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Flash Research Paper #2: Virtualization and Cloud Computing

Currently, our company is spending $14 million, by utilizing virtualization to consolidate server workloads, our company has the opportunity to save around $11.5 million in three years. Cloud computing has been growing at a expense rate of 4.5, compared to overall IT spending since 2009, it is expected to grow more than 6 times the current amount IT spending through 2020 (Dao). Cloud computing can save our company millions of dollars, create greater accessibility for employees, and is more reliable.

 According to their website, VMware is a global leader in cloud infrastructure and digital workspace technology for evolving IT environments. Cloud computing will give us the ability to create virtual machines on VMware servers. We will be able to get rid of our physical machines and cloud computing will give our employees the ability to access their work from anywhere. Since our company will no longer be the ones supplying the servers, we can lower energy consumption costs.

 Instead of buying 1,000 servers at $8,000 each, we can buy 10 virtual machines for $16,000 each with VMware. The total cost of our current servers for three years is $14 million, including installation and maintenance. If we were to implement VMware in our company, the total cost for three years will be about $2.5 million. These changes will create a huge benefit of $11.5 million that can then be reinvested back into the company to create new ventures.

Works Cited

Dao, Don Q. “4 Trends to Consider in Cloud Computing.” Techfunnel, 19 Apr. 2018,

www.techfunnel.com/information-technology/4-trends-to-consider-in-cloud-computing/.

|  |  |
| --- | --- |
| Old Servers |  |
| total amount of servers: | 1,000 |
|  |  |
| cost of each server | $ 8,000 |
| maintenance cost for each server | $ 2,000 |
| total cost for servers for 1 year: | $ 10,000,000 |
|  |  |
| yearly maintenance cost: | $ 2,000,000 |
| **total cost of VMs for 3 years:** | **$ 14,000,000** |
|  |  |
|  |  |
| New servers |  |
| total amount of servers: | 1,000 |
| total amount of VMs needed: | 100 |
|  |  |
| cost of each VM: | $ 16,000 |
| maintenance cost for each VM | $ 3,000 |
| total cost of VMs for 1st year: | $ 1,900,000 |
|  |  |
| yearly maintenance cost: | $ 300,000 |
|  |  |
| **total cost of VMs for 3 years:** | **$ 2,500,000** |
|  |  |
| savings | $ 11,500,000 |