

Kasey Brown

FRA 1

By upgrading to a Tier III Data Center, our company will realize a net benefit of over \$13 million over the next 3 years. Upgrading to this Data Center will consist of adding redundancies – or backups – to our current system, thereby decreasing system downtime by .31% annually.

The key benefit of upgrading to this Data Center and adding these redundancies is that our system can remain in action even when there are power outages, technology malfunctions or maintenance needs. For example, if one part of the data center needs to be repaired or adjusted, we will not need to shut down the whole system to fix it, because back-ups will be in place. Or, if our main source of power is compromised, there will be a series of backup generators and power sources to give us an uninterrupted power supply (UPS) until the problem is resolved. Other features of this Data Center involves backup CRAC units in case any of them need to be repaired, redundant paths to our network in the event that one is lost, and power paths in multiple parts of the building in case that part of the building is damaged. Overall, these redundant components will drastically increase system availability.

Over the next three years, building this new Data Center will give us a net benefit of \$13 million, and will allow us to save over \$48 million. It will require a one-time investment of \$35 million, and will take approximately one year to build. Upgrading to this new Data Center is absolutely essential if you want to increase profits, decrease unnecessary waste, and remain competitive in the market.

References

Cecci, Henrique. *Select the Right Data Center Design Standard to Reduce Risks and Save Money*. 10 March 2015. 23 January 2016.

Explaining the Uptime Institute's Tier Classification System. September 2014. 26 January 2016.

Understanding Tier 3 and Tier 4. 2015. 26 January 2016.

Tables

	Availability	Downtime (min/year)	Downtime Cost
Tier I	0.9967	1734.48	\$ 25,670,304.00
Tier III	0.9998	105.12	\$ 1,555,776.00
		Savings	<u>\$ 24,114,528.00</u>

	Year 1	Year 2	Year 3	Total
Costs	\$ 35,000,000.00	\$ -	\$ -	\$ 35,000,000.00
Benefits	\$ -	\$ 24,114,528.00	\$ 24,114,528.00	\$ 48,229,056.00
3 Year Net Benefits	\$ (35,000,000.00)	\$ 24,114,528.00	\$ 24,114,528.00	\$ 13,229,056.00