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Our company should utilize virtualization which will generate a net benefit of $9,200,000 over a 3-year period. Virtualization can consolidate server workloads and combine our current 1000 server loads into 280 servers, improving our datacenter's efficiency.

Virtualization is the process of running multiple virtual machines on a single physical machine. The virtual machines can share resources across one physical computer and each virtual machine can also operate by itself. 80% of our servers can run as virtual machines under VMware and we can consolidate 10 physical servers onto one virtual machine server. We have approximately 1,000 servers in our datacenter; by utilizing virtualization, we can combine 800 available servers into 80 virtual servers and retain 200 servers of the original servers. Virtualization can effectively reduce the data center footprint and operate more effectively.

Virtualization will cost total $4,800,000 over three years, which includes one-time costs of building 80 virtual servers and 200 original servers, and the costs of three-year maintenances, technical support and utilities for all servers. The total benefits of virtualization over three years will be $14,000,000, which generated from the decreased total costs between 280 virtualized servers and 1000 original servers. The net benefit after building virtualization over three years will be $9,200,000.