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Flash Research Assignment: Data Centers and Networking

MIS 2501

2/8/17

An investment in a Tier III data center would save the company approximately $13,229,056 over the next three years. Tier III data centers not only have less downtime than Tier 1 datacenters, but they will also provide us with the ability to pick up where failing units left off. Although the original investment of a Tier III data center is high, the system will operate with less downtime compared to the Tier I data center.

The key capability of Tier III data centers are the redundant capacity components that allow it pick up where a failing main unit might stop without affecting other services provided by the data center. Tier III data centers also have the ability to go through maintenance and equipment replacements without having to shut down the data center, putting interruption at a minimum. Tier III data centers have a downtime of 1.75 hours, in comparison to Tier I data centers which have a downtime of 29 hours. This would not only be a saving of 27 hours but also money.

The investment of a Tier III data center is $35,000,000, which is a one-time cost. The Tier III datacenter will also result in a net benefit of $13,229,056 over three years. The yearly cost of downtime for the organization costs $14,800 per minute, which would result in a total benefit of $48,229,056 with an investment of the Tier III datacenter.

	Minutes available in year	Availability	Downtime per Year in minutes	Downtime Costs
Tier I	525,600 mins	99.67%	1,734,48	$25,670,304
Tier III	525,600 mins	99.98%	105.12	$1,55,776
			Saving per year	$24,114,528

	Year 1	Year 2	Year 3	Total
Benefits	0	$24,114,528	$24,114,528	$48,229,056
Costs	$35,000,000	0	0	$35,000,000
			Net Benefit	$13,229,056

WORK:

Longbottom, Clive. "How to plan and manage datacentre redundancy." ComputerWeekly. N.p., Aug. 2013. Web. 08 Feb. 2017.

<http://www.computerweekly.com/feature/How-to-plan-and-manage-datacentre-redundancy>.

"Understanding Tier 3 and Tier 4." Tier 3/Tier 4: Datacentre Classification – OVH. N.p., n.d. Web. 8 Feb. 2017

<https://www.ovh.com/us/dedicated-servers/understanding-t3-t4.xml>

Staff, Colocation American. "Data Center Standards (Tiers I-IV)." Colocation America. Colocation American Staff, n.d. Web. 08 Feb. 2017.

<https://www.colocationamerica.com/data-center/tier-standards-overview.htm>.

Stransberry, Matt. "Explaining the Uptime Institute's Tier Classification System." Uptime Institute eJournal. Matt Stansberry https://journal.uptimeinstitute.com/wp-content/uploads/2013/04/UI_Logo.png, 30 Sept. 2014. Web. 08 Feb. 2017.

<https://journal.uptimeinstitute.com/explaining-uptime-institutes-tier-classification-system/>.