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FRP #2

Virtualization and Cloud Computing

By implementing virtualization servers our company can save $9,200,000 over a three-year period. Utilizing virtualization, the VMware will condense its servers and create a well-organized work station. Virtualization optimizes efficiency and will increase performance.

Virtualization enables the company to consolidate its 1,000 physical servers into 200 physical servers and 80 virtual machine servers. If one of the physical servers were to crash, the VMware would automatically update, and move its virtual servers to another working server. The company will decrease its server storage space by 80% and will reduce its overall costs. VMware requires less hardware maintenance, and enables the system to communicate with its own servers more efficiently.

The present data system costs the company $14,000,000 over a three-year period time. By switching to virtualization server, it will cost $4,800,000 for that same period. The business will a have constant online system, allowing the company the highest customer purchase rate. The investment provides an improved system that is consistent and allows the organization to save $9,200,000 over a three-year period.

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| **Original Technology** | **Year 1** | **Year 2** | **Year 3** | **Total** |
| **Server Cost** | $8,000,000 | $0 | $0 | $8,000,000 |
| **Server Maintenance** | $2,000,000 | $2,000,000 | $2,000,000 | $6,000,000 |
| **Total Cost** | $10,000,000 | $2,000,000 | $2,000,000 | **$14,000,000** |
| **New Technology** |  |  |  |  |
| **Cost of 200 Physical Servers** | $1,600,000 | $0 | $0 | $1,600,000 |
| **Maintenance cost for 200 physical servers** | $400,000 | $400,000 | $400,000 | $1,200,000 |
| **Cost of 80 Physical Servers** | $1,280,000 | $0 | $0 | $1,280,000 |
| **Maintenance cost for 80 physical servers** | $240,000 | $240,000 | $240,000 | $720,000 |
| **Total Costs** | $3,520,000 | $640,000 | $640,000 | **$4,800,800** |

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| **Net Benefits** | $6,480,000 | $1,360,000 | $1,360,000 | **$9,200,000** |

Citation:

* "Virtualization Basics." *VMware Virtualization*. N.p., 2018. Web. Feb. 2018.
* "What Is Virtualization." *Virtualization Technology & Virtual Machine Software*. N.p., n.d. Web. 26 Feb. 2018.
* Strickland, Jonathan. "How Server Virtualization Works." How Stuff Works. N.p., 02 June 2008. Web. 26 Feb. 2018. <http://www.howstuffworks.com/server-virtualization.htm>.