



HP Cluster Configuration Support Matrix

For Microsoft Windows 2000 Advanced Server & Windows 2003, x86 Enterprise Edition & HP StorageWorks EVA 5000, EVA 3000

Config	Supported Servers*	Host Bus Adapters (HBAs)*	Multi Path Software	Storage Information	Interconnects (Switches)*	Other
Windows Server 2003, x64 Editions	<p>Max supported nodes = 8</p> <p>ProLiant</p> <ul style="list-style-type: none"> • BL20p G2^ • BL20p G3^^^ • BL40p • BL30p^^ • BL35p^^ • BL25p^^^^ • BL45p^^^^ • DL360 G4, DL360 G5 • DL360 G4p • DL365 • DL380 G4, DL380 G5 • DL580 G3, DL580 G4 • DL585, DL585 G2 • DL385, DL385 G2 • ML370 G4, ML370 G5 • ML530, ML530 G2 • ML570 G3, ML570 G4 • BL460c • BL480c • BL465c • BL685c <p>*Note: Servers can be used homogeneously or heterogeneously within a cluster. Maximum supported nodes for BL30p in a SCSIport config = 2</p> <p>^Note: Supports the FC Mezzanine card only.</p> <p>^^Note: Supports the FC Balcony card only.</p> <p>^^^Note: Supports the FC Adapter Card BL20p G3</p> <p>^^^^Note: Supports the HPBALCF 105</p> <p>Server Software: SmartStart Ver: 7.60 (Install non-RBSU servers using SmartStart 5.5 and then apply PSP 7.4)</p>	<p>HBA Family 1 SCSIPort Driver: 5-5.30a2 FW: 1.91a5 BIOS: 1.71a0</p> <p>StorPort Driver: 5-1.20a7 FW: 1.91a5 BIOS: 1.71a0</p> <ul style="list-style-type: none"> • FCA2404 • FCA2404DC • A7387A • A7388A <p>HBA Family 2 SCSIPort Driver: 9.1.3.11 FW: 1.91a5 BIOS for 25p/45p: 1.48 BIOS for 20p/30p/35p: 1.45</p> <p>StorPort Driver: 9.1.3.16 FW: 1.91a5 BIOS for 25p/45p: 1.48 BIOS for 20p/30p/35p: 1.45</p> <ul style="list-style-type: none"> • E-FC Balcony Card ^^ • E-FC Adapter Card ^^^ <p>^^For the BL25p, BL30p, BL35p, & BL45p use E-FC Balcony Card.</p> <p>^^^For the BL20p G3 use E-FC Adapter Card.</p> <p>HBA Family 3 SCSIPort Driver: 5-5.20a10 FW: 3.93a0 BIOS: 1.70a3</p> <p>StorPort Driver: 5-1.11x1 FW: 3.93a0 BIOS: 1.70a3</p> <ul style="list-style-type: none"> • FCA2101 • FCA2355 <p>HBA Family 4 SCSIport Driver: 9.1.3.11 FW: NA BIOS: 1.45</p> <p>StorPort Driver: 9.1.3.16 FW: NA BIOS: 1.45</p> <ul style="list-style-type: none"> • FCA2214 • FCA2214DC • FC Balcony card • FC Mezz card ^ <p>^For the BL20p G3 use: BIOS: 1.45 b120p G3</p> <p>HBA Family 5 SCSIport Driver: 9.1.3.11 FW: NA BIOS: 1.48</p> <p>StorPort Driver: 9.1.3.16 FW: NA BIOS: 1.48</p> <p>HPBALCF105 for BL25p and BL45p</p> <p>HBA Family 6 SCSIport Driver: 5-5.30a2 FW: 2.50a6 BIOS: 1.71a0</p> <p>StorPort Driver: 5-1.20a7 FW: 2.50a6 BIOS: 1.71a0</p>	<p>Windows MPIO Full Featured DSM for EVA V2.01.00</p>	<p>StorageWorks Enterprise Virtual Array 5000 Software (VCS) FW: V4.004</p> <p>StorageWorks Enterprise Virtual Array 3000 Software (VCS) FW: V4.004</p> <p>HP OpenView Storage Operations Manager Version 1.2</p> <p>Continuous Access EVA Software v2.1 User Interface for use with VCS FW 4.004</p> <p>CLX EVA for Windows 1.01.01</p> <p>Command View Minimum Version V4.1.2</p> <p>Recommended Version V5.0</p>	<p>B-Series StorageWorks SAN Switches (8/16 ports 2GB) FW: 3.2.1b</p> <ul style="list-style-type: none"> • MSA SAN Switch 2/8^ • SAN Switch 2/16 <p>FW: 5.2.0</p> <ul style="list-style-type: none"> • SAN Switch 2/32 • SAN Switch 2/8V • SAN Switch 2/16V • SAN Switch 2/16N FF • SAN Director 2/128 <p>StorageWorks SAN Switches (>32 ports) FW: 5.2.0</p> <ul style="list-style-type: none"> • Core Switch 2/64 <p>StorageWorks SAN Switches (4GB) FW: 5.2.0</p> <ul style="list-style-type: none"> • 4/8 SAN Switch • 4/16 SAN Switch • 4/32 SAN Switch • 4/256 SAN Director <p>M-Series StorageWorks Director and Edge Switches FW: 09.00.00</p> <ul style="list-style-type: none"> • Director 2/64 • Director 2/140 • Edge Switch 2/12 • Edge Switch 2/24 • Edge Switch 2/32 <p>C-Series Cisco Switches FW: 3.0(3)</p> <ul style="list-style-type: none"> • MDS 9120 • MDS 9140 • MDS 9216 • MDS 9506 • MDS 9509 <p>^^Note: Not supported with BL server line.</p> <p>*Note: BL30p server supported with B-series switches only.</p>	<p>Product Page</p> <p>Supporting Documentation</p> <p>MSCS Support Matrix - archive</p> <p style="text-align: right;">January 2007</p>

