

## Flash Paper 1

Doyle Systems can save \$13 million over the next three years by upgrading to a Tier III data center. Switching to the Tier III data center will allow Doyle Systems to reduce its annual \$25 million losses by 94%. The new data center will have redundant components that allow Doyle Systems to remain operational during maintenance and component failures. This is a huge improvement from the current Tier I data center, which shuts down during all maintenance and component failures.

Maintenance is necessary; failure to conduct maintenance on the current data center drastically increases the risk of catastrophic disasters. The Tier III data center has redundant components which reduce downtime compared to our current data center. This means that for every component in the data center there is a replica of it running concurrently. The new Tier III data center allows Doyle Systems to perform maintenance or fix components without shutting down operations.

After a one time investment of \$ 35 million, the new data center will save Doyle Systems \$24 million annually and \$48 million over a span of three years. This will give Doyle Systems \$13 million in savings.

## References

Colocation Services. (2013). Tier III Design Certified. Retrieved February 7, 2013, from

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<http://www.cyberciti.biz/faq/data-center-standard-overview/>

Uptime Institute Professional Service. (2010). Data Center Site Infrastructure Tier Standard:

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**Calculations**

Tier I	
Year	Annual Losses
1	\$25,670,304.00
2	\$25,670,304.00
3	\$25,670,304.00
<b>Total</b>	<b>\$77,010,912.00</b>

Cost of Tier III Data Center	\$35,000,000.00
Time to implementation	1 year

Data Center Loss comparison			
	Tier III	% Change	Tier I
Availability	99.98%	0.31%	99.67%
Downtime	0.02%	93.94%	0.33%
Downtime Cost per Minute	\$14,800.00	\$0.00	\$14,800.00
Minutes per Year	525600	0	525600
Downtime	105.12	93.94%	1734.48
Cost of Downtime	\$1,555,776.00	93.94%	\$25,670,304.00
Annual Savings	\$24,114,528.00		

Year	Annual Expenses	Annual Savings	Net Benefit
1	(\$35,000,000.00)	0	(\$35,000,000.00)
2	\$0.00	\$24,114,528.00	(\$10,885,472.00)
3	\$0.00	\$24,114,528.00	\$13,229,056.00
<b>Totals</b>	<b>(\$35,000,000.00)</b>	<b>\$48,229,056.00</b>	