Data Centers and Networking

The upgrade of our organizations Tier I data center to a Tier III data center will generate a net

benefit of $13,229,056 through a 0.31% increase in availability. A Tier III data center will increase our

organizations level of operations during any unscheduled and scheduled outages, thus resulting in net

gain.

Over the past year our organization's ERP system has experienced 10 unscheduled outages

resulting in downtime where we are unable to process orders, make products, or conduct shipment. A

Tier I data center has only one source of power and one distribution path, thus any component failures

or maintenance requirements result in downtime. Working with a Tier I data center requires two

maintenance shutdowns each year. A Tier III data center has the ability to continue production while

maintenance is being performed. The Tier III data center includes a batter powered back-up system to

continue operations through any component failures. The primary cause of downtime within our current

data center is due to the individual distribution paths to the computers. By upgrading to a Tier III data

center we will double these distribution paths eliminating downtime outages.

The Tier III data center will have a one-time instillation fee of $35,000,000 incurred in the first

year. When analyzing the investment over a 2-year period our organization will reduce costs by

$24,000,000 and generate a net benefit of $13,229,056. By upgrading availability from 99.67% to

99.98% the Tier III data center will improve orders, production, and shipment.

	Minutes in a Year	Availability	Downtime (min/year)	Downtime Cost
Tier I	252,600	99.67%	1,734.48	$25.670.304
Tier II	525,600	99.98%	105.12	$1,555,776
			Savings:	$1,555,776

	Year 1	Year 2	Year 3	Total
Costs	$35,000,000	$0.00	$0.00	$35,000,000
Benefits	0	$25,114,528	$24,114,528	$48,229,056
			3-Year Net Benefit:	$13,299,056

Works Cited:

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