

The Rise of the Online Hard Drive

By Joseph Kibur

Online backup, online photo albums, file sharing, weblogs, personal music sites and social networking sites are all part of the same phenomena – the trend towards centralizing storage and applications online. These services store some of your data on a remote location, and allow you to manipulate the data via a web browser or through a thin client installed on your computer.

In a world where Internet access is ubiquitous, it would be ideal to have all your files and applications centralized somewhere on the web, and accessed through a browser. However this is going to take sometime before it is practical. Meanwhile a number of hybrid services are being created that narrow the gap between the two worlds. These services have two components. The first is a web based portal that allows you to view information about your account, as well as perform the main functionalities of the service. The second piece is a thin client that is installed on your personal computer to take care of certain functions that are not easily achieved using web-based programs. To understand the history of these services we would have to go back some time.

In the later part of the 90's, a number of high profile companies called Application Service Providers (ASP) came to prominence with the promise of offering a new disruptive technology that allows computer users to access both applications and data stored remotely on the web. Users were promised a new level of freedom to use applications and data from anywhere, anytime. For instance, you can be working on your new marketing plan while on a beach in Miami, as long as you have your wireless enabled laptop. Unfortunately, these companies were ahead of their time, as there were few applications that actually worked over the web, or that appealed to the masses. Most of these companies that used to be valued in the billions of dollars simply disappeared or were acquired for a fraction of their former worth.

Fast forward to 2005, and you will see that ASP still has not regained its former allure, but the promise of anytime, anywhere data/application access has gone a step or two further. Service providers have adapted their technology to make it more meaningful and accessible to the average user. The increased availability of broadband has also made online applications more practical.

It is clear that having a web based hard drive that is accessible from anywhere, anytime is very appealing, especially if there are applications that go along with it. It will take time for applications to be adapted for online usage, but once there are enough of them, we might just see the end of computers with hard drives.

In this multi-part report, I will start my research with the online data backup industry and the main players.

Part 1: Online Data Backup

Online Data Backup has been around for over a decade; however its growth was limited by the lack of broadband access and concerns about security and privacy. In the last couple of years, as broadband became widely available, and fear of security and privacy subsided, Online Backup became a realistic option for individuals and companies as a way of sharing data, as well as storage and backup.

I researched dozens of companies in North America and Europe, finally selecting what I considered are the 6 best companies in the small to medium sized enterprises (SME) market.

Although they all vary in different elements such as price, software, features, reliability and speed, I found two main problems that are common to all of them. One is price. Currently prices average around \$10/GB per month for companies specializing in the SME market, although prices are significantly higher for enterprises and large businesses. This pricing model is probably acceptable for temporary data sharing and for users with limited data size. However, it is not realistic for companies with Terabytes of data or individuals who have accumulated tens of GB of digital photos or videos. This problem will only get worse as time goes by, as people accumulate more and more data.

I believe that pricing will have to go down to \$10/month for 100 GB of data storage to attract the masses.

The second problem is speed. Among the six companies selected for detailed research, the average upload speed was about 1 MB/minute, which means if you have 10 GB of files, it could take you 5-6 days to backup. Mind you most of the heavy lifting is done at the beginning, and later backups are smaller, as only the changes are uploaded. This problem is not caused by slow connection on the user end, but rather by the congestion on the provider side. To have mass adoption of this service, providers would have to increase speed to the point where users can upload 10 GB backup data in a few hours. The good news is that download (or restoration) speed is much faster (often 5-10 times faster).

On the positive side, I found that most of the companies have software which is largely bug free, and quite intuitive to use. A number of them include a wizard feature that will take you through the process of backup and restore step by step.

REVIEWS

Xdrive

This company, which was recently acquired by AOL, initially made its name by allowing people to share files that were too large to email. It now has a plethora of products all related to online storage and file sharing.

I tried Xdrive first about a year ago. I have to say their most recent release (Version 5.0) is a big improvement from the previous version. The software is more intuitive and layout is more functional. The biggest improvement was getting rid of their DOS based upload utility. The new upload utility allows you to view the status of the upload in real time, and it can recover from incomplete uploads.

It doesn't display the size of individual files as you are selecting them for backup. But the total size of the backupset is displayed below.

Backup is easy but restore is not as obvious, as there is no "restore" function from the Xdrive software. I did discover the use of the Mapped drive to drag and drop files, and effectively restore files. Personally, I would prefer to use a separate restore function.

Help is mostly online, which is inconvenient if you don't have dedicated Internet access.

iBackup

The software interface is intuitive and well organized. They have 7 wizards that make life easy when you are doing backup and restore of regular files, System State, SQL data base and Exchange Server. Gracefully recovers from interrupted backups.

