Online file storage – Dropbox vs. Ubuntu One

Radu Cotescu

On-line synchronising and file storage services are quite common nowadays. You probably hear your friends more than often asking you to join one of those services in order for them to be able to share their latest work on various files with you. If you do not already use "the cloud" for securing your files this article will definitely help you out to choose between two of the most popular on-line file storing and synchronisation solutions – Ubuntu One or Dropbox. If you do store your files in "the cloud" then we hope that this article will give you more details about the solution you chose to use, whichever this is.

Terms and definitions

The "cloud" or "cloud-computing" defines an internet-based way of computing where software and shared resources are provided to clients on an on-demand basis. This new paradigm is a switch from the more traditional client-server architecture where one client would benefit from the information and processing power provided by only one server.

Figure 1. *Dropbox set-up wizard*

The majority of cloud computing infrastructures work by distributing the load across a large number of servers, usually located in multiple data-centres around the world, but the cloud appears as a single point of access for the client. So even if from the client's point of view the paradigm does seem to be the classical client-server, given the number of servers which provide the requested data, the response is actually sent back with the help of distributed computing.

Dropbox

Dropbox (*http://www.dropbox.com*) is one of the most popular cloud storage and synchronisation services – approximately 4 million users –, although it was not the first product of its kind when it was launched. Dropbox Inc. was founded in 2007 by *Drew Houston* and *Arash Ferdowsi*, both of them MIT graduates, while the service was launched in 2008 as a Y Combinator startup.

The idea behind Dropbox was to replace the common memory stick with cloud storage, allowing its users to have access to their files regarding their location, computer or operating system. The Dropbox client creates a folder on the user's computer which is then synchronised with the online storage space and with the other associated computers. Users have full control of their Dropbox storage space either by using the client application, either by using a web browser.

Dropbox supports revision history so that deleted files may be recovered from any of the associated computers or from the web. Another use of the revision history could be collaborative working on some of the files, without losing the previous form. Though the history is limited at 30 days, after which a deleted file cannot be recovered any more, unless the user has subscribed using a paid account.

The developers who wrote Dropbox wanted to create a fast and easy to use synchronisation system. This is why for each file only the portions of the file that are changed are actually saved from one revision to another. The process is called delta encoding

and conserves bandwidth and time, providing fast response times. Although there are no restrictions on the file size for the desktop client, the files uploaded via browsers are limited to 300 MB.

Plans, prices and features

The basic plan offers free 2 GB of storage, though there are many ways to increase this space for free. A user might benefit from 2.25 GB of free space from the beginning if he subscribes to the service using a referral link. Also, a user can earn up to 8 GB of space from referrals – new users that subscribe to the service using the user's referral link or direct invitations. Another 250 MB can be earn by following a number of steps described on the Dropbox website which helps the user to set up Dropbox on multiple computers. If we add all the bonuses that can be obtained we reach at 10.5 GB of free cloud storage space.

The paid plans are "Pro 50" and "Pro 100". The numbers give an indication of the space offered for the money: 50 GB or 100 GB. The prices are 9.99 USD per month or 99.99 USD per year for "Pro 50" and 19.99 USD per month or 199.99 USD per year for the "Pro 100" plan.

All transfers are made using SSL encrypted connections and the files are encrypted using the AES-256 standard. This means that any data transferred from Dropbox over the internet is securely encrypted and safe from interception and/or eavesdroppers.

Dropbox provides a whole range of features:

- selective synchronisation with the ability to choose the folders that are to be kept synchronised depending on the associated computer,
- public shares using the "Public" folder,
- the ability to give access to one of the files/folders stored in the cloud through a "Shareable link",
- shared folders with other Dropbox users,
- LAN sync directly with other computers from the LAN which are linked to the same Dropbox account,
- dedicated "Photos" folder which can be used to share galleries with people by providing them an access link,
- notification icon which displays useful information like the number of files that are to be synchronised, the transfer speed, occupied space as a percent out of the total space,
- the ability to set automatic emails for when you remain out of space or when Dropbox has scheduled maintenance

There are many Dropbox clients, covering different operating systems and architectures: Linux, Mac, Windows, iPhone, iPad, Android and Blackberry. Due to its popularity there are also a lot of third-party clients and applications that rely on Dropbox.

How to

To install Dropbox, one has to download it first from *http://www.dropbox.com* The website will automatically indicate which client version is suitable for the computer which is used to browse the web site. For Ubuntu you should choose the package according to the architecture that you are using: 32-bit or 64-bit.

Once you have downloaded the *.deb* package, install it like usual. You will be asked to restart Nautilus after which you should click on the *Next* button. Afterwards a wizard will help you through. When the daemon is finished downloading, the set-up wizard will launch. Assuming that you do not have a Dropbox account yet, one will be created for you. Dropbox will integrate itself with Nautilus so that all the files and folders which are synchronised with your cloud storage space will display a special icon to help you figure out the synchronisation status.

