DellTM High Availability Clusters Configuration Support Matrix

PowerEdgeTM Cluster with PowerVaultTM MD3200i/MD3220i iSCSI Storage Array running Microsoft[®] Windows[®] Failover Cluster



PowerEdge Cluster with PowerVault MD3200i/MD3220i Array Release Date: May, 2012



The storage and server components that are listed on this matrix have been tested and validated by Dell High-Availability Solutions Engineering for use in Windows Server Failover Clusters. Building a cluster using components from this list – and ensuring that the firmware and driver versions conform to those that are listed – ensures that the resulting cluster has been fully qualified by Dell and our partners.

Storage Components:					
Up to 4 storage systems per	Dell Storage System:				
cluster	Dell PowerVault:	MD3200i/MD3220i	MD1200/MD1220		
	Enclosure Firmware:	07.80.41.60	1.01		
	NVRAM Revision	N26X0-780890-001			
Server Components:					
up to 16 homogeneous nodes	Dell Servers:				
	Supported servers (Rack):	PowerEdge R610, R710, R810, R815, R715, R910, R5	10, R620, R720, R720xd, and R820		
	Supported servers (Blade):	PowerEdge M610, M610x, M710, M710HD, M910, M			
	Supported servers (Tower):	PowerEdgeT610 and T710			
	Operating System, Service Pack, and Hotfixes:				
		rprise x64 Edition with Service Pack 2†	Supported on any server listed above.		
	Microsoft Windows Server 2008, R2 Enterprise x64 Edition with Service Pack 1 Supported on any server listed above				
	t: The following Windows Server 2008, Enterprise x64bit SP2 edition Hotfix is also required: KB970525				
	PowerVault Modular Disk Storage Manager Software:				
	Dell MDSM version	10.80.G6.47			
iSCSI components:					
	iSCSI initiator:				
	Microsoft iSCSI initiator software	RTM or later			
	iSNS:				
	Microsoft iSNS Server	3.0			
iSCSI interconnects:					
	Network Adapter (dedicated for iSC	SI):			
		n Ethernet Adapters (NICs) supported by the server a	nd storage systems		
	Ethernet Switches (dedicated for iS				
		including Ethernet switch I/O modules supporte	d in the Dell PowerEdge blade enclosures		

For detailed configuration information, please refer to the online documentation for the PowerEdge Cluster with PowerVault MD32XXi Array

PowerEdge Cluster with PowerVault MD3200i/MD3220i Array Release Date: February, 2012



The storage and server components that are listed on this matrix have been tested and validated by Dell High-Availability Solutions Engineering for use in Windows Server Failover Clusters. Building a cluster using components from this list – and ensuring that the firmware and driver versions conform to those that are listed – ensures that the resulting cluster has been fully qualified by Dell and our partners.

Storage Components: Up to 4 storage systems per	Dall Starage Systems			
cluster	Dell Storage System: Dell PowerVault:	MD3200i/MD3220i	MD1200/MD1220	
	Enclosure Firmware:	07.80.41.60	1.01	
	NVRAM Revision	N26X0-780890-001		
Server Components:				
ip to 16 homogeneous nodes	Dell Servers:			
	Supported servers (Rack): PowerEdge R610, R710, R810, R815, R715, R910, R510, R620, R720, and R720xd			
	Supported servers (Blade):	PowerEdge M610, M610x, M710, M710HD, M910, M	4915, and M620	
	Supported servers (Tower):	PowerEdgeT610 and T710		
	Operating System, Service Pack, ar			
	Microsoft Windows Server 2008, Ent	erprise x64 Edition with Service Pack 2†	Supported on any server listed above.	
	Microsoft Windows Server 2008, R2	Enterprise x64 Edition with Service Pack 1	Supported on any server listed above.	
	t: The following Windows Server 2008, Enterprise x64bit SP2 edition Hotfix is also required: KB970525			
	PowerVault Modular Disk Storage Manager Software:			
	Dell MDSM version	10.80.G6.47		
SCSI components:				
	iSCSI initiator:			
	Microsoft iSCSI initiator software	RTM or later		
	iSNS:			
	Microsoft iSNS Server	3.0		
SCSI interconnects:				
	Network Adapter (dedicated for iSCSI):			
	•	on Ethernet Adapters (NICs) supported by the server a	and storage systems	
	Ethernet Switches (dedicated for iSCSI)			
		, including Ethernet switch I/O modules supporte	ed in the Dell PowerEdge blade enclosures	

