

Virtualization and Cloud Computing

Our company is overpaying \$14 million each year on building and maintaining valuable data centers. Gradually, this huge and inevitable expense will drag the company into a thorny business situation. With new VMware technology, we can reduce 72% of our data servers, which means saving \$9.2 million over a three-year period.

The VMware machine is a cloud-based technology that will assist clients to reduce IT complexity. It has great operating efficiency; one VMware machine can take the place of ten physical servers. Currently, our data center has 1000 physical servers. By introducing the VMware machine, the company will only need to manage 200 physical servers and 80 cloud servers. The biggest advantage of using VMware is the elasticity. During the selling season, computing needs increase. The company can require more virtual space from the vendor. The company can then release redundant virtual space back to the vendor. Moreover, VMware has strong stability. If one server shuts down accidentally, the VMware can still work without affecting other servers. Therefore, we do not need to buy redundant machines for backing up data.

Overall, the total cost of replacing VMware machines will be \$4.8 million. However, by introducing VMware servers, our company will earn a profit of \$14 million with a \$9.2 million net benefit over the three-year period. Therefore, VMware is the next step to improve our company.

1. Sever expense overview:

Traditional severs	
Sever quantity	1000
Purchase	8000
Total Purchase	8000000
Annual maintenance	\$2,000
Total maintenance	\$2,000,000
New	
Physical	200
VMware	80
Purchase on physical	8000
Purchase on VMware	16000
Total Purchase on physical	1600000
Total Purchase on VMware	1280000
Total Purchase	2880000
Maintenance on Physical	2000
Maintenance on VMware	3000
Annual maintenance	640000

2. Three years cost/benefit analysis:

		Year 1	Year 2	Year 3	Total
Traditional(1000Physical)	Infrastructure	8000000	0	0	8000000
	Maintenance	\$2,000,000	\$2,000,000	\$2,000,000	\$6,000,000
Traditional total cost (benefit)					\$14,000,000
New(200Physical+80VMware)	Infrastructure	2880000	0	0	2880000
	Maintenance	640000	640000	640000	1920000
New Total cost					4800000
Net benefit					\$9,200,000

Resources

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