A Partnership and New Model for UBC Library IT in the 21 Century

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Overview

Overview

Introduction and Context

IT Assessment and Findings

Recommendations

Service Design and Process

Introduction and Context

Introduction and Context

UBC is undertaking a broad program of IT transformation on campus:

- maximize investments
- better utilize skills and talents of IT staff

Introduction and Context

Assessment to identify and document the current situation, future requirements, and recommendations for change:

- immediate operational challenges
- management processes and practices
- technical assets, interactions and risks
- people focus

Introduction and Context

Significant cognitive dissonance:

- assessment discovery and recommendations
- new organization(s)
- remediation work identified
- significant projects inflight and completed

IT Assessment and Findings

IT Assessment

3 areas of investigation:

- Business analysis
- Applications inventory
- Infrastructure review

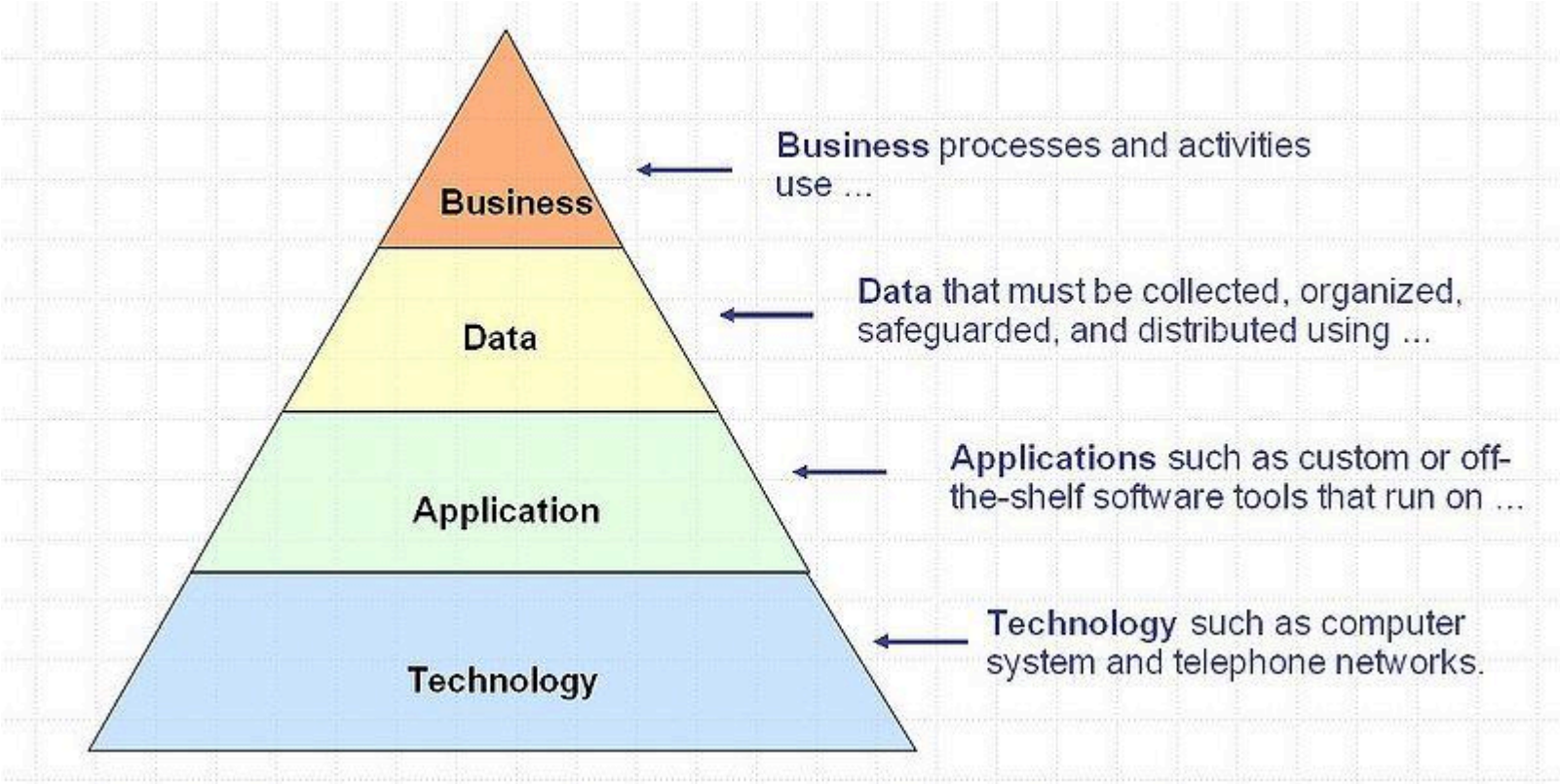
Business Analysis

Business Analysis

Business Analysis

Informed by Enterprise Architecture principles:

Business Analysis



Business Analysis

Informed by Enterprise Architecture principles:

- create strategy, vision and road maps
- define business capabilities
- establish IT governance

Business Analysis

Ideally resulting in an alignment between Library strategy and IT services.

