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## Flash Research Assignment: Virtualization and Cloud Computing

Utilizing virtualization and cloud computing technology will provide us with a 3 year net benefit of \$9,200,000. Virtualization and cloud computing will allow us to consolidate many of our physical servers on virtual machines. We need to invest in this technology to take advantage of the reduced maintenance and replacement costs it will provide.

The key capability of virtualization is that it will reduce the number of physical servers we need by moving them to virtual machines. It will allow us to streamline and maximize resources and optimize hardware capacity (Rudy, 2016). We can consolidate 800 physical servers to just 80 virtual servers with this technology. Having less physical servers will save us money on hardware maintenance, software maintenance, technical support, power, and cooling.

Switching to virtual servers will cost \$4,800,000 over a 3 year period for replacement and maintenance costs on virtual and physical servers. We will receive a 3 year benefit of \$14,000,000 from the costs saved on physical servers. By implementing virtualization and cloud computing, we will receive a 3 year net benefit of \$9,200,000.

## Works Cited

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### 3 Year Net Benefit

	Year 1	Year 2	Year 3	
<b>Benefits</b>				
Maintenance	\$ 2,000,000.00	\$ 2,000,000.00	\$ 2,000,000.00	\$ 6,000,000.00
Replacement costs	\$ 8,000,000.00			\$ 8,000,000.00
3 Year Benefit				\$ 14,000,000.00
<b>Costs</b>				
VM server cost	\$ 1,280,000.00			\$ 1,280,000.00
VM run costs	\$ 240,000.00	\$ 240,000.00	\$ 240,000.00	\$ 720,000.00
Server costs	\$ 1,600,000.00			\$ 1,600,000.00
Server maintenance costs	\$ 400,000.00	\$ 400,000.00	\$ 400,000.00	\$ 1,200,000.00
3 Year Costs				\$ 4,800,000.00
3 Year Net Benefit				\$ 9,200,000.00