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MIS2501

Flash Research Paper #2: Virtualization and Cloud Computing

Investing in VMware will help our organization experience a net benefit of \$9.2 million in the next three years. Implementing VMware will allow 80% of our servers to run as virtual machines, which on average, could consolidate ten physical servers onto a single virtual machine server. By utilizing virtualization, we will save money, time, and boost productivity which will benefit our organization greatly.

Virtualization is the combination of software and hardware that creates virtual machines. Server consolidation combines applications into one physical server, so that under-utilized servers can become more efficient. Adding virtualization to the server increases utilization from 50% to 80% of its total computing capacity. Server consolidation allows the flexibility to move workloads so that there is no downtime for maintenance or upgrades. Virtualization will reduce our 1000 servers to 280, allowing us to have the same amount of operating systems and applications we need to operate our business and lower our operating costs.

VMware will cost us \$3.52 million in year one for implementation, but we will earn a benefit of \$4.8 million in three years from savings in hardware and maintenance costs. Having more work on less hardware, translates to lower operating costs from power and cooling. We would rather spend \$4.8 million on VMware than reinstalling our physical servers which would cost us \$14 million in three years. From this, we will get a net benefit of \$9.2 million in three years. The switch to virtualization and virtual machines is the best choice for our company because we will save money and get better usage from our servers.

3 Year Cost - Benefit					
Option 1		Year 1	Year 2	Year 3	
	Hardware Costs	\$8,000,000	\$0	\$0	
	Yearly Maintenance	\$2,000,000	\$2,000,000	\$2,000,000	
	Total Cost	\$10,000,000	\$2,000,000	\$2,000,000	\$14,000,000
Option 2		Year 1	Year 2	Year 3	
	Hardware Costs	\$2,880,000	\$0	\$0	
	Yearly Maintenance	\$640,000	\$640,000	\$640,000	
	Total Cost	\$3,520,000	\$640,000	\$640,000	\$4,800,000
Net Benefit					\$9,200,000

Works Cited

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