

Flash Research #3
Dominic Lyate

With the rapid expansion that our company is experiencing, we need to prepare for a cost-effective and energy efficient future in our data center to support growth in our daily operations. By investing in server virtualization and VMware, we can consolidate our current 1,000 servers onto only 208 servers. By virtualizing our servers, we will save over 7 million dollars in the first year alone, versus replacing all existing servers with outdated technology.

VMware allows for physical servers to be converted to software applications, and then run on a physical server. This means that if we want a new server, it takes only a few clicks of the mouse to make, versus the time and money it costs to purchase and install a new physical server. The virtual servers can feed exactly the same software, applications, etc. as the physical servers, they just run off hardware of a single server, instead of having hardware on their own.

Currently, our 1,000 servers offer enough capacity to run our company efficiently.

However, in the near future, our growth will exceed our server's ability to handle our daily operations and they will need to be upgraded. Either we replace all 1,000 servers with new servers, at a cost of \$8,000,000 upfront and \$2,000,000 a year in maintenance and power, or we replace 80% of our physical servers with virtual servers, where only 80 new physical servers, which are more expensive and cost more to run, but can consolidate 80% of our old servers information, leaving only 200 of the old servers to be replaced with equivalents.