

CLLOUDSTORAGEINFO.ORG

**PUBLIC  
CLOUD  
STORAGE  
101**

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**BEST TIPS**

**DEJAN MILADINOVIĆ**

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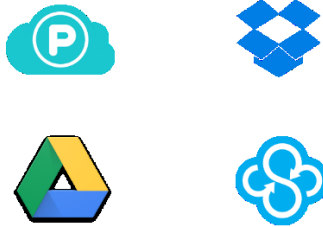
## 1. Introduction

Greetings! This cloud storage terminology guide covers most of the commonly used words, principles and terms within the public cloud storage area. Reading this will bring you up to speed with the latest principles used by the current cloud storage providers such as pCloud, Sync.com, Tresorit, Google Drive, Dropbox,... **The intention here isn't to present all these concepts in detail** but instead, provide you with a **level of information** that will **allow you to pick a cloud storage confidently based on your own knowledge.**

## 2. Cloud Storage Models

We can divide the cloud storage models into three segments: Public, private and hybrid clouds.

### 2.1 Public Cloud



Perfect examples of public clouds are the widely known cloud storage providers such as **pCloud, Sync.com, Google Drive**,... The user trusts his data to a certain cloud service provider. The user doesn't necessarily know where his data is being held and doesn't need to worry about the maintenance of it. He leaves that part to the cloud service provider. We'll focus on the public cloud in this terminology guide.

### 2.2 Private Cloud

The infrastructure is **owned directly by the user** in this case. That way he has more control over it but needs to worry about maintenance leading to higher total costs.

### 2.3 Hybrid Cloud

As you could have guessed already, this is a **mix of the public and private cloud**. They're usually used when



there's a transmission happening between them or in the case when there's one serving as a backup for another.

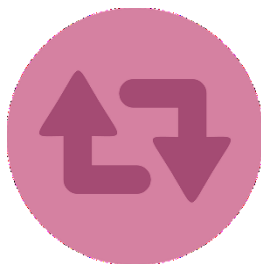
### 3. Cloud Storage Pricing

Most cloud storage providers offer a permanent **free plan** that limits the storage to a few GB. They also limit the number of features attached to the storage such as advanced sharing options or the amount of time your files stay in the trash bin. Whether you eventually upgrade to a **paid plan** for the reason of increased cloud storage or more features, you're most likely going to end up with a reoccurring subscription. That subscription can be paid monthly or yearly. The cloud storage providers that offer the yearly option usually combine it with a discount due to your commitment which is oftentimes worth the risk.



Certain cloud storage providers also started offering **lifetime cloud storage plans** in return for a one-time payment which makes all those monthly/yearly payments redundant but strands you down with that provider for a longer period of time. They're definitely worth it in the long run though and will save you a lot of money. I've listed all the available options within the »[Best Lifetime Cloud Storage Plans](#)« article.

### 4. File Synchronisation



Most cloud storage providers enable you to **synchronise** the files you have in the cloud with your devices. As such, whenever you make a change to your documents, add new photos or music to the cloud all the changes will be seen on your device and the other way around.

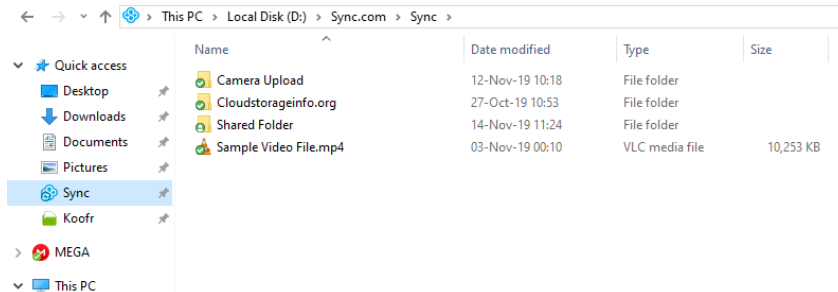
This principle is achieved by installing a desktop client provided by the cloud storage service that can be available for Windows, macOS and Linux systems.

