control by", then Uncheck the left hand side box labeled "Host"

The user still has the capability of using IBM's SA OS/390 application for viewing the FICON related portions of the fabric.

It is recommended that network-admin privilege be strictly controlled.



### IBM [System p5](#) Servers

Description	Operating Systems	Additional Information
<b>IBM TotalStorage <a href="#">DS 8000 Series</a></b> <b>IBM Model</b> <ul style="list-style-type: none"> <li>• 8100 Model 921</li> <li>• 8300 Model 922</li> <li>• 8300 Model 9A2</li> <li>• 8700 Model 941</li> </ul>	AIX  HACMP	Available.  <b>IBM TotalStorage DS 8000 <a href="#">Interoperability Matrix</a></b>
	RHELppc SUSEppc	Available.

### IBM [System p6](#) Servers

Description	Operating Systems	Additional Information
<b>IBM TotalStorage <a href="#">DS 8000 Series</a></b> <b>IBM Model</b> <ul style="list-style-type: none"> <li>• 8100 Model 921</li> <li>• 8300 Model 922</li> <li>• 8300 Model 9A2</li> <li>• 8700 Model 941</li> </ul>	AIX  HACMP	Available.  <b>IBM TotalStorage DS 8000 <a href="#">Interoperability Matrix</a></b>
	RHELppc SUSEppc	Available.

### IBM [System p7](#) Servers

Description	Operating Systems	Additional Information
<b>IBM TotalStorage <a href="#">DS 8000 Series</a></b> <b>IBM Model</b> <ul style="list-style-type: none"> <li>• 8100 Model 921</li> <li>• 8300 Model 922</li> <li>• 8300 Model 9A2</li> <li>• 8700 Model 941</li> </ul>	AIX 5.3 ML 12 (p7) AIX 6.1 ML 5 (p7)	Available.  <b>IBM TotalStorage DS 8000 <a href="#">Interoperability Matrix</a></b>
	RHEL 5.5 (pLinux) (p7) SLES 11	Available.

## IBM [System i](#) Servers

Description	Platform/Operating Systems	Additional Information
<b>IBM TotalStorage <a href="#">DS 8000 Series</a></b> <b>IBM Model</b> <ul style="list-style-type: none"><li>• 8100 Model 921</li><li>• 8300 Model 922</li><li>• 8300 Model 9A2</li><li>• 8700 Model 941</li></ul>	<b>IBM System i Models</b>  <b>OS/400</b> i5/OS V6R1M1	Available.  <b>IBM TotalStorage DS 8000 <a href="#">Interoperability Matrix</a></b>  <b>System i SAN <a href="#">information</a></b>

**IBM [System x](#), and other Intel-based Servers**

Description	Operating Systems	Additional Information
<b>IBM TotalStorage <a href="#">DS 8000 Series</a></b> <b>IBM Model</b> <ul style="list-style-type: none"> <li>• 8100 Model 921</li> <li>• 8300 Model 922</li> <li>• 8300 Model 9A2</li> <li>• 8700 Model 941</li> </ul>	<b>Microsoft Windows</b>	Available.  <b>IBM TotalStorage DS 8000 <a href="#">Interoperability Matrix</a></b>  <b>IBM Server Proven <a href="#">Interoperability matrix</a></b>
	<b>Novell Netware</b>	Available.
	<b>Red Hat Enterprise Linux</b>  <b>SuSE Linux Enterprise Server (SLES)</b>  <b>UnitedLinux</b>	Available.

### SUN Microsystems Servers

Description	Operating Systems	Additional Information
<p><b>IBM TotalStorage <a href="#">DS 8000 Series</a></b>  <b>IBM Model</b></p> <ul style="list-style-type: none"> <li>• 8100 Model 921</li> <li>• 8300 Model 922</li> <li>• 8300 Model 9A2</li> <li>• 8700 Model 941</li> </ul>	Solaris	<p>Available.</p> <p><b>IBM TotalStorage DS 8000 <a href="#">Interoperability Matrix</a></b></p>

### Hewlett-Packard Servers – HP- UX

Description	Operating Systems	Additional Information
<p><b>IBM TotalStorage <a href="#">DS 8000 Series</a></b>  <b>IBM Model</b></p> <ul style="list-style-type: none"> <li>• 8100 Model 921</li> <li>• 8300 Model 922</li> <li>• 8300 Model 9A2</li> <li>• 8700 Model 941</li> </ul>	HP-UX	<p>Available.</p> <p><b>IBM TotalStorage DS 8000 <a href="#">Interoperability Matrix</a></b></p>

