Agenda

1. An approach to cloud
2. Privacy and functionality wins with Penn+Box
Key Questions to Answer

- What is “The Cloud”?
- Can you share some examples?
- What are the risks?
- How is Penn addressing these risks?
What is “The Cloud”? Any type of web-based applications or services offered over the Internet by a third-party.

- Email
- Collaboration
- Social Network
- Photos
- Videos
- Computing
- Calendar
- Data Storage
Popular Cloud Vendors
Risks: What if...

...Gmail went of business. Could you get your data back?
Risks: What if…

...the Facebook terms and conditions change? Who owns your profile data today? What about tomorrow?
Risks: What if...

...Dropbox is hacked? Are you confident they have sufficient safeguards to protect your files and folders?
Risks: What if…

...there is no way to prevent Twitter from sharing your data (like when & where you tweeted from) with another 3rd party?
Risks: What if…

…Box.com doesn’t meet the Data Management Plan requirements from NSF? Can you get the necessary language in a contract?
Risks: What if...

Amazon is keeping your data and virtual systems in their Chinese datacenter and not in the US?
Risks: What if...

...the service is unwittingly “exporting” certain regulated information without a license where one may be required?
Risks: What if…

...you have a problem with your free Facebook or Yahoo! email account? Who do you call for help?
*Penn’s Response to these Risks*

1. Raise awareness of the risks
   - *Cloud Guidance – Almanac*

2. Provide readily available alternatives
   - *Locally built and/or hosted solutions*
   - *Vetted and approved external providers*

3. Provide tools to help you evaluate
   - *The sensitivity of your data*
   - *The vendor’s security and privacy posture*
Local Resources

- Secure Share and Secure Space
- Penn-run course portals such as Blackboard
- ISC’s Secure Instant Messaging (Jabber)
- Local School/Center solutions
  - e.g., RedCap

- Links are available at the end of the presentation
Vetted Cloud Resources

Agreements already exist for these vendors:
- Amazon Web Services
- Penn+Box
- Other solutions in process…
  - Penn Cloud
  - Microsoft Office 365
  - Google

Note: Even though they’re vetted, you still need to consider usage recommendations

Not all data is appropriate (e.g., HIPAA)

When in doubt talk to your Local Support Provider (LSP)
What if an approved vendor isn’t available and you have one in mind?

1. Be aware of the risks and follow Penn’s cloud guidance (see link below)

   http://www.upenn.edu/computing/security/cloud/

2. Identify the sensitivity of the data you plan to store and conduct appropriate review. See Data Sensitivity and Review Framework

   http://www.upenn.edu/computing/security/cloud/

   • Ensure appropriate contract language – Exhibit A terms, additional if FERPA, HIPAA, subcontractors apply (Exhibit “C” for Cloud agreements work underway)

   • Work with your Security Liaison to assess the security posture of the desired solution – ISO 27000 series, SSAE 16, SPIA for Vendors, or other security documentation

   • InfoSec, Privacy Office, others available to assist

3. If University-wide agreement or otherwise high priority, must contact ISC Cloud Office to initiate University approval process
Recap of Cloud Process

You’re looking for a Service or Application

It’s available in the cloud
  • Consider Almanac “Cloud Guidance”

If none exist, utilize Data Sensitivity and Review Framework
  • Contract review
  • Security review

Consideration of Penn-approved options - internal or external
  • Review ISC Cloud Website

All documents referenced above are available at the end of this presentation
Privacy and Functionality Wins
<table>
<thead>
<tr>
<th>Workflows and Collaboration</th>
<th>USB Drives, Attachments</th>
<th>Backups, Transfers</th>
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</thead>
<tbody>
<tr>
<td>SharePoint</td>
<td>File Server</td>
<td></td>
</tr>
<tr>
<td>Content Management &amp; Publishing</td>
<td>Web Server</td>
<td>Workgroup, Inter-/Intranet</td>
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</tbody>
</table>
Over 300,000 10-page papers

Over 30,000 photos

upenn.box.com

50 GB
Why Penn+Box? For users

• Access from anywhere

• Configurable to include and exclude the “right” people — potentially prompting good privacy decisions

• Configurable to prohibit downloading — an important control to curb proliferation of data on devices

• Security
Why Penn+Box? For Penn

- Strong privacy, security, data location, compliance and other controls negotiated into agreement
- Compare users opening their own accounts on less favorable click through terms
- More accountability and access to institutional data when needed (business continuity, disaster recovery)
<table>
<thead>
<tr>
<th></th>
<th>Penn+Box</th>
<th>Dropbox</th>
</tr>
</thead>
<tbody>
<tr>
<td>Space</td>
<td>50 GB</td>
<td>2 GB</td>
</tr>
<tr>
<td>Contract</td>
<td>University contract: FERPA, confidential data</td>
<td>Personal click-through agreement</td>
</tr>
<tr>
<td>Logins</td>
<td>PennKey logins, local credential if needed</td>
<td>Local credential</td>
</tr>
</tbody>
</table>
Today

- More than 4,800 (and growing) Penn users have accounts on Penn+Box
- They share with others at Penn and
- They share externally — for every 5 here, there's 1 outside collaborator
Collaborate!

