



Partner Beyond Technology

HDS Cluster Configuration Support Matrix For Microsoft Windows Server

Operating System	Storage	Server(s)	Host Bus Adapter	Interconnect FC Switches	Multi-Path Software	Other
Windows Server 2003 x64 Enterprise Edition	<p>Hitachi Data Systems Freedom Storage Lightning</p> <p>- 9980V, 9970V</p> <p>Microcode Version: 21-14</p>	<p>Max supported nodes = 8</p> <p>Hewlett Packard ProLiant</p> <p>- DL360G4, DL360G5</p> <p>- DL380G4, DL380G5</p> <p>- DL385G2, DL580G3</p> <p>- DL585, DL585G2</p>	<p>Emulex LPe11002</p> <p>Driver: 1.20a7</p> <p>BIOS: 1.71a0</p> <p>FW: 2.50a6</p>	<p>Brocade M4700</p> <p>Firmware version: 9.02</p> <p>Brocade Mi10k, M6140</p> <p>Firmware version: 9.02</p> <p>McData Intrepid 6064</p> <p>Firmware version: 9.02</p> <p>McData Sphereon 4500 3232, 3216, 3032, 3016</p> <p>Firmware version: 9.02</p>	<p>Hitachi Dynamic Link Manager (HDLM)</p> <p>Version: 5.9</p>	
Windows Server 2003, Enterprise Edition	<p>Hitachi Data Systems Freedom Storage Lightning</p> <p>- 9980V, 9970V</p> <p>Microcode Version: 21-14</p>	<p>Max supported nodes = 8</p> <p>Hewlett Packard ProLiant</p> <p>- DL360G4, DL360G5</p> <p>- DL380G4, DL380G5</p> <p>- DL385G2, DL580G2</p> <p>- DL580G3, DL585</p>	<p>Emulex LP9002L</p> <p>Driver: 1.20a7</p> <p>BIOS: 1.71a0</p> <p>FW: 3.93a0</p>	<p>Brocade SilkWorm 3250, 3850, 3900 12000, 24000</p> <p>Firmware version: 4.4.0f</p> <p>Geo Distance: 30km</p>	<p>Veritas VxVM DMP</p> <p>Version: 4.3 MP1</p>	
Windows Server 2003, Enterprise Edition	<p>Hitachi Data Systems Freedom Storage Lightning</p> <p>- 9980V, 9970V</p> <p>Microcode Version: 21-14</p>	<p>Max supported nodes = 8</p> <p>Hewlett Packard ProLiant</p> <p>- DL360G4, DL380G4</p> <p>- DL580G2, DL580G3</p> <p>- DL760, DL760G2</p> <p>- ML370G3</p>	<p>Emulex LP10000</p> <p>Driver: 1.20a3</p> <p>BIOS: 1.70a3</p> <p>FW: 1.91a1</p> <p>Emulex LP9002L</p> <p>Driver: 1.20a3</p> <p>BIOS: 1.71</p> <p>FW: 3.93a0</p>	<p>McData Intrepid 6140, 6064</p> <p>Firmware version: 7.01</p> <p>McData Sphereon 4500 3232, 3216, 3032, 3016</p> <p>Firmware version: 7.01</p> <p>McData 4700</p> <p>Firmware version: 8.02</p> <p>McData i10k</p> <p>Firmware version: 6.03</p>	<p>Hitachi Dynamic Link Manager (HDLM)</p> <p>Version: 5.8</p>	

