

# **The Future of Computing is Here! The Cloud**

**OPCUG / PATACS**

**December 2012**

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scvjudy@gmail.com

# What is the Cloud?



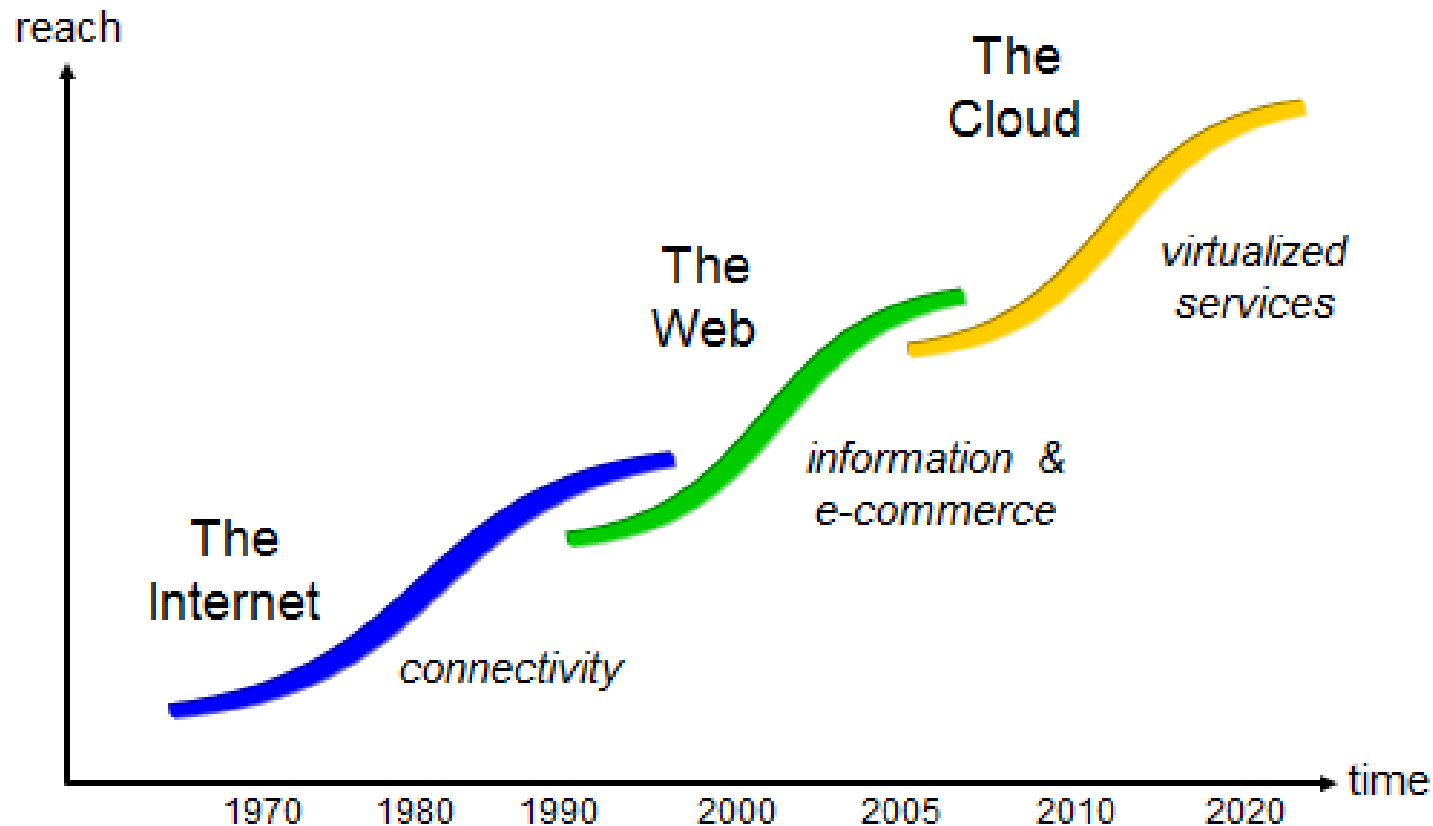
# Cloud Confusion

One in five Americans (22 percent) admit that they've **pretended to know what the cloud is** or how it works.



When asked what “the cloud” is, a majority responded it’s either an actual cloud (specifically a **“fluffy white thing”**), the sky or something related to the weather (29 percent).

# The Third Generation



# What happens in an Internet minute?

- Amazon sales = \$83M
- E-mails sent = 204M
- Photos viewed worldwide = 20M
- Photos uploaded to Flickr = 3K
- Facebook pages viewed worldwide = 6M
- Nearly 640K GB of global IP data transferred in just one Internet minute!

# What happens in an Internet minute?

- YouTube videos watched = 1.3M
- # of networked devices = worldwide population
- 2015 = double the population
- 2015 = five years to view all video content crossing IP networks each second

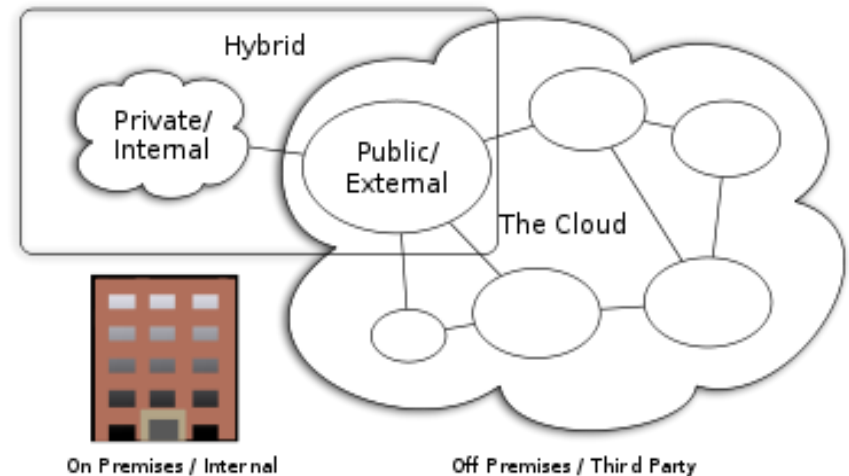
# What Happens in an Internet Minute?



