Tier III Data Center

Our company can save $13,229,056 over three years by replacing our outdated tier I data center with a new, tier III data center. Tier III data centers add redundant components and dual power for our IT equipment to prevent costly system downtime. As downtime costs us $14,800 per minute, we cannot afford excessive interruption of our ERP system as this halts our entire order fulfillment process. Redundant components reduce the risk of system failure and will ensure improvement of our downtime costs and overall productivity.

A tier III data center includes redundant components, multiple distribution paths, and dual powered components. These improvements reduce data center downtime, benefiting our entire organization and preventing inefficiencies resulting from interruptions to our ERP system. In the event of a part or power failure, the redundant components of a tier III system immediately take over to ensure uninterrupted performance. Further, the IT department can perform routine maintenance by taking one set of components out of commission at a time without preventing system operation. Tier III functionality provides more reliable company operations through a significant reduction in service interruption.

This upgrade to a tier III data center will save us $48,229,056 in downtime costs over the next three years by improving system availability from 99.67% to 99.98%, or 1629 minutes per year. This project would cost the company $35,000,000 to implement in the first year. In the two years after, reduced downtime of 1629 minutes per year multiplied by $14,800 per minute will give us a two year savings of $48,229,056. Combined, these figures give us a three-year net benefit of $13,229,056.

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| --- | --- | --- | --- | --- |
|  | **Year 1** | **Year 2** | **Year 3** | **3 Year Total** |
| **Costs** | $35,000,000 | $0 | $0 | $35,000,000 |
| **Benefits** | $0 | $24,114,528 | $24,114,528 | $48,229,056 |
|  |  |  | **Net Benefit** | $13,229,056 |

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| --- | --- | --- | --- | --- | --- |
|  | Min/year | Availabilty | Min. Downtime | Downtime Costs/min | Downtime Costs/Yr |
| Tier I | 525600 | 99.67% | 1734.48 | $14,800.00 | $25,670,304.00 |
| Tier II | 525600 | 99.98% | 105.12 | $14,800.00 | $1,555,776.00 |
|  |  |  |  | Savings/Year | $24,114,528.00 |

Works Cited

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