

### **Intro to Koha ILS**

Koha was born in 1999, on the cusp of the new millennium. The project came from frustration with the current crop of integrated library system (ILS) products on the market at the time and the prices that the vendors were charging for those products. A group of folks in New Zealand took the opportunity to create a new ILS, one that was based on open source principles and used a distributed, eventually world-wide, developer community to create and extend their new software, which they called Koha (a maori word meaning “gift”). That group - a combination of staff from the Horowhenua Library Trust and Katipo Communications - began the process of writing the software they wanted, but couldn’t find anywhere else, that year. On January 3rd, 2000, the software was released to the world for the first time (Koha Community, 2015).

The first libraries began adopting Koha for use in their organizations in early 2000 and awards began rolling in that same year. Koha won both the 3M award for library innovation and the ANZ (Australia New Zealand) Interactive award in the Community/NonProfit category in 2000. The first library in North America to use the software was the Coast Mountain School District in British Columbia, Canada after being quoted \$20,000 for a commercial ILS solution. That was just the start of the growth of the project, however. As more organizations and libraries adopted the software and more people became involved in the development of the software, the functionality of the software grew (Eyler, 2003).

From the beginning of the project, many people have contributed their time and talent to create an ILS that has the features of the major vendor-supplied software, fulfills the needs of libraries around the world and stays true to the spirit of the open source movement. As the project grew, more developers joined the effort and more libraries adopted the ILS and it got better and better as more people used it, improved it and refined the software until it was a viable choice for libraries of all sizes in all parts of the world (Eyler, 2003).

In Kansas, the CKLS (Central Kansas Library System) was the first to adopt the Koha ILS for use in the libraries in that system. By that time (2008), the software had been used and tested in numerous other libraries and was a strong competitor in the ILS market. There were commercial vendors who specialized in installing and maintaining Koha systems for libraries; so it was no longer required that every library have a technologist on staff who could wrangle Linux systems in order to get the ILS installed and configured - this was being handled for libraries that needed to focus their resources elsewhere. There are now libraries using Koha in every continent and many countries around the world ([http://wiki.koha-community.org/wiki/Koha\\_Users\\_Worldwide](http://wiki.koha-community.org/wiki/Koha_Users_Worldwide)). A map of 2593 of those sites can be found at <http://www.librarytechnology.org/map.pl?ILS=Koha>.

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### **Kansas Library System Structure**

Kansas has seven regional library systems established by law in 1965. Member libraries remain administratively independent. Each regional system operates independently under its own board, which has budget-setting and policy-making authority. Kansas is unique in that regional library systems have tax levying authority, and rely comparatively little on state funding or membership fees (quite the contrary—member libraries receive grants from the regional systems).

Each regional system provides services to libraries within its defined region as its board determines, to meet the needs of the libraries within. There are both great similarities and striking differences in the services. All seven systems provide continuing education, consulting, technical support, and grants, although how these services are provided differ. Some but not all systems provide rotating books (books that move around through the system, without having a set home at any one library in the system), interlibrary loan, mail-a-book, cataloging, processing and other services.

A relatively recent advancement is the development of regional shared integrated library systems. This began with the Northeast Kansas Library System (NEKLS) in 2003. The trend was accelerated when the State Library of Kansas began using Library Services and Technology Act (LSTA) funds for regional automation grants in 2006. Three of the seven regions came, separately, to adopt a Koha ILS, as described later in this paper.

### **Koha Support Options**

A key part of running an open source system is deciding how to support the software. The software license itself is free, but libraries commit to costs for the learning curve, migration, hosting, support, developments, and customizations. Some libraries support Koha internally with local library staff, some pay external developers to develop enhancements and fix bugs, and some pay a third-party vendor for hosting, support, and development.

CKLS, NEKLS, and SEKLS (Southeast Kansas Library System) chose the third option. All three systems originally signed five-year support contracts with the LibLime support company in 2007 and 2008. However, after initial successful migrations to Koha by LibLime, problems with support responsiveness, development delays, and ultimately, the well-documented fork of the Koha code by LibLime (Willis 2010), forced each system to look to alternative options. This situation was complicated by Progressive Technology Federal Systems (PTFS) purchasing LibLime in 2010 (Willis 2010). All three systems had chosen Koha for its open source focus and international community of development and support. To the systems, staying with the LibLime codebase was not an option.

