



## HP Cluster Configuration Support Matrix For Microsoft Windows Server 2003, EE & HP StorageWorks MA8000/EMA12000/EMA16000

Config	Supported Servers*	Server Software	Host Bus Adapters (HBAs)**	Multi Path Software	Storage Information	Interconnects (Switches)	Other
#1  Windows Server 2003, EE with Service Pack 1	Max supported nodes = 2  ProLiant: <ul style="list-style-type: none"> <li>• BL20p G2</li> <li>• BL40p</li> <li>• DL360 G3, DL360 G2, DL360</li> <li>• DL380 G3, DL380 G2, DL380</li> <li>• DL560</li> <li>• DL580 G2, DL580</li> <li>• DL740</li> <li>• DL760 G2, DL760</li> <li>• ML530 G2, ML530</li> <li>• ML570 G2, ML570</li> <li>• ML750</li> </ul> * Note: Servers can be used homogeneously or heterogeneously within a cluster.	<a href="#">SmartStart</a> <b>Ver:</b> 7.30 (Install non-RBSU servers using SmartStart 5.5 and then apply PSP 7.3)	<b>HBA Family 1</b> <b>Driver:</b> 5-4.82.a16 <b>FW:</b> 3.91a1 <b>BIOS:</b> 1.63a1  • <a href="#">FCA2101</a> • <a href="#">FCA2355</a>  <b>HBA Family 2</b> <b>Driver:</b> 5-4.82.a16 <b>FW:</b> 1.01a2 <b>BIOS:</b> 1.63a1  • <a href="#">FCA2404</a> • <a href="#">FCA2404DC</a>  <b>HBA Family 3</b> <b>Driver:</b> 8.2.0.73 <b>FW:</b> NA <b>BIOS:</b> 1.34  • <a href="#">FCA2214</a> • <a href="#">FCA2214DC</a> • <a href="#">FC Mezz card</a>  <b>HBA Family 4</b> <b>Driver:</b> 5-4.82.a16 <b>FW:</b> 3.91a1 <b>BIOS:</b> 1.63a1  • <a href="#">64-bit/33-MHz PCI-to-FC HBA (DS-KGPSA-CB)</a>  ** Note: HBAs must be used homogeneously within a cluster; but can be mixed if they are from the same HBA family as identified above.	<b>Secure Path</b> <b>Ver:</b> 4.0c Sp1 <b>Raidisk.sys ver:</b> 3.7.2.460  <b>Secure Path</b> <b>Ver:</b> 4.0c Sp2 <b>Raidisk.sys ver:</b> 3.7.2.540	<b>StorageWorks MA8000/EMA12000 (HSG80)</b> <b>Storage Controller Software</b> <b>FW:</b> 8.8-2 <b>SW:</b> v8.7+ <b>GeoCluster:</b> Yes  <b>HSG Element Manager Software:</b> v1.0f	<b>StorageWorks SAN Switches (1GB)</b> <b>FW:</b> 2.6.2c  • <a href="#">SAN Switch 16-EL</a> • <a href="#">SAN Switch 8-EL</a> • <a href="#">SAN Switch 8 &amp; 16</a> • <a href="#">SAN Switch Integrated 32</a> • <a href="#">SAN Switch Integrated 64</a>  <b>FW:</b> 2.6.2c  • <a href="#">SAN Switch 2/8 EL</a>  <b>StorageWorks SAN Switches (8/16 ports 2GB)</b> <b>FW:</b> 3.2.0  • <a href="#">SAN Switch 2/8 EL</a> • <a href="#">SAN Switch 2/16 EL</a> • <a href="#">SAN Switch 2/16</a>  <b>StorageWorks SAN Switches (&gt;32 ports)</b> <b>FW:</b> 4.4.0  • <a href="#">SAN Switch 2/32</a> • <a href="#">Core Switch 2/64</a>  <b>StorageWorks Director and Edge Switches</b> <b>FW:</b> 06.02.00-22  • <a href="#">Director 2/64</a> • <a href="#">Director 2/140</a> • <a href="#">Edge Switch 2/16</a> • <a href="#">Edge Switch 2/24</a> • <a href="#">Edge Switch 2/32</a>  <b>Cisco Switches</b> <b>FW:</b> 2.0 1b  • <a href="#">MDS 9120</a> • <a href="#">MDS 9140</a> • <a href="#">MDS 9216</a> • <a href="#">MDS 9506</a> • <a href="#">MDS 9509</a>	<a href="#">Product Page</a>  <a href="#">Supporting Documentation</a>  <a href="#">MSCS Support Matrix - archive</a>

