Sophia Alvarez

MIS 3406 Section 002

Flash Research Assignment 2

Virtualization and Cloud Computing

 Utilizing VMware in our hardware refresh will generate a net benefit of $9,200,000 over the next three years. Virtualization will allow us to consolidate of our physical servers to virtual machines under VMware, reducing the amount of physical machines by 720. This will allow us to save $1,360,000 yearly in server upkeep expenses.

 VMware will allow us to store 80% of servers, or the equivalent capacity of physical 800 servers onto only 80 physical servers. This is because virtualization allows us to store 10 physical servers on a single virtual machine. Because of this, we would only need 280 physical server components in our datacenter, compared to the 1,000 that we currently use. These high-end servers allow for consolidation of server hardware in our data center. This saves us money, as it reduces the amount of machines that require maintenance, power, and cooling.

Consolidating the majority of our servers under VMware will cost $4,800,000 over a three year period for the purchase of hardware and maintenance. Going this route will generate a benefit of $14,000,000 over these three years, as we save money from not purchasing or spending money on maintenance of 720 physical machines. This will generate a total net benefit of $9,200,000 over three years.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Year 1** | **Year 2** | **Year 3** | **Total** |
| **Costs** | $3,520,000 | $640,000 | $640,000 | $4,800,000 |
| **Benefits** | $10,000,000 | $2,000,000 | $2,000,000 | $14,000,000 |
|  |  |  | **3 Year Benefit** | $9,200,000 |

**Works Cited**

“Server Virtualization & Consolidation.” *VMWare*, 28 Sept. 2018, www.vmware.com/solutions/consolidation.html.

Solutions, NH Learning. “Top 5 Ways Businesses Benefit from Server Virtualization.” *4 Key Benefits of Desktop Virtualization*, blog.nhlearningsolutions.com/blog/top-5-ways-businesses-benefit-from-server-virtualization.

“Virtualization Technology & Virtual Machine Software: What Is Virtualization?” *VMWare*, 28 Sept. 2018, www.vmware.com/solutions/virtualization.html.