<http://scoop.intel.com/what-happens-in-an-internet-minute/>

# The Cloud is the Internet and all that is connected to it

- Public Clouds
- Private Clouds
- Community Clouds
- Hybrid Clouds



Cloud Computing Types



# The Cloud Defined

- Metaphor (figure of speech) for the Internet
- **Cloud** computing lets you use files and applications over the Internet
- Not on our computers
- Data/Files/Folders/Photos
  - On a network of servers (really large hard drives) located someplace other than your computer

# Server Farm



# Google Server Farm

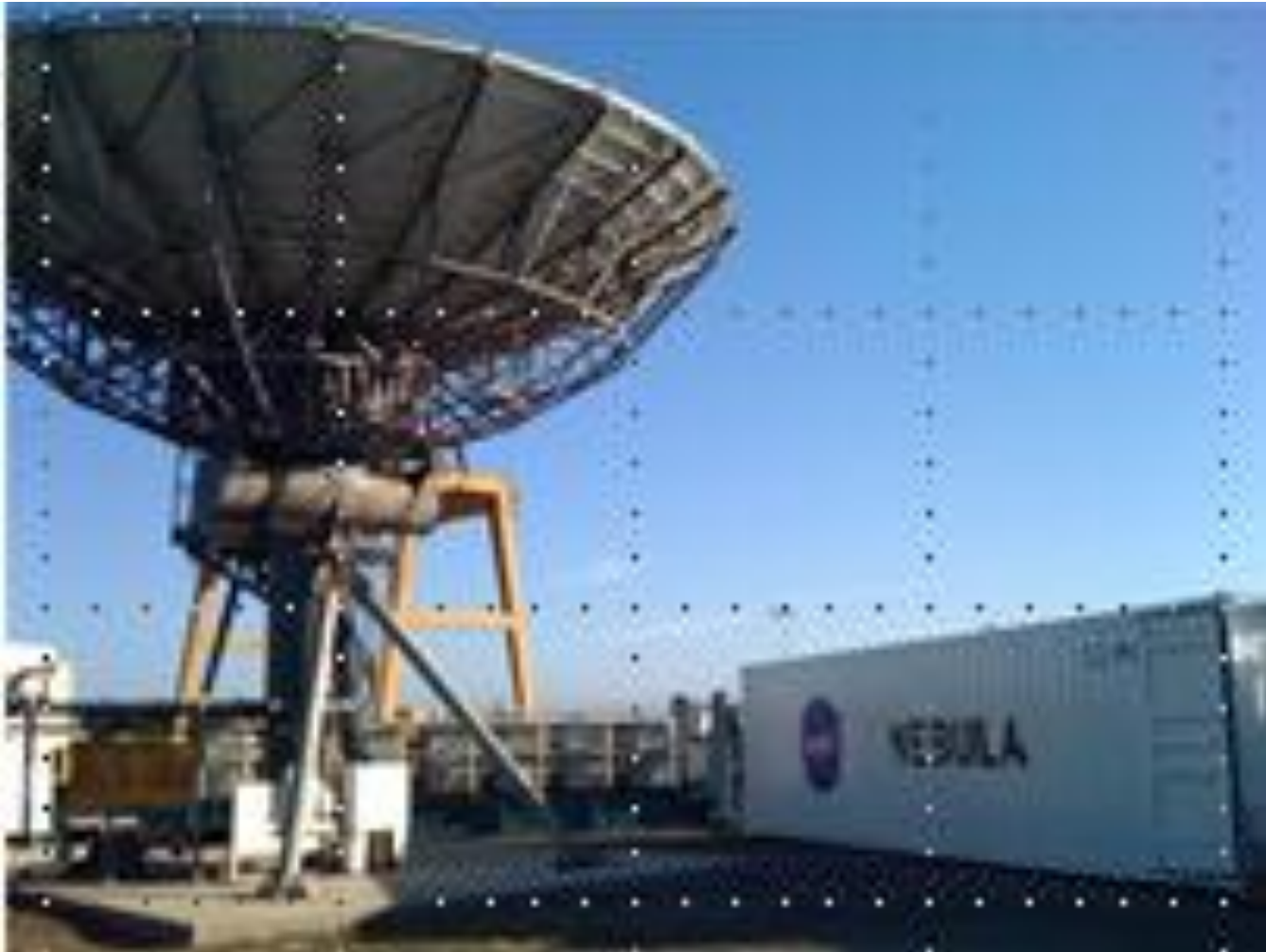


# Google's Shipping Container Server farm





# NASA Nebula Cloud Servers



# Facebook's Arctic Server

- First non-US data center
- Edge of the Arctic circle in Northern Sweden
- Utilize cheap and green power generated by dams
- Able to forgo A/C just use fresh Arctic air





# Cloud Computing

*Having secure access to all your applications and data from any network device*

# How can you share stuff?

Google Docs

Online Storage (public folder)

Photo Sharing Site

(public folder / invite via e-mail)

Shutterfly, Snapfish, Flickr

YouTube

iCloud (iTunes, photos, calendar, apps)



# What Apps can you use in the Cloud?

- Word Processing
- Spreadsheet
- Presentation
- Social Networking
- Digital Editing
- E-mail
- Chat
- Back up