Through an RFP (Request For Proposal) process that had several vendors sending in proposals to be NEKLS' next ILS, that system switched to the ByWater Solutions support company in March 2011 for Koha migration hosting, support, and development, continuing to pay on its LibLime contract for two more years. CKLS switched to ByWater in June 2011.

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SEKLS stayed with LibLime for two more years, but insisted on staying on the Koha community codebase, and was switched to PTFS Europe for support. After the five-year contract was up in 2013, SEKLS also switched to ByWater Solutions.

While the three Kansas regional library systems all chose ByWater Solutions for paid Koha migration, support, hosting, and development, there are many other support options available for Koha. The Koha community maintains many listservs for Koha users, including the main Koha listserv [koha@lists.katipo.co.nz] and a developer's listserv [koha-devel@lists.koha-community.org], an active Internet Relay Chat (IRC) channel [#koha], a community wiki [http://wiki.koha-community.org], regular IRC meetings, and a yearly international conference. Many Koha users utilize these resources. For libraries that don't want to support the system alone, paid Koha support is also an option; the Koha community maintains a current list of paid Koha vendors on the community website, <https://koha-community.org/support/paid-support/>.

### **Central Kansas Library System**

#### **Central Kansas Library System**

Central Kansas Library System covers 17 counties in Central Kansas and 54 public libraries. Fifty of those public libraries are now part of the CKLS consortia catalog, named Pathfinder Central. The system is just now starting to add Unified School Districts to its membership.

#### **Selecting an ILS**

In 2007, CKLS began the project of selecting a new ILS for the system's internal holdings, as well as to create a consortia catalog. The consultants set up a laptop to demonstrate each of the three selected ILS programs. The library staff audience circled a rating about the one they liked best. After observing the three demonstrated ILS systems, each library delegate had a score sheet for rating 40+ processes including: adding patron records, adding cataloging records, searching the catalog, circulation, reports, etc. Since many librarians in the new consortium would be new to ILS systems, CKLS Consultants emphasized the most important criteria for rating was ease of learning and using basic processes as opposed to bells and whistles and unique features. At the end of the demonstration, score sheets were collected and the scores totaled. Scoring showed one system stood significantly above the others. Four librarians preferred the two other systems. Two of those librarians chose Atrium as a stand-alone system for their library. The rest of the librarians joined the Koha consortia, supported through LibLime (aka PTFS), because CKLS provided the technical work and monetary support in addition to the large grant from the State Library.

Once CKLS and its libraries narrowed their options down to 2 catalog systems, they brought the decision to vote with the 54 libraries. Each library had the choice to (a) Join the Consortia Catalog and select their preferred ILS, (b) Create an independent Catalog with their choice of ILS on an off-site server, (c) Create an independent catalog with choice of ILS on an on-site server, or (d) Not to automate at all.

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In 2007, 20 libraries chose to join the consortia, with Koha from LibLime as the ILS of choice. An agreement contract was signed August 31, 2007 with LibLime to provide services and ongoing support for the CKLS migration to Koha Consortia Catalog. The first 20 libraries were scheduled to be added to the catalog, and a total of 477,000 records were migrated to Koha in the first year. Four Libraries were already automated and chose to stay with their selected ILS. Throughout the years, the rest of the libraries have decided to join the consortia catalog, which the group of libraries named Pathfinder Central.

The cost for the first year of service was \$63,819. Koha installation and configuration cost \$1,500 per library, with a total of \$30,000. The data migration was \$.05 per record, with a total cost of \$23,819. LibLime System charged the first year of annual maintenance and support for the 20 libraries at \$500 per library, with a total cost of \$10,000. LibLime also provided in-person training for \$1,000 a day, web-based training for \$125 per hour (with a minimum of 4 hours) and software development for \$125 per hour (with a minimum of 4 hours).

