Dell™ with Oracle® Database Enterprise Edition Running Windows Server 2008

Oracle 10g Database Enterprise Edition and RAC Running on Windows Server 2008

Minimum Hardware/Software Requirements (Updated 07/29/10 – for details, see below)			
	Validated Component(s)	**Minimum Single Node DB Config**	**Minimum Oracle RAC Config**
Oracle Software & Licenses	Oracle 10g R2 10.2.0.4 Enterprise Edition[7]	Single Node	RAC (max 8 nodes)
Oracle Patch(es)	Oracle 10g R2 10.2.0.4 Critical Security Patches and Recommended Patches[1]		
Operating System	Windows Server 2008 SP2 Standard x64 Edition Windows Server 2008 SP2 Enterprise x64 Edition		
Recommended Support Contract	Dell ProSupport and Oracle supported		
Supported PowerEdge Servers	PowerEdge 1950 III, 2950 III, 2900 III, R2970, R610, R710, R610 II, R710 II, R805, R810, R900, R905, R910, T610, T710, T610 II, T710 II, M1000e with M600, M605, M610, M710, M610 II, M710 II, M805, M905, M910	1 Only	2
Memory	All valid PowerEdge memory configurations	Minimum supported	Minimum supported
Dell | EMC FC Storage Array	CX3-10c, CX3-20 (c/f), CX3-40 (c/f), CX3-80, CX4-120, CX4-240, CX4-480, CX4-960, AX4-5F	N/A (For Internal Storage) 1 (For External Storage)	1
Dell EqualLogic iSCSI Storage Array	PS4000X/XV, 5000X/XV, 6000X/XV/S/E[2], 6010X/XV/S/E[2], 6510X	N/A (For Internal Storage) 1 (For External Storage)	1
Fibre Channel Switch	Brocade SW200E, SW4100, SW5000, SW300, SW5100, SW5300, Cisco MDS 9124, M4400, M4700	N/A	N/A (For Direct Attached) 2 (8 port switches for 2-4 nodes, and 16 port switches for 5 or more nodes)[3]
HBAs	Qlogic QLE2460, QLE2462, QLE2562, QME2472, QME2572, Emulex LPe1150e LPe11002, LPe12000, LPe12002, LPe1105-M4, LPe1205-M	N/A (For Internal Storage) 2 ports (For External Storage)	2 ports (Per Node)[4]

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Ethernet Interfaces	Intel or Broadcom 1GbE NICs Intel 10GbE Server Adapters (AT, XF SR, AF DA) Broadcom 10GbE 57710	1	3 (Per Node)[5]
Ethernet Switches for iSCSI Storage Area Network	Dell PowerConnect 62xx GbE, PowerConnect 54xx GbE , PowerConnect 8024F 10GbE	2	2
Ethernet Switches (For Private Interconnect)	1GbE or 10GbE Switches	N/A	2
Raid Controllers (Used for internal storage only)	PERC 5/i, PERC 6i, CERC6, SAS 6/iR, H200, H700	1	1 (Per Node)
Internal Drive	All valid PowerEdge internal storage configurations	73 GB	73 GB/node

Dell PowerEdge Servers				
	Model	BIOS[6]	ESM - BMC Firmware[6]	Notes
Dell PowerEdge™ Servers	PE 1950 III, PE 2900 III, PE 2950 III	2.6.1	2.37	
	PE R900	1.1.13	2.48	
	PE R805	4.1.0	2.47	
	PE R610, PE R710, PE T610, PE R610 II, PE R710 II, PE T610 II, T710, T710 II	1.3.6	1.30 (iDRAC6)	
	PE R810	1.0.3	1.35 (iDRAC6)	
	PE R905	4.1.1	2.44	
	PE R910	1.0.1	1.35 (iDRAC6)	
	PE M600, PE M805, PE M905	2.3.1	1.52 (iDRAC)	Requires PE M1000e blade enclosure
	PE M605	5.3.2	1.52 (iDRAC)	Requires PE M1000e blade enclosure
	PE M610, PE M710, PE M610 II, PE M710 II	1.3.6	2.20 (iDRAC)	Requires PE M1000e blade enclosure
	PE M910	1.0.1	2.30 (iDRAC)	Requires PE M1000e blade enclosure