# What can you share?

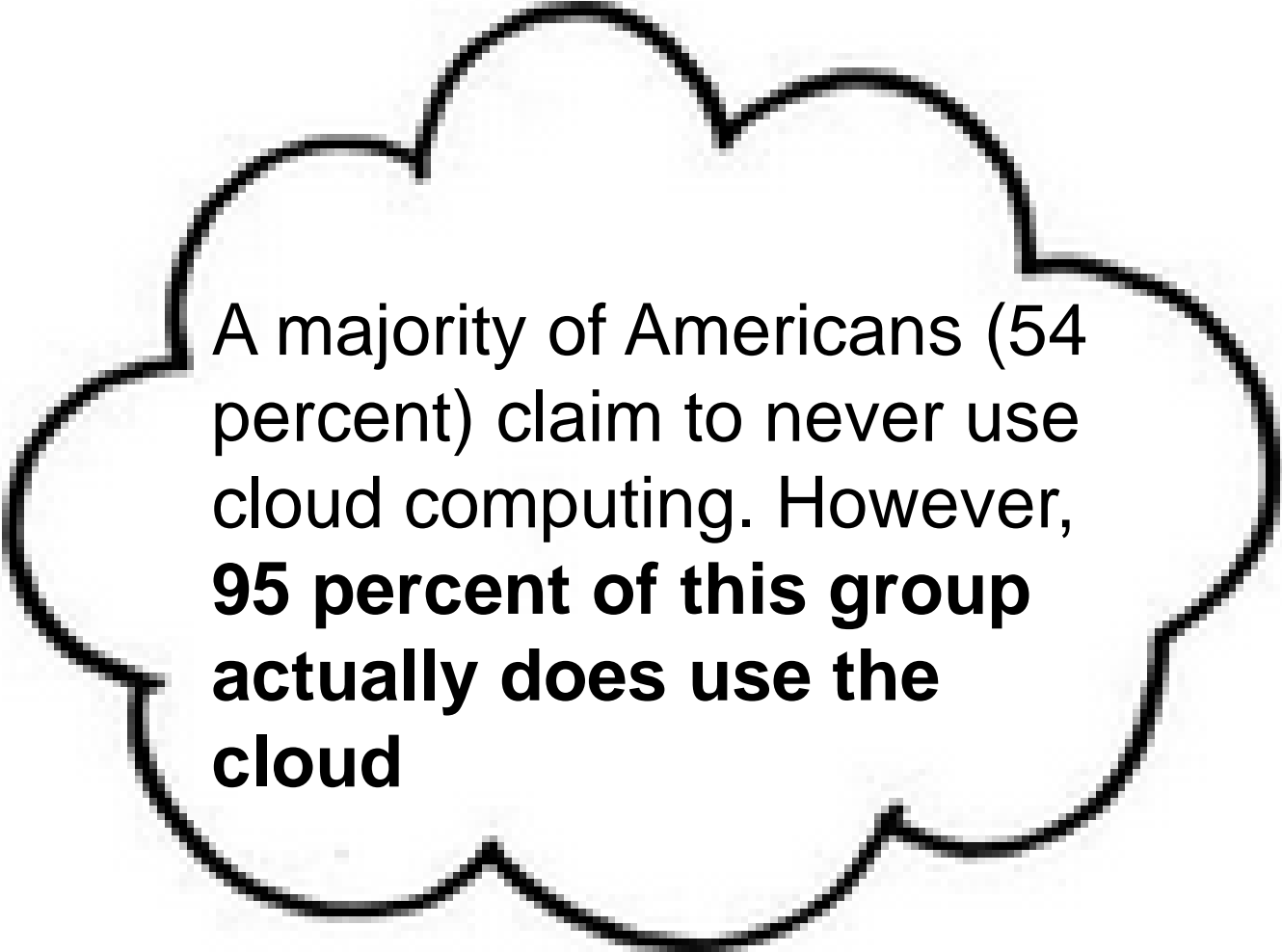
- Documents
- Spreadsheets
- Presentations
- Photos
- Videos
- Newsletters
- Calendars
- Much more....

# How is this different from what I do now?

The cloud is particularly good for:

- **Sharing**
  - Everyone shares one version of a doc
- **Collaborating**
  - Makes it easier to work together with others
- **Remote working**
  - Work from anywhere (with Internet)

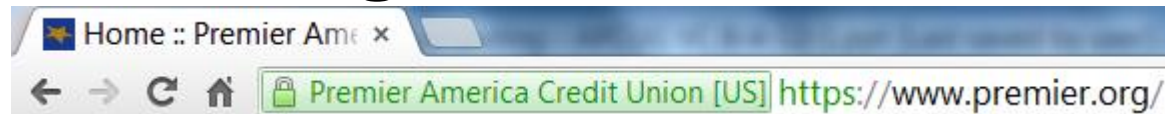
# You already use the Cloud!



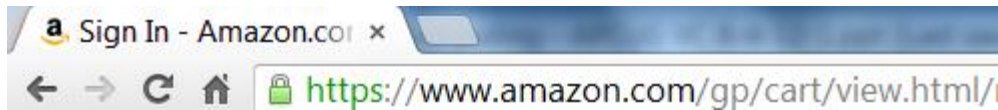
A majority of Americans (54 percent) claim to never use cloud computing. However, **95 percent of this group actually does use the cloud**

# You already use the cloud!

- Online banking



- Online shopping



- Social networking (Facebook, Twitter, etc.)



# You already use the cloud!

- Sharing photos online

Your photos have been uploaded!



album 11/10/2012

11/10/12

[View album](#)

[Upload more](#)

Your photos are ready to view.

Share with your contacts, groups, and social networks.

Separate each address with a comma [Add from address book](#)



Message (optional)

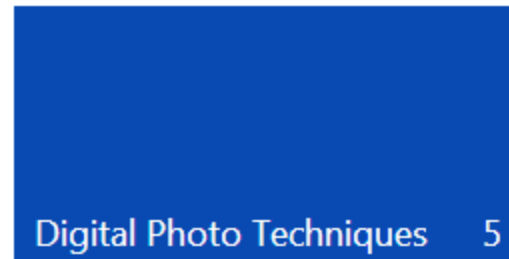
39/420

Share

# You already use the cloud!

- Online file sharing

Documents scvjudy@usa.net's SkyDrive > Documents



Send email

Post to   

Get a link

Help me choose how to share

Send a link to "Documents" in email

To

scvjudy@usa.net x

Hi, Thought you might like to see these Tips & Tricks that I talk about in my Golden Oak digital photo techniques class.