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Config	Supported Servers*	Server Software	Host Bus Adapters (HBAs)**	Multi Path Software	Storage Information	Interconnects (Switches)	Other
#2 Windows Server 2003, EE	<p>Max supported nodes = 2</p> <p>ProLiant:</p> <ul style="list-style-type: none"> <li>• BL20p G2</li> <li>• BL40p</li> <li>• DL360 G3, DL360 G2, DL360</li> <li>• DL380 G3, DL380 G2, DL380</li> <li>• DL560</li> <li>• DL580 G2, DL580</li> <li>• DL740</li> <li>• DL760 G2, DL760</li> <li>• ML530 G2, ML530</li> <li>• ML570 G2, ML570</li> <li>• ML750</li> </ul> <p>* Note: Servers can be used homogeneously or heterogeneously within a cluster.</p>	<p><a href="#">SmartStart</a> Ver: 7.2 (Install non-RBSU servers using SmartStart 5.5 and then apply PSP 7.2)</p>	<p>HBA Family 1 Driver: 5-4.82.a16 FW: 3.91a1 BIOS: 1.63a1</p> <ul style="list-style-type: none"> <li>• <a href="#">FCA2101</a></li> <li>• <a href="#">FCA2355</a></li> </ul> <p>HBA Family 2 Driver: 5-4.82.a16 FW: 1.01a2 BIOS: 1.63a1 Website dif from STREAMS</p> <ul style="list-style-type: none"> <li>• <a href="#">FCA2404</a></li> <li>• <a href="#">FCA2404DC</a></li> </ul> <p>HBA Family 3 Driver: 8.2.0.73 FW: NA BIOS: 1.34</p> <ul style="list-style-type: none"> <li>• <a href="#">FCA2214</a></li> <li>• <a href="#">FCA2214DC</a></li> <li>• <a href="#">FC Mezz card</a></li> </ul> <p>HBA Family 4 Driver: 5-4.82.a16 FW: 3.91a1 BIOS: 1.63a1</p> <p>• <a href="#">64-bit/33-MHz PCI-to-FC HBA (DS-KGPSA-CB)</a> This link was incorrect – I fixed it on the other pages as well</p> <p>** Note: 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><a href="#">Secure Path</a> Ver: 4.0c Sp1 Raidisk.sys ver: 3.7.2.460</p>	<p><a href="#">StorageWorks MA8000/EMA12000 (HSG80)</a> Storage Controller Software FW: 8.8-1 SW: v8.7+ GeoCluster: Yes</p> <p>HSG Element Manager Software: v1.0f</p>	<p>StorageWorks SAN Switches (1GB) FW: 2.6.2c</p> <ul style="list-style-type: none"> <li>• <a href="#">SAN Switch 16-EL</a></li> <li>• <a href="#">SAN Switch 8-EL</a></li> <li>• <a href="#">SAN Switch 8 &amp; 16</a></li> <li>• <a href="#">SAN Switch Integrated 32</a></li> <li>• <a href="#">SAN Switch Integrated 64</a></li> </ul> <p>StorageWorks SAN Switches (8/16 ports 2GB) FW: 3.2.0</p> <ul style="list-style-type: none"> <li>• <a href="#">SAN Switch 2/8 EL</a></li> <li>• <a href="#">SAN Switch 2/16 EL</a></li> <li>• <a href="#">SAN Switch 2/16</a></li> </ul> <p>StorageWorks SAN Switches (&gt;32 ports ) FW: 4.4.0</p> <ul style="list-style-type: none"> <li>• <a href="#">SAN Switch 2/32</a></li> <li>• <a href="#">Core Switch 2/64</a></li> </ul> <p>StorageWorks Director and Edge Switches FW: 06.02.00-22</p> <ul style="list-style-type: none"> <li>• <a href="#">Director 2/64</a></li> <li>• <a href="#">Director 2/140</a></li> <li>• <a href="#">Edge Switch 2/16</a></li> <li>• <a href="#">Edge Switch 2/24</a></li> <li>• <a href="#">Edge Switch 2/32</a></li> </ul> <p>Cisco Switches FW: 2.0 1b</p> <ul style="list-style-type: none"> <li>• <a href="#">MDS 9120</a></li> <li>• <a href="#">MDS 9140</a></li> <li>• <a href="#">MDS 9216</a></li> <li>• <a href="#">MDS 9506</a></li> <li>• <a href="#">MDS 9509</a></li> </ul>	<p><a href="#">Product Page</a></p> <p><a href="#">Supporting Documentation</a></p> <p><a href="#">MSCS Support Matrix - archive</a></p> <p>March 2005</p>