#### 4.1 Sync Folder & Virtual Drive

The »Sync folder« is what we call the folder to which all of your cloud data is synchronised as previously described. Depending on the cloud storage provider the sync

folder will or will not take up any of your local storage space. Having a desktop client that takes up no local storage space is great but requires an internet connection.

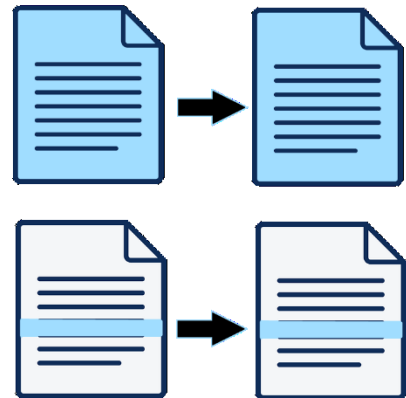
It's still possible to mark files for **offline access** though which makes for a great solution if you plan to travel a lot.



The sync folder is a great tool for increasing productivity and easy access to your files. You simply treat it as another folder on your computer with the added benefit of synchronisation to the cloud.

## 4.2 Block Level File Synchronisation

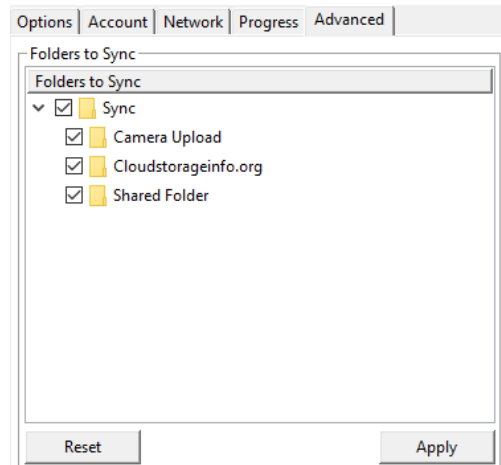
Block level file sync is a method for file transfer in cloud computing. It involves the transfer of blocks of a file, as opposed to the entire file. Take, for example, a 1GB file which synchronizes with the cloud. The convention will be to transfer the entire file i.e. 1GB. But with block level file sync, **only the block of interest gets transferred**. Block of interest, in this case, is the block that matches the part of the file you changed. When synchronizing, just the block that experienced a change gets transferred. [Read more...](#)



### 4.3 Selective Synchronisation

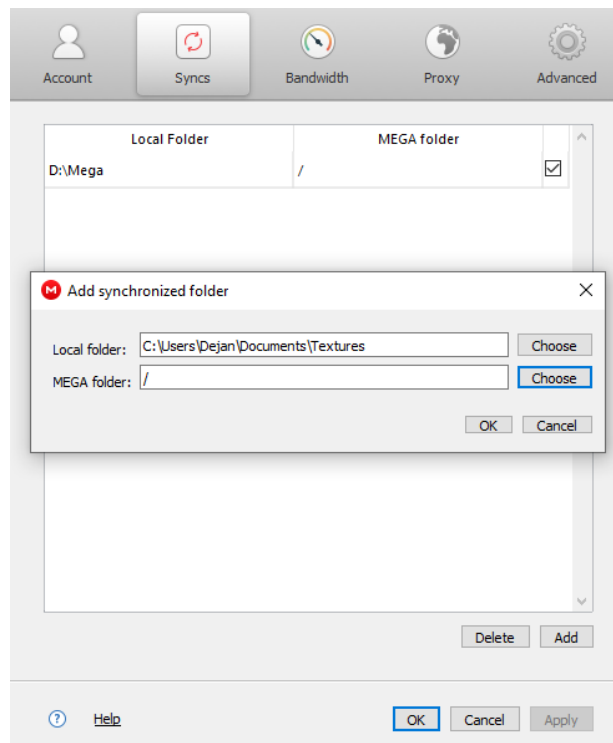
»Selective sync« is a very useful thing. Let's say you have your personal photo collection stored in the cloud which amounts to 1.5 TB of storage. That is not something you want to be synchronised and stored on your computer at work. It takes way too much storage and you probably don't want it accessible to people working there. But you would still like to synchronise just the documents to that computer.

