

Dell™ High Availability Clusters Configuration Support Matrix

PowerEdge™ Cluster with PowerVault™ MD3200i/MD3220i iSCSI
Storage Array running Microsoft® Windows® Failover Cluster



Dell Cluster Configuration Support Matrix

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 cluster Server Components: up to 16 homogeneous nodes | Dell Storage System: | | |
| | Dell PowerVault: | MD3200i/MD3220i | MD1200/MD1220 |
| | Enclosure Firmware: | 07.80.41.60 | 1.01 |
| | NVRAM Revision | N26X0-780890-001 | |
| | Dell Servers: | | |
| | Supported servers (Rack): | PowerEdge R610, R710, R810, R815, R715, R910, R510, R620, R720, R720xd, and R820 | |
| | Supported servers (Blade): | PowerEdge M610, M610x, M710, M710HD, M910, M915, and M620 | |
| | 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 with Service Pack 1 | 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 | 10.80.G6.47 | | |
| iSCSI components: | iSCSI initiator: | | |
| | Microsoft iSCSI initiator software | RTM or later | |
| iSNS: | iSNS: | | |
| | Microsoft iSNS Server | 3.0 | |
| iSCSI interconnects: | Network Adapter (dedicated for iSCSI): | | |
| | Any Gigabit or 10Gb on-board or add-on Ethernet Adapters (NICs) supported by the server and storage systems | | |
| | Ethernet Switches (dedicated for iSCSI) | | |
| Any Gigabit or 10Gb Ethernet switch, including Ethernet switch I/O modules supported in the Dell PowerEdge blade enclosures | | | |

[For detailed configuration information, please refer to the online documentation for the PowerEdge Cluster with PowerVault MD32XXi Array](#)

Dell Cluster Configuration Support Matrix

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 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: up 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, M915, and M620 | |
| | | 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 with Service Pack 1 | | 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 | 10.80.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 iSCSI): | | | |
| | Any Gigabit or 10Gb on-board or add-on Ethernet Adapters (NICs) supported by the server and storage systems | | | |
| | Ethernet Switches (dedicated for iSCSI) | | | |
| | Any Gigabit or 10Gb Ethernet switch, including Ethernet switch I/O modules supported in the Dell PowerEdge blade enclosures | | | |

[For detailed configuration information, please refer to the online documentation for the PowerEdge Cluster with PowerVault MD32XXi Array](#)

Dell Cluster Configuration Support Matrix

PowerEdge Cluster with PowerVault MD3200i/MD3220i Array

Release Date: October, 2011



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 Server Components: up to 16 homogeneous nodes | Dell Storage System: | | | |
| | Dell PowerVault: | MD3200i/MD3220i | MD1200/MD1220 | |
| | Enclosure Firmware: | 07.80.41.60 | 1.01 | |
| | NVRAM Revision | N26X0-780890-001 | | |
| | Dell Servers: | | | |
| | Supported servers (Rack): | PowerEdge R610, R710, R810, R815, R715, R910, and R510 | | |
| | Supported servers (Blade): | PowerEdge M610, M610x, M710, M710HD, M910, and M915 | | |
| | 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 with Service Pack 1 | 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 | 10.80.G6.47 | | | |
| iSCSI components: | iSCSI initiator: | | | |
| | Microsoft iSCSI initiator software | 2.08 | | |
| | iSNS: | | | |
| Microsoft iSNS Server | 3.0 | | | |
| iSCSI interconnects: | Network Adapter (dedicated for iSCSI): | | NIC Driver version | |
| | All supported non-blade servers | Inter Pro/1000 PT Single and Dual Port 1GbE NICs | 12.5.2_A00 or later | |
| | | Intel 10 Gigabit AT Server Single Port NIC | 12.5.2_A00 or later | |
| | | 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 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 TOE | 16.2.0_A01 or later | |
| | Ethernet Switches (dedicated for iSCSI) | | | |
| | Any Gigabit Ethernet switch, including Gigabit Ethernet switch modules supported in the Dell PowerEdge blade enclosure | | | |

[For detailed configuration information, please refer to the online documentation for the PowerEdge Cluster with PowerVault MD32XXi Array](#)

Dell Cluster Configuration Support Matrix

PowerEdge Cluster with PowerVault MD3200i/MD3220i Array

Release Date: July, 2011



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 Server Components: up to 16 homogeneous nodes | 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, and R510 | | |
| | Supported servers (Blade): | PowerEdge M610, M610x, M710, M710HD, M910, and M915 | | |
| | 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 with Service Pack 1 | 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 | 10.75.36.16 | | | |
| iSCSI components: | iSCSI initiator: | | | |
| | Microsoft iSCSI initiator software | 2.08 | | |
| | iSNS: | | | |
| Microsoft iSNS Server | 3.0 | | | |
| iSCSI interconnects: | Network Adapter (dedicated for iSCSI): | | NIC Driver version | |
| | All supported non-blade servers | Inter Pro/1000 PT Single and Dual Port 1GbE NICs | 12.5.2_A00 or later | |
| | | Intel 10 Gigabit AT Server Single Port NIC | 12.5.2_A00 or later | |
| | | 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 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 TOE | 16.2.0_A01 or later | |
| | Ethernet Switches (dedicated for iSCSI) | | | |
| | Any Gigabit Ethernet switch, including Gigabit Ethernet switch modules supported in the Dell PowerEdge blade enclosure | | | |