Before the wizard finishes, you can choose where you want your "Dropbox" folder – the folder whose content is synchronised into the cloud. The default option is to leave it in your home directory but any other location would work just as well.

If you want to synchronise folders which are outside of the "Dropbox" folder you can use symbolic links on Ubuntu (and on any other Unix/Linux machine) but this will not work on Windows clients. For example, if you would like to synchronise your */opt* folder without making an identical copy inside the "Dropbox" folder, you could create a symbolic link inside the "Dropbox" folder which should point to */opt*. This will make all the content from */opt* to be stored into the cloud, even if it's on another partition or in a folder which isn't a child of the "Dropbox" folder.

Ubuntu One

Ubuntu One (*http://one.ubuntu.com*) is a relative new online storage and synchronisation service provided by Canonical for Ubuntu users since
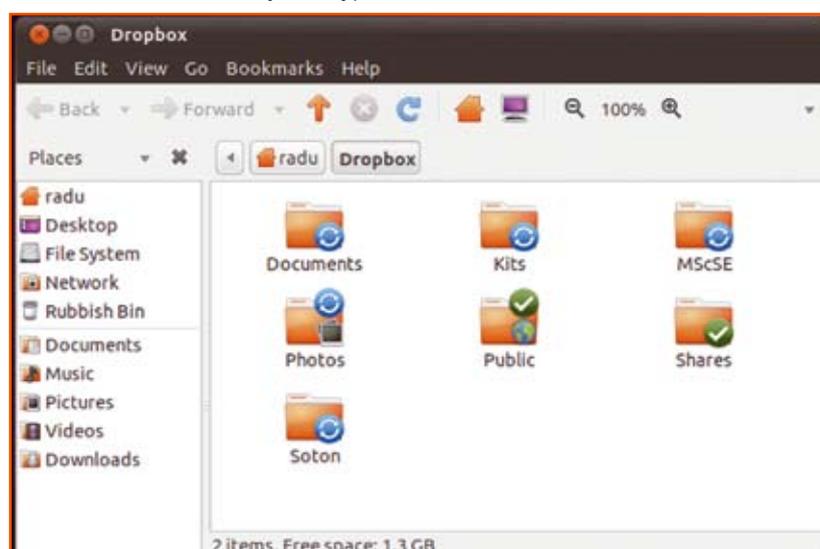

Figure 2. *Dropbox folder showing different folders*

the 9.04 release. Although the service was launched more than a year ago, the project is still in beta stage: from what we have noticed on Ubuntu One's Twitter account (*http://twitter.com/ubuntuone*) from time to time the maintenance that has to be performed on the service usually means downtime. Still, except for the announced and planned downtimes, the service performs very good, not to mention that the basic account – 2 GB of space in the cloud – is free.

The service will allow you to backup and sync files, your contacts from Evolution (the personal information manager and email client), Tomboy notes and Firefox's bookmarks which you can then access either online, either from any other subscribed computer. Synchronisation performs automatically, keeping all your data identical on all of your computers. Since there is no limit on the number of computers you can add to your account, you can use Ubuntu One at home, at your office and even at school for storing all your files in one place. You can even perform modifications on your files while being offline because as soon as you get online Ubuntu One will perform the synchronisation so that your files will always be up-to-date.

Plans, prices and features

Although 2 GB might be enough for people who only want to store documents, some of the users might need more space, especially if they would like to store photos, movies and other type of multimedia content.

Extra space can be bought in packages of 20 GB, without a limit towards the number of packages one can buy. The price for a 20 GB upgrade package is, at the time of this writing, only 2.99 USD per month or 29.99 USD per year, but the purchases can be made in EUR and GBP too.

The complete set of features for the PC plans are as follows:

- ■ File synchronisation
  - complete synchronisation for Ubuntu computers (a Windows client is currently in beta stage),
  - files' and folders' changes are updated automatically,
  - the ability to offer public access to some of the files through short URLs,
  - encrypted transmission of the data using SSL encryption.
- ■ Contacts synchronisation
  - a complete address book stored in the cloud – which is much safer than any other storage medium,
  - automatic synchronisation between the cloud address book and Evolution,
  - every change is automatically synchronised,
  - view, create and modify contacts using your PC or the web.
- ■ Notes and bookmarks
  - all your Tomboy notes and Firefox bookmarks (through the use of a plug-in) are stored and synchronised in the cloud,
  - view, create and modify notes using your PC or the web,
  - notes synchronisation works on all Tomboy-supported platforms: Ubuntu, Windows and Mac.
- ■ Music Store
  - complete integration with Rhythmbox,
  - community support for Banshee,
  - purchases are first transferred to the cloud and then to your desktop,
  - the songs purchased through the music store don't count towards the storage limit,
  - 4 regional stores: US, UK, EU (only Austria, Belgium, Czech Republic, Denmark, Finland, Estonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Liechtenstein, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden and Switzerland) and world-wide.