This is where selective sync comes into play. **It allows you to select specific folders** which you don't want to be synchronised to that computer.



### 4.4 Sync Any Folder

Some cloud storage desktop clients come with the ability to choose **any folder on your computer and have it synchronised to the cloud**. You don't have to copy it to the »sync folder/drive« but instead just synchronise it from wherever it is located.



## 4.5 File Limits

Cloud storages can introduce two types of limits to their service when it comes to files:

- File size limit
- File type limit

**The file size limit** is mostly used to persuade you into upgrading to a paid plan which usually includes a higher file size limit. **Supported file types** vary with each cloud storage provider so keep your eye on that.

## 5. File Sharing

One of the main attractive advantages of using cloud storage is **file sharing and collaboration**. Being able to share a file in a safe manner over the internet is awesome. There are multiple ways you can do that.

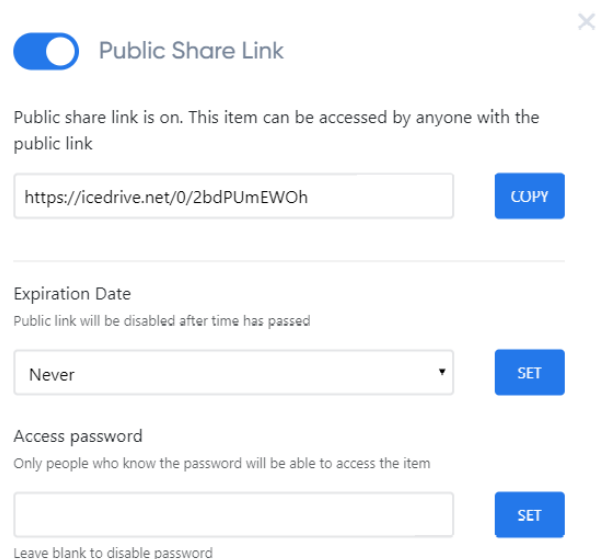
### 5.1 Download Links

Most cloud storage providers offer this feature but have different levels of advanced options. They're also referred to as »Public links« or »Sharing links«.

You simply **create a download link for a specific file or folder**, share it with a friend or coworker and let him download everything. Advanced settings are also available with different providers:

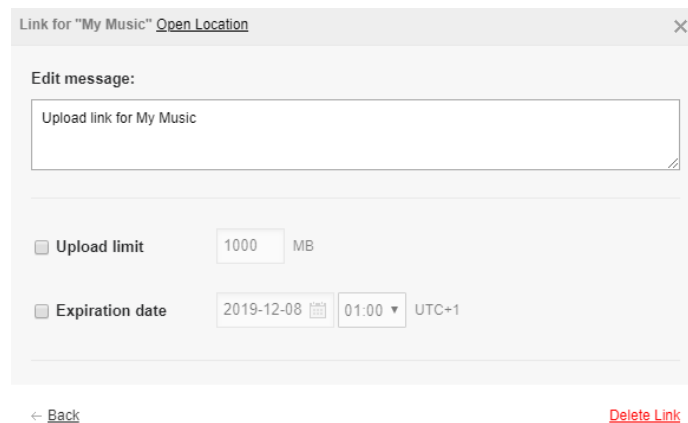
- Set a password on the link.
- Set an expiration date.
- Set a limit on the number of downloads.
- Set link branding.
- View link statistics (clicks, downloads,...).

With most cloud storage providers, the person on the other side does not need an account with that service in order to download the files.



