



Cloud backup tutorial: How to leverage cloud backup services

IBM Corp., Microsoft Corp., Symantec Corp. and others have recently announced new cloud data storage services. These come on the heels of earlier announcements by companies including EMC Corp., Iron Mountain and Seagate Technology, to name a few. Despite pronouncements by some that cloud backup isn't just marketing hype, serious doubts remain.

The good news is that to a limited degree, cloud storage is real and can save you money, when used appropriately. However, cloud storage isn't a magic bullet, and there are several issues to consider.

In this tutorial on cloud backup, you will learn the pros and cons cloud backup, how cloud storage is changing data protection and disaster recovery and the differences in the cost of cloud backup vs. traditional backup.

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What is cloud storage?

Cloud storage means different things to different people. For some, it means easy access to secure, inexpensive storage from anywhere. In some cases, these are the same promises provided by past storage buzzwords, many of which failed to live up to their hype. During the last decade we have all witnessed the promise of the Storage Service Provider (SSP), then grid storage, then utility storage as being the next technology that solves all our problems. Here we are today with the next banner being waved, claiming that cloud storage is the answer.

There are several companies providing different services, all using the term "cloud storage," although they differ in many respects. The majority of these offerings are a variation of online backup services. Although there are other services being offered using the term "cloud storage," many of these are not yet practical.

Where to use cloud storage

Most business critical applications will continue to depend on access to high-speed storage. For these applications, any delay in access can significantly impact their performance. Additionally, network bandwidth over long distances will always cost significantly more than connections within the data center. Due to the laws of physics, long-distance communications take longer, and hence cost more than shorter connections. For these reasons it is impractical to consider cloud storage for many business critical data processing applications.

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This leaves open data sharing and data protection/data backup as the two most likely uses for cloud storage. Typically data sharing and protection are not as time critical as transaction processing. You are more likely to wait one minute to see a picture of your niece uploaded by your sister than you are to wait one minute to bid on a rare item on eBay.

According to major backup vendors, more than 75% of all data restore requests are for a single file, less than 30 days old. Thus, the issue of network latency will not be an issue for the vast majority of file restores. Restoring a few files over a wide-area network (WAN) will typically happen nearly as fast as restoring local files.

Also, a large and growing share of data resides outside of traditional data centers on a variety of devices including distributed on desktop and laptop computers. The exact percentages vary with the type of company, size and location, but one thing is clear -- the data being stored outside of data centers is an important issue.