Judy

- Recipients can edit
- Require everyone who accesses this to sign in

Share

Cancel

# You already use the cloud!

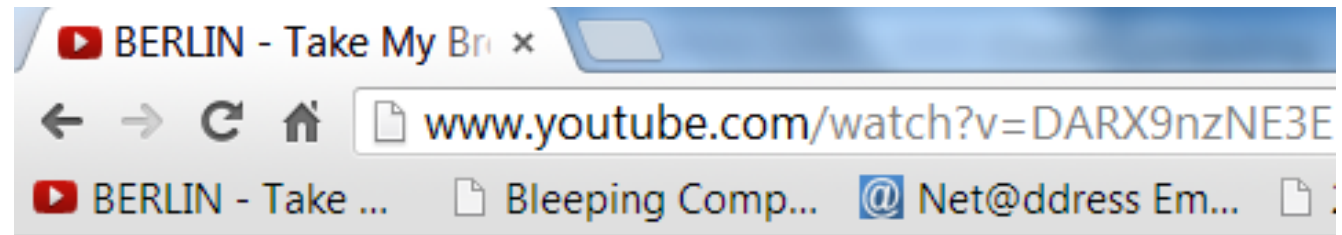
- Online Games

The screenshot shows the Pogo.com website interface. At the top, it displays "43,228 Players Online" and navigation options for EA, Help, and regional settings (US/CA, UK). The main header features the Pogo.com logo and the tagline "Play Over 100 Free Online Games!". Below the header is a navigation menu with links for Home, Games, My Friends, Prizes, Pogo News, and More. A secondary menu lists game categories: All Games, Puzzle Games, Board Games, Card Games, Word Games, Casino Games, and Arcade Games. The main content area features a large advertisement for "Poppit!" with a "Play Now!" button and a description: "Pop balloons to release all the prizes and win this prickly puzzle game!". To the right, there are two smaller game recommendations: "Bejeweled 3" (Classic mode version of the most popular puzzle game of the century) and "SCRABBLE" (Play the classic game of SCRABBLE free with up to three other players).



# You already use the cloud!

- Listen to Music
  - Pandora – Internet Radio
  - Spotify – All the music, all the time
  - Songza – Creates playlists for you
  - Upchucky – the Ultimate 40's Jukebox
  - YouTube
    - Favorite Song



# You already use the cloud!



A white icon of a person sitting up in bed with their arms raised. <p>Waking Up</p>	A white icon of a chef in a white hat and uniform cooking at a stove. <p>Cooking Breakfast</p>	A white icon of a person sitting and reading a newspaper. <p>Reading the Paper</p>	A white icon of a person with their hands on their head and lightning bolts around them, representing a headache or hangover. <p>Recovering from Last Night</p>	A white icon of a person running. <p>Working Out</p>
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# Google Docs



Choose an account to use with Google Docs:

- apcugmembership@gmail.com  
Unavailable unless you [sign out](#) of all other Google Accounts and then sign in to this one. [Why?](#)
- jtarticles2go@gmail.com  
Unavailable unless you [sign out](#) of all other Google Accounts and then sign in to this one. [Why?](#)
- jtaylorapcug@gmail.com  
Unavailable unless you [sign out](#) of all other Google Accounts and then sign in to this one. [Why?](#)
- scvcomputerclub@gmail.com  
Unavailable unless you [sign out](#) of all other Google Accounts and then sign in to this one. [Why?](#)
- scvjudy@gmail.com (default)



Drive



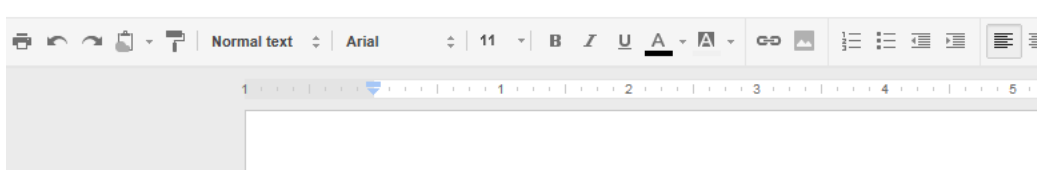
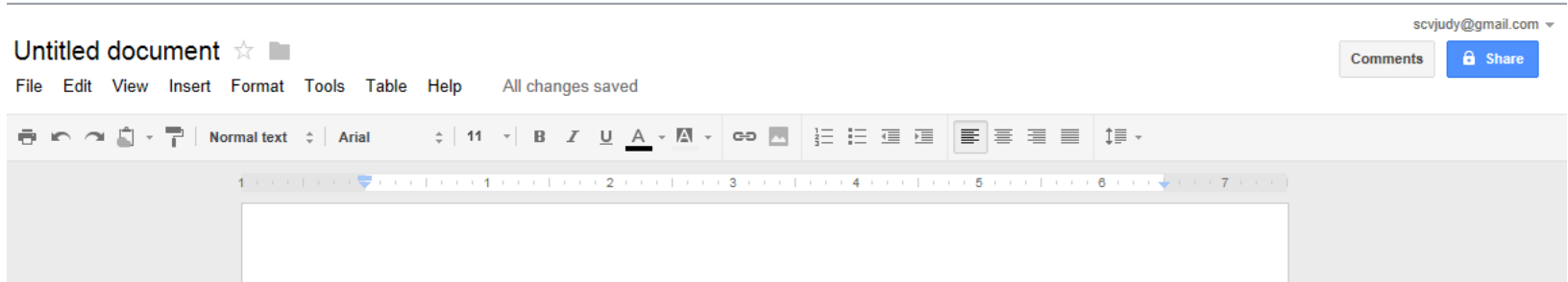
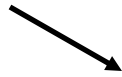
- ▶ Document
- ▶ Presentation
- Spreadsheet
- Form
- Drawing
- Folder
- More

