Online backup and synchronization

DROPBOX

Have you ever dreamed of backing up your laptop data on the Internet and synchronizing multiple computers independently of the operating system? The Dropbox online service grants this wish with just a couple of mouse clicks. **BY CHRISTOPH LANGNER**

One of the current trends for many companies is to store data on the Internet rather than just on local disks. In line with this, many companies offer online storage. Major players include Hewlett-Packard's Upline and Microsoft's Windows Live SkyDrive, and it probably won't be long until Google starts offering GDrive. All of these offerings allow users to store back-ups externally and to access their data stores via the Internet.
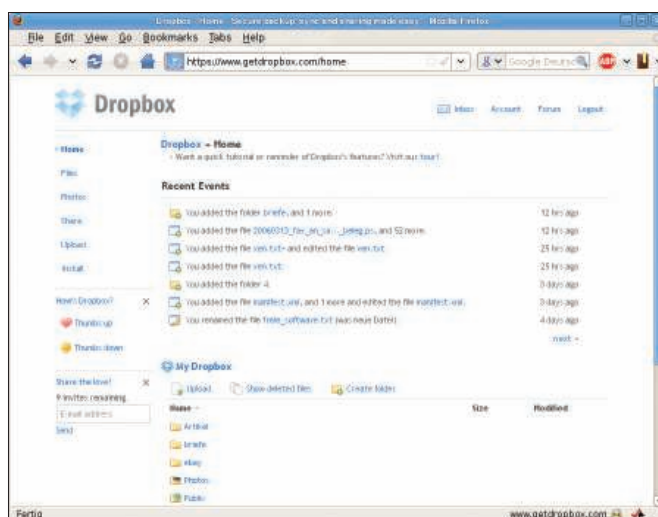
Besides the big names, numerous smaller providers populate this sector. Particularly for Linux users, the Dropbox [1] service is a good choice because the Startup client program is available for the free operating system. Dropbox does not use its own server farm to store the uploaded data; rather, it relies on web storage provided courtesy of Amazon's Simple Storage Service (S3) [2].

Dropbox developers maintain that they have taken suitable measures to guarantee data security. According to the Dropbox developers' blog, the provider's tools encrypt the data before uploading [3]. On this basis, Dropbox is confident that customer data is safe; however, the current crop of tools does not let users choose their own keys, which means that the operator theoretically has the option of viewing customer data.

Dropbox offers various approaches to storing or accessing data on the Internet. An Internet browser will let you do so from any machine, without having to install client software, but more convenient tools are also available (Figure 1). Dropbox offers software for Windows, Mac OS X, and Linux. This kind of flexibility makes smaller operators such as Dropbox more interesting than the big players. As of this writing, Dropbox is available as a public beta.

Figure 1: Access your personal data and documents at any time via the web front end, without having to install client software.

Customers who register now will be eligible for an extra 1GB of storage free of charge. After the official release, newly created Dropbox accounts will only be eligible for 1GB of free online storage and can purchase additional storage. Prices quoted in the developers' blog range from US$ 9.99 per month to US$ 99 per year for 50GB.

The Linux client includes a plugin for the Nautilus file manager and a daemon. Dropbox offers the plugin in the form of RPM and Debian packages for Fedora Core 9 and Ubuntu 8.04, both in 32- and 64-bit versions, which makes it easy to install Dropbox on these two distributions. The Nautilus plugin source code is also GPL'd, but only the Nautilus code so far. The service itself is released under a proprietary license.

