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Data Centers and Networking

Our company can save \$24 million by upgrading to a Tier III data center. A Tier III data center has multiple pathways with redundant capacity components, increasing availability and shrinking the chance of interruptions. In the past year we have dealt with ten unscheduled outages in our ERP system which prohibits everyday business functions. These interruptions can be reduced to less than 1.6 hours per year by building a Tier III data center versus the 28.8 hours of downtime with the Tier I data center we have now.

Tier III data centers are made up of redundant components and multiple pathways allowing back up and maintenance to be done with ease in case there are any interruptions. The key capability of a Tier III data center is that it increases availability to 99.98% since there are multiple pathways. Only one pathway is required to power the data center, which allows the other to be readily available if a problem was to occur. This will benefit the company by decreasing the amount of downtime there is per year since availability is increased and keeps the business powered and secured more effectively.

Investing \$35 million in a Tier III data center will increase availability by .31% and decrease the amount of downtime and the costs from it by over \$48 million. The increase in availability and decrease in costs of downtime results in a total net benefit of \$13.2 million over a three year period. Overall, the amount of money that will be saved and the benefits of having a Tier III data center outweighs the building costs.

Resources

Colocation America Inc. “Tier Standards Overview.” Colocation America. Colocation America Inc. Web. 29 < <http://www.colocationamerica.com/data-center/tier-standardsoverview.htm>>

DPairCorp. “Tier III: Concurrently Maintainable Site Infrastructure.” Web. 8 September. 2014. < <http://www.dpair.com/design-data-center/data-center-tier/tier-iii/>>

Uptime Institute, LLC. “Data Center Site Infrastructure Tier Standard: Topology.” New York, NY: Uptime Institute, LLC, 2010.

	Minutes/Year	Availability	Downtime (min/year)	Downtime Cost
Tier I	525,600	99.67%	1,734.48	\$25,670,304
TierIII	525,600	99.98%	105.12	\$1,555,776
			Savings	\$24,114,528
	Year 1	Year 2	Year 3	Total
Costs	\$35,000,000	\$0	\$0	\$35,000,000
Benefits	\$0	\$24,114,528	\$24,114,528	\$48,229,056
			3 Year Net Benefits	\$13,229,056