They use Patented Delta Block Technology to increase speed of backups, but it took me almost 10 minutes to backup a 7MB file (0.7 MB/Min) which is below average for companies reviewed.

A nifty little feature allows you to schedule not only backups, but also restores. This way, you can restore a large backupset at a time when the network is least congested, or when you are not using the computer.

They seem to take security seriously by having policies to prevent hacker attacks and data loss. They maintain separate data centers in three locations. Price is very competitive at \$10/month for 5 GB of space.

iBackup's software has the most extensive feature list of any companies I have come across. It seems they have taken the time to listen to users and develop the features they demand.

DataDepositBox

The software is designed for beginners, to make backup and restore easy and intuitive, at the expense of flexibility and greater choice.

It supports only continuous backup. In other words, there is no “backup now” or “schedule” functions. To make up for that, they have a “suspend” mode, where it will only do the backup when the computer is not being used for a certain period of time.

There is no facility for the creation of backupsets or selection of individual files—only entire directories.

They store all their data in one data center, which is a concern in case of natural disasters on the scale of Hurricane Katrina.

Pricing is about average, but upload speed is above average.

BackupSolutions.com

The software is licensed from Connected Software, which is one of the biggest online backup providers in the world. Layout is easy and intuitive, but surprisingly lacking in features.

Once I used the wizard to automatically find all recommended files, I wanted to deselect all of them, and pick my own files, but there was no “Deselect all” command.

Every time I click on “backup view”, it has to scan the entire hard drive, which is annoying as it could take several minutes if you have a lot of files.

Help documentation is extensive and well written.

The data is stored in two mirrored data centers operated by Connected, which provides reasonable security and reliable service.

LiveVault

Among the companies tested, LiveVault is the one company that is designed from the ground up with businesses and servers in mind. LiveVault Insync, The web based software for the SME market is very powerful and easy to use. It supports Windows, Linux and even Sun Solaris servers. They have fully redundant and secure data centers, allowing for an SLA (Service Level Agreement) that gives 100% guarantee that data will always be restorable. Having such guarantees for reliability doesn't come cheap. Protecting 10 GB of data will cost you a hefty \$119/month.

The software allows you to backup open files, create multiple backup policies, and perform continuous backup. Backups, restores and management are all done using web based software, which makes it easy to perform the operations anywhere, on any machine.

If you are a company with more than a few dozen employees, LiveVault provides you the most logical solution that is scalable, reliable and has a multi-billion dollar company behind it.

Novastor

It is by far the most mature and professionally done software, not surprisingly given they have been around since 1987. Help is detailed, and options are numerous.

Price is expensive at \$12.95/month/GB and upload speed is quite slow. It took 20 minutes to backup 10 MB (0.5 MB/min).

The software has very extensive features and functionality. You can configure for certain applications to run before or after a backup. For example, you can request certain data base application to make a data dump to a directory that will later be backed up.

They use "FastBIT" Technology to extract actual changes within files. This allows incremental backups to occur even through slow connections.

In contrast to the Client software the Web portal doesn't have any-where near the same number of features. It lacks basic features such as the ability to share files with other people. When restoring through the web portal, you need to lower your security setting on your browser to "low" to allow the active-x controls to install.

Conclusion

For small businesses and individuals that need basic file storage and sharing services, Ibackup comes out on top with their reasonably priced solutions, quick support, ease-of-use and feature rich software.

For companies where the need is mission critical and requires a guaranteed level of service, LiveVault is the clear winner. A Service Level Agreement, which outlines the level of service and the extent of their guarantee is provided to every client. As part of Iron Mountain, LiveVault can easily stand behind its guarantees, something the smaller players would have a hard time doing.

Rankings

The table below shows a summary of the 6 companies tested. The test was performed between December 22, 2005 and January 18, 2006.

	Security	Features	Ease of use	Speed	Reliability	Support	Price	Total	Rank
IBackup	8	10	9	5	8	9	8	57	1
LiveVault	9	7	8	8	10	9	3	54	2
Novastor	7	10	9	6	9	8	4	53	3
X-drive	7	9	8	4	7	9	8	52	4
DataDepositBox	5	4	9	9	6	9	5	47	5
BackupSolutions	8	3	6	7	8	7	7	46	6

Note: The maximum grade is 10 and minimum is 0

About BackupReview.info

This research report was sponsored by BackupReview.info, the leading source of information for online backup and data storage services. If you have any comments or questions about this report please send email to editor@backupreview.info. For more information please visit <http://www.backupreview.info>