Business Analysis

Goals of the analysis:

- consult with staff
- generate capability map
- identify business functions

Business Analysis

Staff consultation:

- 15 cross-functional meetings
- 8 branch and 2 campus consultations
- Total of 39 interview sessions

Business Analysis

The capability map:

- describes an organization's potential
- represents an organization's functional abilities
- provides a framework for aligning strategies

Business Analysis

An effective capability map:

- captures the business interest
- provides a stable view of the business
- can be used to link resources and activities

Business Analysis

What does a capability map look like?

Business Analysis

What does a capability map look like?

Our capability map employs a nine-box matrix.

Business Analysis

What does a capability map look like?

Our capability map employs a nine-box matrix.

And conveniently slots into 3 categories:

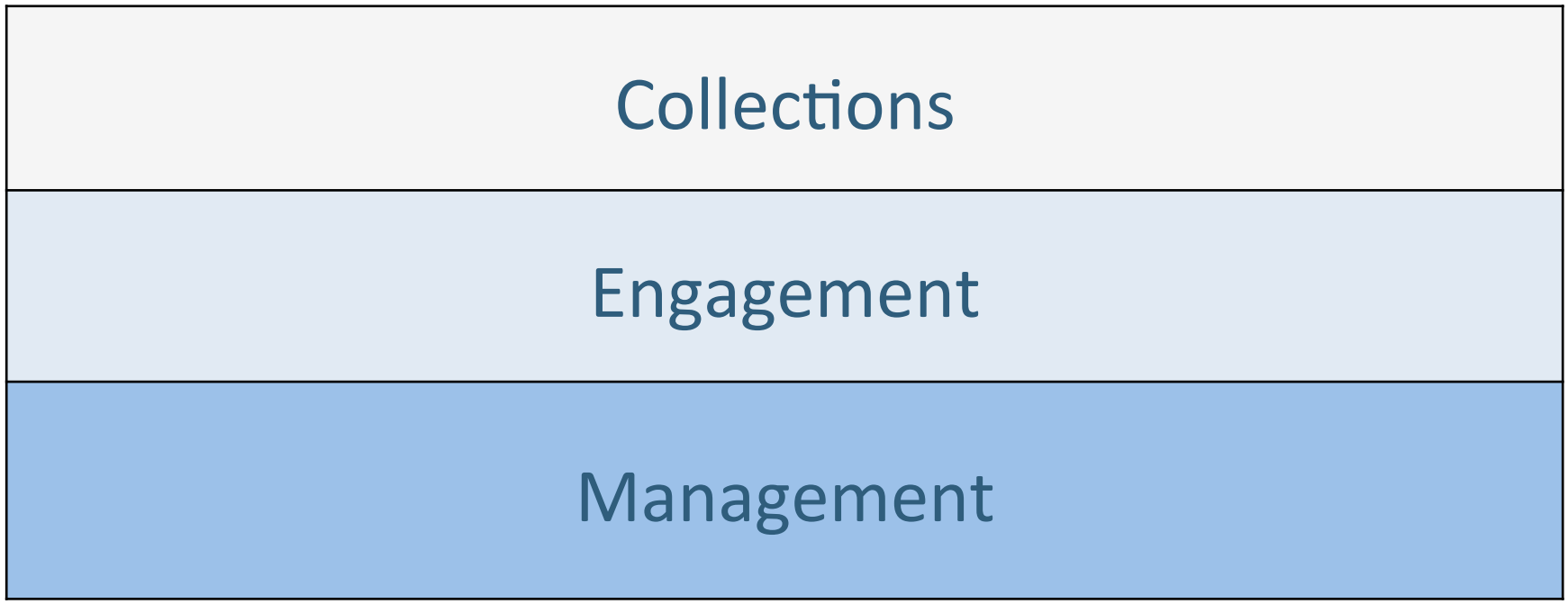
Business Analysis

Collections

Business Analysis

Collections
Engagement

Business Analysis



Business Analysis

Develop Collections	Provide Access to Collections	Assess and Maintain Collections

Business Analysis

Develop Collections	Provide Access to Collections	Assess and Maintain Collections
Engage with Teaching and Learning	Engage with Research	Engage with Community

Business Analysis

Develop Collections	Provide Access to Collections	Assess and Maintain Collections
Engage with Teaching and Learning	Engage with Research	Engage with Community
Manage and Empower Employees	Manage Internal Knowledge & Change	Manage Facilities, IT & Finances

Business Analysis

Diving deeper, business functions describe high-level functions that enable the capabilities

