



System Builder for Dell EMC Validated System for Virtualization 32

1/24/2017

Solution Summary

Solution Options: [Virtualization Solution Summary](#)

Solution ID# 7703792



Software

Virtual Infrastructure :

VMware vSphere Standard [Tech Specs](#)

vCenter Standard

More Content

VMware vSphere Standard [back](#)

Unified Management Platform :

Dell Active System Manager [Tech Specs](#)

Operations Management :

Virtualization vRealize Operations [Tech Specs](#)

Data Protection :

Dell DDP | RR Suite [Tech Specs](#)

Software Defined Storage :

VMware Virtual SAN [Tech Specs](#)

vRealize License :

vRealize License [Contact Dell Technical Sales Representative to include vRealize License.](#)



Hardware

Solution Details :

Server Platform	Dell PowerEdge FX2
Server	Dell PowerEdge FC630
Storage Platform	Dell Storage SC4020
Networking Platforms	Dell Networking S4048-ON

Server Recommendation :

Server Model	Dell PowerEdge FC630
Number of server	6
Processor Type	Intel® Xeon® E5-2680 v4
Amount of Memory per Server(GB)	2 x 32GB RDIMM
Chassis	Dell PowerEdge FX2
Number of Chassis	2

Storage Recommendation :

Storage System	Dell Storage SC4020
Total Number of SC Enclosures	1 x SC220
Drive Type	1.92TB-MRI
Total Number of Hard Drives	6
Drive Type	1.2TB-10K
Total Number of Hard Drives	23
Front end connectivity	Front-end Network Connectivity for iSCSI: Four 10Gb SFP+ ports per SC4020 array (two per controller)
Memory and Others	Two controllers •Memory: 32GB per SC4020 array (16GB per controller)
Back end connectivity	Back-end Drive Connectivity: Four 6Gb SAS ports per SC4020 array (two per controller)
Dell Storage SC Software	SW, Storage Center OS Base License SW, Performance Bundle Base License
Dell Storage Professional Services	Installation and Implementation of a Dell Compellent SC Array

Networking :

Networking Switch	Dell Networking S4048-ON
Number of Networking Switch	2

Services

Services :

Deployment	Deployment Service SKUs are added to deliver a System level experience. Please don't remove any SKUs without approval from PG
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Others



Information :

Note on Storage sizing [More](#)

Contact your Technical Sales Representative with the Solution ID for additional information This configuration is provided as a starting point. Please discuss the details with your Product Specialist

Dell suggests that your Technical Sales Representative thoroughly review this quote for completeness and include other variables not covered in this summary.

The Hardware and Software SKUs are valid for North America only. In other regions please consult your local Technical Sales Representative. Please see ordering guide section for more details.

More Content

Information [back](#)

Note on Storage sizing [back](#)

Please refer to the below Dell SC Storage sizing tool for optimizing the drive config further

<https://dpack2.dell.com>

Please refer to the below tool for optimizing Data Protection Sizing

- [Data protection sizing \(Internal Only\)](#)
- [Data protection sizing \(Channel partners\)](#)

Dell PowerEdge FX2 Association :

Please refer the configuration guide under documents tab for detailed manual steps for doing FX2 association if it is part of the Solution.

Input Summary

Operating Environment	VMware
System Deployed	System level deployment experience provided by Dell EMC Services
Storage	iSCSI
Server	FX2
Sizing Method	Based on my aggregate resource (CPU, memory and disk) requirement
Virtual Processors	Number Of Cores - 500
Memory	Memory - 256 GB
Total IOPS	IOPS - 1000
Total Storage Capacity	Storage Capacity - 20 TB
Number of Cores	Balanced Core
Preference between All Flash and Hybrid Configuration	Hybrid
Preference on drive configuration	Optimized for balanced performance
Server Model	FC630
Networking adapter in the servers	Intel
Management infrastructure	Yes
Licenses for VMware vSphere	Yes
Performance monitoring	vRealize Operations

