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Data Centers and Networking

Our company should implement a Tier III data center in order save over \$38 million in the first three years. Within this last year our organization has experienced ten outages with its current Tier I data center, but with a Tier III datacenter we can prevent outages with dual data paths and increase efficiency. Implementing the Tier III infrastructure will save the company over \$24 million dollars a year.

One key aspect of the Tier III data center is in its ability to have multiple independent distribution paths. The multi-paths are a feature to ensure the flow of data is never interrupted. Only one distribution path is required to serve this critical environment, so if for some reason this path is obstructed, then the data flow will switch to the alternate path which will increase efficiency and save time. Another great feature obtained from the Tier III platform is that all the IT equipment is dual powered to help prevent downtime in service due to power outages. This way the organization can continue to do business uninterrupted as a result of this sufficient power supply.

Upgrading our data center from a Tier I (99.67% availability) to a Tier III (99.98% availability) will experience just over 1.5 hours of downtime a year. With the implementation of the Tier III infrastructure, minus the first year cost of \$35 million for implementation, our company would save over \$38 million in the first three years. The Tier III datacenter will give our company a net benefit savings of \$13 million.

	Cost of Implementation	Downtime (minutes)	Cost
Tier I (99.67%)	0	1734.48 (28.9hrs)	\$25,670,304
Tier III (99.98%)	\$35,000,000	105.12 (1.5hrs)	\$1,555,776
Net Benefit	Initial loss of \$35 million	1629.36 (27.2hrs)	\$24,114,528

	Year 1	Year 2	Year 3	Total
Cost				Initial loss of \$35 million
Benefit	0	\$24,114,528	\$24,114,528	\$48,229,056
Net Benefit				\$13,229,056

Total Savings minus cost of implementation after 3 years = \$37,343,584

Works Cited

Scott, Donna. "Assessing the Costs of Application Downtime." *Gartner*. 21 May 1998. Web. 25 Jan. 2015. <<http://www.gartner.com/document/297826?ref=lib>>

Uptime Institute, LLC. "Data Center Site Infrastructure Tier Standard: Topology." *Uptime Institute Professional Services, LLC*. (2010): 12. Web. 25 January. 2014.

Rouse, Margaret "Uptime data center tier standards definition." *WhatIs.com*. May 2008. Web. 25 Jan. 2015. <<http://searchdatacenter.techtarget.com/definition/Uptime-data-center-tier-standards>>