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MIS 2501

### Flash Research Assignment: Virtualization and Cloud Computing

If we implement VMware System instead of our traditional datacenter system, our company will save \$9.2 million over 3 years. Since 80% of physical servers will run virtually, there are considerable opportunities for savings by changing 1000 traditional servers to 200 physical servers in and 80 Server Consolidations. In order to make our datacenter more cost effective and more stable, I highly suggest changes to be made immediately.

Opposed to the present datacenter system, Virtualization technology allows multiple operating systems to run on a single physical server. With server consolidation, the utilization rate can be increased to well over 80 percent. Therefore, investing in virtualization and consolidation could reduce the capital and operational expenses by centralizing management of our virtual datacenter, decreasing downtime of the system and improving reliability with business continuity and built-in disaster recovery.

Compared to the present datacenter total costs in three years which is \$14,000,000, Virtualization Datacenter will cost \$4,800,000 in the same period. We will save \$9,200,000 over a 3-year period. In order to stay competitive and increase profit for the organization, implementation of Virtualization Datacenter is highly recommended due to significant amount of monetary savings.

## Resources:

Marshall, David. "Top 10 Benefits of Server Virtualization." *InfoWorld*. N.p., n.d. Web. 18 Feb. 2015.

"Server Consolidation." *Server Virtualization & Consolidation*. N.p., n.d. Web. 18 Feb. 2015.

"Virtualization." *Technology & Virtual Machine Software*. N.p., n.d. Web. 18 Feb. 2015.  
Server Consolidation

Table 1

Cost of 1000 Servers 1 <sup>st</sup> Year	
Quantity of Server	1000
Purchase Fee per Server	\$8000
Other Cost per Server	\$2000
Total Cost	\$10,000,000

Table 2

Cost of 1000 Servers 2 <sup>nd</sup> and 3 <sup>rd</sup> Year		
	2 <sup>nd</sup> Year	3 <sup>rd</sup> Year
Quantity of Server	1000	1000
Other Cost per Server	\$2000	\$2000
Total Cost	\$2,000,000	\$2,000,000

Table 3

Total Cost of Virtualization and Consolidate 1 <sup>st</sup> Year		
<b>Cost of 200 Servers</b>		
Quantity of Server	200	
Purchase Fee per Server	\$8,000	
Other Cost per Server	\$2,000	
Total Cost		\$2,000,000
<b>Cost of 80 Consolidate Servers</b>		
Quantity of Physical Server	80	
Purchase Fee per Server	\$16,000	
Other Cost per Server	\$3,000	
Total Cost		\$1,520,000
Total Cost		\$3,520,000

Table 4

Cost of Virtualization and Consolidate 2 <sup>nd</sup> and 3 <sup>rd</sup> Year			
	2 <sup>nd</sup> Year	3 <sup>rd</sup> Year	
Quantity of Server	200	200	
Other Cost per Server	\$2,000	\$2,000	
	\$400,000	\$400,000	
Quantity of Consolidate Server	80	80	
Other Cost per Server	\$3,000	\$3,000	
	\$240,000	\$240,000	
Total Cost	\$640,000	\$640,000	

Table 5

Net Profit after 3 Years				
	Year 1	Year 2	Year 3	Total cost after 3 Years
Cost of 1000 Servers	\$10,000,000	\$2,000,000	\$2,000,000	\$14,000,000
200 Servers and 80 Consolidate Servers	\$3,520,000	\$640,000	\$640,000	\$4,800,000
Net Profit After 3 Years				\$9,200,000

<http://www.techopedia.com/definition/16016/server-consolidation>