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Flash Research Assignment 1

 The biggest threat to our organization is waste. Waste, specifically, stemming from the cost of downtime. According to industry experts at Datacenter Dynamics, the cost of downtime for a datacenter is $7,900 per minute. Our cost of downtime is significantly higher at $14,800 per minute. When the data center is down, the plant is down, the warehouse is stalled, and the salesmen are unable to make sales; everything relies on the data center working and keeping systems online. While the system is down we are wasting time, money, and opportunity. In just the past year, we have faced ten outages, each costing thousands if not millions of dollars. To offset this, we need to reduce waste by reducing data center downtime. The most efficient way to improve data center availability is to build a new, Tier III Data Center.

 To build the new Tier will cost $35,000,000. The cost stems from built in redundancies. While we usually think of duplicate systems as waste, in data centers they are the key to avoiding waste. Multiple sources of power prevent sudden power loss from causing a shutdown. Multiple cooling paths are installed in case of similar failures; this protects the expensive IT equipment from overheating and from fire. The redundancies allow for regular, scheduled maintenance to be done without forcing system downtime. They also allow for emergency repairs to be done while the backups keep the system online.

 In order to control the cost of waste, we must reduce waste as much as feasibly possible. To do this, we must build a new Tier III Data Center. Our current data center is a Tier I, which has 99.67% availability. While the improvement to 99.98% availability might not seem significant, every year after implementation, that increase will save the company about $24 million. Over a three-year period, investment into the new data center would save the company $13 million.

Sources:

<http://www.datacenterdynamics.com/content-tracks/power-cooling/one-minute-of-data-center-downtime-costs-us7900-on-average/83956.fullarticle>

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<https://www.cyberciti.biz/faq/data-center-standard-overview/>