<http://docs.google.com>

# Google Docs

Comments

Share



Judy Taylour

[Notification settings](#)

Add a comment

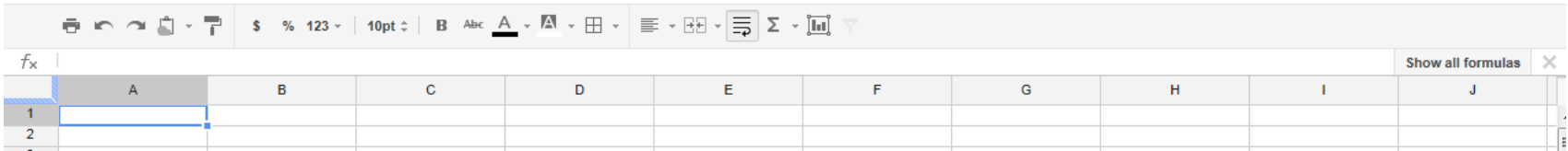
Comments

# Google Docs

Untitled spreadsheet

[Share](#)

File Edit View Insert Format Data Tools Help



The image shows the Google Sheets interface. At the top is a toolbar with various icons for undo, redo, copy, paste, and other spreadsheet functions. Below the toolbar is a formula bar with the text "fx" and a "Show all formulas" button. The main area is a grid with columns labeled A through J and rows labeled 1 and 2. The cell A1 is currently selected.

	A	B	C	D	E	F	G	H	I	J
1										
2										

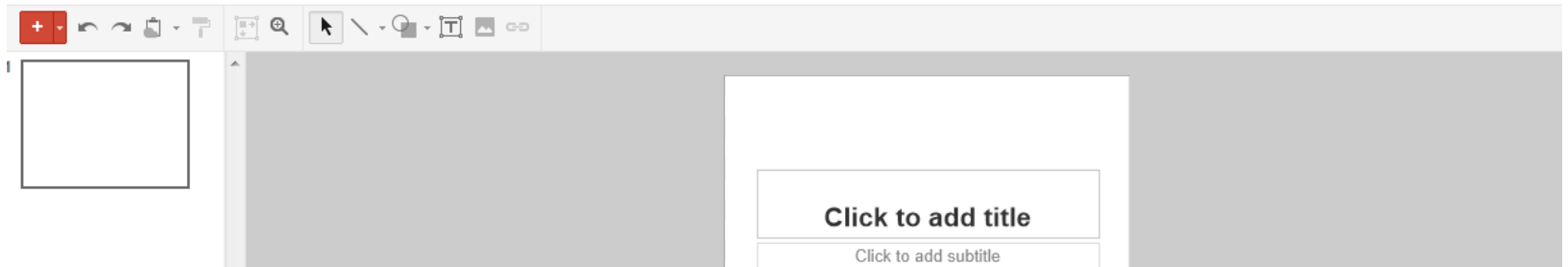
Untitled presentation

[Start presentation](#)

[Comments](#)

[Share](#)

File Edit View Insert Slide Format Arrange Table Help



The image shows the Google Slides interface. At the top is a toolbar with icons for adding slides, undo, redo, copy, paste, and other presentation functions. Below the toolbar is a slide thumbnail on the left and a main slide area on the right. The main slide area contains a large white box with the text "Click to add title" and a smaller white box below it with the text "Click to add subtitle".

# What is Storage in the Cloud?

- Redundant back-up of your important files/data/photos, etc.



# Storage in the Cloud

- App you can install on your PC that automatically synchronizes a local folder with a 'copy in the cloud'
- You can save files into the local folder and know that a copy will be sent up to the cloud automatically

# Storage in the Cloud

- Online storage free/pay by a Cloud company
- Trust Cloud company with your data, photos, etc.



# What makes Cloud storage different?

- Auto backup
- Auto sync
- Collaboration
- Anytime / anywhere
- Cross platform

# Synchronizing your data

- No longer tied to any specific location or device as you roam about getting work done on laptops, tablets, or even Smart Phones.
- Challenge is to keep everything synced so you can access the same data from each of those platforms.

# Today's devices can link together via the Cloud

Smart Phones

Tablets

Desktops

Laptops

External Hard Drives

Cameras

Printers

# iCloud

- Built into every new iOS device and every new Mac
- Access music, photos, calendars, contacts, documents, and more



# Backup / Storage in the Cloud

- External Hard Drive
- DVDs
- Redundant = Cloud
- Data stored in multiple locations
  - Protected – Password
  - Encrypted
  - Access anywhere / anytime
- Latest version v. many versions
- Free v. Paid

# Backup / Storage in the Cloud

FREE

- Microsoft Live Sky Drive – 7GB
  - Google Drive – 5GB
  - Dropbox – 2GB
  - SugarSync aka Magic Briefcase – 5GB
  - CrashPlan – Unlimited
- Other computer

# Backup / Storage in the Cloud

## PAY

- Microsoft SkyDrive - 100 GB \$50/year
- Google Drive – 100 GB \$59/year
- CrashPlan – Unlimited \$49/year
- Carbonite – Unlimited \$59/year
- Dropbox – 50 GB \$99/year
- SugarSync – 60 GB \$99/year

# Backup / Storage in the Cloud

The screenshot displays the CrashPlan application window. The title bar shows 'CrashPlan' and standard window controls. The interface has a green theme. On the left is a sidebar with navigation options: Backup (selected), Restore, Settings, History, Friends, and Destinations. The main area features a 'CRASHPLAN' logo and a home icon. A grey notification box at the top right says 'Upgrade to CrashPlan+ for Better Protection!' and mentions 'subscriptions' and 'advanced features'. Below this is a 'Destinations' section with a list of backup targets: 'CrashPlan Central' (Subscription required) with a 'Sign up' link, 'JudyTaylour-PC' with a 'Start Backup' button, 'Friend' (Free!), 'Another Computer' (Free!), and 'Folder' (Free!). The 'Files' section shows a folder named 'Judy Taylour' with a 'Change...' button and a status of 'scanning'. At the bottom right of the files section, it displays 'Total: 10,579 files / 15.1GB'. In the bottom left corner, there is a 'Get In Gear!' advertisement for WH2P with the text 'Get your marketing moving, again. wh2p.com'.