Create Document

Notify

Upload

Assign

Edit

Share

Revise

Discuss

Comment

Forum

Metadata

Lock

Version

Email

Sync

Web

Mobile

Internal

External

Review

Approve

Update
Your First Steps

1. Create account via upenn.box.com and log in

2. Download and install Box Sync

3. Create *Private* and *Shared* folders and stick to it! (Doing that from your computer is easy.)
First Login
Box Sync
Make a Private Folder

Box Documents

Box Sync

PDF

ReadMe.pdf

Default Sync Folder

Private

Shared
Types of Users

• Penn active faculty, staff, or students (usually with an @upenn.edu account/identity)

• Managed users: external (not upenn.edu, but with privileges similar to Penn people with accounts on Penn+Box)

• External users: consumer "Box Lite" users who need accounts to look at data owned by Penn

• Anonymous users: content viewers who can view folders and files that are Open
Types of Folders

- *Private is the default*
- Private Folders are Yellow
- Shared Folders are Blue
- Synchronized folders have Checks or Arrows
Types of Access by Folder

Disable - private with no shared link access

Collaborators Only - private with shared link access for explicitly invited collaborators

@University of Pennsylvania - limited to users on Penn+Box who know the shared link address

Open - Anyone with the link can access
Shared Access ... or Not
Sharing with Collaborators
More to Consider

• Cascading permissions
• Completely public folders
• Working with external collaborators
External Collaborators and Penn+Box: Penn Accounts Should Own Penn Data

1. Penn Person Creates Penn+Box Acct
2. Create folder(s), set permissions
3. Invite External Collaborator
4. Collaborate!
5. External Collaborator Has PennKey?
6. PennKey SSO
7. Box Credential
8. External Collaborator Creates Penn+Box Acct
9. External Collaborator Creates Box Lite Acct
10. No external account needed for public data
11. Open Access?
12. External Collaborator Creates Box Acct
13. Either can create folder(s), set permissions
14. Collaborate!
15. Public Data
16. Agree on who owns and shares the files
17. Need 50 GB quota, desktop sync, contract protections?
External Passwords

Create External Password

Because you are using Single Sign On (SSO), you will need to create a unique password to use external applications that do not support SSO.

If you have forgotten your password, you may reset it here.

New password: 

Confirm password:

Log out all applications from your Box account.

Save
Updates

- BAA
- Group Accounts
- Email Aliases
• General Counsel for Box handling Internet2 NET+ negotiations for Business Associate Agreement
• Resolution stalled, but still hopeful
• Secure Space timeline dependent on BAA

Then …
• OGC, OACP, and Information Security update

Box Data Sensitivity and Usage Statement
• Organizations discuss appropriate use

<table>
<thead>
<tr>
<th>Non-Confidential University Data</th>
<th>YES</th>
</tr>
</thead>
<tbody>
<tr>
<td>FERPA Data</td>
<td>YES</td>
</tr>
<tr>
<td>HIPAA Data</td>
<td>NO</td>
</tr>
<tr>
<td>Social Security Number</td>
<td>NO</td>
</tr>
<tr>
<td>Credit Card Data</td>
<td>NO</td>
</tr>
<tr>
<td>ITAR/EAR</td>
<td>NO</td>
</tr>
<tr>
<td>Human subject research data</td>
<td>With IRB approval</td>
</tr>
<tr>
<td>All Other Confidential University Data</td>
<td>*LSP (w/ controls)</td>
</tr>
</tbody>
</table>
Group Accounts

- Transition from Box Group Admin

- Requests need:
  - Account name
  - Shared folder name
  - Co-owners
  - Quota

- Owners manually add collaborators (as with user accounts)
Login and Email Addresses

- preset@upenn.edu  primary
- preset@isc.upenn.edu

Add more emails

Create External Password

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If you have forgotten your password, you may reset it here.

New password: 
Strength: 

Confirm password: 

Log out all applications from your Box account.

Save
Links

Secure Share & Secure Space:
http://www.upenn.edu/computing/security/secure-share/
http://www.upenn.edu/computing/security/secure-space/

Blackboard
http://www.library.upenn.edu/courseware/

ISC IM (Jabber)
http://www.upenn.edu/computing/im/
Links

PENN / AWS:
http://www.upenn.edu/computing/isc/aws/

Penn+Box (including Usage Statement)
http://www.upenn.edu/computing/box/
http://www.upenn.edu/computing/security/cloud/box_data_usage.php

Considerations for Cloud Computing
http://www.upenn.edu/computing/security/cloud/index.php

Cloud Computing: Opportunities Used Safely
http://www.upenn.edu/almanac/volumes/v56/n27/cloud.html

Data Sensitivity Review Framework:
http://www.upenn.edu/oacp/privacy/assets/pdf/data_classification_and_review_framework.pdf

SPIA for Vendors Tool:
http://www.upenn.edu/computing/security/cloud/spia_for_vendors.pdf
Thanks!

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