

Over the past year, our company has taken a hit financially due to repeated service outages to our ERP system. When this system suffers an outage, we are unable to process orders, robbing us of business. I propose that our company build a “Tier III” data center which will provide us with backup systems not present in our current “Tier I” data center that will improve reliability and performance. By making this switch, it will save us \$13,229,056 over the next three years.

Our company currently uses a Tier I data center which is a “basic data center” that has “non-redundant capacity components and a single, non-redundant distribution path serving the critical environment” (Uptime Institute, LLC). This means the Tier 1 has only one power path and one of each component required for it to run. If either the path or components fail or need maintenance, our entire system will go offline. A Tier III data center, however, has multiple distribution paths and redundant components (Beal). So, unlike a Tier I data center, if the one of the components or distribution paths fail, our data center will remain operational. While a Tier I system is “best suited for small business and blog hosting”, we are growing rapidly and must adapt (“Understanding Data Tier Centers”).

Currently, our “Tier I” data center has a 99.67% availability rate, meaning it is offline for 1,734.48 minutes a year. However, by investing \$35,000,000 to develop a Tier III data center in Year 1 of this project we can increase availability to 99.98%, reducing downtime per year from 105.12 minutes. This will reduce our outage cost per year by \$24,114,528 for Years 2 and 3, resulting in a net benefit of \$13,229,056 over three years (Diagram 1). As we continue to grow, we must ensure that we are not losing money due to system outages.

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Diagrams:

Diagram 1:

Year:	1	2	3	Total:
Revenue:	\$0	\$24,114,528	\$24,114,528	\$48,229,056
Cost:	(\$35,000,000)	\$0	\$0	(\$35,000,000)
Net Income	\$35,000,000	\$24,114,528	\$24,114,528	\$13,229,056

References:

Beal, Vangie. "Data Center Tiers." Webopedia, n.d. Web.

"Understanding Data Center Tiers." *Volico Data Center*. N.p., 06 June 2016. Web. 07 Feb. 2017.

Uptime Institute, LLC. "Data Center Site Infrastructure Tier Standard: Topology." *Uptime Institute, LLC*. Uptime Institute, LLC, 2012. Web. 07 Feb. 2017