

Dell EMC Oracle Validated Configurations (OVCs) with Oracle Database 12c

Dell EMC and Oracle Reference Architectures

Pre-tested and validated Oracle Validated Configurations (OVCs) comprising of Dell EMC PowerEdge Servers, Dell EMC Storage, Dell EMC Networking, Oracle Linux, Oracle VM, and Oracle Database 12c

Dell EMC and Oracle - Joint Infrastructure Solutions
June 2017

Revisions

Date	Description
June 2017	Added OVC R730 + OL 7.3 (UEK R3) + Dell EMC Compellent SC9000 Added OVC FC630 + OL 7.3 (UEK R3) + Dell EMC Compellent SC9000
May 2017	Added OVC R930 + OL 7.3 (UEK R3) + Dell EMC XtremIO X1 Added OVC FC830 + OL 7.3 (UEK R3) + Dell EMC XtremIO X1
April 2016	Added OVC R930 + OVM 3.3.3 (UEK R3) + Dell Compellent SCv2020
December 2015	Added OVC R930 + OL 6.6 + DAAD 2.0 Added OVC R730 + OL 6.6 + DAAD 2.0
January 2015	Added OVC M630(VRTX) + OL6.6 Added OVC FC630+OVM3.3.1+Dell Compellent SC4020
September 2014	Added OVC R730xd +OL6.5 (R730,R630 and T630) Added OVC R920 + OL6.5 + Dell Acceleration Appliance Added OVC R720 + OL6.5 + Dell Acceleration Appliance Added OVC R730xd +OVM 3.3.1 +Compellent SC4020 (R730,R630 and T630)
June 2014	Added two new OVCs: R920 + R720 + Oracle VM 3.2.8
March 2014	Initial release



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Executive Summary

This document lists all the Oracle Validated Configurations (OVCs) that are currently available for Oracle Database 12c from Dell EMC. Dell EMC OVCs are certified using the [Oracle Validated Configurations Program](#). OVCs provide easier, faster, and lower-cost deployment of Oracle Linux (OL) and Oracle VM (OVM) based Oracle Database solutions for customers. The program offers pre-tested, validated matrix - including software, hardware, storage, and network components - along with documented best practices that are certified by Oracle and published on Oracle's website.

For each of the OVCs, this document also provides:

- Hardware details of all the components directly tested with OVC
- Expanded list of compatible hardware
- Software details of all the components directly tested with OVC
- Solution ID - for Dell Sales to quickly generate a quote or Bill of Materials
- A published link to Oracle's website that lists all the hardware and software details, including the configuration settings

1 Oracle Linux (OL) with Unbreakable Enterprise Kernel (UEK)

1.1 Dell EMC PowerEdge Rack Servers

1.1.1 R730 (R730xd/R630/T630) + OL 7.3 + SC9000 (Release Date – 06/01/2017)

The matrix below lists the hardware components this OVC was tested with:

	Hardware
	Database Server
Dell EMC Servers	PowerEdge: R730
Processors	2 x Intel Xeon CPU E5-2650 v4 @ 2.20GHz 12 Core
Memory	256GB (8 × 32GB 2400Mhz DDR4 DIMMs)
RAID Controllers	PERC: H730P Mini
Ethernet Interfaces	QLogic/Broadcom: 57800S 2×10GbE SFP+ + 2×1GbE rNDC
HBAs	QLogic: QLE2662 16Gb FC Adapter
	Storage Array
Storage Enclosures	Dell EMC Compellent SC9000
	Network Switches
Network Switches	Dell EMC Networking: S4048-ON
SAN Switches	Brocade: 6510

The matrix below expands the compatible hardware list. These components were not directly tested but are acceptable components to replace any of the above corresponding hardware.

	Other Compatible Hardware
	Database Server
Dell EMC Servers	PowerEdge: R730xd, R630, T630
Processors	All processors supported by PowerEdge servers listed above
Memory	All valid PowerEdge memory configurations
RAID Controllers	PERC: H730, H730P Adapter
Ethernet Interfaces	QLogic/Broadcom: 57810, 57810S, 57840S
HBAs	QLogic: QLE256x, QLE266x
	Storage Array
Storage Enclosures	Dell EMC Compellent: SC4020, SC7020
	Network Switches
Network Switches	Dell EMC Networking: S4048T-ON
SAN Switches	Brocade: 300, 6505, 6520

Table 1. Hardware Details - OVC: R730 + OL7.3 (UEK R3)

The matrices below list the software versions of the different components that this OVC was tested with:

Software Details	
Oracle Database	Oracle Database 12c Release 1 Patch Set 12.1.0.2.0 for Linux x86_64
Operating System	Oracle Linux 7.3 with UEK R3 U7 [kernel 3.8.13-118.17.4.el7uek.x86_64] NOTE: Default UEK R4 kernel in OL 7.3 is not supported with this config.

Database Servers			
Model	BIOS	iDRAC/LC Firmware	Notes
R730	2.4.3	2.41.40.40(07)	
RAID Controllers			
Model	Firmware	Driver	
PERC H730 Mini	25.5.2.0001	06.803.02.00-rc1 (megaraid_sas)	
Ethernet Interfaces			
Model		Driver	
QLogic 57800S 2x10Gb SFP+ + 2x1Gb rNDC		1.713.01(bnx2x)	
Host Bus Adapters			
Model	BIOS	Driver	
QLE2662	08.00.15	8.07.00.26.39.0-k(qla2xxx)	

Storage Arrays	
Model	Software
Dell EMC Compellent SC9000	SCOS 7.1.4.4

Network Switches	
Model	Firmware
Dell EMC Networking S4048-ON	9.11(0.0)
SAN Switches	
Model	Firmware
Brocade 6510	7.4.1e

Additional Information and Configuration Settings
https://linux.oracle.com/pls/apex/f?p=102:2:2007385298933639::NO::P2_VC_ID:695

Table 2. Software Details - OVC: R730 + OL7.3 (UEK R3)

NOTE: It is recommended to use the latest software versions supported by the hardware components listed in the ‘Other Compatible Hardware’ matrix for this OVC.

1.1.2 R930 + OL 7.3 (UEK R3) + XtremIO X1 (Release Date – 05/09/17)

The matrix below lists the hardware components this OVC was tested with:

	Hardware
	Database Server
Dell EMC Servers	PowerEdge: R930
Processors	4 x Intel Xeon CPU E7-8893 v4 @ 3.20GHz 4C
Memory	512GB (32 × 16GB 1600Mhz DDR4 DIMMs)
RAID Controllers	PERC H730P Adapter
Ethernet Interfaces	Intel X710 QP 10 Gigabit Ethernet rNDC
HBAs	Emulex LPe16002B-M6-D 16Gb FC Adapter
	Storage Array
Storage Enclosures	Dell EMC XtremIO X1; 2 × X-Bricks
	Network Switches
Network Switches	Dell EMC Networking: S4048-ON
SAN Switches	Brocade: 6510

The matrix below expands the compatible hardware list. These components were not directly tested but are acceptable components to replace any of the above corresponding hardware.

	Other Compatible Hardware
	Database Server
Dell EMC Servers	PowerEdge: <i>None</i>
Processors	All processors supported by PowerEdge Servers listed above
Memory	All valid PowerEdge memory configurations
RAID Controllers	<i>None</i>
Ethernet Interfaces	All X710 family of Adapters
HBAs	Emulex: LPe1200x, LPe1600x
	Storage Array
Storage Enclosures	<i>None</i>
	Network Switches
Network Switches	Dell EMC Networking: S4048T-ON
SAN Switches	Brocade: 300, 6505, 6520

Table 3. Hardware Details - OVC: R930 + OL7.3 (UEK R3)

The matrices below list the software versions of the different components that this OVC was tested with:

Software Details	
Oracle Database	Oracle Database 12c Release 1 Patch Set 12.1.0.2.0 for Linux x86_64
Operating System	Oracle Linux 7.3 with UEK R3 U7 [kernel3.8.13-118.17.4.el7uek.x86_64] NOTE: Default UEK R4 kernel in OL 7.3 is not supported with this config.
Multipath Software	EMC PowerPath for Linux 6.1.0

Database Servers			
Model	BIOS	iDRAC/LC Firmware	Notes
R930	2.2.0	2.41.40.40	
RAID Controllers			
Model	Firmware	Driver	
PERC H730P	25.2.0.0018	06.803.02.00-rc1 (megaraid_sas)	
Ethernet Interfaces			
Model		Driver	
Intel X710 QP 10 Gigabit Ethernet rNDC		1.3.21-k (i40e)	
Host Bus Adapters			
Model	BIOS	Driver	
Emulex LPe16002B-M6-D	11.0.270.14	11.0.0.1	

Storage Arrays	
Model	Software
Dell EMC XtremIO X1	XIOS v4.0.15-15; XMS v4.2.1

Network Switches	
Model	Firmware
Dell EMC Networking: S4048-ON	9.11(0.0)
SAN Switches	
Model	Firmware
Brocade 6510	7.4.1b

Additional Information and Configuration Settings
https://linux.oracle.com/pls/apex/f?p=102:2:::NO::P2_VC_ID,P2_VERSION:692,1.0

Table 4. Software Details - OVC: R930 + OL7.3 (UEK R3)

NOTE: It is recommended to use the latest software versions supported by the hardware components listed in the ‘Other Compatible Hardware’ matrix for this OVC.

