Cloud Computing

and your increasingly off-shore info world

A short talk for REACH

With Shelly Drumm and Chrstine Kreger

I have no idea what you're talking about.

Psst! You're probably already using it.

- Gmail
- Yahoo! Mail
- Pix on Flickr, Facebook, Picasa
- Google Docs, Zoho, or Microsoft Office Live
- Blogspot or Wordpress.com
- Dropbox

69% of us were using the cloud in 2008. More now.

http://tinyurl.com/pewcloud

That's it?! Gmail?
That's all there is to it?

Well, since you asked. . . No. Not even close.

It's not unlike electricity

http://www.flickr.com/photos/frankhg/850696163/sizes/o/

Different Kinds of Cloud Computing

- Software as a Service (SaaS)
  - Google Docs
  - Salesforce
  - Dropbox, Carbonite (StaaS)
- Infrastructure as a Service (IaaS)
  - RackSpace
  - Amazon Elastic Compute Cloud
  - http://tinyurl.com/cloud-sd
- Platform as a Service (PaaS)
  - Yahoo! Pipes

Not to mention...

- Public Cloud
  - All resources provisioned over the net from 3rd parties
- Community Cloud
  - Several organizations sharing infrastructure dynamically
- Hybrid Cloud
  - Transitional?
  - Could be web server is cloud hosted, database server in the building
- Private Cloud
  - Is it really a cloud set up if it doesn't have all the benefits of the cloud?

Case Study: John C. Fremont Library

The challenges:
- No unified email system
- No shared calendaring
- 1 Decrepit web server running ILS
- 1 PT underpaid server guy
  - Who graduated from HS and went to college
- No money; small staff

Solution1: Google Apps (SaaS)

What they got
- Consistent, branded email
- Shared calendaring
- Production and collaboration tools a la Microsoft Office suite

What they spent
- $0
- 2 hours of staff time

Solution 2: RackSpace (IaaS)

What they got
- Reliable servers
- Elasticity/Scaling
- Server professionals managing, updating their servers
- Stress reduction

What they spent
- $20/month (pops up to $30 in the summer)
- $1500 a year for a tech consultant

Let's Do the Math

Roll your own:

Initial outlay

Exchange Server:	$500
Web Server:	$400
+MS Office:	$500 (?)
	$1400

Annual costs

Jesse:	$2000
3 year replacements:	$150
+Software upgrades:	$50
	$2200

Up in the cloud:

Initial outlay

$0

Annual costs

Google Apps:	$0
RackSpace:	$270
+Consultant:	$500
	$770

Other benefits

- Less stress
- More uptime
- Redundancy/backups
- Anytime/Anywhere access to docs, cal, email
- Collaboration on docs

Other SaaSes

- Library specific
  - LibLime hosted Koha (AspenCat)
  - OCLC Webscale Management Service
  - LibGuides
- Library-useful
  - Postini
  - Cloud backups
  - Panda
- What are YOU using?

More on Benefits: Organizational

- More flexibility and nimbleness
- IT can focus on project planning, less on nuts and bolts
- Manage knowledge, not technology

More on Benefits: Economic

- More bang for buck
- Low barrier to entry
- Gives small orgs the "computing power of the big boys"

- No "idle hours"

More on Benefits: Technological

- Redundancy & Scalability on Demand
- Easier maintenance
- Security?

All those benefits! Sign me up!

Of course, it's not all moonlight and roses.

Some Drawbacks

- Downtime is out of your control
  http://tinyurl.com/forced2blog
- What if Google goes out of business?
- Shared infrastructure could lead to sluggish performance
  - SLAs important!
- Data portability? Make sure of it!

- Privacy!

What Now? What Next?

- Rise of standards--http://tinyurl.com/cloudmanifesto

- Consolidation of providers

- Rise of cloud computing start-ups

  Rise of start-ups that rely on low barrier of entry

- First major Outages

- The cloud-based OS and the cloud-centered device

- Game changer

A hundred years ago, companies stopped generating their own power with steam engines and dynamos and plugged into the newly built electric grid. The cheap power pumped out by electric utilities didn't just change how businesses operate...
It set off a chain reaction of economic and social transformations that brought the modern world into existence.

Today, a similar revolution is under way...

- Nicolas Carr, The Big Switch

http://tinyurl.com/cloudCSL