- [FC2142](#)
- [FC2242](#)

HBA Family 7

SCSIport Driver: 5-5.30a2
FW: 2.10a10
BIOS: 1.71a0

StorPort Driver: 5-1.20a7
FW: 2.10a10
BIOS: 1.71a0

- [FC2143](#)
- [FC2243](#)

HBA Family 8

SCSIport Driver: 5-5.30a2
FW: 2.50a8
BIOS: 1.70a3

StorPort Driver: 5-1.11x1
FW: 2.50a8
BIOS: 1.70a3

- [LPe1105](#)

HBA Family 9

SCSIport Driver: 9.1.3.11
FW: Loaded from driver
BIOS: 1.16

StorPort Driver: 9.1.3.16
FW: 2.50a2
BIOS: 1.16

- [FC1143](#)
- [FC1243](#)

HBA Family 10

SCSIport Driver: 9.1.3.11
FW: Loaded from driver
BIOS: 1.16

StorPort Driver: 9.1.3.16
FW: Loaded from driver
BIOS: 1.16

- [FC1142](#)
- [FC1242](#)

HBA Family 10

SCSIport Driver: 9.10.13
FW: Loaded from driver
BIOS: 1.16

StorPort Driver: 9.1.0.18
FW: Loaded from driver
BIOS: 1.16

- [QMH2462](#)

***Note 1:** HBAs must be used homogeneously within a cluster; but can be mixed if they are from the same HBA family as identified above.

