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MIS 2501
13 September 2011

Flash Research Paper - Data Centers

In the past year we have experienced 10 unplanned outages which cost our company \$79,920,000. Had our company adopted a Tier III data system, we could have prevented a great majority of that loss. A Tier III system would enable our business to more efficiently meet the needs of customers because it contains redundant capacity components and independent distribution paths that allow us to work through maintenance issues or system failures. This is also an investment that would save us \$6,571,200 a year on downtime costs. When our Tier I system is down our organization cannot process orders, cannot make product, and cannot ship product. This disruption of service to our clients is unacceptable and will cause us to lose all of our client base if not addressed immediately. A Tier III data center will enable us to get product to our clients on time.

Tier III technology allows for flexibility and adequate reaction time. With Tier III site infrastructure the data center is concurrently maintainable meaning that it has independent distribution paths serving the computer equipment. This allows for quick movement of information. A Tier I system, on the other hand, does not have any redundant capacity components and any planned maintenance requires that the entire system be shut down. A Tier III system enables us to remove certain components for maintenance or repair without disturbing any of the computer equipment. This allows us to check on our equipment without having to shut down all of our systems which as stated before, is very costly, whether this process is planned or unplanned. This also enables us to continue our work if one of the parts goes down. Lastly, a Tier I data center is more susceptible to unplanned outages with only 99.67% availability while the Tier III data center experiences a very limited amount of outages with 99.98% availability.

It is critical that we invest in this technology. Last year, with our Tier I data center, we experienced 10 unplanned outages which along with maintenance time, cost us a total of \$79,920,000. This outrageously high cost of downtime has negatively impacted our ability to do business and offer great customer service to our clients. I propose building a Tier III data center because it would drastically decrease the cost of downtime, therefore saving us money and allowing us to better serve our customers. With a Tier III data center our average cost of downtime per year would go down to \$1,420,800 as opposed to our current average cost per year of \$7,992,000. Building a Tier III data center will take 1 year and cost approximately \$35,000,000. However, we will be saving \$6,571,200 a year on downtime cost if we adopt the new system and will therefore make up this investment in only 5 years.

While our systems are down our competitors are busy taking over the market share that we have worked so diligently to capture. In order to stay ahead of the competition and meet the needs of our customers we must assure that our service is consistent and reliable, which we can do by implementing a Tier III data system.