For detailed configuration information, please refer to the online documentation for the PowerEdge Cluster with PowerVault MD32XXi Array

PowerEdge Cluster with PowerVault MD3200i/MD3220i Array Release Date: October, 2011



Navaga Camananana					
Storage Components:	2.110				
Jp to 4 storage systems per cluster	Dell Storage System:	N. 7. 7. 9. 9. 1. 1. 7. 7. 9. 9. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1.	117.1000 (1.17.1000		
iustei	Dell PowerVault:	MD3200i/MD3220i	MD1200/MD1220		
	Enclosure Firmware:	07.80.41.60	1.01		
	NVRAM Revision	N26X0-780890-001			
erver Components:					
o to 16 homogeneous nodes	Dell Servers:				
	Supported servers (Rack):	PowerEdge R610, R710, R810, R815, R715, R910	D, and R510		
	Supported servers (Blade):	PowerEdge M610, M610x, M710, M710HD, M91	LO, and M915		
	Supported servers (Tower):	PowerEdgeT610 and T710			
	Operating System, Service Pack, and Hotfix				
	Microsoft Windows Server 2008, Enterprise x		Supported on any server listed above.		
	Microsoft Windows Server 2008, R2 Enterpris		Supported on any server listed above.		
	t: The following Windows Server 2008, Enterprise x64bit SP2 edition Hotfix is also required: KB970525				
	PowerVault Modular Disk Storage Manager	r Software:			
	Dell MDSM version	10.80.G6.47			
CSI components:					
	iSCSI initiator:				
	Microsoft iSCSI initiator software	2.08			
	iSNS:				
	Microsoft iSNS Server	3.0			
CSI interconnects:					
	Network Adapter (dedicated for iSCSI):		NIC Driver versio		
		Inter Pro/1000 PT Single and Dual Port 1GbE N	NICs 12.5.2_A00 or late		
		Intel 10 Gigabit AT Server Single Port NIC	12.5.2_A00 or late		
	All supported non-blade servers	Broadcom 5708 Single Port 1GbE NIC with TC	DE 16.2.0_A01 or later		
		Broadcom 5709 Single Port 1GbE NIC with TC			
		Broadcom 57710 Single Port 10GbE NIC with	TOE 16.2.0_A01 or later		
	M610, M710, M910, and M915	Broadcom 5709 1GbE NIC with TOE	16.2.0_A01 or later		
	M610, M610x, M710, M710HD, M910, and M915	Broadcom 57110 10GbE Ethernet NIC with TC			
	Ethernet Switches (dedicated for iSCSI)		10.2.03 (01 01 take)		

