

iCloud

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BACKGROUND OF ICLOUD

Abstract— — iCloud is a cloud storage and cloud computing services develop by Apple Inc. it provide the online backup services. The service provides its user with means to store data such as documents, photos, and music on remote server for download to iOS and iMAC devices, to share and send data to other user, and to manage their apple devices if lost and stolen. People Save your work before losing it with iCloud [2]. Many of people struggles in backing up their files from the devices weather its personal, professional or owned by a small business. Saving files are really important because some devices crash suddenly and losing their hard work [1].

iCloud is the best solution to the various types of backup systems and also provide the wirelessly backup iOS device directly to iCloud. iCloud is the latest technology that helps in backing up your files through server by installing the application and setting your account, which will do the whole process automatically in daily bases with the help of Wi-Fi connection [6]. This application will allows to restore all your files with all your apple devices. Moreover, the iCloud presentation includes how to install and manage the app easily and more.

Keywords—iCloud, Architecture, Objectives, Security and Scope.

I. WHAT IS ICLOUD?

According to the IEEE Computer Society Cloud Computing is:"A paradigm in which information is permanently stored in servers on the Internet and cached temporarily on clients that include desktops, Entertainment centers, table computers, notebooks, wall computers, handhelds, etc. Cloud computing is the next natural step in the evolution of on-demand information technology services and products [1]. To a large extent cloud computing will be based on virtualized resources. The idea of cloud computing is based on a very fundamental principal of 'reusability of IT capabilities'.



Fig.1 iCloud

The term "iCloud" comes from the term used by technicians called the "cloud". When data is put in the cloud, the data is placed in a server, where it is made available everywhere [2]. The "i" in front of it is a trademark by Apple, producing the name iCloud. Streaming photos, storing documents, saving app data, and syncing music has been made ten times easier due to this service.

II. HISTORY OF ICLOUD

iCloud is the latest branding of Apple's cloud computing services. It has previously been branded as iTools in 2000, .Mac in 2002, and MobileMe in 2008 [2].

iCloud was announced on June 6, 2011, at the 2011 Apple Worldwide Developers Conference (WWDC)[3].

The official website, www.icloud.com, went live in early August for Apple Developers. On October 12, 2011, iCloud had 20 million users in less than a week after launch [5]. The iCloud.com domain and registered trademark were bought from a Swedish company called Xcerion, who rebranded their service to Cloud Me [1].

Original author(s)-Apple Inc.

Developer(s)-Apple Inc.

Initial Release:

Developers release- June 6, 2011

Public release-October 12, 2011

Development Status-Active

Operating System-OS X (10.7 Lion and Later), Microsoft Window, iOS5 or later

Available In-Multilingual

Type- Online backup service

License-Freeware

Website-www.icloud.com

Apple CEO Steve Jobs announced the impending arrival of the company's iCloud technology in June [1]. The iCloud is an information storage service that keeps your stored information synced between all of your Apple devices and any PC. It does not replace local storage on iPhones, iPads, and iPod Touches[1], Not all that long from now, Mac, iPhone, and iPad users will be able to store their contacts, calendars, photos, music, and more in the "cloud"—or rather, in [Apple's iCloud](#) [5].

Users of cloud storage "have to be comfortable with someone else holding all your data," said Jamz Yaneza, a threat research manager with the security firm Trend Micro [6].

III. ARCHITECTURE

Apple has built iCloud functionality directly into many of their apps and iOS5. Once you connect your device to the internet via a wired or Wi-Fi connection, all of your files will be automatically synchronized [5]. You can restore all of your data directly to your device from iCloud, or move it to any new devices.

Cloud architecture the systems architecture of the software systems involved in the delivery of cloud computing, comprises hardware and software designed by a cloud architect who typically works for a cloud integrator [5]. It typically involves multiple cloud components communicating with each other over application Cloud architecture extends to the client, where web browsers and software applications access cloud applications.

