

Backing Up to the Cloud



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section one Introduction

The purpose of this guide is to help individuals and enterprises better understand and use cloud backup technology, in the effort to improve business and IT standards for backup and disaster recovery.

The concept of "the cloud," or cloud computing has been around for several years, but it is often treated as just another technical buzzword rather than a method of backing up data. In fact, many people use the phrase "the cloud" without actually knowing what it means, or blindingly refer to it as some giant hard drive in the sky. The cloud is more than just a buzzword, it has actually provided companies of all shapes and sizes with a cost effective and convenient way to store and access their data.

Cloud backup, or online backup, refers to the backing up of data to a remote cloud-based server. The sever is usually hosted by a third-party service provider, who charges the backup customer a fee based on capacity, bandwidth or number of users. This increasingly popular method of data backup allows organizations to store data from their computers in a cloud setting rather than locally on a disk or network drive. These files can then be accessed and stored from any device, anywhere, by accessing the storage location remotely through a client login application.



2 How Does Cloud Backup Technology Work?

Backing up files from the customer's computers to the online storage server is done using sophisticated encryption methods, protecting the data and files being stored. Rather than having the responsibility of making sure nothing happens to your valuable data, you pay a cloud-based backup service provider to do this for you. This allows an organization's IT department to focus on more mission critical projects.

Most online backup services are subscription-based, and pricing depends on the amount of space required to store your backup. Service providers employ a number of techniques to reduce the required storage capacity for your backups, including deduplication, where identical files are copied only once, and incremental backups, in which only changes to a file are backed up rather than storing multiple complete copies.

SECTION THREE Why Use Cloud Backup Technology?

Protecting vital information is critical to an organization's survival. As the digital landscape continues to grow, businesses have found themselves relying upon customer information and data more than ever before. Failure to backup up your data securely will make your company more vulnerable to the effects of natural disasters and data breeches.

Online backup services provide a simple, secure and economical way to protect all the files on your organization's hard drive. If a natural disaster such as a fire, tornado, or flood was to strike your company, the data would still be safe from any physical damage. Cloud backup services give you the ability to quickly restore any lost information. It would also be accessible from any location in case the primary access is closed.



What are the Benefits of Cloud Backup?

Many companies are already embracing cloud data backup, and for good reason, as there are many technical, economic and security benefits. Here are a few of the key benefits companies can gain with cloud backup:

- ▶ 1. Affordability. When you use the cloud for storage and backup, you eliminate the need to own, maintain, and service costly servers.
- **2. Easy access.** Having data in the cloud allows your customers to have access to their data anytime and anywhere. As long as there is access to the Internet, through a computer or a smartphone app, all files are readily available.
- ▶ 3. Off-Site. It's important to keep a copy of files offsite. Keeping backed up files in the cloud ensures data is safe no matter what is going on at your office.
- ▶ **4. Convenience**. Cloud backup solutions have made ongoing management and restoration easy. With just a few clicks of the mouse, backed up files can be easily found and restored.
- ➤ 5. Automatic. Cloud backup doesn't require an additional time commitment for you or your customer. Computer files are backed up to the cloud automatically and continuously, whenever you're connected to the Internet.





5 SECTION FIVE Cloud Backup vs. Cloud Storage

Many people are confused with the concepts of cloud backup and cloud storage. Before making the decision to use one of these cloud computing services for backup and recovery, it is important to understand the difference between the two.

Cloud backup and cloud storage are two online services that are often confused with one another because they serve very similar purposes for businesses. But in terms of offerings, features and functionality these two cloud computing solutions are distinct and best for specific uses. To help understand the differences between cloud storage and cloud backup let's take a look what each one is.

Cloud Backup

Cloud Backup is designed for automatically protecting all your files. Online backup secures your data and business continuity by automatically backing up your files, servers, applications, and virtual machines to store them safely for recovery in case of a disaster. Unlike cloud storage, which backs up only limited files that you select, cloud backup plans have large data capacities and are built to back up the majority, if not all, of the data on your computer.

Cloud Storage

Online Storage is often seen as an extension to cloud backup. It is designed for easy access and sharing of select files. A redesigned version of online backup, online storage services allow access to easy sharing of files from any device anywhere. It provides a space where you can access, modify, share, and transfer files online. However, cloud storage is generally limited in capacity and is not a substitute for full backups. Only the few files that you have stored in a cloud storage account will be recoverable if you should experience computer data loss.

The good news is you don't necessarily have to choose between each service. Most cloud backup providers give subscribers the opportunity to use both for their organization.



5 SECTION SIX Three Types of Cloud Backup Models

Before you make the decision to deploy a cloud backup solution for your organization, you should also consider the type of cloud backup model to use. There are three types of cloud computing models including: public, private and hybrid.

Public

Public clouds are made available to the general public by a service provider who hosts the cloud infrastructure. Generally, public cloud providers own and operate the infrastructure and offer access over the Internet. With this model, customers have no control over where the infrastructure is located.

Private

The private cloud is cloud infrastructure that is used for one particular organization. They allow businesses to host applications in the cloud, while addressing concerns regarding data security and control, which is often lacking in a public cloud environment. It is not shared with other organizations, whether managed internally or by a third-party, and it can be hosted internally or externally.

Hybrid

Users who have a hybrid cloud storage environment are able to manage their data in both external locations and at the primary location. Because hybrid cloud scenarios often provide an on-site appliance, they can provide local cache and memory, data deduplication and encryption for an IT shop's data.

Which cloud you end up using is dependent on your situation. If you want a cheap way to store and access non-core business information, the public cloud may be a good option. If you are dealing with important and confidential information, the private cloud is a much better option. If you need both, there's always the hybrid option.



7 What to Look for in a Cloud Backup Provider?

Cloud backup is often the most affordable, reliable, and efficient data protection solution for organizations, but choosing the right provider for your specific business needs can be a challenge. The five key considerations that every business should factor into when choosing a cloud backup provider include:

- > 1. Scalability. Find a service that offers scalability and agility so that your backup can grow as your business grows. While you don't necessarily have to pay for unlimited space you might not necessarily need, you should find a backup provider that allows you to purchase and add more space when the time comes.
- **2. Security.** Data is vulnerable both at rest and while in transit between your business and the cloud. You need a provider or service that is able to encrypt your data not only when it's being uploaded, but also once it's been stored.
- **> 3. Compliance.** The cloud data backup provider you choose should offer regulatory compliance to ensure the highest level of protection, such as the Payment Card Industry (PCI) standard, to protect financial information or the U.S. Health Insurance Portability and Accountability Act (HIPAA), to protect medical information.
- ▶ 4. Pricing. Typically, pricing is based on the amount of storage and features offered, and is billed on a monthly or yearly basis. As such, pricing varies widely among vendors.
- **> 5. Support.** By using a cloud data backup service, you are entrusting your business's operational foundation to a third-party provider. You want to know that they have your back when something goes wrong or you need help. Choose a vendor that can be contacted through multiple channels, such as phone, email, chat and even social media.



SECTION EIGHT Conclusion

In an era where data protection is becoming increasingly complicated and difficult to manage, traditional data protection strategies and products have proven to be painfully frustrating. Cloud backup eliminates the complexity and frustration while actually meeting or exceeding IT organization data protection requirements.

Cloud backup is a very convenient and cost effective way to protect your business data and recover quickly in the event of a disaster. Like anything else, it has

its pros and cons to helping businesses meet data backup challenges. At the very least, cloud backup is worth investing some time to consider due to the many benefits that outweigh the disadvantages.



