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Flash Research Paper #2

## **Virtualization and Cloud Computing**

Our company can save \$9.2 million through Virtualization. Virtualization is cost-effective and allows us to consolidate 10 physical servers into 1 virtual server without compromising on capabilities.

Virtualization is the conversion of physical machines to software-based representations in computers. The key capability of Virtualization is that it can put 10 physical servers into one virtual machine server. This eliminates the need and maintenance for several servers therefore improving efficiency. VMWare provides virtualization software which can convert 800 physical servers to 80 virtual ones, which is why we should invest in its software.

As shown in Figure 1, By removing the current physical servers and maintenance, we get a 3-year benefit of \$14 million. Then, investing in virtualization will have a 3 year cost of \$4.8 million for setting up the virtual machines and its maintenance. This will give our firm a net benefit of \$9.2 million over the next 3 years.

## References

vmware.com. "Virtualization" Web. October 10<sup>th</sup> 2016  
<http://www.vmware.com/solutions/virtualization.html>

techtarget.com. "Virtualization" Web. October 10<sup>th</sup> 2016  
<http://searchservvirtualization.techtarget.com/definition/virtualization>

**Figure 1**

	MILLIONS				
	YEAR 1	YEAR 2	YEAR 3	Total	
<b>BENEFITS OF</b>					
Removing 1000 Physical Servers	8	0	0	0	8
Removing Maintenance for ^	2	2	2	2	6
<b>TOTAL BENEFITS</b>	<b>10</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>14</b>
<b>COSTS</b>					
200 TRADITIONAL SERVERS	1.6	0	0	0	1.6
80 VMWare servers	1.28	0	0	0	1.28
Maintenace of 200 servers	0.4	0.4	0.4	0.4	1.2
Maintenance 80 Vmware Servers	0.24	0.24	0.24	0.24	0.72
<b>TOTAL COSTS</b>	<b>3.52</b>	<b>0.64</b>	<b>0.64</b>	<b>0.64</b>	<b>4.8</b>
<b>NET BENEFITS</b>					
	6.48	1.36	1.36	1.36	9.2