Config	Supported Servers*	Server Software	Host Bus Adapters (HBAs)**	Multi Path Software	Storage Information	Interconnects (Switches)	Other
#3 Windows Server 2003, EE	<p>Max supported nodes = 2</p> <p>ProLiant:</p> <ul style="list-style-type: none"> <li>• BL20p G2</li> <li>• BL40p</li> <li>• DL360 G3, DL360 G2, DL360</li> <li>• DL380 G3, DL380 G2, DL380</li> <li>• DL560</li> <li>• DL580 G2, DL580</li> <li>• DL740</li> <li>• DL760 G2, DL760</li> <li>• ML530 G2, ML530</li> <li>• ML570 G2, ML570</li> <li>• ML750</li> </ul> <p>* Note: Servers can be used homogeneously or heterogeneously within a cluster.</p>	<p><a href="#">SmartStart</a> Ver: 7.0 (Install non-RBSU servers using SmartStart 5.5 and then apply PSP 7.0)</p>	<p>HBA Family 1 Driver: 5-4.82.a16 FW: 3.91a1 BIOS: 1.63a1</p> <ul style="list-style-type: none"> <li>•<a href="#">FCA2101</a></li> <li>•<a href="#">FCA2355</a></li> </ul> <p>HBA Family 2 Driver: 5-4.82.a16 FW: 1.01a2 BIOS: 1.63a1</p> <ul style="list-style-type: none"> <li>•<a href="#">FCA2404</a></li> <li>•<a href="#">FCA2404DC</a></li> </ul> <p>HBA Family 3 Driver: 8.2.0.73 FW: NA BIOS: 1.34</p> <ul style="list-style-type: none"> <li>•<a href="#">FCA2214</a></li> <li>•<a href="#">FCA2214DC</a></li> <li>•<a href="#">FC Mezz card</a></li> </ul> <p>HBA Family 4 Driver: 5-4.82.a16 FW: 3.91a1 BIOS: 1.63a1</p> <ul style="list-style-type: none"> <li>•<a href="#">64-bit/33-MHz PCI-to-FC HBA (DS-KGPSA-CB)</a></li> </ul> <p>** Note: 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><a href="#">Secure Path</a> Ver: 4.0c <a href="#">Raidisk.sys</a> ver: 3.7.2.240</p>	<p><a href="#">StorageWorks MA8000/EMA12000 (HSG80)</a> <a href="#">Storage Controller Software</a> FW: 8.7-3 SW: v8.7+ GeoCluster: Yes</p> <p><a href="#">HSG Element Manager Software</a>: v1.0f</p>	<p><a href="#">StorageWorks SAN Switches (1GB)</a> FW: 2.6.2</p> <ul style="list-style-type: none"> <li>•<a href="#">SAN Switch 16-EL</a></li> <li>•<a href="#">SAN Switch 8-EL</a></li> <li>•<a href="#">SAN Switch 8 &amp; 16</a></li> <li>•<a href="#">SAN Switch Integrated 32</a></li> <li>•<a href="#">SAN Switch Integrated 64</a></li> </ul> <p><a href="#">StorageWorks SAN Switches (8/16 ports 2GB)</a> FW: 3.1.2</p> <ul style="list-style-type: none"> <li>•<a href="#">SAN Switch 2/8 EL</a></li> <li>•<a href="#">SAN Switch 2/16 EL</a></li> <li>•<a href="#">SAN Switch 2/16</a></li> </ul> <p><a href="#">StorageWorks SAN Switches (&gt;32 ports )</a> FW: 4.2.0b</p> <ul style="list-style-type: none"> <li>•<a href="#">SAN Switch 2/32</a></li> <li>•<a href="#">Core Switch 2/64</a></li> </ul> <p><a href="#">StorageWorks Director and Edge Switches</a> FW: 05.02.00-13</p> <ul