The screenshot shows a settings panel for a 'Public Share Link'. At the top, there is a toggle switch labeled 'Public Share Link' which is turned on. Below this, a text box contains the URL 'https://icedrive.net/0/2bdPUmEWOH' and a blue 'COPY' button. Underneath, there is an 'Expiration Date' section with a dropdown menu set to 'Never' and a blue 'SET' button. The next section is 'Access password', with a text box and a blue 'SET' button. A note at the bottom says 'Leave blank to disable password'.

## 5.2 Upload Links



The screenshot shows a dialog box titled "Link for 'My Music' Open Location". It has a close button (X) in the top right corner. Below the title is an "Edit message:" section with a text input field containing "Upload link for My Music". Below this are two settings sections, each with a checkbox and a value field:

- Upload limit: 1000 MB
- Expiration date: 2019-12-08 01:00 UTC+1

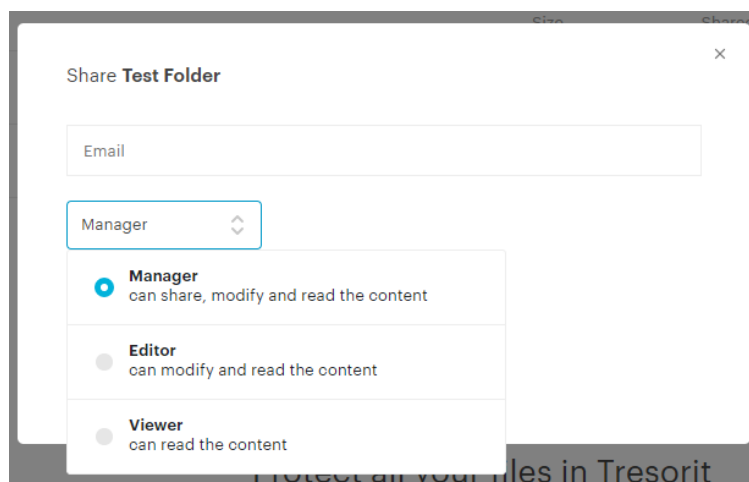
At the bottom left is a "[← Back](#)" link, and at the bottom right is a "[Delete Link](#)" link.

Upload links are the **direct opposite of download links**. They allow you to share a specific folder within your cloud storage and have your friend or coworker upload files to that specific folder without gaining any insight into what actually resides within that folder. Upload links also come with advanced settings such as file limits, expiration dates,...

That makes for a great feature when you need to receive files from a number of people, let's say an NDA agreement from all your employees or a written essay from your students.

## 5.3 Folder Sharing

Sometimes, sharing a single file simply isn't enough. If I want to share a collection of photos with a friend I simply **share a folder** with him. I can also set whether he can just view the photos, download the photos or even upload them to the folder.



The screenshot shows a dialog box titled "Share Test Folder" with a close button (X) in the top right corner. It has an "Email" input field. Below that is a "Manager" dropdown menu. A list of permissions is shown below the dropdown:

- Manager**  
can share, modify and read the content
- Editor**  
can modify and read the content
- Viewer**  
can read the content

At the bottom of the dialog, there is a partial text: "Protect all your files in Tresorit".

This is a very powerful feature that you should take advantage of. Various cloud storage services provide you with different advanced features when it comes to this as well.

## 5.4 Bandwidth Limit

Sharing big files with hundreds of people can represent a large bandwidth burden on the cloud storage provider. That is why they usually introduce a **monthly bandwidth limit** that varies on your pricing plan. Certain plans have no limit on the sharing bandwidth.

## 6. Retrieving Files

Another major point of cloud storage. The ability **to restore files** that have been misplaced, deleted, overwritten... Cloud services tackle this problem with two systems: The file versioning and trash bin.