LibLime reserved the right to change the terms and conditions associated with the customer support for CKLS at any time, simply by posting the changes on the LibLime website.

#### **LSTA Grant**

When the State Library of Kansas distributed the Library Services and Technology Act for this project, the goals were: (1) Every Library would have an online catalog (ILS), and (2) every Library would participate in Statewide Resource Sharing with the statewide catalog. CKLS used the LSTA grant to automate paper catalog libraries and move automated libraries over to Koha Pathfinder Central. The grant funded: staff equipment including computer, barcode scanner, receipt printer; barcodes; patron cards; and data migration from the Kansas Library Catalog to Koha. Each library gave staff time to barcode each item, train on cataloging and train to use the system. CKLS provided the training, the administration of the grant, and the management of the project.

#### **Transitioning and Evolving**

Just a few years into the grand automation project, it became clear that LibLime Koha was quite different from Community Koha. Because PTFS had limited 9am to 9pm Eastern, Monday through Friday support, CKLS soon found our support needs unmet. Also, problems with CKLS data and slow developments with PTFS soon created dissatisfaction with the CKLS/PTFS contract. Combined with a desire to join community Koha, CKLS and its libraries made the decision to move to ByWater Solutions. In June 2011, ByWater imported over 600,000 records into their designated servers and Pathfinder Central joined the Koha community.

As Pathfinder grew, a need arose to create an advisory committee from the libraries. This committee, the Pathfinder Central Trail Blazers (PCTB), is made up of 5 librarians or library staff, nominated and voted from all participating libraries. One voting committee member is a CKLS consultant. Two other CKLS Pathfinder Manager consultants sit on the board as advisory members, but do not get a vote. The board decides the developments the system should fund,

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with an annual budget of \$5,000. Best practices and procedures are also created and presented by the committee to the group as a whole.

When CKLS first created Pathfinder Central, each library was given autonomy and ability to have all of their item types (material formats), collection codes, shelving locations and patron categories customized to each need. Now, with 50 libraries in the consortia, it is time to pare down the authority codes to a manageable and usable selection. System consultants are evaluating each authority value and selecting those which may be removed. Final removal selection will be approved by the Pathfinder Central Trail Blazers committee.

### **Lessons Learned**

In order to have a working consortia, there needs to be a team of managers for one-on-one training, supporting libraries, handling inquiries, submitting work tickets with ByWater Solutions and handling clean-up of records, authorities and reports. One person cannot do this alone.

Through this experience, CKLS learned that it is best to set guidelines from the beginning; set up the same patron categories, item types, collection codes and shelving locations for all locations; and only add a new category if there is a significant need that is not already met by an existing authority. CKLS has also created binders with printed graphic tutorials giving step by step instructions for each aspect of the staff side of Koha. This includes: cataloging, patron records, reports, tools (calendars, batch item modification, notifications, etc), placing and filling hold requests, and circulation.

### **Achievement**

Because of this project, all of our 54 public libraries will be automated by Spring 2016. Libraries in towns of just 100 people can now boast of being automated and having easy access to over 688,000 materials, can place holds and renew items from home, and are actively sharing resources within the CKLS region, and the state of Kansas.

### **Future Plans**

CKLS continues to build their in-house support team, now with three consultants providing support and training. The system also plans to offer admittance to the consortia for school libraries, although the LSTA grant is no longer available. There are many developments in the works, including placing multiple holds on a single record for book clubs, adding the bar code to the transfer receipts, and limiting item types by branch.

## **Northeast Kansas Library System**

### **Background**

The Northeast Kansas Library System service area covers 14 counties in northeast Kansas, serving libraries of all types, including providing service to 49 public libraries. The

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region is diverse: the smallest public library serves a population of about 200 (Corning) and the largest public library serves suburban Kansas City (Johnson County Library System).

Previous LSTA grant project summary documents written by retired NEKLS director Jim Minges describe the early history of the NExpress Regional Library catalog project (Minges 2009).