1.1.3 R930 + OL 6.6 + DAAD 2.0 (Release Date – 12/21/2015)

The matrix below lists the hardware components this OVC was tested with:

	Hardware
	Database Server
Dell EMC Servers	R930
Processors	4 x Intel Xeon CPU E7-8891 v3 @ 2.80GHz 10C
Memory	256GB (8 x 32GB 1600Mhz DDR4 DIMMs)
RAID Controllers	PERC: H730P Adapter
Ethernet Interfaces	MLNX 40GbE 2P ConnectX-3 Adapter
HBAs	QLogic: QLE2662 16Gb FC Adapter
	Storage Array
Storage Enclosures	Dell Acceleration Appliance for Databases (DAAD 2.0)
	Network Switches
Network Switches	Dell Networking: S6000
SAN Switches	Brocade: 6510

The matrix below expands the compatible hardware list. These components were not directly tested but are acceptable components to replace any of the above corresponding hardware.

	Other Compatible Hardware
	Database Server
Dell EMC Servers	<i>None</i>
Processors	All Processors supported by PowerEdge Servers listed above
Memory	All valid PowerEdge memory configurations
RAID Controllers	<i>None</i>
Ethernet Interfaces	MLNX 10GbE 2P ConnectX-3 Adapter
HBAs	QLogic: QLE2562 8Gb FC Adapter
	Storage Array
Storage Enclosures	<i>None</i>
	Network Switches
Network Switches	Dell Networking: S4810, S5000
SAN Switches	Brocade: 300, 5300, 6505, 6520

Table 5. Hardware Details - OVC: R930 + OL6.6

The matrices below list the software versions of the different components that this OVC was tested with:

Software Details	
Oracle Database	Oracle Database 12c Release 1 Patch Set 12.1.0.2
Operating System	Oracle Linux 6.6 with kernel 3.8.13-44.1.1.el6uek.x86_64 (UEK R3U4)

Database Servers			
Model	BIOS	ESM - BMC Firmware	Notes
R930	V1.0.9	V2.13.13.12	
RAID Controllers			
Model	Firmware	Driver	
PERC H730P	V4.240.01-3190	v06.700.06.00-rc1 (megaraid_sas)	
Ethernet Interfaces			
Model		Driver	
Mellanox 40G Adapter cards		v2.1.8 (mlx4_en)	
Host Bus Adapters			
Model	BIOS	Driver	
QLE2662	V3.29	v8.07.00.08.39.0-k1	

Storage Arrays	
Model	Software
Dell Acceleration Appliance for Databases 2.0	ION Accelerator 2.5.2

Network Switches	
Model	Firmware
Dell Networking S6000	V9.8
SAN Switches	
Model	Firmware
Brocade 6510	V7.3.0c

Additional Information and Configuration Settings
http://linux.oracle.com/pls/apex/f?p=102:2:1979060451883::NO::P2_VC_ID:682

Table 6. Software Details - OVC: R930 + OL6.6

NOTE: It is recommended to use the latest software versions supported by the hardware components listed in the ‘Other Compatible Hardware’ matrix for this OVC.

1.1.4 R730 (R730xd/R630/T630) + OL 6.6 + DAAD 2.0 (Release Date – 12/21/2015)

The matrix below lists the hardware components this OVC was tested with:

	Hardware
	Database Server
Dell EMC Servers	R730
Processors	2 x Intel Xeon CPU E5-2687W v3 @ 3.10GHz 10 Core
Memory	256GB (8 x 32GB 2133Mhz DDR4 DIMMs)
RAID Controllers	PERC: H730 Mini
Ethernet Interfaces	MLNX 40GbE 2P ConnectX-3 Adapter
HBAs	QLogic: QLE2662 16Gb FC Adapter
	Storage Array
Storage Enclosures	Dell Acceleration Appliance for Databases (DAAD 2.0)
	Network Switches
Network Switches	Dell Networking: S6000
SAN Switches	Brocade: 6510

The matrix below expands the compatible hardware list. These components were not directly tested but are acceptable components to replace any of the above corresponding hardware.

	Other Compatible Hardware
	Database Server
Dell EMC Servers	R730xd, R630, T630
Processors	All Processors supported by PowerEdge Servers listed above
Memory	All valid PowerEdge memory configurations
RAID Controllers	H730P
Ethernet Interfaces	MLNX 10GbE 2P ConnectX-3 Adapter
HBAs	QLogic: QLE2562 8Gb FC Adapter
	Storage Array
Storage Enclosures	None
	Network Switches
Network Switches	Dell Networking: S4810, S5000
SAN Switches	Brocade: 300, 5300, 6505, 6520

Table 7. Hardware Details - OVC: R730 + OL6.6

The matrices below list the software versions of the different components that this OVC was tested with:

Software Details	
Oracle Database	Oracle Database 12c Release 1 Patch Set 12.1.0.2
Operating System	Oracle Linux 6.6 with kernel 3.8.13-44.1.1.el6uek.x86_64 (UEK R3)

Database Servers			
Model	BIOS	ESM - BMC Firmware	Notes
R730	V1.3.6	V2.15.10.10	
RAID Controllers			
Model	Firmware	Driver	
PERC H730 Mini	V25.3.0.0016	v06.803.02.00-rc1 (megaraid_sas)	
Ethernet Interfaces			
Model	Driver		
Mellanox 40G Adapter cards		v2.1.8 (mlx4_en)	
Host Bus Adapters			
Model	BIOS	Driver	
QLE2662	V3.29	v8.07.00.08.39.0-k1	

Storage Arrays	
Model	Software
Dell Acceleration Appliance for Databases 2.0	ION Accelerator 2.5.2

Network Switches	
Model	Firmware
Dell Networking S6000	V9.8
SAN Switches	
Model	Firmware
Brocade 6510	V7.3.0c

Additional Information and Configuration Settings
http://linux.oracle.com/pls/apex/f?p=102:2:1979060451883::NO::P2_VC_ID:683

Table 8. Software Details - OVC: R730 + OL6.6

NOTE: It is recommended to use the latest software versions supported by the hardware components listed in the ‘Other Compatible Hardware’ matrix for this OVC.

1.1.5 R730xd (R730/R630/T630) + OL 6.5 (Release Date - 09/09/2014)

The matrix below lists the hardware components this OVC was tested with:

	Hardware
	Database Server
Dell EMC Servers	R730xd
Processors	2 x Intel Xeon E5-2683 v3 2.00GHz 14C
Memory	32GB (2 x 16GB 2133Mhz DDR4 DIMMs)
RAID Controllers	PERC: H330mini
Ethernet Interfaces	Broadcom: BCM57810S DP SFP+ 10GbE Adapter
HBAs	Emulex:LPe16002
	Storage Array
Storage Enclosures	Dell Compellent: SC8000 Controllers; SC220 Expansion Enclosures
	Network Switches
Network Switches	Dell Networking: 8024F, S4810
SAN Switches	Brocade: 6510

The matrix below expands the compatible hardware list. These components were not directly tested but are acceptable components to replace any of the above corresponding hardware.

	Other Compatible Hardware
	Database Server
Dell EMC Servers	R730,R630 and T630
Processors	All Processors supported by PowerEdge Servers listed above
Memory	All valid PowerEdge memory configurations
RAID Controllers	None
Ethernet Interfaces	Broadcom: 5720 QP 1GbE rNDC, 57800S QP rNDC, 57810S DP SFP+ 10GbE Adapter, 57810S DP Base-T 10GbE Adapter, 5719 QP 1GbE Adapter, 5720 DP 1GbE Adapter
HBAs	Emulex LPe16000
	Storage Array
Storage Enclosures	Dell Compellent: SC4020 Controllers
	Network Switches
Network Switches	Dell Networking: S55, S60, S4820T, 8024
SAN Switches	Brocade: 300, 5300, 6505, 6520

Table 9. Hardware Details - OVC: R730xd + OL6.5

The matrices below list the software versions of the different components that this OVC was tested with:

Software Details	
Oracle Database	Oracle Database 12c Release 1 Patch Set 12.1.0.1
Operating System	Oracle Linux 6.5 with kernel 3.8.13-35.1.2.el6uek.x86_64 (UEK R3)

Database Servers			
Model	BIOS	ESM - BMC Firmware	Notes
R920	V0.3.30	V2.00.00 A00 (iDRAC8)	
RAID Controllers			
Model	Firmware	Driver	
PERC H730p	V4.240.01-3190	v06.700.06.00-rc1 (megaraid_sas)	
Ethernet Interfaces			
Model		Driver	
Broadcom NetXtreme II 10GbE Family of Adapters		v1.710.10 (bnx2x)	
Host Bus Adapters			
Model	BIOS	Driver	
LPe16002	v3.24	v8.3.7.34.4p	

Storage Arrays	
Model	Software
Dell Compellent SC8000	Storage Center 6.5

Network Switches	
Model	Firmware
Dell Networking 8024F	v8.3.3.8
Dell Networking S4810	v8.3.12.2
SAN Switches	
Model	Firmware
Brocade 6510	V7.0.1

Additional Information and Configuration Settings
http://linux.oracle.com/pls/apex/f?p=102:2:1362576769011339::NO::P2_VC_ID:660

Table 10. Software Details - OVC: R730xd + OL6.5

NOTE: It is recommended to use the latest software versions supported by the hardware components listed in the ‘Other Compatible Hardware’ matrix for this OVC.

1.1.6 R920 + OL6.5 + DAAD 1.0 (Release Date - 09/09/2014)

The matrix below lists the hardware components this OVC was tested with:

	Hardware
	Database Server
Dell EMC Servers	R920
Processors	4 x Intel Xeon E7-8891 v2 3.2GHz 10C
Memory	128GB (16 x 8GB 1333MHz DDR3 DIMMs)
RAID Controllers	PERC: H730p
Ethernet Interfaces	Intel Ethernet 10G 2P X520 Adapter
HBAs	QLogic: QLE2662
	Storage Array
Storage Enclosures	Dell Acceleration Appliances for Databases v1.0
	Network Switches
Network Switches	Dell Networking: S4810
SAN Switches	Brocade: 6510

The matrix below expands the compatible hardware list. These components were not directly tested but are acceptable components to replace any of the above corresponding hardware.