## DS6000 Connectivity

Please see **IBM TotalStorage DS 6000 [Interoperability Matrix](#)**

3. For Licensed Internal Code (LIC) level.

4. For **PPRC** FC Direct, FC-CWDM and FCIP support see table 4 of DS6000 **Interoperability Matrix**.

### IBM [System z](#) Models

Description	Operating Systems	Additional Information
<b>IBM TotalStorage <a href="#">DS 6000 Series</a></b> <b>IBM 1750 Model</b> <ul style="list-style-type: none"> <li>DS 6800</li> </ul>	IBM z/OS level 1.4.1 or later	Available <sup>3</sup>  <b>Cascading:</b> Maximum of 1 hop (Inter Switch Links) is supported.  Taking the <b>CUP</b> off-line prior to a concurrent software update.  <b>zSeries <a href="#">I/O Connectivity</a></b>

### IBM [System z](#)

Description	Operating Systems	Additional Information
<b>IBM TotalStorage <a href="#">DS 6000 Series</a></b> <b>IBM 1750 Model</b> <ul style="list-style-type: none"> <li>DS 6800</li> </ul>	UnitedLinux (FCP) <sup>4</sup>	Available.

<sup>3</sup> When the Cisco switch is to be used in a FICON/Open intermixed environment, the user should manage the fabric from the Cisco Device and Fabric Managers. Disable host port control with the following procedure.

From the switch Device Manager Window:

1. Go to FICON ->
2. Select VSANs ->
3. Find "Port Control by", then Uncheck the left hand side box labelled "Host"

The user still has the capability of using IBM's SA OS/390 application for viewing the FICON related portions of the fabric.

It is recommended that network-admin privilege be strictly controlled.

<sup>4</sup> SLES 8 for IBM zSeries 32-bit and 64-bit Server

### IBM [System p5](#) Servers

Description	Operating Systems	Additional Information
<b>IBM TotalStorage <a href="#">DS 6000 Series</a></b> <b>IBM 1750 Model</b> <ul style="list-style-type: none"> <li>• DS 6800</li> </ul>	<b>AIX 5L</b>  <b>HACMP</b>	Available.  <b>IBM TotalStorage DS 6000 <a href="#">Interoperability Matrix</a></b>
	<b>Linux</b>	Available.

### IBM [System p6](#) Servers

Description	Operating Systems	Additional Information
<b>IBM TotalStorage <a href="#">DS 6000 Series</a></b> <b>IBM 1750 Model</b> <ul style="list-style-type: none"> <li>• DS 6800</li> </ul>	<b>AIX 5L</b>  <b>HACMP</b>	Available.  <b>IBM TotalStorage DS 6000 <a href="#">Interoperability Matrix</a></b>
	<b>Linux</b>	Available.

### IBM [System p7](#) Servers

Description	Operating Systems	Additional Information
<b>IBM TotalStorage <a href="#">DS 6000 Series</a></b> <b>IBM 1750 Model</b> <ul style="list-style-type: none"> <li>• DS 6800</li> </ul>	AIX 5.3 ML 12 (p7) AIX 6.1 ML 5 (p7)	Available.  <b>IBM TotalStorage DS 6000 <a href="#">Interoperability Matrix</a></b>
	RHEL 5.5 (pLinux) (p7) SLES 11	Available.

## IBM [System i](#) Servers

Description	Platform/Operating Systems	Additional Information
<b>IBM TotalStorage <a href="#">DS 6000 Series</a></b> <b>IBM 1750 Model</b> <ul style="list-style-type: none"><li>• DS 6800</li></ul>	i5/OS V6R1M1 <b>Linux</b>	Available.  <b>IBM TotalStorage DS 6000 <a href="#">Interoperability Matrix</a></b>  <b>System i SAN <a href="#">information</a></b>

**IBM [System x](#) and other Intel-based Servers**

Description	Operating Systems	Additional Information
<b>IBM TotalStorage <a href="#">DS 6000 Series</a></b> <b>IBM 1750 Model</b> <ul style="list-style-type: none"> <li>• DS 6800</li> </ul>	<b>Microsoft Windows</b>	Available.  <b>IBM TotalStorage DS 6000 <a href="#">Interoperability Matrix</a></b>  <b>IBM Server Proven <a href="#">Interoperability matrix</a></b>
	<b>Novell Netware</b>	Available.
	<b>Red Hat Enterprise Linux</b>  <b>SuSE Linux Enterprise Server (SLES)</b>  <b>UnitedLinux</b>	Available.



