Alat Mustafa

MIS 3406

CIO Mart Doyle

Tier III

Implementing a Tier III data center will result in a three-year net benefit of $13,229,056. It will decrease the ERP system outages, we have been experiencing these past years. It will increase our system availability by .31 %, saving us money and resources.

Key capabilities of a Tier III data center include multiple independent paths, subsystems, starting systems for engine generators, EPO controls, power sources for cooling equipment and pumps (Uptime institute). A Tier III data center surpasses the features and abilities of Tier I and Tier II data centers, with redundant capacity and data center infrastructure components (cyxtera). A Tier III data center has an uptime of about 99.82 percent (ColocationAmerica). Building a Tier III data center will perform beyond our current facilities and reduce downtime by 1,629 minutes per year.

Investing in a Tier III data center will have an estimated cost of $35 million. Our three-year benefit will be $24,114,528. At the end of year three our net profit will be around $13,229,056.

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| --- | --- | --- | --- | --- | --- |
|  | Availability | Calculation | Minutes in one year | Downtime (min/year) | Costs of downtime at ($14,800/min) |
| Tier I | 99.67% | 1 - .9967 = .0033 | 525,600 | 1,734.48 | $25,670,304 |
| Tier III | 99.98% | 1 - .9998 = .0002 | 525,600 | 105.12 | $1,555,776 |
|  |  |  |  | **Our Savings** | $24,114,528 |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 3-year Spectrum | Year 1 | Year 2 | Year 3 | Total |
| Costs | $35,000,000 | $0 | $0 | $35,000,000 |
| Profits | $0 | $24,114,528 | $24,114,528 | $48,229,056 |
|  |  |  | 3-Year Profit | $13,229,056 |

Works Cited

*Cyxtera.com*, [www.cyxtera.com/blog/demystifying-data-center-tier-ratings](http://www.cyxtera.com/blog/demystifying-data-center-tier-ratings).

Colocation American Staff. “Data Center Tier Rating Breakdown - Tier 1, 2, 3, 4 - CLA.” *Colocation America*, Colocation American Staff, 19 Apr. 2017, www.colocationamerica.com/data-center/tier-standards-overview.htm.

Uptime institute LLC. (2009-2012). Data center site infrastructure tier standard: Topology. 1-7. Retrieved from uptimeinstitute.com.