	Other Compatible Hardware
	Database Server
Dell EMC Servers	<i>None</i>
Processors	All Processors supported by PowerEdge Servers listed above
Memory	All valid PowerEdge memory configurations
RAID Controllers	<i>None</i>
Ethernet Interfaces	Intel Ethernet 10G 2P X540 Adapter
HBAs	QLogic QLE256x, QLE2660
	Storage Array
Storage Enclosures	<i>None</i>
	Network Switches
Network Switches	Dell Networking: S55, S60, S4820T, 8024
SAN Switches	Brocade: 300, 5300, 6505, 6520

Table 11. Hardware Details - OVC: R920 + OL6.5

The matrices below list the software versions of the different components that this OVC was tested with:

Software Details	
Oracle Database	Oracle Database 12c Release 1 Patch Set 12.1.0.1
Operating System	Oracle Linux 6.5 with kernel 3.8.13-35.1.2.el6uek.x86_64 (UEK R3)

Database Servers			
Model	BIOS	ESM - BMC Firmware	Notes
R920	V1.2.2	v1.57.57 A00 (iDRAC7)	
RAID Controllers			
Model	Firmware	Driver	
PERC H730p	V25.2.0.0017, A00	v06.600.18.00 (megaraid_sas)	
Ethernet Interfaces			
Model		Driver	
Intel Ethernet 10G 2P X520 Adapter		v 3.15.1 (ixgbe)	
Host Bus Adapters			
Model	BIOS	Driver	
QLE2662	v3.24	v8.05.00.03.39.0-k	

Storage Arrays	
Model	Software
Dell Acceleration Appliance	Fusion IO 2.4.1

Network Switches	
Model	Firmware
Dell Networking S4810	V8.3.12.2
SAN Switches	
Model	Firmware
Brocade 6510	V7.0.1

Additional Information and Configuration Settings
http://linux.oracle.com/pls/apex/f?p=102:2:1362576769011339::NO::P2_VC_ID:662

Table 12. Software Details - OVC: R920 + OL6.5

NOTE: It is recommended to use the latest software versions supported by the hardware components listed in the ‘Other Compatible Hardware’ matrix for this OVC.

1.1.7 R720 + OL6.5 + DAAD 1.0 (Release Date - 09/09/2014)

The matrix below lists the hardware components this OVC was tested with:

	Hardware
	Database Server
Dell EMC Servers	R720
Processors	2 x Intel Xeon E5-2680 v2 @2.80GHz
Memory	128GB (16 x 8GB 1600MHz DDR3 DIMMs)
RAID Controllers	PERC: H710p mini
Ethernet Interfaces	Intel Ethernet 10G 2P X520 Adapter
HBAs	QLogic: QLE2662
	Storage Array
Storage Enclosures	Dell Acceleration Appliances for Databases v1.0
	Network Switches
Network Switches	Dell Networking: S4810
SAN Switches	Brocade: 6510

The matrix below expands the compatible hardware list. These components were not directly tested but are acceptable components to replace any of the above corresponding hardware.

	Other Compatible Hardware
	Database Server
Dell EMC Servers	<i>none</i>
Processors	All Processors supported by PowerEdge Servers listed above
Memory	All valid PowerEdge memory configurations
RAID Controllers	<i>None</i>
Ethernet Interfaces	Broadcom: 5720 QP 1GbE rNDC, 57800S QP rNDC, 57810S DP SFP+ 10GbE Adapter, 57810S DP Base-T 10GbE Adapter, 5719 QP 1GbE Adapter, 5720 DP 1GbE Adapter, Intel Ethernet 10G 2P X540 Adapter
HBAs	QLogic QLE256x, QLE2660
	Storage Array
Storage Enclosures	<i>none</i>
	Network Switches
Network Switches	Dell Networking: S55, S60, S4820T, 8024
SAN Switches	Brocade: 300, 5300, 6505, 6520

Table 13. Hardware Details - OVC: R720 + OL6.5

The matrices below list the software versions of the different components that this OVC was tested with:

Software Details	
Oracle Database	Oracle Database 12c Release 1 Patch Set 12.1.0.1
Operating System	Oracle Linux 6.5 with kernel 3.8.13-35.1.2.el6uek.x86_64 (UEK R3)

Database Servers			
Model	BIOS	ESM - BMC Firmware	Notes
R720	V2.2.3	v1.57.57 A00 (iDRAC7)	
RAID Controllers			
Model	Firmware	Driver	
PERC H710p mini	V21.3.0-0009	v06.600.18.00 (megaraid_sas)	
Ethernet Interfaces			
Model		Driver	
Intel Ethernet 10G 2P X520 Adapter		V3.15.1 (ixgbe)	
Host Bus Adapters			
Model	BIOS	Driver	
QLE2662	v3.24	v8.05.00.03.39.0-k	

Storage Arrays	
Model	Software
Dell Acceleration Appliance	Fusion IO 2.4.1

Network Switches	
Model	Firmware
Dell Networking S4810	V8.3.12.2
SAN Switches	
Model	Firmware
Brocade 6510	V7.0.1

Additional Information and Configuration Settings
http://linux.oracle.com/pls/apex/f?p=102:2:1362576769011339::NO::P2_VC_ID:661

Table 14. Software Details - OVC: R720 + OL6.5

NOTE: It is recommended to use the latest software versions supported by the hardware components listed in the ‘Other Compatible Hardware’ matrix for this OVC.

1.1.8 R920 + OL6.5 (Release Date - 03/18/2014) [Solution ID: 4086103v4]

The matrix below lists the hardware components this OVC was tested with:

	Hardware
	Database Server
Dell EMC Servers	R920
Processors	4 x Intel Xeon E7-4870 v2 2.3GHz 15C
Memory	64GB (16 x 4GB 1333MHz DDR3 DIMMs)
RAID Controllers	PERC: H730p
Ethernet Interfaces	Broadcom: BCM57840S QP 10GbE SFP+ rNDC
HBAs	QLogic: QLE2662
	Storage Array
Storage Enclosures	Dell Compellent: SC8000 Controllers; SC220 Expansion Enclosures
	Network Switches
Network Switches	Dell Networking: 8024F, S4810
SAN Switches	Brocade: 6510

The matrix below expands the compatible hardware list. These components were not directly tested but are acceptable components to replace any of the above corresponding hardware.

	Other Compatible Hardware
	Database Server
Dell EMC Servers	<i>none</i>
Processors	All Processors supported by PowerEdge Servers listed above
Memory	All valid PowerEdge memory configurations
RAID Controllers	<i>None</i>
Ethernet Interfaces	Broadcom: 5720 QP 1GbE rNDC, 57800S QP rNDC, 57810S DP SFP+ 10GbE Adapter, 57810S DP Base-T 10GbE Adapter, 5719 QP 1GbE Adapter, 5720 DP 1GbE Adapter
HBAs	QLogic QLE256x, QLE2660
	Storage Array
Storage Enclosures	<i>none</i>
	Network Switches
Network Switches	Dell Networking: S55, S60, S4820T, 8024
SAN Switches	Brocade: 300, 5300, 6505, 6520

Table 15. Hardware Details - OVC: R920 + OL6.5

The matrices below list the software versions of the different components that this OVC was tested with:

Software Details	
Oracle Database	Oracle Database 12c Release 1 Patch Set 12.1.0.1
Operating System	Oracle Linux 6.5 with kernel 3.8.13-16.2.1.el6uek.x86_64 (UEK R3)

Database Servers			
Model	BIOS	ESM - BMC Firmware	Notes
R920	V1.0.7	v1.55.55 A00 (iDRAC7)	
RAID Controllers			
Model	Firmware	Driver	
PERC H730p	V4.220.00-2714, A00	v06.600.18.00 (megaraid_sas)	
Ethernet Interfaces			
Model		Driver	
Broadcom NetXtreme II 10GbE Family of Adapters		v1.76.54 (bnx2x)	
Host Bus Adapters			
Model	BIOS	Driver	
QLE2662	v3.24	v8.05.00.03.39.0-k	

Storage Arrays	
Model	Software
Dell Compellent SC8000	Storage Center 6.4

Network Switches	
Model	Firmware
Dell Networking 8024F	v8.3.3.8
Dell Networking S4810	v8.3.12.1
SAN Switches	
Model	Firmware
Brocade 6510	v6.2.0c

Additional Information and Configuration Settings
http://linux.oracle.com/pls/apex/f?p=102:2:1234213660490302::NO::P2_VC_ID:643

Table 16. Software Details - OVC: R920 + OL6.5

NOTE: It is recommended to use the latest software versions supported by the hardware components listed in the ‘Other Compatible Hardware’ matrix for this OVC.

1.1.9 R720 (R620/R720xd/T620) + OL6.4 (Release Date - 09/17/2013) [Solution ID: 4086705v2]

The matrix below lists the hardware components this OVC was tested with:

	Hardware Details
	Database Server
Dell EMC Servers	R720
Processors	2 x Intel Xeon E5-2665 2.4GHz 8C
Memory	128GB (8 x 16GB 1333MHz DDR3 DIMMs)
RAID Controllers	PERC: H710p
Ethernet Interfaces	Broadcom: BCM5720 QP 1GbE rNDC
Host Bus Adapters	QLogic: QLE2562
	Storage Array
Storage Enclosures	Dell Compellent Controllers: SC8000; SC220 Expansion Enclosures
	Network Switches
Network Switches	Dell Networking: S55
SAN Switches	Brocade: 6510

The matrix below expands the compatible hardware list. These components were not directly tested but are acceptable components to replace any of the above corresponding hardware.

