

Evaluating Open Source Software

—

New Library System for Finnish Libraries in Sight

Petteri Kivimäki
Information Systems Specialist
Liber 43rd Annual Conference
2 July 2014, Riga (Latvia)



Index

- Open Source Software
- Guidelines
- Case Study

Open Source Software

- Software which source code is open and accessible to users
 - Users are entitled to: use, develop, modify, distribute
- Does open mean free?
 - Associated costs
 - Human and technical resources
 - License agreement
- Benefits over commercial systems
 - Cost
 - Flexibility
 - Freedom
- Risk appetite

Steps

1. Identify candidates
 - Read the available literature and existing reviews
 - Briefly compare the leading programs' attributes to your needs
2. Compare and evaluate the top contenders
 - Get them and try them out
 - Compare against your organization's requirements
 - Prioritize requirements into categories
 - E.g. Must-have, nice-to-have
 - Compare different attributes
3. Pick the winner
 - ...or make another round if there isn't one

Features and functionality

- Does the software meet my organization's requirements?
 - Documented features vs. features in the software
 - Are all the must-have features included?
- What related programs and/or components are required?
- Is there a roadmap for the software?
- How is the software documented?
 - Technical documentation
 - User guides
- Examine what it would take to add new features

Technologies and software architecture

- How mature is the software?
 - Alpha, beta, stable, end-of-life
 - How popular the software is (market share)?
- Is the architecture _____ for your organization?
 - Suitable, scalable, reliable, flexible, secure?
- Are all the relevant standards supported?
 - Interoperability
- Does the software support localization?
- Code reviews
 - Code quality, security, test case coverage etc.

Software licensing

- Examine the license(s) and check if they are truly open source licenses
 - The most common open source licenses include GPL, LGPL, BSD, MIT
 - <http://opensource.org/licenses>
- If you're going to modify the software, the type of the license does matter
 - Copyleft (e.g. GPL) - derivative works must use the same license as the original work
 - Non-copyleft (e.g. BSD) - software released under the license can be used as part of programs distributed under other licenses, including proprietary licenses

Community

- Size of the community?
 - Are there international members?
- How is the community organized?
 - What commitments do the members have?
 - Who makes the decisions?
- How active is the community?
 - How often new releases are being published?
 - Meetings, events, conferences, mailing lists etc.
- Are there other members similar to your own organization?
 - Size, structure, country, language etc.
- Is third-party support available?

My organization

- Are there enough resources?
 - Human and technical resources
- Do we have the right skills?
 - Different resources and skills are likely to be needed in different phases
 - Installation, maintenance, local development, contributing the community, training, user support etc.
- Do all the stakeholders know the risks?
 - ...and accept them...?

Cost

- Getting the software is free...
 - ...deployment costs money
- Consider all the costs
 - Installation, development, support, maintenance, training, transition costs, hardware, license upgrade fees etc.
 - Joining the community might not be free
- Separate one time costs from continuing costs

