In order for our company to continue to operate at a high level we must make a Tier III data center. Despite its initial cost a Tier III data center will produce a net benefit of $38 million within three years. Last year our current inadequate Tier I data center caused over 10 outages to our ERP system. These outages are resulting in almost 29 hours of downtime a year with a cost of almost fifteen thousand dollars per minute. Implementing a Tier III data center will eliminate this cost by having better efficiency.

Our data center does not have the multiple redundant capacity components that a Tier III data center would have. If there is a power disturbance in our current data center , our system will shut down. This would not occur with a Tier III center due to its multiple distribution paths of power. In a Tier III data center, all components can be worked on for planned maintenance without any impact on the critical environment, unlike a Tier I. Total maintenance cost can range from $2100 to $4500 a month (Data Center TCO) and if we are able to shutdown only the components that need maintenance then we are able to minimize these costs. Upgrading from a Tier I data center would take us from 99.67% to 99.98% availability. Though this might seem like a small number this would actually result in an additional 27 hours of uptime a year. The Tier III data center would only take one year for us to build; with this quick turnaround time we will soon be able to virtually eliminate any downtime in our system.

Over time we will be making more money than we currently are with our out-of-date data center. Over a three year period a Tier III data center will cost approximately $38,111,552. While the Tier I data center will cost us $77,010,912. Building a Tier III data center will result in a net benefit of $38,899,360 over three years. Our company is growing and with this rapid growth our data needs will also continue to grow. Overall, building this data center will result in continuous growth and revenue for our company.

Figure 1

	Availability	Downtime Min Per Year	Cost	
Tier I	99.67%	1734.48	$	25,670,304.00
Tier III	99.98%	105.12	$	1,555,776.00
			$	24,114,528.00

	Year 1	Year 2	Year 3	
Tier I	$ 25,670,304.00	$ 25,670,304.00	$	25,670,304.00
Tier III	$ 35,000,000.00	$ 1,555,776.00	$	1,555,776.00

Net Cost

Tier 1	$ 77,010,912.00
Tier 3	$ 38,111,552.00

Net
Benefit $ 38,899,360.00

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