At the turn of the millennium, convenient online access by rural residents to the resources of their libraries was extremely limited. NEKLS has pursued the creation and development of the NExpress regional shared catalog since 2003, with assistance from LSTA funding, in order to accomplish the NEKLS vision of providing the public with convenient, rapid and direct access to state of the art library resources. That effort has been lengthy and challenging, but substantially successful. The development of NExpress has included these stages:

In 2003 NEKLS explored the feasibility of developing a regional shared catalog based at one of the major resource libraries within the region. NEKLS engaged Patrick McClintock of RMG Consultants, Inc. to conduct a feasibility study funded by an LSTA grant. Based on the results of that study, NEKLS requested proposals and selected the Kansas City, Missouri Public Library (KCPL) to provide the regional service. KCPL was managing an existing consortium, the Kansas City Library Consortium (KCLC), utilizing the Sirsi Unicorn integrated library system, with participants in both Kansas and Missouri.

During 2004-2005, NEKLS pursued this strategy to implement NExpress, the first regional shared library catalog/ILS in Kansas, with inclusion of the regional headquarters collection and eight public libraries, serving communities with populations ranging from 500 to 10,000. This initial project was funded with grants from LSTA and Kan-Ed, fees charged to participating libraries, and substantial funding from the Northeast Kansas Library System. In 2006-2007 an additional four libraries were added to NExpress with the further assistance of LSTA funding. NExpress was quite successful in service outcomes, with increases in circulation of 25-50% among the participating libraries, and a high level of interlibrary resource sharing, further facilitated by the implementation of a regional courier service in 2004.

### **Switching to Koha and Early Migrations (2008-2009)**

However, from the beginning there were difficulties in services from the KCLC consortium, including slow data migration, and unsatisfactory training and technical support. After four years of effort NExpress had expanded very slightly beyond its original group of participants. It was apparent that the continued inability to support the timely migration and ongoing support, for an extensive regional resource sharing group, as well as a fee structure that was unsupportable for many NEKLS member libraries, required a move of NExpress to a different environment. However our years within the KCLC/Sirsi group were extremely important in gradually developing the personnel and other resources needed to support a regional catalog.

The goals for “NExpress 2.0” were for a system that could be provided affordably to all interested NEKLS libraries, that would be directly supported by the NEKLS staff team, rather

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than an external consortium, and that could be rapidly improved and customized to meet the resource sharing and other requirements of NEKLS libraries. After consideration of several alternatives, in April 2008 NEKLS selected the Koha open source ILS system as the platform for NExpress 2.0, with remote hosting, technical support and software development provided by Liblime, Inc. NEKLS brought significant prior experience with open source software to this venture, and assembled a team of 2.5 FTE staff to support the NExpress/Koha project. With partial funding from an LSTA grant, NEKLS was able to rapidly convert and expand the NExpress service in this new environment with the following milestones:

- August 2008: migration of the existing 13 NExpress libraries from the Sirsi Unicorn platform to the new Koha environment
- November 2008: 1 library added
- 2009: 17 libraries migrated/automated

The early migration process has been very rapid and relatively smooth, library patrons have welcomed the ease of use of the Koha online catalog interface, resource sharing has greatly expanded, and participating libraries have made great strides in regarding themselves part of a truly shared collection and catalog. For the first time, NEKLS has been able to provide a true regional resource sharing system to the region, and to accomplish its goal of enabling rapid and direct access to the region's library resources.

NEKLS also began paying for developments in the Koha software code, including adding SIP2 capabilities which is a protocol allowing Koha to speak to different systems such as the Envisionware time and print management system for computer labs and various brands of self-check machines as well as differing holds rules for local collection needs.

Initial Koha training was delivered in person by a vendor-supplied trainer. After that, Koha training was handled internally by NEKLS staff after each library's migration process.

### **Koha and NExpress Today (2010-2016)**

During the rapid migration cycles of 2008-2009, NExpress quickly grew to 31 participating libraries. Over the next several years, 11 additional public libraries migrated to NExpress, and a school district joined in 2013. During this time period, NEKLS switched from LibLime/PTFS as a support vendor to ByWater Solutions, rejoining the Koha community code base.

