

The Cloud

What is “The Cloud”?

As you sit hunched over your laptop at home watching a YouTube video or using a search engine, you’re actually plugging into the collective power of thousands of computers that serve all this information to you from far-away rooms distributed around the world. It’s almost like having a massive supercomputer at your beck and call, thanks to the Internet. None of this data is actually “on” your computer. This phenomenon is what we typically refer to as cloud computing.

Storage in “The Cloud”:

Over the course of the last semester I provided several sites offering free cloud storage, in one instance, up to 50 gigabytes (www.box.com). Currently the site: www.justcloud.com Since it appears to me that nobody in here was born yesterday, let’s navigate to the site and I shall set up an account. You may choose to do so at the same time as I and we will see what happens.

Just recently, Google announced their Google Music service. I have repeatedly suggested that you set up a free account with Google. It is a simple process which I think you were led through last semester. I’m going to access my Google account now. There you have it: up to 20,000 songs, plus any you purchase through them, accessible through your computer or Android device.

There are many other cloud storage sources and there are likely to be more as it is recognized that “this is the future”.

Mission Control:

This is one of the many new features of Lion (and is similar to the pre-existing Spaces). Prior to preparing this lesson I had not used either Spaces or Mission Control. Because I had several things open at one time, I tried it and found it helpful in keeping similar items together and not overlapping other windows I was using. I shall do a brief demonstration of how to use Mission Control

Click on the Mission Control icon on your Dock. You will see a snapshot of each app that is currently open on the desktop you are using, allowing for fast switching among windows and apps. Across the top of Mission Control you will see a lineup of various items. One space is designated to the widget Dashboard, followed by your main desktop, and then any open apps that are currently in full-screen mode.

If you move your mouse up to the top-right portion of your screen, you will see an image similar to that of your desktop appear with a + symbol on it. Click on this icon to add another desktop to Mission Control. Once you have added more desktops to Mission Control, you can drag and drop any open apps to a desktop. Once they are placed on a new desktop, the app will be removed from your current desktop. To quickly move back and forth among multiple desktops and full-screen apps, swipe to the left or right with three or four fingers.

To customize Mission Control, go to System Preferences on your Mac (located under Applications). Click on the Mission Control icon. We will not delve into that now.

Demo Evernote and DropBox as Cloud services.

iCloud

Tim Cook on iCloud January 25, 2012:

“I think Peter shared earlier the number of customers that had signed up for iCloud, and it’s already over 85 million, so it’s incredible that this has happened in just a few months’ period of time. We’re thrilled with it, and the response from customers has been incredible. It’s solved a lot of problems that customers were having and made their lives much much easier.... It was a fundamental shift recognizing that *people had numerous devices and they wanted the bulk of their content in the cloud and easily accessible from all of their devices*, and you know, I think we’re seeing the response from that. With 85 million customers in just three months, it is a very very important part — it’s not just a product, *it’s a strategy for the next decade.*” (both my emphasis)

On Your Own:

I found a simple, clear overview of iCloud at: <http://www.tcgeeks.com/how-to-use-icloud/>

How is iCloud different from other cloud storage?

iCloud is built into the core apps that form the basis of *iOS 5*. These are (currently) Calendar, Mail, Contacts, the App Store, iBooks, Photos, and iTunes. Each will run just as it does now except with iCloud functionality built in. The greatest difference, in my opinion, is that the functionality, once set up, is automatic. Each Mac and iOS5 device will automatically synchronize.

iCloud Services: (I shall demo some of these)

Storage

- 5 gb of free storage to backup copies of iOS devices
- Store documents in the cloud for iCloud enabled apps
- Store emails
- Stores up to 1000 photos in PhotoStream which sync with other devices
- Music purchases don't count against your limits, documents will

Backup & Restore

- Backup your iOS5 device wirelessly to iCloud (no need to attach it to your Mac via a cable)
- Restore your iOS5 device wirelessly (no need to connect to iTunes via a Mac)

Sync Services

- Not all of the MobileMe sync services are replicated
- Calendar, Reminders, Mail, Notes, Bookmarks synced between iOS5 and OSX devices
- Photos taken with your iOS5 device sync with iPhoto or Aperture (a pro level iPhoto app)
- Documents and Data currently auto sync for iOS5 devices (as of now, OSX probable in near future)
 - As of October, 2011 limited to documents made using iWork apps on iOS5 devices
- Demo Pages document save via iCloud
- Automatic download of apps, books and music to iOS devices (If you purchase an iPad app on your Mac, it will appear on your iPad)

Location Services

- Back to My Mac
- Find My Mac
- Find My iPhone
- Find My Friends

Should I migrate to iCloud?

