



Modern Information Services for Improvement Study Quality (MISISQ)

Creation of e-Library for Moldova Universities Integrated Library Systems review

Daiva Jurkšaitienė

daiva.jurksaitiene@ismuni.lt

2014.03.13

Integrated Library Systems review

- Electronic materials, such as subscription-based, open access, and repository based articles, e-books, multi media content, paper books, serials, and others are entirely different, set of library rules and policies – how library acquire, describe and manage these materials, how access by their patrons can be mediated. Each of the library services platforms takes a different tasks.
- Many libraries are in the process of thinking the effectiveness of the automation tools they're using to provide library services, both within and outside of their buildings. Internally, the core component driving many of these services has been the integrated library system (ILS).

Integrated Library Systems review

- When we looking at the integrated library systems we can see different technologies using for creation, different technical level need for the one or the another ILS, and library has a main and very important question which system is better for one's needs.
- The most well known vendors and product in such field are: Aleph by Ex Libris, Alma by Ex Libris, OCLS, Evergreen, Koha which has many vendors worldwide – By Water Solutions (USA), Biblibre (France), PFTS-Europe (UK) and much more all over the world.

Definitions

- **SaaS** – Software as a Service. When using a SaaS, You're using a remotely (or locally) hosted machine instead of a locally installed machine.
- **Cloud Computing** – software and services are in the Clouds.
- **Multi-tenant software** - (the provider only has to make updates once) or Single-tenancy architecture (the provider has to touch multiple instances of the software in order to make updates).
- **Security certification** – for safety data transfer. There are using 2 particular standards for those purposes – ISO/IEC 27001 and SAS 70/SSAE16. Those standards are very important especially if you are using Cloud Computing.

Choice criteria

- Libraries choosing ILS are currently in a situation where their primary focus needs to be on meeting end user or library member needs.
- They have to do this by moving quickly and showing real, substantial progress at a reasonable cost and without breaking everything that works.

So, given limited financial and staff resources, many libraries have to make a choice about where they will focus their resources in the short term – on the back-room efficiencies (library staff) or on user-facing services improvements.

ILS Software

- **Commercial**

for example – OCLS, Aleph, Alma, OCLC and etc.

- **National**

for example – LIBIS (in Lithuania), Alise (in Latvia), Bibsys (in Norway) and etc.

- **Open source**

for example – Koha, Evergreen and etc.

Analysis of the Integrated Library Systems

- ***Aleph by Ex Libris***

For over 20 years Aleph has been the integrated library system of choice for libraries and library consortia worldwide that require the ultimate in configuration flexibility. Aleph system configuration can be tailored to meet virtually any library policy or procedure, enabling the creation of unique policies and workflows.

Ex Libris ILS solutions address the needs of libraries of all types and sizes, ranging from smaller libraries, operating with limited resources, to the largest libraries and consortia.

Aleph by Ex Libris

Key benefits:

- **Flexible** — Customizable components are tailored to accommodate the requirements of institutions of all types and sizes, from single-branch libraries to the largest of consortia and national libraries.
Easy to use — User-friendly workflows and intuitive interfaces increase staff efficiency and enhance the patron experience.
- **Scalable** — Growth and expansion features enable libraries and consortia to continually re-envision and recreate their unique working environments.
- **Open** — Built on an Oracle® database, Aleph runs on a range of operating systems. Employing system-wide XML technology, Aleph offers third-party integration through an XML gateway. Aleph is based on industry standards, resource-sharing capabilities, full connectivity, interaction with other systems and databases.
- **Multilingual and multiscrypt** — Full Unicode support provides multidirectional and multiscrypt text capabilities. Users can interface with the system in their preferred language, and libraries can create new language interfaces.