### SUN Microsystems Servers

Description	Operating Systems	Additional Information
<b>IBM TotalStorage <a href="#">DS 6000 Series</a></b> <b>IBM 1750 Model</b> <ul style="list-style-type: none"> <li>• DS 6800</li> </ul>	Solaris	Available.  <b>IBM TotalStorage DS 6000 <a href="#">Interoperability Matrix</a></b>

### Hewlett-Packard Servers – HP- UX

Description	Operating Systems	Additional Information
<b>IBM TotalStorage <a href="#">DS 6000 Series</a></b> <b>IBM 1750 Model</b> <ul style="list-style-type: none"> <li>• DS 6800</li> </ul>	HP-UX	Available.  <b>IBM TotalStorage DS 6000 <a href="#">Interoperability Matrix</a></b>

## DS4000 Connectivity

For the most current supported **HACMP**, **PSSP**, **GPFS/RVSD** configurations see the important notices and Readme files posted on each DS4000 product website.

### IBM [System p5](#)

Description	Operating Systems	Additional Information
<b>IBM TotalStorage Storage Servers</b> <ul style="list-style-type: none"> <li>• <a href="#">DS4800</a></li> <li>• <a href="#">DS4700</a></li> <li>• <a href="#">DS4500</a></li> <li>• <a href="#">DS4400</a></li> <li>• <a href="#">DS4300</a></li> <li>• Dual Controller</li> <li>• Turbo</li> <li>• <a href="#">DS4200</a></li> <li>• <a href="#">DS4100</a></li> </ul>	<b>AIX 5L</b>  <b>HACMP, PSSP (see note #0 page 17)</b>	Available.  <b>IBM TotalStorage DS 4000 Storage <a href="#">Interoperability matrix</a></b>  <b>IBM Server Proven <a href="#">Interoperability matrix</a></b>
	<b>Red Hat Enterprise Linux PPC</b>  <b>SuSE Linux Enterprise Server (SLES) PPC</b>	Available.

### IBM [System p6](#)

Description	Operating Systems	Additional Information
<b>IBM TotalStorage Storage Servers</b> <ul style="list-style-type: none"> <li>• <a href="#">DS4800</a></li> <li>• <a href="#">DS4700</a></li> <li>• <a href="#">DS4500</a></li> <li>• <a href="#">DS4400</a></li> <li>• <a href="#">DS4300</a></li> <li>• Dual Controller</li> <li>• Turbo</li> <li>• <a href="#">DS4200</a></li> <li>• <a href="#">DS4100</a></li> </ul>	<b>AIX 5L</b>  <b>HACMP, PSSP (see note #0 page 17)</b>	Available.  <b>IBM TotalStorage DS 4000 Storage <a href="#">Interoperability matrix</a></b>  <b>IBM Server Proven <a href="#">Interoperability matrix</a></b>
	<b>Red Hat Enterprise Linux PPC</b>  <b>SuSE Linux Enterprise Server (SLES) PPC</b>	Available.

**IBM [System p7](#)**

Description	Operating Systems	Additional Information
<b>IBM TotalStorage Storage Servers</b> <ul style="list-style-type: none"> <li>• <a href="#">DS4800</a></li> <li>• <a href="#">DS4700</a></li> <li>• <a href="#">DS4500</a></li> <li>• <a href="#">DS4400</a></li> <li>• <a href="#">DS4300</a></li> <li>• Dual Controller</li> <li>• Turbo</li> </ul>	AIX 5.3 ML 12 (p7) AIX 6.1 ML 5 (p7)	Available.  <b>IBM TotalStorage DS 4000 Storage</b> <a href="#">Interoperability matrix</a>  <b>IBM Server Proven</b> <a href="#">Interoperability matrix</a>
<ul style="list-style-type: none"> <li>• <a href="#">DS4200</a></li> <li>• <a href="#">DS4100</a></li> </ul>	No Linux Support	Available.

**IBM [System x](#) and other Intel-based Servers**

Description	Operating Systems	Additional Information
<b>IBM TotalStorage Storage Servers</b> <ul style="list-style-type: none"> <li>• <a href="#">DS4800</a></li> <li>• <a href="#">DS4700</a></li> <li>• <a href="#">DS4500</a></li> <li>• <a href="#">DS4400</a></li> <li>• <a href="#">DS4300</a> <ul style="list-style-type: none"> <li>• Dual Controller</li> <li>• Turbo</li> </ul> </li> <li>• <a href="#">DS4200</a></li> <li>• <a href="#">DS4100</a></li> </ul>	<b>Microsoft Windows</b>	Available.  <b>IBM TotalStorage DS 4000 Storage</b> <a href="#">Interoperability matrix</a>  <b>IBM Server Proven</b> <a href="#">Interoperability matrix</a>
	<b>Novell Netware</b>	Available.
	<b>Red Hat Enterprise Linux</b>	Available.
	<b>SuSE Linux Enterprise Server (SLES)</b>  UnitedLinux	Available.

