By switching over to virtualization servers, the company will realize a net benefit of $9.2 million over the first three years. Server virtualization allows multiple operating systems to be installed on a single server. The benefit of implementing server virtualization is the reduction of the amount of hardware that is required to run all the business software.

Virtualization enables several operating systems and applications to run concurrently on one physical server. VMware is the operating system that sits on the hardware and is the interface between the hardware and the operating (JNCS). The VMware system allows the company to run multiple virtual machines on a single physical machine. The use of VMware increases flexibility by providing the ability to merge multiple applications onto a single server, instead of having to add an additional server for each required application.

After the initial investment of $4.8 million, the company will realize a net benefit of $9.2 million over the first three years of investment. By installing only 200 physical servers, our company can reduce costs of over the first three years from $14 million to $2.8 million. This reduction in costs arises from the elimination of 800 physical servers. With an 80 percent distribution of virtual servers, our company can consolidate from 800 to 80 machines because each virtual server machine can accommodate 10 physical servers. Through consolidating, there can be benefits such as the reduction of floor space, power consumption, and air conditioning costs. We will be saving $14 million by investing $4.8 million in virtualization.

Works Cited

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|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  |  | Physical |  | Physical & | Virtual |
|  |  |  |  |  |  |
| # of Data Centers |  | 1,000 |  | 200 | 80 |
| Cost Per Server |  | $8,000 |  | $8,000 | $16,000 |
| Expenses per server per year | | $2,000 |  | $2,000 | $3,000 |
|  |  |  |  |  |  |
| Physical only | Year1 | Year 2 | Year 3 | Total |  |
| Costs | $10,000,000 | $2,000,000 | $2,000,000 | $14,000,000 |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
| Virtual and Physical | Year 1 | Year 2 | Year 3 | Total |  |
| Costs | $3,520,000 | $640,000 | $640,000 | $4,800,000 |  |
|  |  |  |  |  |  |
|  |  |  | Net Benefit | $9,200,000 |  |
|  |  |  |  |  |  |