

Dell™ with Oracle® Database 11g R2 on Oracle VM Server 3.2



Oracle Database 11g R2 on Oracle VM 3.2



Minimum Hardware / Software Requirements (Updated 9/15/2013—for details, see below)	
	Dell Validated Components
Oracle Software & Licenses	Oracle Database 11g R2
Oracle Patch Set	Oracle Database 11g R2 11.2.0.3
Host Operating System	Oracle VM Server 3.2.2 or higher Oracle VM Manager 3.2.2 or higher
Paravirtualized Guest VM Operating System	Oracle Linux 6.3 or higher
Recommended Support Contract	Dell ProSupport and Oracle supported
Supported PowerEdge Servers	12g: T620, R620, R720, R720xd, R820, M620, M820
Memory	All valid PowerEdge memory configurations
Dell Compellent Storage Array	SC8000, SC-40
Dell EqualLogic iSCSI Storage Array	PS6510, PS6010, PS4100, PS6100, FS7500, PS6110, PS4110
Dell Powervault Storage Array	MD32x0i, MD36x0i, MD36x0f
Fibre Channel Switch	PowerConnect B-8000 Brocade 200E, 4100, 5000, 300, 5100, 5300, 6510, 6505, M6505
HBA's	Qlogic: QLE2560, QLE2562, QLE2460, QLE2462, QME2572, QME2662 Emulex: LPE1105-M4, LPE1205-M, LPE11002, LPE12000, LPE12002, LPE1205-M, LPm16002B-D Dell : SAS 6Gbps HBA

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	Dell Validated Components
Ethernet Interfaces	Broadcom: BCM57810S, BCM5719, BCM57810S, 57710, 57711, f7800S, 57712 Intel 10 GbE Server Adapters (AT, XF SR, AF, DA, KR) Intel or Broadcom 1 GbE NICs
Ethernet Switches	Force10: MXL 10/40 GbE, S55, S60, S4810, S4820T PowerConnect: M8024-k, M8428-k, M6348, M6220, 62xx, 55xx, 80xx, 81xx,
RAID Controllers (for internal storage only)	SAS 6/iR, PERC 6i, CERC 6, H200, H310, H700, H710, H710P
Internal Disk Drive	All valid PowerEdge internal storage configurations

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	Single Node minimum configuration	RAC minimum configuration
Supported PowerEdge Servers	1 only	1 only
Memory	1 DIMM / channel / processor	1 DIMM / channel / processor
Host Ports (per node)	Public Network (1 GbE / 10 GbE) : 1 Private Network (1 GbE / 10 GbE) : N/A Storage Network (iSCSI, FC, SAS) : 2	Public Network (1 GbE / 10 GbE) : 1 Private Network (1 GbE / 10 GbE) : 2 Storage Network (iSCSI, FC, SAS) : 2
Network Switches	Public Network (1 GbE / 10 GbE) : 1 Private Network (1 GbE / 10 GbE) : N/A Storage Network (iSCSI, FC) : 2	Public Network (1 GbE / 10 GbE) : 1 Private Network (1 GbE / 10 GbE) : 2 Storage Network (iSCSI, FC) : 2
RAID Controllers (for internal storage only)	1	1
Internal Disk Drive	73 GB RAID1	73 GB RAID1

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Dell PowerEdge Servers				
	Model	BIOS	ESM — BMC Firmware	Notes
Dell 12g PowerEdge Servers	M620	1.6.1	1.37.35, A00 (iDRAC7)	Blade Server
	R620	1.6.0	1.37.35, A00 (iDRAC7)	
	R720, R720xd	1.6.0	1.37.35, A00 (iDRAC7)	
	M820	1.5.1	1.37.35, A00 (iDRAC7)	Blade Server
	R820	1.5.1	1.37.35, A00 (iDRAC7)	

Internal Disks RAID		
Model	Firmware	Driver
H310	20.12.0-0004	00.00.05.40-rc1 (megaraid_sas)
H710 / H710P	21.1.0-0007, A03	00.00.05.38-rh (megaraid_sas)