## SUN Microsystems Servers

Description	Operating Systems	Additional Information
<p><b>IBM TotalStorage Storage Servers</b></p> <ul style="list-style-type: none"> <li>• <a href="#">DS4800</a></li> <li>• <a href="#">DS4700</a></li> <li>• <a href="#">DS4500</a></li> <li>• <a href="#">DS4400</a></li> <li>• <a href="#">DS4300</a></li> <li>• Dual Controller</li> <li>• Turbo</li> <li>• <a href="#">DS4200</a></li> <li>• <a href="#">DS4100</a></li> </ul>	Solaris	<p>Available.</p> <p><b>IBM TotalStorage DS 4000 Storage</b> <a href="#">Interoperability matrix</a></p> <p><b>IBM Server Proven</b> <a href="#">Interoperability matrix</a></p>

## Hewlett-Packard Servers – HP- UX

Description	Operating Systems	Additional Information
<p><b>IBM TotalStorage Storage Servers</b></p> <ul style="list-style-type: none"> <li>• <a href="#">DS4800</a></li> <li>• <a href="#">DS4700</a></li> <li>• <a href="#">DS4500</a></li> <li>• <a href="#">DS4400</a></li> <li>• <a href="#">DS4300</a></li> <li>• Dual Controller</li> <li>• Turbo</li> <li>• <a href="#">DS4200</a></li> <li>• <a href="#">DS4100</a></li> </ul>	HP-UX	<p>Available.</p> <p><b>IBM TotalStorage DS 4000 Storage</b> <a href="#">Interoperability matrix</a></p> <p><b>IBM Server Proven</b> <a href="#">Interoperability matrix</a></p>

## DS5000 Connectivity

For the most current supported **HACMP**, **PSSP**, **GPFS/RVSD** configurations see the important notices and Readme files posted on each DS4000 product website.

### IBM [System p5](#)

Description	Operating Systems	Additional Information
<b>IBM TotalStorage Storage Servers</b> <ul style="list-style-type: none"> <li>• <a href="#">DS5100</a></li> <li>• <a href="#">DS5300</a></li> </ul>	<b>AIX</b>  <b>HACMP, PSSP (see note #0 page 17)</b>	Available.  <b>ADD DS5k Interop Matrix</b>
	<b>Linux</b> <b>RHELppc</b> <b>SUSEppc</b>	Available.

### IBM [System p6](#)

Description	Operating Systems	Additional Information
<b>IBM TotalStorage Storage Servers</b> <ul style="list-style-type: none"> <li>• <a href="#">DS5100</a></li> <li>• <a href="#">DS5300</a></li> </ul>	<b>AIX</b>  <b>HACMP, PSSP (see note #0 page 17)</b>	Available.  <b>ADD DS5k Interop Matrix</b>
	<b>Linux</b> <b>RHELppc</b> <b>SUSEppc</b>	Available.

### IBM [System p7](#)

Description	Operating Systems	Additional Information
<b>IBM TotalStorage Storage Servers</b> <ul style="list-style-type: none"> <li>• <a href="#">DS5100</a></li> <li>• <a href="#">DS5300</a></li> </ul>	<b>AIX 5.3 ML 12 (p7)</b> <b>AIX 6.1 ML 5 (p7)</b>	Available.  <b>ADD DS5k Interop Matrix</b>
	No Linux Support	Available.

### IBM [System x](#) and other Intel-based Servers

Description	Operating Systems	Additional Information
<b>IBM TotalStorage Storage Servers</b> <ul style="list-style-type: none"> <li>• <a href="#">DS5100</a></li> <li>• <a href="#">DS5300</a></li> </ul>	Microsoft Windows	Available.  <b>IBM TotalStorage DS 4000 Storage</b> <a href="#">Interoperability matrix</a>  <b>IBM Server Proven</b> <a href="#">Interoperability matrix</a>
	Novell Netware	Available.
	Red Hat Enterprise Linux  United Linux	Available.