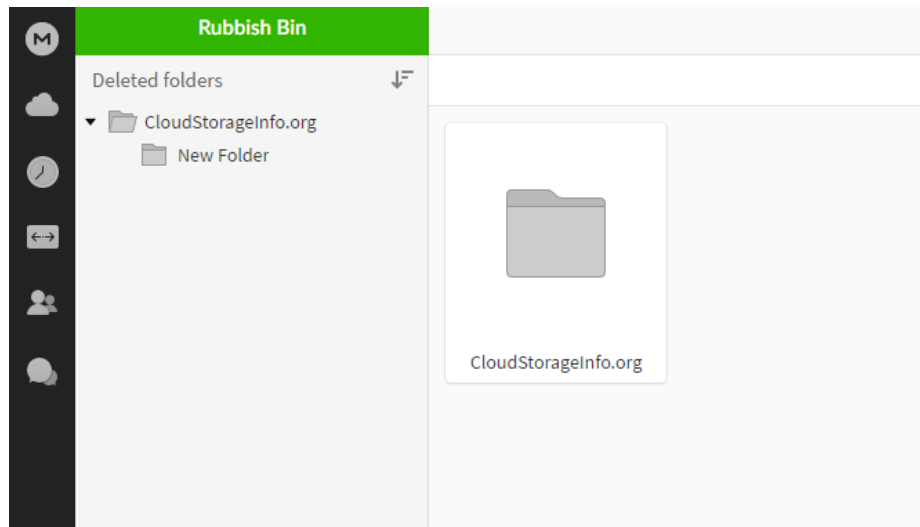
### 6.1 File Versioning System

With a file versioning system, it's possible to retrieve **previous versions of your files** for a limited time period set by the cloud storage provider. This comes in handy when working on various documents, drawing images,... Cloud storage providers limit the accessibility of previous versions with a time frame or a limited number of versions.

Previous versions		×
Date	Size	
Mon, Nov 11, 2019 11:35 PM	11.3 KB	Recover
Mon, Nov 11, 2019 11:35 PM	11.3 KB	Recover

## 6.2 Trash Bin System

The same goes for the trash bin. It works in the same way that the trash bin works on your computer. **All deleted files end up there** but in this case for a limited amount of time. When that time passes, the deleted files get permanently removed and can't be retrieved anymore. The time period once again depends on the cloud storage provider.



## 7. Security

### 7.1 Server location

Why is server location important? It's not that important when it comes to down/upload speeds as cloud storage providers install proxy servers all over the world. The location of the main data server is important due to the **privacy laws** that come with it. Your cloud storage provider is bound by law to follow the privacy laws of that country. The U.S. is notoriously known for its **Patriot** and **CLOUD** act which enable government agencies to request your personal information and data from the cloud storage provider.



## 7.2 Compliances

Cloud storage providers can acquire various compliances or act in accordance with standards to ensure your data is secure and private:

- **GDPR compliance:** Each cloud storage provider must act in accordance with the General Data Protection Regulation. [Read more...](#)
- **HIPAA compliance:** Needed by businesses that operate with sensitive patient information. [Read more...](#)
- **ISO 27001:** Information security management standard. [Read more...](#)
- **PIPEDA:** Personal Information Protection and Electronic Documents Act (Canadian). [Read more...](#)
- **ISO 9001:** Quality management systems — Requirements. [Read more...](#)

## 7.3 Privacy

As mentioned previously, privacy laws apply in accordance with the server location. But that's not everything. With millions of software programs available on the market today it's crazy how much information goes through the internet every day. That information is very important and worth billions when pitched to the right companies (ads,...). Make sure that your cloud storage provider collects no information it doesn't need and especially make sure it's not sharing it with 3rd parties for monetary value. Read the privacy policy and check what's going to happen with your information.

**Zero-knowledge privacy:** This is a principle that has become increasingly popular. With client-side encryption, the cloud storage provider ensures no data can be accessed by anyone but you. [Read more...](#)

## 7.4 Encryption

Data encryption ensures your files are secure while:

- **On transit:** Term used to describe files that are being transferred from your device to the cloud.
- **While at rest:** Term used to describe files that are stored in the cloud.