***Note 2:** Refer to Server QuickSpecs for confirmation on supported HBAs

***Note 3:** StorPort Driver only supported on Windows Server 2003 Operating Systems.

***Note 4:** For additional information on StorPort drivers, search the Microsoft's website for the latest StorPort QFE.

Config	Supported Servers*	Host Bus Adapters (HBAs)*	Multi Path Software	Storage Information	Interconnects (Switches)*	Other
<p>Windows Server 2003, x64 Editions</p>	<p>Max supported nodes = 8</p> <p>ProLiant</p> <ul style="list-style-type: none"> BL20p G2^ BL20p G3^^ BL40p BL30p^^ BL35p^^ BL25p^^^ BL45p^^^ DL360 G4, DL360 G5 DL360 G4p DL365 DL380 G4, DL380 G5 DL580 G3, DL580 G4 DL585, DL585 G2 DL385, DL385 G2 ML370 G4, ML370 G5 ML530, ML530 G2 ML570 G3, ML570 G4 BL460c BL480c BL465c BL685c <p>*Note: Servers can be used homogeneously or heterogeneously within a cluster. Maximum supported nodes for BL30p in a SCSIport config = 2</p> <p>^Note: Supports the FC Mezzanine card only.</p> <p>^^Note: Supports the FC Balcony card only.</p> <p>^^^Note: Supports the FC Adapter Card BL20p G3</p> <p>^^^^Note: Supports the HPBALCF 105</p> <p>Server Software: SmartStart Ver: 7.60 (Install non-RBSU servers using SmartStart 5.5 and then apply PSP 7.4)</p>	<p>HBA Family 1 SCSI Port Driver: 5-5.30a2 FW: 1.91a5 BIOS: 1.71a0</p> <p>StorPort Driver: 5-1.20a7 FW: 1.91a5 BIOS: 1.71a0</p> <ul style="list-style-type: none"> FCA2404 FCA2404DC A7387A A7388A <p>HBA Family 2 SCSI Port Driver: 9.1.3.11 FW: 1.91a5 BIOS for 25p/45p: 1.48 BIOS for 20p/30p/35p: 1.45</p> <p>StorPort Driver: 9.1.3.16 FW: 1.91a5 BIOS for 25p/45p: 1.48 BIOS for 20p/30p/35p: 1.45</p> <ul style="list-style-type: none"> E-FC Balcony Card ^^ E-FC Adapter Card ^^ <p>^^For the BL25p, BL30p, BL35p, & BL45p use E-FC Balcony Card.</p> <p>^^^For the BL20p G3 use E-FC Adapter Card.</p> <p>HBA Family 3 SCSI Port Driver: 5-5.20a10 FW: 3.93a0 BIOS: 1.70a3</p> <p>StorPort Driver: 5-1.11x1 FW: 3.93a0 BIOS: 1.70a3</p> <ul style="list-style-type: none"> FCA2101 FCA2355 <p>HBA Family 4 SCSI port Driver: 9.1.3.11 FW: NA BIOS: 1.45</p> <p>StorPort Driver: 9.1.3.16 FW: NA BIOS: 1.45</p> <ul style="list-style-type: none"> FCA2214 FCA2214DC FC Balcony card FC Mezz card ^ <p>^For the BL20p G3 use: BIOS: 1.45 bl20p G3</p> <p>HBA Family 5 SCSI port Driver: 9.1.3.11 FW: NA BIOS: 1.48</p> <p>StorPort Driver: 9.1.3.16 FW: NA BIOS: 1.48</p> <p>HPBALCF105 for BL25p and BL45p</p> <p>HBA Family 6 SCSI port Driver: 5-5.30a2 FW: 2.50a6 BIOS: 1.71a0</p> <p>StorPort Driver: 5-1.20a7 FW: 2.50a6 BIOS: 1.71a0</p> <ul style="list-style-type: none"> FC2142 FC2242 <p>HBA Family 7 SCSI port Driver: 5-5.30a2 FW: 2.10a10 BIOS: 1.71a0</p> <p>StorPort Driver: 5-1.20a7</p>	<p>Windows MPIO Full Featured DSM for EVA V1.01.00</p>	<p>StorageWorks Enterprise Virtual Array 5000 Software (VCS) FW: V3.100</p> <p>StorageWorks Enterprise Virtual Array 3000 Software (VCS) FW: V3.100</p> <p>HP OpenView Storage Operations Manager Version 1.2</p> <p>Continuous Access EVA Software v2.1 User Interface for use with VCS FW 4.004</p> <p>CLX EVA for Windows 1.01.01</p> <p>Command View Minimum Version 6.0</p>	<p>B-Series StorageWorks SAN Switches (8/16 ports 2GB) FW: 3.2.1b</p> <ul style="list-style-type: none"> MSA SAN Switch 2/8^ SAN Switch 2/16 <p>FW: 5.2.0</p> <ul style="list-style-type: none"> SAN Switch 2/32 SAN Switch 2/8V SAN Switch 2/16V SAN Switch 2/16N FF SAN Director 2/128 <p>StorageWorks SAN Switches (>32 ports) FW: 5.2.0</p> <ul style="list-style-type: none"> Core Switch 2/64 <p>StorageWorks SAN Switches (4GB) FW: 5.2.0</p> <ul style="list-style-type: none"> 4/8 SAN Switch 4/16 SAN Switch 4/32 SAN Switch 4/256 SAN Director <p>M-Series StorageWorks Director and Edge Switches FW: 09.00.00</p> <ul style="list-style-type: none"> Director 2/64 Director 2/140 Edge Switch 2/12 Edge Switch 2/24 Edge Switch 2/32 <p>C-Series Cisco Switches FW: 3.0(3)</p> <ul style="list-style-type: none"> MDS 9120 MDS 9140 MDS 9216 MDS 9506 MDS 9509 <p>^^Note: Not supported with BL server line.</p> <p>*Note: BL30p server supported with B-series switches only.</p>	<p>Product Page</p> <p>Supporting Documentation</p> <p>MSCS Support Matrix - archive</p> <p>January 2007</p>

