Data Centers and Networking Flash Research Paper

Our company can save roughly $24 million in downtime costs annually by switching from a Tier I to Tier III datacenter. Unexpected outages is a reoccurring problem in our organization that currently costs our company $25,670,304 per year. If we do not upgrade to Tier III this issue will persist and continually cost us millions of dollars. Tier III has more redundancy and uses multiple paths that allows 99.98% uptime and increases the efficiency of our work.

The differences between Tier I and Tier III are vastly important to our company. Tier I only has a 99.67% uptime while Tier III has a 99.98% uptime. By upgrading to Tier III we minimize the amount of downtime by 27.2 hours yearly. Upgrading to Tier III gives our company multiple distribution paths and a back-up generator to ensure the utmost efficiency whereas staying at Tier I has no redundancy and leaves us in an outage when one component goes down. Tier III uses a Tier III helps us better protect ourselves from inevitable outages.

Currently we are losing $14,800 per minute of downtime while operating on a Tier I datacenter. Building a Tier III data center will cost $35,000,000 and take one years’ time. After this first year is over we will be benefiting from a $24,114,528 savings per year. Although jumping from 99.67% to 99.98% may not seem like very much, if we look at a 3 year benefits/costs chart (see chart on following page), we will be saving a total of $48,229,056 which leaves us a net benefit of $13,229,056 by implementing Tier III.

Works Cited

"Designing a Multi-Tier Data Center." *The Data Center Journal*. N.p., n.d. Web. 22 Jan. 2015.

"Tier Standards Overview | Data Centers | Colocation America." *Colocation America*. N.p., n.d. Web. 20 Jan. 2015.

"Uptime Data Center Tier Standards." *What Is ?* N.p., n.d. Web. 22 Jan. 2015.

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| --- | --- | --- | --- | --- |
|  | **Minutes per Year** | **% Uptime** | **Downtime (minutes)** | **Downtime ($)** |
| **Tier I** | 525600 | 99.67% | 1734.48 | $ 25,670,304 |
| **Tier III** | 525600 | 99.98% | 105.12 | $ 1,555,776 |
|  |  |  |  | $ 24,114,528 |
|  |  |  |  |  |
|  |  |  |  |  |
|  | **Year 1** | **Year 2** | **Year 3** | **Totals** |
| **Cost** | $ 35,000,000.00 | $ - | $ - | $ 35,000,000.00 |
| **Benefit** | $ - | $ 24,114,528.00 | $ 24,114,528.00 | $ 48,229,056.00 |
| **3 Year Benefit** |  |  |  | $ 13,229,056.00 |