

RAILS OVERLAY PROJECT
ENVIRONMENTAL SURVEY
FINAL REPORT

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Project Description

In August, 2013, Reaching Across Illinois Library Systems (RAILS) issued a Request for Proposal for a consultant to assist with the selection of a resource sharing product as part of their Overlay Project. Specifically, the objective of the Overlay Project was to find a resource-sharing discovery and fulfillment system that builds on the existing technology environment, allowing libraries in consortia and libraries with standalone integrated library systems (ILS) to participate.

Although none of the RFP respondents' proposals were accepted as presented, the Overlay Project decided to contract with Lori Bowen Ayre from The Galecia Group and Melissa Stockton from Quipu Group to provide an environmental scan of the resource sharing systems currently in production in the U.S. Working with the Overlay Project group, the Consultants identified six consortia that represent the universe of resource sharing products currently in production in the U.S. There are four such products including INN-Reach from Innovative Interfaces, RelaisD2D from Relais International, SHAREit from Auto-Graphics, and OCLC's Navigator. See Attachment A for the original list of consortia considered.

In some cases, there were two separate software products used for discovery and requesting. For example, Encore is a product provided by Innovative Interfaces that can be used to create a more robust discovery interface with INN-Reach. Therefore, when applicable, the consultants discussed requesting software and discovery software with each consortium.

Of particular interest to RAILS, was the degree to which the requesting software made use of NCIP as a way to reduce the workload for library staff responsible for managing resource sharing requests. Since support for NCIP is required on the ILS side as well as the requesting software side, it was important to tease out the particulars of the integration for the various combinations of ILS and resource sharing software.

Based on the requesting and discovery products currently in production and the ILS products of key concern for RAILS, the following consortia were selected for interviews: Alliance, EZBorrow, MARINA, MassVC, MCLS, and TexShare.

A list of questions was developed and utilized in each interview. The list of questions posed to each interviewee is included in this report as Attachment B: Questions for Consortial Interviews.

NISO Circulation Interchange Protocol (NCIP) and Interconnectivity

NCIP (NISO Circulation Interchange Protocol), also known as Z39.83, is a North American standard with implementations in the US, Canada, and many other countries around the world. NCIP services facilitate the automation of tasks, the exchange of data, and the ability to provide information to library staff. Each service is comprised of a request from an initiating application and a reply from a responding application.

NCIP addresses the need for interoperability among disparate circulation, interlibrary loan, and related applications including interoperability between self-service applications and circulation applications, between and among various circulation applications, and between circulation and interlibrary loan applications.

In the context of resource sharing, the initiator is likely to be an application used by patrons or library staff to request an item from a remote system (the resource sharing software) when the item is not available in the local ILS. NCIP services can be used to query the remote system to determine if the desired item is available and, if it is, ask the remote system to send the item.

NCIP Messaging

The NCIP Standing Committee that acts as the Maintenance Agency for NCIP, identified two core groups of messages for resource sharing and for patron self-services and then defined nine services (specific messages) which would be available under each core group. Five of the messages are shared by both groups (see those marked with asterisk below). The nine core messages which have been defined for the resource sharing (RS) systems include:

- CheckInItem*
- CheckOutItem*
- LookupItem*
- LookupUser*
- RenewItem*
- AcceptItem
- CancelRequestItem
- RecallItem
- RequestItem

Check In Item (core NCIP message) requests that the responding application check in an Item. It also permits the initiating application to request data about the User and/or Item involved with this check in.

Check Out Item (core NCIP message) requests that the responding application check out an Item to a User. It also permits the initiating application to acknowledge the fee amount (if any) associated with the check out. The initiating application may also request data about the User and/or Item involved with this check out.

Lookup Item (core NCIP message) requests data about a particular Item known to the responding application. The initiator provides the Id of the Item and a list of elements for which data is requested.

Lookup User (core NCIP message) requests data about a particular User known to the responding application. The initiator provides the ID of the User and a list of elements for which data is requested.

Renew Item (core NCIP message) requests that the responding application renew an Item for a User. The initiating application may include a suggested revision of the due date and an acknowledgement of fee amount. The initiating application may also request data about the User and/or Item involved with this renewal.

Accept Item (core RS message) requests that the responding application accept an Item to be circulated to a User. The responding application may be a third party that has no prior knowledge of either the User or the Item. The initiation message identifies the action the responding agency is requested to take when it receives the item. The request may include a date by which the initiating application requires the Item to be returned, an indication that the user may apply to renew the loan of the Item, and financial data relating to the supply of the Item. If there is a possibility that the responding application has no prior knowledge of either the User or the Item, the request may optionally include data about the User and/or the Item.

Cancel Request Item (core RS message) requests that the responding application cancel a previous request for an Item. The initiating application may also request data about the User and/or Item involved with this request cancellation.

Recall Item (core RS message) requests that the responding application recall an Item from a User. The initiating application may propose a new date due for the Item. The initiating application may also request data about the User and/or Item involved with this recall.

Request Item (core RS message) requests that the responding application place a request on an Item for a User whether or not the Item is immediately available. The initiating application indicates the type of request being made. The initiating application may optionally provide an acknowledgement of the fee to be charged for the service. The initiating application may also request data about the User and/or Item involved with this request.

Resource Sharing and ILS Interconnectivity

As with so many library protocols, there are many optional elements and different ways to implement NCIP and this weakens its effectiveness as a “standard.” The NCIP Standing Committee has recently discussed establishing a canonical set of messages that all implementations must support in order to claim NCIP compliance. The idea would be to more specifically define each message and the response options for the canonical set. This would make it easier for both ILS and resource sharing (RS) software providers to develop NCIP interfaces that function more like standards.

Standards are like toothbrushes. Everyone agrees they are a good thing, but nobody wants to use someone else's.

– Rachel Frick (Digital Library Federation)

As it stands today, NCIP implementations differ with each combination of products. While each RS vendor has a preferred approach for managing requests, it isn't always possible to get each ILS to cooperate. For example, Relais uses only five messages in their resource sharing product, RelaisD2D, including LookupUser, RequestItem, AcceptItem, CheckinItem, and CheckoutItem. But, neither Horizon nor Symphony supports the RequestItem message. As a result, the Relais/Horizon and Relais/Symphony libraries have a slightly different experience of the RelaisD2D product than other users. Similarly, Auto-Graphics expects the ILS to support the CreateUser message. CreateUser is a valid NCIP message but it is not part of the core message set and no ILS currently supports it. This is creating problems for libraries attempting to implement SHAREit (including libraries using an ILS that has a functioning NCIP responder).

