Architectural approaches to the next generation library: A case study in connecting librarians and architects at Griffith University

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Getting started

drivers | scoping the initiative
Library drivers

- Awareness
- Alignment
- Strategic comms
- Tech complexity
- Staff
- Timing
- Future planning
Current environment:
- Key stakeholders
- Library data model
- Library application portfolio
- Manual & automated data integration

Maturity assessment:
- Business criticality
- Functional coverage
- Information quality
- Performance
- Time to market
- IT standards compliance
- Supportability

Visualisations & observations:
- Application data flows
- Application strategies
- Data silos
- Business case recommendations
Process and outputs

data asset & application inventory | application maturity survey
application communication diagram | interactive visualisations
Data asset & application inventory: process

- 3 workshops with staff who use and support library systems
- Reviewed information in the EA management system (iServer)
- Mapped enterprise-level data entities (e.g. Person, Collection Item, Procurement) to each library system
- Mapped relationships between systems by identifying:
  - System of Entry
  - System of Record
  - Reference System
Data asset & application inventory: output

A workbook showing relationships:

- systems and data entities
- internal systems with each other
- internal systems with external systems

Note: This workbook is the data source for the Application Communication Diagram.
Data asset & application inventory: results

- More comprehensive and up-to-date information in iServer
- New data entity sub-types in the EA management system
e.g. Bib, authority and holdings records sub-types added to Collection Item
- Breakdown of applications into more granular components
e.g. Library management system split into cataloguing, circulation etc
- New external interfaces not captured in previous EA activities
e.g. web-based purchasing tools; Google Scholar (Library Partners Program); harvesting (Trove, Research Data Australia)
Application Maturity Survey: process

- Survey in spreadsheet form
- 44 staff participants - technical, non-technical and management staff
- 2 proxy viewpoints for academics and students – scores based on external feedback and previous usability assessments
- In total 124 responses about 11 library systems
Application Maturity Assessment: outputs

- A summary table
- A series of graphs for each application
<table>
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<tr>
<th>Name</th>
<th>Business Criticality</th>
<th>Suitability (Fit for purpose)</th>
<th>Business Fit</th>
<th>Technical Fit</th>
<th>Portfolio Quadrant</th>
<th>Management Strategy</th>
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Application Maturity Assessment summary table showing scores and recommended actions
This product is doing well – technical and business fit are high, all measures are above average...
... so for this product, optimisation is the recommended strategy
This product is business-critical but not doing so well – its end-of-life status shows in its low scores for supportability and time to get changes / enhancements addressed...
...so action is required. The recommended approach is to replace the application.
Insights can be more specific: this product is quite healthy overall but data quality is obviously an issue.
Interactive visualisation (work in progress)
Impacts
Impacts – short term, library domain

- Improved knowledge of EA concepts and practices
- Better ability to reduce complexity
  - e.g. more effective integrations
  - e.g. manual processes that could be automated
- Evidence base for decision making, priorities
- More effective communication
Impacts – long term, organisational

- Coherent strategy for the enterprise, not just the library
- Standardisation
  - e.g. finance, business intelligence?
- De-duplication of processes and systems
  - e.g. metadata harvesting as a consolidated service?
- IT strategy, planning and purchasing
Reflections
Reflections: success factors

- Highly converged library and IT – existing relationships
- Both groups worked in systematic and analytical ways
- Librarian receptiveness (compared to other engagements)
- Non-critical, non-judgmental approaches from architects
- In-house – commitment to building knowledge and skills through the process, not just delivering outputs
Reflections: challenges

- Lack of a common language
- Architects tended to focus on internal business users (library staff), while library was also interested in end users (academic staff and students)
- Competing priorities
Thanks

- Jolyon Suthers, Senior Enterprise Architect
- Anna Pegg, Associate IT Architect
- the Library Technology Services team
- and all our colleagues that participated in this initiative!