

To: Martin Doyle  
From: Khaled Alkurdi  
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Subject: Tier III Data centers

For a rapidly growing manufacture we need to resolve our main problem that is making us lose millions of dollars. Through the process of upgrading from a tier 1 to a tier III we will save \$13 million. Key capability of a tier III is it will cut down our down time from 1,734.48 minutes to 105.12 minutes.

The key capability of a tier III it has a N+1 active capacity capabilities, which means there will always be some sort of backup components in case the first component fails. This provides us with two power sources for the data center by any chance if one power source was to go down the other power sources will replace it until the power source is fixed. Which will help us resolve the issue of down time by cutting it even lower than tier I.

The tier I has an availability of 99.67% and the tier III has an availability of 99.98%. The difference of .31% may seem insignificant, but after some research we came across that every minute our systems shuts down we are losing 14,800\$ a minute. The tier I is costing \$25,670,600 over the bound of three years using a tier III data center will save 24,199,200. After the investment of 35,000,000 that is out of our hands. The bottom line will save 13,398,400 just for using a tier III. This investment will help us save money and make our systems more efficient which will us grow even faster.

Xxx	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