If you are a non-MobileMe user, are you using any third party calendar or syncing solutions? Investigate the implications. You will probably decide iCloud is a beneficial service.

If you are a MobileMe user, check System Preferences for MobileMe under Sync. Are you using it for Specific third party apps? If so, sync will stop with iCloud.

Keychains will no be synced with iCloud

Mail Rules set up on MobileMe will migrate automatically.

iDisk will continue working until the end of June, 2012.

A new Back To My Mac service is built into iCloud.

Your @me.com and @mac.com email addresses and aliases will be kept.

Web access for Mail, Contacts and Calendar will be available until the end of June, 2012

Galleries and Websites you have set up on MobileMe will also be available until the end of June.

You will probably decide iCloud is a beneficial service.

Apple ID Considerations:

You need an Apple ID to create an iCloud account. If you have more than one Apple ID, you can not merge them but you can use them separately.

If you do not have an Apple ID, type: appleid.apple.com into your browser's address window and press Return.

iCloud Migrations:

You can only migrate via Lion

Backup iCal, Address Book and Safari Bookmark archives (I shall demo this upon request).

Enable PhotoStream

Upgrade iPhoto, if necessary, then open it. Turn on PhotoStream in iTunes

iCloud is still a work in progress. There have been many complaints about the inability to delete photos from PhotoStream. As I was preparing this lesson I got an email informing me of updates to the

Airport Utility app and a firmware update for the Airport Extreme, both relating to iCloud.

PhotoStream setup and demo

iTunes Match

(The extent to which I cover and demo this will be determined by the staff and the class and time.)

What is it?

iTunes Match creates a copy of your iTunes music "in the cloud" and then allows your Macs or iOS devices to access the music via the internet for up to 10 devices (Macs and iOS5 devices).

It gathers info about the tracks contained in your local iTunes library and then attempts to match that data with tracks already contained in the iTunes online catalogue

If it finds a match you can access the online version *without* uploading the original file

Regardless of the original quality of your file, it will be played (and downloaded, if you choose) at 256 kbps AAC, DRM-free version of the track (DRM = digital rights management)

If the iTunes match file is of higher quality than yours, you can download the higher quality file to your hard drive.

If songs don't match, iTunes Match will upload the unmatched songs from your Mac to the cloud so you can still access them on all your iOS5 devices

Cost? \$25/ If you cancel you won't be able to access the cloud content but anything you downloaded will be yours to keep.

System Requirements:

Snow Leopard or Lion (OSX 10.6.8 or later and iTunes 10.5.1 or later. iTunes Match can also be run on PCs running Windows Vista or later

iOS5 or later for iOS devices

Preparing for iTunes Match: (demo all)

Set up iTunes Match which has a limit of 25,000 songs (remember that individual iTunes libraries can be set up (demo this) Back Up library (demo this)

De-Duplicate File>Display Duplicates (with alt key for exact duplicates) or use 3rd party software.

Needs to be done manually. Dupin (\$15 shareware) can be set up specifically and auto deletes as you indicate).

Clean Up Genre structure

Exclude Tracks from iTunes Match (things you might have recorded, audio notes, etc.) iTunes Match will only process tracks with Media Kind = Music so make a smart playlist for Media Kind > Music

Make Smart Playlist for Bit Rate to find non-musical files using View>View Options

Notes to me:

Use Yes as example for genre with Jaikoz

Use Xavier Cugat Perfidia with Soundhound and Shazam

Use Let The Good Times Roll for a correction example

Use Rub for genre correction

Use ABBA for genre correction

Look for Exercise as genre media type change

Running iTunes Match

iTunes sidebar store section iTunes Match

Subscribe for \$25/yr

iTM gathers info but you can be using iTunes during the process

Consider turning on iCloud Status

If your file is not matched and it is a .mp3 or AAC file, it is uploaded as is.

If doesn't match (improper file type) or meet the quality criteria (less than 96 kbs) it will not be uploaded.

If Apple Lossless, AIFF, etc. will be transcoded to 256kbs AAC & uploaded

If file is over 200mb, it won't be uploaded

If you have a data cap, you might want to upload in steps

If you have low bit rate ineligible songs, have iTunes convert them to AAC, then iTunes Match will exchange them.