Why NCIP Matters

Most libraries using resource sharing software are using it to provide for patron-initiated borrowing. Unlike a traditional ILL transaction that is managed entirely by library staff, resource sharing software is used by libraries in a consortium, formed specifically for the purpose of interlending material. Because members of a consortium have agreed to share material, it is unnecessary for staff to mediate each request. The cost of each unmediated request is a fraction of the cost of a mediated request. Boston Library Consortium reported (see Attachment D: NISO Circulation Interchange Protocol [NCIP] Implementation Cost Savings) that their staff cost to fulfill an ILL request (mediated) was \$30 and they reduced that cost to \$8 to allow for unmediated requesting using a resource sharing product with NCIP support. However, it isn't as simple as it sounds. That said, the number of messages supported by an ILS and how well NCIP is implemented determines how much staff time is actually saved.

Mary Jackson, formerly of Auto-Graphics, estimated that a typical manual borrowing workflow could include as many as 22 steps. However, with NCIP, this number is reduced by 50% to 11 (see Attachment

D). On the lending side, fourteen steps are reduced to eight. Her study presumes support for all the core resource sharing NCIP messages.

In addition to the savings related to managing the transactions, some resource sharing products use NCIP to optimize the workflow process of pulling requested items and labeling them. For example, depending on the NCIP implementation, some libraries are able to print a single Pull List (the list of items to pull off the shelf to fulfill requests from patrons) from their ILS. The shared Pull List includes requests made using the resource sharing product as well as requests from local users using the ILS. In some cases, the Pull List generated by a resource sharing product can double as a bookband for routing and labeling the item.

NCIP is also used in self-service applications and with discovery systems, therefore it is possible for an ILS vendor to “support NCIP” but only support the messages that handle authentication or discovery, with no support for the actual requesting part of the resource sharing transaction. In such a case, NCIP (as implemented) might not provide any savings in the circulation and requesting workflow. Therefore, the specifics of each ILS-RSS implementation require examination.

Having said that, we do know that without NCIP, each transaction has to be manually entered in the ILS as well as the RS software (where the transaction is managed). For example, without NCIP, library staff might create a generic patron record that is used to track items lent out to resource sharing partners (e.g. Generic Consortial Borrower or perhaps a different card for each different library with which the library shares material). Items would then be checked out to that patron in the local ILS. In addition, the transaction would need to be managed within the RSS. Upon return, the same sequence would be required: complete the transaction in the RS software and then clean up the ILS.

Over the course of the interviews, it became clear that several elements were involved in determining whether a library benefited from a robust NCIP implementation and it wasn’t always as simple as whether the ILS-resource sharing software (RSS) combination had already worked out the kinks in their implementation. It was also often an issue of cost. Not all ILS vendors charge a fee for NCIP support; others charge a lot. If NCIP support didn’t exist before, the first library requiring may get stuck paying the development costs.

Market forces have an effect on NCIP fees paid by libraries. For example, Innovative Interfaces provides a very popular resource sharing product, INN-Reach, and has little incentive to provide a low cost NCIP interface that works with products other than INN-Reach. Presumably, this explains why libraries using Millennium (Innovative’s ILS) have to pay a very high price for an NCIP license that allows them to use another RSS. Innovative libraries using Millennium and participating in an INN-Reach resource sharing system do not incur those extra costs (and the integration is excellent). Libraries not using Innovative but who are participating in an INN-Reach consortium may or may not use NCIP, depending on whether a) their ILS supports the INN-Reach NCIP requirements, and b) they can afford it.

Findings from Consortial Interviews

The Consultants conducted several phone interviews with consortia members. In most cases, both consultants participated in the calls. Detailed notes from each interview are included as Attachment E: Consortia Interview Notes.

In addition, the Consultants gathered additional information via email and follow-up phone calls. At least one representative was contacted at each of the resource sharing companies including several people from OCLC. Kevin Stewart, Chief Technology Officer at Relais (Kevin and Lori Ayre are both members of the NCIP Standing Committee), Albert Flores from Auto-Graphics, and Tom Jacobson from Innovative.

The following section highlights some of the key findings related to each resource sharing product.

INN-Reach from Innovative Interfaces

Innovative Interfaces has been a player in the library software market for 35 years. Their Millennium product has proved to be one of the most stable ILS products ever. In 2012, they released their new product, Sierra. Innovative is working very hard to move their ILS customer base over to the new platform.

Meanwhile, Innovative has offered numerous other products including INN-Reach, their consortial resource sharing product, and Encore, their discovery layer product. Innovative's development efforts have focused mostly on Sierra and Encore. The INN-Reach product, originally designed to support resource sharing between INNOPAC systems in 1997, has not changed dramatically since its introduction.

About the Product

The INN-Reach product from Innovative Interfaces was developed initially to provide a way for libraries using the Innovative's ILS to create a union catalog and share materials. The solution was proprietary and efficient. It brought together the management of resource sharing and circulation functions very effectively – for Innovative customers. Since its creation, library resource sharing needs have changed and grown, including the need to allow libraries using different ILS solutions to be a part of existing INN-Reach groups. In response, Innovative created a methodology for connecting non-Millennium libraries to an INN-Reach system. They named it the Direct Consortial Borrowing (DCB) solution.

The DCB was created before NCIP had been established as a resource sharing standard. The DCB could be used by non-Millennium customers to manage their resource sharing requests and to make their holdings available to other libraries in the consortia. It required that the management of the resource sharing transactions be handled on the DCB staff client. In addition, holdings information had to be exported to a file location on the DCB where it would be imported into the union catalog. Most libraries created a daily cron job (a server process that runs automatically on a schedule) to create the exported file.

After NCIP was established, Innovative developed an option to connect to the DCB using NCIP thereby reducing the workload for non-Millennium libraries. NCIP didn't change the requirement for exporting

files to the DCB. Using NCIP to connect to the DCB is optional. Some libraries in the consortia we interviewed using the same ILS in an INN-Reach system used NCIP, others did not. It wasn't clear why a library would choose NOT to use NCIP but presumably it was a cost issue or the library didn't know it was an option.

As stated earlier, protocols such as NCIP provide each vendor with leeway regarding implementation. In our conversations with consortia using the INN-Reach and DCB solution, we were able to verify that Innovative implemented NCIP in a unique way. And while every implementation of NCIP requires some cooperation between ILS and RSS vendor, the ILS vendors with existing NCIP interfaces find that they have to make changes to their "standard" NCIP functionality in order to accommodate the INN-Reach NCIP interface.

Experience of Consortia Using INN-Reach

To learn more about INN-Reach, we chose the Colorado Alliance of Research Libraries and Midwest Collaborative for Library Services (MCLS). The Colorado Alliance has managed an INN-Reach system for their members and other regional libraries since 1999. Half of the libraries are public and half are academic, with a total of 42 participants. The Encore discovery interface for their INN-Reach system is known as Prospector. We interviewed George Machovec, Executive Director of Colorado Alliance.

MCLS provides support and maintenance for MelCat, an implementation of the INN-Reach software for approximately 431 libraries in Michigan (mostly public). We interviewed Randy Dykhuis, Executive Director, and Debbi Schaubman, Manager of Shared Library Systems, of MCLS.