PowerEdge Cluster with PowerVault MD3200i/MD3220i Array Release Date: July, 2011



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Dell Storage System:				
Dell PowerVault:	MD3200i/MD3220i	MD1200/MD1220		
Enclosure Firmware:	07.75.14.61	1.01		
NVRAM Revision	N26X0-775890-009			
Dell Servers:				
Supported servers (Rack):	PowerEdge R610, R710, R810, R815, R715, R910, a	and R510		
Supported servers (Blade):	PowerEdge M610, M610x, M710, M710HD, M910,			
Supported servers (Tower):	PowerEdgeT610 and T710			
Operating System, Service Pack, and Hotfix	xes:			
Microsoft Windows Server 2008, Enterprise x	64 Edition with Service Pack 2†	Supported on any server listed above.		
Microsoft Windows Server 2008, R2 Enterpris	se x64 Edition with Service Pack 1	Supported on any server listed above.		
t: The following Windows Server 2008, Enterprise x64bit SP2 edition Hotfix is also required: KB970525				
PowerVault Modular Disk Storage Manager Software:				
Dell MDSM version	10.75.36.16			
iSCSI initiator:				
Microsoft iSCSI initiator software	2.08			
iSNS:				
Microsoft iSNS Server	3.0			
Network Adapter (dedicated for iSCSI):		NIC Driver version		
	Inter Pro/1000 PT Single and Dual Port 1GbE NIC	Cs 12.5.2_A00 or later		
	Intel 10 Gigabit AT Server Single Port NIC	12.5.2_A00 or later		
All supported non-blade servers	Broadcom 5708 Single Port 1GbE NIC with TOE	16.2.0_A01 or later		
	Broadcom 5709 Single Port 1GbE NIC with TOE	16.2.0_A01 or later		
	Broadcom 57710 Single Port 10GbE NIC with TO	E 16.2.0_A01 or later		
M610, M710, M910, and M915	Broadcom 5709 1GbE NIC with TOE	16.2.0_A01 or later		
M610, M610x, M710, M710HD, M910, and M915	Broadcom 57110 10GbE Ethernet NIC with TOE	16.2.0_A01 or later		
Ethernet Switches (dedicated for iSCSI)		·		
	abit Ethernet switch modules supported in the	e Dell PowerEdge blade enclosure		
	Dell Storage System: Dell PowerVault: Enclosure Firmware: NVRAM Revision Dell Servers: Supported servers (Rack): Supported servers (Blade): Supported servers (Tower): Operating System, Service Pack, and Hotfit Microsoft Windows Server 2008, Enterprise x Microsoft Windows Server 2008, R2 Enterprise to the following Windows Server 2008, Enterprise to the following Windows	Dell Storage System: Dell PowerVault: Enclosure Firmware: NVRAM Revision Dell Servers: Supported servers (Rack): Supported servers (Blade): Supported servers (Blade): PowerEdge R610, R710, R810, R815, R715, R910, a Supported servers (Tower): PowerEdge M610, M610x, M710, M710HD, M910, Supported servers (Tower): PowerEdgeT610 and T710 Operating System, Service Pack, and Hotfixes: Microsoft Windows Server 2008, Enterprise x64 Edition with Service Pack 2† Microsoft Windows Server 2008, Enterprise x64 Edition with Service Pack 1 The following Windows Server 2008, Enterprise x64bit SP2 edition Hotfix is also required PowerVault Modular Disk Storage Manager Software: Dell MDSM version 10.75.36.16 Inter Pro/1000 PT Single and Dual Port 1GbE NIC intel 10 Gigabit AT Server Single Port NIC Broadcom 5708 Single Port 1GbE NIC with TOE Broadcom 5709 Single Port 1GbE NIC with TOE M610, M710, M910, and M915 M610, M710, M910, and M915 Broadcom 5709 IgbE NIC with TOE M610, M610x, M710, M710HD, M910, and M915 Broadcom 57110 10GbE Ethernet NIC with TOE M610, M610x, M710, M710HD, M910, and M915 Broadcom 57110 10GbE Ethernet NIC with TOE M610, M610x, M710, M710HD, M910, and M915 Broadcom 57110 10GbE Ethernet NIC with TOE		

PowerEdge Cluster with PowerVault MD3200i/MD3220i Array Release Date: April, 2011



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Storage Components: Up to 4 storage systems per	Dell Chave as Customs			
cluster	Dell Storage System: Dell PowerVault:	MD3200i/MD3220i	MD1200/MD1220	
	Enclosure Firmware:	07.75.14.61	A00	
	NVRAM Revision	N26X0-775890-009	AUU	
	INVICANT REVISION	142640-775890-009		
Server Components:	- u.a			
up to 16 homogeneous nodes for Windows Server 2008 x64bit	Dell Servers:			
SP2 and Windows Server 2008	Supported servers (Nack).	PowerEdge R610, R710, R810, R815, R715, R910, and		
R2 x64bit	Supported servers (Blade):	PowerEdge M610, M610x, M710, M710HD, and M910		
	Supported servers (Tower):	PowerEdgeT610 and T710		
	Operating System, Service Pack, and			
	·	erprise x64 Edition with Service Pack 2† Supported on any server listed above.		
	Microsoft Windows Server 2008, R2 En	crosoft Windows Server 2008, R2 Enterprise x64 Edition with Service Pack 1 Supported on any server listed above.		
	t: The following Windows Server 2008, Enterprise x64bit SP2 edition Hotfix is also required: KB970525			
	PowerVault Modular Disk Storage Manager Software:			
	Dell MDSM version	10.75.G6.12		
iSCSI components:				
	iSCSI initiator:			
	Microsoft iSCSI initiator software	2.08		
iSCSI interconnects:				
	Network Adapter (dedicated for iSCS	I):	NIC Driver version	
		Inter Pro/1000 PT Single and Dual Port 1GbE NICs	12.5.2_A00 or late	
		Intel 10 Gigabit AT Server Single Port NIC	12.5.2_A00 or late	
	All supported non-blade servers	Broadcom 5708 Single Port 1GbE NIC with TOE	16.2.0_A01 or late	
		Broadcom 5709 Single Port 1GbE NIC with TOE	16.2.0_A01 or late	
		Broadcom 57710 Single Port 10GbE NIC with TOE	16.2.0_A01 or late	
	M610, M710, and M910	Broadcom 5709 1GbE NIC with TOE	16.2.0_A01 or late	
	M610, M610x, M710, M710HD, and M910	Broadcom 57110 10GbE Ethernet NIC with TOE	16.2.0_A01 or late	
	Ethernet Switches (dedicated for iSC	SI)		
	· ·	g Gigabit Ethernet switch modules supported in	the Dell PowerEdge blade enclosure	
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PowerEdge Cluster with PowerVault MD3200i/MD3220i Array Release Date: March, 2011



