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IBM z Systems[®] Qualification support for Cisco NxOS 6.2(11c) and Data Center Network Manager 7.1(2)

International Business Machines Corporation and Cisco Systems have successfully completed qualification testing, of High Performance FICON for z Systems (zHPPF), FICON[®] and FCP protocols, using the switches and directors in **Table 1** with NxOS 6.2(11c) and DCNM 7.1(2), in the configurations in **Table 2**, for the following IBM z System platforms: IBM z13, IBM zEnterprise[®] EC12 (zEC12), IBM zEnterprise[®] BC12 (zBC12), IBM zEnterprise[®] 196 (z196), and IBM zEnterprise[®] 114 (z114).

Vendor Name	IBM Machine Type	Max. Logical Switches	Max. CUP Instances	Supported Blades	Supported SFP Optics ^a
MDS 9710	9710-E08	8	8	DS-X9448-768K9	8, 10, 16 Gbs
MDS 9706	9710-E06	8	8	DS-X9448-768K9	8, 10, 16 Gbs
MDS 9250i	9710-E01	8	8	DS-X9448-768K9	8, 16 Gbs
MDS 9513	2062-D11 2054-E11	8	8	DS-X9232-256K9 DS-X9248-256K9	2, 4, 8, 10 Gbs
MDS 9509	2062-D07 2054-E07	8	8	DS-X9224-96K9 DS-X9248-96K9	
MDS 9506	2062-D04 2054-E04	8	8	DS-X9248-48K9 DS-X9304-18K9 DS-X9316-SSNK9	
				DS-X9704 DS-X9112 DS-X9124 DS-X9148	
MDS 9222i	2054-E01	8	8	DS-X9224-96K9 DS-X9248-96K9 DS-X9248-48K9 DS-X9304-18K9 DS-X9316-SSNK9 DS-X9704 DS-X9112 DS-X9124 DS-X9148	2, 4, 8 Gbs

Although the distances for the protocols supported for these switches, FICON, FCP, FCIP, and ISLs, have been successfully tested to a distance of 300km, IBM requires an Extended Distance for System z RPK to assure applications greater than 100km adhere to the bounds of our qualification.

The new supported hardware in this release are:

- MDS 9706
- MDS 9250i with 10G FCIP

The new supported features and functions in this release are:

- Forward Error Correction (FEC) for FICON Express16S (support on 9700s only)
- 16 Member FICON Port Channel as Hop-of-no-Consequence

Table 2 Supported cascaded configurations

Switch(A) <ISL> Switch(A)
Extension(A) <IP> Extension (A)
Switch(A) <ISL> Extension (B) <IP> Extension (A)
Switch(A) <ISL> Extension (B) <IP> Extension (B) <ISL> Switch(A)
Switch(B) <16FPC> Switch(B) <ISL> Switch(B) <16FPC> Switch(B)
Switch(B) <16FPC> Switch(B) <ISL> Extension (B) <IP> Extension (B) <ISL> Switch(B) <16FPC> Switch(B)
Restrictions and Switch Descriptions: Extension(A): <ul style="list-style-type: none">• Extension switch MDS 9250i, MDS 9222i or DS-X9316-SSNK9 / DS-X9304-18K9 in MDS 95xx. Extension(B): <ul style="list-style-type: none">• Extension switch MDS 9250i, MDS 9222i or DS-X9316-SSNK9 / DS-X9304-18K9 in MDS 95xx.• Switch & IP connections only. No device or channel connections. Switch(A): <ul style="list-style-type: none">• May be any switch in Table 1. Switch(B): <ul style="list-style-type: none">• MDS 9710 or MDS 9706 only 16 Member FICON Port Channel <16FPC>: <ul style="list-style-type: none">• Requires a set of sixteen (16) local 16G ISLs• Distance supported up to 2km• Differential routing is allowed (ie. Not all links must be same length)

Notes and Recommendations:

1. The System z supported NxOS upgrade path to 6.2(11c) is from 6.2(5b) or 6.2(5a). For switches at any level prior, must be upgraded to 6.2(5b) or 6.2(5a) before upgrading to 6.2(11c).
2. For cabling and other best practices please visit IBM's Cabling Considerations in Storage Area Networks support document: <http://www-01.ibm.com/support/docview.wss?uid=ssg1S1004299>
3. Please refer to Cisco NxOS Release Notes vx.0 (or the latest available version), for additional requirements, restrictions, and recommendations.

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If a device supports attachment to the z System platform, then we anticipate it will operate properly with the qualified products in this letter. For a list of IBM supported devices, please visit IBM System Storage Interoperation Center (SSIC): <http://www-03.ibm.com/systems/support/storage/ssic/interoperability.wss>; For third party devices, please check with the OEM device vendor for support statements regarding attachment to System z.

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Qualification Letter Version History:

- 06/01/2014: Initial Version