Libraries which utilize an Innovative ILS (Millennium or Sierra) and are involved in an INN-Reach resource sharing group are able to utilize the basic ILS circulation functionality to participate in the group. Staff are not required to access a separate interface to fulfill patron requests. Requests from other INN-Reach libraries are included in the Millennium or Sierra Pull List and all transactions, such as check out and return, are performed within the ILS staff client.

Both the Colorado Alliance and Midwest Collaborative for Library Services (MCLS) have members using a variety of ILS products. Therefore, they have implemented one or more DCB servers in their consortia. As mentioned earlier, DCB libraries upload files of new or modified bib and patron records into the DCB. The DCB can be set up to look for new files on a regular basis and the participating libraries can determine how often they send these updates to the DCB.

When INN-Reach looks for items to fill a request, the status of patrons and items is real-time for all Innovative libraries, but anyone using the DCB server, it is only as current as their last update. Although this sounds like it could result in requests being made for items that are no longer available, none of the consortia representatives stated that this was a problem. MCLS libraries, for example, maintain a 90% fill rate.

Between MCLS and Alliance, most major ILS products were represented including Auto-Graphics Verso, Evergreen, Ex Libris Aleph and Alma and Voyager, Millennium and Sierra, OCLC WMS, Polaris, SirsiDynix Horizon and Symphony. Neither consortium has a member using a TLC product. Also, Liblime Koha is

part of the Alliance but is not part of Prospector. The explanation for this was that each library in the Liblime Koha group is seen as the branch of a single system (and this might serve as a cautionary tale about how to set up a shared Koha system).

The ILS products that are using DCB with NCIP are Verso, Evergreen, Aleph, Polaris, and Symphony. With NCIP to the DCB, it is unnecessary for library staff to manually create records on their ILS; this is handled by NCIP. However, even with NCIP implemented, local libraries must access the DCB interface to print their paging slips and to receive an item borrowed from another INN-Reach library.

The ILS products that are using DCB without NCIP are Ex Libris Voyager, SirsiDynix Horizon, and OCLC WMS. In these cases, the DCB staff interface is used to print out the list of items requested from their library. They must also check out each item in their local system as well as through the DCB staff interface since there is no real-time communication between the INN-Reach system and the local ILS. When items are borrowed from other libraries, staff at the requesting library must manually create and manage temporary item records within their local system. Libraries receiving an item from a resource sharing partner must create and manage temporary bib records as well.

In the case of Ex Libris Voyager, the Alliance doesn't use the DCB. They have developed a proprietary, custom connector that bypasses the DCB.

Discovery Layer

Innovative has developed an INN-Reach related product called Article Reach for handling patron-initiated requests for articles and some other non-returnables. Although MCLS initially requested this capability in their initial contract, they decided not to use this product once it was developed. Instead, MCLS is working with Innovative and EBSCO on a discovery layer which would integrate Innovative's Encore with EBSCO's EDS service for patron searching and requesting. The Colorado Alliance utilizes the Encore discovery layer for patron searching and the requesting of returnable items and offers the RAPID service for requesting non-returnable items such as articles.

MCLS reported that ebooks with MARC records have been causing problems in their system because they show up as available for borrowing but they are not actually borrow-able by other libraries. MCLS reported that the DCB libraries can exclude ebook records from their uploadable file (and that helps) but MCLS cannot control the display of ebooks from Innovative libraries.

Conclusion

The INN-Reach product is a viable product for any group of libraries that wishes to implement a resource sharing system with multiple ILS solutions. We believe that a quote from George Machovec sums up the solution well, "What it does, it does well. Just don't expect it to do more." The product is stable and mature and well supported. INN-Reach is not the primary product from Innovative and although well supported at this time, it is not the primary focus of their development efforts. With INN-Reach, libraries using an ILS from Innovative will probably always have a more integrated resource sharing experience than libraries using an ILS from another vendor. No other resource sharing solution offers the same level of circulation interoperability as INN-Reach does for Innovative ILS clients.

RelaisD2D from Relais International

Resource sharing products are the primary focus for Relais International. They provide two resource sharing products, RelaisD2D and RelaisILL. Both products make use of NCIP. Relais International is strongly committed to standards, and NCIP specifically, because of the benefits it provides for their customers. Relais' Chief Technology Officer, Kevin Stewart, is a very consistent and active member of the NCIP Standing Committee. The company does not have an ILS product and this may help them in their relationships with the ILS vendors. The ILS vendors do not see Relais as a competitor and may be a bit more responsive when working on a connector to the Relais product suite.

About the Product

RelaisD2D was created to provide a method for libraries with multiple local ILS solutions to share materials. It builds a union catalog using Z39.50 at the time a search is executed. The actual requests are handled via NCIP communications. RelaisILL is another Relais product that is used to manage requests to members outside of the consortia. Relais products are sophisticated and full of options providing a great deal of flexibility for each participating library.

The Relais products use NCIP communication with virtually all of the ILS products represented in their customer base including Ex Libris Aleph, Alma, and Voyager, Innovative's Millennium and Sierra, Polaris, SirsiDynix Horizon and Symphony, and TLC Carl.X and Library.Solution. Even so, all library staff, regardless of the ILS used, must access the Relais staff interface to perform many of the request management activities. This is because of how the NCIP initiator and responder roles have developed. To date, no ILS has developed an NCIP initiator interface. The ILS is always the responder and the resource sharing product is always the initiator. Based on Lori Ayre's experience on the NCIP Standing Committee, this is what the ILS vendors prefer.

The ramifications of this division of labor is that Relais can let the local ILS know about a status change but the local ILS cannot start up a conversation and let Relais know automatically when an item status has changed. This is also the reason that libraries receiving lent items from a resource sharing partner must receive the item in the resource sharing product. The ILS has no capability, within its role as an NCIP responder, to notify the RSS that the item was received.

For searching bibliographic and item information, Relais uses the Z39.50 standard. The reliance on Z39.50 can create inconsistent experiences for searchers depending on the search, bandwidth and Z39.50 configurations on the ILS side. Also, Relais doesn't place the Hold in the local ILS when a request is made because Z39.50 doesn't look at the barcode number. Z39.50 looks at the titles. Therefore, Relais creates the lending string of locations that have the item. Only after the item is pulled off the shelf and the barcode scanned is the NCIP RequestItem message sent.

Relais uses only five NCIP messages: LookupUser, RequestItem, AcceptItem, CheckInItem, and CheckOutItem. Each of these status changes in Relais kick off updates to the appropriate ILS via SIP or

NCIP so the staff do not ALSO have to update their ILS when they update Relais. In the Relais NCIP implementation, the RequestItem message must be supported on the ILS side if the library wants all their paging slips to appear on the ILS pull list.

Experience of Consortia Using RelaisD2D

To learn more about Relais from the customer perspective, two consortia were selected for interviews. PALCI (Pennsylvania Academic Library Consortium, Inc.) is a resource sharing consortia composed of 70 academic libraries. PALCI runs EZBorrow for 49 of those PALCI members. We interviewed Kaitlyn Lyons (Resource Sharing and EZBorrow Support Librarian), and Peter Collins (Assistant Project Manager for BorrowDirect). They also use Relais' ILL product.

