**Flash Research Assignment:** Data Centers and Networking

You are the CTA of a small but rapidly growing manufacturing company. Over the past year your organization has experienced 10 outages to its ERP system. The vast majority of these outages have been caused as a result of inadequate facilities in your existing, primitive data center. When this system is down your organization cannot process orders, cannot make product, and cannot ship product! Outages cause serious operational problems and impact both the top and bottom line of the income statement.

Prepare a paper for the CIO in which you propose building a “Tier III” data center. Describe the key capabilities of a tier III data center and describe the business case for making this investment. Crude estimates indicate that building this data center will take 1 year and cost approximately $35,000,000. Assume that you are currently running a “Tier I” data center with 99.67% availability. You are proposing building a “Tier III” data center with 99.98% availability. Assume that downtime costs your organization $14,800 per minute. Assume that the organization looks at all investments in technology over a period of three years.

The maximum length of the body of this paper is 1 page. Additional pages may be used for optional diagrams and required references.

From: Adama Traore

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As you might be aware, multiple outages have been interrupting the functioning of our ERP system, due to the limited capabilities of Tier I data center. Because we are a growing company, Tier 1 can no longer satisfy our business needs. It will be wise to replace it by a Tier 3 data center in order to improve the company operations and reinforce our good reputation with customers. The cost of this investment for one year is around $35,000,000. However, with a three year period, this cost will be regained by a $13,229,056 return on investment.

Unlike Tier I, Tier III has more key features that prevent frequent interruptions, human errors and power outages. Tier III data center has redundant capacity components which allows the continuity of the operations in case one component failed. Also, its multiple independent distribution paths is an advantage for the site, while only one is required to serve the critical environment of the site. In addition, Tier III is equipped with a dual power source and a generator that can maintain the system up to 72 hours after a power outage. With 99.98% uptime provide by Tier III, our downtime will be reduced to only one hour and forty five minutes a year Finally, both unplanned and planned maintenance can be performed on the site without disruption and interruption of the running operations. In summary, it is imperative for our organization to invest in Tier III technology for its multiple redundancy capabilities.

. The initial investment cost for the Tier 3 is $35,000,000. The minimum downtime offers by Tier III will allow the company to save $48,229,058 and realize a net benefit of 13,229,056 over the next three years instead of losing a significant $77,000,000 with the current use of Tier1. It is vital to invest in Tier III, because the company will gain both operational and financial benefit.

Work Cited

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