Network Interconnect	
Model	Driver
Intel PROset GbE Family of Adapters	Driver version (e1000) = 7.3.21-k6-1-NAPI
Intel PROset PT/PF Single/Dual Port Server Adapters	Driver version (e1000e) = 2.1.4-NAPI
Intel Dual Port (ET) / Quad Port (VT/ET) GbE Server Adapters	Driver version (igb) = 3.4.9
Intel 10 GbE (AT/XF SR/AF DA/KR) Server Adapters	Driver version (ixgbe) = 3.10.17
Broadcom NetXtreme II GbE Family of Adapters	Driver version (bnx2) = 2.2.3
Broadcom NetXtreme GbE Family of Adapters	Driver version (tg3) = 3.11.9
Broadcom NetXtreme II 10 GbE Family of Adapters	Driver version (bnx2x) = 1.72.50-0
Broadcom iSCSI Offload Engine (iSOE)	Driver version (bnx2i) = 2.7.2.1k
Native teaming driver	Driver version (bonding) = 3.7.1

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Fibre Channel and SAS HBAs	
QLogic HBAs	
QLE 246x	Bios = 2.67; Driver version = 8.4.0.3.39.0-k
QLE 256x	Bios = 2.67; Driver version = 8.4.0.3.39.0-k
QME2472	Bios = 2.67; Driver version = 8.4.0.3.39.0-k
QME2662, QME2572	Bios = 3.00; Driver version = 8.05.00.03.39.0-k
Emulex HBAs	
LPE11002	Bios = 2.12a8; Firmware = 2.82a4; Driver version = 8.2.0.96.2p
LPE12000, LPE12002	Bios = 2.12a8; Firmware = 2.00a5; Driver version = 8.2.0.96.2p
LPE1105-M4	Bios = 2.12a8; Firmware = 2.82a4; Driver version = 8.2.0.96.2p
LPE1205-M	Bios = 2.12a8; Firmware = 2.00a5; Driver version = 8.2.0.96.2p
LPm16002B-D	Firmware = 1.1.21.4; Driver version = 8.3.5.82.2p
Dell HBAs	
Dell 6 Gbps SAS HBA	Firmware version = 00.10.51.00.60.12.05.00, A05; Driver version = 4.00.38.02-3, A05

Fibre Channel Switches	
Brocade Fibre Channel Switches	
200E, 4100, 5000, 300, 5100, 5300, 5400, 6510, 6505, M6505	Firmware Version = 7.0.1 or higher

Ethernet Switches	
Dell PowerConnect 55xx GbE Ethernet Switches	Firmware = 4.1.0.10, A07 or higher
Dell PowerConnect 62xx GbE Ethernet Switches	Firmware = 3.3.5.5, A29 or higher
Dell PowerConnect 70xx GbE Ethernet Switches	Firmware = 5.1.0.1, A13 or higher
Dell PowerConnect 81xxF 10GbE Ethernet Switches	Firmware = 5.1.0.1, A02 or higher
Dell PowerConnect M6348 GbE Blade Switch	Firmware = 5.1.0.1, A24 or higher
Dell PowerConnect M8024-k 10GbE Blade Switch	Firmware = 5.1.0.1, A10 or higher
Dell PowerConnect M8428-k 10GbE Blade Switch	FOS v6.3.1
Dell Force10 MXL 10GbE Blade Switch	Force10 OS (FTOS) = 8.3.16.4, A03
Dell M I/O Aggregator Blade Switch	Force10 OS (FTOS) = 8.3.17.2 or higher
Dell Force10 S55/S60	Force10 OS (FTOS) = 8.3.3.8 or higher
Dell Force10 4810	Force10 OS (FTOS) = 8.3.12.1 or higher
Dell Force10 4820T	Force10 OS (FTOS) = 8.3.10.2 or higher

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iSCSI Storage	
Dell Compellent SC8000	Storage Center 6.3 or higher
Dell Compellent SC-40	Storage Center 6.3 or higher
Dell EqualLogic (all models)	Firmware = 6.0.2 or higher and HITKIT version 1.2.0
Dell PowerVault iSCSI Storage	MD32x0i/MD36x0i Firmware = 10.84.G6.25 MD3060e (expansion) Firmware = 07.84.00.64 MD12x0 (expansion) Firmware = 1.01 A00

Fibre Channel Storage	
Dell Compellent SC8000	Storage Center 6.3 or higher
Dell Compellent SC-40	Storage Center 6.3 or higher
Dell PowerVault Fibre Channel Storage	MD36x0f Firmware = 10.84.G6.25 MD3060e (expansion) Firmware = 07.84.00.64 MD12x0 (expansion) Firmware = 1.01 A00

Software	
Dell Systems Management Tools and Documentation DVD	DVD provided by your Dell PowerEdge Server Bundle (support.dell.com)

Notes:

1. Dell | Oracle Certification is done using Oracle's [Oracle Validated Configuration \(OVC\) program](#). The Oracle Linux Test (OLT) tool kit used for testing certifies only single instance databases for OVM Server

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