We also spoke to MARINA, a public library consortium. MARINA is a statewide resource sharing in Maryland. It includes 24 library systems and three regional libraries. One of the three regional systems runs a shared Symphony ILS for three library systems. Another group of four library systems share an Innovative system. Enoch Pratt Free Library serves as the State Library Resource Center and is responsible for coordinating resource sharing for the state, as well as managing the MARINA system. We spoke to Wendy Allen, Resource Delivery Manager at Enoch Pratt Free Library.

The EZBorrow staff have been very actively engaged in the integration of their ILS products and Relais. Peter Collins is also an active member of the NCIP Standing Committee and uses his participation in the committee to stay up-to-date on integration issues between various products and also to influence the ILS and RSS vendors about his consortia's needs. Peter is responsible for both EZBorrow and BorrowDirect, a smaller consortium composed of large, research libraries. In all cases but two, the ILS products connect with a combination of NCIP and SIP. In the case of Millennium libraries, NCIP and Telnet are used (this is essentially a screen-scraping solution). The other exception is OCLC WMS which does not yet support all of the NCIP messages needed by Relais but Peter reports they are working on it.

Kaitlyn reported that the search results from Innovative's Z39.50 server can be "mushy." However, Relais' relevancy ranking helps reduce the impact of this mushiness by putting the "odd results" at the bottom of the list. Despite its small staff size, Kaitlyn feels that Relais is able to add new functionality to their product at a rate similar to much larger companies.

In the case of the OCLC WMS, besides not having support for all the necessary NCIP messages, the system doesn't currently provide a Z39.50 interface so Relais is unable to pull in the library's holdings. It's unclear what the workaround will be for that potential roadblock.

Wendy Allen from MARINA indicated that the implementation process was fairly simple, including the interfaces with the local ILSs. She said that she "didn't have to do a thing" to ensure that the circulation interoperability was in place for their member libraries. These comments reflect a good level of customer support and vendor capability. In their consortium, the Pull Lists for all members are done in

Relais and NOT in the local ILS but the Relais Pull List doubles as a set of Book Bands that can be used as routing slips for the pulled items.

Discovery Layer

The Relais D2D product is not a full-blown discovery layer product with the ability to search for materials using a variety of standards and other search technologies although there may be more options than are currently used by either of these consortia. Relais, in partnership with Index Data, does offer a discovery interface that can target subscription databases and Google Books. The EZBorrow group said that they are working with Relais to create the appropriate APIs which will allow other discovery layers to include the information from the Relais system in their search interface instead of looking to Relais to create a more all-encompassing discovery layer.

Conclusion

Relais is a very good option for a group of libraries that need to share materials but do not want to share the same ILS or ILS vendor. The product is stable and well supported by a company that has a great deal of experience and knowledge about interlibrary lending. The flexibility available for individual or groups of libraries within a larger group are impressive, although we did hear one comment related to the lack of flexibility related to some naming conventions. The products and the company are adding features and functionality on a regular basis. Relais is currently developing a web version of their staff client which would mean that software would not have to be loaded on individual staff workstations and could be accessed on any device that has a web browser capability. The interviewees are satisfied with the Relais product and the service they provide. They both plan to remain with this solution for the foreseeable future.

SHAREit from Auto-Graphics

Auto-Graphics has been in the business of resource sharing for many years and offers both an ILS and a resource sharing product. Their legacy resource sharing product, Agent Resource Sharing is still in use by their customers but it is no longer offered for sale. Agent Resource Sharing has been replaced by SHAREit. SHAREit is based on the previous Agent software but utilizes more standards and newer technologies for both patron interfaces and request management.

The move to the new SHAREit system has not been a simple or quick one for Auto-Graphics. The company is small and has a high level of turnover. Most noticeably, the widely regarded resource sharing strategist, Mary Jackson, left the company in 2012 shortly after the company began moving into a new direction (e.g. new leadership and a plan to develop SHAREit on HTML5). Today, the company seems to continue to struggle with project management, and release management related to SHAREit. Customers we spoke to are frustrated with the poor communication and lack of responsiveness overall.

About the Product

The request management functionality of SHAREit is very sophisticated and reflects a system which was created by people that know a lot about interlibrary lending. However, the implementation of the new software and NCIP connectivity has been problematic. For one thing, the SHAREit system requires more

NCIP messages than other resource-sharing products. Specifically, the NCIP interface was designed to use the CreateUser NCIP message, which is atypical.

Experience of Consortia Using RelaisD2D

In 2012, the Consultants worked with the state of Massachusetts to procure a replacement product for their statewide virtual catalog, MassVC. At that time, MassVC was using the SirsiDynix URSA product. After a comprehensive procurement process in which Fulfillment, INN-Reach, RelaisD2D and Auto-Graphics Resource Sharing were considered, it was the Auto-Graphics product that was selected. We contacted Walter Stine (Executive Director) and Kelly Drake (Systems Librarian) at Fenway Libraries Online (FLO) for the interview about Auto-Graphics. The staff at FLO had managed the URSA implementation for MassVC and they were selected to handle the migration and hosting of the newly selected product.

Although Auto-Graphics appeared stable when the contract was signed, the timing couldn't have been worse. Just after selection, the group learned of Mary Jackson's departure. And although they had been informed of the development of SHAREit, the impression was given that the product was further along than it was. At the time of our interview, a year since the contract had been signed, the folks at MassVC were still not willing to migrate any of their libraries to the new product. Walter and Kelly reported that there had been many issues with the company through this implementation process and that progress has been very slow.

MassVC have put an extraordinary amount of staff time and other resources toward making this implementation successful. They have developed their own NCIP interface for the Ex Libris Voyager product because Ex Libris would not take on the development project (Voyager had been declared end-of-life). The other two Ex Libris products are represented in this consortium. They report that Aleph is "working" but it doesn't support the CancelRequest message. And Ex Libris is currently testing their new NCIP interface (based on NCIP 2.0) for Alma.

SirsiDynix Symphony is almost working. It is licensed by one of the MassVC members but isn't quite up and running. A group of Koha and Evergreen developers are working together to develop NCIP interfaces for both of these open source products. Some of the developers are from MassVC libraries.

Innovative took the position that developing an NCIP responder for SHAREit was a new development project and would charge the MassVC libraries accordingly. Because these Innovative libraries will be migrating to Sierra, they decided to postpone NCIP development on Millennium and will likely take it up after their migration.

One library uses OCLC WMS but MassVC has not even begun talking with OCLC about NCIP support options.

Polaris is the only ILS that supports all six of the messages required of SHAREit.

Despite the disappointment with Auto-Graphics as a vendor and development partner, MassVC plans to stay with the selected solution for the time being. They are now looking for a first round of libraries being released on SHAREit in the summer of 2014.