For users of the Ubuntu One Music Store that own an iPhone or an Android phone there is a special plan, Ubuntu One Mobile, which allows one

Figure 3. *Create an Ubuntu One account*

to stream the music bought through the music store. This means that you can take your music with you anywhere because the tracks that you have bought will be stored in the cloud. The Mobile Package costs 3.99 USD per month or 39.99 USD per month, and whatever paying period you choose the first 30 days are free.

The complete set of features for the mobile plans are as follows:

■ Music streaming
- unlimited streaming of the mp3 files from the cloud to the mobile phone, as long as you have an iPhone/iPod Touch (iOS 4 is supported) or an Android phone,
- browsing and searching by artist, album or song title,
- the usual playback controls: skip, shuffle, repeat one or repeat all,
- controllable cache for listening to your music while offline,
- resume playback when interrupted by a call.
■ Contacts synchronisation
- synchronisation of all the phone contacts with the Ubuntu One address book,
- support for Android, iPhone, Blackberry, Nokia and other phones (users of Android or iOS should search for the "Ubuntu One Contacts" application in the app marketplace).

■ Photos (beta coming soon)
- storing camera phone photos in the cloud,
- photos are automatically synchronised with the computers registered in the Ubuntu One account,
- supports Android, Blackberry and Nokia devices.

How to

Signing up for an Ubuntu One account takes 2 minutes and the Basic Plan is free so you can give it a try. Click on the *MeMenu* (top right corner of your screen) and then go to "Ubuntu One...". A window asking for some personal information used to create your account will open.

Click on *Forward* as soon as all the fields are filled correctly. If everything is okay a new window will open, asking you for a confirmation code which should have been sent to the email address you have used for subscribing. After you confirm your email address everything is set up for use. The "Ubuntu One Preferences" window will open and will display some useful information and configuration options.

If you now open your home directory you will see a new folder, named "Ubuntu One". This is the primary folder which will be synchronised with your own personal cloud storage space. But any other folder can be selectively added to the Ubuntu One service. For example to add your "Documents" folder you would simply

right click on it, go to "Ubuntu One", then click on S*ynchronize this folder*. From now all the files and folders inside the "Documents" folder will be synchronised with the cloud.

Conclusion

Both Dropbox and Ubuntu One are great cloud storage and synchronisation services, offering pretty much the same features. Ubuntu One is more integrated with Ubuntu, being designed to specifically fulfil the needs of the Ubuntu user. The fact that it can automatically synchronise files, contacts, notes, Firefox bookmarks and the music bought through the Ubuntu One Music Store is really impressive. The main disadvantage of using Ubuntu One comes from the fact that there aren't clients for all the major operating systems. The Windows client is still in beta and there are no news about a Mac client. Furthermore, the somewhat often downtimes might not offer the best user experience.

Dropbox on the other hand is pretty well supported on all major operating systems (both desktop operating systems and mobile devices OS), although it doesn't offer the tight integration that Ubuntu One can provide. Still, Dropbox seems to be more reliable, more mature, easier to use and faster than Ubuntu One, not to mention that it actually uses Amazon S3 storage services which proved to be more robust than what Canonical can offer now.

Since both solutions offer about the same functionalities and the same storage space for the free account, the decision to choose one over the other is simply a matter of personal taste and needs. If you do use more than one operating system and would like a more reliable service go for Dropbox. But if you would like a better integration with Ubuntu and can accept some downtimes, then Ubuntu One is definitely the choice for you. If Ubuntu One would improve to the level of uptime and speed that Dropbox provides, then we don't think that an Ubuntu user would have a solid reason not to use Ubuntu One. ■
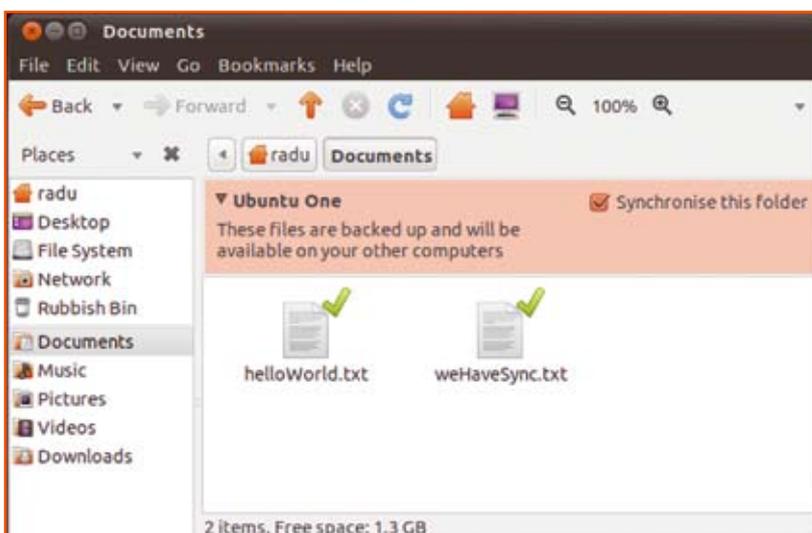

Figure 4. *Selective sync in Ubuntu One – The Documents folder*