Doug Hillary – Tech Coach

What is the Cloud? Part 2: How Clouds Work

Previously, we began the discussion of what the cloud means. Today we will discuss how the cloud works and give some examples of how you likely interact with the cloud every day.

Almost all of us use the cloud many times during the day. Whether you are at your PC, laptop, or smartphone and doing a Google search, sending or receiving email, purchasing products on Amazon, sharing photos with friends and family, or accessing social media, all of these activities are taking place in the cloud. You are also using the cloud if you watch a movie on Netflix, participate in a conference call on Zoom, or use a Ring video doorbell. The cloud has become pervasive in virtually everything we do these days thanks to the availability and power of PCs, smartphones, and the massive investments in infrastructure to provide the various services we use.

As a simple example, whether you are at home, out for a walk, or traveling and you search for information on Google (perhaps it's an address for an appointment), your request goes to one of

Google's servers in one of their worldwide datacenters, which then provides you with an answer. Moreover, it can also provide you with a map and directions to the location. Ultimately, the information provided by these servers may be located in the US, or anywhere else in the world. At the end of the day, it really does not matter to you as long as you get the information you requested.
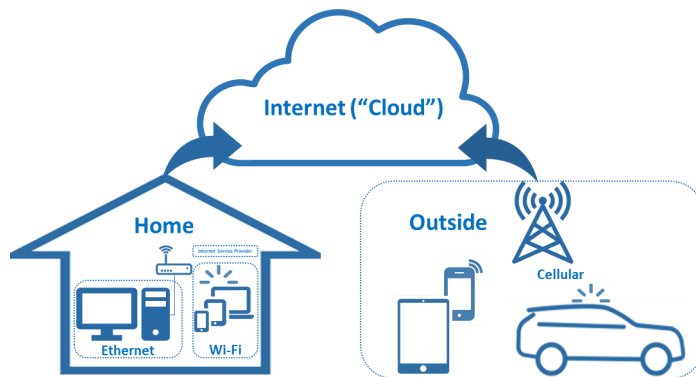
As suggested above, there are many ways you interact with the cloud. Here are a few of the most common ways you may use the cloud to help you in your daily life:

- **Storage** – services such as Apple's iCloud, Google's Drive, Dropbox, Microsoft's OneDrive allow you to save (and share) your documents, data, photos, and videos in the cloud.

- **Productivity** – you can use services like Google Docs and Microsoft 365 Subscriptions to do word processing, spreadsheets, and create presentations. Since these are stored in the cloud, you can access these documents virtually anywhere.
- **Social Media** – social media platforms such as Facebook, Instagram, and Twitter use cloud computing to allow you to engage, converse, upload and share photos, videos, etc.
- **Email** – Email services such as Google Gmail and Microsoft Outlook use the cloud to store email messages and attachments on remote servers.
- **Video Streaming** – Video-streaming services like Netflix, Hulu, Disney+, and Amazon Prime use the cloud to allow subscribers to access programming, movies, and events from personal devices and televisions.
- **Music Streaming** – Music streaming services such as Pandora, Spotify, and Apple Music use the cloud to provide subscribers access to massive libraries of music files which you can play on your personal devices, home theater system, PC's or even watches.
- **E-Readers** – you can use devices (or apps) like Amazon's Kindle, or Libby to access digital e-books or periodicals through the cloud for you to borrow or purchase.
- **Financial Services** – financial services such as Intuit's Turbotax or Quickbooks, H&R Block, and Personal Capital use the cloud to provide you with up-to-date software for filing your taxes and managing your finances. Banks and credit card companies provide applications that use the cloud to allow you remotely deposit checks, transfer, money, pay bills, check balances, etc.
- **Exercise** – if you use a Peloton or Mirror to keep in shape, you are also using the cloud for the programming, classes, personal training, and tracking your activity.
- **Home Automation & Security** – Alexa, Google, Nest, Ring, and Rachio use the cloud to help you monitor and secure your home, optimize and manage climate, and even remotely manage and optimize your irrigation system.
- **Intelligent Devices** – many manufacturers are now selling refrigerators, washers, dryers, coffee machines with cloud capabilities to make it easier to control or manage your home appliances. Some of these devices use the cloud to interface with home assistants like Amazon's Alexa or Google's Assistant to allow you to control your appliances using your voice.
- **Cars** – Tesla is best known for the way they leverage the cloud to provide software updates to enhance your driving experience and safety. However, most car manufacturers are adding cloud-based features to their cars to make them increasingly connected to your personal devices, offer enhanced features (e.g., self-parking), and improve safety.
- **Travel** – airlines, car rental companies, and vacation rental companies all use the cloud to help you rent homes, vehicles, or seats on airplanes to make your travel experience easier and available from any device that can access the internet.

What are the Benefits of the Cloud?

There are many benefits to consumers in using the cloud. The primary benefit is that instead of you having to buy all the equipment and software to access and run applications, you can acquire these services as needed. There are other key benefits for the consumer as well:

- Space saving – you do not need to store vast libraries of photos, music, videos, and information on your devices. Instead, you can easily access this information via the internet.
- Accessibility – the cloud is pervasive and accessible anywhere you can connect to the internet through Wi-Fi, cellular or ethernet network connection in your home or office.

- Choice and control – most if not all applications are subscription based meaning you can add, change, or cancel your service as your needs change, or as new or better services become available.
- Fast access to new technology and services – applications and services which are new to the market can be made available to vast number of consumers quickly. As a result, you can easily take advantage of new ideas or solutions, or improvements in your favorite applications or services. As an example, when Neflix or Amazon Prime launch a new movie or series to their subscribers, it is available to all subscribers almost immediately.
- Ease of use – most applications and services are "consumer-friendly" and easy to acquire, set-up, and use. Generally, you do not need to be a software or computer expert to use these cloud-based services.

In my next "What is the Cloud" column series, I will discuss the different types of cloud technology in use today.

Tech Coach Assistance
Tech Coaches are now providing remote Tech Coaching. Simply send an email to *techcoach@laketravislibrary.org* and one of our coaches will respond to assist you with any questions or challenges you have regarding cloud storage, or even help you set up your own private cloud.