FRP 1- Jacklin Altman

With 10 unscheduled outages to the company's ERP in the last year alone, the company is bleeding money at an alarming rate. These outages not only leave production and processing at a standstill, but they hurt the company's reputation. As a rapidly expanding company, our reputation is sensitive and as more outages occur, more customers turn to other companies for their needs. The combination of business stoppage and reputation loss will lead to enormous losses for the company; however, the installation of a superior, Tier III data center means massive savings due to less outages and failures.

As a growing business, the use of a Tier I data center is only serving to slow the company's growth. It is highly susceptible to disruptions, human error, and power outages: all of which lead to data disruption and business stoppage. A Tier III data center; however, leaves more room for error with less damaging consequences. The main selling point of a Tier III data center is that it is redundant. It features multiple data distribution paths and redundant capacity components, which are all dual-powered (Uptime 2). All of this redundancy makes tier III data centers far less susceptible to power outages, human error, and data disruption. Tier III data centers are equipped with 72-hour outage protection (Colocation 1), and because components are independently powered and can be removed there is less of a chance of a negative chain reaction that will ultimately lead to data disruption. There are 16 times as many outages in a tier I center as there are in a Tier III center. Each and every capacity component in a Tier III center can be removed and maintained independently without affecting the rest of the computer equipment, making maintenance easier as well (Neudorfer 1). Tier III systems are not only safer because of their redundancy, but they are easier to maintain and allow for more error with less negative consequences.

$35,000,000 and a one-year installation time is no small investment, but in the long run it will pay for itself and save the company its money as well as its reputation. As seen in table A, a Tier III data center will save the company about $24,000,000 in losses each year, for there is far less downtime due to ERP outages. Since this company measures investments in 3 year increments, Table B shows how over 3 years, even with the additional $35,000,000 cost of installation of a tier III center, there would still be a savings of about $13.2 million dollars. If the numbers aren't enough, consider the fact that every time our ERP system goes down, our customers are essentially stranded. This then leads them to go to other firms, which harms our reputation as well as our bottom line. Between customers finding other companies to suit their manufacturing needs and word of mouth that our company has faulty service due to constant outages the company will suffer tremendously. While the installation of a Tier III system is a big investment, it is key to stopping our company from bleeding money due to preventable outages. We are a competitive manufacturing company, and to stay competitive we need to move into the future and upgrade our data center as soon as possible.

References:

Colocation America. "Data Center Tier Standards | Tier 1-4 Overview | Colocation America." *Data Center Tier Standards | Tier 1-4 Overview | Colocation America*. N.p., 2013. Web. 02 Feb. 2013.

Neudorfer, Julius. "Understanding "Uptime" and Data Center Tier Levels." *Data Center Knowledge RSS*. N.p., 21 Mar. 2012. Web. 02 Feb. 2013.

Uptime Institute, LLC. "Data Center Site Infrastructure Tier Standard: Topology." (n.d.): n. pag. Rpt. in New York: n.p., 2010. I-7. Web. 29 Jan. 2013. <http://community.mis.temple.edu/mis2501sec001s13/files/2013/01/Data-Center-Site-Infrastructure-Tier-Standar-Topology2.pdf>.

Tables (copied from Excel):

Table A

	Tier 1	Tier 3
Availability(%)	99.67	99.98
Unavailability(minutes)	1734.48	105.12
Avg $ loss per minute	$14,800	$14,800
Total Loss in dollars/yr	$25,670,304	$1,555,776

Table B

Total Costs (in dollars)

	Year 1	Year 2	Year 3	Sum of 3 Years
Tier 1	$25,670,304	$25,670,304	$25,670,304	$77,010,912
Tier 3	$60,670,304	$1,555,776	$1,555,776	$63,781,856