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Data Centers and Networking

There is a chance for us to save more than \$24million a year. We are now using “Tier I” data centers for our ERP system. However, we have experienced 10 outages over the past year, and the downtime costs us \$14,800 per minute. “Tier I” data center has approximately 99.67% availability while “Tier III” has 99.98% availability. The .31% availability can decrease 1629.36 minutes of downtime which saves us more than \$24million annually. Therefore, we should upgrade to “Tier III” data center.

“Tier III” data center has multiple independent distribution paths serving the equipment. Furthermore, all of its equipment is dual-powered and fully compatible within the topology. Also, it provides at least 72 hours power outage protection. Therefore, these features can guarantee no more than 1.6 hours of downtime yearly and reduce losses. Compared to “Tier III” data center, “Tier I” has no redundancy, and it has only one distribution path to serve the equipment. It has about 28.8 hours of downtime per year.

The only reason we should upgrade to “Tier III” data center is that “Tier III” can decrease our cost of downtime. If we keep using “Tier I”, we will keep losing more than \$25million every year due to downtime cost. However, upgrading to “Tier III” by investing \$35million, can solve our problem. If we invest \$35million the first year, we will save \$0 the first year; we will save more than \$24million for each the second and third year. Thus, our net benefit is approximately \$13million over three years. The “Tier III” data center is definitely a worthy investment.

	Total Minutes	Availability	Downtime	Total Downtime Cost
Tier I	525,600	99.67%	1734.48	\$25,670,304
Tier III	525,600	99.98%	105.12	\$1,555,776
Net Saving				\$24,114,528

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

Works Cited

“Explain: Tier 1/Tier 2/Tier 3/Tier 4 Data Center.” *nixCraft*. Web. 27 Jan. 2014.

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“Tier Standards Overview.” *Colocation America*. Web. 27 Jan. 2014.