Windows Server 2003, Enterprise Edition	<p>Hitachi Data Systems Freedom Storage Lightning</p> <p>- 9980V, 9970V</p> <p>Microcode Version: 21-09</p>	<p>Max supported nodes = 8</p> <p>Hewlett Packard ProLiant</p> <p>- DL360G4, DL380G4</p> <p>- DL580G2, DL580G3</p> <p>- DL760, DL760G2</p> <p>- ML370G3</p>	<p>Emulex LP10000</p> <p>Driver: 1.20a3</p> <p>BIOS: 1.70a3</p> <p>FW: 1.91a1</p> <p>Emulex LP9002L</p> <p>Driver: 1.20a3</p> <p>BIOS: 1.71</p> <p>FW: 3.93a0</p>	<p>McData Intrepid 6140, 6064</p> <p>Firmware version: 7.01</p> <p>McData Sphereon 4500 3232, 3216, 3032, 3016</p> <p>Firmware version: 7.01</p> <p>McData 4700</p> <p>Firmware version: 8.02</p> <p>McData i10k</p> <p>Firmware version: 6.03</p>	<p>Hitachi Dynamic Link Manager (HDLM)</p> <p>Version: 5.8</p>
Windows Server 2003, Enterprise Edition	<p>Hitachi Data Systems Freedom Storage Lightning</p> <p>- 9980V, 9970V</p> <p>Microcode Version: 21-14</p>	<p>Max supported nodes = 8</p> <p>Hewlett Packard ProLiant</p> <p>- DL380G4, DL385</p> <p>- DL560, DL580G2</p> <p>- DL740, DL760G2</p> <p>- ML350G2, ML370G3</p>	<p>Emulex LightPulse</p> <p>- LP1050</p> <p>- LP9802</p> <p>Driver: 1.10a4</p> <p>BIOS: 1.70a3</p> <p>FW: 1.91a1</p>	<p>McData i10k</p> <p>Firmware version: 6.3.1.1</p> <p>McData 6140, 6064, 4500, 3232, 3216, 3032, 3016</p> <p>Firmware version: 7.01</p> <p>Geo Distance: 10km</p>	<p>Hitachi Dynamic Link Manager (HDLM)</p> <p>Version: 5.7</p>
Windows Server 2003, Enterprise Edition	<p>Hitachi Data Systems Freedom Storage Lightning</p> <p>- 9980V, 9970V</p> <p>Microcode Version: 21-14</p>	<p>Max supported nodes = 8</p> <p>Hewlett Packard ProLiant</p> <p>- DL380G3, DL380G4</p> <p>- DL385, DL560</p> <p>- DL580G2, DL740</p> <p>- ML350G2, ML370G3</p>	<p>Emulex LightPulse</p> <p>- LP10000</p> <p>Driver: 2.23a6</p> <p>BIOS: 1.70a1</p> <p>FW: 1.90a4</p> <p>Emulex LightPulse</p> <p>- LP9002</p> <p>Driver: 2.23a6</p> <p>BIOS: 1.70a1</p> <p>FW: 3.92a2</p>	<p>McData i10k</p> <p>Firmware version: 6.3.1.1</p> <p>McData 6140, 6064, 4500, 3232, 3216, 3032, 3016</p> <p>Firmware version: 7.01</p> <p>Geo Distance: 10km</p>	<p>Hitachi Dynamic Link Manager (HDLM)</p> <p>Version: 5.4</p>
Windows Server 2003, Enterprise Edition	<p>Hitachi Data Systems Freedom Storage Lightning</p> <p>- 9980V, 9970V</p> <p>Microcode Version: 21-14</p>	<p>Max supported nodes = 8</p> <p>Hewlett Packard ProLiant</p> <p>- DL380G3, DL380G4</p> <p>- DL385, DL560</p> <p>- DL580G2, DL740</p> <p>- ML350G2, ML370G3</p>	<p>Emulex LightPulse</p> <p>- LP10000</p> <p>Driver: 2.23a6</p> <p>BIOS: 1.70a1</p> <p>FW: 1.90a4</p> <p>Emulex LightPulse</p> <p>- LP9002</p> <p>Driver: 2.23a6</p> <p>BIOS: 1.70a1</p> <p>FW: 3.92a2</p>	<p>McData i10k</p> <p>Firmware version: 6.3.1.1</p> <p>McData 6140, 6064, 4500, 3232, 3216, 3032, 3016</p> <p>Firmware version: 7.01</p>	<p>Hitachi Dynamic Link Manager (HDLM)</p> <p>Version: 5.4</p>