	Other Compatible Hardware
	Database Servers
Dell EMC Servers	R620, R720xd, T620
Processors	All Processors supported by PowerEdge Servers listed above
Memory	All valid PowerEdge memory configurations
RAID Controllers	PERC: H310, H710
Ethernet Interfaces	Broadcom: 5720 QP 1GbE rNDC, 57800S QP rNDC, 57810S DP SFP+ 10GbE Adapter, 57810S DP Base-T 10GbE Adapter, 5719 QP 1GbE Adapter, 5720 DP 1GbE Adapter
Host Bus Adapters	QLogic QLE2560, QLE266x
	Storage Arrays
Storage Enclosures	Dell Compellent Controllers: SC40
	Network Switches
Network Switches	Dell Networking: S60, S4810, S4820T
SAN Switches	Brocade: 300, 6505, 6520

Table 17. Hardware Details - OVC: R720 + OL6.4

The matrices below list the software versions of the different components that this OVC was tested with:

Software Details	
Oracle Database	Oracle Database 12c Release 1 Patch Set 12.1.0.1
Operating System	Oracle Linux 6.4 with kernel 2.6.39-400.17.1.el6uek.x86_64

Database Servers			
Model	BIOS	ESM - BMC Firmware	Notes
R720	v1.6.0	v1.40.40 A00 (iDRAC7)	
RAID Controllers			
Model	Firmware	Driver	
PERC H710p	v21.2.0-0007, A03	v06.505.02.00 (megaraid_sas)	
Ethernet Interfaces			
Model		Driver	
Broadcom NetXtreme II 1GbE Family of Adapters		v2.2.3n (bnx2)	
Host Bus Adapters			
Model	BIOS	Driver	
QLE2562	v3.00	v8.05.00.03.39.0-k	

Storage Arrays	
Model	Software
Dell Compellent SC8000	Storage Center 6.3

Network Switches	
Model	Firmware
Dell Networking S55	v8.3.3.8
SAN Switches	
Model	Firmware
Brocade 6510	v6.2.0c

Additional Information and Configuration Settings
http://linux.oracle.com/pls/apex/f?p=102:2:5822077369932908::NO::P2_VC_ID:629

Table 18. Software Details - OVC: R720 + OL6.4 -

NOTE: It is recommended to use the latest software versions supported by the hardware components listed in the ‘Other Compatible Hardware’ matrix for this OVC.

1.1.10 R820 + OL6.4 (Release Date - 09/17/2013) [Solution ID: 4086252v3]

The matrix below lists the hardware components this OVC was tested with:

	Hardware Details
	Database Server
Dell EMC Servers	R820
Processors	4 x Intel Xeon E5-4650 2.7GHz 8C
Memory	128GB (16 x 8GB 1333MHz DDR3 DIMMs)
RAID Controllers	PERC: H310
Ethernet Interfaces	Broadcom: BCM5720 QP 1GbE rNDC
Host Bus Adapters	QLogic: QLE2562
	Storage Array
Storage Enclosures	Dell Compellent Controllers: SC8000; SC220 Expansion Enclosures
	Network Switches
Network Switches	Dell Networking: S55
SAN Switches	Brocade: 6510

The matrix below expands the compatible hardware list. These components were not directly tested but are acceptable components to replace any of the above corresponding hardware.

	Other Compatible Hardware
	Database Servers
Dell EMC Servers	<i>none</i>
Processors	All Processors supported by PowerEdge Servers listed above
Memory	All valid PowerEdge memory configurations
RAID Controllers	PERC: H710, H710p
Ethernet Interfaces	Broadcom: 5720 QP 1GbE rNDC, 57800S QP rNDC, 57810S DP SFP+ 10GbE Adapter, 57810S DP Base-T 10GbE Adapter, 5719 QP 1GbE Adapter, 5720 DP 1GbE Adapter
Host Bus Adapters	QLogic QLE2560, QLE266x
	Storage Arrays
Storage Enclosures	Dell Compellent Controllers: SC40
	Network Switches
Network Switches	Dell Networking: S60, S4810, S4820T
SAN Switches	Brocade: 300, 6505, 6520

Table 19. Hardware Details - OVC: R820 + OL6.4

The matrices below list the software versions of the different components that this OVC was tested with:

Software Details	
Oracle Database	Oracle Database 12c Release 1 Patch Set 12.1.0.1
Operating System	Oracle Linux 6.4 with kernel 2.6.39-400.17.1.el6uek.x86_64

Database Servers			
Model	BIOS	ESM - BMC Firmware	Notes
R820	v1.5.0	v1.40.40 A00 (iDRAC7)	
RAID Controllers			
Model	Firmware	Driver	
PERC H310	v20.11.0-0002, A05	v06.505.02.00 (megaraid_sas)	
Ethernet Interfaces			
Model		Driver	
Broadcom NetXtreme II 1GbE Family of Adapters		v2.2.3n (bnx2)	
Host Bus Adapters			
Model	BIOS	Driver	
QLE2562	v3.00	v8.05.00.03.39.0-k	

Storage Arrays	
Model	Software
Dell Compellent SC8000	Storage Center 6.3

Network Switches	
Model	Firmware
Dell Networking S55	v8.3.3.8
SAN Switches	
Model	Firmware
Brocade 6510	v6.2.0c

Additional Information and Configuration Settings
http://linux.oracle.com/pls/apex/f?p=102:2:1060678210538969::NO::P2_VC_ID:630

Table 20. Software Details - OVC: R820 + OL6.4

NOTE: It is recommended to use the latest software versions supported by the hardware components listed in the ‘Other Compatible Hardware’ matrix for this OVC.

1.2 Dell EMC PowerEdge Blade Servers

1.2.1 M820 + OL6.5 (Release Date - 03/18/2014) [Solution ID: 4086719v3]

The matrix below lists the hardware components this OVC was tested with:

	Hardware
	Database Server
Dell EMC Servers	M820 in M1000e chassis
Processors	4 x Intel Xeon E5-4617 2.9GHz 6C
Memory	64GB (4 x 16GB 1600MHz DDR3 DIMMs)
RAID Controllers	PERC: H310 mini
Ethernet Interfaces	Broadcom: BCM57810S DP 10GbE bNDC, BCM57810S DP 10GbE KR
HBAs	QLogic: QME2662
	Storage Array
Storage Enclosures	Dell Compellent Controllers: SC8000; SC220 Expansion Enclosures
	Network Switches
Network Switches	Dell Networking: 1GbE Pass-Through, MXL 10/40GbE, S55
SAN Switches	Brocade: 5300, Dell Networking: 8/4Gbps FC Pass-Through
	Software
Oracle Database	Oracle Database 12c Release 1 Patch Set 12.1.0.1
Operating System	Oracle Linux 6.5 with kernel 3.8.13-16.2.1.el6uek.x86_64 (UEK R3)

The matrix below expands the compatible hardware list. These components were not directly tested but are acceptable components to replace any of the above corresponding hardware.

	Other Compatible Hardware
	Database Server
Dell EMC Servers	M820 (FX2s), M820 (VRTX)
Processors	All Processors supported by PowerEdge Servers listed above
Memory	All valid PowerEdge memory configurations
RAID Controllers	PERC: H710, H710p
Ethernet Interfaces	Broadcom: 57840S-k QP 10GbE KR bNDC, 5719 QP 1GbE
HBAs	QLogic QME2572
	Storage Array
Storage Enclosures	
	Network Switches
Network Switches	Dell Networking S55, S60, S4820T, 8024
SAN Switches	Brocade 300, 5300, 6505, 6520

Table 21. Hardware Details - OVC: M820 + OL6.5

The matrices below list the software versions of the different components that this OVC was tested with:

Software Details	
Oracle Database	Oracle Database 12c Release 1 Patch Set 12.1.0.1
Operating System	Oracle Linux 6.5 with kernel 3.8.13-16.2.1.el6uek.x86_64 (UEK R3)

Database Servers			
Model	BIOS	ESM - BMC Firmware	Notes
M820	v1.5.1	v1.35.35 A00 (iDRAC7)	
RAID Controllers			
Model	Firmware	Driver	
PERC H310	V20.12.0-0004	v06.600.18.00 (megaraid_sas)	
Ethernet Interfaces			
Model		Driver	
Broadcom NetXtreme II 10GbE Family of Adapters		v1.76.54 (bnx2x)	
Host Bus Adapters			
Model	BIOS	Driver	
QME2662	v3.00	v8.05.00.03.39.0-k	

Storage Arrays	
Model	Software
Dell Compellent SC8000	Storage Center 6.3

Network Switches	
Model	Firmware
Dell Networking S55	v8.3.5.3
Dell Networking MXL 10/40GbE	v8.3.16.2
SAN Switches	
Model	Firmware
Brocade 5300	v6.4.1b
Dell Networking 8/4Gbps FC Pass-Through	V7.0.0b

Additional Information and Configuration Settings
http://linux.oracle.com/pls/apex/f?p=102:2:1234213660490302::NO::P2_VC_ID:646

Table 22. Software Details - OVC: M820 + OL6.5

NOTE: It is recommended to use the latest software versions supported by the hardware components listed in the ‘Other Compatible Hardware’ matrix for this OVC.

