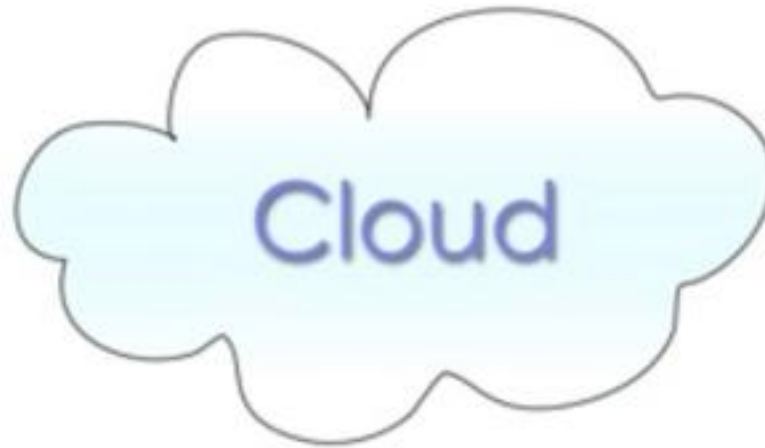


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Cloud Storage

A Quick Guide

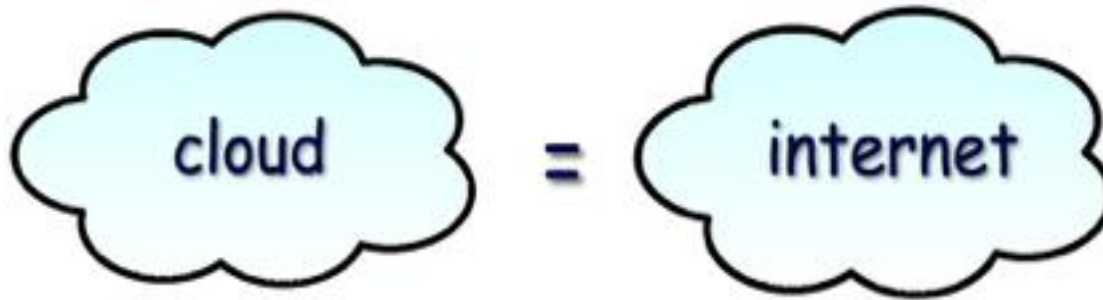
Introductory Level

Designed for iPad. Applicable to other devices
Updated November 2016

GUARDRAIL
Tutorials

Origin of the **Cloud Symbol**

Since about 1994 the cloud symbol has been used in network diagrams to represent the internet. It was an easy way to represent the largely unseen mass of **servers**, **network hardware** and **telecommunications equipment** that make up the internet.



What is "**Cloud Storage**"?

Cloud Storage refers to hosting data on multiple virtual servers normally operated by specialist companies. These data storage facilities are often located in far away places and are accessible from the **Internet**. The main benefits of this type of storage are:

- access from anywhere in the world, from any computer that has Internet access
- no need to carry around storage devices
- very secure (maintained by IT security specialists)
- a very large storage capacity is available for free, or at affordable prices

Store and Deliver

What is a **Server**?

A specialised computer connected to other computers and/or networks which performs a range of functions such as:

- storing and delivering files to computers on the network
- managing print queues
- delivering web content ... and so on