style="list-style-type: none"> <li>•<a href="#">Director 2/64</a></li> <li>•<a href="#">Director 2/140</a></li> <li>•<a href="#">Edge Switch 2/16</a></li> <li>•<a href="#">Edge Switch 2/24</a></li> <li>•<a href="#">Edge Switch 2/32</a></li> </ul> <p><a href="#">Cisco Switches</a> FW: 1.2.1b</p> <ul style="list-style-type: none"> <li>•<a href="#">MDS 9120</a></li> <li>•<a href="#">MDS 9140</a></li> <li>•<a href="#">MDS 9216</a></li> <li>•<a href="#">MDS 9506</a></li> <li>•<a href="#">MDS 9509</a></li> </ul>	<p><a href="#">Product Page</a></p> <p><a href="#">Supporting Documentation</a></p> <p><a href="#">MSCS Support Matrix - archive</a></p> <p>June 2004</p>

Config	Supported Servers *	Server Software	Host Bus Adapters (HBAs) **	Multi-Path Software	Storage Information	Interconnects (Switches)	Other
#4 Windows Server 2003, EE	<p>Max supported nodes = 2</p> <p>ProLiant:</p> <ul style="list-style-type: none"> <li>• BL20p G2</li> <li>• BL40p</li> <li>• DL360 G3, DL360 G2, DL360</li> <li>• DL380 G3, DL380 G2, DL380</li> <li>• DL560</li> <li>• DL580 G2, DL580</li> <li>• DL740</li> <li>• DL760 G2, DL760</li> <li>• ML530 G2, ML530</li> <li>• ML570 G2, ML570</li> <li>• ML750</li> </ul> <p>* Note: Servers can be used homogeneously or heterogeneously within a cluster.</p>	<p><a href="#">SmartStart</a> Ver: 6.4 (Install non-RBSU servers using Smart Start 5.5 and then apply PSP 6.4)</p>	<p>HBA Family 1 Driver: 5-4.82.a16 FW: 3.91a1 BIOS: 1.63a1</p> <ul style="list-style-type: none"> <li>• <a href="#">FCA2101</a></li> <li>• <a href="#">FCA2355</a></li> </ul> <p>HBA Family 2 Driver: 5-4.82.a16 FW: 1.01a2 BIOS: 1.63a1</p> <ul style="list-style-type: none"> <li>• <a href="#">FCA2404</a></li> <li>• <a href="#">FCA2404DC</a></li> </ul> <p>HBA Family 3 Driver: 8.2.0.73 FW: NA BIOS: 1.34</p> <ul style="list-style-type: none"> <li>• <a href="#">FCA2214</a></li> <li>• <a href="#">FCA2214DC</a></li> <li>• <a href="#">FC Mezz_card</a></li> </ul> <p>HBA Family 4 Driver: 5-4.82.a16 FW: 3.91a1 BIOS: 1.63a1</p> <ul style="list-style-type: none"> <li>• <a href="#">64-bit/33-MHz PCI-to-FC HBA (DS-KGPSA-CB)</a></li> </ul> <p>** Note: 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><a href="#">Secure Path</a> Ver: 4.0c Raidisk.sys ver: 3.7.2.240</p>	<p><a href="#">StorageWorks MA8000/EMA12000 (HSG80)</a> Storage Controller Software FW: 8.7-3 SW: v8.7+ GeoCluster: Yes</p> <p>HSG Element Manager Software: v1.0f</p>	<p>HP 1GB SAN Switches FW: 2.6.1</p> <ul style="list-style-type: none"> <li>• <a href="#">SAN Switch 16-EL</a></li> <li>• <a href="#">SAN Switch 8-EL</a></li> <li>• <a href="#">SAN Switch 8 &amp; 16</a></li> <li>• <a href="#">SAN Switch Integrated 32</a></li> <li>• <a href="#">SAN Switch Integrated 64</a></li> </ul> <p>HP 2GB SAN Switches 8/16 ports FW: 3.1.1</p> <ul style="list-style-type: none"> <li>• <a href="#">SAN Switch 2/8 EL</a></li> <li>• <a href="#">SAN Switch 2/16 EL</a></li> <li>• <a href="#">SAN Switch 2/16</a></li> </ul> <p>HP 2GB SAN Switches &gt;32 ports FW: 