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Virtualization and Cloud Computing

It cost us \$8 million to purchase 1000 machines, and another \$2 billion for maintenance for them. With VMWare, we are able to move multiple servers reducing 80% of our physical machines to virtual machines. This allows us to virtualize multiple servers to run from a single machine gaining us \$9.2 million in three year net benefits.

Using VMWare, we can consolidate our servers by running several virtual servers from one physical machine (Virtualization Basics). We can add 10 servers to one virtual machine lowering our total machines to 280. This means 80 of our servers will be run on virtual systems similar to each other. These servers are saved in file format allowing a server to be copied instead of buying a new machine (Features and Advantages). VMWare also is identical making management to servers easier as it only requires maintaining one to copy and paste (Dinesh).

We gain a three year net benefit of \$9.2 million by switching over to virtual machines. This will cost a total of \$4.8 million to incorporate 200 physical machines and 80 virtual machines and gain us \$14 million in benefits. This will greatly benefit the company in performance.

Works Cited

Dinesh. "Server Consolidation Benefits – With Real World Examples." *Sysprobs Not Another Tech Blog*. Sysprobs, n.d. Web. 16 Feb. 2015.

"Features and Advantages." *Server Virtualization and Consolidation Solutions : Solutions & Services*. NEC, n.d. Web. 16 Feb. 2015.

"Virtualization Basics." *Advantages of Virtualization: VMware*. VMware, Inc., n.d. Web. 16 Feb. 2015.

Traditional	
# Physical Servers	1000
Cost per server	\$8000
Total cost	\$8000000
Annual cost	\$2000
Total annual cost	\$2000000
Cost of VMWare	\$16,000
# of servers	280
Physical	200
Virtual	80
\$ Traditional	\$1600000
\$ Vmware	\$1280000
Total \$	\$2880000
Savings	\$5200000
Annual cost traditional	\$400000
Annual cost virtual	\$240000
Total annual	\$640000
Annual savings	\$1360000

cost	year 1	year 2	year3	Total
200 traditional	\$1600000	\$0	\$0	\$1600000
80 vmware	\$1280000	\$0	\$0	\$1280000
Maintenace200	\$400000	\$400000	\$400000	\$1200000
Maintenance 80	\$240000	\$240000	\$240000	<u>\$720000</u>
Total				\$4800000
benefits				
Reduce 1000 machines	\$8000000	\$0	\$0	\$8000000
Reduce maintenance	\$2000000	\$2000000	\$2000000	\$6000000
Total				\$14000000
net benefits				\$9200000