

# Cloud Computing

## What is it?

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Source : Montana State Library Archive



# How much data?

- Wayback Machine has 2 PB + 20 TB/month (2006)
- Google processes 20 PB a day (2008)
- “all words ever spoken by human beings” ~ 5 EB
- NOAA has ~1 PB climate data (2007)
- CERN’s LHC will generate 15 PB a year (2008)



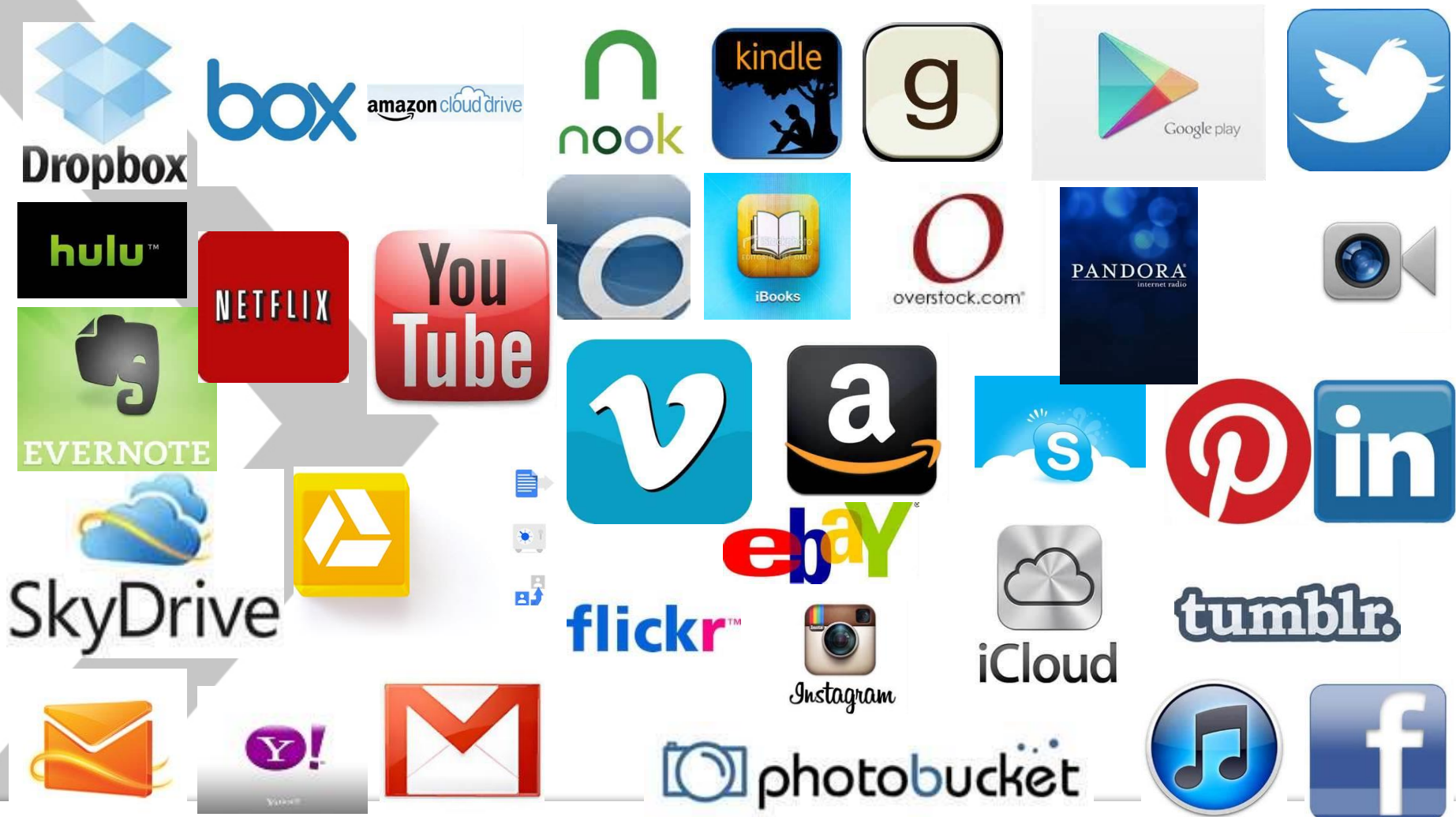
640K ought to be  
enough for anybody.

