Not So Cloudy Now

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In recent years, increases in bandwidth for Internet connectivity have opened practical options for online backup.

Alan Freedman's *Computer Desktop Encyclopedia*< http://computerlanguage.com/ > defines "cloud storage" as follows:

> **"cloud storage**
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> Storing or backing up data over the Internet. There are numerous third-party storage providers that let users upload and store any type of computer file. Also called "online storage" or "public cloud storage," the files can typically be shared with or without passwords to someone with Internet access and a Web browser. Many services offer a limited amount of disk space for free with monthly fees for higher capacities. Some providers offer storage for a monthly fee per gigabyte.
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> **Cloud Sync**
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> Cloud storage providers often feature synchronization, which ensures the same set of files are updated on all the user's devices. In such cases, a client program may need to be installed in the user's device to employ this capability.
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> **Large Files and Executables**
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> Cloud storage is also used to transfer large files to another user rather than via e-mail attachments, which are often rejected by the mail system due to file size limitations. In addition, mail servers often refuse attachments that are executable files, whereas cloud storage typically has fewer restrictions. See e-mail attachment.
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> **Cyberlockers and Content Management/Delivery**
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> Services that provide cloud storage for the express purpose of sharing media with the public are often called "cyberlockers." Cloud storage providers that hold data to be sent to a user's application or Web browser on demand fall under the "content management" umbrella (see CDN). See *cloud storage gateway, S3 cloud storage, external storage* and *media sharing site*."

One cloud-storage vendor, **BACKBLAZE**< http://www.backblaze.com/ >, summarizes the added value of online backups even for PC and Mac users who have external hard drives for their backups:

> "It's a good start, but as our vice president of design says, "better safe than sorta safe." Do you back up your data every day? Or do you sometimes forget? Are you sure you're backing up the right files? Are your computer and USB drive stored in the same place,

making both susceptible to the same risks? What if you go on a trip and leave the drive at home? You can't backup or restore files while you're gone. And if you take it with you? Then you're more likely to lose both your laptop and USB drive at the same time!"

David Robbins (*NetworkWorld* < http://www.pcworld.com/article/164933/cloud_computing.html >) points out that cloud computing has fundamental benefits and limitations for all types of information technology (IT) applications:

"Cloud services typically have the following characteristics:

- They can be rapidly deployed, so they are quick to value.
- There is little or no start-up cost and no capital investment.
- Costs for services are usage based with no fixed commitment.
- Services can be quickly and easily scaled up or down with no penalty.
- Services are multi-tenant (many customers leverage the platform).
- The ability to customize a service is limited."

He adds,

"As with any service, with the cloud you should always make sure that you know what you are paying for and what measurements exist to show you are actually receiving the service. You should pay careful attention to:

- Service levels - Cloud providers may be hesitant to commit to consistency of performance for an application or transaction. Understand the service levels you can expect for transaction response times, data protection and speed of data recovery.
- Privacy - Someone else hosting and serving your data could be approached by the U.S. government to access and search that data without your knowledge or approval. Current indications are that they would be obligated to comply.
- Compliance - You are probably already aware of the regulations that apply to your business. In theory, cloud service providers can meet the same level of compliance for data stored in the cloud but, because most of these services are young, you'll need to take extra care.
- Data ownership - Do you still own your data once it goes into the cloud? You may think the answer to this question is obvious, but the recent flap over Facebook's attempt to change its terms of use suggests that the question is worth a second look.
- Data Mobility - Can you share data between cloud services? If you terminate a cloud relationship can you get your data back? What format will it be in? How can you be sure all other copies are destroyed?"

Keith Thomas, writing in *PCWorld*,< http://www.pcworld.com/article/223354/choosing_cloud_backup_for_pcs.html > summarizes the issues in choosing cloud backup services as follows:

- Dedicated backup services monitor designated files and create time-stamped backups when the targets change.
- Cloud synchronization services copy the contents of selected folders or disk drives to an equivalent online.
- Some services allow for delta backups: storing changes in target files instead of clogging connections with entire large files when a few records are changed.

- Defining the time and priority for data transfer is essential; some services allow low-priority and off-peak data transfers so that backups don't interfere with workstation performance.
- Not all consumer-oriented services include recovery functions; backup may be easy, but in these cases, restoring the data may be complex and time-consuming.
- Such services typically provide encryption for the stored contents, including options for encrypting the data before transfer instead of allowing the service to perform the encryption.
- Proprietary encryption may lock a user into using a particular service – and if different clients (PC, Mac, UNIX) don't have access to the appropriate client software, a disaster on one platform may preclude restoring data to a different computer.
- The stability of the cloud-backup service is an issue; if a company fails to back up its clients' data, many users may be affected.

A review site, **top-10-online-backups.com**< http://www.top-10-online-backups.com/best-cloud-storage?per_page=100&storage_space=&price=&file_sharing= > lists 30 online backups and provides reviews brief reviews of each product; unfortunately, some of these "reviews" are by (mostly disgruntled) anonymous users.

Potential users will want to research specific candidates with up-to-date, professional reviews.

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