

Cloud Storage:

Information in the Air

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Cloud Storage:

Introduction

Working on a computer and saving one's work as they go is a normal practice, but years go by and the 300GB hard drive in the laptop can no longer hold all the work. There are probably family photos and work files mixed in with it all and the only option now is to move on to 16GB thumb drives and 1TB external hard drives. The fact is that these are all physical objects that will hold data and information for us, so they are limited as to when one remembers to bring them. The latest innovation that solves the problem of forgetting a storage device is "Cloud Storage." The cloud storage system is almost literally storage in the air, hence the name, but it allows one to access the data they have stored in the Cloud from anywhere they want (Linsench, 2008.) So far the technology seems exciting and convenient, but there are hidden dangers to posting one's work online rather than a personal storage device.

Background

Cloud storage is a utility-type service that allows for many customizations from storage capacity and privacy. Pricing has a positive relationship with each customization, but each one fits to a personal or more business-like lifestyle. A basic cloud storage system consists of a master control server and several smaller storage servers that connect to it. All the data in that system is in a shared pool, so there are options for public and private clouds. Public cloud storage systems allow for a person to upload whatever they want and the whole infrastructure managed by the service provider. The access point is through the internet straight to the provider's server, but private clouds are on a server protected behind a company's own firewall (Linsench, 2008.) Then private cloud storage systems allow for data to be uploaded, but can

be managed by the service provider's own IT support. This eliminates the need for in-house physical storage and even in-house IT support to manage the whole system.

Potential Benefits

Cloud storage can be specialized to certain file types to include documents or just a basic input chart system. Some companies use the storage to allow data to be manipulated and portioned, so the data can be sorted and accessed by certain people or departments. Larger companies do not rely on cloud storage because the system can only run a chart input system, so it does not reach all of the market. Overall, the cloud is able to be manipulated and the sharing is convenient, but that is where more problems arise (Brodkin, 2008). Many companies are buying into the cloud storage market, because of its rising popularity. Some companies such as Google and Yahoo are getting into the market are using the system to expand their services to their customers by allowing for file sharing and chart inputs (Greg, 2012). With Google Documents and even Facebook to upload photos to, one's personal property is stored up the air.

Social Problems

With Facebook and many other social networking sites becoming a pillar in the communication and social life of modern society, people are beginning to think that everything online is private. The fact is people are posting everything online, so the idea of data ownership is getting lost. Then with all that data online, even one's personal info and activities, employers are looking into the Facebooks and Tweets of their employees to monitor their actions and look up past activities that could blemish the image of their business. Many cases of this have arisen where employers make an employee allow them access to their Facebooks or fire them on what they find. Privacy settings should have been set and if not, then that falls to the fault of the

owner of the account. The fact is that people are posting all the time and it is extremely profitable, so cloud storage has become almost a necessity (Greg, 2012).

Legal Issues

Cloud storage is not necessarily new technology, but is more like revamped space. The regular E-mail system can already hold about 10GB of data, but all in E-mail format. Files, documents, and images can now be uploaded directly as they are. With internet access, the files can be accessed, used, and saved over from anywhere. One normally thinks that their ideas are their own, but the internet has bastardized that. Copyrights run rampant on everything on the internet, but why is that a problem. It protects the intellectual rights and design someone has to a work and even a post. The question is where the line is drawn when a work is stored online in a massive database, rather than on a personal device (King, 2009.) It is irrefutable if the data is stored on a thumb drive, that whoever owns the drive owns the data in it.

When it comes to cloud storage, the data is on the internet and no one person owns the internet, so who does it fall to? The Intellectual Property (IP) law protects works from being copied and shared without the expressed permission of the creator/author. Audio, text, and even the ideas itself are protected underneath the IP. There are limitations to what a copyright allows, so “Fair Use” from section 107 from the United States Copyright Act of 1976 lets one use the work of others as long a reasonable cause for the use is deemed okay (King, 2009.) In some cases, one can choose to allow for their work to be open to the public and even select groups for use.

Security Concerns

The cloud is a shared network, the same as any shared network so it has many access points. The entire network has to be encrypted so regular people can not just enter and do whatever they want to all the data. The network is encrypted heavily enough that a normal processor could not decipher it, so authentication is needed to allow a person to enter the network. When it comes to public sites, such as Google, they require a username and password to be created. Companies will want more security so they allow a select few access to the network or even just certain parts of the network. A username and password would be provided to an employee and the network manager will have pre-authorized that person to do certain things in the network (Toigo, 2009.)

Social Problems

Cloud storage is nice, but it is not one's personal property. A person using a physical drive or a large company using an in-house network is controlled by the ones who own the drive or network. In the case of cloud storage system, a third party owns the network in which the data is stored so a lot of faith is put into the service provider. The fact is that the provider controls the network so they technically have full access to all the information in the network. Some people fear the network can be exploited to access people's personal information, especially when it comes to medical and government files. Then if something happens to data on the network, the provider is not necessarily liable to even help recover the lost or corrupted data (King, 2009).

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This source provided a real world perspective with actual companies using the cloud storage.