1.2.2 M620 + OL6.5 (Release Date - 03/18/2014) [Solution ID: 4086703v3]

The matrix below lists the hardware components this OVC was tested with:

	Hardware
	Database Server
Dell EMC Servers	M620 in M1000e chassis
Processors	2 x Intel Xeon E5-2680 v2 2.8GHz 10C
Memory	64GB (4 x 16GB 1866 MHz DDR3 DIMMs)
RAID Controllers	PERC: H710P mini
Ethernet Interfaces	Broadcom: BCM57810S DP 10GbE bNDC, BCM57810S DP 10GbE KR
HBAs	QLogic: QME2662
	Storage Array
Storage Enclosures	Dell Compellent Controllers: SC8000; SC220 Expansion Enclosures
	Network Switches
Network Switches	Dell Networking: 1GbE Pass-Through, MXL 10/40GbE, S55
SAN Switches	Brocade: 5300, Dell Networking: 8/4Gbps FC Pass-Through
	Software
Oracle Database	Oracle Database 12c Release 1 Patch Set 12.1.0.1
Operating System	Oracle Linux 6.5 with kernel 3.8.13-16.2.1.el6uek.x86_64 (UEK R3)

The matrix below expands the compatible hardware list. These components were not directly tested but are acceptable components to replace any of the above corresponding hardware.

	Other Compatible Hardware
	Database Server
Dell EMC Servers	M620 (FX2s), M620 (VRTX)
Processors	All Processors supported by PowerEdge Servers listed above
Memory	All valid PowerEdge memory configurations
RAID Controllers	PERC: H710, H710p
Ethernet Interfaces	Broadcom: 57840S-k QP 10GbE KR bNDC, 5719 QP 1GbE
HBAs	QLogic QME2572
	Storage Array
Storage Enclosures	
	Network Switches
Network Switches	Dell Networking S55, S60, S4820T, 8024
SAN Switches	Brocade 300, 5300, 6505, 6520

Table 23. Hardware Details - OVC: M620 + OL6.5

The matrices below list the software versions of the different components that this OVC was tested with:

Software Details			
Oracle Database	Oracle Database 12c Release 1 Patch Set 12.1.0.1		
Operating System	Oracle Linux 6.5 with kernel 3.8.13-16.2.1.el6uek.x86_64 (UEK R3)		

Database Servers			
Model	BIOS	ESM - BMC Firmware	Notes
M620	V2.1.6	v1.51.52 A00 (iDRAC7)	

RAID Controllers		
Model	Firmware	Driver
PERC H710P mini	V21.2.1-0000	v06.00.18.00 (megaraid_sas)

Ethernet Interfaces	
Model	Driver
Broadcom NetXtreme II 10GbE Family of Adapters	v1.76.54 (bnx2x)

Host Bus Adapters		
Model	BIOS	Driver
QME2662	v3.00	v8.05.00.03.39.0-k

Storage Arrays	
Model	Software
Dell Compellent SC8000	Storage Center 6.3

Network Switches	
Model	Firmware
Dell Networking S55	v8.3.5.3
Dell Networking MXL 10/40GbE	v8.3.16.2

SAN Switches	
Model	Firmware
Brocade 5300	v6.4.1b
Dell Networking 8/4Gbps FC Pass-Through	V7.0.0b

Additional Information and Configuration Settings	
http://linux.oracle.com/pls/apex/f?p=102:2:1234213660490302::NO::P2_VC_ID:645	

Table 24. Software Details - OVC: M620 + OL6.5

NOTE: It is recommended to use the latest software versions supported by the hardware components listed in the ‘Other Compatible Hardware’ matrix for this OVC.

1.3 Dell EMC PowerEdge VRTX

1.3.1 M630 + OL6.6 (Release Date - 01/07/2015)

The matrix below lists the hardware components this OVC was tested with:

	Hardware
	Database Server
Dell EMC Servers	M630 in VRTX chassis
Processors	2 x Intel Xeon E5-2690 2.6GHz 12C
Memory	32GB (2 x 16GB 2133Mhz DDR4 DIMMs)
RAID Controllers	PERC: H330 mini
Ethernet Interfaces	Broadcom: BCM57810 DP 10GbE bNDC
HBAs	Dell Shared PERC 8
	Storage Array
Storage Enclosures	VRTX Internal Shared Storage
	Network Switches
Network Switches	Dell Networking: 8024F
SAN Switches	VRTX Internal Fabric switch
	Software
Oracle Database	Oracle Database 12c Release 1 Patch Set 12.1.0.1
Operating System	Oracle Linux 6.6 with kernel 3.8.13-44.1.1.el6uek.x86_64 (UEK R3)

The matrix below expands the compatible hardware list. These components were not directly tested but are acceptable components to replace any of the above corresponding hardware.

	Other Compatible Hardware
	Database Server
Dell EMC Servers	M630 (M1000e), M630 (FX2s)
Processors	All Processors supported by PowerEdge Servers listed above
Memory	All valid PowerEdge memory configurations
RAID Controllers	PERC: H730,H730p
Ethernet Interfaces	Broadcom: 57810S DP 10GbE KR Mezz, 5719 QP 1GbE Mezz
HBAs	<i>none</i>
	Storage Array
Storage Enclosures	<i>none</i>
	Network Switches
Network Switches	Dell Networking: S4810,S4820T,S55,S60,8024
SAN Switches	<i>none</i>

Table 25. Hardware Details - OVC: M630 + OL6.6

The matrices below list the software versions of the different components that this OVC was tested with:

Software Details	
Oracle Database	Oracle Database 12c Release 1 Patch Set 12.1.0.1
Operating System	Oracle Linux 6.6 with kernel 3.8.13-44.1.1.el6uek.x86_64 (UEK R3)

Database Servers			
Model	BIOS	ESM - BMC Firmware	Notes
M630	v1.0.3	V2.05.05.05(31)(iDRAC8)	
RAID Controllers			
Model	Firmware	Driver	
PERC H330mini	v25.2.1.0037	v06.700.06.00-rc1 (megaraid_sas)	
Ethernet Interfaces			
Model		Driver	
Broadcom NetXtreme II 10GbE Family of Adapters		v1.710.10 (bnx2x)	
Host Bus Adapters			
Model		Driver	
Dell Shared PERC8		v06.902.01.00	

Storage Arrays	
Model	Software
VRTX Internal Shared storage	NA

Network Switches	
Model	Firmware
Dell Networking 8024F	v8.3.3.8
SAN Switches	
Model	Firmware
VRTX Internal Fabric Switch	NA

Additional Information and Configuration Settings
http://linux.oracle.com/pls/apex/f?p=102:2:6365035476355::NO::P2_VC_ID:669

Table 26. Software Details - OVC: M630 + OL6.6

NOTE: It is recommended to use the latest software versions supported by the hardware components listed in the ‘Other Compatible Hardware’ matrix for this OVC.

1.4 Dell EMC PowerEdge FX2s

1.4.1 FC630 + OL 7.3 (UEK R3) + SC9000 (Release Date – 06/01/2017)

The matrix below lists the hardware components this OVC was tested with:

	Hardware Details
	Database Server
Dell EMC Servers	Poweredge: FC630 with FX2 chassis
Processors	2 × Intel Xeon CPU E5-2650 v4 @ 2.20GHz 12Core
Memory	256GB (8 x 32GB 2400Mhz DDR4 DIMMs)
RAID Controllers	PERC: H730P Mini
Ethernet Interfaces	Broadcom:BCM 57840S-k 10GbE 4P bNDC
Host Bus Adapters	Qlogic: QLE2662 16Gb FC Adapter
	Storage Array
Storage Enclosures	Dell EMC Compellent SC9000
	Network Switches
Network Switches	Dell EMC Networking: S4048-ON, FX2s 10GbE Pass-through IOM
SAN Switches	Brocade: 6510

The matrix below expands the compatible hardware list. These components were not directly tested but are acceptable components to replace any of the above corresponding hardware.

	Other Compatible Hardware
	Database Servers
Dell EMC Servers	M630 (M1000e), M630 (VRTX)
Processors	All processors supported by PowerEdge servers listed above
Memory	All valid PowerEdge memory configurations
RAID Controllers	PERC: H730, H730P Adapter
Ethernet Interfaces	QLogic/Broadcom: 57800S, 57810, 57810S
Host Bus Adapters	QLogic: QLE256x, QLE266x
	Storage Arrays
Storage Enclosures	Dell EMC Compellent: SC4020, SC7020
	Network Switches
Network Switches	Dell EMC Networking: S4048T-ON, FN 410S, FN 410T IOM
SAN Switches	Brocade: 300, 6505, 6520

Table 27. Hardware Details - OVC: FC630 + OL 7.3 (UEK R3)

The matrices below list the software versions of the different components that this OVC was tested with:

Software Details	
Oracle Database	Oracle Database 12c Release 1 Patch Set 12.1.0.2.0 for Linux x86_64
Operating System	Oracle Linux 7.3 with UEK R3 U7 [kernel 3.8.13-118.17.4.el7uek.x86_64] NOTE: Default UEK R4 kernel in OL 7.3 is not supported with this config.

Database Servers			
Model	BIOS	iDRAC/LC Firmware	Notes
FC830	2.4.2	2.41.40.40(07)	
RAID Controllers			
Model	Firmware	Driver	
PERC H730P Mini	25.2.0.0001	06.803.02.00-rc1 (megaraid_sas)	
Ethernet Interfaces			
Model	Driver		
BRCM 57840S-k 10GbE 4P bNDC		1.713.01 (bnx2x)	
Host Bus Adapters			
Model	BIOS	Driver	
QLE2662	08.00.15	8.07.00.26.39.0-k (qla2xxx)	

Storage Arrays	
Model	Software
Dell EMC Compellent SC9000	SCOS v7.1.4.4

Network Switches	
Model	Firmware
Dell EMC Networking S4048-ON	9.11(0.0)
FX2s 10GbE Pass-through IOM	N/A
SAN Switches	
Model	Firmware
Brocade 6510	7.41e

Additional Information and Configuration Settings
https://linux.oracle.com/pls/apex/f?p=102:2:2007385298933639::NO::P2_VC_ID:696

Table 28. Software Details - OVC: FC630 + OL 7.3 (UEK R3)

NOTE: It is recommended to use the latest software versions supported by the hardware components listed in the ‘Other Compatible Hardware’ matrix for this OVC.