# The Average Cloud user

- Connects to the cloud via the Internet
  - Does computing tasks, or
  - Runs applications, or
  - Stores Data



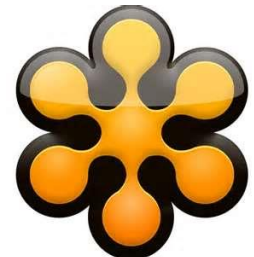
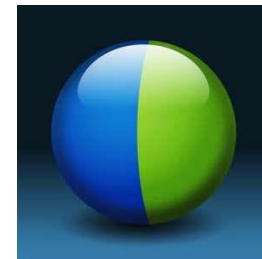
# Do you Use the Cloud?



# type of service

Software as a Service (SaaS) is a software distribution model in which **applications are hosted by a vendor or service provider and made available to customers over a network, typically the Internet.**

<http://searchcloudcomputing.techtarget.com/definition/Software-as-a-Service>



# The Cloud Requires

- An Internet connection
- An account - Created with a user name and a password
- Agree to Terms



**Name**

First Last

**Choose your username**

@gmail.com

**Create a password**

**Confirm your password**

**Birthday**

Month Day Year

**Gender**

I am...

**Mobile phone**

**Your current email address**

**Default homepage**

☒ Set Google as my default homepage.

Your default homepage in your browser is the first page that appears when you open your browser.

**Prove you're not a robot**

☐ Skip this verification (phone verification may be required)

**energies**  
**Stankso**

Type the two pieces of text:

**Location**

United States

☐ I agree to the Google [Terms of Service](#) and [Privacy Policy](#)

☒ Google may use my account information to personalize +1's on content and ads on non-Google websites. [About personalization.](#)

[Next step](#)

# So what is the cloud?



**Computing and software resources that are delivered on demand, as service.**

(2013, January) A Walk in the Clouds. *Cloud Computing*, CDW-G Reference Guide., 3-5.



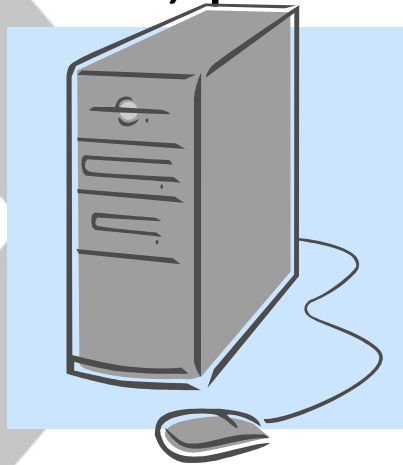


# The Back Story

From ground to cloud

# Computer Storage

- Computers have internal or hard drive storage(C: Drive)
- CPU has a drive for storing programs, documents, pictures, videos, presentations, etc...



**Standard Computer Tower  
or Central Processing Unit  
(CPU)**



**Inside the Computer**

# Internal Storage

- Content is stored on THAT computer
- To use content must return to THAT computer
- Cannot access this content from another device or computer



# Programs

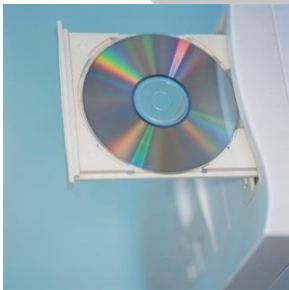
- Purchase programs
- Load to the computer
- Each computer would need the program loaded and stored on the internal drive



# External Storage

- Allows your content to become mobile
- Save to the storage device
- Take device to any compatible computer
- Open and use content