Product Details



1. Dell Networking S3048-ON Management Switch

Option ID	Description	Quantity [1] Quantity
3048R	Dell Networking S3048-ON, 48x 1GbE, 4x SFP+ 10GbE ports, Stacking, PSU to IO air, 1x AC PSU, DNOS 9	1
DNOS9	Dell Networking OS 9, S3048-ON	1
PSU210	Power Supply, 200w, PSU to IO airflow, S3048-ON	1
FPC250	Force10, Power Cord, 250V, 12A, 2 Meters, C13/C14	2
DOC	Dell Networking S3048-ON User Guide	1
USNONE	US No Canada Ship Charge	1
PSP3YNB	ProSupport Plus: 3 Year Next Business Day On-Site Service	1
PRODEPL	ProDeploy Dell Networking S Series 3XXX Switch	1
NORCS	Declined Remote Consulting Service	1

2. Dell PowerEdge FN I/O PowerEdge FN I/O Module, Factory Installed

Option ID	Description	Quantity [4] Quantity
410SF	Dell PowerEdge FN410S I/O Module, 8x Internal to 4x SFP+ external ports, Factory Installed	1
FNFULL	Software, Rights to use Full-Switch Mode, FN I/O Module	1
PN3	3 Years ProSupport with Next Business Day Onsite Service	1
PRODEPL	ProDeploy Dell Networking M Series IOA, Pass-Through, Switch	1
USNONE	US No Canada Ship Charge	1

3. PowerEdge R630 Management Server

Option ID	Description	Quantity [1] Quantity
R630X	PowerEdge R630 Server	1
NTPM	No Trusted Platform Module	1
8S3P	Chassis with up to 8, 2.5" Hard Drives, Software RAID, 3 PCIe Slots	1
D8SH	PowerEdge R630 Shipping- 8 Drive Chassis	1
ES2698	Intel® Xeon® E5-2698 v4 2.2GHz,50M Cache,9.60GT/s QPI,Turbo,HT,20C/40T (135W) Max Mem 2400MHz	1
ES2698	Intel® Xeon® E5-2698 v4 2.2GHz,50M Cache,9.60GT/s QPI,Turbo,HT,20C/40T (135W) Max Mem 2400MHz	1
HS1602	2 CPU up to 160W	1
2400MT	2400MT/s RDIMMs	1
PEOPT	Performance Optimized	1
16GBMM	16GB RDIMM, 2400MT/s, Dual Rank, x8 Data Width	8
NRNCTL	Diskless Configuration (No RAID, No Controller)	1
NCTRLR	Embedded SATA	1
NOHD	No Hard Drive	1
X520	Intel X520 DP 10Gb DA/SFP+, + I350 DP 1Gb Ethernet, Network Daughter Card	1
Q2662D	Qlogic 2662, Dual Port 16GB Fibre Channel HBA, Low Profile	1
OI8EN	iDRAC8, Enterprise with OpenManage Essentials,Server ConfigMgmt	1
216GSD	Internal Dual SD Module with 2x 16GB SD Cards	1
NODVD	No Internal Optical Drive for 8 HDD Chassis	1
8QS	Quick Sync Bezel 8 Drive Chassis	1
RRCMA	ReadyRails™ Sliding Rails With Cable Management Arm	1
HPBIOS	Performance BIOS Setting	1



750R	Dual, Hot-plug, Redundant Power Supply (1+1), 750W	1
12A2M	C13 to C14, PDU Style, 12 AMP, 6.5 Feet (2m) Power Cord, North America	2
DOC	Electronic System Documentation and OpenManage DVD Kit	1
NOOSNUP	No OS, No Utility Partition	1
NOMED	No Media Required	1
VMESI	VMware ESXi 6.0 U2 Embedded Image on Flash Media	1
VSE3US	vSphere Enterprise Plus 1CPU Lic, 3Y Subscription w/Dwngrd Rights	2
VMW3YS	VMware vCenter Standard License, 3yr Subscription w/Dwngrd Rights, NFI	1
USNONE	US No Canada Ship Charge	1
PSP3YNB	ProSupport Plus: 3 Year Next Business Day On-site Service	1
BASDEPL	Basic Deployment Dell Server R Series 1U/2U	1

