

Thomas Huang

Virtualization and Cloud Computing

It will cost our rapidly growing manufacturing company \$14,000,000 over the next three years to purchase and maintain 1,000 physical servers. With VMware's virtualization software though, we can reduce the number of required servers and their maintenance costs. This is made possible through VMware's capability of consolidating server workloads, by creating multiple virtual environments within a physical server. By virtualizing and consolidating our servers, we will save \$9,200,000 in costs over the next three years.

We normally have to purchase new servers any time we incorporate new applications into our business, because they would require dedicated servers. With VMware's virtualization capabilities however, we can consolidate 10 servers, transformed into virtual machines, onto one physical server. This means that one physical server can perform the functions of 10 of our servers without taking up the same space. As servers that are not consolidated typically utilize only 10% of its resources we will also be maximizing each server's efficiency. With VMware, we can stack virtual environments on top of one another and theoretically create enough virtual servers to utilize all of its processing power. VMware will reduce maintenance costs and increase spatial efficiency, as well as provide our company with a low cost and flexible way to run applications.

VMware's server consolidation and virtualization capabilities would be beneficial to our company. Utilizing these two capabilities would result in fewer servers, translating into decreased infrastructure costs. Since virtualization means less hardware, the possibility of building an expensive new data center to store them is significantly decreased. The cost of our next hardware refresh, their hardware and software maintenance, technical support, and power and cooling would cost \$14,000,000 over the next three years. However, an investment into 80 high-end servers and 200 older servers along with their maintenance over the next three years would only cost \$4,800,000. This is savings of \$9,200,000 or a 66% decrease in costs, which our company could use to invest into other aspects of our operations.

References

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