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Flash research paper

Currently our company has very risky ERP system that experienced 10 outages over the past year, and need to implement a new Tier III data center because although both seem to have a high availability, in long term, we do not want a failure of machine even at once which costs a company so much per failure, and Tier III brings us net benefit of $13,229,056 in three years.

Tier I data center with 99.67% availability is probably great for a short term operating companies because it has sufficient capacities for the site, but it is critical for companies like us once it shuts down with a chance of 0.23%. Tier III data center with availability of 99.97% contains all the Tier I data center has and a concurrent maintenance, which returns a machine to like- new condition in regular basis and lower the chance of failure down to 0.03%. Also Tier III data center contain redundant capacity components and distribution path that keep data center safe during an unplanned outage with an extra backups.

 To see the benefit of implementing a new technology, we can compare the cost we spend in 3 years. If we use “Tier III” data center with 99.98% availability, it will cost us $35,000,000 to implement and $25,670,304 from “Tier I data” center we use until new technology is implemented for first year. Once new technology is successfully implemented, “Tier III” will have a downtime cost of $3,111,552 for next two years, which will be total of $63,781,856 in three years for “Tier III” data center while “Tier I” data center costs us $77,010,912 for downtime cost. This results that we can get a net benefit of $13,229,056 from “Tier III” in three years.

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