Windows Server 2003, Enterprise Edition	Hitachi Data Systems Freedom Storage Lightning - 9980V, 9970V Microcode Version: 21-14	Max supported nodes = 8 Hewlett Packard ProLiant - DL380G3, DL380G4, - DL560, DL580G2, - DL760, DL760G2 - DL580G3, ML370G3	Emulex LP10000 Driver: 5-2.22a8 BIOS: 1.70a1 FW: 1.90a4	McData Intrepid 6140, 6064 Firmware version: 7.01 McData Sphereon 4500, 3232, 3216, 3032, 3016 Firmware version: 7.01	Hitachi Dynamic Link Manager (HDLM) Version: 5.2	
Windows Server 2003, Enterprise Edition	Hitachi Data Systems Freedom Storage Lightning - 9980V, 9970V Microcode Version: 21-14	Max supported nodes = 8 Hewlett Packard ProLiant - DL380G3, DL380G4, - DL560, DL580G2, - DL760, DL760G2 - DL580G3, ML370G3	Emulex - LP8000 - LP9002 Driver: 5-2.22a8 BIOS: 1.70a1 FW: 3.92a2	McData Intrepid 6140, 6064 Firmware version: 7.01 McData Sphereon 4500 3232, 3216, 3032, 3016 Firmware version: 7.01	Hitachi Dynamic Link Manager (HDLM) Version: 5.2	
Windows Server 2003, Enterprise Edition	Hitachi Data Systems Freedom Storage Lightning - 9980V, 9970V Microcode Version: 21-10	Max supported nodes = 8 Hewlett Packard ProLiant - DL580G3, DL380G4, - ML570G2, ML370G2	Emulex LP10000 Driver: 5-2.23a6 FW: 1.90a4 BIOS: 1.70a1	Brocade SilkWorm 3800 Firmware version: 3.2 Brocade SilkWorm 3900 Firmware version: 4.1	Hitachi Dynamic Link Manager (HDLM) Version: 5.2	
Windows Server 2003, Enterprise Edition	Hitachi Data Systems Freedom Storage Lightning - 9980V, 9970V Microcode Version: 21-10	Max supported nodes = 8 Hewlett Packard ProLiant - DL580G2, ML370G3, - ML530G2, ML370G2, - DL760, DL760G2 - DL380G3, DL560	Emulex LP10000 Driver: 5-2.23a6 FW: 1.90a4 BIOS: 1.70a1	Brocade SilkWorm 3250, 3850 Firmware version: 4.4 Brocade SilkWorm 12000, 24000 Firmware version: 4.4	Hitachi Dynamic Link Manager (HDLM) Version: 5.2	
Windows Server 2003, Enterprise Edition	Hitachi Data Systems Freedom Storage Lightning - 9980V, 9970V Microcode Version: 21-14	Max supported nodes = 8 Hewlett Packard ProLiant - DL580G2, ML370G3, - ML530G2, ML370G2, - DL760, DL760G2 - DL380G3, DL560	Emulex LP10000 Driver: 5-2.22a8 FW: 1.90a4 BIOS: 1.70a1	McData Intrepid 6140, 6064 Firmware version: 7.01 McData Sphereon 4500, 3232, 3216, 3032, 3016 Firmware version: 7.01	Hitachi Dynamic Link Manager (HDLM) Version: 5.2	