[For detailed configuration information, please refer to the online documentation for the PowerEdge Cluster with PowerVault MD32XXi Array](#)

Dell Cluster Configuration Support Matrix

PowerEdge Cluster with PowerVault MD3200i/MD3220i Array



Release Date: April, 2011

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 |
| Enclosure Firmware: | 07.75.14.61 | A00 |
| NVRAM Revision | N26X0-775890-009 | |

Server Components:

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

Dell Servers:

| | |
|----------------------------|--|
| 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): | PowerEdge T610 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 with Service Pack 1 | 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 | 10.75.G6.12 |
|-------------------|-------------|

iSCSI components:

iSCSI initiator:

| | |
|------------------------------------|------|
| Microsoft iSCSI initiator software | 2.08 |
|------------------------------------|------|

iSCSI interconnects:

Network Adapter (dedicated for iSCSI):

| | | NIC Driver version |
|-------------------------------------|--|---------------------|
| All supported non-blade servers | Inter Pro/1000 PT Single and Dual Port 1GbE NICs | 12.5.2_A00 or later |
| | Intel 10 Gigabit AT Server Single Port NIC | 12.5.2_A00 or later |
| | 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 TOE | 16.2.0_A01 or later |
| M610, M710, and M910 | Broadcom 5709 1GbE NIC with TOE | 16.2.0_A01 or later |
| M610, M610x, M710, M710HD, and M910 | Broadcom 57110 10GbE Ethernet NIC with TOE | 16.2.0_A01 or later |

Ethernet Switches (dedicated for iSCSI)

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

[For detailed configuration information, please refer to the online documentation for the PowerEdge Cluster with PowerVault MD32XXi Array](#)

Dell Cluster Configuration Support Matrix

PowerEdge Cluster with PowerVault MD3200i/MD3220i Array



Release Date: March, 2011

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 |
| Enclosure Firmware: | 07.75.10.60 | A00 |
| NVRAM Revision | N26X0-775890-009 | |

Server Components:

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

Dell Servers:

| | |
|----------------------------|--|
| 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 | 10.75.G6.12 |
|-------------------|-------------|

iSCSI components:

iSCSI initiator:

| | |
|------------------------------------|------|
| Microsoft iSCSI initiator software | 2.08 |
|------------------------------------|------|

iSCSI interconnects:

Network Adapter (dedicated for iSCSI):

| | | NIC Driver version |
|-------------------------------------|--|---------------------|
| All supported non-blade servers | 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 |
| | 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

For detailed configuration information, please refer to the online documentation for the [PowerEdge Cluster with PowerVault MD32XXi Array](#)

Dell Cluster Configuration Support Matrix

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 |
| Enclosure Firmware: | 07.70.06.63 | A00 |
| NVRAM Revision | N26X0-770890-005 | |

Server Components:

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

Dell Servers:

| | |
|----------------------------|--|
| 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 |
|-------------------|-------------|

iSCSI components:

iSCSI initiator:

| | |
|------------------------------------|------|
| Microsoft iSCSI initiator software | 2.08 |
|------------------------------------|------|

iSCSI interconnects:

Network Adapter (dedicated for iSCSI):

| | | NIC Driver version |
|-------------------------------------|--|---------------------|
| All supported non-blade servers | 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 |
| | 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

[For detailed configuration information, please refer to the online documentation for the PowerEdge Cluster with PowerVault MD32XXi Array](#)

Dell Cluster Configuration Support Matrix

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.

Storage Components:

Up to 4 storage systems per cluster

Dell Storage System:

| | | |
|---------------------|------------------|---------------|
| 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 Windows Server 2008 x64bit SP2 and Windows Server 2008 R2 x64bit

Dell Servers:

| | |
|----------------------------|--|
| Supported servers (Rack): | PowerEdge R610, R710, R810, R815, R715, and R910 |
| Supported servers (Blade): | PowerEdge M610, M710, and M910 |
| Supported servers (Tower): | PowerEdge T610 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 |
|------------------------------------|------|

iSCSI interconnects:

Network Adapter (dedicated for iSCSI):

| | | NIC Driver version |
|---------------------------------|--|---------------------|
| All supported non-blade servers | 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 |
| | 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 iSCSI)

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

[For detailed configuration information, please refer to the online documentation for the PowerEdge Cluster with PowerVault MD32XXi Array](#)