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Flash Research Assignment #1 - Data Centers and Networking

Our company can save $24 million over three years by upgrading from a Tier I Data Center to a Tier III Data Center. Because of our inadequate facilities, our company has experienced 10 unscheduled outages to our ERP system in the past year which impacts the top and bottom lines of our income statement.

Unlike our current Tier I Data Center, a Tier III Data Center features multiple pathways with redundant capacity components that will increase availability and reduce the risk of interruptions. We currently experience system outages for 28.8 hours a year during which we cannot make, ship, or process product. However, by installing a Tier III Data Center we will reduce system outages to less than 1.6 hours a year. By utilizing multiple power pathways and redundant capacity components, outages are prevented because the system can use one of the additional power sources or extra components in the event of a failure. Furthermore, these additional pathways and redundant components will allow us to continue business functions during scheduled maintenance, which will save us additional money and further reduce downtime.

By investing $35 million dollars to upgrade to a Tier III Data Center, we will save $24 million over three years by increasing the availability of our data center to an impressive 99.98%, which is a .31% increase from our current state. By decreasing our risk of downtime, which costs $14,800 per minute, we will save $48 million in system outage costs. The net benefit of investing in a Tier III Data Center is $13.2 million over a three-year period.

Works Cited

Colocation American Staff, American Staff. "Data Center Standards (Tiers I-IV)." Colocation America. Colocation America Inc, 2016. Web. 19 Sept. 2016.

Pitt Turner, W., IV, John Seader H., and Vincent Renaud E. *Data Center Site Infrastructure Tier Standard: Topology*. Rep. no. TS102120-0812. New York: Uptime Institute, LLC, 2009-2012. Print.

Stansberry, Matt. "Uptime Institute's Tier Classification System Explained." *Data Center Knowledge*. Penton, 02 Oct. 2014. Web. 19 Sept. 2016.

	Minutes/Year	**Availability**	**Downtime (minutes/year)**	**Downtime Cost**
Tier I	525600	99.67%	1734.48	$25,670,304
Tier III	525600	99.98%	105.12	$1,555,776
			Savings	$24,114,528
	Year 1	**Year 2**	**Year 3**	**Total**
Costs	$35,000,000	$0	$0	$35,000,000
Benefits	$0	$24,114,528	$24,114,528	$48,229,056
			3-Year Net Benefits	$13,229,056