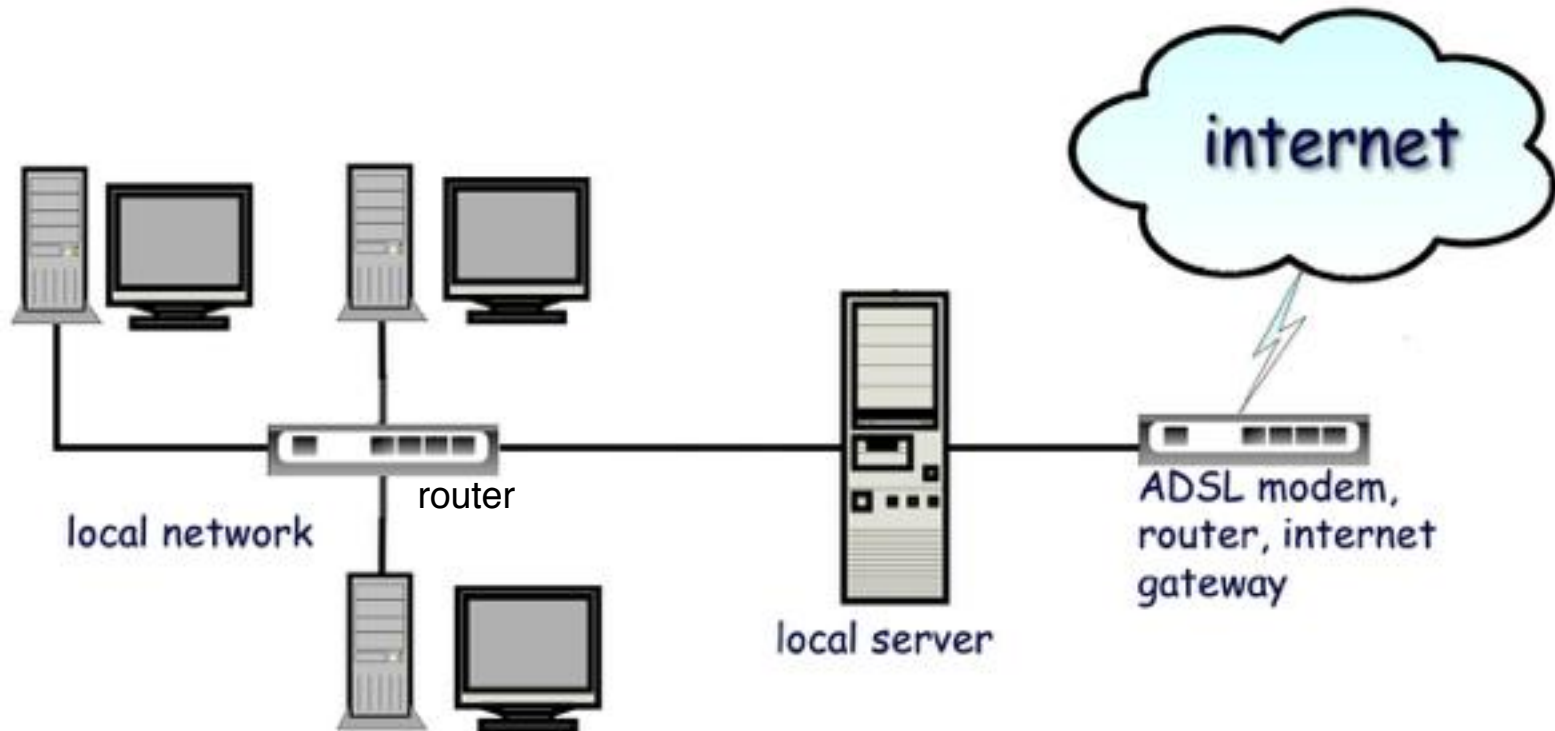
A server need not be particularly large. They are becoming increasingly miniaturised and come in many shapes and sizes. Servers are normally hidden away in secure server rooms, data warehouses and other such facilities.

Cloud storage utilises large banks of servers in data centres/ warehouses hosted by third parties.



The Internet

... out there in the cloud



- Webservers
- Domain name servers
- Database servers
- Email servers ... and more

From the Old to the New

Years ago people used to rely on backup media such as:

- External hard drives
- CD and DVD discs
- ... others we would rather forget



USB Memory Stick

A quick and easy means of local file storage/backup. However it will only work with a USB connection, which of course the iPad does not have.

Currently inbuilt storage (flash memory) on the iPad is available in 16GB, 32GB, 64GB and 128GB (as of 2013). The iPad Pro, released in 2015, has up to 256GB of inbuilt storage.

