**Flash Research Draft: Virtualization and Cloud Computing**

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We can save $9.2 million in server expenses over the next three years by implementing virtual machines to run 80% of our servers. Using VMware we can consolidate 800 physical servers into 80 virtual servers while saving money and creating a more reliable infrastructure.

VMware is a virtualization platform that will allow for easy server consolidation. Each virtual server is capable of supporting the equivalent of 10 physical servers, drastically reducing the maintenance and support workload. The network will be more cost and energy efficient, while providing the same level of accessibility. VMware also provides the necessary system software and a centralized management platform that has been positively rated by Gartner for its services and support.

Implementing VMware will cost $4.8 million over the next three years for 80 virtual servers and 200 physical servers. Staying with 1,000 physical servers will cost $14 million. By moving away from traditional physical servers through virtualization the net savings will be $9.2 million.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Initial Cost | Support Cost/Year | Current Quantity | Proposed Quantity |
| Current Servers | $8,000 | $2,000 | 1000 | 200 |
| Virtual Servers | $16,000 | $3,000 | 0 | 80 |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Year 1 | Year 2 | Year 3  | Total |
| Virtual Costs |  |  |  |  |
| Virtual Platform | $2,880,000 | $0 | $0 | $2,880,000 |
| Maintenance | $640,000 | $640,000 | $640,000 | $1,920,000 |
| Total Costs |  |  |  | $4,800,000 |
|  |  |  |  |  |
| Traditional Costs |  |  |  |  |
| Traditional Platform  | $8,000,000 | $0 | $0 | $8,000,000 |
| Maintenance | $2,000,000 | $2,000,000 | $2,000,000 | $6,000,000 |
| Total Costs |  |  |  | $14,000,000 |
|  |  |  |  |  |
| Net Benefit |  |  |  | $9,200,000 |

# References

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