NEKLS has continued to fund developments in Koha, including speeding up checkout, displaying the guarantee's checkouts on guarantor accounts, renewing items by barcode, automatically lifting patron restrictions that are for a limited time period, adding messages to various screens, improving notices and receipts modules, adding a total of items to cataloging module search results, and adding 3-part patron name searching. Future committed developments that are not finished/not released at the time of this article's writing include improving Koha's self-check module, adding cron jobs, overhauling the circulation rules module, improving Koha's self-check out module, adding a qualifier menu to staff side searching, and adding holds logging capabilities.

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In August 2008, NExpress started on Koha with about 300,000 items available at 13 libraries. In 2014, when the 42nd public library (Lansing Community Library) joined NExpress, the consortia holdings grew to over one million items available across the region, a crowning achievement. Without the Koha software, this milestone would not have been achieved. Circulation within the consortia at the end of 2015 topped 1.75 million items, and libraries had shared and transferred over 200,000 items between libraries.

Today, the NExpress project is supported today with one full-time staff member, and part-time help from three other staff. A users group of participating libraries meets quarterly, discussing policy, potential developments, system updates, brief demos, and ongoing Koha issues. An internal ticketing system tracks system issues, and an external ticketing system is used with the support vendor, ByWater Solutions.

### **Challenges and Lessons Learned**

The biggest challenge the NExpress consortia has faced with Koha has been the size of our database and rather large holdings. After a software upgrade in May 2013, librarians began reporting massive system slowdowns, especially during circulation and searching. ByWater Solutions moved the NExpress system to a different hosting setup and a much more powerful server. After a lot of testing, conversations, and research, indexing software tweaks and a split-head setup (where the Koha software runs on one hard drive and the database on a second hard drive) were put in place, the slowdowns decreased noticeably. Additionally, database purging of certain data-hogging tables started in 2013. The slowdowns are mostly unnoticeable at this point. Changes to Koha's server processing code and indexing software in future releases, starting with 3.22 version should improve system speed considerably.

Other challenges include consortia management, agreements, growing pains, and ongoing NEKLS staff support and system support for member libraries, but those issues are outside the scope of this article.

Several lessons have been learned over the years, especially the importance of regular and open communication with support vendors. In lieu of software licensing fees, the money libraries invest in open source software goes to support, hosting, and development. It is critical to hold the support vendor accountable for services rendered, especially when the system is not operating optimally, or critical functionality needs to be resolved as soon as possible.

A second lesson learned has been to have stringent testing protocols in place, to test future releases in advance and after a production system is upgraded. Know what parts of the system are critical to a library's or consortia's functionality, what are deal-breaker bugs, and what can be suffered through until the next release fixes an annoying, but not critical, bug. For NExpress, other than the obvious basic functionalities of basic circulation and cataloging, anything that breaks holds, fines, or SIP2 authentication are deal-breakers.

A third lesson learned is for system leaders to always ask librarians -- and patrons -- for ideas. Koha has evolved since its creation in late 1999 because librarians (and developers) ask "what if it worked this way?" Don't ever assume that the system must stay the way that it is, just



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because that's the way it's been. Sometimes things are technically impossible to develop, but that may not always be the case. Open source software is always evolving. That's the beauty of it.

A final lesson learned is to participate in the Koha community, and embrace it. Track and answer messages through the listservs, be present in IRC (Internet Relay Chat), file, track, test and sign off on bugs in Bugzilla (where the Koha community tracks bugs and enhancements, <http://bugs.koha-community.org>), read the software release notes to see what has been added and fixed, and attend Koha conferences or meetups nearby. Ask questions and get to know the people in the Koha community -- they don't bite! Koha is much more than a library software that runs a critical software package for a library and helps the NExpress consortia effectively deliver resource sharing to many Northeast Kansas residents. Koha is truly a gift and a community of people across the globe, working to provide libraries, librarians, and their communities with better library service.