CrashPlan

CRASHPLAN™

**Backup**

- Restore
- Settings
- History
- Friends
- Destinations

**Upgrade to CrashPlan+ for Better Protection!**

CrashPlan+ [subscriptions](#) include online storage and [advanced features](#).

**Destinations**

- [CrashPlan Central](#) (Subscription required) [Sign up](#)
- [JudyTaylour-PC](#) [Start Backup](#)
- [Friend](#) (Free!)
- [Another Computer](#) (Free!)
- [Folder](#) (Free!)

**Files**

- [Judy Taylour](#) scanning

[Change...](#)

**Total: 10,579 files / 15.1GB**

**Get In Gear!**  
Get your marketing moving, again.  
WH2P  
wh2p.com



# Backup / Storage in the Cloud

## MS Sky Drive



Personal

My Documents Laptop

My Documents Tower

[View all](#)

Shared

Public

[View all](#)

[Recent comments](#)

Shared with me

[View all](#)

# Backup / Storage in the Cloud

## MS Sky Drive



### My Documents Laptop

Judy ▶ Office ▶ My Documents Laptop

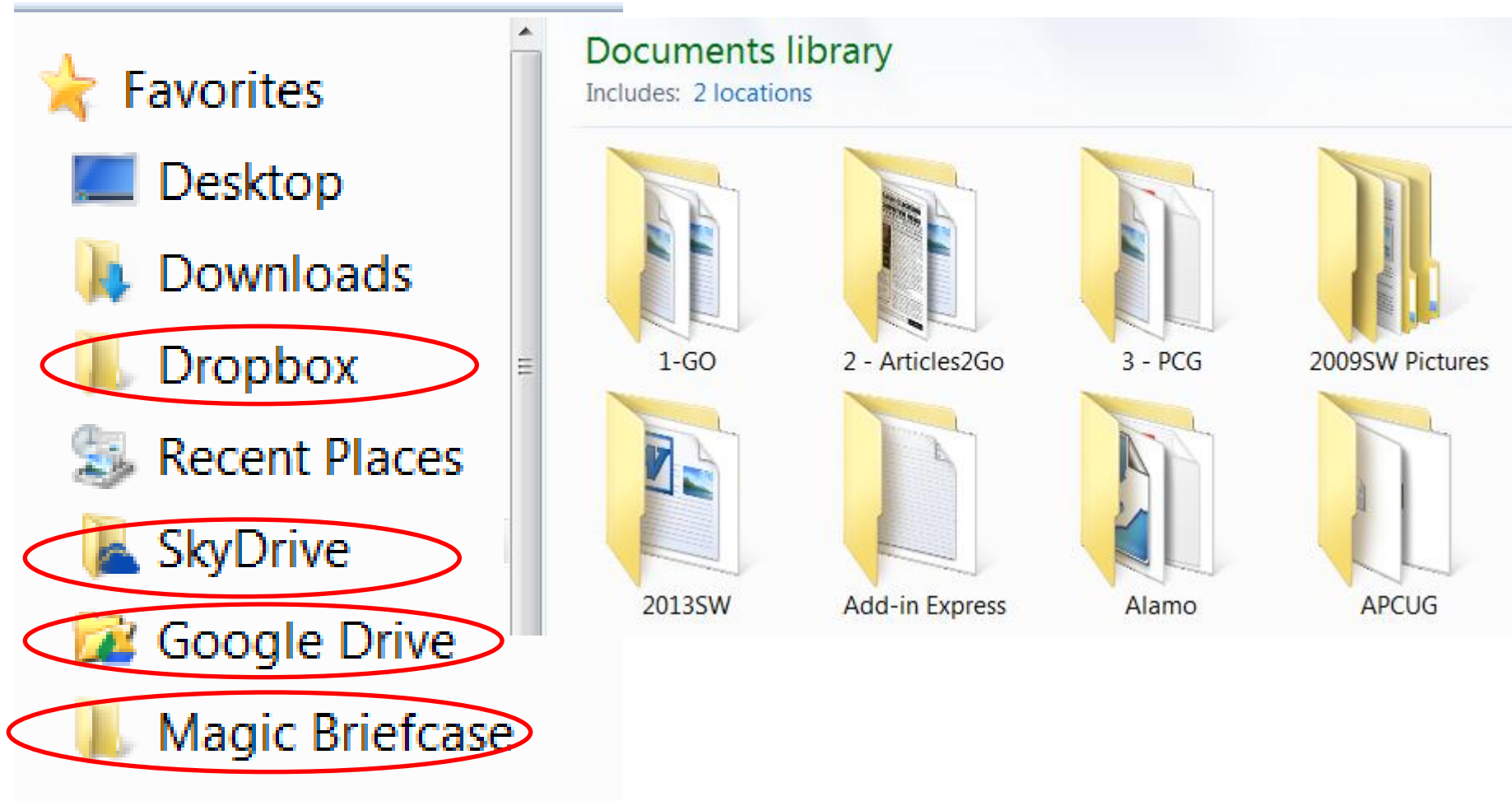
New ▼ Add files Share ▼ View: Details ▼ Sort by: Date ▼ Download as .zip file More ▼

#### Today

Editor E-mail June 2010	Judy	A moment ago
Discovering_Windows_-_Part_4_-_S...	Judy	A moment ago
Discovering Windows 7, Part 5 - S...	Judy	A moment ago
Control Panel - Extremely Useful -...	Judy	A moment ago

Shared with: [Just me](#)

# Where they live on Judy's computer



# What type of security do you need?

- Anti-Virus
- Firewall
- Router
- Strong Password
- Encryption
- Malware
- Bots

# Encryption

## SafeHouse Explorer

- FREE
- Super-strong 256-bit encryption software
- Hard Drive or USB Flash memory stick

[www.safehousesoftware.com](http://www.safehousesoftware.com)

# Encryption

- Total privacy with a familiar Windows Explorer-like interface
- XP, Vista, Windows 7 & 8, 32 or 64 bits



# Passwords

- Strong password
  - Minimum 8 characters
  - At least 1 capital letter, number, symbol
    - nrbAt@p5jg
- Check strength at Microsoft's Password Checker
  - <http://bitly.com/fvaesw>

# Passwords

## PC Security

### Check your password—is it strong?

Your online accounts, computer files, and personal information are more secure when you use strong passwords to help protect them.