Business Analysis

Develop Collections	Provide Access to Collections	Assess and Maintain Collections

Business Analysis

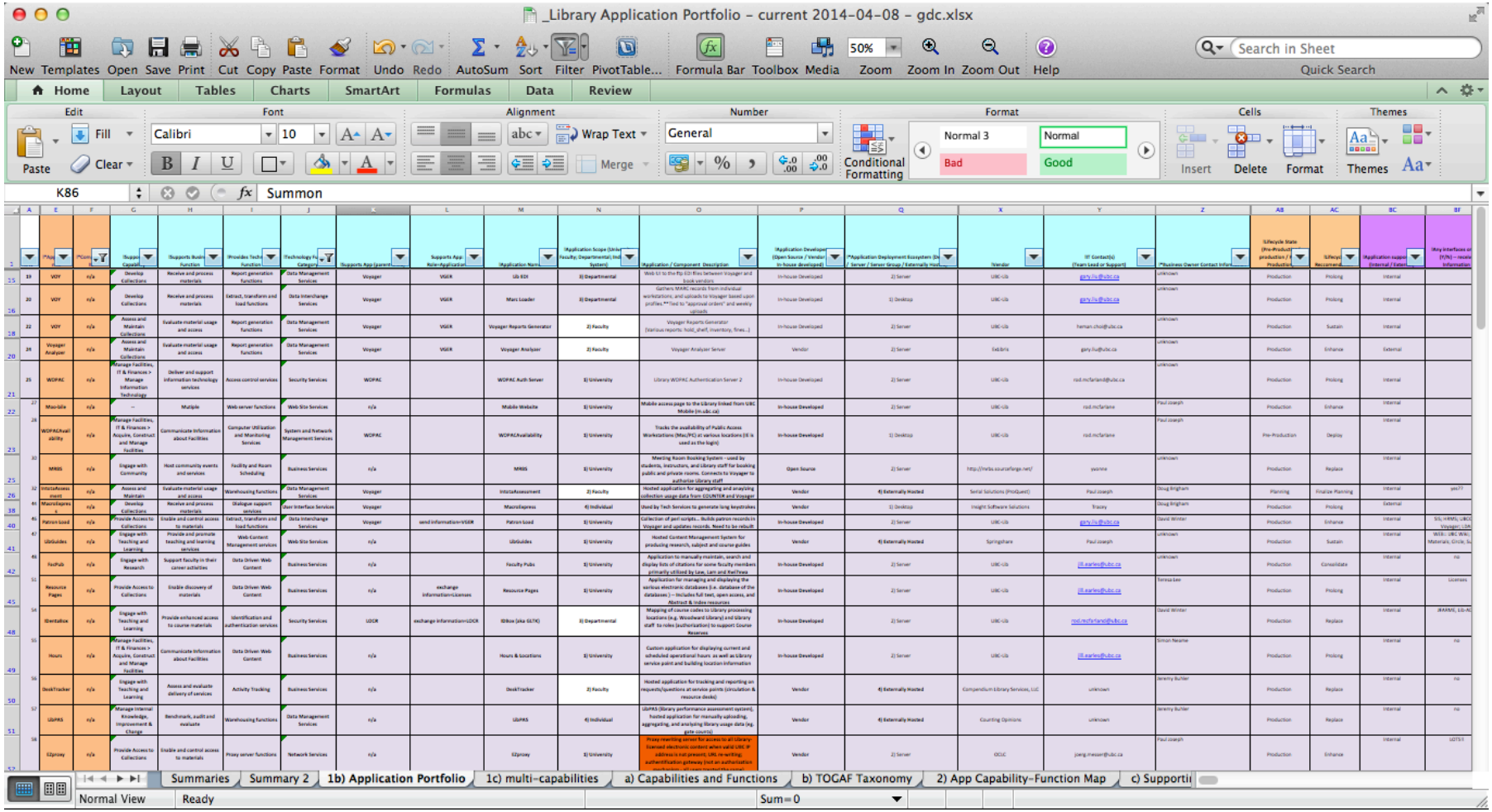
Business Analysis

Provide Access to Collections
Situate materials in collections Enable discovery of materials Develop and manage access policies Enable and control access to materials Retrieve and deliver materials

Business Analysis

Assess and Maintain Collections
Review materials and collections Assess material quality Evaluate material usage and access Deselect materials Renew, replace, preserve materials Maintain material descriptions

Applications Inventory


_Library Application Portfolio - current 2014-04-08 - gdc.xlsx
Summaries
Summary 2
1b) Application Portfolio
1c) multi-capabilities
a) Capabilities and Functions
b) TOGAF Taxonomy
2) App Capability-Function Map
c) Supporti
Normal View
Ready
Sum=0

Applications Inventory

Goals of the applications inventory:

- inventory
- visualizations
- process maps
- analysis

Applications Inventory

Review parameters:

