**Virtualization**

 Our company should utilize VMware virtualization technology to consolidate server workloads. Through virtualizations approximately 1000 servers can consolidate 10 physical servers onto a single virtual machine server. By virtualizing the server with multiple operating systems, work availability will improve and have 3 years net benefit of $9,200,000.

 Virtualization makes 80% of our servers able to consolidate 10 physical servers onto a single virtual machine server. 800 physical servers run through 80 virtual machine servers. And 200 physical servers remains in operation system. Reducing of machine servers indicates that virtualization can increase efficiency and agility for a rapidly growing manufacturing company (VMware). Virtualization allows for the main operating system and the secondary operating system to run at once (Lo). Increasing work availability with much simpler components. Physical servers take weeks to process but virtual server only takes 2.5 minutes in process time (Chivvis).VMware virtualization technology implies the fastest work availability by consolidate many servers.

 While our current operating system cost of $14,000,000 in three years, virtualizing the server system will total cost of $4,800,000 in three years. By looking at a three year period, the benefits over the 3 years would be $9,200,000. Our company must take opportunities for savings by utilizing virtualization to consolidate server workloads.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Original Technology | Year 1 | Year 2 | Year 3 | Total |
| Cost | $8,000,000 | $0 | $0 | $8,000,000 |
| Maintain | $2,000,000 | $2,000,000 | $2,000,000 | $6,000,000 |
| Total  | $10,000,000 | $2,000,000 | $2,000,000 | $14,000,000 |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| New Technology | Year 1 | Year 2 | Year 3 | Total |
| Cost of 200 servers | $1,600,000 | $0 | $0 | $1,600,000 |
| Cost of 80 servers | $1,280,000 | $0 | $0 | $1,280,000 |
| Maintain cost for 200 servers | $400,000 | $400,000 | $400,000 | $1,200,000 |
| Maintain cost for 80 servers | $240,000 | $240,000 | $240,000 | $720,000 |
| Total | $3,520,000 | $640,000 | $640,000 | $4,800,000 |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Year 1 | Year 2 | Year 3 | Total |
| To be benefits | $6,480,000 | $1,360,000 | $1,360,000 | $9,200,000 |

**Work cited**

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