**CD/DVD**



**Thumb Drive**



**SD Card**



**Micro SD Card**



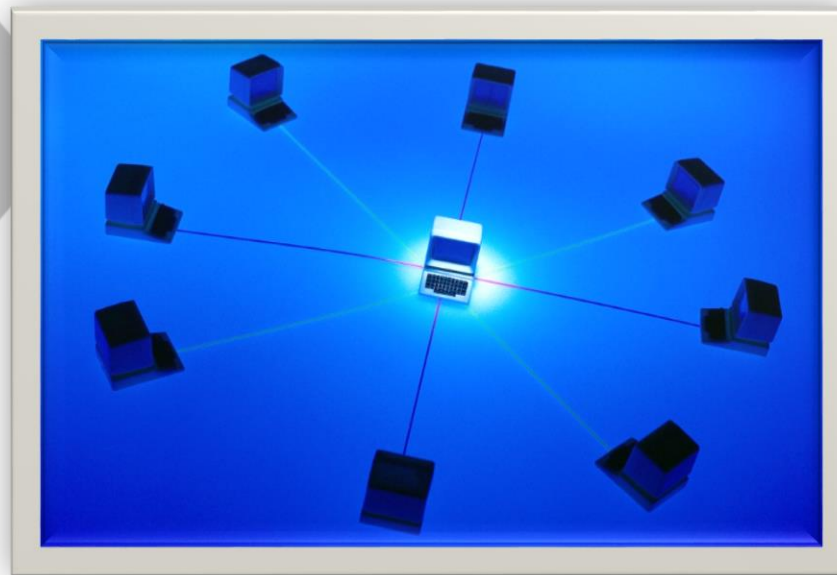
**External Hard Drive**





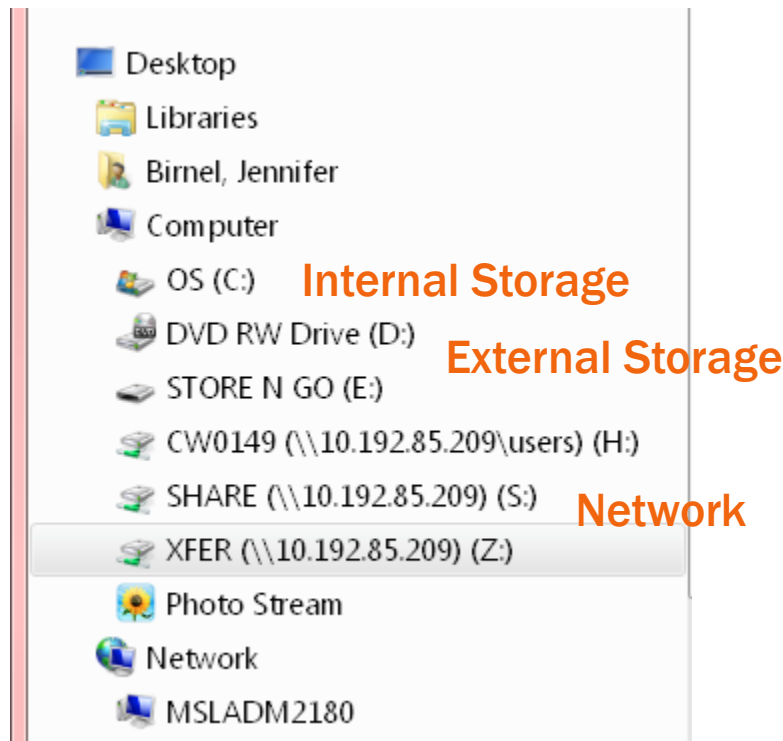
# Networked Storage

- Multiple work stations talk to one unit that stores information and data.
- Data is not saved to the C: drive, but to a network drive
- Can retrieve the data stored to the network from any of the connected workstations.



# Saving documents

- When you do a “save as” on your computer, you choose where to save the material.



