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Cloud Computing: Is Anything Private?

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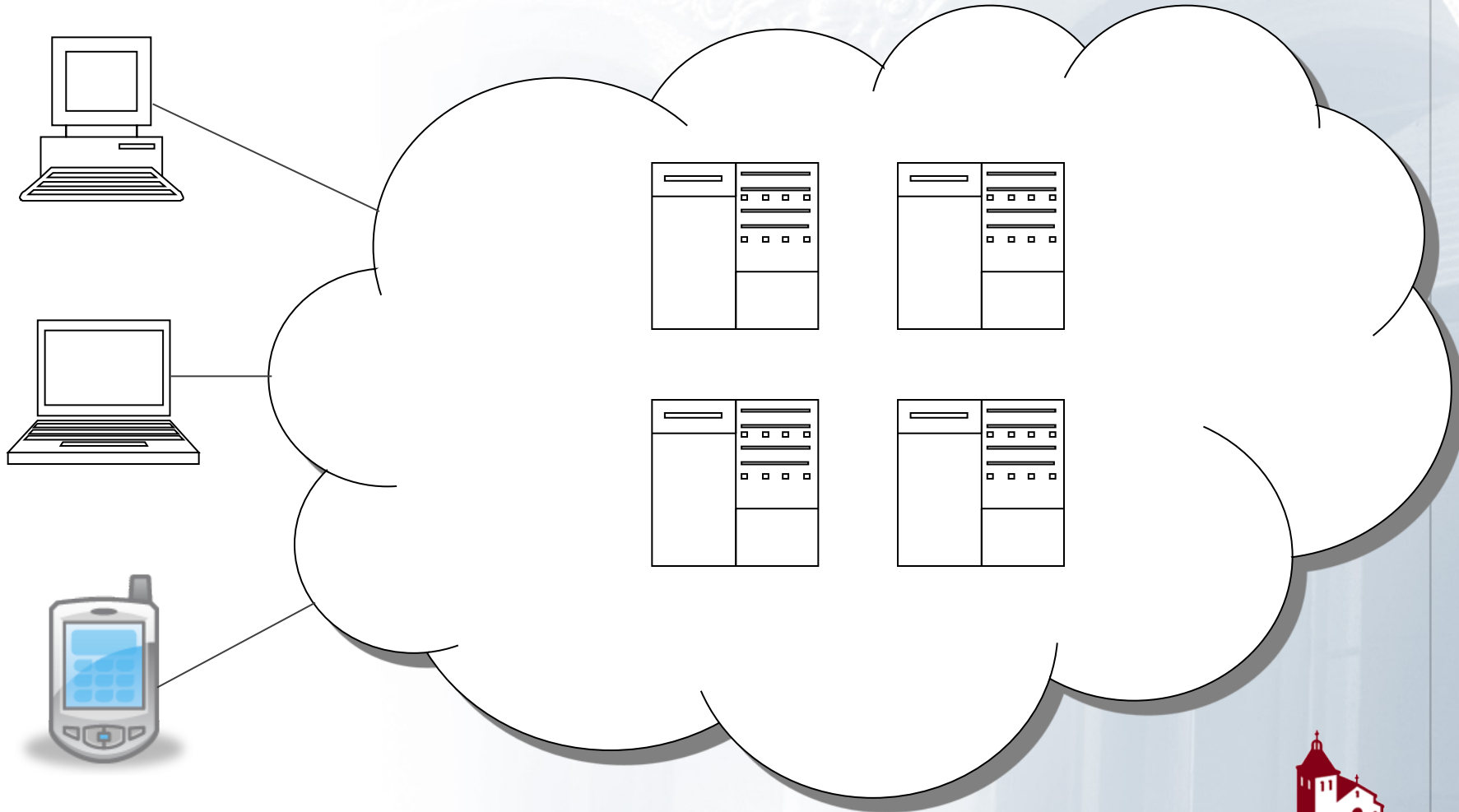egoldman@gmail.com

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Overview

- What is the cloud?

- What's new about the cloud?

- Benefits of the cloud

- Problems with the cloud

- Lessons

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What is the Cloud?

What is the Cloud?

What's New About the Cloud?

What's New About the Cloud?

