

Date: March 16, 2015
To: Lucas County Data Processing Board
From: Lucas County Board of Elections
Re: Request to purchase Dell PowerEdge R320 Rack Server

Lucas County Data Processing Board:

Lucas County Board of Elections is requesting to purchase the Dell PowerEdge R320 Rack Server directly from Dell for \$5,535.64. This payment will come out of account 530100-equipment fund. This server will replace our outdated Gateway server, which has reached, and passed its end of life. This server currently houses our Voter Registration system, Dims. (Data Information Management Systems) This application is accessed by up to 55 users concurrently, each of which having 2 sessions open. (Total of up to 110 instances at one time) With this being said, we went by the vendors minimum specifications, see appendage (A), and went heavy on processor speed, cache, and RAM capacity, to minimize slow-downs and freeze-ups, during our peak usage times. Please see Dell quote as appendage (B). Thank you for your consideration in this matter.

Sincerely,

 

Lucas County Board of Elections

Appendage B



Print Summary

PowerEdge R320 Rack Server

Grand Total \$5,535.64

As low as \$167.00 /month^

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My Selections **All Options**



- PowerEdge R320 Rack Server

Date	3/16/2015 7:36:19 PM Central Standard Time			
Catalog Number	4 Retail 04			
Catalog Number / Description	Product Code	Qty	SKU	Id
PowerEdge R320: PowerEdge R320, Intel® Xeon® E-24XX v2 Processors	R320E	1	[210-ACCX][329-BBYC]	1
Chassis Configuration: 3.5" Chassis with up to 4 Hot Plug Hard Drives	4HPSAS	1	[318-2038][331-6959]	1530
Shipping: PowerEdge R320 Shipping	SHIP	1	[331-6952]	1500
Processor: Intel® Xeon® E5-2470 v2 2.40GHz, 25M Cache,	E524702	1	[317-9826][338-BDZP]	1550

Appendage B

8.0GT/s QPI, Turbo, 10C, 95W, Max Mem
1600MHz

Memory DIMM Type and Speed:
1600MT/s RDIMMS 1600RD 1 [331-4424] 1561

Memory Configuration Type:
Performance Optimized PEOPT 1 [331-4428] 1562

Memory Capacity:
16GB RDIMM, 1600MT/s, Low Volt, Dual Rank, x4 Data Width 16GBRLR 2 [319-1812] 1560

Operating System:
Windows Server® 2012, Essentials Ed, Factory Install, No MED, 2 Socket, 1VM WS2012M 1 [421-9711] 1650

OS Media Kits:
Windows Server® 2012, Essentials Edition, Media Kit WS2012E 1 [421-9712] 1652

RAID Configuration:
RAID 5 for H710/H310 (3-8 HDDs) R5H7H3 1 [331-7001] 1540

RAID Controller:
PERC H310 Integrated RAID Controller PH310IR 1 [342-3528] 1541

Hard Drives:
1TB 7.2K RPM SATA 3Gbps 3.5in Hot-plug Hard Drive 1TS3 3 [341-8730] 1570

Embedded Systems Management:
Basic Management BMC 1 [331-3482] 1515

Add-in Network Adapter:
On-Board Broadcom 5720 Dual Port 1Gb LOM OBNIC 1 [430-4715] 1514

Add-in Network Adapter:
Broadcom 5720 DP 1Gb Network Interface Card 5720DP 1 [430-4423] 1514

Power Supply:
Dual, Hot-plug, Redundant Power Supply, 350W 2RPS350 1 [331-7022][331-7027] 1620

Power Cords:
NEMA 5-15P to C13 Wall Plug, 125 Volt, 15 AMP, 10 Feet (3m), Power Cord 125V10F 2 [310-8509] 1621

Rack Rails:
No Rack Rails or Cable Management Arm NORAIL 1 [330-3522] 1610

Appendage B

Bezel: No Bezel	NOBEZEL	1	[313-0869]	1532
Internal Optical Drive: DVD Internal for 4HD Chassis	DVD12	1	[318-2099]	1600
System Documentation: Electronic System Documentation and OpenManage DVD Kit for R320	EDOCS	1	[331-6962]	1590
Database Software: Microsoft®SQL Server™2014 STD,5Device CALs,NFI,w 2012 DGRD Media	S5DNM	1	[634-BCEK]	1657
Warranty & Service: 3Yr Basic Hardware Warranty Repair: 5x10 HW-Only, 5x10 NBD Onsite	U3OS	1	[938-3184][939-6767][939-6857][994-4019][995-8451][996-8029]	29
Installation Services: No Installation	NOINSTL	1	[900-9997]	32
Remote Consulting Service: Declined Remote Consulting Service	NORCS	1	[973-2426]	35

