Miraziz Zakhidov Flash Research Assignment #2 Servers and Storage Technologies 09/19/2012

Investing in a liquid cooling system will bring significant savings to our company. A liquid cooling system will greatly improve cooling efficiency in our datacenters, reduce our company's energy usage, and cut the carbon footprint of our company. Liquid cooling systems are expected to be mainstream in less than 2 years, so investing in it now will put our company ahead of its many competitors. Investing in a liquid cooling system would not only generate significant savings for our company, but it would also improve our customer satisfaction from our services.

One of the key capabilities of a liquid cooling system is that the cooling solution can be placed closer to the heat source since it uses a liquid, such as water, glycol, or a refrigerant, rather than air, to cool the data center. As a result, it requires less fan power. In general, more than 50% of a datacenter's power consumption is used to cool the equipment. A liquid cooling system can greatly help to lower our data center's power usage. Liquid conducts more than 3,000 times heat than the air cooling system while requiring less energy. This important feature of a liquid cooling system can solve the high-density, server-cooling problem for our company. Newer liquid cooling piping technology significantly reduces the probability of leakage issues, so we will not face the problem of having leaks in our datacenters.

By investing in a liquid cooling system, our company will get many benefits such as improved cooling efficiency, reduced energy costs, and reduced carbon footprint. We would be making a great investment based on all the benefits our company would receive from implementing this latest technology. Since energy costs are continually rising, it is really important for our company to improve the energy efficiency of its datacenters. Having more environmentally friendly datacenters will have a positive impact on our company's reputation. Most importantly, liquid cooling will help our company to gain a competitive advantage over its rivals who still use traditional air cooling systems.

References

Cessi, Henrique. *Plan Now for Liquid Cooling in Your Data Center*, 2012. Gartner. Sep19. 2012. Web.

http://my.gartner.com/portal/server.pt?open=512&objID=260&mode=2&PageID=34607 02&resId=1943020&ref=QuickSearch&sthkw=liquid+cooling

Phelps, John R. "Liquid Cooling." *Hype Cycle for Server Technologies, 2012.* Gartner. Sep 19. 2012.Web.

http://my.gartner.com/portal/server.pt?open=512&objID=260&mode=2&PageID= 3460702&resId=2091319&ref=QuickSearch&sthkw=Hype+Cycle+for+Server+ Technologies

Phelps, John R. How to Reduce Data Center Operating Costs With 'Free Cooling',2012. Gartner. Sep 19. 2012. Web.

http://my.gartner.com/portal/server.pt?open=512&objID=260&mode=2&PageID=34607 02&resId=2088416&ref=QuickSearch&sthkw=liquid+cooling