Windows Server 2003, Enterprise Edition	Hitachi Data Systems Freedom Storage Lightning - 9980V, 9970V Microcode Version: 21-10	Max supported nodes = 8 Hewlett Packard ProLiant - DL580G2, ML370G3, - ML530G2, ML370G2, - DL760, DL760G2 - DL380G3, DL560	Emulex LP10000 Driver: 5-2.23a6 FW: 1.90a4 BIOS: 1.70a1	Brocade SilkWorm 3900 Firmware version: 4.1 Brocade SilkWorm 3200, 3800 Firmware version: 3.2	Hitachi Dynamic Link Manager (HDLM) Version: 5.2	
Windows Server 2003, Enterprise Edition	Hitachi Data Systems Freedom Storage Lightning - 9980V, 9970V Microcode Version: 21-10	Max supported nodes = 8 Hewlett Packard ProLiant - DL580G2, ML370G3, - ML530G2, ML370G2, - DL760, DL760G2 - DL380G3, DL560	Emulex LP9002 Driver: 5-2.23a6 FW: 3.92a2 BIOS: 1.70a1	McData 6140, 6064 Firmware version: 7.01 McData 4500, 3232, 3216 Firmware version: 7.01 McData 3032, 3016 Firmware version: 7.01	Hitachi Dynamic Link Manager (HDLM) Version: 5.5	
Windows Server 2003, Enterprise Edition	Hitachi Data Systems Freedom Storage Lightning - 9980V, 9970V Microcode Version: 21-09	Max supported nodes = 5 Hewlett Packard ProLiant - DL580 G2, ML370 G3, - ML530 G2, ML370 G2, - DL760	Emulex LP10000 Driver: 5-2.21a8 FW: 1.81a1 BIOS: 1.70a1	Brocade SilkWorm 2800 Firmware version: 2.6.2a Brocade SilkWorm 3800 Firmware version: 3.1.2 Brocade SilkWorm 3900 Firmware version: 4.2	Hitachi Dynamic Link Manager (HDLM) Version: 5.2	
Windows Server 2003, Enterprise Edition	Hitachi Data Systems Freedom Storage Lightning - 9980V, 9970V Microcode Version: 21-07	Max supported nodes = 2 Hewlett Packard ProLiant - DL760 G1, DL580G2	Emulex LP8000 Driver: 5-2.22a8 BIOS: 1.70a1 FW: 3.92a2 Emulex LP9002 Driver: 5-2.22a8 BIOS: 1.70a1 FW: 3.92a2	McData Intrepid 6140, 6064 Firmware version: 6.01 McData Sphereon 4500 3232, 3216, 3032, 3016 Firmware version: 6.01 McData ED5000 Firmware version: 4.01	Hitachi Dynamic Link Manager (HDLM) Version: 5.2	
Windows Server 2003, Enterprise Edition	Hitachi Data Systems Freedom Storage Lightning - 9980V, 9970V Microcode Version: 21-08	Max supported nodes = 2 Hewlett Packard ProLiant - DL580 G1, DL580 G2	Emulex LP9802 Driver: 5-2.21a8 FW: 1.01a2 BIOS: 1.63a2	Brocade SilkWorm 12000 Firmware version: 4.1.1a Brocade SilkWorm 6400 Firmware version: 2.6.1 Brocade SilkWorm 3800 Firmware version: 3.1.1b GeoCluster: 50km	Hitachi Dynamic Link Manager (HDLM) Version: 5.2	

Windows Server 2003, IA64 Enterprise Edition	Hitachi Data Systems Freedom Storage Lightning - 9980V, 9970V Microcode Version: 21-10	Max supported nodes = 2 Hewlett Packard Integrity - rx2600, rx5670	Emulex LP9802 Driver: 6-2.21a8 FW: 1.01a2 BIOS: 1.63a2	Cisco MDS 9509 Firmware version: 1.3.3 Cisco MDS 9216 Firmware version: 1.3.3 GeoCluster: 10km	Hitachi Dynamic Link Manager (HDLM) Version: 5.2	
Windows 2000 Advanced Server	Hitachi Data Systems Freedom Storage Lightning - 9980V, 9970V Microcode Version: 21-14	Max supported nodes = 4 Hewlett Packard ProLiant - DL380G3, DL385 - DL560, DL580G2 - DL740	Emulex LightPulse - LP10000 Driver: 2.23a6 BIOS: 1.70a1 FW: 1.90a4	McData i10k Firmware version: 6.3.1.1 McData 6140, 6064, 4500 3232, 3216, 3032, 3016 Firmware version: 7.01	Hitachi Dynamic Link Manager (HDLM) Version: 5.4	
Windows 2000 Advanced Server	Hitachi Data Systems Freedom Storage Lightning - 9980V, 9970V Microcode Version: 21-14	Max supported nodes = 4 Hewlett Packard ProLiant - DL385, DL760 - ML570G2, ML370G3	Emulex LightPulse - LP9002 Driver: 2.23a6 BIOS: 1.70a1 FW: 1.90a4	McData i10k Firmware version: 6.3.1.1 McData 6140, 6064, 4500 3232, 3216, 3032, 3016 Firmware version: 7.01 Geo Distance: 10km	Hitachi Dynamic Link Manager (HDLM) Version: 5.4	
Windows 2000 Advanced Server	Hitachi Data Systems Freedom Storage Lightning - 9980V, 9970V Microcode Version: 21-14	Max supported nodes = 4 Hewlett Packard ProLiant - DL380G3, DL385 - DL560, DL580G2 - DL740, DL760 - ML570G2, ML370G3	Emulex LightPulse - LP9002 Driver: 2.23a6 BIOS: 1.70a1 FW: 3.92a2	McData i10k Firmware version: 6.3.1.1 McData 6140, 6064, 4500 3232, 3216, 3032, 3016 Firmware version: 7.01	Hitachi Dynamic Link Manager (HDLM) Version: 5.4	
Windows 2000 Advanced Server	Hitachi Data Systems Freedom Storage Lightning - 9980V, 9970V Microcode Version: 21-14	Max supported nodes = 4 Hewlett Packard ProLiant - DL380G2, DL580G2 - DL760, DL760G2	Emulex LP10000 Driver: 5-2.22a8 BIOS: 1.70a1 FW: 1.90a4	McData Intrepid 6140, 6064 Firmware version: 7.01 McData Sphereon 4500 3232, 3216, 3032, 3016 Firmware version: 7.01	Hitachi Dynamic Link Manager (HDLM) Version: 5.2	