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Storage Components:				
Up to 4 storage systems per	Dell Storage System:			
cluster	Dell PowerVault:	MD3200i/MD3220i	MD1200/M	D1220
	Enclosure Firmware:	07.75.10.60	A00	
	NVRAM Revision	N26X0-775890-009		
Server Components:				
up to 16 homogeneous nodes	Dell Servers:			
or Windows Server 2008 x64bi	Supported servers (Rack):	PowerEdge R610, R710, R810, R815, R715, R910,	and R510	
SP2 and Windows Server 2008	Supported servers (Blade):	PowerEdge M610, M610x, M710, M710HD, and M91	0	
R2 x64bit	Supported servers (Tower):	PowerEdgeT610 and T710		
	Operating System, Service Pack, and	Hotfixes:		
	Microsoft Windows Server 2008, Enterp	•	Supported on any server liste	d above.
	Microsoft Windows Server 2008, R2 Ent	•	Supported on any server liste	d above.
		Enterprise x64bit SP2 edition Hotfix is also requir	red: KB970525	
	PowerVault Modular Disk Storage Ma	nager Software:		
	Dell MDSM version	10.75.G6.12		
SCSI components:				
	iSCSI initiator:			
	Microsoft iSCSI initiator software	2.08		
SCSI interconnects:				
	Network Adapter (dedicated for iSCSI	1):		NIC Driver version
		Inter Pro/1000 PT Single and Dual Port 1GbE NICs		12.0_A01 or later
		Intel 10 Gigabit AT Server Single Port NIC		12.0_A01 or later
	All supported non-blade servers	Broadcom 5708 Single Port 1GbE NIC with TOE		14.2.0_A03 or later
		Broadcom 5709 Single Port 1GbE NIC with TOE		14.2.0_A03 or later
		Broadcom 57710 Single Port 10GbE NIC with TOE		14.2.0_A03 or later
	M610, M710, and M910	Broadcom 5709 1GbE NIC with TOE		14.2.0_A03 or later
	M610, M610x, M710, M710HD, and M910	Broadcom 57110 10GbE Ethernet NIC with TOE		14.2.0_A03 or later
	Ethernet Switches (dedicated for iSC			_
	•	Gigabit Ethernet switch modules supported in the	e Dell PowerEdge blade enclo	sure
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PowerEdge Cluster with PowerVault MD3200i/MD3220i Array: High-Availability / Microsoft Cluster Services Release Date: October, 2010

The storage and server components that are listed on this matrix have been tested and validated by Dell High-Availability Solutions Engineering for use in Windows Server Failover Clusters. Building a cluster using components from this list – and ensuring that the firmware and driver versions conform to those that are listed – ensures that the resulting cluster has been fully qualified by Dell and our partners.

Storage Components:

Up to 4 storage systems per cluster

Dell Storage System:

Dell	PowerVault:	MD3200i/MD3220i	MD1200/MD1220
Encl	osure Firmware:	07.70.06.63	A00
NVR	RAM Revision	N26X0-770890-005	

Server Components:

up to 16 homogeneous nodes for **Dell Servers:** Windows Server 2008 x64bit SP2 and Windows Server 2008 R2 x64bit

Supported servers (Rack):	PowerEdge R610, R710, R810, R815, R715, R910, and R510
Supported servers (Blade):	PowerEdge M610, M610x, M710, M710HD, and M910
Supported servers (Tower):	PowerEdgeT610 and T710

Operating System, Service Pack, and Hotfixes:

Microsoft Windows Server 2008, Enterprise x64 Edition with Service Pack 2†	Supported on any server listed above.
Microsoft Windows Server 2008, R2 Enterprise x64 Edition	Supported on any server listed above.

