Sean Archer

September 7, 2014

Professor Doyle 002

Dear CIO,

We are currently operating a Tier I data center, which in reality, is not as powerful as Tier I and is the most likely of the four tiers to have a breakdown. Making the switch to a Tier III data center will save us over $13,000,000 in downtime. With our entire ERP system running through the Tier I data center, it is common to have failures. Our ERP system is the backbone of the organization and it is crucial we have a solid backing. I am proposing that we upgrade into a Tier I data center, which will save us millions of dollars in the long run and ultimately reduce downtime.

A Tier III data center has all the benefits of a Tier I and Tier II data center along with the benefits of Tier III. Tier I is the most basic tier and is a “single path with a cooling and distribution system.” (W. Pitt Turner) Tier I has a 99.67 percent availability factor while tier 3 has a 99.98 percent. Although it may seem like a minuscule difference, when we are spending $14,800 for every minute of downtime, creating a significant difference in downtime. Tier III is, “dual-powered and fully compatible with the topology of a site’s architecture.” (Perlin) This allows the system to run effectively and efficiently without as many interruptions as our current system.

The Tier III system will save the company over $13,000,000 in the next three years. The initial cost will be $35,000,000 along with the cost of our downtime from the Tier I data center, which is over $25,000,000. Over the next two years we will save a significant amount of money because the data systems is available 99.98 percent of the time. Years two and three we will only spend approximately 1.5 million dollars on downtime, which will allow us to reinvest the money back into the company for R&D. The additions of Tier III will not only save us $13,000,000, but it will also allow us to reinvest back into the company for new technology and improve the overall life of the company.

# Works Cited

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| **Tier III Data Center** | |  |  |  |
|  |  |  |  |  |
|  | Year 1 | Year 2 | Year 3 | Total Cost |
| Tier 1 | $25,687,349 | $25,687,349 | $25,687,349.16 | $77,062,047.48 |
| Tier 3 | $60,687,349 | $1,556,809 | $1,556,809 | $63,800,967 |
|  |  |  |  |  |
|  |  |  | Net Profit | ***$13,261,080*** |
|  |  |  |  |  |
|  |  |  |  |  |
| Initial Cost | 0 | $35,000,000.00 |  |  |
| Downtime | 0.0033 | 0.0002 |  |  |
| Minutes per Year | 525,949 | 525,949 |  |  |
| Cost per minute of Downtime | $14,800.00 | $14,800.00 |  |  |
| Minutes of Downtime | 1735.6317 | 105.1898 |  |  |