Next year, if we choose to replace our 1,000 servers with traditional servers, we will continue on a path of squandered IT investment dollars. Alternatively, we can invest in virtual machine servers running VMware, which would allow us to better our organization’s financial position and realize key technical benefits like improved hardware utilization.

By consolidating 800 of our current servers into 80 virtual machine servers, we will better utilize our server hardware. Our current 1,000 servers are rarely utilized to capacity and regularly operate at about 5% of potential output. Replacing these servers with more of the same would perpetuate our hardware underutilization. Virtual machine servers better allocate our computing resources, ensuring higher average hardware utilization and obviating IT infrastructure overinvestment. Also, unlike traditional servers, virtual machines can be transferred between virtual machine servers without fear of compatibility errors. If a virtual machine server requires maintenance, its virtual machines can temporarily be transferred to another virtual machine server for maximum uptime. These technical benefits are complemented by IT infrastructure and maintenance cost savings.

Financially speaking, investing in virtual machine servers yields a three year cost savings of $9,200,000 over traditional server replacement. The three year cost of this investment is $4,800,000, which results in a three year net benefit of $4,400,000.


Without Virtualization:

- Year 1: 1,000 traditional servers * ($8,000 + 2,000) = $10,000,000
- Year 2: 1,000 traditional servers * $2,000 = $2,000,000
- Year 3: 1,000 traditional servers * $2,000 = $2,000,000

Three Year Total Cost: $14,000,000

With Virtualization:

- Year 1: 200 traditional servers * ($8,000 + 2,000) = $2,000,000
  - 80 virtual machine servers * ($16,000 + 3,000) = $1,520,000
- Year 2: 200 traditional servers * $2,000 = $400,000
  - 80 virtual machine servers * $3,000 = $240,000
- Year 3: 200 traditional servers * $2,000 = $400,000
  - 80 virtual machine servers * $3,000 = $240,000

Three Year Total Cost: **$4,800,000**

Three Year Savings: $14,000,000 – 4,800,000 = **$9,200,000**

Three Year Net Benefit: $9,200,000 – 4,800,000 = **$4,400,000**