Windows 2000 Advanced Server	Hitachi Data Systems Freedom Storage Lightning - 9980V, 9970V Microcode Version: 21-14	Max supported nodes = 4 Hewlett Packard ProLiant - DL380G2, DL580G2 - DL760, DL760G2	Emulex - LP8000 - LP9002 Driver: 5-2.22a8 BIOS: 1.70a1 FW: 3.92a2	McData Intrepid 6140, 6064 Firmware version: 7.01 McData Sphereon 4500 3232, 3216, 3032, 3016 Firmware version: 7.01	Hitachi Dynamic Link Manager (HDLM) Version: 5.2	
Windows 2000 Advanced Server	Hitachi Data Systems Freedom Storage Lightning - 9980V, 9970V Microcode Version: 21-14	Max supported nodes = 4 Hewlett Packard ProLiant - DL380G3, DL560 - DL580G2, DL760	Emulex LP8000 Driver: 5-2.13a4 BIOS: FW: 3.90a7 Emulex LP9002 Driver: 5-2.13a4 BIOS: FW: 3.90a7	McData Intrepid 6140, 6064 Firmware version: 7.01 McData Sphereon 4500 3232, 3216, 3032, 3016 Firmware version: 7.01	Hitachi Dynamic Link Manager (HDLM) Version: 5.1	
Windows 2000 Advanced Server	Hitachi Data Systems Freedom Storage Lightning - 9980V, 9970V Microcode Version: 21-09	Max supported nodes = 4 Hewlett Packard ProLiant - DL380G3, DL580G2 - DL760, DL760G2	Emulex - LP8000 - LP9002 Driver: 5-2.22a8 BIOS: 1.70a1 FW: 3.92a2	McData Intrepid 6140, 6064 Firmware version: 7.01 McData Sphereon 4500 3232, 3216, 3032, 3016 Firmware version: 7.01	Hitachi Dynamic Link Manager (HDLM) Version: 5.2	
Windows 2000 Advanced Server	Hitachi Data Systems Freedom Storage Lightning - 9980V, 9970V Microcode Version: 21-09	Max supported nodes = 2 Hewlett Packard ProLiant - DL760, DL580G2	Emulex - LP8000 - LP9002 Driver: 5-2.22a8 BIOS: 1.70a1 FW: 3.92a2	McData Intrepid 6140, 6064 Firmware version: 6.01 McData Sphereon 4500 3232, 3216, 3032, 3016 Firmware version: 6.01	Hitachi Dynamic Link Manager (HDLM) Version: 5.2	
Windows 2000 Advanced Server	Hitachi Data Systems Freedom Storage Lightning - 9980V, 9970V Microcode Version: 21-09	Max supported nodes = 4 Hewlett Packard ProLiant - DL380G3, DL560 - DL580G2, DL760	Emulex LP8000 Driver: 5-2.13a4 BIOS: FW: 3.90a7 Emulex LP9002 Driver: 5-2.13a4 BIOS: FW: 3.90a7	McData Intrepid 6140, 6064 Firmware version: 7.01 McData Sphereon 4500 3232, 3216, 3032, 3016 Firmware version: 7.01	Hitachi Dynamic Link Manager (HDLM) Version: 5.1	