**Test the strength of your passwords:** Type a password into the box.

Password:

Strength:  **Strong**



# How can you keep everything straight?

Otixo – [www.otixo.com](http://www.otixo.com)

- File Manager for Dropbox, Google Drive, SkyDrive, and more Cloud services
- Organize – access on the go
- Copy & paste between accounts
- Web or Windows Explorer

# How can you keep everything straight?

Otixo – [www.otixo.com](http://www.otixo.com)

- 2GB usage / month
- \$9.99/month unlimited
- Otixo does not store your username or password for your privacy and protection

# Otixo - Dropbox

The app **Otixo** would like to connect with your **Dropbox**.

- This app will have access to your **entire Dropbox**.
- Please make sure you trust this app before proceeding.
- You're currently logged in as **scvjudy@usa.net**. If you meant to connect from another account, you can [logout](#).

Allow

Deny

# Otixo - SkyDrive

Otixo needs your permission to do the following:



## **Access your info anytime**

Otixo will be able to see and update your info, even when you're not using this app.



## **Access and edit your SkyDrive photos and documents**

Otixo will be able to access, change, and add or delete your photos and documents on SkyDrive.

You can change these [connection settings](#) at any time.

# Otixo Cloud Services

The screenshot displays the Otixo Cloud Services interface. At the top left is the Otixo logo, consisting of a colorful grid of squares followed by the text "OTIXO". To the right of the logo is a toolbar with icons for "Preview", "Attach", "Share", "Launch in...", "Copy", and "Cut".

The main interface is divided into two panes. The left pane shows a sidebar with the following sections:

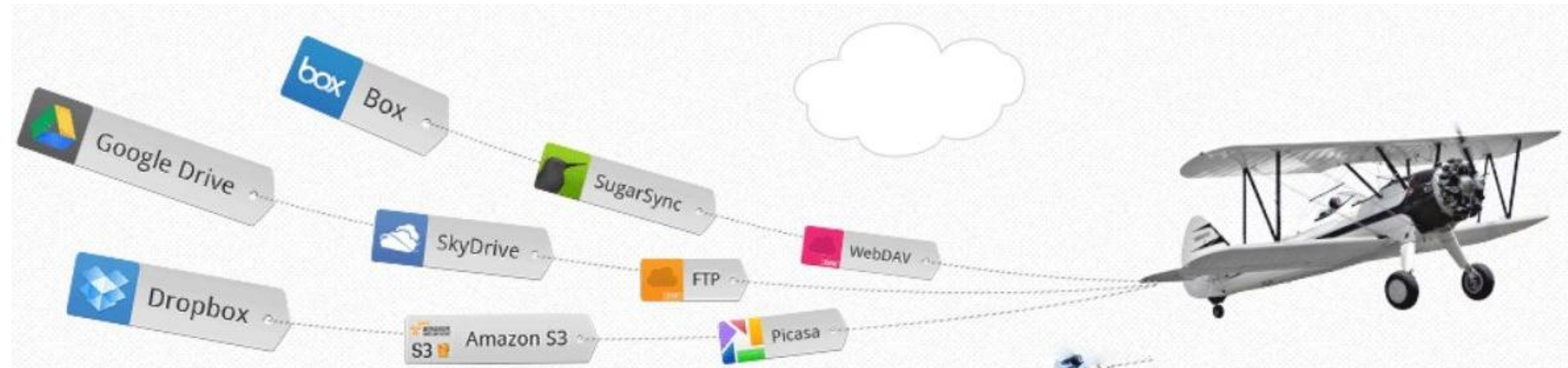
- MY CLOUD SERVICES** (with a plus icon):
  - JT DropBox (highlighted in light blue)
  - JT SkyDrive (with a refresh icon)
- MY SHARED FILES** (with a zero icon)
- WORKSPACES** (with a plus icon and a "beta" label)

The right pane shows the contents of the selected "JT DropBox" service. The title bar reads "My Cloud Services ▸ JT DropBox". Below the title bar is a "Name" header, followed by a list of folders:

- 2012 APCUG Animals
- 2012 APCUG Co...t Award Logos
- 2012 APCUG Landscape
- 2012 APCUG People
- 2012 APCUG StillLife
- 2012 APCUG Websites
- 2012APCUGPhotos
- APCIUG Membershin

At the bottom of the interface is a footer bar with icons for a plus sign, a home icon, a settings gear, and a hamburger menu icon.

# Otixo



# **Organize Your Life in the Cloud**

# Toodledo

- Organize Your Tasks
  - Folders
  - Search / Sort
- Improve Your Productivity
  - Hotlists
  - Customizable Alarms
- Customize
  - Fields / Views

[www.toodledo.com](http://www.toodledo.com)

The logo for Toodledo, featuring the word "Toodledo" in a white, rounded, sans-serif font with a blue outline, set against a light blue rectangular background. A yellow checkmark is positioned to the right of the text, and a small registered trademark symbol (®) is located at the top right of the background.