Conclusion

We conclude that the SHAREit product is not a candidate for consideration for the RAILS project because it is not actually in production anywhere (with the possible exception of the Mississippi Library Commission but this could not be confirmed). The only Auto-Graphics resource sharing product that is in production is no longer available for sale. However, because of the long history as a resource sharing software supplier, there is hope that the company will make the necessary adjustments to their infrastructure and get back on track with their new product. As Kelly Drake stated, “If the product worked like they said it worked, it would be good. But it does not.” That said, we believe that Auto-Graphics is working to correct their issues and will be able to turn things around for this product line in the not-too-distant future.

Resource Sharing Products from OCLC

OCLC’s product line is currently in flux – even more than usual! They have traditionally had several resource sharing options in their product line including Worldcat Resource Sharing (WCRS), ILLiad, Worldcat, and Worldcat Local, and Navigator. Most recently they announced two more products: WorldShare ILL and WMS for Groups.

WorldShare ILL is essentially the WCRS on a new platform. WCRS was originally built on their FirstSearch platform. Worldshare ILL is built on the new Worldshare Management System (WMS) platform. Prior to undertaking this project, the Consultants were under the impression that WorldShare ILL would be the replacement product for Navigator, but this is incorrect. Like WCRS, WorldShare ILL is an ILL product. Worldshare ILL and ILLiad will continue to be the product solutions for traditional ILL (transactions between two libraries that do not have a reciprocal borrowing relationship).

About the Product

Navigator is OCLC’s consortial borrowing product. It uses OCLC’s VDX product for requesting and Worldcat Local for discovery. Like Relais, OCLC is committed to standards and Navigator utilizes NCIP for request management.

OCLC offers a unique resource sharing solution because of Worldcat. WorldCat is the largest shared database of bibliographic records and library holdings in the world, which means that OCLC can provide a larger potential ILL community than any other vendor in the world. For groups implementing a regional resource sharing system, OCLC provides a seamless process for moving unfilled requests to libraries outside of the group. It should be noted that other products mentioned have this capability as well. Both SHAREit and RelaisILL use the ISO ILL protocol to pass requests that cannot be filled within the consortia out to another ILL product. In most case, that ILL product will be based on Worldcat (e.g. WCRS/Worldshare ILL or ILLiad) or perhaps Clío.

In order to make use of Worldcat and the OCLC's network, each library involved in the group must be an OCLC member and contribute their holdings to the WorldCat database. Cost of membership can be an issue for smaller libraries; however, OCLC has offered some membership discounts to the smallest libraries in Texshare so there may be a similar opportunity for Illinois.

OCLC has worked on connectors for all of the major ILS products as well as some of the smaller systems, such as Biblionics Apollo. These are all in production for groups using Navigator. The majority of the connectors utilize the NCIP 1.0 standard including Polaris and all of the SirsiDynix products. The connector for Library.Solution from TLC is proprietary and non-standard. Like other resource sharing product vendors, OCLC has had to customize their connector to accommodate Innovative's NCIP interface as well (although Innovative would argue that it is still "standard").

Experience of Consortia Using Navigator

TexShare is a group of over 500, mostly public, libraries in Texas using Navigator. There are a few small academic libraries as well as some prison libraries. We interviewed Sue Bennett (TexNet Coordinator).

TexShare libraries mediate their requests. Only a few libraries allow patrons into the Worldcat Local catalog to place their own requests. Library staff access Navigator to perform transactions and these are reflected in their local system using NCIP. As with other products, temporary item records are created in the ILS automatically. However, the temporary records cannot be deleted automatically through NCIP at this time. Each ILS uses a different method for the clean-up of these records using some kind of batch process.

Only users on TLC Library.Solutions do not use NCIP so they have to manually create and manage temporary bib and/or patron records for each transaction.

Discovery

FirstSearch has been the discovery layer option available from OCLC. But like everything else, they are moving their discovery product onto the new Worldshare platform. The revamped FirstSearch is still in beta (see <https://www.oclc.org/go/en/firstsearch-migration.html>). The new FirstSearch will provide separate views for staff and the public and will be intimately tied to Worldcat which will allow for scoped display of search results based on various criteria depending on the consortial affiliations of the user's library.

Conclusion

There is no question about OCLC's commitment to resource sharing in libraries. They are also committed to developing products on a state-of-the-art technology in their WMS platform. OCLC is also developing products in areas that other resource sharing vendors are largely ignoring (e.g. integrating content partners such as Google Books, GoodReads, and even other discovery layer products such as EBSCO EDS, Ex Libris Primo, and Summon), syndication of library content to non-library partners, and providing support for mobile devices. As libraries in Illinois well know, OCLC products are expensive and the pricing model sometimes creates inequities that are hard to resolve. Still, a new product, WMS for Groups, provides a whole new approach to resource sharing software while leveraging Worldcat and the

new WMS platform. It has the possibility of building upon the existing consortial environment in Illinois. This will be discussed in the next section.

Concluding Remarks

Full interconnectivity and interoperability between ILS and resource sharing solutions, based on a standard or at least a widely accepted protocol is not yet available for groups that employ multiple local ILS solutions. Every consortium using an overlay product like those we've discussed throughout this report, requires library staff to use the resource sharing product interface to manage and process requests. This will be true for the foreseeable future until ILS vendors develop initiator NCIP interfaces as well as responder interfaces. Similarly, the resource sharing system would have to be equally adept at acting as both the initiator and the responder. That's the best case scenario using a standard interface (NCIP) and it is a long way from reality. ILS vendors, so far, have no interest in developing NCIP initiator interfaces. Even their support for NCIP as a responder is half-hearted at best.

In cases where NCIP is not supported by both the ILS and the resource sharing product, the library staff not only must manage the request on the resource sharing product side but they must also manually manage the requests in their own ILS.

The only scenario where the overlay approach works efficiently is when the resource sharing product and the ILS product are provided by the same vendor (e.g. Innovative's Millennium and INN-Reach product and Auto-Graphics Agent Verso and SHAREit products). In these cases, the integration is proprietary so libraries not using the vendor's ILS tend to have a very sub-standard experience, but the libraries on the resource sharing vendor's ILS have an excellent experience.

One alternative to the overlay approach is a shared ILS for all of RAILS. This is not seen as a viable option due to the longstanding consortial relationships, the funding model related to LLSAPs, and numerous other factors. That said, not all shared ILSs are created equal. Some ILS products allow for much more control for each library system that is part of a shared ILS. Of particular note is Evergreen, an open source ILS solution which was created specifically to allow groups of libraries to share a single system. Unlike other ILS products, Evergreen was built from the ground up with consortia in mind. As a result, each library system has a lot of control over their policies and settings. Also, the hold functionality within the Evergreen system is unmatched in the marketplace and provides many options for controlling how items are selected to fill holds.