	<p>FW: 2.10a10 BIOS: 1.71a0</p> <ul style="list-style-type: none"> • FC2143 • FC2243 <p>HBA Family 8 SCSIport Driver: 5-5.30a2 FW: 2.50a8 BIOS: 1.70a3</p> <p>StorPort Driver: 5-1.11x1 FW: 2.50a8 BIOS: 1.70a3</p> <ul style="list-style-type: none"> • LPe1105 <p>HBA Family 9 SCSIport Driver: 9.1.3.11 FW: Loaded from driver BIOS: 1.16</p> <p>StorPort Driver: 9.1.3.16 FW: 2.50a2 BIOS: 1.16</p> <ul style="list-style-type: none"> • FC1143 • FC1243 <p>HBA Family 10 SCSIport Driver: 9.1.3.11 FW: Loaded from driver BIOS: 1.16</p> <p>StorPort Driver: 9.1.3.16 FW: Loaded from driver BIOS: 1.16</p> <ul style="list-style-type: none"> • FC1142 • FC1242 <p>HBA Family 10 SCSIport Driver: 9.10.13 FW: Loaded from driver BIOS: 1.16</p> <p>StorPort Driver: 9.1.0.18 FW: Loaded from driver BIOS: 1.16</p> <ul style="list-style-type: none"> • QMH2462 <p>*Note 1: HBAs must be used homogeneously within a cluster; but can be mixed if they are from the same HBA family as identified above.</p> <p>*Note 2: Refer to Server QuickSpecs for confirmation on supported HBAs</p> <p>*Note 3: StorPort Driver only supported on Windows Server 2003 Operating Systems.</p> <p>*Note 4: For additional information on StorPort drivers, search the Microsoft's website for the latest StorPort QFE.</p>				
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Config	Supported Servers*	Host Bus Adapters (HBAs)*	Multi Path Software	Storage Information	Interconnects (Switches)*	Other
<p>#1</p> <p>Windows Server 2003, EE with Service Pack 1 x86 Edition</p>	<p>Windows 2003 Max supported nodes = 8</p> <p>ProLiant BL20p G2^ BL20p G3^^ BL25p^^^ BL30p^^ BL35p^^ BL40p BL45p^^^ DL360 G3, DL360 G4 DL360 G4p DL380 G3, DL380 G4 DL385 DL560 DL580 G2, DL580 G3 DL585 DL740 DL760, DL760 G2, ML370 G3, ML370 G4 ML530, ML530 G2, ML570 G2, ML570 G3 ML750</p> <p>*Note: Servers can be used homogeneously or heterogeneously within a cluster.</p> <p>Maximum supported nodes for BL30p in a SCSIport config = 2</p> <p>^Note: Supports the FC Mezzanine card only.</p> <p>^^Note: Supports the FC Balcony card only.</p> <p>^^^Note: Supports the FC Adapter Card BL20p G3.</p> <p>^^^Note: Supports the HPBALCF 105</p> <p>Server Software: SmartStart Ver: 7.4 (Install non-RBSU servers using SmartStart 5.5 and then apply PSP 7.4)</p>	<p>HBA Family 1 SCSIport Driver: 5-5.20a9 FW: 1.91a1 BIOS: 1.70a3</p> <p>StorPort Driver: 5-1.11a0 FW: 1.91a1 BIOS: 1.70a3</p> <ul style="list-style-type: none"> •FCA2408 •A7387A •A7388A •A7560A(1050EX) •FCA2404 •FCA2404DC <p>HBA Family 2 SCSIport Driver: 5-5.20a9 FW: 1.91a2 BIOS: 1.70a3</p> <p>StorPort Driver: 5-1.11a0 FW: 1.91a2 BIOS: 1.70a3</p> <ul style="list-style-type: none"> •E-FC Balcony Card ^^ •E-FC Adapter Card ^^ <p>^^For the BL25p, BL30p, BL35p, & BL45p use E-FC Balcony Card. ^^^For the BL20p G3 use E-FC Adapter Card.