

White Paper:

Cloud Storage – The Issues and Benefits

Remote or cloud-based storage solutions have been around for many years. The pendulum between local on-premises storage (and control) and cloud-based storage services has shifted several times over the course of storage technology development. Storage location and control has changed with the dominance of mainframes, client/server, PC, and the changes in price and capabilities of storage. Cloud technology is the latest iteration of this trend, providing additional cost and capacity options and flexibility for storage users.

As cloud technology takes shape it can be difficult to define the capabilities and benefits of this technology, however, there are two areas of cloud computing that have some very persuasive benefits: cloud storage and cloud backup/recovery.

While storage and backup in the cloud are slightly different services for slightly different needs, they both allow users to scale storage space requirements to meet expanding requirements, improve manageability, and can be integrated easily to backup most all aspects of a businesses' data requirements, from server to laptop. Though cloud-based solutions have been around for many years, the success of companies like Salesforce.com, the advances in technology, and economic benefits have reached a tipping point in terms of realizing the cost-effective benefits of cloud-based storage solutions.

Is the Cloud Ready?

As interest in the cloud increases, there has been a lot of talk about the maturity and trustworthiness of cloud storage technologies. Is it still hype or is it real? Many end-users and IT managers are getting very excited about the potential benefits of cloud storage, such as being able to store and manipulate data in the cloud and capitalizing on the promise of higher-performance, more scalable, and cheaper storage. With so many benefits being bandied around, how can an end user considering a cloud storage solution ensure they select the best possible services while ensuring business continuity? How can you know it is the right choice for you and your business?

As many well known – and many unknown – vendors compete to offer cloud storage services, there are increasing numbers of solutions available and not all are of equal quality, even if associated with a known brand name. It is essential to select a cloud storage solution from a company with experience in remote storage and a proven track record. A vendor's experience is paramount when selecting a reliable and accessible storage solution – do you want to pay someone to learn about storage? After all,

you are trusting your company's mission-critical business data to this vendor. In short, the cloud is ready...just be sure you pick the right cloud.

The Economic Angle

The credit crunch has made it more difficult for businesses to finance the capitalized costs associated with adding more data center storage on site. The continued economic uncertainty has meant that businesses have had to keep their costs variable and non-capitalized – seeking out storage on demand-based solutions – and so encouraged businesses to consider outsourced storage solutions in the cloud. In addition, many businesses with highly variable storage needs do not want to have to pay for storage which is often unused.

The latest online backup and storage services are cost-effective compared to most internal solutions, and provide the added benefit of an offsite disaster recovery solution. From a business point of view, the ability to access your files from anywhere, from any computer and cost-effectively ensure business continuity has clear advantages. Cheaper costs per GB (for the same functionality) and true site disaster recovery are key business drivers to move to the cloud.

The flexibility of cloud storage is very appealing to customers and cloud storage products should provide elasticity, with capacity that grows as a business requires and scales back as soon as this excess capacity is no longer needed – you should only pay for what you use. A cloud storage service provider should base its pricing on how much storage capacity a business has used, how much bandwidth was used to access its data, and the value-added services performed in the cloud such as security and de-duplication.

Unfortunately there are many service providers that offer “low price” but fail to include basic services, so that hidden fees that can add up very quickly. Some common hidden fees to watch out for are connecting fees, account maintenance charges, and data access charges. To make sure service providers aren't including additional fees cloud platforms should offer clear and predictable monthly bills allowing customers to manage costs more accurately.

Demand Security

In terms of security, cloud-based services must be managed and operated at equivalent levels to enterprise systems. The data must be properly encrypted both at motion and at rest, the physical locations of the cloud must be secure, and the business processes must be appropriate to the data and usage. Once those “minor” constraints are satisfied, cloud storage is no more or less secure than physical storage and the chance of data leakage by using cloud computing is no higher than that of physical on-premises storage. Although cloud computing standards are still being developed, existing standards, such as SAS 70 compliance and tier levels, are key indicators.

Another major issue facing cloud storage is where the customer's data is actually kept. Many cloud products may not offer specific locations for where customer's data will reside or actually offer “location-less” clouds as a benefit. The actual physical location of a customer's data can be very important (for EU Data Protection Directive compliance, for example) and, if you are utilizing cloud-storage for your disaster recovery plan or attempting to pass strict security audits, then the location of the data and the mechanisms defined to make that data accessible can be critical. If you live in a hurricane zone, for example, you wouldn't want to risk that your cloud is in the same area.

Easier All Around

Cloud storage can address many challenges that physical storage doesn't:

- customers are not dependent on a single server
- there is no direct hardware dependency
- customers don't have to buy more disk space than they initially need to accommodate future data growth
- business continuity is provided in the event of a site disaster
- a virtual storage container can be provisioned that is larger than the physical space available
- customers can drastically reduce over-provisioning in a pay-as-you-go model
- cloud storage allows customers to access the entire storage pool from a single point.

All of these benefits make the administrator's job easier with a single administrative interface and a unified view of the data storage.

Cloud Inequality

These benefits are very compelling and customers must remember that, while cloud storage makes these advantages obtainable, they are not guaranteed. Not all cloud storage companies are created equal. As the benefits of this technology become increasingly apparent, many new vendors with limited experience are emerging on the scene. Choose the wrong provider and these benefits can very quickly disappear. If you choose the wrong provider and lose your data and you end up on the front page of the newspaper (usually quoted as a *former* employee). Customers must bear this in mind when researching a potential cloud storage vendor and ensure they have a well researched plan of action when choosing a new provider. All the physical storage standards still apply to cloud storage so customers must make sure they approach cloud storage with their security hats on and demand the best quality services to ensure business continuity. The contract between the cloud provider and the customer must be specific and detail the methods used to price, locate, manage, and access the data.

Experienced cloud-based service providers such as i365 take all these factors into consideration when designing a cloud storage solution for their customers. i365's EVault backup and data protection solution was one of the first cloud storage services providers back in 1997. The EVault solution successfully addressed previous challenges affecting the move to cloud storage services such as eliminating bandwidth constraints that would otherwise prevent large amounts of data to be uploaded/downloaded from the cloud, local and remote replication and continuous security at the source, over the wire, and in storage.

To learn more, visit:

www.i365.com/data-backups/cloud-storage

Or contact us at:

1.877.901.DATA (3282)

conciierge@i365.com