Aleph by Ex Libris

Some of the institutions in which libraries are using Aleph:

- [The Hradec Kralove Research Library](#)
- [The Deutsches Bucharchiv](#)
- [Novanet Consortium](#)
- [The Medical University of Graz](#)
- [Pantheon Sorbonne University](#)
- [New York University](#)
- [European Union Institutions](#) - Council of the European Union; European Commission, the European Committee of the Regions, the European Economic and Social Committee, the European Central Bank, and the European Court of Auditors

Aleph by Ex Libris

- [Israeli Colleges Consortium](#)
- [Czech University of Agriculture](#)
- [Philadelphia Area Consortium of Special Collections Libraries](#)
- [University of Mannheim Library](#)
- [The University of Amsterdam](#)
- [NBD Biblion in the Netherlands](#)
- [Oxford University's Bodleian Libraries](#)
- [National Library of Russia](#)
- [Harvard University](#)

and many others

Alma by Ex Libris

Ex Libris Alma supports the entire suite of library operations—selection, acquisition, metadata management, digitization, and fulfillment—for the full spectrum of library materials, regardless of format or location.

- **Consolidate:** unify the disparate systems today's libraries manage for electronic, digital, and print resources
- **Optimize:** optimize workflows through shared data and collaborative services as well as a cloud-based infrastructure
- **Extend:** re-direct resources to focus on extending library services within and outside their institutions in direct support of teaching and research goals

Alma by Ex Libris

- **Unified resource management:** Alma supports the entire suite of library operations for print, electronic, and digital resources
- **Collaborative Metadata Management:** Alma brings highquality, shared metadata into the resource management environment in a unique, hybrid model that balances global sharing with local needs
- **Smart Fulfillment:** Alma provides fulfillment services to users in terms that are easy to understand, while using unified workflows and analytics capabilities to streamline and optimize fulfillment workflows
- **Optimized resources and data:** Alma simplifies library workflows by using a unique automated business processes and shared data

Alma by Ex Libris

- **Cloud-based service:** Offered as a cloud service to increase the return on investment and reduce the total cost of ownership of the library's infrastructure, and to provide access to shared data and services
- **Intelligent collection development:** Alma allows you to maximize your collection development budget with selection, acquisitions, and evaluation processes informed by usage information, cost per use, and the holdings of peer collections.
- **Ex Libris open platform:** Using web-based, open interfaces, Alma can be integrated seamlessly with other systems including external campus systems, and libraries can develop adapters and plug-ins to meet their institutions' unique needs

Alma by Ex Libris

Some of the institutions in which libraries are using Alma:

- [University of East London](#)
- [University of Minnesota](#)
- [Boston University](#)
- [Princeton University](#)
- [The University of York](#)
- [Lancaster University](#)
- [Boston College](#)
- [University of South Australia](#)
- [Purdue University](#)

and etc.

Statistic of Ex Libris products using

Ex Libris around the world

11 Offices

12 Distributors

23 Countries

Number of customers served

Over **5,300** customers

20 universities worldwide

41 North American universities

43 European universities

16 Asian universities

90 Members of the Association of Research Libraries

Number of countries served

82 Countries

6 Continents

<http://www.exlibrisgroup.com/>

Koha

- Since the original implementation in 1999, Koha functionality has been adopted by thousands of libraries world wide, each adding features and functions, deepening the capability of the system. With the 3.0 release in 2005, and the integration of the powerful Zebra indexing engine, Koha became a viable, scalable solution for libraries of all kinds.
- Koha is the first free software library automation package. In use worldwide, its development is steered by a growing community of users collaborating to achieve their technology goals. Koha's feature set continues to evolve and expand to meet the needs of its user base.

Koha

- **Full-featured ILS.** In use [worldwide in libraries of all sizes](#), Koha is a true enterprise-class ILS with comprehensive functionality including basic and advanced options. Koha includes modules for acquisitions, circulation, cataloging, serials management, authorities, flexible reporting, label printing, multi-format notices, offline circulation for when Internet access is not available, and much more. Koha will work for consortia of all sizes, multi-branch, and single-branch libraries.
- **Multilingual and translatable.** Koha has a large number of [available languages](#), with more languages every year.
- **Full text searching** Powerful searching, and an enhanced catalogue display that can use content from Amazon, Google, LibraryThing, Open Library, and Syndetics, among others.