After installing the package, you can relaunch Nautilus by typing *killall nautilus*. Then you will see an icon in the message box. The icon takes you to a program that automatically downloads a tool and installs the tool in *~/.dropbox-dist/dropboxd*. Later, the service will synchronize the content of the *~/Dropbox* directory with your webspace as a background task.
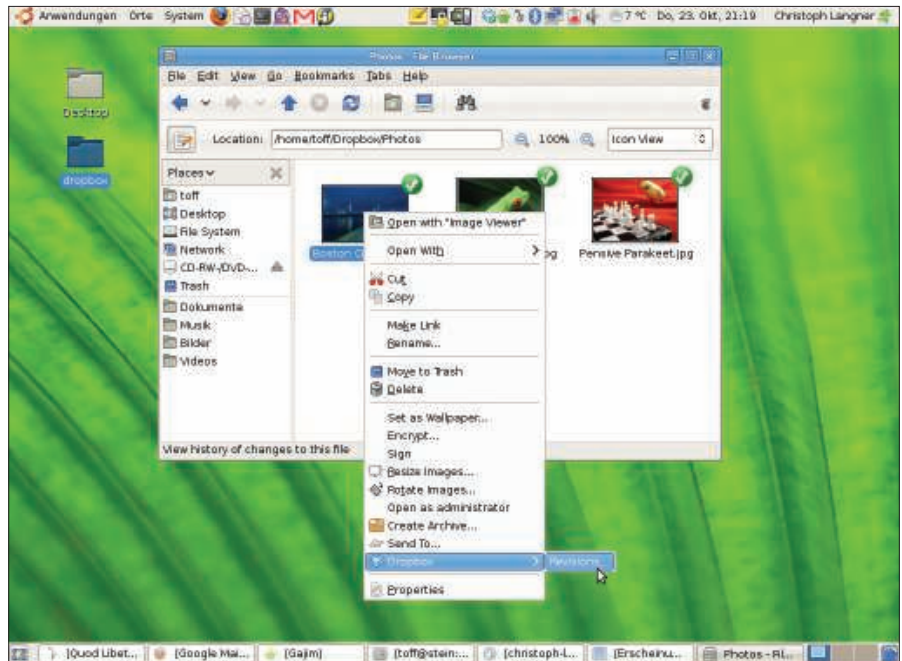
Graphical Display

To copy data to Dropbox, you just need to drop it into the *~/Dropbox* folder. For each file, the file manager displays an additional icon to let you know the synchronization status. A check mark means that the file has already been uploaded to the server. Two rotating arrows mean that the software is currently uploading the file. If you edit a document that you copied to the remote machine previously, the software will only transfer the changes, which reduces the upload volume.

To synchronize data, you first need to register your own machine with Dropbox. After completing the installation,

Figure 2: While Dropbox is synchronizing the data, a dialog helps the user watch progress.

Figure 3: Restore previous versions with Revisions.

the software automatically launches a dialog in which you can either create a new account or add the machine to an existing account.

After registering your machine, the Dropboxd service handles synchronization. The program runs in the background and does not need a graphical interface, which makes it possible to use the software from a terminal or any desktop environment. The only drawback is the dependency on Nautilus.

To use the sync application with KDE or Xfce, you will need to install Nautilus (including all dependencies) via your distribution's package manager and then call Nautilus once only by typing *nautilus --no-desktop*. This gives you the Dropboxd service, and you will not need Nautilus again after this. The service works in the background; the graphical status display is only available to Gnome users.

Conclusions

After you complete the Dropbox setup, using the service is very convenient. The full set of folders and files on Dropbox is sent to each computer that you register. If you save new data in *~/Dropbox*, the service automatically uploads them onto the server, and the Dropbox icon in the message box gives you a status update (Figure 2). If you have a narrowband Internet connection, you can click the icon to access the configuration tool and set

the maximum bandwidth for uploads and downloads.

Dropbox can do more than upload and download files to and from an Internet repository. If you edit a file in the *~/Dropbox* folder, the program will remember the previous version. If, at some later date, you need a previous version of the file, you can launch Nautilus, right-click the file in *~/Dropbox*, and select *Revisions* (Figure 3). This takes you to a website where you can see and restore any previous version. In fact, you can even use the web front end to restore a deleted file.

Forum and blog postings by the developers confirm that the company is still very interested in Linux. For example, the roadmap includes KDE integration. The developers are also looking into a service that does not need a GUI, which would make Dropbox easier to use on servers. Despite the benefits of Dropbox, the ability to choose a key and make the application completely trustworthy would make it more appealing. ∎

INFO

[1] Dropbox:
http://www.getdropbox.com

[2] Amazon Web Services:
http://en.wikipedia.org/wiki/Amazon_Web_Services

[3] Dropbox blog:
http://blog.getdropbox.com/?p=13