### SUN Microsystems Servers

Description	Operating Systems	Additional Information
<b>IBM TotalStorage Storage Servers</b> <ul style="list-style-type: none"> <li>• <a href="#">DS5100</a></li> <li>• <a href="#">DS5300</a></li> </ul>	Solaris	Available.  <b>IBM TotalStorage DS 4000 Storage</b> <a href="#">Interoperability matrix</a>  <b>IBM Server Proven</b> <a href="#">Interoperability matrix</a>

### Hewlett-Packard Servers – HP- UX

Description	Operating Systems	Additional Information
<b>IBM TotalStorage Storage Servers</b> <ul style="list-style-type: none"> <li>• <a href="#">DS5100</a></li> <li>• <a href="#">DS5300</a></li> </ul>	HP-UX	Available.  <b>IBM TotalStorage DS 4000 Storage</b> <a href="#">Interoperability matrix</a>  <b>IBM Server Proven</b> <a href="#">Interoperability matrix</a>





## IBM XIV System Storage Connectivity

Please see IBM XIV System Storage [Interoperability Matrix](#)

### IBM [System z](#)

Description	Operating Systems	Additional Information
<b>IBM System Storage <a href="#">XIV</a></b> <b>IBM Model</b> <ul style="list-style-type: none"> <li>• XIV 2810</li> <li>• XIV 2812</li> </ul>	<b>IBM z/OS level 1.4.1 or later</b>	<b>Cascading:</b> Maximum of 1 hop (Inter Switch Links) is supported.  Taking the <b>CUP</b> off-line prior to a concurrent software update.  <b>zSeries <a href="#">I/O Connectivity</a></b>

### IBM [System z](#)

Description	Operating Systems	Additional Information
<b>IBM System Storage <a href="#">XIV</a></b> <b>IBM Model</b> <ul style="list-style-type: none"> <li>• XIV 2810</li> <li>• XIV 2812</li> </ul>	<b>UnitedLinux (FCP)</b> <b>SLES (FCP)</b> <b>RedHat EL (FCP)</b>	Available.

### IBM [System p5](#) Servers

Description	Operating Systems	Additional Information
<b>IBM System Storage <a href="#">XIV</a></b> <b>IBM Model</b> <ul style="list-style-type: none"> <li>• XIV 2810</li> <li>• XIV 2812</li> </ul>	<b>AIX 6.1 ML2</b> <b>AIX 5.3 ML 8</b>  <b>HACMP</b>	Available.  <b>IBM XIV System Storage <a href="#">Interoperability Matrix</a></b>
	<b>Linux</b>	Available.

### IBM [System p6](#) Servers

Description	Operating Systems	Additional Information
<b>IBM System Storage <a href="#">XIV</a></b> <b>IBM Model</b> <ul style="list-style-type: none"> <li>• XIV 2810</li> <li>• XIV 2812</li> </ul>	<b>AIX 5.3 ML 8</b> <b>AIX 6.1 ML2</b>  <b>HACMP</b>	Available.  <b>IBM XIV System Storage <a href="#">Interoperability Matrix</a></b>
	<b>Linux</b>	Available.

### IBM [System p7](#) Servers

Description	Operating Systems	Additional Information
<b>IBM System Storage <a href="#">XIV</a></b> <b>IBM Model</b> <ul style="list-style-type: none"> <li>• XIV 2810</li> <li>• XIV 2812</li> </ul>	<b>AIX 5.3 ML 12 (p7)</b> <b>AIX 6.1 ML 5 (p7)</b>	Available.  <b>IBM XIV System Storage <a href="#">Interoperability Matrix</a></b>
	<b>RHEL 5.5 (pLinux) (p7)</b> <b>SLES 11</b>	Available.

**IBM [System x](#), and other Intel-based Servers**

Description	Operating Systems	Additional Information
<b>IBM System Storage <a href="#">XIV</a></b> <b>IBM Model</b> <ul style="list-style-type: none"> <li>• XIV 2810</li> <li>• XIV 2812</li> </ul>	<b>Microsoft Windows 2000</b> <b>Microsoft Windows 2000 (64 bit)</b> <b>Microsoft Windows 2003</b> <b>Microsoft Windows 2003 (64 bit)</b>	Available.  <b>IBM XIV System Storage <a href="#">Interoperability Matrix</a></b>  <b>IBM Server Proven <a href="#">Interoperability matrix</a></b>
	<b>Novell Netware</b>	Available.
	<b>Red Hat Enterprise Linux</b>  <b>SuSE Linux Enterprise Server (SLES)</b>  <b>UnitedLinux</b>	Available.