- Internet connectivity everywhere

- Bigger Internet pipes

- Ubiquitous client devices

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Examples of Cloud Vendors

Cloud Services

- Cloud services can be private, or not
  - Facebook's goal: "frictionless sharing"

- Cloud services can give users "fine-grained" controls, or not

- Even "private" cloud services typically collect lots of user data
  - Content
  - Metadata
  - Registration information
  - Social interactions
  - Server log data ("Twitter knows when you're asleep")

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Benefits of the Cloud

- Users can access their content across multiple devices
  - Users typically don't need custom/configured hardware or software

- Vendors often provide valuable services for "free"

- Economies of scale in maintaining hardware/software
  - Users theoretically get better service levels
  - Users automatically get upgraded software (is that a con?)

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Problems with Cloud: Connection Required

No connection, no cloud

Corollary: Slow connection, slow cloud

Problems with the Cloud: Third Party Subpoenas

- **Governments and litigants can subpoena the cloud vendor**
  - Lower legal protection for data in the cloud (the "Third Party Doctrine")
  - Some cloud vendors stand up for their users (e.g., Twitter). Most don't

- **Foreign-stored data may get even less protection**
  - You may not know where your data is stored

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Hacker Honeypot: bad guys like big datasets

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Problems with the Cloud:
Less Data Control (2)

- **"Information wants to be free"**
  - Information asymmetries are unstable

- **Vendor's disclosures**
  - Mistaken belief that data is anonymized. Ex: AOL's "Data Valdez"
  - Software bugs
  - Disclosures to third parties. Ex: Facebook/LinkedIn unique ID disclosures
  - Opaque privacy policy
  - Thoughtlessness. Ex: Pandora's playlist disclosure

- **Vendor may not actually delete content when you "delete" it**

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- Vendors change over time
  - Changed business model/changed priorities
    - "If you're not the customer, you are the product being sold"
  - Changed policies
  - Acquisition/bankruptcy
  - The "Megaupload" problem

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Your data + weak export = potential hold-up games

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Scribd Puts User Docs Behind A Paywall Without Them Realizing It

from the *totally-not-cool* dept

(Mis)Uses of Technology
by Mike Masnick
Mon, Sep 20th 2010
6:28pm

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Filed Under:

Last year, I wrote about some issues I had with the way Scribd tried to **avoid liability** by suggesting that public domain documents couldn't be hosted on the site or that fair use was not allowed. To the company's credit, it responded quickly and fixed the situation, but soon after that I switched to (mostly) using Docstoc to host documents. Doctstoc has its own problems as well, but for the most part has worked well for me. Still, in my experience Scribd is still quite popular among folks -- especially for uploading and hosting legal documents. Apparently, the company recently made some quiet changes and it's **seriously pissed off law professor Eric Goldman**, who has relied on the site for quite some time.

The key problem? Without clear notification, it took "older" (and older is left undefined) documents and put them *behind a paywall*. As Goldman notes, the whole reason he used Scribd was to make the documents available, and it was quite a shock to suddenly find them behind a paywall:

ONLINE PHOTO SITES

Kodak's Overpriced Photo Site Will Delete Your Photos If You Don't Spend Money

By cwalters on March 23, 2009 10:16 PM   Short URL: http://con.st/5181161

Kodak Gallery is a poor choice for online photo storage. As of this month, they've changed their storage policy so that now you must spend a minimum amount—$4.99 or $19.99, depending on whether you're under or over 2GB of storage—every 12 months or your pics will be deleted. By comparison, Shutterfly has no minimum spending requirement and unlimited storage.

Update: Kodak Gallery has modified its storage policy. The minimum purchase requirement remains in effect, but now the service won't charge for downloading high-rez copies of the stored images (something no other photo product service that we know of currently offers).

Lessons

- Q: Cloud computing: is anything private?
  - Safest bet: assume the answer is "no"

- What Should You Do?
  - DON'T PANIC!
    - Evaluate the pros/cons of cloud services compared to alternatives
  - Research the vendor's business model/financial footing
  - Consider the business' reputation
  - Read the TOS/privacy policy
  - Review and customize the privacy setting options
  - Ensure you have an exit strategy/review data export options & data retention policies

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