1.4.2 FC830 + OL 7.3 (UEK R3) + XtremIO X1 (Release Date – 05/09/2017)

The matrix below lists the hardware components this OVC was tested with:

	Hardware Details
	Database Server
Dell EMC Servers	PowerEdge: FC830 in FX2s chassis
Processors	4 × Intel Xeon CPU E5-4610 v4 @ 1.80GHz 10C
Memory	512 GB (16 x 32GB 1866 Mhz DDR4 RDIMMs)
RAID Controllers	PERC H730mini
Ethernet Interfaces	Intel: X710 QP 10GbE KR bNDC
Host Bus Adapters	Emulex LPe16002B-M6-D 16Gb FC HBA
	Storage Array
Storage Enclosures	Dell EMC XtremIO X1; 2 × X-Bricks
	Network Switches
Network Switches	Dell EMC Networking: S4048-ON, FX2 FN410s SFP+ IOM
SAN Switches	Brocade: 6510

The matrix below expands the compatible hardware list. These components were not directly tested but are acceptable components to replace any of the above corresponding hardware.

	Other Compatible Hardware
	Database Servers
Dell EMC Servers	PowerEdge: M830 (M1000e), M830 (VRTX)
Processors	All processors supported by PowerEdge Servers listed above
Memory	All valid PowerEdge memory configurations
RAID Controllers	PERC: H730p
Ethernet Interfaces	Intel: X710 DP 10GbE KR bNDC
Host Bus Adapters	Emulex: LPe1200x, LPe1600x
	Storage Arrays
Storage Enclosures	<i>none</i>
	Network Switches
Network Switches	Dell EMC Networking: S4048T-ON, FX2s Pass-Through IOMs
SAN Switches	Brocade: 300,5300,6505,6520

Table 29. Hardware Details - OVC: FC830 + OL 7.3 (UEK R3)

The matrices below list the software versions of the different components that this OVC was tested with:

Software Details	
Oracle Database	Oracle Database 12c Release 1 Patch Set 12.1.0.2.0 for Linux x86_64
Operating System	Oracle Linux 7.3 with UEK R3U7 [kernel 3.8.13-118.17.4.el7uek.x86_64] NOTE: Default UEK R4 kernel in OL 7.3 is not supported with this config.
Multipath Software	EMC PowerPath for Linux 6.1.0

Database Servers			
Model	BIOS	iDRAC/LC Firmware	Notes
FC830	2.3.5	2.41.40.40	
RAID Controllers			
Model	Firmware	Driver	
PERC H730mini	25.2.0.0018	06.803.02.00-rc1 (megaraid_sas)	
Ethernet Interfaces			
Model		Driver	
Intel X710 QP 10 Gigabit Ethernet bNDC		1.3.21-k (i40e)	
Host Bus Adapters			
Model	BIOS	Driver	
Emulex LPe16002B-M6-D	11.0.270.14	11.0.0.1	

Storage Arrays	
Model	Software
Dell EMC XtremIO X1	XIOS v4.0.15-15; XMS v4.2.1

Network Switches	
Model	Firmware
Dell EMC Networking: S4048-ON	9.11(0.0)
Dell EMC Networking: FX2 FN410s IOM	9.11(0.0)
SAN Switches	
Model	Firmware
Brocade 6510	7.4.1b

Additional Information and Configuration Settings
https://linux.oracle.com/pls/apex/f?p=102:2:2007385298933639::NO::P2_VC_ID:693

Table 30. Software Details - OVC: FC830 + OL 7.3 (UEK R3)

NOTE: It is recommended to use the latest software versions supported by the hardware components listed in the ‘Other Compatible Hardware’ matrix for this OVC.

2 Oracle VM (OVM) 3

2.1 Dell EMC PowerEdge Rack Servers

2.1.1 R930 + OVM3.3.3 (Release Date – 04/19/2016)

The matrix below lists the hardware components this OVC was tested with:

	Hardware Details
	Database Server
Dell EMC Servers	R930
Processors	4 x Intel Xeon E7-4809 v3 2.0GHz 8C
Memory	64GB (4 x 16GB 1333Mhz DDR4 DIMMs)
RAID Controllers	PERC: H730p
Ethernet Interfaces	QLogic: 57800S 10 GbE rNDC
Host Bus Adapters	QLogic: QLE2662
	Storage Array
Storage Enclosures	Dell Compellent Controllers: SCv2020
	Network Switches
Network Switches	Dell Networking: S4810
SAN Switches	Brocade: 6510

The matrix below expands the compatible hardware list. These components were not directly tested but are acceptable components to replace any of the above corresponding hardware.

	Other Compatible Hardware
	Database Servers
Dell EMC Servers	<i>none</i>
Processors	All Processors supported by PowerEdge Servers listed above
Memory	All valid PowerEdge memory configurations
RAID Controllers	PERC: H330 mini
Ethernet Interfaces	QLogic: 57800S QP (2x10GbE+2x1GbE) rNDC, 57840S QP 10GbE SFP+ rNDC, 57810S DP SFP+ 10GbE Adapter, 57810S DP Base-T 10GbE Adapter, Broadcom: 5719 QP 1GbE Adapter, 5720 DP 1GbE Adapter, 5720 QP 1GbE rNDC
Host Bus Adapters	QLogic QLE256x, QLE2660
	Storage Arrays
Storage Enclosures	Dell Compellent Controllers: SC8000, SC4020, SC9000
	Network Switches
Network Switches	Dell Networking: S3048-ON, S4810-ON, S4820T, S4048-ON, S5000, S6000
SAN Switches	Brocade: 300, 6505, 6520

Table 31. Hardware Details - OVC: R930 + OVM 3.3.3

The matrices below list the software versions of the different components that this OVC was tested with:

Software Details	
Operating System	Oracle VM Server 3.3.3 [Oracle VM Manager 3.3.3]
Guest VMs + Database	Oracle Linux 6.7 (UEK) x86_64, Paravirtualized with Oracle Database 12cR1

Database Servers			
Model	BIOS	ESM - BMC Firmware	Notes
R930	v1.0.9	v2.13.13, A00 (iDRAC8)	
RAID Controllers			
Model	Firmware	Driver	
PERC H730p	v25.3.0.0016	v06.803.02.00-rc1 (megaraid_sas)	
Ethernet Interfaces			
Model	Driver		
QLogic 57800S 10 GbE rNDC		v1.712.10 (bnx2x)	
Host Bus Adapters			
Model	BIOS	Driver	
QLE2662	v3.29	v8.07.00.16.39.0-k or higher	

Storage Arrays	
Model	Software
Dell Compellent SCv2020	Storage Center 6.6.4.6

Network Switches	
Model	Firmware
Dell Networking S4810	v8.3.12.2
SAN Switches	
Model	Firmware
Brocade 6510	v7.3.0c

Additional Information and Configuration Settings
http://linux.oracle.com/pls/apex/f?p=102:2:1006420550252::NO::P2_VC_ID:685

Table 32. Software Details - OVC: R930 + OVM 3.3.3

NOTE: It is recommended to use the latest software versions supported by the hardware components listed in the ‘Other Compatible Hardware’ matrix for this OVC.

2.1.2 R730xd (R730, R630 and T630) + OVM3.3.1 (Release Date - 09/10/2014)

The matrix below lists the hardware components this OVC was tested with:

	Hardware Details
	Database Server
Dell EMC Servers	R730xd
Processors	2 x Intel Xeon E5-2680 v3 2.5GHz 12C
Memory	32GB (2 x 16GB 2133Mhz DDR4 DIMMs)
RAID Controllers	PERC: H330mini
Ethernet Interfaces	Broadcom: 5720 QP 1GbE rNDC
Host Bus Adapters	QLogic: QLE2662
	Storage Array
Storage Enclosures	Dell Compellent Controllers: SC4020
	Network Switches
Network Switches	Dell Networking: 8024F, S4810
SAN Switches	Brocade: 6510

The matrix below expands the compatible hardware list. These components were not directly tested but are acceptable components to replace any of the above corresponding hardware.

	Other Compatible Hardware
	Database Servers
Dell EMC Servers	R730,R630 and T630
Processors	All Processors supported by PowerEdge Servers listed above
Memory	All valid PowerEdge memory configurations
RAID Controllers	PERC: H330mini, H730p
Ethernet Interfaces	Broadcom: 57800S QP (2x10GbE+2x1GbE) rNDC, 57840S QP 10GbE SFP+ rNDC, 57810S DP SFP+ 10GbE Adapter, 57810S DP Base-T 10GbE Adapter, 5719 QP 1GbE Adapter, 5720 DP 1GbE Adapter
Host Bus Adapters	QLogic QLE256x, QLE2660
	Storage Arrays
Storage Enclosures	Dell Compellent Controllers:SC8000
	Network Switches
Network Switches	Dell Networking: S55, S60, S4820T, 8024
SAN Switches	Brocade: 300, 5300, 6505, 6520

Table 33. Hardware Details - OVC: R730xd + OVM 3.3.1

The matrices below list the software versions of the different components that this OVC was tested with:

Software Details	
Operating System	Oracle VM Server 3.3.1 [Oracle VM Manager 3.3.1]
Guest VMs + Database	Oracle Linux 6.4 (UEK) x86_64, Paravirtualized with Oracle Database 12cR1

Database Servers			
Model	BIOS	ESM - BMC Firmware	Notes
R730xd	V0.3.30	V2.00.00, A00 (iDRAC8)	
RAID Controllers			
Model	Firmware	Driver	
PERC H330mini	V4.240.01-3190	v06.700.06.00-rc1 (megaraid_sas)	
Ethernet Interfaces			
Model		Driver	
Broadcom NetXtreme II 1GbE Family of Adapters		v2.2.4g (bnx2)	
Broadcom NetXtreme II 10GbE Family of Adapters		v1.78.80 (bnx2x)	
Host Bus Adapters			
Model	BIOS	Driver	
QLE2662	V3.24	v8.06.00.14.39.0-k1	

Storage Arrays	
Model	Software
Dell Compellent SC4020,SC8000	Storage Center 6.5

Network Switches	
Model	Firmware
Dell Networking 8024F	v8.3.3.8
Dell Networking S4810	v8.3.12.2
SAN Switches	
Model	Firmware
Brocade 6510	V7.0.1

Additional Information and Configuration Settings
http://linux.oracle.com/pls/apex/f?p=102:2:3190737658689974::NO::P2_VC_ID:664

Table 34. Software Details - OVC: R730xd + OVM 3.3.1

NOTE: It is recommended to use the latest software versions supported by the hardware components listed in the ‘Other Compatible Hardware’ matrix for this OVC.