Appendage A

DIMS.net Minimum System Requirements Rev 1.2

The minimum requirements for DIMS.net client (8.x) are similar for any .NET supported software. Microsoft has published a set of system requirements for the .NET 4.0 Framework, which DIMS.net is built upon. As with any application, available system resources are the key to system performance. Key component resources (such as CPU speed, memory, disk space, system configuration, and network bandwidth) may affect DIMS.net performance. 3RD party applications and anti-virus protection software may further affect DIMS.net performance. Users who typically initiate multiple DIMS.net sessions may experience performance issues on slower machines. With that said, computers with faster processors and additional memory will generally perform better.

DIMS.net Server side minimum requirements:

Microsoft Windows Server 2003	(Recommend Server 2008 R2 or newer)
Microsoft SQL Server 2000	(Recommend SQL Server 2008 R2 or newer)

DIMS recommends running SQL Server in native mode when upgrading to DIMS.net (Please refer to your SQL Server documentation for any related issues when removing compatibility mode).

DIMS recommends following the manufacturers recommended system requirements for all server environments. Your county may require additional resources based on county size.

DIMS.net Client side minimum requirements:

Microsoft Windows XP SP3.
Microsoft Windows 7 (32 or 64 bit).

DIMS recommends Windows 7 compatible client computers. Windows XP computers may require additional memory.

DIMS recommends at least 1 Ghz processor, 2 GB memory and 2GB available disk space. Faster processors and additional memory may dramatically improve performance.

DIMS.net supports 64-bit environments; however the client computer will need to meet the minimum requirements for the Windows 64-bit Operating System.

Appendage A

Supported Version Matrix

Server OS	DIMS.net	DXI (Services)
Windows Server 2012 R2 (v6.3)	As supported by SQL version	Unknown ¹
Windows Server 2012 (v6.2)	As supported by SQL version	Unknown ¹
Windows Server 2008 R2 (v6.1)	As supported by SQL version	Yes
Windows Server 2008 (v6.0)	As supported by SQL version	Yes
Windows Server 2003 R2 (v5.2)	As supported by SQL version	Yes
Windows Server 2003 (v5.1)	As supported by SQL version	Yes (with SP1 or higher)
Windows Server 2000 (v5.0)	As supported by SQL version	No

Client OS	DIMS.net	DXI (Desktop/Console)
Windows 8.1 (v6.3)	Untested ¹	Untested ¹
Windows 8 (v6.2)	Yes ²	Untested ¹
Windows 7 (v6.1)	Yes	Yes
Windows Vista (v6.0)	Yes ²	Yes
Windows XP	Yes (with SP1 or higher)	Yes (with SP1 or higher)

SQL Server	DIMS.net	DXI (Services)
SQL Server 2014 (v12.00)	Unknown ¹	Unknown ¹
SQL Server 2012 (v11.00)	Yes	Unknown ¹
SQL Server 2008 R2 (v10.50)	Yes	Yes
SQL Server 2008 (v10.00)	Yes	Yes
SQL Server 2005 (v9.00)	Yes	Yes
SQL Server 2000 (v8.00)	Yes	Yes

¹ No known issues exist, but has not been tested

² Basic functionality has been checked, but the product has not been fully tested

Appendage A

References

Windows Server OS List; http://en.wikipedia.org/wiki/List_of_Microsoft_Windows_versions

SQL Server List; <http://sqlserverbuilds.blogspot.com/>

Windows Server 2008 System Requirements:

<http://technet.microsoft.com/en-us/windowsserver/bb414778>

SQL Server 2008 System Requirements:

<http://msdn.microsoft.com/en-us/library/ms143506.aspx>

Link to .NET Framework System Requirements:

<http://msdn.microsoft.com/en-us/library/8z6watww.aspx>

Link to Windows 7 Upgrade Advisor:

<http://windows.microsoft.com/en-US/windows/downloads/upgrade-advisor>

Date	Version	Source	Description
	1.0	Woodruff	Created
2013-01-31	1.1	Guedea	Changed client minimum memory to 2 GB
2014-05-14	1.2	Woodruff	Added Support Matrix