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Internal Disks RAID	
H700	Driver version = 4.17.2.64
H200	Driver version = 2.0.12.10
PERC 5/i	Driver version = 2.24.0.64
PERC 6/i	Driver version = 2.24.0.64
CERC6 (PE Blades only)	Driver version = 2.24.0.64
SAS 6/ir	Driver version = 1.28.03.01
Network Interconnect	
Intel NICs	
Intel PROSet PT/PF Single/Dual Port Server Adapters	Driver version = 9.12.36.0
Intel Dual Port (ET)/Quad Port (VT/ET) GbE Server Adapters	Driver version = 11.1.6.0
Intel 10 GbE (AT/XF SR/AF DA) Server Adapters	Driver version = 1.6.9.0
Intel PROSet for Windows Device Manager	Driver version = 14.7.23.0
Broadcom NICs	
Broadcom NetXtreme	Driver version = 12.4.1.1
Broadcom NetXtreme II	NDIS Driver = 5.2.17.0 VBD Driver = 5.2.15.0
Broadcom BASP Teaming Driver	Driver version = 6.3.22.0
Broadcom Advanced Control Suite	Version = 12.4.5.0
Host Bus Adapters (HBAs)	
QLogic HBAs	
QLE 2460, QLE 2462	Boot Bios = 2.02 (1.69); Driver version = 9.1.8.25
QLE 2560, QLE 2562	Boot Bios = 2.02 (2.01); Driver version = 9.1.8.25
QME2472	Boot Bios = 2.04; Driver version = 9.1.8.25
QME2572	Boot Bios = 2.06; Driver version = 9.1.8.25
Emulex HBAs	
LPe1150-E, LPe11002	Boot Bios = 2.11a0; Firmware = 2.82a4; Driver version = 2.20.006
LPe12000-E, LPe12002-E	Boot Bios = 2.11a0; Firmware = 1.11a5; Driver version = 2.20.006
LPe1105-M4	Boot Bios = 3.03a3; Firmware = 2.72a2; Driver version = 2.20.006
LPe1205-M	Boot Bios = 3.03a7; Firmware = 1.00a12; Driver version = 2.20.006
Microsoft Storport Hotfix for HBAs	
KB 968675	storport.sys driver version = 6.0.6002.22128

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Fibre Channel Switches	
Cisco Fibre Channel Switches	
MDS 9124	Firmware version = 3.1.2 or higher
Brocade Fibre Channel Switches	
M4400, M4700	Firmware version = 09.07.02 or higher
Brocade Fibre Channel Switches	
200E, 4100, 5000, 300, 5100, 5300	Firmware version = 6.2.0c or higher
iSCSI SAN Switches	
Dell PowerConnect 54xx GbE Ethernet Switches	Firmware = v2.0.0.41 or higher
Dell PowerConnect 62xx GbE Ethernet Switches	Firmware = v2.2.0.3 or higher
Dell PowerConnect 8024F 10GbE Ethernet Switches	Firmware version = 3.1.1.9 or higher
iSCSI Storage	
Dell EqualLogic PS4000/PS5000,/PS6000/PS6010/PS6510	Firmware = 3.4.3 or higher
Fibre Channel Storage	
Dell | EMC	CX3-10c; CX3-20 (c/f); CX3-40 (c/f), CX3-80 (Release 26 or higher) CX4-120; CX4-240; CX4-480; CX4-960 (Release 28 or higher) AX4-5F (Release 02.23.050.5.004 or higher)
Software	
Oracle	Oracle 10g R2 10.2.0.4 Enterprise Edition for Intel EM64T
For EqualLogic: iSCSI Initiator on Windows	Microsoft iSCSI Initiator 2.0.8
Dell EqualLogic Host Integration Tool Kit on Windows	Version = 3.3.1
Operating system	Windows Server 2008 SP2 Standard or Enterprise x64 Edition
PowerPath for Windows	PowerPath 5.3 (www.emc.com)
Dell Systems Management Tools and Documentation DVD	DVD provided by your Dell PowerEdge Server Bundle (support.dell.com)

NOTES:

1. Oracle 10g R2 10.2.0.4 Patches:
   - April 2009 Critical Patch Updates: refer to Metalink note: 786800.1
   - Oracle Recommended Patches for 10.2.0.4.0 refer to Metalink note:161549.1
2. Dell EqualLogic PS6000E/6010E are supported only to be used for Oracle Flash Recovery Area purposes.
3. This assumes you don't need any other ports for other functions on the switch.
4. PowerEdge 1950 III, R610 and R610 II only support dual port Fibre Channel HBAs. Two single port Fibre Channel HBAs are recommended for other servers.
5. This assumes one NIC for the public network and two teamed NICs for the private network. The two teamed NIC ports for the private network should be on separate PCI buses: one on on-board NIC, one on add on NIC card. It is recommended that two teamed NIC s are homogenous.
6. Minimum BIOS and ESM/BMC/iDRAC versions. For latest updates please go to http://support.dell.com.
7. For W2K8 Oracle base version 10.2.0.1 + PatchSet 10.2.0.4 is not supported. Use Oracle Clusterware and Database version 10.2.0.4 installation media released specifically for W2K8.

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