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Flash Research Paper 1

Over the next three years our company will save over $13.2 million if we convert our Tier 1 datacenter to a Tier 3 datacenter. A Tier 3 datacenter will decrease our company’s downtime by supplying alternative methods of power distribution to allow operations to continue if there are power outages.

The main benefit from a Tier 3 datacenter is the ability to create alternative methods of operation to ensure that operations are running 99.98% of the year. Tier 3 datacenters maintain redundant power sources for situations where the main power source is no longer functional. If our main power source can no longer function, then an alternative power source maintains operations. Currently, our organization is experiencing downtime of 1734.48 minutes because our datacenter is not capable of shifting to different distribution paths. With a Tier 3 datacenter, this number can be cut to 105.12 minutes.

The initial cost and downtime costs of a Tier 3 datacenter over the next three years will be $38.11 million. The benefit of eliminating Tier 1 downtime costs by switching to a Tier 3 datacenter over the next three years is about $51.34 million. The net benefit of switching to a Tier 3 datacenter over the next three years will be over $13.2 million.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Benefits** | **Year 1** | **Year 2** | **Year 3** | **Total** |
| Eliminating Tier 1 downtime costs |  | $ 25,670,304.00 | $ 25,670,304.00 | $ 51,340,608.00 |
|  |  |  |  |  |
| **Total Benefits** |  | $ 25,670,304.00 | $ 25,670,304.00 | **$ 51,340,608.00** |
|  |  |  |  |  |
| **Costs** | **Year 1** | **Year 2** | **Year 3** | **Total** |
| Tier 3 Data Center | $ 35,000,000.00 | - | - | $ 35,000,000.00 |
| Tier 3 Data Center downtime costs |  | $ 1,555,776.00 | $ 1,555,776.00 | $ 3,111,552.00 |
|  |  |  |  |  |
|  |  |  |  |  |
| **Total Costs** | $ 35,000,000.00 | $ 1,555,776.00 | $ 1,555,776.00 | **$ 38,111,552.00** |
|  |  |  |  |  |
| **3-Year Net Benefits** | $ (35,000,000.00) | $ 24,114,528.00 | $ 24,114,528.00 | **$ 13,229,056.00** |

\*525600 minutes per year

\*tier 1 availability: 99.67%

\*tier 3 availability: 99.98%

\*Downtime minutes per year (Tier 1): 1734.48

\*Downtime minutes per year (Tier 3): 105.12

(1)\*Downtime cost per year (Tier 1): $25,670,304

(2)\*Downtime cost per year (Tier 2): $1,555,776

\*Savings per year = (1) – (2)

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