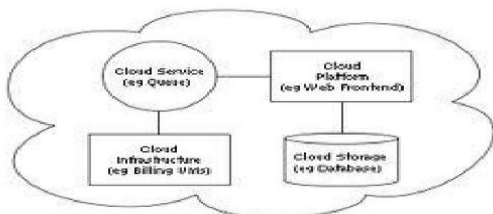


Fig.2 iCloud Architecture

IV. FEATURES OF ICLOUD

The cloud-based system allows users to store music, photos, applications, documents, bookmarks, reminders, backups, notes, books, and contacts, and provides a platform for Apple's email servers [3] and calendars. iCloud have many features these are:

- **iOS Device Backup and Restore:**
iCloud allows users the option to back up iOS devices online means users can choose to continue to backup to their computers to restored from online backup without connecting to a computer [3].
- **Find My iPhone:**
Find My iPhone, formerly part of Mobile Me, allows users to track the location of their iOS device, or Mac.
- **Photo Stream:**
Photo Stream is a service supplied with the basic iCloud service which allows users to store the most recent 1,000 photos on the iCloud servers up to 30 days free of charge.
- **Back to My Mac:**
Back to My Mac, also previously part of Mobile Me, is now part of iCloud. As before, this service allows users to login remotely to other computers configured with the same Apple ID that have Back to My Mac enabled [4].

Types of iCloud

There are three type of iCloud-

- Public Cloud
- Private Cloud
- Hybrid Cloud

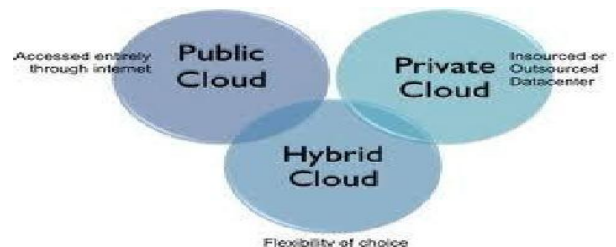


Fig.3 Types of iCloud

- **Public cloud:**
Public cloud or external cloud describes cloud computing in the traditional main stream [2]. Public clouds are run by third parties, and applications from different customers. A public cloud provides services to multiple customers [1].
- **Private cloud:**
Private clouds are built for the exclusive use of one client, providing the utmost control over data, security, and quality of service [1].
- **Hybrid cloud:**
Hybrid clouds combine both public and private cloud models. This is most often seen with the use of storage clouds to support iPhoto and other application.

Objectives of iCloud

With the introduction of iCloud, backup, storage, and sharing will be easier than ever. One important benefit is the simplicity of backup. The Apple user no longer has to think about storing files since backup is now as simple as charging the device. All files and apps are automatically stored once the device is plugged in and connected to a Wi-Fi connection [1].

Another benefit is the simplicity of syncing information, such as music and files [2]. When using iCloud, all data is put into the “cloud”, and can be retrieved by another device through any iCloud account.

This service is beneficial because of its cost as well—absolutely free.

Security

For the most part, the iCloud service is very secure due to the password protected security, and the fact that the information is only available to Apple products that the user signs into iCloud on [5]. However, not everything is 100% secure when it comes to technology. One security concern is about software attackers [2].

Future Scope

With iCloud, iOS devices can back themselves up to the cloud automatically, so you’ll be able to restore them at any time if things go wrong, without losing any data [6]. From the Manage Storage interface you can see how many devices you have configured to work with iCloud backup, iCloud may not be a big hard disk in the sky, but Apple knows that there’s no cloud without storage. That’s why iCloud comes with a free 5 GB plan for all users and additional pricing plans to purchase more storage [5].

CONCLUSION

As we shown, the iCloud has the ability to be the most beneficial service for the Apple user today. File-sharing and backup has now been made simple. Although there are multiple security, ethical, and social concerns [5]. These concerns can easily be limited by the user by taking precaution when using iCloud, such as limiting the amount of personal information that is backed up, and by not sharing the iCloud user account information with others [5].

By doing this, the iCloud service becomes more beneficial than harmful, and once iCloud success begins to grow, the future of Apple will appear to be brighter than ever [6].

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