Koha

- **Library Standards Compliant.** Koha is built using library standards and protocols such as MARC 21, UNIMARC, z39.50, SRU/SW, SIP2, SIP/NCIP, ensuring interoperability between Koha and other systems and technologies, while supporting existing workflows and tools.
- **Web-based Interfaces.** Koha's OPAC, circ, management and self-checkout interfaces are all based on standards-compliant World Wide Web technologies—XHTML, CSS and Javascript—making Koha a truly platform-independent solution.
- **Free Software / Open Source.** Koha is distributed under the Free Software [General Public License \(GPL\) version 2 or later](#).

Koha

Koha is a worldwide project... if you're not finding what you need in your language, you might try one of these language specific Koha sites:

- <http://koha-fr.org> – French language Koha site
- <http://groups.google.com.tw/group/kohataiwan> – Koha [Chinese language Koha]
- <http://www.koha.it/> – Italian language Koha Site
- <http://es.koha-community.org/> – Spanish language Koha Site

And everyone can connect to the translators team.

Koha translations

Koha is translated into lot of languages:

[Albanian](#)

[Amharic](#)

[Arabic](#)

[Armenian](#)

[Asturian](#)

[Azerbaijani](#)

[Basque](#)

[Bengali](#)

[Bengali \(India\)](#)

[Bulgarian](#)

[English \(US Academic\)](#)

[Filipino](#)

[Finnish](#)

[French](#)

[French \(Canada\)](#)

[Galician](#)

[German](#)

[German \(Switzerland\)](#)

[Greek](#)

[Hebrew](#)

[Hindi](#)

[Hungarian](#)

Koha translations

[Macedonian](#)

[Malay](#)

[Maori](#)

[Marathi](#)

[Mongolian](#)

[Nederlands-België \(Dutch-Belgium\)](#)

[Nederlands-Nederland](#)

[Nepali](#)

[Pangwa](#)

[Papiamentu](#)

[Persian](#)

[Polish](#)

[Portuguese](#)

[Portuguese \(Brazil\)](#)

[Romanian](#)

[Russian](#)

[Slovak](#)

Koha projects

[Koha 3.10](#)

[Koha 3.12](#)

[Koha 3.14](#)

[Koha 3.2 \(obsolete\)](#)

[Koha 3.4](#)

[Koha 3.6](#)

[Koha 3.8](#)

[MARC21 SQL Files](#)

[Terminology](#)

Libraries and Consortia working with Koha in Europe

Country	Location	Library Type	Library Name	Notes
Albania	Tirana	Academic	Biblioteka Shkencore e Universitetit te Arteve http://uart.edu.al	Public OPAC at http://www.uart.edu.al/katalog_bibli ; Koha version: 3.04
Austria	Vienna	Specialty	UNIDO Library	Public OPAC at www.unido.org/library , about to upgrade to 2.0.x
Belgique	Louvain-la-Neuve	Unité universitaire	unité d'écologie Université catholique de Louvain	Koha 2.2.5
Croatia	Osijek	Academic library	Evangelical Theological Seminary, Hendrickson library	Koha 2.2.8
Croatia	Zagreb	Academic library	Faculty of Humanities and Social Sciences, Zagreb	Koha 3.13, live OPAC http://koha.ffzg.unizg.hr
Croatia	Zagreb	Special library	Ruđer Bošković Institute Library, Zagreb http://library.irb.hr	Koha 3.4.2, live OPAC https://katalog.irb.hr/
Croatia	Zagreb	Special library	Zelena mreža aktivističkih grupa http://www.zmag.hr/	Koha 3.12, live OPAC http://zmag.koha.rot13.org/

