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Virtualization and Cloud Computing

Our manufacturing company has server costs of almost $10,000,000 in just a single year. We can significantly reduce these costs by switching to VMware servers. This technology allows consolidation of physical servers. By transferring 80% of our machines from physical servers to virtual, our company will see there are more benefits and less costs.

Currently, the company uses 1000 traditional servers for its operations. VMware consolidates every 10 of our traditional physical servers into one of their virtual servers. By converting 80% of our machines to VMware, we can have only 280 servers running which will perform just as well as what we have now, but at a fraction of the quantity. That is one of the many benefits provided by the integration of virtualization. According to VMware’s website, virtualization can also increase IT agility, flexibility, and scalability. By using their technology, we are fully prepared for any future growth or expansion that may occur after this three-year period.

The cost of a VMware server is $16,000 with a maintenance cost of $3,000. Upon implementation, our server costs would be $1,600,000 for 200 of our traditional machines along with $1,280,000 for 80 VMware servers; only in the first year. Maintenance will be about $640,000 every year. Our total costs over a three year period will be $4,800,000. However by eliminating the old servers and cutting down their maintenance our total benefits will be $14,000,000. This gives the company a net benefit of $9,200,000.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Year 1** | **Year 2** | **Year 3** | **Total** |
| **Costs** |  |  |  |  |
| 200 Traditional Servers | $1,600,000 | $0 | $0 | $1,600,000 |
| 80 Vmware servers | $1,280,000 | $0 | $0 | $1,280,000 |
| Traditional Maintenance | $400,000 | $400,000 | $400,000 | $1,200,000 |
| Vmware Maintenance | $240,000 | $240,000 | $240,000 | $720,000 |
| **Total Costs** |  |  |  | $4,800,000 |
|  |  |  |  |  |
| **Cost Avoidance Benefits** |  |  |  |  |
| Eliminate 1000 new traditional servers | $8,000,000 | $0 | $0 | $8,000,000 |
| Eliminate maintenance | $2,000,000 | $2,000,000 | $2,000,000 | $6,000,000 |
| **Total Benefits** |  |  |  | $14,000,000 |
|  |  |  |  |  |
| **Net Benefits** |  |  |  | $9,200,000 |

Citations

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