- end-user scope
- complexity
- lifecycle planning
- user and admin access
- personally identifiable information
- …and 60 additional metrics

Applications Inventory

Reviewed over 130 applications and mapped them to the capabilities:

Applications Inventory

Develop Collections	Provide Access to Collections	Assess and Maintain Collections
Engage with Teaching and Learning	Engage with Research	Engage with Community
Manage and Empower Employees	Manage Internal Knowledge & Change	Manage Facilities, IT & Finances

Applications Inventory

Develop Collections **19**	Provide Access to Collections **46**	Assess and Maintain Collections **29**
Engage with Teaching and Learning **16**	Engage with Research **6**	Engage with Community **11**
Manage and Empower Employees **1**	Manage Internal Knowledge & Change **10**	Manage Facilities, IT & Finances **23**

Applications Inventory

Application development:

Developer	# of Applications
Freeware	12
Open Source	29
UBC Library	47
Vendor	46
Total	**134**

Applications Inventory

Application deployment:

Environment	% of Applications
Desktop	15
Externally hosted	17
Server	61
Server group	7
Total	**100**

Applications Inventory

Server OS:

Environment	% of Applications
Linux	79
Mac	19
Windows	2
Total	**100**

Applications Inventory

Databases:

Environment	% of Applications
Microsoft Access	4
Microsoft SQL	2
MySQL	84
Oracle	4
PostgreSQL	6
Total	**100**

Applications Inventory

Findings:

Complexity

65% of applications require multiple servers or integrations with other applications

Applications Inventory

Findings:

End-user scope

53% accessible to the world

Applications Inventory

Findings:

Lifecycle planning

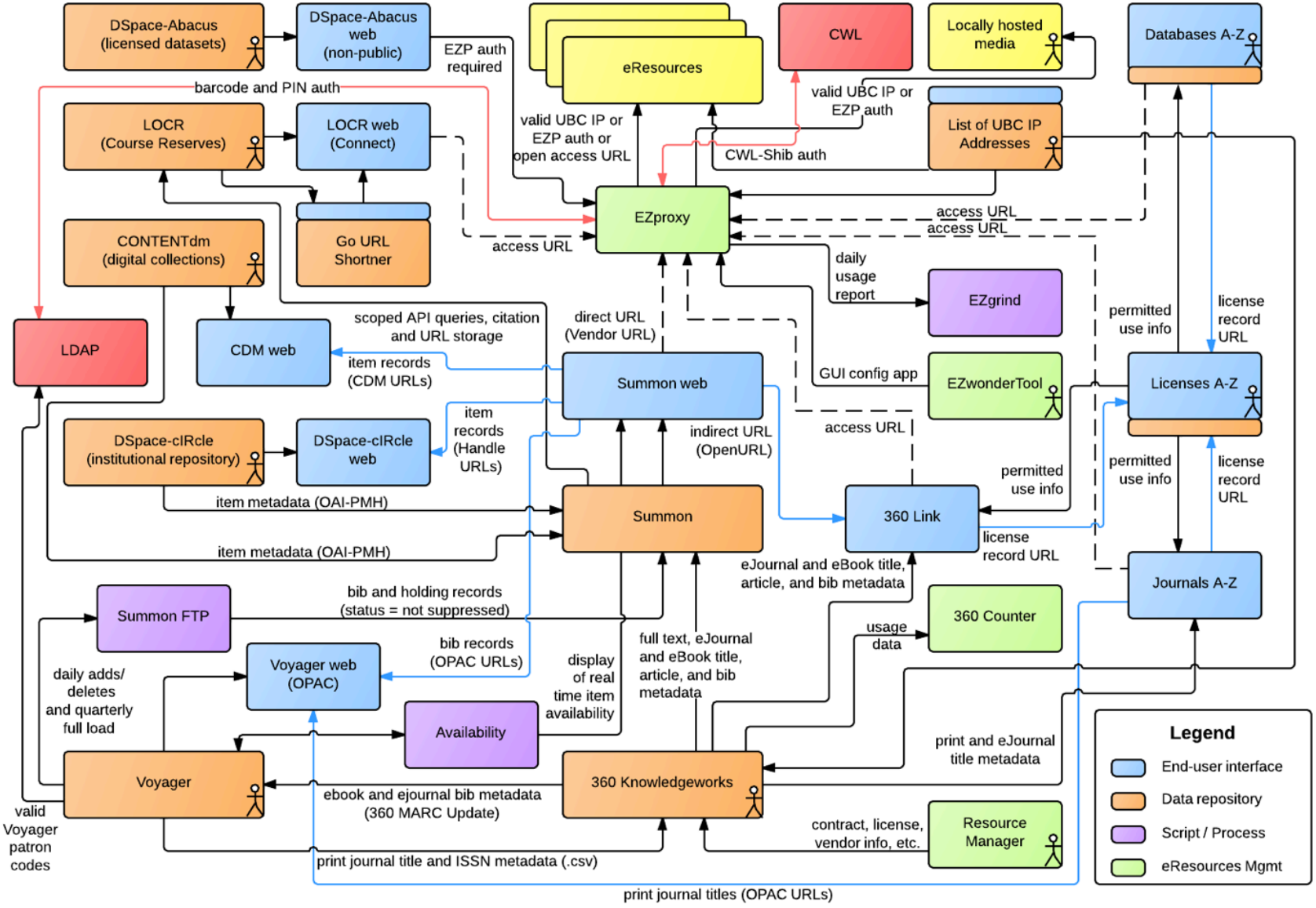
66% of the applications require update or change decisions

