

# Understand the Cloud



May 10, 2018



“I don’t need a hard disk in my computer if I can get to the server faster...carrying around these non-connected computers is byzantine by comparison.”

Steve Jobs, 1997

<http://www.forbes.com/sites/joemckendrick/2013/03/24/10-quotes-on-cloud-computing-that-really-say-it-all/>

# Computing on the ground

Do you remember...

When computers were defined by  
processor speed, storage, and  
memory?

Or what it was like **buying, installing,**  
and **updating** software?

When you suddenly had **gigabytes** of digital photos and music to store?

So, you bought a bigger **hard drive** to **store** them.

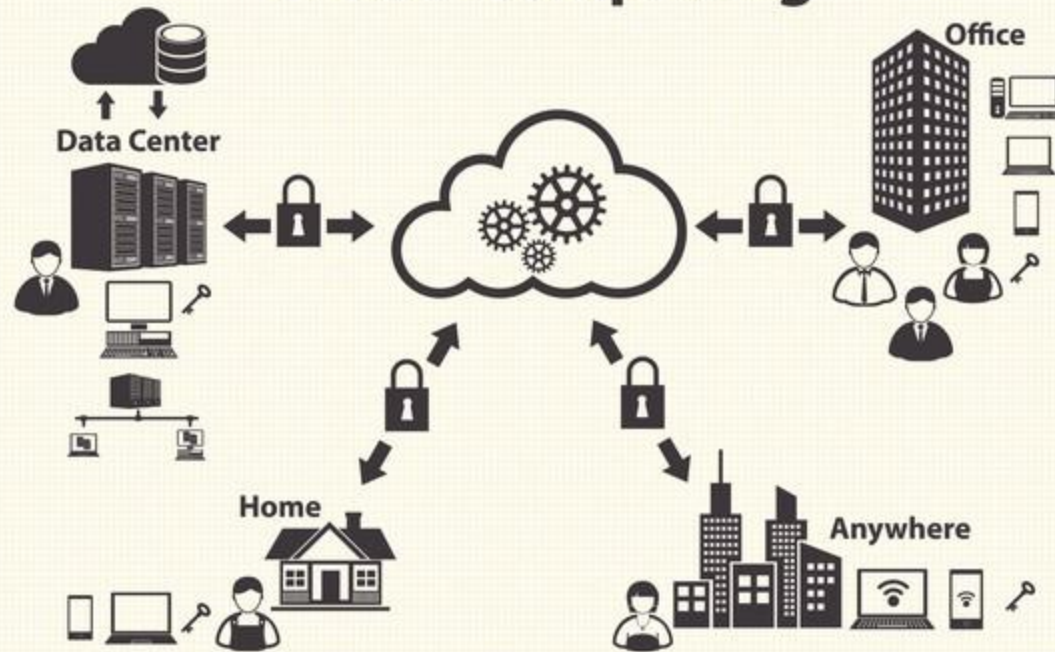


Moving and sharing files required these!



# Computing in the cloud

# Cloud Computing



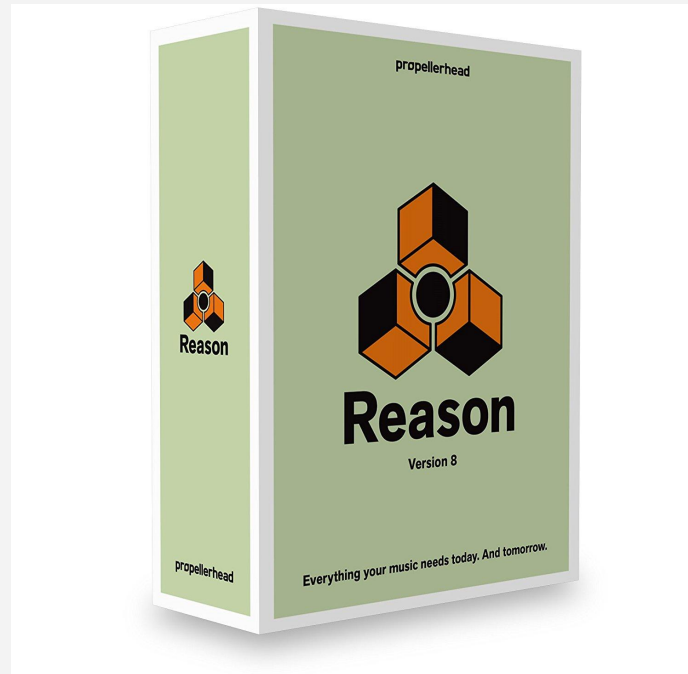
A person is shown in profile, holding a mobile device (likely a smartphone) up to their face, possibly taking a photo or video. The scene is dimly lit, with a soft light source from the left creating a silhouette effect. The background is out of focus, showing what appears to be a window or a doorway.

Now, **mobile devices** are  
replacing computers.

Connectivity to the network is more important than computing power.

We use **web browsers** to  
communicate, work, create, and play.

Web-based **software** is instantly  
**available**, always **up-to-date**.



Reason Update Available! (Version 9.2.2d1)

[More Info](#)

[Download](#)

[Not Now](#)



We create **accounts** to use software  
for **free** (or with monthly fees).

A perspective view of a long aisle in a data center. On the right side, there are multiple rows of server racks. Each rack is filled with server units, and a dense network of colorful cables (yellow, blue, green, orange) is visible, connecting the units. The floor is a light-colored, polished surface. The lighting is bright and even, highlighting the scale of the facility.

Huge data centers store and process data.

Files are **backed up** across **multiple locations**, sometimes around the world.

# Types of cloud computing

# Software as a service (SaaS)

TurboTax online

Google Drive

Salesforce CRM

Reason (music software)

# Platform as a service (PaaS)

Google App Engine

Amazon Elastic Beanstalk

Heroku

# Infrastructure as a service (IaaS)

Google Compute Engine

Amazon EC2 & S3

Microsoft Azure

# Examples of cloud computing



# Hosting email with Office 365

“Some people have very large mailboxes, so we can save money on storage by moving that content to Microsoft Office 365 rather than keeping it on our storage area network.”

Michael Van Horenbeeck, Consultant. Xylos

<http://office.microsoft.com/en-us/exchange/microsoft-exchange-online-customer-stories-FX103934579.aspx>

# Using [Amazon Web Services](#) for infrastructure



**NETFLIX**

**Yury Izrailevsky**

VP of Cloud and Platform Engineering

## *Amazon's Profit Swells to \$1.6 Billion, Lifted by Its Cloud Business*



Amazon's revenue for the first quarter jumped 43 percent from a year earlier, rising to \$51 billion from \$35.7 billion in the same period last year. Scott Olson/Getty Images

# Benefits of cloud computing

PEOPLE

Spend less time **managing** a  
computer.

Your files are always **available**.



Use **devices** that suit each situation.

# Benefits of cloud computing

COMPANIES

Focus on **core business** not  
managing **infrastructure**.

Easily **scale** services to meet demand.

Small companies access vast  
resources of mega companies like  
Amazon and Microsoft

**Drawbacks?**

# Control, access, and cost

# Security and the cloud



Is the cloud secure?



**lynda.com**

# Thank you!