### **Southeast Kansas Library System**

#### **Background**

SEKLS began initial planning for a regional automation project in 2006. As with other regions, LSTA funding through a regional automation grant provided by the State Library of Kansas stimulated this decision and made the effort possible. Preparations were made to join an existing small consortium operated by the Axe Library at Pittsburg State University (PSU), the lone public university in the region. This plan was aborted when the ILS vendor PSU had pursued discontinued its product. With the new proposed product, cost to the system for the automation project skyrocketed 1,500%. PSU ended up choosing its own ILS (with the Innovative Interfaces Inc – III – traditional vendor) and did not join in the SEKLS consortia.

SEKLS immediately began considering other products for its own consortial ILS. Three vendors were selected to make presentations to SEKLS staff and representatives from the eleven remaining libraries in the project. Two key factors led to the choice of Koha:

1. Anticipated cost: While initial costs between the two finalists were comparable, Koha allowed bringing up additional libraries without additional expense aside from migration costs. The competing product imposed start-up and annual fees on a by-library basis. With growth in mind, cost analysis found that once the consortium reached 25 members, costs of the proprietary system would far outstrip those for Koha.
2. Open source: LibLime representatives in making their presentation sold heavily the idea of open source, and SEKLS staff became enamored of the idea. SEKLS was eager to participate in something, if not cutting edge, at least new and exciting. The user-centricity of development and being able to participate in and contribute to a larger community were appealing.

Koha, with support by LibLime, was selected in May 2008. The following summer was spent deciding policies, system preferences, preparing for migrations, and coming up with a name: SEKnFind. SEKnFind went live on November 4, 2008.

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Beginning in 2009, SEKnFind opened to additional members. The first and only non-public library, a community college, joined in 2012. Growth was steady from 2009 to 2014, slowing as more libraries became automated, with only two additional libraries joining in 2015. Membership expanded from 11 members in 2009 to 43 by 2015.

For a large number of non-automated southeast Kansas libraries, the project was their first practical chance to automate. Of the 43 members of SEKnFind, only 16 had been automated prior to joining the consortium. How to accomplish retrospective conversion on non-automated collections was a major decision. Save one library, the average budget for a non-automated library was around \$15,000 with 0.63 full-time employees. It was apparent that it was unrealistic to expect these libraries to accomplish a full conversion of their materials on their own. SEKLS chose to send its catalogers to perform retrospective conversion work, one library at a time. From 2007 to 2014 there was a steady and uninterrupted flow of libraries having their collection cataloged into SEKnFind.

Automated libraries joined much more quickly through a standardized migration process. This process included mapping data out of the legacy system and into Koha, as well as reconstructing circulation and fine rules in Koha. A freeze on bibliographic data in the old system was imposed two weeks prior to a migration so the records could be imported, and circulation and patron data moved one day prior to a designated go-live day.

LibLime staff trained the initial group of libraries, but SEKLS staff provided training for each new library, as well as for key new staff members.

SEKLS took a slightly different route than CKLS and NEKLS on vendors. Being obligated to pay five annual installments on start-up costs, SEKLS did not feel it could drop LibLime as a vendor when LibLime began moving clients to its own forked version of Koha. Instead, SEKLS insisted on staying on the community version of Koha. After remaining on version 3.0 for over three years, PTFS/LibLime agreed to allow their affiliates at PTFS Europe control over support and upgrades to SEKnFind as their organization continued to support the community version of Koha. This arrangement lasted until the five-year contract expired, and in 2013 SEKLS followed fellow regional systems in contracting with ByWater Solutions.

### **Lessons Learned**

Though SEKLS has had an overall positive experience with Koha which grows better each year, some difficulties have arisen. Libraries which had already automated were using in-house servers, and moving to a web-based system meant procedures were noticeably slower. A variety of bugs appeared on go-live day that hampered the experience. Some bugs were resolved quickly while others persisted for months.

With an open source product such as Koha, there is no commercial vendor to guarantee their product. SEKLS chose to contract for database hosting and support but had to learn what problems it could expect the vendor to solve and what problems would have to await a development or bug fix to traverse the rigors of the community testing and implementation process.