4. PowerEdge FX2 PowerEdge FX2

Option ID	Description	Quantity [2]	Quantity
FX2X4	PowerEdge FX2 Chassis for up to 4 Half-Width Nodes	1	1
CCFX2S	PowerEdge FX2S Chassis Configuration with Flexible IO (up to 8 PCIe Slots)	1	1
SHIP	PowerEdge FX2 Shipping	1	1
CMCENT	CMC Enterprise for FX2	1	1
ENETR	Redundant Ethernet Switch Configuration	1	1
RDYRL	FX2 ReadyRails Sliding Rails	1	1
RA2000	PowerEdge FX2 Power Supply,Redundancy Alerting Enabled,2x2000W at 200-240V,C19/C20 Power Cord Requir	1	1
PDU16	C19 to C20, PDU Style, 16 AMP, 2 Feet, Power Cord	2	2
DOCS	FX2 User Documentation	1	1
FNDOC	PowerEdge FN I/O Module User Documentation	1	1
NOMED	No Media Required	1	1
NOPSM	Dell Proactive Systems Management - Declined	1	1
NOINSTL	No Installation	1	1
USNONE	US No Canada Ship Charge	1	1
PSP3YNB	ProSupport Plus: 3 Year Next Business Day Onsite Service	1	1
PRODEPL	ProDeploy Dell Server FX2 Converged	1	1
NORCS	Declined Remote Consulting Service	1	1

5. PowerEdge FC630 PowerEdge FC630

Option ID	Description	Quantity [6]	Quantity
FC630X	PowerEdge FC630 Server	1	1
NTPM	No Trusted Platform Module	1	1
2SATA	2.5" Backplane with up to 2 Hard Drives and Onboard SATA	1	1
MPSHIP	FC630 in Multipack or Chassis	1	1
26804	Intel® Xeon® E5-2680 v4 2.4GHz,35M Cache,9.60GT/s QPI,Turbo,HT,14C/28T (120W) Max Mem 2400MHz	1	1
ES2680	Intel® Xeon® E5-2680 v4 2.4GHz,35M Cache,9.60GT/s QPI,Turbo,HT,14C/28T (120W) Max Mem 2400MHz	1	1
2CPU	2 CPU up to 135W	1	1
STDAIR	Standard Cooling,FC630	1	1
2400MT	2400MT/s RDIMMs	1	1
PEOPT	Performance Optimized	1	1
32GBMM	32GB RDIMM, 2400MT/s, Dual Rank, x4 Data Width	2	2



NRNCTL	Diskles Configuration, No Controller	1
NCTRLR	Embedded SATA	1
NOHD	No Hard Drive	1
IX520KN	Intel x520-k Dual Port 10Gb KR Blade Network Daughter Card	1
X520LP	Intel X520 DP 10Gb DA/SFP+ Server Adapter, Low Profile	1
OI8EN	iDRAC8, Enterprise with OpenManage Essentials,Server ConfigMgmt	1
216GSD	Internal Dual SD Module with 16GB SD Card	1
HPBIOS	Performance BIOS Setting	1
NODOCS	No Systems Documentation, No OpenManage DVD Kit	1
NOOSNUP	No OS, No Utility Partition	1
NOMED	No Media Required	1
VMESI	VMware ESXi 6.0 U2 Embedded Image on Flash Media	1
VSE3US	vSphere Enterprise Plus 1CPU Lic, 3Y Subscription w/Dwngrd Rights	2
NOPSM	Dell Proactive Systems Management - Declined	1
USNONE	US No Canada Ship Charge	1
PCIE	PowerEdge FC PCIE Mezzanine Adapter for Enablement of FX2S	1
PSP3YNB	ProSupport Plus: 3 Year Next Business Day On-site Service	1
BASDEPL	Basic Deployment Dell Server M or F Series 3XX/4XX/5XX/6XX	1
1YRCS	Deployment Consulting 1 Yr 1 Case Remote Consulting Service	1