The iPad was originally designed to utilise cloud storage.

WiFi

A WiFi connection is required for the **iPad** to access the internet and cloud storage. If unavailable, then it is normally only possible to connect to the internet over a mobile phone (cellular) network providing you have a **SIM** card in the device and a mobile plan that allows 'mobile data' or 'cellular data'



Cloud Storage and File Synchronisation

File A is created on the laptop computer (left).

It is then copied to a cloud storage folder (such as iCloud, Dropbox or Google Drive) locally.

File A is automatically uploaded onto the cloud storage server on the internet (assuming internet access). The server allows copies of File A to be synchronised to the other devices sharing the same account. The cloud storage software has been installed and properly configured for this to occur.

All the devices require an active internet connection for synchronisation to take place.



The Cloud

... a heap of cloud storage facilities

- Apple **iCloud**
- Microsoft **OneDrive** (formerly SkyDrive)
- **GoogleDrive**
- **Dropbox**
- **SugarSync**
- ... *and lots more*



Apple iCloud data warehouse, or cloud storage facility

Making the Choice



iCloud

Apple's cloud storage and file synchronisation service which is well integrated into the IOS and OSX operating systems. It allows 5GB of free storage. More storage space can be purchased if required.



Dropbox

One of the most popular cloud storage services. Supports all major operating systems, both mobile and desktop. Integrates really well with mobile apps. Plans start with 2GB of free storage. The Pro version allows 1000GB (1TB) of storage for a monthly fee (AU\$11.58)



Google Drive

Excellent cloud storage service. Also well integrated into OSX, IOS, Android and Windows devices. Combines the tools that were previously called Google Docs. Integrates really well with other Google services. Free storage is a generous 15GB. Paid plans for more storage are also available.

More Storage Options



EVERNOTE

A note taking service which will handle formatted text, webpage excerpts, photographs, voice memos and even handwritten notes. Inbuilt cloud storage and synchronisation. Supports all major operating systems. Both free and paid services.



Microsoft **OneDrive** is completely integrated into Windows 8 and Windows 10 devices running Office 2013 or Office 365 (the online rentable version of Office). Free storage begins at 5GB.



OwnCloud allows individuals and businesses to host their own cloud service using this software. All that is needed is an account on a web hosting service. Offers many of the features of the other services plus clients for OSX, IOS, Android, Linux and Windows. Free. Open Source.

Using iCloud



The way iCloud synchronises files can be controlled through the iCloud settings on any iOS device such as iPod Touch, iPhone or iPad. Synchronisation for individual Apps can be turned on or off. These settings can be changed at any time by toggling between on or off.

Synchronisation occurs between all Apple devices using iCloud with the same account. The process is largely controlled by the iCloud server on the internet. Remember, all devices require an active internet connection for it to work correctly.

iCloud Services



iCloud offers a number of services:

- Manage **music**, **movies** and **apps** across all devices
- **iCloud Photo Sharing** for streaming to friends and family
- **My Photo Stream** to synchronise photos across devices
- **Find My iPhone** to help secure and find a lost iOS device
- **Apps** and **iCloud**, seamless integration for most apps
- **Safari** web browser syncing of bookmarks etc across devices
- **iCloud Keychain** to store, secure and allow auto entry of passwords
- **Mail**, **Calendar** and **Contacts** all up to date and synchronised
- **Backup** and **Restore** to automatically save and transfer data

iCloud not only works on all **iOS** devices and **Mac** computers
... it will also run on a **Windows PC**

Wrap Up

Cloud Storage enables us to create files locally, then save and synchronise files through a service hosted on the internet. In order to use the service we need to have installed the required software (or app) on all of the necessary devices, create an account, and establish an active internet connection for all of the devices running the software.

There are many websites that offer reviews of the many cloud storage options available today. These can be located by a **Google search**

Some other cloud services include:

- **Amazon Cloud Drive**
- **Telstra T-Cloud**
- **Spider Oak**
- **SugarSync**
- **Ubuntu One**



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