Libraries and Consortia working with Koha in Europe

Cyprus	Nicosia	Academic library	Near East University	Koha 2.2.2. with Turkish OPAC
Denmark	Sall, Favrskov	Primary school library	Frijsendal Friskole, OPAC: http://bib.frijsendal.dk	Koha 3.4.x with Danish OPAC
France	Paris	College library	Ecole Nationale des Mines de Paris	Koha 2.2.9
France	Paris	Research library	Centre Roland Mousnier	Koha 2.2 (supported by Paul Poulain)
France	Paris	Research library	Bibliotheque de sociologie du CNRS	Koha 2.2.3 (supported by Paul Poulain)
France	Paris	Research library	Unite de Logique, Universite de Paris Jussieu	Koha 2.0.0 (supported by Paul Poulain)
France	Marseille	Research library	Centre de Mathématique et d'Informatique, Luminy	Koha 2.2 (supported by Paul Poulain)
France	Limoges	Research library	Bibliothèque de Mathématique de l'Université de Limoges	Koha 2.2 (supported by Paul Poulain)
France	5 branches	Research library	INRETS	Koha 2.2 (supported by Paul Poulain)

Libraries and Consortia working with Koha in Europe

France	Paris	College library	Centre de documentation de l'EMN	Koha 2.2(supported by Paul Poulain)
France	Chatel-Saint-Germain	Public Library	Bibliothèque Municipale	Koha 2.2 on Debian Sarge/Apache 2
France	Lyon	College library	Institut d'Etudes Politiques de Lyon	Koha 3.0
France	Aix and Marseille	Academic library	Universités d'Aix-Marseille 1,2,3	Koha 3.2+ (live in september 2010)
France	Rennes	Academic library	Université Rennes 2	Koha 3.10 (live in september 2012)
France	Paris	Academic library	BULAC (Bibliothèque des langues et civilisations)	Koha 3.2 ++ (live in december 2012)/ http://koha.bulac.fr
Finland	Valamo Monastery	Theological (Orthodox)	Valamo Monastery library	Planning a deployment, proofread translation to finnish and preparing MARC - tables to FINMARC21 compatible.
Georgia	Tbilisi	Prison library	Womens prison library	

Libraries and Consortia working with Koha in Europe

Russia	Moscow	Academic	Skolkovo Business School	OPAC(Supported by PTFS-Europe)
Russia	Apatity, Murmansk region	Academic	Scientific Library of KFPetrHU . OPAC: http://library.arcticsu.ru/cgi-bin/koha/opac-main.pl	Koha 3.x, russian interface. Self supported.
Russia	Moscow	University Library; School Library	University Library Dmitry Pozharsky (OPAC: http://lib.s-and-e.ru/); Filippovskaya School Library (OPAC: http://lib.fschooll.ru/)	Koha 3.2.x with russian interface, MARC21, UDC, BBK. Supported by Servantek .
Slovakia	Banská Bystrica	Academic library	Theological Institute, Badín http://www.xaver.sk/node/159	Koha 3.8.12, live OPAC http://kniznice.eu
Slovakia	Jasov	Monastery library	Jasov Abbey, http://www.opatstvojasov.sk/?kniznica	Koha 3.8.12, live OPAC http://opatstvojasov.kniznice.eu
Slovakia	Košice	Highschool library	St. Thomas Aquinas Highschool, http://www.gta.sk/skolska-kniznica/skolska-kniznica-aktuality	Koha 3.8.12, live OPAC http://gta.kniznice.eu
Spain	Mataro(Barcelona)	College library	Escola Universitaria del Maresme	Koha 1.2.3.