Case Study

-

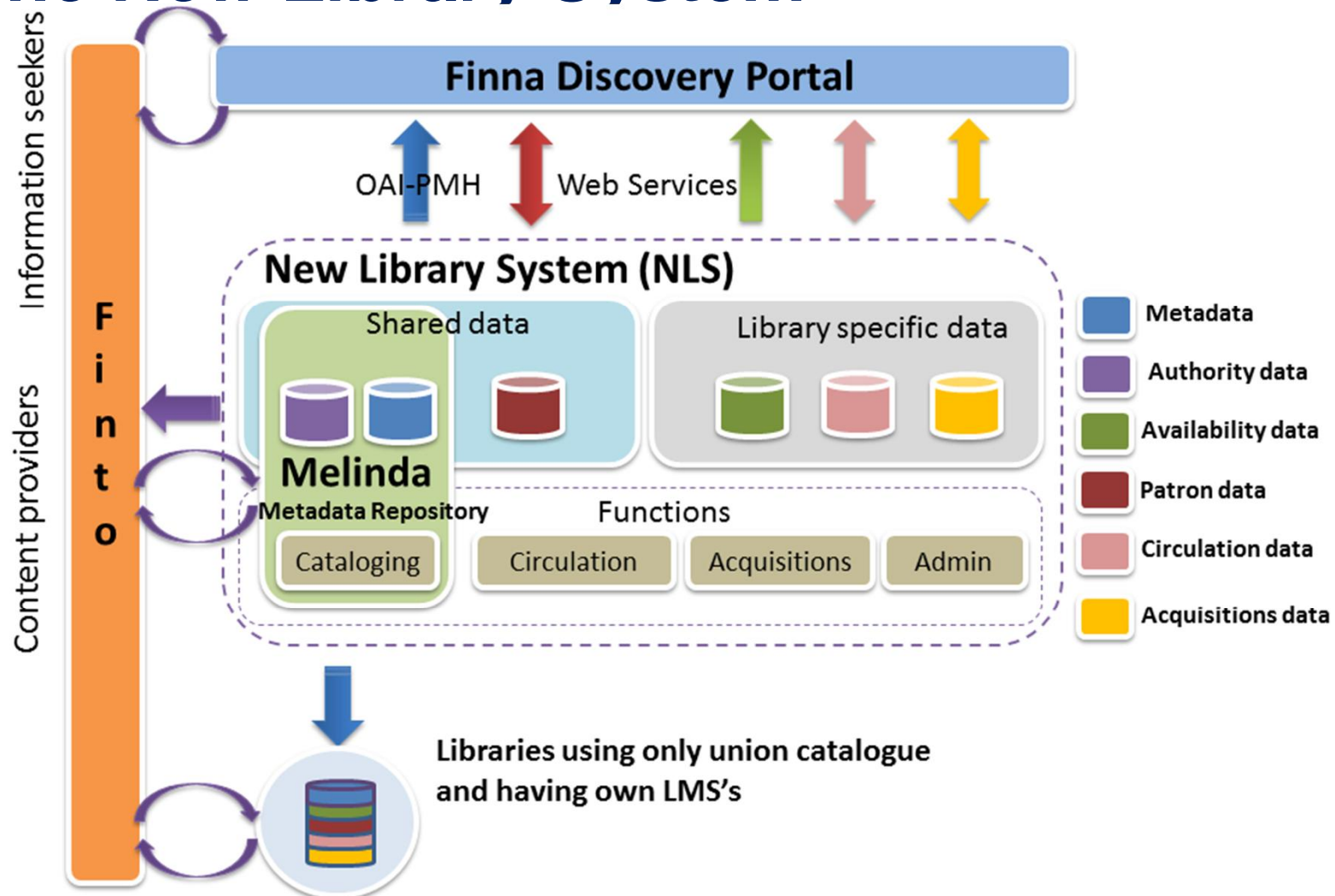
New Library System (NLS) for Finnish Libraries in Sight



The New Library System

- Library services platform for Finnish libraries
- SaaS solution
- Multi-tenant
- Modular design
- Based on SOA
- Open source
- Additional information
 - <https://www.kiwi.fi/display/ukjtoteutus/Centralized+Library+Services+for+Finnish+Libraries>

The New Library System



The New Library System

- The new library system has
 - Shared data
 - Metadata (Melinda), patron data
 - Library specific data
 - Availability data, circulation data, acquisitions data
- Functional modules
 - Cataloging, circulation, acquisitions, administration
- Melinda Metadata Repository - union catalogue for Finnish Libraries
- Finna Discovery Portal (*VuFind*)
 - <https://www.finna.fi/?lng=en-gb>
- Finto - Finnish thesaurus and ontology service
 - <http://finto.fi/en/>

The New Library System

- Evaluation of open source library systems was conducted as a part of the requirement analysis
- The aim was to find out which of the existing systems best fitted the requirements for the NLS
- We didn't expect to find a system that's ready as-is
 - A base on top of which the new system could be built

First step

- What was compared?
 - Functionality (high level), supported standards and interfaces, the community
- How the comparison was done?
 - Reading available literature and existing reviews
- Candidates
 - Koha, Evergreen, Kuali OLE, OpenBiblio, NewGenLib
- Dismissed
 - OpenBiblio, NewGenLib
- The top contenders
 - Koha, Evergreen, Kuali OLE

Second step

- What was compared?
 - Software architecture, technologies, level of modularity
- How the comparison was done?
 - Reading available literature and existing reviews
- Candidates
 - Koha, Evergreen, Kuali OLE
- Dismissed
 - Koha, Evergreen
- The top contender
 - Kuali OLE

Third step

- What was studied?
 - Functionality, interfaces, community, software licensing, costs, software architecture, technologies, level of modularity, localization
- How everything was done?
 - Installing the software and using it, code reviews, reading available literature and existing reviews, attending community meetings and events, joining mailing lists
- Candidates
 - Kuali OLE

Result

- Quali OLE was recognized as the top contender, but ...
- OLE is new and it's still under development
 - OLE looks very promising, but...
 - ...it doesn't meet the requirements for the NLS – yet
- First implementations are scheduled for summer 2014
 - In the US and in the UK
 - Need to see how the system performs live
- Too many "buts"?
- The NLS project keeps on following the development of OLE

Comments

- Very interesting, but time consuming process
- It was sometimes difficult to find answers to more specific questions
 - Documentation was not clear and/or parts were missing
 - *"Coming soon"*
- Comparing pros and cons of different architectures and techniques was very challenging
 - Strong technical expertise was often needed
- Positive feedback from the community

Thank you!

Petteri Kivimäki
Information Systems Specialist
The National Library of Finland
Tel. +358 50 3112499
petteri.kivimaki@helsinki.fi



THE NATIONAL LIBRARY OF FINLAND – Library Network Services