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### Data Centers and Networking

Our company has an opportunity to save approximately \$72,343,584.00 over a period of three years by building a Tier III data center. A Tier III data center will significantly decrease the number of unscheduled outages to our ERP system each year and prevent our company from losing money due to system down time. Investing in a Tier III data center will improve our company's operations and immediately increase our company's profitability.

Tier III data centers are concurrently maintainable data centers that have redundant capacity components and multiple independent distribution paths serving the computer equipment. All of the IT equipment is dual powered with multiple distribution paths in order to prevent system disruptions due to power supply. The primary cause of downtime in our current Tier I data center is our reliance on a single power and cooling distribution path to our computers. Tier I data centers have one path for power and cooling distribution, no redundant components, and less than 28.8 hours of down time per year. If our organization builds a Tier III data center we will limit our system down time each year and prevent employees from not being able to process orders, make product, and ship product.

This type of data center will inherently improve the company's operations and sales each year. A tier III data center will improve our system availability from 99.67% to 99.98% and prevent our company from losing \$14,000 per minute due to system down time. Tier III data centers will allow, data to be accessible beyond departmental silos, and executives can discern a clearer picture of trends and patterns in the market place. IT will be able to increase the productivity of the business by providing fast, secure access to applications and information, no matter where they exist within the organization. Also, a Tier III data center will reduce management costs of maintaining the organizations systems and applications. Over a period of three years the company will experience a large return on investment and will be able to pay off the data center cost of \$35,000,000.

|                   | <b>Total Minutes</b> | <b>Downtime Cost / Minute</b> | <b>Availability %</b> | <b>Total Downtime Cost</b> |
|-------------------|----------------------|-------------------------------|-----------------------|----------------------------|
| <b>System # 1</b> | 1576800              | 14800                         | 99.67                 | 77010912                   |
| <b>System # 2</b> | 1576800              | 14800                         | 99.98                 | 4667328                    |
|                   |                      |                               | <b>Net</b>            | 72343584                   |

## Works Cited

"An updated infrastructure can save money in IT and increase efficiency in each line of business." *Cisco*. N.p., n.d. Web. 11 Sep 2012. <[http://www.cisco.com/en/US/solutions/ns708/networking\\_solutions\\_products\\_genericcontent0900aecd80591058.html](http://www.cisco.com/en/US/solutions/ns708/networking_solutions_products_genericcontent0900aecd80591058.html)>.

Bell, Michael. "Data Center Facilities Cost Survey." *Scribd*. Gartner, 6 June 2006. Web. 11 Sep 2012. <<http://www.scribd.com/doc/21759066/Gartner-Data-Center-Facilities-Cost-Survey>>.

*Intelligent Control*. N.p., n.d. Web. 11 Sep 2012. <<http://www.iodatacenters.com/data-centers/tier-certification>>.