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SEKLS staff were taken by surprise by the time it took to keep the consortium operating. Some of the time spent was due to the demands of keeping a larger group of libraries harmoniously cooperating, but some was due to the nature of using an open source product.

A large number of staff played a role in the work that needed done. While this spread out the load, it also created a need to coordinate closely. Eventually, weekly meetings were instituted involving all on the “Koha team” to keep one another informed and discuss problems and possible paths to take. Other problems with the “many hands” approach were that some things did not really fit well into the assigned responsibilities of any one person and that there was no one to participate and learn from the active Koha open source community.

SEKLS came to understand that it would be better to have a single staff member to take prime responsibility for Koha. A SEKnFind Coordinator position was created beginning in January 2013. This greatly improved the overall support and management SEKLS could offer SEKnFind members. The Coordinator was able to delve more deeply into the software to gain a more intimate relationship with its inner workings. This has resulted in a plethora of beneficial changes to the system including restructuring certain aspects of the database to be friendlier for a consortium environment, improved reporting, a more aesthetically pleasing and interactive patron catalog, and quality of life improvements for the staff interface.

Resource sharing has been one of the great benefits of using Koha in a consortial setting. With a single database, patrons can place holds on items regardless of owning library and the items will be transferred to their library for them to check out. This ultimately led to the requirement that all SEKnFind members participate in the state courier system, Kansas Library Express. Along with the benefits of easy sharing came certain policy headaches. Libraries often wished to benefit from easy access to materials throughout the consortium without freely supplying their own materials, especially new materials, on which scarce local funds were spent. SEKLS has tried various approaches but this issue may never be entirely satisfactorily resolved.

The word “consortium,” while used, is not entirely on target for SEKLS. Rather than a group of libraries coming together and cooperatively setting up a service, SEKnFind is more appropriately seen as a service provided by SEKLS. As with other services, SEKLS may specify the terms under which service is provided. However, from the earliest days of SEKnFind, SEKLS has tried to get a consensus among participants on important policy and procedural matters.

### **How All Three Systems Work Together Today**

#### **Courier**

One of the things that made sharing work possible among Koha libraries as well as other libraries using other ILS products was the creation of a statewide courier system. The State Library of Kansas, with a major push from the CKLS system in particular and in collaboration with the other regional systems, got the courier started while the NEKLS regional system administers it. The courier allows for quick and easy sharing of materials among the regional systems in

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Kansas, including the three that use Koha. An outside vendor, Henry Industries, is used as the courier delivery mechanism and libraries can choose to get service for three or five days a week. This vendor offers a flat rate for the first few thousand items sent, then volume charges for items sent beyond that threshold.

The libraries pay some of the costs of the service, with the rest being subsidized in different ways by the regional systems and the State Library. Some of the systems pay all the charges except volume, others pay all the volume charges and leave a small amount of the flat rate for the libraries to pay.

What the courier system provides, both within each regional system and between them, is a fast interlibrary loan service that makes the Kansas value of sharing materials freely among libraries both possible and practical. Inside of a system which has a collaborative catalog to which most public libraries belong, such as all three of the systems featured here, it serves as a way to provide the widest breadth of materials to the most number of patrons in a quick and reliable way. With the courier in place, each independent library in the system can function as a branch, getting materials from other “branches” in the area within a couple of days and making the Koha catalog they share truly collaborative.

### **Collaborative Software Developments**

There are times when a needed development is larger than the requesting institution can support on its own. That is the time to bring in collaborators. Once a development has a quoted cost, collaborating libraries work together to fund and push the development forward. One such development, brought CKLS, NEKLS and SEKLS together to get their Koha systems to work with the State of Kansas Library InterLibrary Loan (ILL), SHAREit, a platform from Auto-Graphics.

In 2014, the statewide ILL system upgraded from an old AGent platform to a newer SHAREit platform. The platform uses the z39.50 protocol to pull data from all of the automated libraries in the state and compiles them into one area to facilitate requesting and sharing between libraries using different ILLs.

