

FRP 3- Jacklin Altman

With the looming need of installing 1000 new servers, we must switch over to virtualization to consolidate physical machines and save money. By implementing virtualization, we could save \$9.2 million over three years. We could move from 1000 physical servers to 280, which would have half the cost of 100 physical servers over three years. By switching 80% of our servers to virtual machines we cut our energy and cooling costs, maintenance costs, and installation costs. These massive savings stress why we should implement VMware virtual machines in our company.

A virtual server partitions a physical machine into multiple virtual servers, which optimizes efficiency and cuts costs. These virtual servers can run their own operation systems and applications. Additionally, these virtual servers are isolated and run independently of one another. VMware allows for closer, more efficient storage monitoring as well. All storage and data can be managed from one master console, and all data is backed up to ensure redundancy and safekeeping of information. Virtualization also allows you to create a fully functional new server in mere minutes, thus expanding business capacity.

Physical servers are large, costly, and becoming outdated with the introduction and development of virtual servers. By partitioning a physical machine into multiple virtual servers, maintenance and cooling costs will be slashed tremendously. Over a three-year period, it would take \$2,000,000 to maintain 1000 physical servers, and only \$640,000 to maintain 280 machines after virtualization. Additionally, it would cost \$3.5 million less to install 280 machines as opposed to 1000. Over three years, total costs of installing and maintaining virtual servers would be half of that of physical servers, reducing costs from \$14,000,000 to \$7,000,000. Since these machines can run multiple operating systems and run independently of each other, we could increase business capacity and generate more revenue as well. Virtualization and server consolidation is the best option for our business right now. It will cut our costs considerably, and it could help us increase business capacity to generate more revenue than we are currently capable of.

	Physical Server	Virtual Server
Number of Machines	1000	280
Cost to Maintain Machine	2000	3000
Installation Cost	8000	16000
Cost of 1000 New Servers Installation	8,000,000	4,480,000
Cost of Yearly Maintenance	2,000,000	640,000
Total Cost over 3 Years	14,000,000	4,800,000

Works Cited

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