## TAPE Connectivity

### IBM 9672 Enterprise G5, G6 and [System z](#)

Description	Operating Systems	Additional Information
<p><b>IBM TotalStorage Enterprise Tape Controller <a href="#">3592</a> Model J70, E06</b></p> <p><b>FICON Attachment Longwave:</b></p> <ul style="list-style-type: none"> <li>• FC-3434 (2 Gb)</li> </ul> <p><b>Shortwave:</b></p> <p>FC-3435 (2 Gb)</p> <p><b>IBM TotalStorage Enterprise Automated Tape Library 3494</b></p> <p><b>IBM TotalStorage Virtual Tape Server 3494-B10/B20</b> in Standalone or Peer to Peer configurations</p> <p><b>IBM TotalStorage Enterprise Tape Drive Frame 3590 Model A14</b></p> <p><b>IBM TotalStorage Silo Compatible Tape Drive Frame</b></p>	<p><b>IBM 9672 Enterprise G5 or G6 and zSeries Servers</b></p>	<p>Available.<sup>5</sup></p> <p><b>Cascading:</b> Maximum of 1 hop (Inter Switch Links) is supported.</p> <p>Taking the <b>CUP</b> off-line prior to a concurrent software update.</p>

<sup>5</sup> When the Cisco switch is to be used in a FICON/Open intermixed environment, the user should manage the fabric from the Cisco Device and Fabric Managers. Disable host port control with the following procedure.

From the switch Device Manager Window:

1. Go to FICON ->
2. Select VSANs ->
3. Find "Port Control by", then Uncheck the left hand side box labelled "Host"

The user still has the capability of using IBM's SA OS/390 application for viewing the FICON related portions of the fabric.

It is recommended that network-admin privilege be strictly controlled.

**IBM [System z](#)**

Description	Operating Systems	Additional Information
<p><b>Enterprise Tape System <a href="#">3592 J1A, E06</a></b> in a 3494 or 3584 Tape Library.</p> <p><b>Enterprise Tape System <a href="#">3590 E11/E1A and H11/H1A</a></b> with Native FC Tape Drives. Standalone or in a 3494 Tape Library.</p> <p><b>Enterprise Tape System <a href="#">TS1120</a></b> (3952 E05) tape drive.</p> <p><b>All 3494 rules apply.</b> i.e. ESCON/FICON owned drives cannot co-exist in the same frame as Open Systems drives.</p> <p><b><a href="#">TS3310</a></b> Tape Library with Native Ultrium 3 drives</p> <p><b>TS3400</b> Tape Library with TS1120 tape drives</p> <p><b>TS3500</b> Tape Library with LTO 4</p> <p><b>Ultrium <a href="#">3584 UltraScalable</a></b> Tape Library with Native FC Ultrium 2, 3, and 4 drives</p> <p><b>Ultrium <a href="#">3583 Scalable</a></b> Tape Library with Native FC Ultrium 2, 3, and 4 drives</p> <p><b>Ultrium <a href="#">3582</a></b> Tape Library with Native FC Ultrium 2, 3, and 4 drives</p> <p><b>Ultrium <a href="#">3581-2U</a></b> IBM LTO Tape Autoloader</p> <p><b>Virtualization Engine <a href="#">TS7510</a></b> and <b><a href="#">TS7520</a></b></p>	<p><b>SLES 8 for IBM zSeries 32-bit and 64-bit Server</b></p>	<p>Available.</p> <p><b>zSeries <a href="#">Support of Fibre Channel FCP Channels</a></b></p>

## IBM [System p](#) Servers

Description	Operating Systems	Additional Information
<b>Enterprise Tape System <a href="#">3592 J1A, E06</a></b> in a 3494 or 3584 Tape Library, rack mounted or Silo Compatible Frame.	AIX 5.3 ML 12 (p7) AIX 6.1 ML 5 (p7)	Available.  Please review <a href="#">RMSS Technical Support</a> Site.
<b>Enterprise Tape System <a href="#">3590 E11/E1A and H11/H1A</a></b> with Native FC Tape Drives. Standalone or in a 3494 Tape Library or Silo Compatible Frame.  <b>Enterprise Tape System <a href="#">TS1120</a></b> (3952 E05) tape drive.  <a href="#">TS3310</a> Tape Library with Native Ultrium 3 drives  <b>TS3400</b> Tape Library with TS1120 tape drives  <b>TS3500</b> Tape Library with LTO 4  <b>Ultrium <a href="#">3584 UltraScalable</a></b> Tape Library with Native FC Ultrium 2, 3, and 4 drives  <b>Ultrium <a href="#">3583 Scalable</a></b> Tape Library with Native FC Ultrium 2, 3, and 4 drives  <b>Ultrium <a href="#">3582</a></b> Tape Library with Native FC Ultrium 2, 3, and 4 drives  <b>Ultrium <a href="#">3581-2U</a></b> IBM LTO Tape Autoloader  <b>Virtualization Engine <a href="#">TS 7510</a></b> and <a href="#">TS7520</a>		Available.