A good cloud storage provider will ensure both of those checkboxes are ticked using a modern type of encryption such as:

- **AES (Advanced Encryption Standard):** Also known as Rijndael this standard specifies encryption of electronic data, established by the U.S. National Institute of Standards and Technology. [Read more...](#)
- **Twofish encryption:** Less-commonly used but considered by many a stronger encryption than Rijndael, though more demanding in terms of resources for the cloud storage provider.

- **TLS** (Transport Layer Security) or its predecessor **SSL** (Secure Sockets Layer) are cryptographic protocols designed to provide communications security over a computer network.

Now, the cloud storage provider can use these and other encryption methods to secure your data but it all comes down to its **implementation**:

- **Server-side encryption**: Via this method the cloud storage provider holds all the encryption/decryption keys which means that he too can access your files. That allows the ability to add various useful features such as Office documents previews & edits, video watching, listening to music...
- **Client-side encryption**: This method, on the other hand, keeps all the encryption/decryption keys with you on your device. That way only you can access your files. If a government authority was to request information and files about you from your cloud storage provider that simply wouldn't be possible.

[Read more...](#)

If security & privacy of your files is important to you then I advise you pick a cloud storage provider that offers client-side encryption.

## 7.5 Disaster recovery

A good cloud storage provider will store your data into **multiple data centres** with multiple copies of your files. That way, your files are protected against all possible disasters such as hardware failure, natural disasters,...

## 7.6 2-step verification

2-step verification enables you to additionally secure your account. That way having just the password of your account won't be enough to break in. Various combinations are available here which range from having a confirmation via the mobile app, an email or a message to your phone. Definitely **turn this on if it's available** with your cloud storage provider.

## 8. Online support

Cloud storage is, after all, a bunch of software & hardware and no software is flawless. Whether you need technical help due to bugs or simply want to ask a question in regards to their service, it's important that the cloud storage service provides sufficient ways of contacting them. Cloud storage providers depend on **various methods** to help their users when using the service:

- Frequently Asked Questions base (FAQ)
- Support forum
- Email support
- Live chat
- Phone support

The last 2 options are quite rare on the cloud storage market when it comes to personal users. If you're a business user you're bound to get priority email or phone support.

The screenshot shows the pCloud Help Center interface. At the top left is the word "Help" in a large font. To its right is a search bar with the placeholder text "Search in: General Help Center" and a magnifying glass icon. Below the search bar is a "Categories" sidebar on the left, listing various help topics with icons: General, pCloud Drive, iOS, Android, Web, pCloud Crypto, Business, Affiliate, and Request Help. The main content area is titled "General Help Center (32)" and displays a list of articles. The first article is "1. How much does pCloud cost?" which is expanded to show its content. The content explains that all new pCloud accounts and downloads are free, with 10 GB of free space. It also lists premium subscription options: Premium 500 GB (yearly \$47.99, monthly \$4.99) and Premium Plus 1 TB (yearly \$95.99, monthly \$9.99). Below this are six other article titles, each with a plus sign to its right, indicating they are collapsed.

Help

Search in: General Help Center

Categories

- General
- pCloud Drive
- iOS
- Android
- Web
- pCloud Crypto
- Business
- Affiliate
- Request Help

General Help Center (32)

1. How much does pCloud cost?

All new pCloud accounts and downloads, including the desktop and mobile apps, are totally free. The basic pCloud accounts (**Free Forever**) start with 10 GB of free space. You can earn up to 10 GB additional space by referring your friends to pCloud. If you ever run out of space, you can upgrade your account with a monthly or yearly subscription to a **pCloud Premium (500 GB)** or **pCloud Premium Plus (1 TB)** plan.