Applications Inventory

Complex visualizations

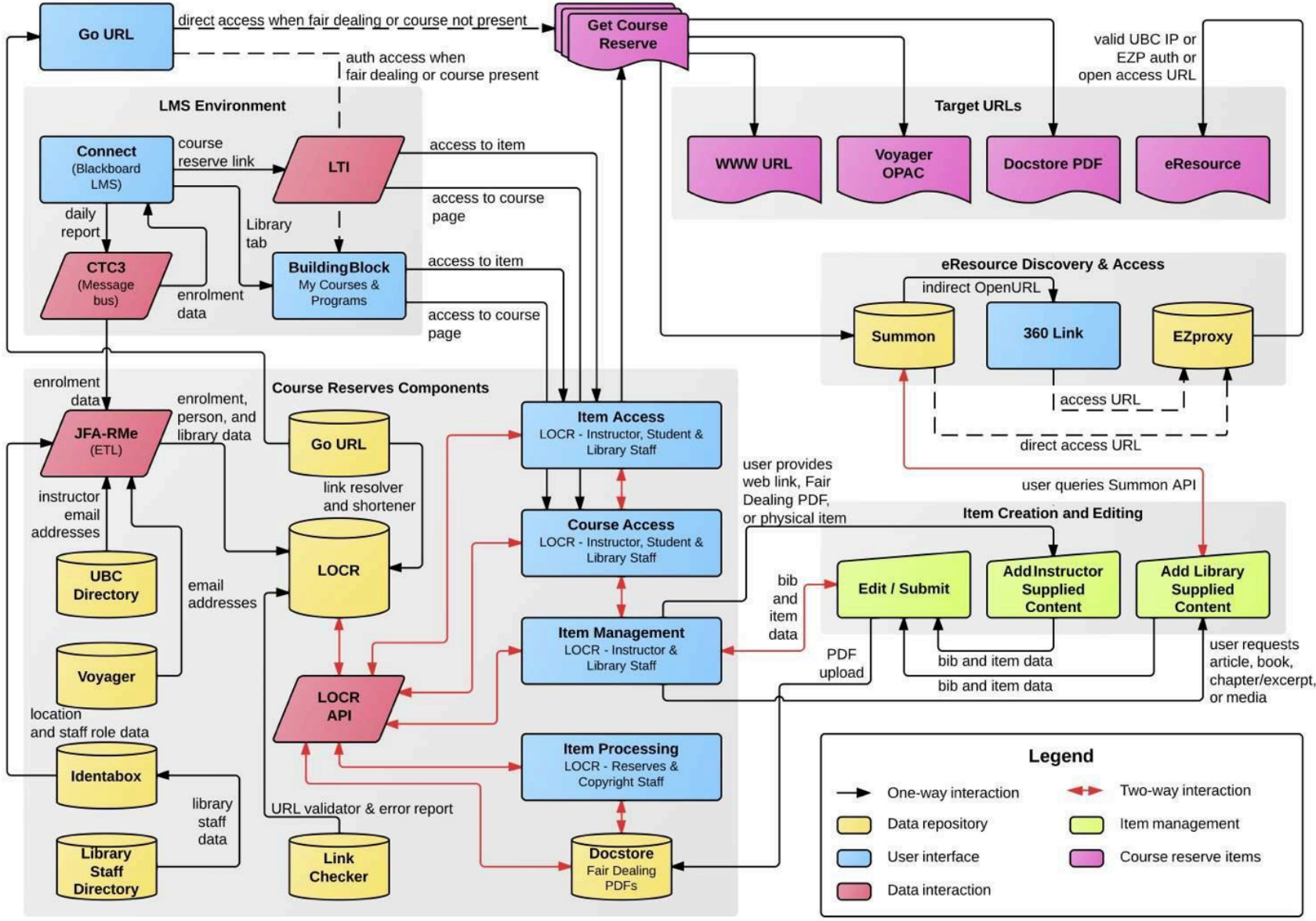
UBC Library eResources Ecosystem and Workflows