There are numerous benefits to moving to a shared ILS. Total cost of ownership is greatly reduced. Circulation interoperability and NCIP become a non-issue with a single database for all members – resource sharing becomes simply circulation. Shared technical services and cooperative collection development become possible. Also, the new ILS, or library service platforms, are based on new technologies (e.g. cloud-based, Web Services, library data is accessible and can be leveraged in new and interesting ways, print and digital resources are tightly integrated). These products are very different from the traditional ILS which are based on client server technology and designed around printed material. Orbis Cascade Alliance recently made the decision to move to one such product: Ex Libris

Alma, with the Primo discovery interface. Having tried INN-Reach and OCLC Navigator for many years, they were ready to move to a library services platform and a more collaborative infrastructure model.¹

Besides Evergreen (consortial ILS) and the new library service platforms, another alternative to the overlay and shared ILS model is WMS for Groups. This is a very new product from OCLC. No libraries are currently in production using it but it is something that may well be of interest to RAILS given the number of Illinois libraries already using Worldcat. WMS for Groups provides each library with their own instance of WMS including a separate dataset (patrons, bibs, items). Funds and orders are all separate and each library has complete control over their own policies. However, each instance of WMS is made “group aware.” Each library can organize search results into groupings that make sense. For example, suppose the current members of LINC ran their own instance of WMS for Groups, they might want their users to see LINC search results first, then the rest of RAILS (everyone in the “Group”), and then all of Worldcat. The guiding principle for WMS for Groups, per Andrew Pace of OCLC, is that “libraries want their own ILS, but they want to share.” See Attachment F: WMS For Groups for more information about the product.

The other product to keep an eye out for is Fulfillment, the open source overlay product being developed by Equinox (and other development partners). Although development has been much slower than expected, it is ongoing. At least two groups are pilot testing it now. Though not in production, these groups are successfully sharing material between Koha, Evergreen, and Horizon libraries. Also, Equinox reports they have working interfaces with Aleph, Polaris and Millennium. And though Fulfillment is not an alternative to the “overlay model,” the fact that it is open source provides RAILS with an opportunity to participate in its development trajectory.

Should RAILS decide to move forward with procuring an overlay product, we strongly recommend incorporating a thorough examination of discovery layer products. In some cases the shared union catalog can be treated like another data repository (target) for the discovery product and there is an opportunity there to greatly improve the user experience by providing a unified search interface.

We also would encourage RAILS to ensure that any product being proposed in response to an overlay project procurement process are in production and the vendor provides a demo of the in-production product that will be provided should the company be given the contract. In addition, we highly recommend that any candidate vendors demonstrate the patron experience as well as the staff experience for managing the transactions for each of the ILSs represented at the time of the procurement.

And finally, we strongly encourage libraries to become more actively involved in standards bodies such as the NCIP Standing Committee to begin to learn how important these established protocols are for ensuring interoperability between applications, providing affordable options for libraries, and for helping vendors keep their development costs low. Without adherence to standards and protocols, everything is a custom development which takes more time and more money. If more library staff were

¹ For more information about the Alliance’s decision-making process, see <http://orbiscascade.org/index/shared-ils-implementation>.

represented on NCIP, SIP, ILL and RFID NISO committees, and were more educated and active about these issues, more ILS vendors would provide support for these protocols as a standard part of their product.

Attachments

Attachment A: Consortia to Consider

Attachment B: Questions for Consortial Interviews

Attachment C: NCIP Matrix

Attachment D: NCIP Implementation Cost Savings

Attachment E: Consortia Interview Notes

Attachment F: WMS for Groups

RAILS PROJECT

Date: October 14, 2013
To: Jane Plass
From: Lori Ayre and Melissa Stockton

Having researched several consortia and gathered some preliminary information about the range of ILS supported and the technology used, we recommend including the following in our study for RAILS. Please let us know if there are any other consortia that you would like us to consider (if we haven't represented it here). Your feedback is welcome!

EZ-Borrow- Relais ILL

EZ-Borrow is a resource-sharing consortia run by PALCI (Pennsylvania). They serve 74 academic libraries and use Relais ILL. All of the participating ILSs connect to relay via NCIP and they are: **Voyager, Aleph, Innovative, TLC, Unicorn, and Symphony.**

They are very actively involved with developing interfaces with their Relais system. The same group that manages EZ-Borrow also manages BorrowDirect, another academic consortium based on Relais.

MARINA- Relais D2D and ILL

Marina is Maryland's statewide, public library consortium composed of 25 systems. Three of those systems are regional libraries coordinate small groups of public libraries with shared catalogs.

Marina uses Relais D2D and Relais ILL. The ILSs represented include **Evergreen, Millennium, Polaris, Symphony** and **TLC** (not sure which product). All use NCIP except Evergreen.

Marina is closely connected to MILO (Maryland Interlibrary Loan Organization) which is an OCLC-based ILL service operated by Enoch Pratt Library on behalf of a cooperative network of public, academic, school and special libraries throughout Maryland.

MassVC - Auto-Graphics ShareIt

MassVC is the statewide virtual catalog for Massachusetts. It links all the major shared ILS systems including MassCat which is a new shared catalog (Koha) that is used by many, many small libraries. They selected Auto-Graphics ShareIt over a year ago and have been working on developing circulation interoperability, via NCIP, between all of their represented ILSs.

They currently have, or are modifying their NCIP responder, with **Polaris**, Innovative Interfaces (**Millennium**) and **SirsiDynix**. In addition, they are leading the development effort to get an NCIP

responder for **Evergreen** and **Koha**. They also have two Ex Libris products, **Alma** and **Aleph**. Getting NCIP going with each of those products had been slow going.

ShareIt is a somewhat new product (formerly known as Agent Resource-Sharing), and it requires more NCIP messages than some of the other products. This could be a good thing if that means it ends up providing better functionality and reducing staff workload. It's a bit too early to tell if that's the case.

MelCat – INN-Reach

MelCat is Michigan's statewide, multi-type union catalog based on INN-Reach. Over 400 libraries (mostly public) participate so it is likely that virtually every established ILS is represented (but we don't have a list to be sure). The system is run by Midwest Collaborative for Library Services (MCLS). MCLS has experience with more than one resource-sharing system. MCLS also has a partnership with Relais for libraries wishing to use Relais ILL and Relais D2D. They also have a partnership with OCLC Worldcat Resource Sharing service. They also managed a shared Koha system (disbanded) and a shared Evergreen system (now hosted by Lyris).

MCLS members are actively pursuing NCIP responder development. While MCLS was managing the Michigan Evergreen consortium, the group sponsored development of an NCIP responder so that Evergreen would work better with INN-Reach (as far as we know this has not yet been incorporated into an Evergreen release). Some TLC libraries have sponsored development of an NCIP responder for their ILS as well and development is largely complete and awaiting testing.