# Cloud Storage



- Create an Account –  
User name and  
password
- Content lives with the  
account in the cloud
- Log onto any computer  
with Wi-Fi to find your  
content

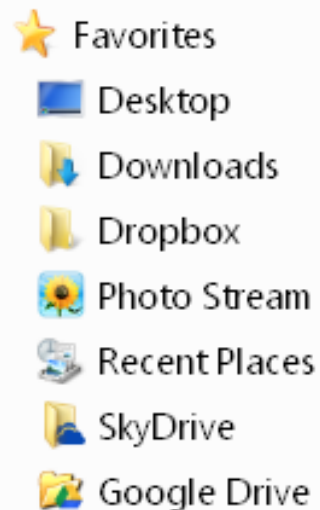
# Downloads for storage

- Download a cloud based app to a computer **you own**
- The app lives on your Computer
- Save files to the app
- When connected to the Internet it will sync with the cloud
- The Cloud can be accessed from any Internet connection



# Save file as

- Do “save as” to save a file to your computer and the cloud
- The syncing folders makes data retrieval easier
- Box and DropBox require this download to work





# Upload Documents

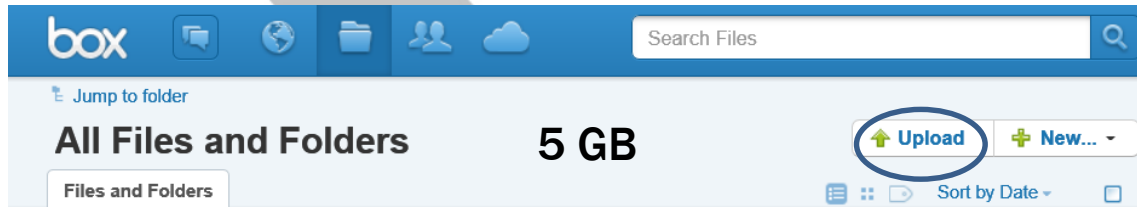
- Log-in to the online storage account
- Click upload a file
- Find the file on hard drive, network, or external storage
- Upload to cloud storage



2 GB



Search Dropbox



Drive

5 GB





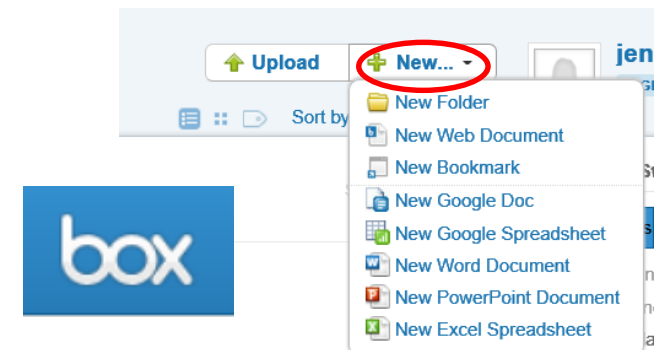
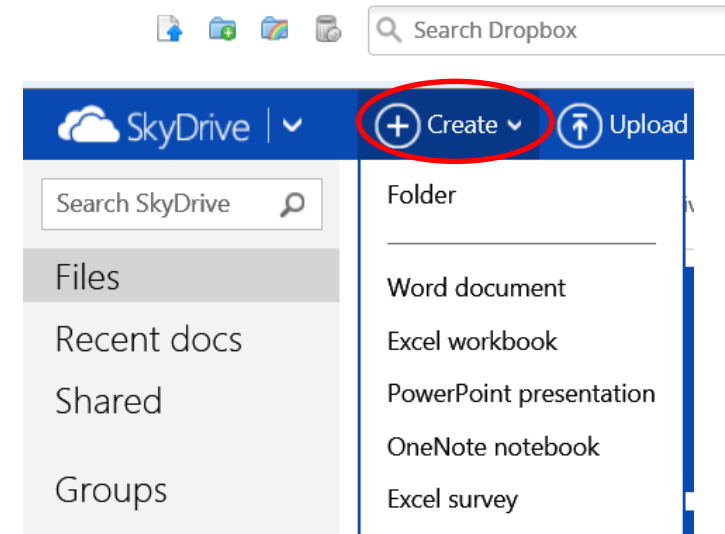
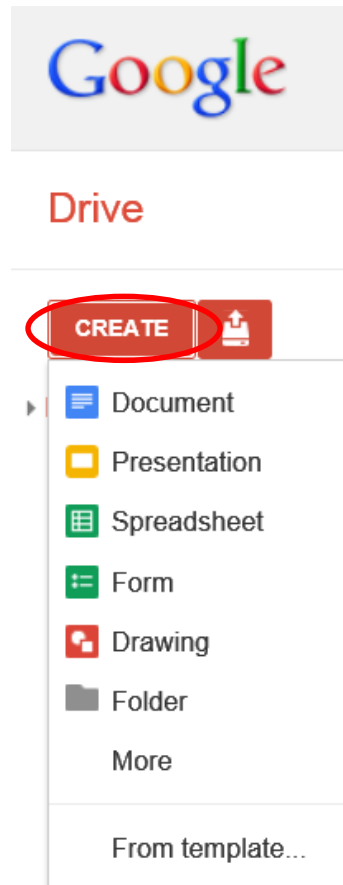
# More than Storage

