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Flash Research Paper #1: Data Centers and Networking

If our company upgrades to a "Tier III" data center, we could save 48.2 million in over three years. The upgrade to a "Tier III" data center will increase our availability by .31%, resulting in an increase in productivity through the decrease in outages. Decreasing our downtime could result in a three year net benefit of 13.2 million.

Upgrading our data center infrastructure from "Tier I" to "Tier III" will increase its availability from 99.67% to 99.98%. We had 10 outages to our ERP system last year due to our current "Tier I" data center. Upgrading to "Tier III" data centers will give us redundant delivery paths for multiple power and cooling sources so that each component needed to support the IT processing environment could be shut down and maintained without any issues to operations. Multiple distribution paths gives us a backup in case one of our paths stops working. Investing in a "Tier III" data center will decrease the amount of outages and downtime since only one distribution path is required for computer equipment at any time so we could perform maintenance without interrupting operations. The switch will save us time and money because of the redundant capacity components and multiple distribution paths that will keep our data center powered and protected.

Downtime costs our company $14,800 per minute, which is harmful to our profits. Last year we lost $25.6 million due to our ERP systems. The .31% increase in availability will save our company more than $24.1 million each year because of the decrease in outages. If we invest in a "Tier III" data center, we could save a total of $48 million in three years. Implementation of a "Tier III" data center will cost our company approximately $35 million and takes one year to build. Over a three-year period, the company will bring in $48.2 million in benefits and gain a net benefit of $13.2 million

	Minutes/Year	Availability	Downtime (Min/Year)	Cost of Downtime per Minute	Cost of Downtime
Tier I	525,600	99.67%	1734.48	$14,800	$25,670,304
Tier III	525,600	99.98%	105.12	$14,800	$1,555,776
				Yearly Savings	*$24,114,528*

	Year 1	Year 2	Year 3	Total
Cost	$35,000,000	$0	$0	$35,000,000
Benefit	$0	$24,114,528	$24,114,528	$48,229,056
			3 Year Net Benefit	*$13,229,056*

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