Libraries and Consortia working with Koha in Europe

UK	London	Special	Tavistock & Portman NHS Trust	OPAC(Supported by PTFS-Europe)
UK	London	University	Boston University Study Abroad London Library	Koha 3.0
Ukraine	L'viv	Theological library	L'viv Theological Seminary Library, OPAC: http://koha.lts.lviv.ua:8008/	Koha 2.2.9 with ukrainian interface on Debian, Dewey, Unimarc. Supported by ServanTek .
Ukraine	Kharkiv	University library	Library of Kharkov national academy of municipal economy,OPAC: http://library.ksame.kharkov.ua:8080/	Koha 3.0 with ukrainian interface on Arch Linux, UDC, Unimarc. Self supported.
Ukraine	Kyiv	University library	Library of Borys Grinchenko Kyiv University, OPAC: http://library.kmpu.edu.ua/cgi-bin/koha/opac-main.pl	Koha 2.x with ukrainian interface. Unknown supported.
Ukraine	Ternopil'	University library	Scientific and technical library of theTernopil Ivan Pul'uj National Technical University, OPAC: http://koha.tntu.edu.ua	Koha 3.8.x with ukrainian interface on Debian, UDC, Unimarc. Supported by Serhij Dubyk (serhijdubyk@gmail.com).

Koha

- Koha is built on LAMP – Linux, Apache web server, MySQL database and Perl as the primary programming language. The full text search index is provided by Zebra from IndexData (<http://www.indexdata.com/>). Zebra is a high-performance, general-purpose structured text indexing and retrieval engine. It supports large data sets (tens of millions of records) and includes support for SRU, Z39.50 and several query languages: CCL, CQL, and PQF.
- Records are stored internally in an SGML-like format and can be retrieved in MARCXML, Dublin Core, MODS, RSS, Atom, RDF-DC, SRW-DC, OAI-DC, and EndNote; and the OPAC can be used by citation tools such as Zotero. Creating new export formats is a trivial exercise in writing XSLT

Koha

- The database is currently implemented using MySQL. Database schemas are available on request.
- Koha also includes pluggable authentication – easy integration with LDAP and Active Directory via the Auth_with_ldap module.
- Koha has a powerful and flexible reporting capability. As well as guided reports and a once-click dashboard, Koha can easily be searched directly by any SQL compliant product.
- Koha supports a wide range of standards including MARC21, UNIMARC, MARCXML, Dublin Core, MODS, RSS, Atom, RDF-DC, SRW-DC, OAI-DC, SIP2, COinS, OpenURL, EDIFACT, RDA and LDAP

Koha

With Koha, library staff access to the system is completely web-based; acquisitions, circulation, cataloguing, serials and reports are all done through a web browser. As well as a search capability, the OPAC offers a range of Web 2.0 and Library 2.0 facilities such as tagging, commenting public and private lists.

Koha

The screenshot displays the Koha library management system interface. At the top, a navigation bar includes links for Circulation, Patrons, Search, Cart, and More. On the right side of the header, the user is identified as 'Floreville (Set library) | test (Log out) | Help'. The main content area features the Koha logo on the left and a search bar with the placeholder text 'Enter patron card number or partial name:' and a 'Submit' button. Below the search bar are tabs for 'Check out', 'Check in', 'Search patrons', and 'Search the catalog'. A large green circular graphic is partially visible on the left side of the page. The central area contains two columns of functional buttons: 'Circulation', 'Patrons', 'Advanced search', 'Lists', 'Cataloging', and 'Authorities' on the left; and 'Serials', 'Acquisitions', 'Reports', 'Koha administration', 'Tools', and 'About Koha' on the right. At the bottom, a status bar indicates 'Suggestions pending approval: 36'.