Software and applications

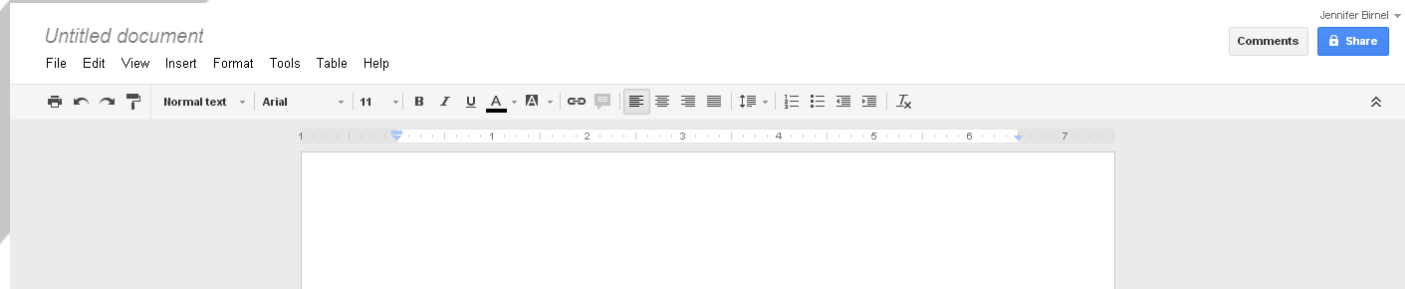
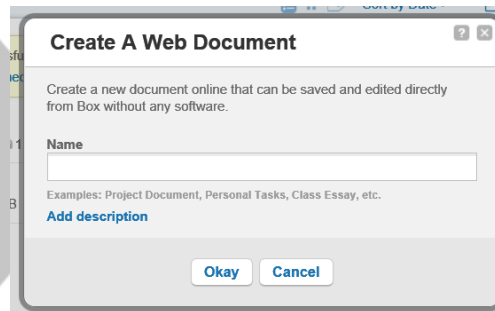
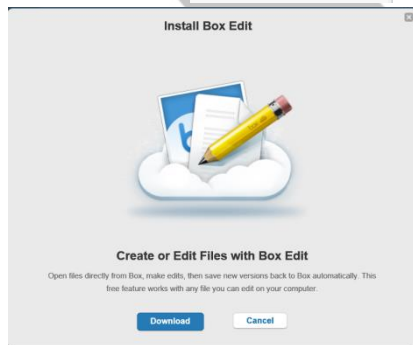
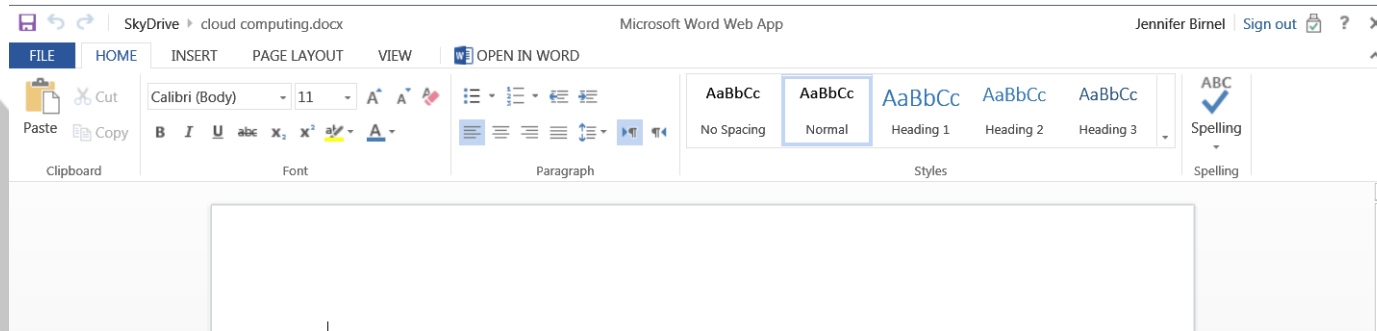
# Document Creation