6. PowerEdge R630 Management Server

Option ID	Description	Quantity [1] Quantity
R630X	PowerEdge R630 Server	1
NTPM	No Trusted Platform Module	1
8S3P	Chassis with up to 8, 2.5" Hard Drives, Software RAID, 3 PCIe Slots	1
D8SH	PowerEdge R630 Shipping- 8 Drive Chassis	1
ES2698	Intel® Xeon® E5-2698 v4 2.2GHz,50M Cache,9.60GT/s QPI,Turbo,HT,20C/40T (135W) Max Mem 2400MHz	1
ES2698	Intel® Xeon® E5-2698 v4 2.2GHz,50M Cache,9.60GT/s QPI,Turbo,HT,20C/40T (135W) Max Mem 2400MHz	1
HS1602	2 CPU up to 160W	1
2400MT	2400MT/s RDIMMs	1
PEOPT	Performance Optimized	1
16GBMM	16GB RDIMM, 2400MT/s, Dual Rank, x8 Data Width	8
NRNCTL	Diskless Configuration (No RAID, No Controller)	1
NCTRLR	Embedded SATA	1
NOHD	No Hard Drive	1
X520	Intel X520 DP 10Gb DA/SFP+, + I350 DP 1Gb Ethernet, Network Daughter Card	1
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OI8EN	iDRAC8, Enterprise with OpenManage Essentials,Server ConfigMgmt	1
216GSD	Internal Dual SD Module with 2x 16GB SD Cards	1
NODVD	No Internal Optical Drive for 8 HDD Chassis	1
8QS	Quick Sync Bezel 8 Drive Chassis	1
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HPBIOS	Performance BIOS Setting	1
750R	Dual, Hot-plug, Redundant Power Supply (1+1), 750W	1
12A2M	C13 to C14, PDU Style, 12 AMP, 6.5 Feet (2m) Power Cord, North America	2
DOC	Electronic System Documentation and OpenManage DVD Kit	1



NOOSNUP	No OS, No Utility Partition	1
NOMED	No Media Required	1
VMESI	VMware ESXi 6.0 U2 Embedded Image on Flash Media	1
VSE3US	vSphere Enterprise Plus 1CPU Lic, 3Y Subscription w/Dwngrd Rights	2
USNONE	US No Canada Ship Charge	1
PSP3YNB	ProSupport Plus: 3 Year Next Business Day On-site Service	1
BASDEPL	Basic Deployment Dell Server R Series 1U/2U	1

7. Dell Networking S4048-ON Dell Networking

Option ID	Description	Quantity [2] Quantity
4048R	Dell Networking S4048-ON, 48x 10GbE SFP+ and 6x 40GbE QSFP+ ports, PSU to IO air, 1x AC PSUs, DNOS9	1
DNOS9	Dell Networking OS9, S4048-ON	1
PSU2IO	Power Supply, AC, 460w, PSU to IO airflow, S4048-ON	1
FPC250	Force10, Power Cord, 250V, 12A, 2 Meters, C13/C14	2
DOC	Dell Networking S4048-ON User Guide	1
USNONE	US No Canada Ship Charge	1
PSP3YNB	ProSupport Plus: 3 Year Next Business Day Onsite Service	1
PDEPLUS	ProDeploy Plus Dell Networking S Series 4XXX Switch	1

8. Dell Networking S4048-ON Dell Networking

Option ID	Description	Quantity [2] Quantity
4048R	Dell Networking S4048-ON, 48x 10GbE SFP+ and 6x 40GbE QSFP+ ports, PSU to IO air, 1x AC PSUs, DNOS9	1
DNOS9	Dell Networking OS9, S4048-ON	1
PSU2IO	Power Supply, AC, 460w, PSU to IO airflow, S4048-ON	1
FPC250	Force10, Power Cord, 250V, 12A, 2 Meters, C13/C14	2
DOC	Dell Networking S4048-ON User Guide	1
USNONE	US No Canada Ship Charge	1
PSP3YNB	ProSupport Plus: 3 Year Next Business Day Onsite Service	1
NOINSTL	No Installation	1

Solution Line Items

SKU Number	description	quantity
998-9801	Software Integration Dell Vali dated System for Virtualizatio n-VMware	1

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