Koha Migration and Data Manipulation

Koha migration and server setup services include:

- Creation of a test Koha system for training and testing
- Transfer of all data from legacy ILS to Koha
- Koha installation and customization
- Administrative configuration
- OPAC customization
- Import of patron data, fines and fees
- Assistance with the import/configuration of authority records
- External device setup such as those using SIP2 and LDAP connections

Koha providers

- **ByWaters (USA)** - <http://bywatersolutions.com/>
- **Biblibre (France)** - <http://www.biblibre.com/en>
- **PFTS-Europe (UK)** - <http://www.ptfs-europe.com/products/koha/>
- **Software coop. (UK)** - <http://www.software.coop/products/koha/>
- **Masmedios (Spain)** - <http://www.masmedios.com/en/>
- **Xercode (Spain)** - <http://www.xercode.es/es/productos/koha>

and others

Koha community links

- <http://koha-community.org/>
- <http://koha-community.org/demo/>

ByWater

ByWater solutions was invented in 2008 in Santa Barbara, California. First client, Goodwin College, was signed, and since then ByWater Solutions has grown to a staff of over 15, and a partner base of over 800 libraries, making them one of the largest Koha service providers in the world.

Biblibre

BibLibre is a French company, founded in 2007, that has big experience in deploying Koha all around France, but not only. It is provider chosen by more than 90 libraries in France of all sizes, ranging from the Resistance museum in the Massif Central, which manages 5,000 records to the University of Aix-Marseille, which manages more than 1,5 million records for its 70,000 members. BibLibre is highly involved in the community. Company staff includes 20 librarians, IT people.

PFTS –Europe

Progressive Technology Federal Systems, Inc. (PTFS). The company service is hosted in Manchester.

PTFS Europe's Koha customer base has grown to over 40 libraries in the UK and across the rest of Europe. This has led to even more software development and increased functionality which in turn has led to continuing growth in the user base.

Conclusions

Summary Comparison of Integrated Library Systems Providers

System	Aleph	Alma	Koha	Koha	Koha
Vendor	Ex Libris	Ex Libris	ByWaters	Biblire	PFTS-Europe
Features					
Multi-tenancy	N	Y	O	O	O
Local installations possible	Y	N	Y	Y	Y
Security data exchange	Y	Y	Y	Y	Y
Shared data services	N	Y	U	U	U
Customer types targeted					
Public	Y	Y	Y	Y	Y
Academic	Y	Y	Y	Y	Y
Special	Y	Y	Y	Y	Y
National	Y	Y	Y	Y	Y
Consortia	Y	Y	Y	Y	Y
Functionality					
Acquisition	Y	Y	Y	Y	Y
Circulation	Y	Y	Y	Y	Y
Cataloging	Y	Y	Y	Y	Y
Discovery	O	O	U	U	U
ILL	Y	Y	U	U	U
Reporting	Y	Y	Y	Y	Y
One Interface	O	Y	O	O	O
Mobile support	Y	Y	Y	Y	Y
Multi-lingual Subject Headings	Y	Y	Y	Y	Y
FRBR support	L	L	U	U	U
RDA support	U	Y	Y	Y	Y
Preservation capabilities	Y	Y	Y	Y	Y
E-book support	L	Y	U	U	U
Cost	For fixed number of licenses and system support every year	For fixed number of licenses, system support and data storage in Clouds system every year	For support every year, users and staff licenses are unlimited	For support every year, users and staff licenses are unlimited	For support every year, users and staff licenses are unlimited

U- Unknown
 N – No
 Y – Yes
 P – Planned
 I – Included
 O – Optional
 L – Limited support of function

Conclusions

Economic

- ***Preliminary costs for 2014-2016:***

-
- **Aleph** – 30 licenses for staff; 50 licenses for users; 7 SIP2 servers licenses; 6 administrative units
- 1 OAI module – 420 000 Euros
- After 2017 – 204 445 Euros annual fee for licenses
- 45 219 Euros annual fee for maintenance
- **Total – 250 000 Euros per year**
- **Koha** –
- **ByWaters:** unlimited users from 170 000 USA Dollars
- After 2017 – 70 600 USA Dollars per year
- **Biblibre:** unlimited users 50 000 – 250 000 Euros

Conclutions

Decide which system is better for yours library with respect to all criteria – libraries needs, libraries staff needs, users needs, libraries acquisition and services politics, libraries technical equipment, IT specialists recommendations, economic criteria and etc.

Decision is Yours