- Google Docs
- SkyDrive
- Box



# Download required?



# Internet is required

- Creation is happening in the cloud
- Saving is going to the cloud
- To retrieve files, must return to the cloud





# Implications

- What are we comfortable with patrons using?

## Who are you?

Name

Birth date

Gender

## How would you like to sign in?

Microsoft account name

[Or get a new email address](#)

Create a password

8-character minimum; case sensitive

Reenter password

Name

Choose your username

[I prefer to use my current email address](#)

Create a password

Confirm your password

Birthday


  

Gender

First Name:

Last Name:

 Email:

 Password:

Strength

Confirm Password:

Your Phone:

Storage:

☒ I agree this is for non-commercial use only.

[Continue](#)

By registering you agree to Box's Terms of Service

☐ I agree to [Dropbox Terms](#)

[Sign up](#)

# Internet capable Devices



# Benefits

- Saving Large Files
- Multiple file types – Photos, videos, presentations, docs
- Back-up of stored files
- File Sharing
- Access from devices
- Nothing to forget (thumb drive, cd)
- Project collaboration









# File Sharing


Sharing settings

Link to share (only accessible by collaborators)


<https://docs.google.com/file/d/0B8hZL-kOGafSY1B6QWc0WIZGQUk/edit?usp=sharr>

Share link via:    

Who has access

 Private - Only the people listed below can access

Change...

 Jennifer Birnel (you) jennbirnel@gmail.com

Is owner

Add people:




Enter names, email addresses, or groups...

Editors will be allowed to add people and change the permissions. [\[Change\]](#)

Done

Share

Send email

Post to   

Get a link

[Help me choose](#)

Permissions

This file is not shared

Send a link to "Professional Cover Letter.docx" in email

To

Include a personal message (optional)

☒ Recipients can edit

☐ Require everyone who accesses this to sign in

Share

Done

# Other Software services

- Photo editing software
- Online banking apps
- Social media apps
- Communication







# Library Specific Services

- WorldCat
- MSC
- Ebsco
- Discover It



# Other Cloud Services

# types of service

- Platform as a Service (PaaS) is a way to rent hardware, operating systems, storage and network capacity over the Internet. **The service delivery model allows the customer to rent virtualized servers and associated services for running existing applications or developing and testing new ones.**  
<http://searchcloudcomputing.techtarget.com/definition/Platform-as-a-Service-PaaS>



# types of service

- Infrastructure as a Service (IaaS) is a provision model in which an organization outsources the **equipment used to support operations, including storage, hardware, servers and networking components**. The service provider owns the equipment and is responsible for housing, running and maintaining it. The client typically pays on a per-use basis.  
<http://searchcloudcomputing.techtarget.com/definition/Infrastructure-as-a-Service-IaaS>





# Why the Cloud?

# advantages

- Can be less expensive compared to buying software and hardware
- Can be used from any computer or device with an Internet connection
- The device does not need as large of an internal storage system
- Compatible with most computers and operating systems
- Updates occur across the service

# Disadvantages

- Security Issues
- Terms of Service
- Privacy Policies