2.1.3 R920 + OVM3.2.8 (Release Date - 06/09/2014) [Solution ID: 4577352v1]

The matrix below lists the hardware components this OVC was tested with:

	Hardware Details
	Database Server
Dell EMC Servers	R920
Processors	4 x Intel Xeon E7-4890 v2 2.80 GHz 15C
Memory	32GB (8 x 4GB 1600MHz DDR3 DIMMs)
RAID Controllers	PERC: H730p
Ethernet Interfaces	Broadcom: BCM5720 QP (4x1GbE) rNDC
Host Bus Adapters	QLogic: QLE2562
	Storage Array
Storage Enclosures	Dell Compellent Controllers: SC8000; SC220 Expansion Enclosures
	Network Switches
Network Switches	Dell Networking: S55
SAN Switches	Brocade: 5300

The matrix below expands the compatible hardware list. These components were not directly tested but are acceptable components to replace any of the above corresponding hardware.

	Other Compatible Hardware
	Database Servers
Dell EMC Servers	<i>none</i>
Processors	All Processors supported by PowerEdge Servers listed above
Memory	All valid PowerEdge memory configurations
RAID Controllers	<i>none</i>
Ethernet Interfaces	Broadcom: 57800S QP rNDC, 57840S QP 10GbE SFP+ rNDC, 57810S DP SFP+ 10GbE Adapter, 57810S DP Base-T 10GbE Adapter, 5719 QP 1GbE Adapter, 5720 DP 1GbE Adapter
Host Bus Adapters	QLogic QLE2560, QLE266x
	Storage Arrays
Storage Enclosures	Dell Compellent Controllers: SC40
	Network Switches
Network Switches	Dell Networking: S60, S4810, S4820T, 8024, 8024F
SAN Switches	Brocade: 300, 6505, 6510, 6520

Table 35. Hardware Details - OVC: R920 + OVM 3.2.8

The matrices below list the software versions of the different components that this OVC was tested with:

Software Details	
Operating System	Oracle VM Server 3.2.8 [Oracle VM Manager 3.2.8]
Guest VMs + Database	Oracle Linux 6.4 (UEK) x86_64, Paravirtualized with Oracle Database 12cR1

Database Servers			
Model	BIOS	ESM - BMC Firmware	Notes
R920	v1.0.7	v1.56.55, A00 (iDRAC7)	
RAID Controllers			
Model	Firmware	Driver	
PERC H730p	v25.2.0.0017	v06.600.18.00(megaraid_sas)	
Ethernet Interfaces			
Model		Driver	Firmware
Broadcom NetXtreme I 1GbE Family of Adapters		v3.131d (tg3)	v7.2.0
Host Bus Adapters			
Model	BIOS	Driver	
QLE2562	v3.00	v8.05.00.03.39.0-k (qla2xxx)	

Storage Arrays	
Model	Software
Dell Compellent SC8000, SC40	Storage Center 6.4.3

Network Switches	
Model	Firmware
Dell Networking S55 1GbE Switch	v8.3.5.3
SAN Switches	
Model	Firmware
Brocade 5300 8Gbps Switch	v6.4.1b

Additional Information and Configuration Settings
http://linux.oracle.com/pls/apex/f?p=102:2:1717716563061959::NO::P2_VC_ID:652

Table 36. Software Details - OVC: R920 + OVM 3.2.8

NOTE: It is recommended to use the latest software versions supported by the hardware components listed in the ‘Other Compatible Hardware’ matrix for this OVC.

2.1.4 R720 (R620/R720xd/T620) + OVM3.2.8 (Release Date – 06/09/2014) [Solution ID: 4578972v5]

The matrix below lists the hardware components this OVC was tested with:

	Hardware Details
	Database Server
Dell EMC Servers	R720
Processors	2 x Intel Xeon E5-2680 v2 2.80 GHz 10C
Memory	64GB (4 x 16G 1866MHz DDR3 DIMMs)
RAID Controllers	PERC: H710p mini
Ethernet Interfaces	Broadcom: BCM5720 QP (4x1GbE) rNDC
Host Bus Adapters	QLogic: QLE2562
	Storage Array
Storage Enclosures	Dell Compellent Controllers: SC8000; SC220 Expansion Enclosures
	Network Switches
Network Switches	Dell Networking: S55
SAN Switches	Brocade: 5300

The matrix below expands the compatible hardware list. These components were not directly tested but are acceptable components to replace any of the above corresponding hardware.

	Other Compatible Hardware
	Database Servers
Dell EMC Servers	R620, R720xd, T620
Processors	All Processors supported by PowerEdge Servers listed above
Memory	All valid PowerEdge memory configurations
RAID Controllers	H310, H710
Ethernet Interfaces	Broadcom: 57800S QP rNDC, 57840S QP 10GbE SFP+ rNDC, 57810S DP SFP+ 10GbE Adapter, 57810S DP Base-T 10GbE Adapter, 5719 QP 1GbE Adapter, 5720 DP 1GbE Adapter
Host Bus Adapters	QLogic QLE2560, QLE266x
	Storage Arrays
Storage Enclosures	Dell Compellent Controllers: SC40
	Network Switches
Network Switches	Dell Networking: S60, S4810, S4820T, 8024, 8024F
SAN Switches	Brocade: 300, 6505, 6510, 6520

Table 37. Hardware Details - OVC: R720 + OVM 3.2.8

The matrices below list the software versions of the different components that this OVC was tested with:

Software Details	
Operating System	Oracle VM Server 3.2.8 [Oracle VM Manager 3.2.8]
Guest VMs + Database	Oracle Linux 6.4 (UEK) x86_64, Paravirtualized with Oracle Database 12cR1

Database Servers			
Model	BIOS	ESM - BMC Firmware	Notes
R720	v2.1.3	v1.51.51, A00 (iDRAC7)	
RAID Controllers			
Model	Firmware	Driver	
PERC H710p mini	v21.2.0-0007	v06.600.18.00(megaraid_sas)	
Ethernet Interfaces			
Model		Driver	Firmware
Broadcom NetXtreme I 1GbE Family of Adapters		v3.131d (tg3)	v7.2.0
Host Bus Adapters			
Model	BIOS	Driver	
QLE2562	v3.00	v8.05.00.03.39.0-k (qla2xxx)	

Storage Arrays	
Model	Software
Dell Compellent SC8000, SC40	Storage Center 6.4.3

Network Switches	
Model	Firmware
Dell Networking S55 1GbE Switch	v8.3.5.3
SAN Switches	
Model	Firmware
Brocade 5300 8Gbps Switch	v6.4.1b

Additional Information and Configuration Settings
http://linux.oracle.com/pls/apex/f?p=102:2:2781517084775367::NO::P2_VC_ID:653

Table 38. Software Details - OVC: R720 + OVM 3.2.8

NOTE: It is recommended to use the latest software versions supported by the hardware components listed in the ‘Other Compatible Hardware’ matrix for this OVC.

2.1.5 R820 + OVM3.2.7 (Release Date - 03/18/2014) [Solution ID: 4086733v4]

The matrix below lists the hardware components this OVC was tested with:

	Hardware Details
	Database Server
Dell EMC Servers	R820
Processors	4 x Intel Xeon E5-4650 2.7GHz 6C
Memory	64GB (8 x 8GB 1333MHz DDR3 DIMMs)
RAID Controllers	PERC: H710p
Ethernet Interfaces	Broadcom: 57800S QP (2x10GbE+2x1GbE) rNDC
Host Bus Adapters	QLogic: QLE2662
	Storage Array
Storage Enclosures	Dell Compellent Controllers: SC8000; SC220 Expansion Enclosures
	Network Switches
Network Switches	Dell Networking: 8024F, S4810
SAN Switches	Brocade: 6510

The matrix below expands the compatible hardware list. These components were not directly tested but are acceptable components to replace any of the above corresponding hardware.

