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Flash Paper #2

Virtualization and Cloud Computing

Our company can produce a net benefit of \$9,200,000 in over 3 years by utilizing virtualization to consolidate server workloads. 80% of servers can be run through VMWare which can consolidate 10 physical servers into a single virtual machine. This transformation will minimize maintenance costs and downsize the amount of physical servers in the data center.

Since 80% of servers can be consolidated, it will reduce our current 1000 servers to 280 servers which decreases costs on maintenance, technical support, power and cooling. A virtualized server environment can not only reduce costs, but also increase availability and scalability. Availability is increased because virtualization allows for a speedy recovery time from maintenance or system failures. Virtual servers are easily scalable since it is all within the cloud which allows the data center to correlate with company growth.

Deploying server virtualization will cost \$4,800,000 over 3 years, in comparison to the \$14,000,000 spent for 1000 new servers. In that three-year period, there is a net benefit of \$9,200,000.

References

“Benefits of Virtualization.” *Thrive Networks*, 16 Jan. 2018,

www.thrivenetworks.com/blog/benefits-of-virtualization/.

Weinberg, Neal. “What's the Future of Server Virtualization?” *Network World*, Network World, 11 July 2018,

www.networkworld.com/article/3285906/virtualization/whats-the-future-of-server-virtualization.html.

“What Is Server Consolidation? Why Should You Do It?” *SmartFile*, 14 July 2016,

www.smartfile.com/blog/what-is-server-consolidation-and-why-should-you-do-it/.

1000 Physical Servers	Y1	Y2	Y3	Total Costs
Cost	\$8,000,000	\$0	\$0	\$8,000,000
Maintenance	\$2,000,000	\$2,000,000	\$2,000,000	\$6,000,000
				\$14,000,000
Both VM & Physical	Y1	Y2	Y3	Total Costs
80 VM Servers	\$1,280,000	\$0	\$0	\$1,280,000
VM Maintenance	\$240,000	\$240,000	\$240,000	\$720,000
200 Physical Servers	\$1,600,000	\$0	\$0	\$1,600,000
Physical Maintenance	\$400,000	\$400,000	\$400,000	\$1,200,000
				\$4,800,000
			Net Benefit	\$9,200,000