Paul Joseph
March 18, 2014



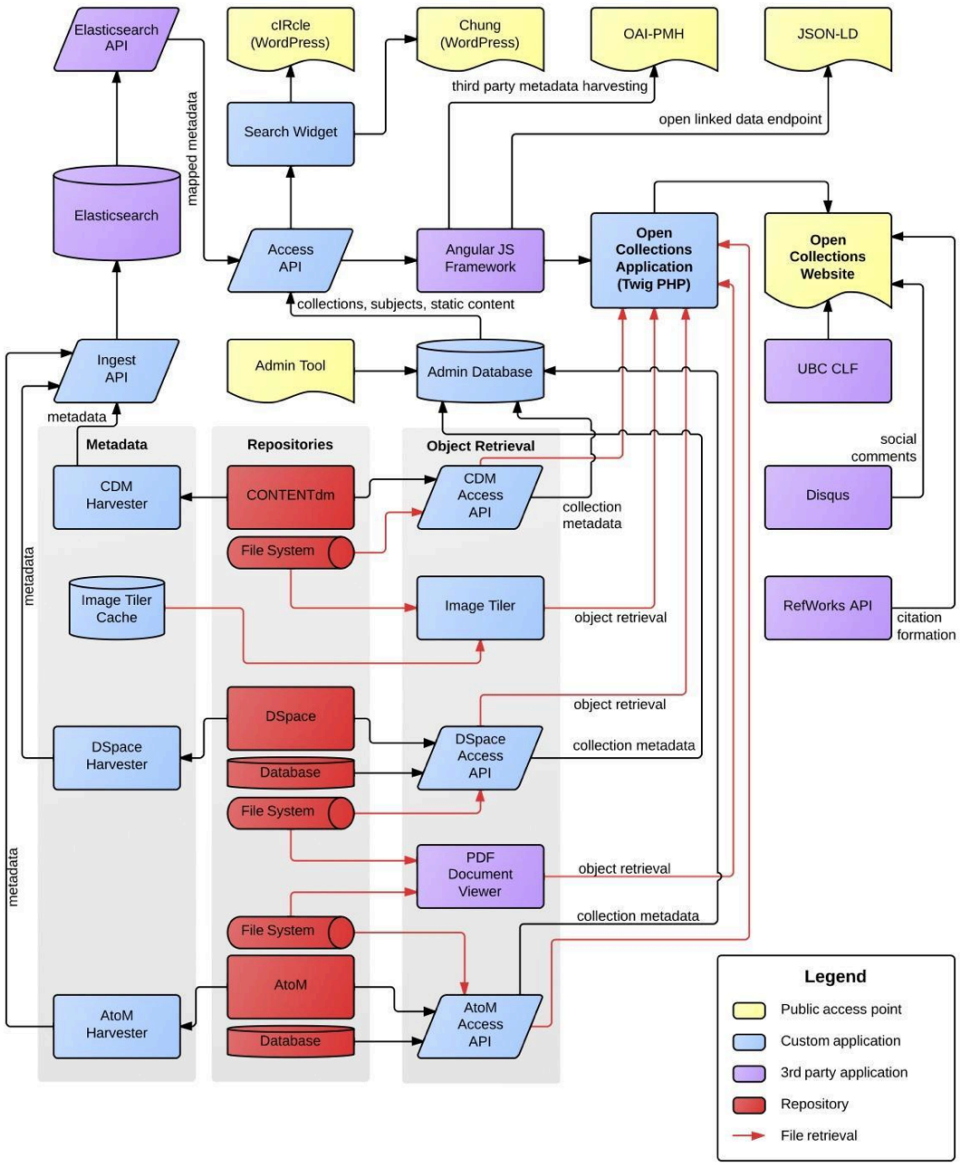
UBC Library Course Reserves Ecosystem and Workflows

Paul Joseph
April 7, 2014



UBC Library Open Collections Ecosystem

Paul Joseph
August 14, 2014



Infrastructure Review

Infrastructure Review

Goals of the review:

- hardware inventory
- application infrastructure
- security scan

Infrastructure Review

Hardware inventory:

- 87 virtual servers
- 19 physical servers

- 400 staff desktops
- 700 public desktops

Infrastructure Review

Hardware inventory:

- staff storage and backup solutions
- staff and public desktop support
- classroom and labs support
- software license management
- printers
- network management

Infrastructure Review

Application infrastructure:

- lack of application management and deployment lifecycle
- databases and server infrastructure requires consolidation
- security patching required

Infrastructure Review

Security issues:

- identity and access management
- personally identifiable information
- firewall upgrades
- anti-virus for Mac
- need to upgrade several versions of PHP

Recommendations

Recommendations

There are over 220 recommendations and the transition process will include further analysis and planning to implement them

