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Our company has had a fair share of outages in the past year, by updating to a Tier-III data center, we could reduce downtime. With a Tier-III data center, we can increase our availability from 99.67% to 99.98%. For every minute of downtime, we lose \$14,800, so by increasing availability we save \$13 million in total.

Currently, we are working with a Tier-I data center that lacks the redundant components that would keep our systems operational in the event of an outage. Unplanned downtime is something that costs companies millions (Lerner, Ganguli, & Bhalla, 2016). Upgrading to a Tier-III would add the necessary components to keep us from those unplanned outages. One key component that I would like to highlight are the multiple distribution paths (Pitt Turner IV, Seader, & Renaud, 2009-2012). Another added function we'll be able to incorporate is the function to perform maintenance without taking anything offline. These upgrades will make us more efficient and help our business in the long-run.

By performing the upgrades to our data center, we save \$24,114,528 a year. The upgrade itself will be \$35,000,000, however it has an expected uptime of 99.98%. In the span of three years, we will save \$48,229,056. The cost-benefit is tremendous if we decide to carry out this plan, and we will save a total \$13,229,056 after three years.

References

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