Muhammad Alkurdi
Professor Martin Doyle

Flash Paper Assignment II
Virtualization & Cloud Computing

Consolidating our servers to a virtualized cloud base will result in a net benefit of $9.2 million, over a three-year period. Utilizing virtualization to consolidate server workloads will reduce the number of physical workstations from 1000 to only 280.

Server consolidation comes along with many benefits. First, it minimizes energy costs by %80 saving $3,000 per virtualized server workload and it also decreases operating and hardware costs by %50. Next, it decreases downtime making the company's system more reliable and capable of continuing business regular operations during a disaster. Moreover, since virtual machines are cloud based, in return that will reduce warranty and licensing costs. Consolidating servers allows us to purchase power of commodity hardware as oppose to specialized hardware. Finally, the ability to add servers to different physical servers that are being used by each of the business division's development teams is made a lot easier, making it a more efficient process.

Applying this new project will result in a net benefit of $9.2 million within a three-year period. By utilizing virtualization and cloud based servers will cost $4.8 million over a three-year term, oppose to a $14 million net cost with our current system.

Calculations:

Prior:
 Server cost: 1000 x 8000= $8,000,000
Maintenance: 1000 x 2000= 2,000,000 x 3 = $6,000,000 3 year cost
Total Cost: $14,000,000

New VMware
Server cost: 200 x 8,000= 1,600,000
VM cost: 80 x 16,000= 1,280,000
Maintenance Server: 200 x 2000 x 3= 1,200,000
Maintenance VM: 80 x 3000 x 3= 720,000
Total Cost: $4,800,000

Net benefit: $14,000,000 - $4,800,000 = **$9,200,000**

Works cited

C. (2016). What is Server Consolidation? Why Should You Do It? Retrieved October 12, 2016, from https://www.smartfile.com/blog/what-is-server-consolidation-and-why-should-you-do-it/

Features and advantages. (n.d.). Retrieved October 12, 2016, from http://www.nec.com/en/global/solutions/servervirtualization/merit.html

Reduce IT Costs and Increase Control with Server Virtualization. (n.d.). Retrieved October 12, 2016, from http://www.vmware.com/solutions/consolidation.html