Ryan Tempestini

Professor Doyle

MIS 2501

**Flash Research Paper #2**

 The current server system we have been using has been losing us money due to its hardware inefficiencies. If we were to virtualize 80% of our servers through VMware, our company will have total savings of $9.2 million over the next three years. These savings can be attributed to server consolidation. To be a more profitable enterprise, it is essential to identify more efficient software solutions and employ them.

 Virtualizing 800 physical servers through VMware would reduce the amount of physical hardware servers in our data center from 1,000 to 280 by consolidating 10 individual servers into one physical server. Each one of these virtual servers will still be able to run its own applications and software, but with greater efficiency and less required maintenance. Consolidating these servers not only reduces the amount of physical hardware the IT department needs to maintain, but also provides a safety measure through the use of redundancy. If we were to run the same application on multiple servers and one server were to fail, another server on the same physical machine could take its place. This would result in cost savings through consolidation.

 Converting 80% of our physical servers to virtual machines would provide our company with a total savings of $9,200,000 over the next three years. In this time period, our total costs would equate to $4,800,000, ultimately yielding three-year benefits of $14,000,000.

**3 Year Costs Without Virtualization (1,000 traditional physical servers)**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Year 1** | **Year 2** | **Year 3** | **Total** |
| **Costs** | $10,000,000 | $2,000,000 | $2,000,000 | $14,000,000 |

**3 Year Costs With Virtualization (200 traditional physical servers, 80 virtual machine servers)**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Year 1** | **Year 2** | **Year 3** | **Total** |
| **Costs** | $3,520,000 | $640,000 | $640,000 | $4,800,000 |

**3 Year Savings With Virtualization**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Year 1** | **Year 2** | **Year 3** | **Total** |
| **Savings** | $6,480,000 | $1,360,000 | $1,360,000 | $9,200,000 |

**Works Cited**

"How Server Virtualization Works." *HowStuffWorks*. N.p., 02 June 2008. Web. 28 Feb. 2017.

"Top 10 Benefits of Server Virtualization -- Virtualization Review." *Home -- Virtualization Review.*Web. <http://virtualizationreview.com/articles/2011/06/20/top-10-benefits-of-server-virtualization.aspx>.

*IT Services Company. IT Support & Consulting. All Covered.* Web. <http://www.allcovered.com/pdf/vmware-benefits.pdf>.