†: The following Windows Server 2008, Enterprise x64bit SP2 edition Hotfix is also required: KB970525

PowerVault Modular Disk Storage Manager Software:

Dell MDSM version	10.70.36.06
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iSCSI components:

iSCSI initiator:

Microsoft iSCSI initiator software	2.08
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iSCSI interconnects:

Network Adapter (dedicated for iSCSI):		NIC Driver version
	Inter Pro/1000 PT Single and Dual Port 1GbE NICs	12.0_A01 or later
	Intel 10 Gigabit AT Server Single Port NIC	12.0_A01 or later
All supported non-blade servers	Broadcom 5708 Single Port 1GbE NIC with TOE	14.2.0_A03 or later
	Broadcom 5709 Single Port 1GbE NIC with TOE	14.2.0_A03 or later
	Broadcom 57710 Single Port 10GbE NIC with TOE	14.2.0_A03 or later
M610, M710, and M910	Broadcom 5709 1GbE NIC with TOE	14.2.0_A03 or later
M610, M610x, M710, M710HD, and M910	Broadcom 57110 10GbE Ethernet NIC with TOE	14.2.0_A03 or later
Ethernet Switches (dedicated for iSCSI		

Any Gigabit Ethernet switch, including Gigabit Ethernet switch modules supported in the Dell PowerEdge blade enclosure

PowerEdge Cluster with PowerVault MD3200i/MD3220i Array: High-Availability / Microsoft Cluster Services Release Date: June, 2010

The storage and server components that are listed on this matrix have been tested and validated by Dell High-Availability Solutions Engineering for use in Windows Server Failover Clusters. Building a cluster using components from this list – and ensuring that the firmware and driver versions conform to those that are listed – ensures that the resulting cluster has been fully qualified by Dell and our partners.

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Up to 4 storage systems per cluster

Dell Storage System:

Jon Grorago Gyoronni		
Dell PowerVault:	MD3200i/MD3220i	MD1200/MD1220
Enclosure Firmware:	07.70.06.63	A00
NVRAM Revision	N26X0-770890-005	

Server Components:

up to 16 homogeneous nodes for Dell Servers: Windows Server 2008 x64bit SP2 and Windows Server 2008 R2 x64bit

2	Supported servers (Rack):	PowerEdge R610, R710, R810, R815, R715, and R910
	Supported servers (Blade):	PowerEdge M610, M710, and M910
	Supported servers (Tower):	PowerEdgeT610 and T710

Operating System, Service Pack, and Hotfixes:

Microsoft Windows Server 2008, Enterprise x64 Edition with Service Pack 2†	Supported on any server listed above.
Microsoft Windows Server 2008, R2 Enterprise x64 Edition	Supported on any server listed above.

†: The following Windows Server 2008, Enterprise x64bit SP2 edition Hotfix is also required: KB970525

PowerVault Modular Disk Storage Manager Software:

Dell MDSM version 10.70.36.06

iSCSI components:

iSCSI initiator:

Microsoft iSCSI initiator software	2.08
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iSCSI interconnects:

Network Adapter (dedicated for iSCS	I):	NIC Driver version
	Inter Pro/1000 PT Single and Dual Port 1GbE NICs	12.0_A01 or later
	Intel 10 Gigabit AT Server Single Port NIC	12.0_A01 or later
All supported non-blade servers	Broadcom 5708 Single Port 1GbE NIC with TOE	14.2.0_A03 or later
	Broadcom 5709 Single Port 1GbE NIC with TOE	14.2.0_A03 or later
	Broadcom 57710 Single Port 10GbE NIC with TOE	14.2.0_A03
M610, M710, and M910	Broadcom 5709 1GbE NIC with TOE	14.2.0_A03 or later
M610, M710, and M910	Broadcom 57110 10GbE Ethernet NIC with TOE	14.2.0_A03 or later
Ethernet Switches (dedicated for iSC	<u>si</u>	

Any Gigabit Ethernet switch, including Gigabit Ethernet switch modules supported in the Dell PowerEdge blade enclosure