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We need to implement a Tier III data center. A Tier III data center reduces downtime, from .33 to .02 percent, by decreasing the chance of power outages. Making the switch to a Tier III data center will increase performance and save our company over 48 million dollars.

Our current Tier I data center has a single uplink that allows us to back up data to one physical location. A Tier III data center is comprised of multiple uplinks, which back up data to a number of different physical locations. If a server was to fail, backup servers would still have the ability to feed data to clients without any downtime. In addition, Tier III data centers have power lines running from multiple locations compared to a Tier I, which is connected to one power line. Backup battery systems are also implemented in case of a complete power failure, which allow our business to continuously operate without a significant amount of downtime.

Installing a tier III data center will cost 35 million dollars and take a year to introduce. This data center will yield a 38 percent return on investment after three years. Downtime costs associated with our Tier I data center are more than 25 million dollars a year. Tier III downtime costs 1.5 million dollars per year, reducing costs by 24 million dollars. Installing a Tier III data center will add value to the business and increase optimal efficiency.

Figure 1:

Tier I	Tier III
.33% downtime	.02% downtime
\$25,670,304 downtime cost per year	\$1,555,776 downtime cost per year

Tier III Savings: \$24,114,528

Figure 2

Tier III Upgrade:

Year	Cost	Benefit
1	\$35,000,000	\$0
2	\$0	\$24,114,528
3	\$0	\$24,114,528
Total:	\$35,000,000	\$48,229,056
ROI:	38%	

Works Cited

"Data Center Tier Standards | Tier 1-4 Overview | Colocation America." *Data Center Tier Standards | Tier 1-4 Overview | Colocation America*. Colocation America, 2013. Web. 09 Sept. 2013.

"Data Center Tiers." *Webopedia*. Webopedia, 2013. Web. 09 Sept. 2013.

"Explain: Tier 1 / Tier 2 / Tier 3 / Tier 4 Data Center." *Frequently Asked Questions About Linux UNIX RSS*. NixCraft, 21 Jan. 2011. Web. 09 Sept. 2013.