Flash Research Assignment: Data Center

We are losing a lot of money. Our company has sustained 10 unscheduled outages to our manufacturing ERP system. The outages put the business at a halt, leaving customers to find other companies and making our employees unable to perform their day-to-day operations. Luckily we have a chance to stop the problem before it gets worse. If we let our company grow without making sufficient changes, we could lose tens of millions of dollars in the future. To accommodate our growth, we must invest in a superior data center. Right now we are operating with an inadequate Tier I data center, a Tier III data center with the capacity of redundancy is what we need.

With our Tier I data center removing any component on our distribution path will cause the server to be shut down. This will disrupt any business functions of our ERP system. A Tier III data center has multiple, dual powered, distribution paths and redundancy components. This will allow customers to access our servers and employees to continue their work without disruption. The most important feature that comes with the data center upgrade, is the redundancy factor. Although both Tier I and III are susceptible to downtime, the redundancy of a Tier III data center reduces the chance of disruption. Every year, a Tier III data center can expect 1.6 hours of downtime a year, compared to 28.8 hours of downtime a Tier I data center is responsible for. Power outages will not be as debilitating

Tier III data centers have the potential to save $24,114,528 per year. Upgrading the data center will cost the business $36,000,000. Yet the benefits greatly outweigh the costs. In thre years, it will pay for itself. Not only will this save us money, it will save our reputation. Every time our service goes down, it gives our customers the opportunity to take their business elsewhere. A damaged reputation could bankrupt our business that is planning to expand. By investing on a superior data center, we will increase our profits, satisfy our customer base, and overall improve our company

	Table 1	
	Tier 1	Tier 3
% Availability	99.67	99.98
Minutes of Unavailability	1734.48	105.12
Average loss per minute	$14,800	$14,800
Total Annual loss	$25,670,304	$1,555,776

References

1. Colocation America. "Data Center Tier Standards | Tier 1-4 Overview | Colocation

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2. Uptime Institute professional services, LLC. "Date Center Site Infrastructure Tier Standard: Topology" Uptime Institute, 2010.

    http://community.mis.temple.edu/mis2501sec001s14/files/2014/01/Data-Center-Site-Infrastructure-Tier-Standar-Topology.pdf

3. Dalton, Chantal. "Data Center Availability Tiers 1-4 Explained | First Communications." First Communications. First Communications, 07 Oct. 2013. Web. 29 Jan. 2014.