Recommendations

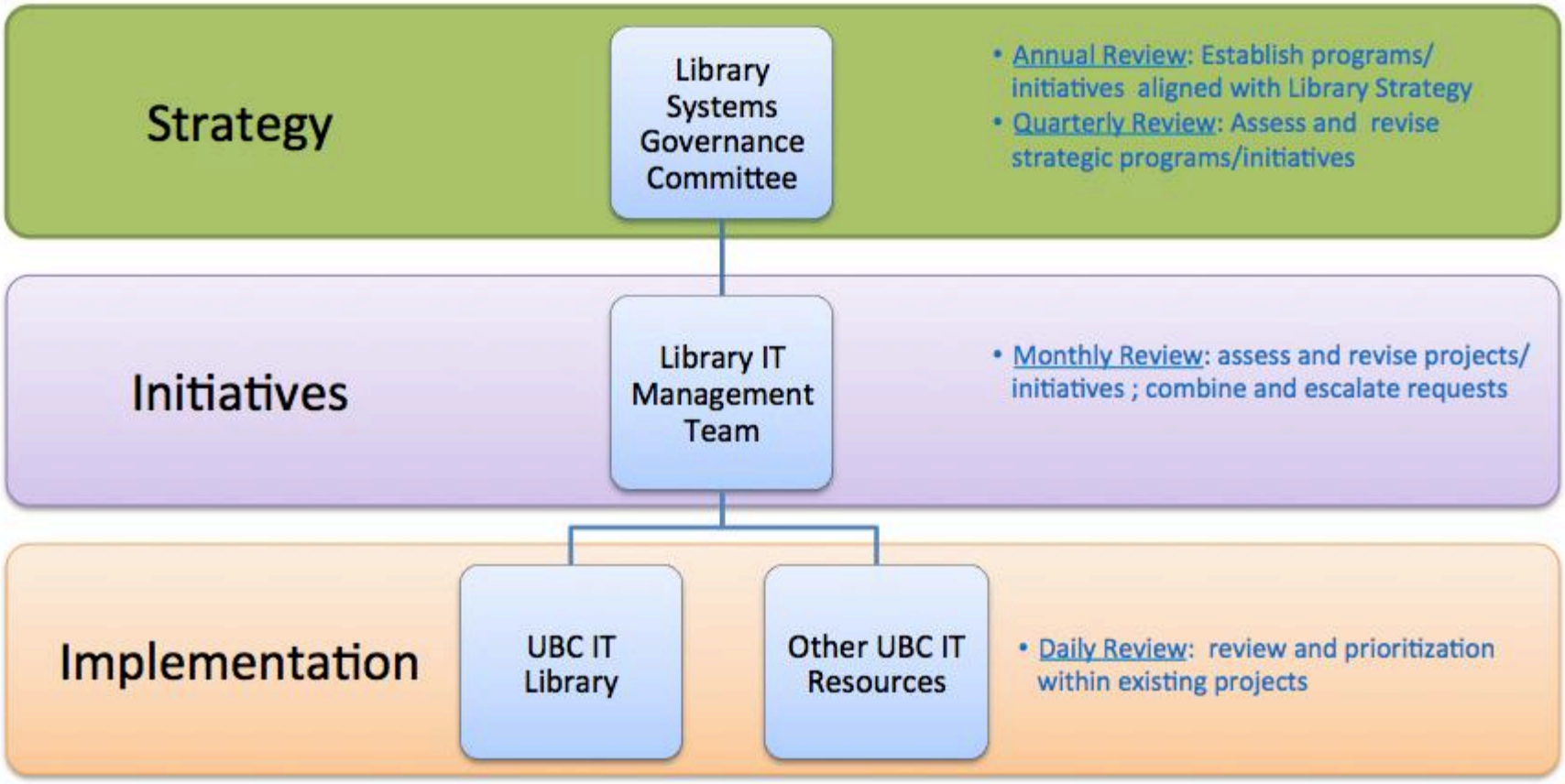
4 areas of focus:

- guiding principles and assumptions
- governance
- staff transfer & organization structure
- technical recommendations

Guiding Principles and Assumptions

- ongoing need to innovate, deploy, and integrate applications
- some roles dedicated to Library exclusively to increase responsiveness
- standard enterprise services used wherever possible to increase efficiency
- strong development practices to be efficient, innovative, and lower support costs

Governance


Strategy
Library Systems Governance Committee
• Annual Review: Establish programs/ initiatives aligned with Library Strategy
• Quarterly Review: Assess and revise strategic programs/initiatives
Initiatives
Library IT Management Team
• Monthly Review: assess and revise projects/ initiatives ; combine and escalate requests
Implementation
UBC IT Library
Other UBC IT Resources
• Daily Review: review and prioritization within existing projects