Prospector – INN-Reach and Encore

The Colorado Alliance of Research Libraries is composed of 42 multi-type libraries using INN-Reach for resource-sharing plus Encore for discovery. The service is called Prospector. The union catalog contains records from academic, public and special libraries in Colorado and Wyoming. Prospector gives library patrons and staff access to more than 30 million books, journals, DVDs, CDs, videos and other materials held in the Prospector member libraries.

Prospector is administered through III but maintained locally by Alliance staff. Libraries which use a non-III system can join Prospector with the help of data interchange protocols such as NCIP. Also uses Encore as the discovery layer for the INN-Reach system.

ILSs involved include **Innovative**, **Polaris**, **Voyager**, and **Horizon**.

Texshare – OCLC Worldcat Resource Sharing

Texshare provides database purchasing and courier services to over 700 libraries in Texas and also maintain a statewide catalog for resource-sharing. The TexShare group is currently using WorldCat Resource Sharing but is in the process of moving to WorldShare ILL.

Texshare is represented by all major ILS products but we don't have a specific list at this point. They are very early in their migration to Worldcat ILL so it is unclear how useful they would be.

NOT RECOMMENDED FOR FURTHER STUDY AT THIS TIME

The following consortia were researched and for the reasons identified, we don't recommend including them in the study.

LOUIS- Shared ILS (Symphony)

LOUIS is composed of 48 academic and special libraries in Louisiana. They run a shared Symphony system and also utilize ILLIAD for interlibrary loan.

Because this is a shared ILS and not an overlay product, we don't recommend pursuing further information on this system.

Maine InfoNet- INN-Reach

Maine InfoNet is a multi-type resource-sharing consortium composed of approximately 95 libraries. They manage an INN-Reach system as well as two consortial Millennium systems, seven stand-alone Millennium systems, and a DCB system for bringing about 20 non-Millennium libraries into the INN-Reach system.

The non-Millennium libraries include: **Koha, Evergreen, Athena, LibraryWorld, Destiny, Mandarin Oasis**, and even an old **Winnebago Spectrum** system. We are not including Maine InfoNet because we have other INN-Reach systems adequately represented. The others we've chosen are very actively working on NCIP development and/or have extensive experience with a wide variety of resource-sharing options.

MINITEX – VDX and Z-Portal

Minitex is as an information network for Minnesota. North and South Dakota have also contracted with Minitex for services. There are over 270 libraries involved in the group which includes all types and sizes of libraries. Minitex provides a variety of ILL services for different libraries and groups within their consortium and they utilize different interlibrary lending tools in different situations. MnLink provides ILL services for over 200 libraries using Z-Portal and VDX from OCLC.

Because OCLC considers OCLC Worldshare ILL their flagship product for resource-sharing, we don't recommend spending time learning more about this legacy system.

OhioLink

OhioLINK is a consortium of 90 Ohio college and university libraries, and the State Library of Ohio. OhioLINK's membership includes 16 public/research universities, 23 community/technical

colleges, 49 private colleges, two public libraries, one school library, and the State Library of Ohio. The consortium currently utilizes an INN-Reach union catalog for discovery and interlibrary lending and WebOPAC for discovery.

They are were working on a project to implement a new discovery layer, utilizing open source tools from IndexData and were one of the primary development partners (with Equinox Systems, Inc.) working on Fulfillment but it isn't clear whether these are still active.

Because all members of OHIOLINK are on Millennium, we do not recommend pursuing further information on this system.

Orbis Cascade – Shared ILS (Alma)

Orbis-Cascade serves 36 academic libraries in Washington and Oregon which are part of a resource-sharing group called SUMMIT. They provide other services such as database discounts and courier services to over 250 member and non-member libraries. This consortium was involved in the creation of the OCLC interlibrary lending solution WorldCat Navigator, which they are still using for resource-sharing. SUMMIT libraries can select to use the WorldCat Group or WorldCat Local products as a discovery interface.

They are in the process of moving to a shared ILS instead of using an overlay product. Until everyone is on Alma, they are using Worldcat Navigator.

Because this is a shared ILS and not an overlay product, we don't recommend pursuing further information on this system.

RAILS RESOURCE SHARING PROJECT

QUESTIONS FOR CONSORTIAL INTERVIEWS

1. How many libraries are included in your consortia/group?
2. What types of libraries are involved?
3. Do your members have separate ILS solutions locally? If so, which systems are represented in your group?
4. Do you have a single system for discovery and interlibrary lending? How long have you had these solutions in place?
 - a. If so, what system?
 - b. If not, what system are you using for discovery/searching? Interlibrary lending?
 - c. What were your criteria for choosing your current solution?
5. Can all the local systems (ILS) connect to the shared discovery/interlibrary lending system?
 - a. If not, which ones can't and why?
 - b. To what extent is NCIP used by your member libraries?
6. Does the system allow individual library patrons to request items? How does the process work for the libraries involved?
7. What types of materials are available for discovery and lending? Ebooks, articles, paper books, AV materials...
8. What pricing model is used by your vendor(s)? How are these costs split among the participating libraries?
9. Are you planning to look for another solution in the next 2-3 years or are you planning to stay with your current solution(s)?
10. What do you consider the strongest feature or capability in your interlibrary lending solution? What is the weakest?

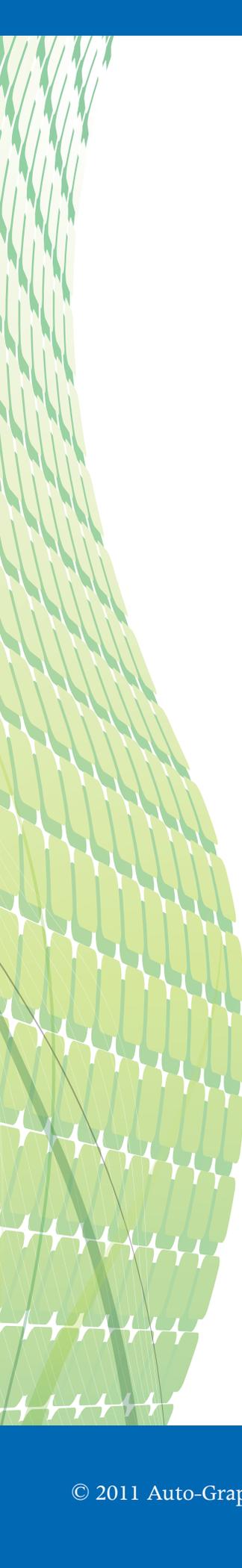
NCIP SUPPORT MATRIX	INITIATORS			
	Relais	A-G ShareIt	III INN-Reach	OCLC Navigator
RESPONDERS				
Evergreen		In development	NCIP 1.0	
Ex Libris Aleph	NCIP 1.0			
Ex Libris Alma	NCIP 2.0			NCIP 1.0
Ex Libris Voyager	NCIP 1.0			NCIP 2.0 as of 8.2
III Millennium	NCIP 2.0 but doesn't support RequestItem			
III Sierra				
Koha		In development		
OCLC WMS				
Polaris	NCIP 1.0	NCIP 1.0	NCIP 1.0	NCIP 1.0
SD Horizon	NCIP 1.0 but doesn't support RequestItem			
SD Symphony	NCIP 1.0 but doesn't support RequestItem	NCIP 1.0	NCIP 1.0	
TLC CARL	NCIP 1.0		NCIP 1.0	Testing
TLC Library.Solution	NCIP 1.0	NCIP 1.0	NCIP 1.0	NCIP 1.0
VTLS Virtua	Testing			

