

Datacenter and Networking

Every time the Tier I data center shuts down, our company lose \$14,800 thousand per minute. Last year, we faced 10 outages in our ERP system, which cost the company at least \$25.7 billion. By building the Tire III data center, our company can save \$24 billion each year. This is a 94% redution from our current expense.

Tier III data center provides us with a 99.982% availability of operating demonstrated by redundant component capacity, multiple power and cooling distribution paths, dual power equipment, and concurrent maintenance. Therefore, our mechanics do not need to shut down the data center while they are repairing the system. Moreover, redundant component capacity provides us an extra security on keeping data center working when unplanned interruption happened.

The new system can increase system availability, non-shutdown maintenance, and provide backup solutions to interruption. Although we need to spend a year to build this Tier III data center, this \$35 million building expense Tier III data center will be worth over \$96 billion in five years. Since our company is rapidly growing, we need to implement the Tier III data center as soon as possible so that we can save more money as early as possible.

1. Cost of data center downtime

	Availability (year)	Downtime (min/year)	Downtime cost (per minute)	Total cost (per year)
Tier I	99.67%	1734.48	\$14,800.00	\$25,670,304.00
Tier III	99.98%	105.12	\$14,800.00	\$1,555,776.00
				Save=\$24,114,528

2. Future saving

	Year 1	Year 2	Year 3	Year 4	Year 5	Total
Cost	\$35,000,000	\$0.00	\$0.00	\$0.00	\$0.00	\$35,000,000
Benefit	\$0.00	\$2,411,452,800	\$2,411,452,800	\$2,411,452,800	\$2,411,452,800	\$9,645,811,200
					Total Saving= \$9,610,811,200	

References:

Uptime Institute, LLC. "Uptime Institute Data Center Site Infrastructure Tier Standard: Topology". Uptime Institute, LLC. 2012. Web

Hatton, Ben. "Data Center Tiers Explained." Datacave., 02 Feb. 2014. Web.

Uptime Institute, LLC. "Explaining the Uptime Institute's Tier Classification System " Uptime Institute E-Journal. 30 Sept. 2014. Web.