

Investing in new server technology for our data center will save millions of dollars for our company over the next three years. Virtualization of servers is completed by establishing multiple servers in digital form onto a single physical platform through software. A combination of traditional and virtual servers will be used to reduce our monetary investment in technology and reducing overall costs. The migration of our current system from traditional servers to virtual servers will provide our company with a net benefit of \$9.2 million over the next three years of operations.

Our plan involves virtualizing 800 physical servers and splitting them amongst 80 virtual machine servers. Each of these virtual servers continue to function as an individual unit, running its own software and applications but with greater efficiency. As a result of the majority of the servers being digital, if a physical server needs maintenance, its virtual servers can be moved to another physical server without interruption to the end user. If a server is damaged and needs to be replaced or a software upgrade goes askew, it can be cloned from a master copy of the virtual servers and be up and running again quickly. This increased flexibility will significantly reduce downtime as a result of server outages or maintenance.

Replacing all 1000 servers with all new physical servers would cost our company \$8 million in equipment and \$6 million in operating expense for the three year investment period. Migrating to 80% virtual servers and 200 physical servers would cost the company \$2.88 million in equipment and \$1.92 million in operating expenses for the same time period due to the significantly reduced power and cooling resources required. The switch to virtualized servers will produce a net benefit of \$9.2 million over three years while also reducing system downtime and increasing efficiency.

CURRENT				
1000 TRADITIONAL SERVERS	YEAR1 (INSTALL)	YEAR1 (OP.)	YEAR2 (OP)	YEAR3 (OP)
	\$ 8,000,000.00	\$ 2,000,000.00	\$ 2,000,000.00	\$ 2,000,000.00
CHANGE				
80 VIRTUAL SERVERS	\$ 1,280,000.00	\$ 240,000.00	\$ 240,000.00	\$ 240,000.00
200 TRADITIONAL SERVERS	\$ 1,600,000.00	\$ 400,000.00	\$ 400,000.00	\$ 400,000.00
CHANGE TOTAL COST	\$ 2,880,000.00	\$ 640,000.00	\$ 640,000.00	\$ 640,000.00
SAVINGS	\$ 5,120,000.00	\$ 1,360,000.00	\$ 1,360,000.00	\$ 1,360,000.00
			NET BENEFIT	\$ 9,200,000.00

Works Cited

Bittman, Thomas J. "Magic Quadrant for X86 Server Virtualization Infrastructure." *Gartner*. N.p., 02 July 2014. Web. 11 Feb. 2015.

Enck, John. "Blade and Virtual Servers Can Maximize Efficiencies." *Gartner*. N.p., 14 May 2003. Web. 11 Feb. 2015.

Strickland, Jonathan. "How Server Virtualization Works - HowStuffWorks." *HowStuffWorks*. N.p., 02 June 2008. Web. 11 Feb. 2015.