# Toodledo

The screenshot shows the Toodledo web interface. At the top left is the Toodledo logo. Below it is a navigation menu with 'Main', 'Folder', 'Due-Date', 'Priority', 'Sharing', and 'Calendar'. A sidebar on the left lists 'VIEW BY:' options: 'Main', 'All Tasks' (56), 'Starred' (4), 'Hotlist' (7), 'Recently Added' (56), 'Recently Completed' (6), and 'Recently Modified' (56). The main content area has tabs for 'Tasks', 'Notebook', 'Organize', 'Tools', 'Forums', and 'Help'. Below the tabs is a header for the task list with 'Add Task', 'Quick Add Task', 'SHOW 42', and 'SORT' options. The task list is a table with columns for 'Task', 'Priority', 'Due Date', and 'Folder'. It is divided into sections by 'Importance Level' (6, 5, 4). Tasks include 'Buy bread for dinner', 'Weekly status meeting', 'Book hotel for summer vacation', 'Pay credit card bill', 'Take out the trash and recycling', 'Pick up dry cleaning', 'Finish the TPS report', 'Fix the kitchen sink', 'Vote', and 'Mom's Birthday'.

Task	Priority	Due Date	Folder
<b>Importance Level: 6</b>			
<input type="checkbox"/> ★ Buy bread for dinner	3 Top	no date	No Folder
<input type="checkbox"/> ★ Weekly status meeting	1 Medium	Jul 18	Work
<b>Importance Level: 5</b>			
<input type="checkbox"/> ★ Book hotel for summer vacation	2 High	no date	Family
<input type="checkbox"/> ☆ Pay credit card bill	3 Top	Jul 31	Personal
<input type="checkbox"/> ☆ Take out the trash and recycling	0 Low	Tomorrow	Chores
<b>Importance Level: 4</b>			
<input type="checkbox"/> ★ Pick up dry cleaning	1 Medium	no date	Chores
<input type="checkbox"/> ☆ Finish the TPS report	2 High	no date	Work
<input type="checkbox"/> ☆ Fix the kitchen sink	2 High	no date	Home
<input type="checkbox"/> ☆ Vote	2 High	Nov 08	
<input type="checkbox"/> ☆ Mom's Birthday	2 High	Jul 28	



# Evernote

- Capture anything
  - Save ideas, things you like, things you hear, and things you see
- Access anywhere
  - Works with nearly every computer, phone and mobile device
- Find things fast
  - Search by keyword, tag or even printed and handwritten text inside images

[www.evernote.com/](http://www.evernote.com/)



# Evernote

Viewing 7 notes from scvjudy's notebook

**Marjorie Amberg E-mail Address**  
4/26/2012 Marjorie Amberg I want to let you know that the email that I gave on my registration has has to be deleted by yahoo. CO to with repeatedly packed my new one. Is A...

**Advisor Travel**  
3/27/2012 Cheryl - yes, Orange County Bill James - yes, went to AZ conference Gabe - yes Greg - yes

**Applian S/N**  
3/27/2012 RM

**HEWIE'S DIGITAL PHOTO SIG. Needs to be sent as a...**  
3/19/2012 HEWIE'S DIGITAL PHOTO SIG. Needs to be sent as a benefit of membership. The Central Florida Computer Society Virtual Digital Photo SIG is scheduled for this Wedn...

**ProgramLSCS@gmail.com - Jere Minich's new e-mai...**  
3/19/2012 ProgramLSCS@gmail.com - Jere Minich's new e-mail address

**QR Code video - January The TUG**  
3/17/2012



# Communicate via the Cloud

- Gmail
- Yahoo / Rocketmail
- Hotmail / Outlook
- iCloud mail



**Hotmail®**



# Communicate via the Cloud

- Skype (VOIP)
  - Skype to Skype = Free
  - Skype to landline / mobile = Subscription
- Vonage (VOIP)
  - \$24.99/month + taxes & fees
  - Vonage Box / Hi-speed Internet access
  - Voicemail – readable text with E-mail



# Communicate via the Cloud

- Google Voice
  - Choose own number
  - Good for User Groups
  - Readable text voicemail via E-mail
- MagicJack – \$39.95 (device) \$19.99/yr
  - Device plugs into computer / router
  - Directory assistance
  - Call waiting / caller ID
  - Free calls to US



# Communicate via the Cloud

- Facetime for Mac - \$0.99 App Store
  - Video Calls
  - Mac to Mac
  - Mac to the I's



# Resources

- <http://scoop.intel.com/what-happens-in-an-internet-minute/>
- <https://docs.google.com>
- <https://skydrive.live.com/>
- [www.drive.google.com](http://www.drive.google.com)
- [www.crashplan.com](http://www.crashplan.com)
- [www.carbonite.com](http://www.carbonite.com)
- [www.Dropbox.com](http://www.Dropbox.com)



# Resources

- [www.sugarsync.com](http://www.sugarsync.com)
- [www.evernote.com](http://www.evernote.com)
- [www.toodledo.com](http://www.toodledo.com)
- [www.otixo.com](http://www.otixo.com)
- [www.skype.com](http://www.skype.com)
- [www.vonage.com](http://www.vonage.com)
- [www.google.com/voice](http://www.google.com/voice)
- [www.magicjack.com](http://www.magicjack.com)
- [www.apple.com/mac/facetime](http://www.apple.com/mac/facetime)

# Resources

- [www.safehousesoftware.com](http://www.safehousesoftware.com)
- Microsoft Password Checker
  - <http://bitly.com/fvaesw>
- [www.pandora.com](http://www.pandora.com)
- [www.spotify.com](http://www.spotify.com)
- [www.songza.com](http://www.songza.com)
- [www.upchucky.com](http://www.upchucky.com)
- [www.youtube.com](http://www.youtube.com)

A photograph of a bright blue sky filled with large, fluffy white cumulus clouds. The clouds are scattered across the frame, with a particularly large one in the center. The text is overlaid on the sky.

***The Future of Computing is Here,  
in the Cloud!***

A photograph of a bright blue sky filled with large, white, fluffy cumulus clouds. The clouds are scattered across the frame, with a particularly large one in the lower center. The overall scene is bright and clear.

**Questions?**