Eric Rose Professor Doyle Flash Research Assignment – Datacenters 9 February 2017

Data Centers and Networking

Our company can save \$13,229,056 over a three-year period by upgrading our Tier I datacenter to a Tier III datacenter. The most important capability that a Tier III datacenter offers to our firm is minimizing downtime. We can reduce our amount of downtime by 0.33% by switching to a Tier III datacenter, which will save us over \$13 M after three years.

The primary benefit of switching from a Tier I to Tier III datacenter is the huge reduction of down time. When our servers are down, internet connections do not work properly and applications do not run for the end user. Tier III datacenters are much more reliable than our current Tier I, and can reduce amount on downtime by 0.33%.

The total cost after three years Tier III datacenter including implementation and maintenance would be \$63,781,856. Also, our firm can obtain a three-year benefit of \$77,010,912 through cost avoidance of our current datacenter, which includes three years' worth of downtime payments. After all costs are accounted for, our firm could save over 13% of downtime losses by switching datacenters, with a net benefit \$38,899,360 after three years.

Bibliography

Bloom, A. (2015, March 13). *StatusCast*. Retrieved from <u>http://www.statuscast.com/application-</u> downtime-according-to-idc-gartner-and-others/

"Data Center Site Infrastructure Tier Standard: Topology". (2012). Uptime Institute, LLC.

Retrieved from http://www.gpxglobal.net/wp-

content/uploads/2012/10/TIERSTANDARD_Topology_120801.pdf

Lerner, A. (2014, July 16). Gartner Blog Network. Retrieved from

http://blogs.gartner.com/andrew-lerner/2014/07/16/the-cost-of-downtime/

Benefits			
	Year 1	Year 2	Year 3
Downtime Losses (\$14,800/min * 1,734.48 mins)	\$ 25,670,304.00	\$ 51,340,608.00	\$ 77,010,912.00
Total	\$ 77,010,912.00		

Costs			
	Year 1	Year 2	Year 3
Installation	\$ 35,000,000.00	\$-	\$-
Downtime Losses	\$ 25,670,304.00	\$ 1,555,776.00	\$ 1,555,776.00
Total	\$ 63,781,856.00		

Net Benefits =

Benefits - Costs =

\$ 13,229,056.00