Staff Transfer & Organization Structure

- retention of existing Library services and support requirements, resources and processes (unless change is recommended)
- senior leadership for various IT disciplines and services
- career framework and development through connectivity with respective service areas
- existing enterprise processes and resources

Staff Transfer & Organization Structure

- Library IT Team connected to Senior Leadership in UBC IT
- UBC Vancouver and UBC Okanagan represented to leverage shared ideas and services

Staff Transfer & Organization Structure

- Senior Manager UBC IT Library dotted-line relationship to AUL recognizes:
  - Priorities and funding come from the Library

Staff Transfer & Organization Structure

- Systems Librarian dotted-line relationship to Enterprise Architecture recognizes:
  - Library has a continuing need for complex applications, data integrations and innovation
  - Library faces important issues that inform and influence UBC-wide solutions

Technical Recommendations

- allow the Library's resources to focus on its strategic Business Capabilities
- have an effective operations environment
- use the strong operations base to allow the Library to become more nimble and responsive
- minimize time and maximize return on investment for new initiatives

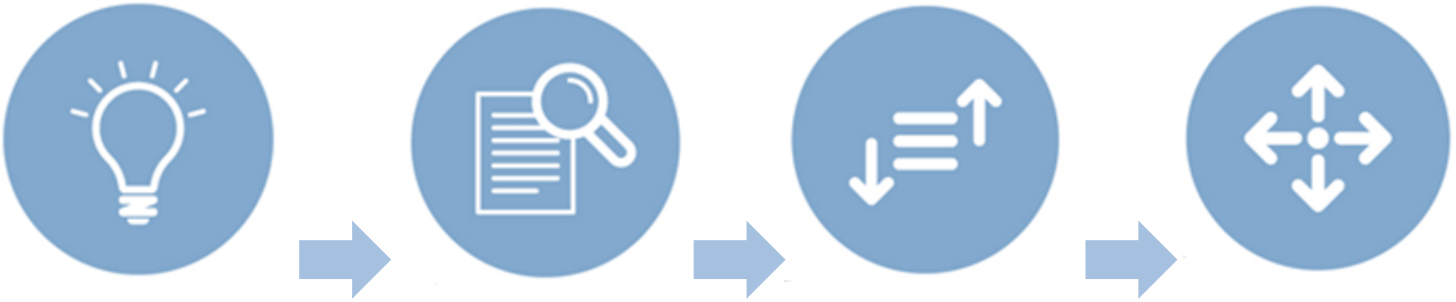
Service Design and Process

Service Design and Process

Improving collaboration and transparency in the creation of new services:

- sharing of ideas and expertise across the Library
- transparency in the decision-making process
- visibility of all initiatives underway
- alignment of decision-making process to our strategic objectives
- process for how ideas for new services are captured
- optimization of budgets and resources

The Process



DISCOVER

Submit your idea for a new using the 1-page Idea Template

Submit to relevant Standing Committee

DESIGN

Further develop your idea with more detail in a 2-page business case

Standing Committee submits to LOT and Lib Exec

DEVELOP

If required, complete a project plan to develop the solution

LOT and Lib Exec review

DEPLOY

The solution has been developed & ready to be operationalized

Standing Committee, LOT and Lib Exec operationalize lifecycle and evaluate

DISCOVER

Idea
1 page

1. Clear description of the idea
   - what problem is it solving?
   - what opportunity is it realizing?
2. How will it help us achieve our strategy?
3. What will success look like?

DECISION CRITERIA

STANDING COMMITTEE

- ☑ Strategically relevant to the Library
- ☑ Request owner identified
- ☑ Cannot be done by existing services
- ☑ ID resources needed for next stage
- ☑ Approval to enter design stage

DESIGN

Business case
2 pages

1. ID features critical for success
2. ID solution options
3. ID project & support cost scenarios
   - initial cost estimates
   - people & skillsets required
   - potential operational costs & funding model

DECISION CRITERIA

STANDING COMMITTEE, LOT & LIB EXEC

- ☑ Steering group is established
- ☑ High level task list created
- ☑ Smart goals & success measures
- ☑ Alternative solutions compared
- ☑ Promotion strategy considered
- ☑ Total cost of ownership, Benefits & ROI identified

DEVELOP

Project plan

1. Clear description of the idea
   - what problem is it solving?
   - what opportunity is it realizing?
2. How will it help us achieve our strategy?
3. What will success look like?

Deployment plan

1. Change management
   -communication plan
   - training plan
2. Performance monitoring in place if relevant
3. Decommissioning of old systems / processes accounted for

DECISION CRITERIA

STANDING COMMITTEE, LOT & LIB EXEC

- ☑ Project is satisfactorily complete
- ☑ Communication & training underway
- ☑ Change plan being implemented
- ☑ Ongoing ownership is in place
- ☑ Ready to operationalize & deploy

DEPLOY

Service is Operationalized

Any questions?