The item statuses worked between Koha and AGent, but not well. AGent read the 952\$q (date due) field of an item in Koha. If the field was null, AGent reported the item as available. If the field was populated with a due date, AGent reported the item not available with the due date. With this upgrade, SHAREit cannot translate the null value, so every search result for an item we have in Koha ends in 'No copies currently available'.

So a need for a development that would benefit all three systems arose. We needed a way that Koha could report an item's status via a 952 subfield. Ideally, if the 952\$q could also show the statuses: checked out, available, on hold, in transit, lost, or withdrawn, etc., Bywater came with the following plan of action:

- 1) Add field 'status' to items table (which can be mapped to any MARC tag designated)
- 2) Engineer a subroutine that would generate the item's status
- 3) Revamp the existing status system in Koha to utilize this field wherever possible.

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This would this give the library systems the functionality we wanted, but it would reduce status display bugs, and unify Koha's status logic. This development continues to evolve and take form so that it not only benefits Kansas Koha libraries, but the community as a whole.

Bywater estimated the development to cost between \$2,000-5,000, which the systems split 3 ways. By working together, all three systems could test the development and provide input, while supporting the development as a team. Each system benefits and is not overwhelmed by the cost. The development is in testing now and showing positive results for displaying current item status.

### **Communication**

The systems also have collaborated through various forms of communication and information sharing since each started using Koha many years ago. Open communication channels among the three systems have proven very beneficial to all parties. These channels include a bi-annual face-to-face meeting dubbed a KEGger (Kansas Koha Explorers' Group), a shared listserv to collaborate on projects such as this article, and membership on one another's internal consortia listservs.

Each of these methods has apparent benefits. KEGgers allow staff from each of the systems a chance to focus on and voice matters concerning Koha that might otherwise fall by the wayside. A shared mailing list allows a safe place to discuss shared issues and topics amongst our smaller regional community before engaging larger audiences. Membership on internal consortia listservs adds exponential levels of sharing without extra load on staff; Koha administrators at each location are able to see what bugs and tweaks are being made in situations similar to their own and evaluate the impacts on their own environments.

Consortial practices, training documents, known bugs, custom reports, and JQuery code are also shared between the systems. As stated earlier, Koha is a community, and it is quite beneficial to have an additional community nearby for support and ideas.

### **Conclusion**

Even with the ups and downs that all three systems have had in choosing, implementing and administering Koha, all three plan to stay with the product for the foreseeable future. Each of the systems learned how to manage an open source product in conjunction with a vendor. Learning how to decide what to expect from the vendor versus what to expect to have to pay for, in terms of development, was something that systems had to do in order to effectively manage their consortia. Figuring out the structure of the local support team was another lesson that had to be learned; knowing how much staff time to devote was not obvious when the project started, but was something that each system had to work out as they learned more about the software and the demands it would make on their staff. Finally, the systems each learned that collaborating among themselves was truly beneficial. They shared rules, the text of reminders to member libraries, notes from meetings and much more as they learned to work together effectively.

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Other things that all three systems learned that they would like to pass on to others considering this path was to manage their consortia with a firmer hand and about the development process for the software itself. Each of the systems agreed, starting with more structure and a stronger control system for the consortia would have been good. It is difficult to regain centralized control when member libraries have become used to having control locally! Each of the systems also felt that knowing more about open source development processes and how long it can take for a development to go from signing the contract to start it to having it installed and working on the system would have been good to know at the start. The CKLS system felt that knowing they would have to come up with workarounds for issues that are in development would have been handy as well! This is something they could have worked on from the beginning, if they had only known writing, testing and installing the developments would be such a long process.

At the time of writing this article, there are a couple of stand-alone Koha systems installed in Kansas; catalogs that are not part of these three regional systems. There are some other libraries that are looking into the possibility of moving to a Koha-based catalog in Kansas as well. We hope that the lessons the regional systems have learned helps those libraries considering moving to an open-source ILS; whether in Kansas or elsewhere - and all three systems plan to continue making the Koha ILS stronger and more useful through developments and through support for the statewide courier system as well.

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