## Luke Fitzmyer Datacenters and Networking

Our current Enterprise Resource Planning System is outdated and ineffective. Last year our system experienced 10 unscheduled shutdowns, costing the company thousands of dollars every minute. With the current Tier 1 datacenter in place, unplanned outages occur 28.8 hours a year, costing us \$14,800 per minute, totaling over \$25 million annually. As a growing company it is essential we fix our operational costs, and improve reliability. A Tier 3 data center would cost 35 million dollars to implement and save our company \$40 over the next three years.

A key element of a Tier 3 datacenter is that it enables concurrent maintainability. This way scheduled maintenance can take place, without shutting the entire system down. A Tier 3 data center also has multiple active distribution paths for power and cooling compared to the Tier 1's single path. This way if one path happens to shut down, our system can still operate at a high performance level.

Currently the Tier 1 data center in place has 99.67 percent availability. Upgrading to a Tier 3 data center would allow us 99.98 percent availability. A 0.31 percent increase may seem relatively small, and unnecessary but enables huge improvements. A tier 1 datacenter experiences 28.8 hours of downtime a year, while a Tier 3 experiences only 1.6 hours. Our organization operations are dependent on our ERP system, and cost the company over 14000 dollars every minute down. With annual down time costs totaling 25.5 million, a 35 million dollar implementation of a Tier 3 datacenter would reduce downtime to 1.4 million annually and save our company over 40 million dollars in the next three years. Therefore upgrading to a Tier 3 data center would eliminate majority of unscheduled downtime making our company more lucrative.

## Sources

http://www.onepartner.com/docs/uptime institute standard tier topology.pdf

http://www.cyberciti.biz/faq/data-center-standard-overview/

http://www.colocationamerica.com/data-center/tier-standards-overview.htm