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Flash Research Paper 1-Data centers and Networking

 Our current Tier 1 data center is costing the company an excessive amount of money. Last year, the current data center experienced close to 29 hours of downtime at a cost of more than $25 million. Constructing a tier III data center will reduce the downtime of .33% to .02% because tier III have multiple redundant power components and it is concurrently maintainable. By the end of year 3, the tier III data center will yield a downtown cost savings of over $48 million.

Tier III data centers are concurrently maintainable and have multiple redundant power components. Performing maintenance on the tier III data center does not require it to be shut down, contrast to the current tier I data center which requires costly downtime for maintenance. We do not have to shut down core components of the data center in order to perform maintenance. Also, a Tier III data center has multiple redundant power components that will further decrease any unexpected downtime thus downtime cost, compared to the tier I data center. A tier III can provide a 99.97% uptime as opposed to the inferior tier I uptime of 99.67%.

With our tier I data center, we lose $14,800 a minute during downtime, totaling $25,670,304 per year. By investing in a new tier III data center at a cost of $35 million and installation period of one year, we reduce downtime costs to $1,555,776 annually. Compared to our current tier 1 data center, this will save the company a total $48,229,056 in downtime costs over a three year period. This proposal by the will provide a net benefit of $13,229,056 over three years. After paying for the initial investment, this will yield a three year net benefit over $13million

Works Citied

"Data Center Site Infrastructure Tier Standard: Topology." GPX Global. Uptime Institute LLC, n.d. Web. 28 Jan. 2014

"Data Center Construction Costs, Data Center Relocation - Preparing a Data Center Relocation Budget, Computer Room Design." *Data Center Construction Costs, Data Center Relocation - Preparing a Data Center Relocation Budget, Computer Room Design*. N.p., n.d. Web. 29 Jan. 2015.

Tier Standards Overview | Data Centers | Colocation America." *Colocation America*. N.p., n.d. Web. 28 Jan. 2015

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| --- | --- | --- | --- |
|   |   | downtime Minutes  | Downtime cost  |
| Downtime  | I | 1734.48 |  $ 25,670,304  |
|   | III | 105.12 | $ 1,555,776  |
| Savings |   |   |   |  $ 24,114,528  |
|  |  |  |  |  |  |
| Tier III | Year 1 | Year 2 | Year 3  | Total |  |
| 3 year cost  |  35,000,000  | 0 | 0 |  $ 35,000,000  |  |
| 3 year benefit | 0 | $24,114,528  |  $24,114,528  |  $ 48,229,056  |  |
|   |   | Three Year net benefit |  $ 13,229,056  |  |