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Virtualization and Cloud Computing
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By implementing virtualization and consolidation technology, our company will have a net benefit of \$9,200,000 at the end of the three year investment period. This upgrade will reduce operation costs by consolidating our current 1,000 servers to 280. These 280 servers will be able to maximize their utility 75% more efficiently than our current servers, and will cost much less overall to maintain.

Through virtualization and consolidation, we would be able to turn 80% of our current physical servers into virtual servers, saving space, energy and money. Without virtualization, each server can host one application, but *with* virtualization, each virtual server can host the amount of applications and operating systems equivalent to 10 physical servers. Virtualization will increase efficiency and productivity of our business due to simplification and consolidation of space, time, energy, and money.

The net benefit three years after implementation of virtualization in our datacenter will be \$9,200,000. The cost of implementation for this upgrade is \$4,800,000, opposed to the \$14,000,000 cost of implementation for our current system. Because we would be running fewer servers, the yearly cost for cooling, maintenance, and space would decrease by \$1,360,000.

Current Costs:

	Year 1	Year 2	Year 3	Total
Acquiring 1000 servers (\$)	8,000,000	0	0	8,000,000
Maintenance (\$)	2,000,000	2,000,000	2,000,000	6,000,000
Total cost	10,000,000	2,000,000	2,000,000	14,000,000

Costs if we invested in virtualization technology implementation:

	Year 1	Year 2	Year 3	Total
Acquiring 200 non-virtualized servers (\$)	1,600,000	0	0	1,600,000
Acquiring 80 virtualized servers (\$)	1,280,000	0	0	1,280,000
Maintenance (\$)	640,000	640,000	640,000	1,920,000
Total cost	3,520,000	640,000	640,000	4,800,000

Net benefit = 14,000,000 - 4,800,000 = **\$9,200,000**

Works Cited

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