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Data Centers and Networking

Upgrading to a Tier III data center will save our company \$13 million over a three year period. Compared to a Tier I data center, a Tier III data center has more availability due to multiple independent distribution paths and redundant capacity components. As a result, the data center decreases downtime, and the probability of encountering interruptions.

The key capability of a Tier III data center is that it increases availability to 99.98% since there are multiple distribution paths that serve the computer equipment. Even though there are multiple paths, only one is required to power the data center, enabling the other paths to be available in the event of a power outage. Additionally, downtime per year will decrease by over 26 hours. Tier III data centers are also made up of redundant capacity components that allow infrastructure maintenance to be performed without incurring additional downtime. Multiple paths coupled with redundant capacity components will benefit the company tremendously over a three-year period.

An upgrade to a Tier III data center will benefit the company \$48 million over a three-year period. A Tier III data center costs an initial \$35 million; however, the company will experience a net benefit \$13 million in three years.

Sources

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	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