Alma, “the Cloud” and the Evolution of the Library Systems Department

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Agenda

• Background:
  – About Boston College
  – BC University Libraries’ Systems Department
• The BC Systems Timeline
• The BC “System of Systems”
• Changing Work from 1999 – 2014
• Distribution of Technical Responsibilities
• The “Clouds”
• Q&A
About Boston College

- Private, Jesuit Catholic University
- Chestnut Hill, Massachusetts
- 9,500 Undergraduates
- 4,500 Graduate/Professional
- 900 Faculty
- 8 Libraries; 3 million volumes; 740 online databases
- ARL Library
- Carnegie Classification: Comprehensive Doctoral/Research Institution with High Research Activity
The BC University Libraries’ Systems Dept.

- 13 Staff Members (10 Professional; 3 Info Tech)

- Head of Library Systems & Applications
  - Manager of Web Services
    - Web Design & Communications Specialist
  - Systems Librarian (Assessment Mgr)
  - Collections Analyst & Systems Librarian
  - Systems Integration Analyst
  - Technical Consultant (Lab/Desktop/IT)
  - Technical Consultant (Lab/Desktop/IT)
  - Digital Scholarship Librarian
  - Digital Scholarship Librarian
  - Digital Services Assistant
  - Digital Collections Systems Librarian
Boston College Library Systems Timeline

1999-2000
Aleph@BC
Systems Staff: 4
1. Sysadmin
2. Training
~17 million sites
~414 million users
Netscape source rel
JavaScript 3rd ed
SalesForce API rel

2001-2004
Metalib / SFX
ERMdb
Systems Staff: 5
1. Sysadmin
2. Reporting
~50 million sites
~900 million users
Wikipedia release
Web adopts Ajax
20 SFX Targets
250 Metalib DBs

2006-2007
Primo@BC
ARC (failed)
Systems Staff: 7
1. Sysadmin
2. Service Dev
3. Reporting
~80 million sites
~1.2 billion users
XServer/Primo API
Twittrr release
~500 open APIs

2009-Now
Into the cloud:
Alma@BC (2012)
Systems Staff: 13
1. Service Dev
2. Tech Strategy
3. Reporting
4. Sysadmin
~900 million sites
~2.8 billion users
~1.2 billion FB accts
~9000 open APIs
740 Metalib DBs

Internet History

Priorities

Years

Systems

Boston College Library Systems Timeline

1. Sysadmin
2. Training

Years

1. Sysadmin
2. Reporting

Years

1. Sysadmin
2. Service Dev
3. Reporting

Years

1. Service Dev
2. Tech Strategy
3. Reporting
4. Sysadmin

Internet History

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We Have Become a System of Systems

Over time BC moved from a mainframe-based administrative system (which included the ILS) to a massively complex system of systems. Effectively developing and implementing new online library services in this environment requires extensive collaboration.
Changing Work from 1999 – 2014

We went from focusing on...

- Aleph Support
  - Table Changes for Aleph/OPAC
  - ILS Service Packs / Hotfixes
  - Bib Data Indexing
  - Client Updates / Support
  - Troubleshooting
- Oracle Database Admin
- OPAC Customization
- Building Aleph SQL Reports
- Extracting Data for External Systems (Financial / OCLC / ILL, etc...)
- KB Updates / Maintenance
- Building and supporting ERMdb
- Building Library Web Site and Tools for End Users
- Talking about new technologies

To focusing on...

- Using data to power new dynamic, public-facing services
- Building reusable public (and staff) services using APIs and enterprise data
- Developing assessment tools
- Data access / data mining
- Tracking and responding to patron behavior
- Building library service integration tools for LMS and University systems
- Issue tracking / troubleshooting
- Alma / Primo configuration
- Collaboration on faculty and university projects
- Service level agreements. Cloud technologies.
Distribution of Responsibilities

Library Systems
*** Technology strategy ***
Assessment / reporting
App / interface / service dev
Sysconfig / troubleshooting
Integration / research projects

Online Library Services

BC ITS
Application infrastructure
Local cloud
Database admin
Backup / monitoring

Ex Libris & Others
App hosting
Upgrades / patches
Sysconfig / troubleshooting
Database admin
Backup / monitoring
“Cloud” vs. Local Applications @ BC Libraries

**Cloud Applications**
- Alma / UResolver
- Primo
- LibApps CMS (*In Development*)
- LibGuides
- Canvas LMS
- WorldCat Services
- Digital Measures (Faculty Activity)

**Local Applications**
- Metalib Federated DB Search
- Digitool
- LOCKSS (*Public Network*)
- MetaArchive LOCKSS (Private)
- Ultra: Born Digital Archiving Server
- **Local BC Cloud (Virtual Servers)**
  - EZProxy (*Prod & Test*)
  - Islandora Institutional Repository
  - ILLiad Interlibrary Loan
  - Confluence (*Wiki & Jira*)
  - Archivists Toolkit
  - Archives Space
  - OJS: BC Online Journals
  - 15 Web Application / Indexing & Reporting VMs
So the “clouds” help ...but there are risks

- Security ceded to cloud provider
  - Confidential data (how are they securing?)
  - Access control / authorization
  - Multitenancy and segregation of data
  - Software / VM exploits
- Availability of software & services / Unplanned downtime
  - What is vendor’s redundancy plan? Do they allow audits?
  - Can you ensure continuity of service when there is a problem?
- Loss of control over your data & physical tech infrastructure
  - Legal jurisdiction, local laws may influence access & security
- Do you have access to backups / mirrored data?
- Ownership of your data (are you sure you own it?)
- Can you access your data in ways that match your needs?
  - Can you get all of your data out when/how you need?
  - What if the vendor goes out of business?
- Interoperability: How good is the API? Is it well-documented?
- Lock-in to service
  - Can you move app if vendor makes changes you do not like?
IGeLU Conference 2014

Questions / Discussion?

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