- Premium 500 GB – yearly subscription for \$47.99
- Premium 500 GB – monthly subscription for \$4.99
- Premium Plus 1 TB – yearly subscription for \$95.99
- Premium Plus 1 TB – monthly subscription for \$9.99

2. Can I register for a pCloud account from my mobile device? +

3. What is instant synchronization? +

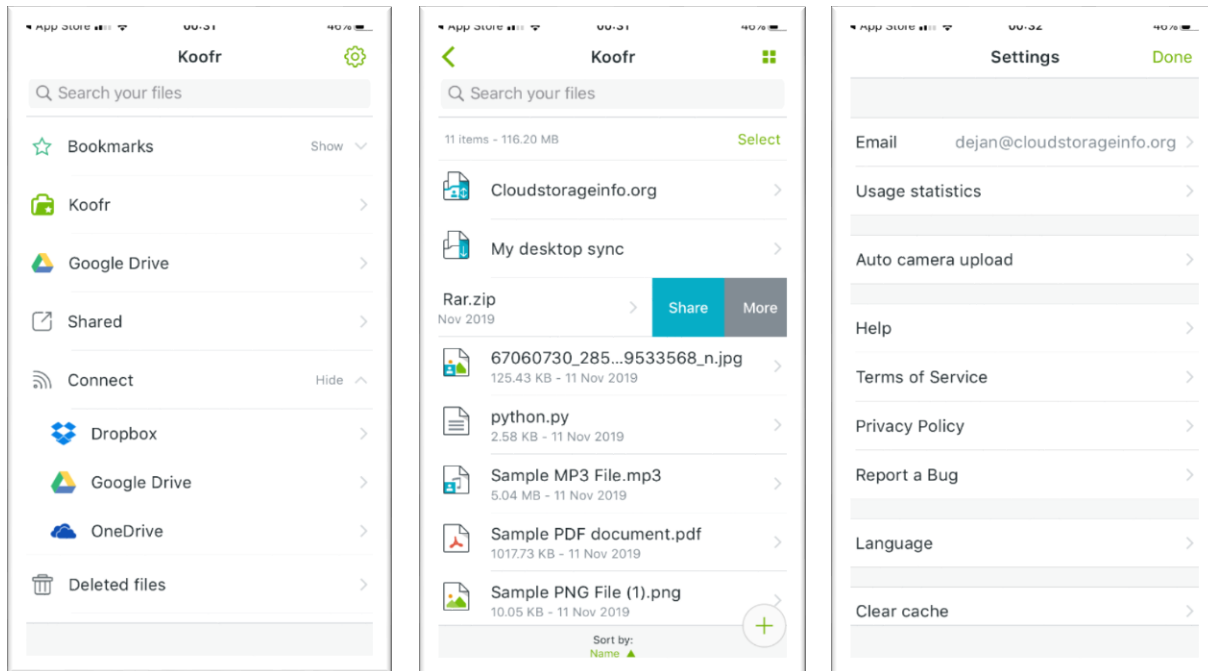
4. Can I share a file or folders? +

5. Can I have more than one pCloud account on one device? +

6. How much can I store on my phone, tablet or computer? +

## 9. Mobile application

The mobile applications represent extensions of cloud storage services on your mobile devices. Apps are mostly made for iOS and Android systems. The apps allow you to manage and share your files from your smartphone which is great. You can also preview images, watch videos or listen to music. Certain services also allow you to **automatically upload images** to the cloud as you make them which is great in case you lose your phone or are struggling with phone storage space. Marking files for offline access (which saves them on your device) is also possible. The quality of the application greatly depends on the cloud service provider so look into this section as well before taking the leap.



## 10. Conclusion

Picking a cloud storage provider is not that simple if you don't know what you're getting into and what's available on the market. I have **tested and used 30+ cloud storage providers**. I encourage you to [check my reviews](#) which will help you make your decision. Hopefully, you walked out of this guide knowing more about cloud storage than you did before! Thank you for reading and good luck on your cloud journey!

If you have **any questions** please post them as comments on [my website](#) (I always respond within a day) or contact me via my e-mail address.



Dejan Miladinović

[dejan@cloudstorageinfo.org](mailto:dejan@cloudstorageinfo.org)



**Cloudstorageinfo.org**