	Other Compatible Hardware
	Database Servers
Dell EMC Servers	<i>none</i>
Processors	All Processors supported by PowerEdge Servers listed above
Memory	All valid PowerEdge memory configurations
RAID Controllers	PERC: H310, H710p
Ethernet Interfaces	Broadcom: 5720 QP 1GbE rNDC, 57840S QP 10GbE SFP+ rNDC, 57810S DP SFP+ 10GbE Adapter, 57810S DP Base-T 10GbE Adapter, 5719 QP 1GbE Adapter, 5720 DP 1GbE Adapter
Host Bus Adapters	QLogic QLE256x, QLE2660
	Storage Arrays
Storage Enclosures	Dell Compellent Controllers: SC40
	Network Switches
Network Switches	Dell Networking: S55, S60, S4820T, 8024
SAN Switches	Brocade: 300, 5300, 6505, 6520

Table 39. Hardware Details - OVC: R820 + OVM 3.2.7

The matrices below list the software versions of the different components that this OVC was tested with:

Software Details	
Operating System	Oracle VM Server 3.2.7 [Oracle VM Manager 3.2.7]
Guest VMs + Database	Oracle Linux 6.4 (UEK) x86_64, Paravirtualized with Oracle Database 12cR1

Database Servers			
Model	BIOS	ESM - BMC Firmware	Notes
R820	v1.7.2	v1.37.35, A00 (iDRAC7)	
RAID Controllers			
Model	Firmware	Driver	
PERC H710p	v21.1.0-0007	v00.00.05.40-rc1 (megaraid_sas)	
Ethernet Interfaces			
Model		Driver	
Broadcom NetXtreme II 1GbE Family of Adapters		v2.2.3 (bnx2)	
Broadcom NetXtreme II 10GbE Family of Adapters		v1.72.50-0 (bnx2x)	
Host Bus Adapters			
Model	BIOS	Driver	
QLE2662	v3.17	v8.04.00.08.39.0-k	

Storage Arrays	
Model	Software
Dell Compellent SC8000, SC40	Storage Center 6.4

Network Switches	
Model	Firmware
Dell Networking 8024F	v8.3.3.8
Dell Networking S4810	v8.3.12.1
SAN Switches	
Model	Firmware
Brocade 6510	v6.2.0c

Additional Information and Configuration Settings
http://linux.oracle.com/pls/apex/f?p=102:2:1234213660490302::NO::P2_VC_ID:647

Table 40. Software Details - OVC: R820 + OVM 3.2.7

NOTE: It is recommended to use the latest software versions supported by the hardware components listed in the ‘Other Compatible Hardware’ matrix for this OVC.

2.2 Dell EMC PowerEdge Blade Servers

2.2.1 M820 + OVM3.2.4 (Release Date - 09/17/2013) [Solution ID: 4086722v2]

The matrix below lists the hardware components this OVC was tested with:

	Hardware Details
	Database Server
Dell EMC Servers	M820 in M1000e chassis
Processors	4 x Intel Xeon E5-4617 2.9GHz 6C
Memory	128GB (16 x 8GB 1600MHz DDR3 DIMMs)
RAID Controllers	PERC: H310
Ethernet Interfaces	Broadcom: 57810S DP 10GbE bNDC
Host Bus Adapters	QLogic: QME2662
	Storage Array
Storage Enclosures	Dell Compellent Controllers: SC8000; SC220 Expansion Enclosures
	Network Switches
Network Switches	Dell Networking: MXL 10/40GbE
SAN Switches	Brocade: M6505

The matrix below expands the compatible hardware list. These components were not directly tested but are acceptable components to replace any of the above corresponding hardware.

	Other Compatible Hardware
	Database Servers
Dell EMC Servers	M820 (FX2s), M820 ¹ (VRTX)
Processors	All Processors supported by PowerEdge Servers listed above
Memory	All valid PowerEdge memory configurations
RAID Controllers	PERC: H710, H710p
Ethernet Interfaces	Broadcom: 57810S DP 10GbE KR Mezz, 5719 QP 1GbE Mezz
Host Bus Adapters	QLogic QME2572
	Storage Arrays
Storage Enclosures	Dell Compellent Controllers: SC40
	Network Switches
Network Switches	Dell Networking: M8024-k, M8428-k, M6348, M6220
SAN Switches	<i>none</i>

Table 41. Hardware Details - OVC: M820 + OVM 3.2.4

¹ Only supported with external SAN storage; Internal VRTX SAS storage is not supported.

The matrices below list the software versions of the different components that this OVC was tested with:

Software Details	
Operating System	Oracle VM Server 3.2.4 [Oracle VM Manager 3.2.4]
Guest VMs + Database	Oracle Linux 6.4 (UEK) x86_64, Paravirtualized with Oracle Database 12cR1

Database Servers			
Model	BIOS	ESM - BMC Firmware	Notes
M820	v1.5.1	v1.37.35, A00 (iDRAC7)	
RAID Controllers			
Model	Firmware	Driver	
PERC H310	v20.12.0-0004	v00.00.05.40-rc1 (megaraid_sas)	
Ethernet Interfaces			
Model		Driver	
Broadcom NetXtreme II 10GbE Family of Adapters		v1.72.50-0 (bnx2x)	
Host Bus Adapters			
Model	BIOS	Driver	
QME2662	v3.00	v8.04.00.08.39.0-k	

Storage Arrays	
Model	Software
Dell Compellent SC8000	Storage Center 6.3

Network Switches	
Model	Firmware
Dell Networking MXL 10/40GbE	v8.3.16.4, A03
SAN Switches	
Model	Firmware
Brocade M6505	v7.0.1

Additional Information and Configuration Settings
http://linux.oracle.com/pls/apex/f?p=102:2:1060678210538969::NO::P2_VC_ID:628

Table 42. Software Details - OVC: M820 + OVM 3.2.4

NOTE: It is recommended to use the latest software versions supported by the hardware components listed in the ‘Other Compatible Hardware’ matrix for this OVC.

2.3 Dell EMC PowerEdge FX2s

2.3.1 FC630 + OVM3.3.1 (Release Date - 12/17/2014)

The matrix below lists the hardware components this OVC was tested with:

	Hardware Details
	Database Server
Dell EMC Servers	FC630 in FX2s chassis
Processors	2 x Intel Xeon E5-2680 v3 2.5GHz 12C
Memory	64GB (4 x 16GB 2133Mhz DDR4 DIMMs)
RAID Controllers	PERC: H330mini
Ethernet Interfaces	Broadcom: BCM57810 DP 10GbE bNDC
Host Bus Adapters	QLogic: QLE2662
	Storage Array
Storage Enclosures	Dell Compellent SC4020
	Network Switches
Network Switches	Dell Networking: 8024F, FX2s 10GbE Pass-Through
SAN Switches	Brocade: 6510

The matrix below expands the compatible hardware list. These components were not directly tested but are acceptable components to replace any of the above corresponding hardware.

	Other Compatible Hardware
	Database Servers
Dell EMC Servers	M630 (M1000e), M630 ² (VRTX)
Processors	All Processors supported by PowerEdge Servers listed above
Memory	All valid PowerEdge memory configurations
RAID Controllers	PERC: H730, H730p
Ethernet Interfaces	Broadcom: 57810S DP 10GbE KR Mezz, 5719 QP 1GbE Mezz
Host Bus Adapters	QLogic: QLE2562
	Storage Arrays
Storage Enclosures	Dell Compellent Controllers: SC8000
	Network Switches
Network Switches	Dell Networking: S4810,S4820T,S55,S60,8024, FX2s GbE Pass-Through
SAN Switches	Brocade: 300,5300,6505,6520

Table 43. Hardware Details - OVC: FC630 + OVM 3.3.1

² Only supported with external SAN storage; Internal VRTX SAS storage is not supported.

The matrices below list the software versions of the different components that this OVC was tested with:

Software Details			
Operating System	Oracle VM Server 3.3.1 [Oracle VM Manager 3.3.1]		
Guest VMs + Database	Oracle Linux 6.4 (UEK) x86_64, Paravirtualized with Oracle Database 12cR1		

Database Servers			
Model	BIOS	ESM - BMC Firmware	Notes
FC630	v1.0.3	V2.05.05.05(31)(iDRAC8)	

RAID Controllers		
Model	Firmware	Driver
PERC H330mini	v25.2.1.0037	v06.700.06.00-rc1 (megaraid_sas)

Ethernet Interfaces	
Model	Driver
Broadcom NetXtreme II 10GbE Family of Adapters	v1.78.80-0 (bnx2x)

Host Bus Adapters		
Model	BIOS	Driver
QLE2662	v3.24	v8.06.00.14.39.0-k1

Storage Arrays	
Model	Software
Dell Compellent SC4020	Storage Center 6.5

Network Switches	
Model	Firmware
Dell Networking 8024F	v8.3.3.8

SAN Switches	
Model	Firmware
Brocade 6510	V7.0.1

Additional Information and Configuration Settings	
http://linux.oracle.com/pls/apex/f?p=102:2:6365035476355::NO::P2_VC_ID:667	

Table 44. Software Details - OVC: FC630 + OVM 3.3.1

NOTE: It is recommended to use the latest software versions supported by the hardware components listed in the ‘Other Compatible Hardware’ matrix for this OVC.

3 References

- Oracle Validated Configurations Program:
<http://www.oracle.com/technetwork/server-storage/linux/validated-configurations-085828.html>
- Dell EMC Oracle Validated Configurations (search by Dell):
<http://linux.oracle.com/pls/apex/f?p=102:1:319335633182209::NO::>
- Dell EMC Servers Hardware Certification List (HCL) for Oracle Linux and Oracle VM (search by Dell) :
<http://linux.oracle.com/pls/apex/f?p=117:1:2526069251147525::NO:RP::>
- Dell EMC Storage Hardware Certification List (HCL) for Oracle VM (search by Dell):
<http://linux.oracle.com/pls/apex/f?p=117:3:46019236825768::NO:RP::>
- Dell Tech Center Oracle Community – Best Practices, White Papers, How-To guides, and more:
www.delltechcenter.com/oracle
- Dell EMC Compellent’s connectivity guide, best practices for Oracle Databases:
 - Knowledge Center <http://kc.compellent.com>
- Dell EMC and Oracle Technology Alliance Partners:
<http://www.dell.com/learn/us/en/uscorp1/campaigns/dell-and-oracle-ga-partners>
- Everything Oracle at Dell EMC:
https://community.emc.com/community/connect/everything_oracle