**\*\*Note- No NPIV support with Linux**

## IBM [System i](#) Servers

Description	Platform/Operating Systems	Additional Information
<p><b>Enterprise Tape System</b>  <a href="#">3592 J1A</a>, <a href="#">E06</a> in a 3494 or 3584 Tape Library or rack mounted.</p> <p><b>Enterprise Tape System</b>  <a href="#">3590 E11/E1A</a> and <a href="#">H11/H1A</a> with Native FC Tape Drives. Standalone or in a 3494 Tape Library.</p> <p><b>Enterprise Tape System</b>  <a href="#">TS1120</a> (3952 E05) tape drive.</p> <p><a href="#">TS3310</a> Tape Library with Native Ultrium 3 drives</p> <p><b>TS3400</b> Tape Library with TS1120 tape drives</p> <p><b>TS3500</b> Tape Library with LTO 4</p> <p><b>Ultrium <a href="#">3584 UltraScalable</a></b> Tape Library with Native FC Ultrium 2, 3, and 4 drives</p> <p><b>Ultrium <a href="#">3583 Scalable</a></b> Tape Library with Native FC Ultrium 2, 3, and 4 drives</p> <p><b>Ultrium <a href="#">3582</a></b> Tape Library with Native FC Ultrium 2, 3, and 4 drives</p> <p><b>Ultrium <a href="#">3581-2U</a></b> IBM LTO Tape Autoloader</p> <p><b>Virtualization Engine <a href="#">TS7510</a></b> and <a href="#">TS7520</a></p>	<p><b>OS/400<sup>6</sup></b>            i5/OS V6R1M1</p>	<p>Available.</p> <p><b>System i SAN <a href="#">information</a>.</b></p> <p>Please review <a href="#">RMSS Technical Support Site</a>.</p>

<sup>6</sup> Required PTF MF32002

## IBM [System x](#) and other Intel-based Servers

Description	Operating Systems	Additional Information
<p><b>Enterprise Tape System <a href="#">3592</a></b>  <b>J1A, E06</b> in a 3494 or 3584 Tape Library, rack mounted or Silo Compatible Frame.</p> <p><b>Enterprise Tape System <a href="#">3590</a></b>  <b>E11/E1A and H11/H1A</b> with Native FC Tape Drives. Standalone or in a 3494 Tape Library or Silo Compatible Frame.</p>	<p><b>Microsoft Windows</b></p>	<p>Available.</p> <p><b>IBM Server Proven</b>  <a href="#">Interoperability matrix</a></p> <p>Please review  <a href="#">RMSS Technical Support Site</a>.</p>
<p><b>Enterprise Tape System <a href="#">TS1120</a></b>  (3952 E05) tape drive.</p> <p><a href="#">TS3310</a> Tape Library with Native Ultrium 3 drives</p> <p><b>TS3400</b> Tape Library with TS1120 tape drives</p> <p><b>TS3500</b> Tape Library with LTO 4</p> <p><b>Ultrium <a href="#">3584</a> UltraScalable</b> Tape Library with Native FC Ultrium 2, 3, and 4 drives</p> <p><b>Ultrium <a href="#">3583</a> Scalable</b> Tape Library with Native FC Ultrium 2, 3, and 4 drives</p> <p><b>Ultrium <a href="#">3582</a></b> Tape Library with Native FC Ultrium 2, 3, and 4 drives</p> <p><b>Ultrium <a href="#">3581-2U</a></b> IBM LTO Tape Autoloader</p> <p><b>Virtualization Engine <a href="#">TS 7510</a></b>  and <a href="#">TS7520</a></p>	<p><b>Red Hat Enterprise Linux</b></p> <p><b>SuSE Linux Enterprise Server (SLES)</b></p> <p><b>United Linux 1.0</b></p>	<p>Available.</p> <p>Please review  <a href="#">RMSS Technical Support Site</a>.</p>



