To: Mart Doyle
From: Dan Kovacs
Subject: Data Center Upgrades

As a rapidly growing manufacturing firm, we need to be able to keep up with the increasing demand from loyal customers. That goal cannot be achieved with our shoddy, primitive Tier I data center. The downtime caused from our unreliable data center is costing us thousands of dollars every minute, and we are losing valuable time to process orders for customers who have plenty of other companies to choose from. I propose an upgrade to a Tier III data center to allow for our company to continue prospering at this incredible rate. Over the course of three years, by upgrading our data center from a Tier I to a Tier III we will not only increase efficiency and eliminate downtime, but we will also save the company over 13 million dollars.

Data centers are evaluated as tiers, and we are currently operating at the lowest tier. Upgrading from a Tier I to a Tier III will bring several enhanced features to our existing data center. To start off with, Tier III has N+1 active capacity capabilities, so there will always be a backup component in case the first component fails. This would provide us with two power sources for the data center, and if one were to fail, the other one would take over until the problem is solved. This is an exciting feature that will help to significantly reduce the amount of downtime during any given year. Another advantage to this upgrade is that the data center will now be outfitted with one active and one alternative distribution path. In the event that the active distribution path is disabled, the data center will switch over to the alternative path to allow business to continue as normal even when something in the system is anything but normal, saving the company a substantial amount of money.

The Tier I data center is projected to be available, over the course of a year, for 99.67% of the time, while the Tier III has a 99.98% availability rating. The difference may seem insignificant, but after conducting some of our own research, we concluded that our company loses approximately $14,800 for every minute of downtime. The Tier I system is costing us $25,670,600 every year in downtime. Over the course of three years the savings a Tier III system will produce is staggering. It is inevitable that it will take a year for the improvements to be finalized and it will be an investment of $35,000,000. This is a sunk cost that we have no control over, but over each of the following two years we will be saving $24,199,200. The bottom line is that the company will save $13,398,400 just by the implementation of this new system. It is an extremely worthwhile investment that will allow for the extra profit to be spent elsewhere in this rapidly expanding business.

	Year 1	Year 2	Year 3	Total
Cost	$35,000,000	0	0	$35,000,000
Benefit	0	$24,199,200	$24,199,200	$48,398,400

Work Cited

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