</p> <p>HBA Family 3 SCSIport Driver: 5-5.20a9 FW: 3.93a0 BIOS: 1.70a3</p> <p>Storport Driver: 5-1.11a0 FW: 3.93a0 BIOS: 1.70a3</p> <ul style="list-style-type: none"> •FCA2101 •FCA2355 <p>HBA Family 4 SCSIport Driver: 9.0.2.11 FW: n/a BIOS: 1.45</p> <p>StorPort Driver: 9.0.2.16 FW: n/a BIOS: 1.45</p> <ul style="list-style-type: none"> •FC Balcony card •FC Mezz card ^ <p>HBA Family 5 SCSIport Driver: 9.1.0.13^ FW: n/a BIOS: 1.45</p> <p>StorPort Driver: 9.1.0.18 FW: n/a BIOS: 1.45</p> <ul style="list-style-type: none"> •FCA2214 •FCA2214DC <p>HBA Family 6 SCSIport Driver: 9.0.2.11 FW: n/a BIOS: 1.48</p> <p>StorPort Driver: 9.0.2.16 FW: n/a BIOS: 1.48</p> <ul style="list-style-type: none"> •HPBALCF 105 for BL25p, BL45p <p>HBA Family 7 SCSIport Driver: 5-5.20a9 FW: 2.50a2 BIOS: 1.70a3</p> <p>StorPort Driver: 5-1.11a0 FW: 2.50a2 BIOS: 1.70a3</p> <ul style="list-style-type: none"> •FC2142SR •FC2242SR DC <p>HBA Family 8</p>	<p>Windows MPIO Full Featured DSM for EVA V1.00.00</p>	<p>StorageWorks Enterprise Virtual Array 5000 Software (VCS) FW: V4.001</p> <p>StorageWorks Enterprise Virtual Array 3000 Software (VCS) FW: V4.001</p> <p>HP OpenView Storage Operations Manager Version 1.2</p> <p>Continuous Access EVA Software v2.1 User Interface for use with VCS FW 4.001</p> <p>CLX EVA for Windows 1.01.00</p> <p>Command View Minimum Version V4.1</p> <p>Recommended Version V4.1.2</p>	<p>B-Series StorageWorks SAN Switches (8/16 ports 2GB) FW: 3.2.0a</p> <ul style="list-style-type: none"> •SAN Switch 2/16 <p>FW: 5.0.1d</p> <ul style="list-style-type: none"> •SAN Switch 2/8V •SAN Switch 2/16V •SAN Switch 2/16N <p>FF</p> <p>StorageWorks SAN Switches (>32 ports) FW: 5.0.1d</p> <ul style="list-style-type: none"> •SAN Switch 2/32 •Core Switch 2/64 •SAN Director 2/128 <p>StorageWorks SAN Switches (4GB) FW: 5.0.1d</p> <ul style="list-style-type: none"> 4/8 SAN Switch 4/16 SAN Switch 4/32 SAN Switch 4/256 SAN Director <p>M-Series StorageWorks Director and Edge Switches FW: 08.01.00</p> <ul style="list-style-type: none"> •Director 2/64 •Director 2/140 •Edge Switch 2/12 •Edge Switch 2/24 •Edge Switch 2/32 <p>C-Series Cisco Switches FW: 2.1(2b)</p> <ul style="list-style-type: none"> •MDS 9120 •MDS 9140 •MDS 9216 •MDS 9506 •MDS 9509 <p>*Note: BL30p server supported with B-Series switches & M-Series Edge Switch 2/12, 2/24 only</p>	<p>Product Page</p> <p>Supporting Documentation</p> <p>MSCS Support Matrix - archive</p> <p>January 2006</p>

SCSIport Driver: 9.1.0.13^{****}
FW: n/a
BIOS: 1.06

StorPort Driver: 9.1.0.18
FW: n/a
BIOS: 1.06

- [FC1142SR](#)
- [FC1242SR DC](#)

****For the SCSIport Driver, only a 2 node cluster is supported. The StorPort driver supports an 8 node cluster configuration.

*Note 1: HBAs must be used homogeneously within a cluster; but can be mixed if they are from the same HBA family as identified above.

*Note 2: Refer to Server QuickSpecs for confirmation on supported HBAs.

*Note 3: StorPort Driver only supported on Windows Server 2003 Operating Systems.

*Note 4: For additional information on StorPort drivers, search the Microsoft's website for the latest StorPort QFE.

*Note 5: The 9.1.0.13 SCSIport driver is only supported on 2 node configurations.