4.1.1</p> <ul style="list-style-type: none"> <li>• <a href="#">SAN Switch 2/32</a></li> <li>• <a href="#">Core Switch 2/64</a></li> </ul> <p>HP Director and Edge Switches FW: 05.01.00-24</p> <ul style="list-style-type: none"> <li>• <a href="#">Director 2/64</a></li> <li>• <a href="#">Director 2/140</a></li> <li>• <a href="#">Edge Switch 2/16</a></li> <li>• <a href="#">Edge Switch 2/24</a></li> <li>• <a href="#">Edge Switch 2/32</a></li> </ul>	<p><a href="#">Product Page</a></p> <p><a href="#">Supporting Documentation</a></p> <p><a href="#">MSCS Support Matrix - archive</a></p> <p>November 2003</p>

Config	Supported Servers *	Server Software	Host Bus Adapters (HBAs) **	Multi-Path Software	Storage Information	Interconnects (Switches) ***	Other
#5 Windows Server 2003, EE	<p>Max supported nodes = 2</p> <p>ProLiant:</p> <ul style="list-style-type: none"> <li>• BL20p G2</li> <li>• BL40p</li> <li>• DL360 G3, DL360 G2, DL360</li> <li>• DL380 G3, DL380 G2, DL380</li> <li>• DL560</li> <li>• DL580 G2, DL580</li> <li>• DL740</li> <li>• DL760 G2, DL760</li> <li>• ML530 G2, ML530</li> <li>• ML570 G2, ML570</li> <li>• ML750</li> </ul> <p>* Note: Servers can be used homogeneously or heterogeneously within a cluster.</p>	<p><a href="#">SmartStart</a> Ver: 6.4 (Install non-RBSU servers using Smart Start 5.5 and then apply PSP 6.4)</p>	<p><a href="#">FCA2101</a> Driver: 5-4.82.a16 FW: 3.91a1 BIOS: 1.63a1</p> <p><a href="#">FC Mezzanine card</a> Driver: 8.2.0.72 FW: NA BIOS: 1.33</p> <p><a href="#">64-bit/33-MHz PCI to FC HBA</a> Driver: 5-4.82.a16 FW: 3.91a1 BIOS: 1.63a1</p> <p>** Note: HBAs must be used homogeneously within a cluster.</p>	<p><a href="#">Secure Path</a> Ver: 4.0b Raidisk.sys ver: 3.6.3.674</p>	<p><a href="#">StorageWorks MA8000/EMA12000 (HSG80)</a> Storage Controller Software FW: 8.7-3 SW: v8.7 GeoCluster: Yes</p>	<p>HP 1GB SAN Switches FW: 2.6.0h</p> <ul style="list-style-type: none"> <li>• <a href="#">SAN Switch 8-EL</a></li> <li>• <a href="#">SAN Switch 16-EL</a></li> <li>• <a href="#">SAN Switch 8 &amp; 16</a></li> <li>• <a href="#">SAN Switch Integrated 32</a></li> <li>• <a href="#">SAN Switch Integrated 64</a></li> </ul> <p>HP 2GB SAN Switches 8/16 ports FW: 3.0.2k</p> <ul style="list-style-type: none"> <li>• <a href="#">SAN Switch 2/8 EL</a></li> <li>• <a href="#">SAN Switch 2/16 EL</a></li> <li>• <a href="#">SAN Switch 2/16</a></li> </ul> <p>HP 2GB SAN Switches &gt;32 ports FW: 4.0.2b</p> <ul style="list-style-type: none"> <li>• <a href="#">SAN Switch 2/32 EL</a></li> <li>• <a href="#">Core Switch 2/64</a></li> </ul> <p>HP Director and Edge Switches FW: 04.01.02-4</p> <ul style="list-style-type: none"> <li>• <a href="#">Director 2/64</a></li> <li>• <a href="#">Director 2/140</a></li> <li>• <a href="#">Edge Switch 2/16</a></li> <li>• <a href="#">Edge Switch 2/24</a></li> <li>• <a href="#">Edge Switch 2/32</a></li> </ul>	<p><a href="#">Product Page</a></p> <p><a href="#">Supporting Documentation</a></p> <p><a href="#">MSCS Support Matrix - archive</a></p> <p>June 2003</p>