Windows 2000 Advanced Server	Hitachi Data Systems Freedom Storage Lightning - 9980V, 9970V Microcode Version: 21-07	Max supported nodes = 2 Hewlett Packard ProLiant - DL760	Emulex LP8000 Driver: 5-2.21a8 BIOS: 1.63a2 FW: 3.91a3 Emulex LP9002 Driver: 5-2.21a8 BIOS: 1.63a2 FW: 3.91a3	6140, 6064 Firmware version: 5.02 McData Sphereon 4500 3232, 3216, 3032, 3016 Firmware version: 5.02 McData ED5000 Firmware version: 4.01	Hitachi Dynamic Link Manager (HDLM) Version: 5.1	
Windows 2000 Advanced Server	Hitachi Data Systems Freedom Storage Lightning - 9980V, 9970V Microcode Version: 21-07	Max supported nodes = 2 Hewlett Packard ProLiant - DL580 G2	Emulex LP9002 Driver: 5-2.21a8 BIOS: 1.63a2 FW: 3.91a3	McData Intrepid 6140, 6064 Firmware version: 5.02 McData Sphereon 4500, 3232, 3216, 3032, 3016 Firmware version: 5.02 McData ED5000 Firmware version: 4.01	Hitachi Dynamic Link Manager (HDLM) Version: 5.1	
Windows 2000 Advanced Server	Hitachi Data Systems Freedom Storage Lightning - 9980V, 9970V Microcode Version: 21-06	Max supported nodes = 2 Hewlett Packard ProLiant - DL380G2	Emulex LP9002 Driver: 5-2.13a4 BIOS: FW: 3.90a7	6140, 6064 Firmware version: 5.01 McData Sphereon 4500, 3232, 3216, 3032, 3016 Firmware version: 5.01 McData ED5000 Firmware version: 4.01	Hitachi Dynamic Link Manager (HDLM) Version:	
Windows 2000 Advanced Server	Hitachi Data Systems Freedom Storage Lightning 9900V Microcode Version: 21-05	Max supported nodes = 2 Hewlett Packard ProLiant -	Emulex LP9002L Driver: 2.13a4 BIOS: FW: 3.90a7	McData Sphereon 4500 Firmware version: 5.01 Brocade SilkWorm 12000 Firmware version: 4.02c Brocade SilkWorm 3800 Firmware version: 3.02h	Hitachi Dynamic Link Manager (HDLM) Version: 5.x	
Windows 2000 Advanced Server	Hitachi Data Systems Freedom Storage Lightning - 9980V, 9970V Microcode Version: 21-05	Max supported nodes = 2 Hewlett Packard ProLiant - DL760, DL580G2,	Emulex LP8000 Driver: 5-2.11a2 BIOS: FW: 3.81a3	McData Intrepid 6064 Firmware version: 2.00 McData ED5000 Firmware version: 3.03	Hitachi Dynamic Link Manager (HDLM) Version: 5.1	

Windows 2000 Advanced Server	Hitachi Data Systems Freedom Storage Lightning - 9980V, 9970V Microcode Version: 21-06	Max supported nodes = 2 Hewlett Packard ProLiant - DL760, DL580G2,	Emulex LP8000 Driver: 5-2.11a2 BIOS: FW: 3.81a3 Emulex LP9002 Driver: 5-2.13a4 BIOS: FW: 3.90a7	McData Intrepid 6140, 6064 Firmware version: 5.02 McData Sphereon 4500, 3232, 3216, 3032, 3016 Firmware version: 5.02 McData ED5000 Firmware version: 4.01	Hitachi Dynamic Link Manager (HDLM) Version: 5.1	
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***Note:** Servers can be used homogeneously or heterogeneously within a cluster

****Blue indicates test was run with HW but may not be listed.****