## SUN Microsystems Servers

Description	Operating Systems	Additional Information
<p><b>Enterprise Tape System <a href="#">3592</a></b>  <b>J1A, C06</b> in a 3494 or 3584 Tape Library, rack mounted or Silo Compatible Frame.</p> <p><b>Enterprise Tape System <a href="#">3590</a></b>  <b>E11/E1A and H11/H1A</b> with Native FC Tape Drives. Standalone or in a 3494 Tape Library or Silo Compatible Frame.</p> <p><b>Enterprise Tape System <a href="#">TS1120</a></b>            (3952 E05) tape drive.</p> <p><a href="#">TS3310</a> Tape Library with Native Ultrium 3 drives</p> <p><b>TS3400</b> Tape Library with TS1120 tape drives</p> <p><b>TS3500</b> Tape Library with LTO 4</p> <p><b>Ultrium <a href="#">3584</a> UltraScalable</b> Tape Library with Native FC Ultrium 2, 3, and 4 drives</p> <p><b>Ultrium <a href="#">3583</a> Scalable</b> Tape Library with Native FC Ultrium 2, 3, and 4 drives</p> <p><b>Ultrium <a href="#">3582</a></b> Tape Library with Native FC Ultrium 2, 3, and 4 drives</p> <p><b>Ultrium <a href="#">3581-2U</a></b> IBM LTO Tape Autoloader</p> <p><b>Virtualization Engine <a href="#">TS 7510</a></b>            and <a href="#">TS7520</a></p>	<p>Solaris</p>	<p>Available.</p> <p>Please review <a href="#">RMSS Technical Support</a> Site.</p>

## Hewlett-Packard Servers – HP- UX

Description	Operating Systems	Additional Information
<p><b>Enterprise Tape System <a href="#">3592</a></b>  <b>J1A, C06</b> in a 3494 or 3584 Tape Library, rack mounted or Silo Compatible Frame.</p> <p><b>Enterprise Tape System <a href="#">3590</a></b>  <b>E11/E1A and H11/H1A</b> with Native FC Tape Drives. Standalone or in a 3494 Tape Library or Silo Compatible Frame.</p> <p><b>Enterprise Tape System <a href="#">TS1120</a></b>            (3952 E05) tape drive.</p> <p><a href="#">TS3310</a> Tape Library with Native Ultrium 3 drives</p> <p><b>TS3400</b> Tape Library with TS1120 tape drives</p> <p><b>TS3500</b> Tape Library with LTO 4</p> <p><b>Ultrium <a href="#">3584</a> UltraScalable</b> Tape Library with Native FC Ultrium 2, 3, and 4 drives</p> <p><b>Ultrium <a href="#">3583</a> Scalable</b> Tape Library with Native FC Ultrium 2, 3, and 4 drives</p> <p><b>Ultrium <a href="#">3582</a></b> Tape Library with Native FC Ultrium 2, 3, and 4 drives</p> <p><b>Ultrium <a href="#">3581-2U</a></b> IBM LTO Tape Autoloader</p> <p><b>Virtualization Engine <a href="#">TS 7510</a></b>            and <a href="#">TS7520</a></p>	<p>HP-UX</p>	<p>Available.</p> <p>Please see the <a href="#">readme</a> file for any restrictions.</p> <p>Please review <a href="#">RMSS Technical Support</a> Site.</p>

## NETWORK ATTACHED STORAGE ([NAS](#))

Cisco MDS 9506, 9509, 9513, 9216i, 9216i, 9222i\*, 9148 and 9134\* for IBM System Storage Directors and Switches are interoperable with:

N series models – Supported with SAN-OS 2.1(2b) and above

NAS and N series Gateways – Supported with SAN-OS 2.1(2b) and above

\*Denotes products must run SAN-OS 3.x or above

## IBM eServer Blade Center ([BC](#))

Information on interoperability and Technical Support can be found at [IBM eServer Blade Center](#).

Description	Blade Switch Module Firmware	Cisco MDS 9000 SAN Family
Cisco 10/20 port FCSM*	4.2 (3)	4.2(3)
4GB Qlogic Intelligent Pass-Thru	6.5.0.21.0	4.2(3)
8GB Qlogic Intelligent Pass-Thru	7.10.1.04	4.2.5
Optical Pass-Thru Module	N/A	4.2(3)

\*Notes

NPV and NPIV is supported with fw 3.2 and above

## Heterogeneous SAN support

For information regarding heterogeneous SAN support please use the following:

<http://www.cisco.com/en/US/docs/switches/datacenter/mds9000/interoperability/matrix/Matrix4.html#wp299210>

## Supported Distance / Extension Methods

Traffic / Application	Extension Method	Supported Distance
regular FICON traffic	FC ISLs with DWDM	300km
regular FICON traffic	CWDM FC ISLs	100km
regular FICON traffic	FCIP ISLs	300km
IBM VTS (host to VTC connection)	FC ISLs with DWDM	250km
IBM VTS (VTC to VTS connection)	FC ISLs with DWDM	250km
IBM Enterprise and LTO Tape	all	300km*
IBM XRC FICON	FC ISLs with DWDM	200km
IBM XRC FICON	CWDM FC ISLs	200km
IBM XRC FICON	FCIP ISLs	200km

\* IBM 3592 drives with Control Units C06 and J70 supported up to 3000km when Cisco FICON Tape Acceleration is enabled