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Flash Research 1: Data Center

By building a tier III data center, our company can expect a three-year net benefit of \$13.2 million. We can realize this benefit because the increase in availability will reduce our downtime by 27 hours per year.

The key capability of the tier III data center is its increased availability. By increasing the availability of the center by only 0.31%, we reduce downtime by 27 hours per year. The data center has improved availability because it has backup generators and redundant capacity components. If a server were to fail in our existing infrastructure, we would have to halt all operations until the necessary component could be replaced. With this data center, the organization could still run because there would be a backup component already installed, seamlessly continuing service.

When evaluated over a three-year period, the net benefit for this data center will be \$13,229,056. The initial outlay for the data center is \$35 million, which includes the one year required to build the facility in addition to the components that make the data center more reliable. In years 2 and 3, we will save over \$48 million because of increased availability. The result of the expenditure and savings is a net benefit of over \$13 million, a profitable investment for our organization.

Calculations

1.

Tier III Annual Savings Estimate			
Data Center	Availability	Downtime/ year	Cost of Downtime/ year
Tier I	99.67%	1734.48	\$ 25,670,304.00
Tier III	99.98%	105.12	\$ 1,555,776.00
Downtime Savings with Tier III:			\$ 24,114,528.00
Minutes in year:	525600		
Cost per Minute:	14,800		

2.

Project Profitability				
Cash Flow	Year 1	Year 2	Year 3	Total
Negative	\$ 35,000,000.00	\$ -	\$ -	\$ 35,000,000.00
Positive	\$ -	\$ 24,114,528.00	\$ 24,114,528.00	\$ 48,229,056.00
3 Year Net Benefit:				\$ 13,229,056.00