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MIS 2501

**Flash Research Paper #1**

The current Tier I data center we have been using has been losing us money due to its inefficiencies and unavailability. If we were to upgrade to a Tier III data center, our company will have net savings of around $13 million over the next three years. These savings can be attributed to a .31% annual increase in availability due to additional distribution paths and less required maintenance. To be a more profitable enterprise, it is essential to reduce downtime.

The proposed Tier III data center features increased power and cooling paths while also utilizing redundant components (nixCraft). These attributes help combat any interruptions our system may face by providing strong back up in the event of maintenance or a simple outage. In terms of availability, our current system is only available for 99.67% of a given year, but if we were to upgrade, that number would be increased to 99.98%. While a 0.31% difference may seem insignificant, over a calendar year that equates to 1,629.36 minutes being lost to outages.

Last year, our ERP system experienced ten outages, each costing the company $14,800 per minute. Factoring the amount of downtime between the two options, investing in a new data center would result in annual savings of $24,114,528 after installation. Although installing a new system would require a one-time payment of $35,000,000, after installation it would only take 1.45 years for this investment to pay off. Over a period of the next three years, investing in a Tier III data center would result in three year net savings of $13,229,056.

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| --- | --- | --- | --- | --- |
|  | Year 1 | Year 2 | Year 3 | Outcome |
| Cost | ($35,000,000) | - | - | ($35,000,000) |
| Benefit | - | $24,114,528 | $24,114,528 | $48,229,056 |
| 3 year outcome |  |  |  | $13,229,056 |

**Works Cited**

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