NCIP SUPPORT MATRIX	INITIATORS			
	Relais	A-G ShareIt	III INN-Reach	OCLC Navigator
NCIP Messages Supported by Initiator	LookupUser, RequestItem, AcceptItem, CheckInItem, CheckOutItem	LookUpUser, RequestItem, AcceptItem, CheckInItem, CheckoutItem, CancelRequestItem, CreateUser	LookupUser, AcceptItem, CheckInItem, CheckOutItem, ItemCheckedIn, ItemCheckedOut, ItemRecalled, ItemReceived, ItemRenewed, ItemRequestCancelled, ItemRequested, ItemShipped, RenewItem, CirculationStatusChange	RequestItem, AcceptItem, CheckInItem, CheckOutItem

Determining Staff Cost Savings Using the NCIP Calculator

Mary E. Jackson
Product Manager, Resource Sharing
Auto-Graphics, Inc.





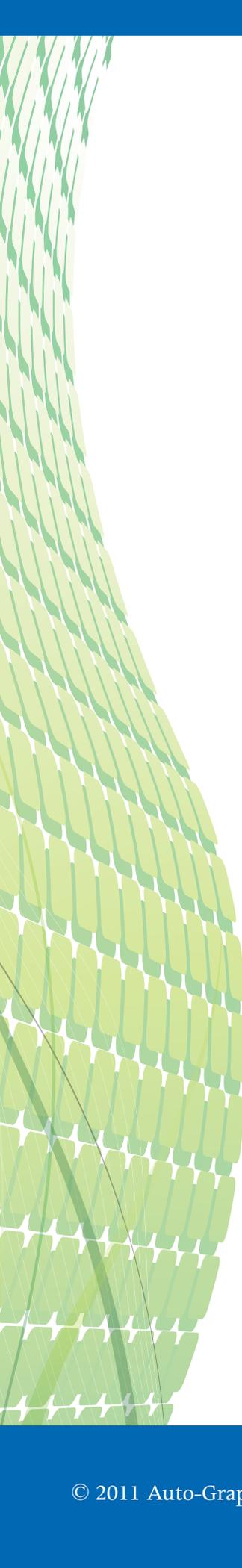
Introduction

The NISO Circulation Interchange Protocol (NCIP) is a technical standard that enables a library's circulation system to interact with one or more other circulation systems, with its resource sharing system, and/or with its self-service system.

This paper illustrates how libraries can benefit from implementing NCIP between their resource sharing and circulation systems by describing several NCIP implementations. The paper provides a tool for individuals to measure potential staff cost savings using NCIP. The paper and calculator will help state librarians, statewide resource sharing managers, library directors, and resource sharing staff to understand how implementing NCIP will streamline library workflow and reduce staff costs. Finally, the paper provides an overview of the standard and associated profiles, discusses how the standard and profiles help streamline a library's workflow, and summarizes library activities the standard does not support.

What is NCIP?

NCIP is a technical standard, or communications protocol, approved by the National Information Standards Organization (NISO). It is formally known as ANSI/NISO Z39.83-2008, NISO Circulation Interchange Protocol, Parts 1 and 2. Version 2, approved in 2008, brought enhanced extensibility, improved self-service and error



handling, and addressed issues that surrounded the first version of the standard. Version 2 includes two parts:

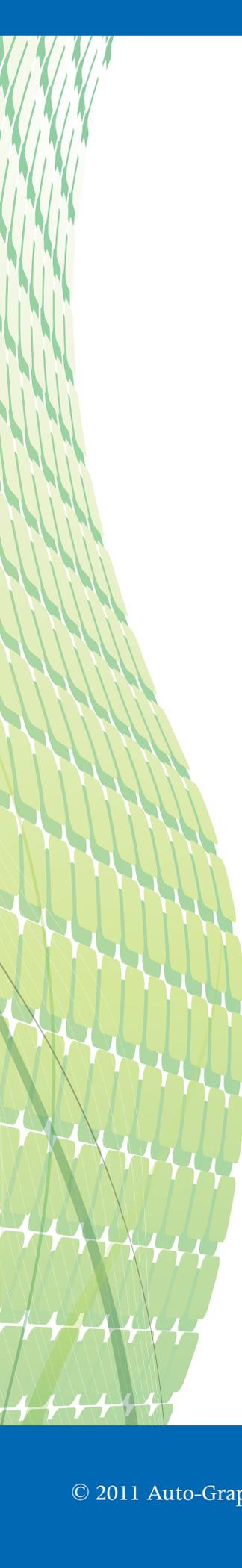
- [ANSI/NISO Z39.83-1 - 2008 NISO Circulation Interchange - Part 1: Protocol](#)

This document describes a protocol that defines the exchange of messages between and among computer-based applications to enable them to perform the functions necessary to lend and borrow items, to provide controlled access to electronic resources, and to facilitate co-operative management of these functions.

- [ANSI/NISO Z39.83-2 - 2008 NISO Circulation Interchange Protocol - Part 2: Implementation Profile 1](#)

This document defines a practical implementation structure for the NISO Circulation Interchange Part 1: Protocol.

The standard defines and specifies the messages and data elements needed to facilitate interoperability between dissimilar circulation systems in a consortium or library group. The standard assumes that the consortium has existing agreements to cooperate and share materials using a circulation-based model. NCIP also streamlines resource sharing within a library as it permits the library's resource sharing or interlibrary loan (ILL) system to interact with its local circulation system. Finally, the standard permits a library's self-service kiosk to interact with its circulation system.



The NCIP protocol includes 46 messages; each message has an initiating query (for example, from the ILL system to the circulation system) and a response (e.g., from the circulation system back to the ILL system). Another way of looking at NCIP messages is based on their behavior. There are three significant types of behaviors:

- **Inquiries or lookups:** Examples: What is the name associated with ID 987654321? How many books does the patron have checked out? What are their titles?
- **Actions:** Examples: Authenticate the user. Check out this item. Place a reserve on this title. Return this item. Register this individual as a new user.
- **Notifications:** Examples: The ILL system informs the circulation system that the item has been checked in. The ILL system informs the circulation system that the loaned item has been returned.

The standard is maintained by the NCIP Standards Committee (NCIP-SC), formerly the NCIP Implementation Group. Through in-person meetings and monthly conference calls, the group reviews reported bugs and enhancement requests, plans educational activities to promote and publicize the standard, and serves as an advisory body to the NCIP Maintenance Agency.

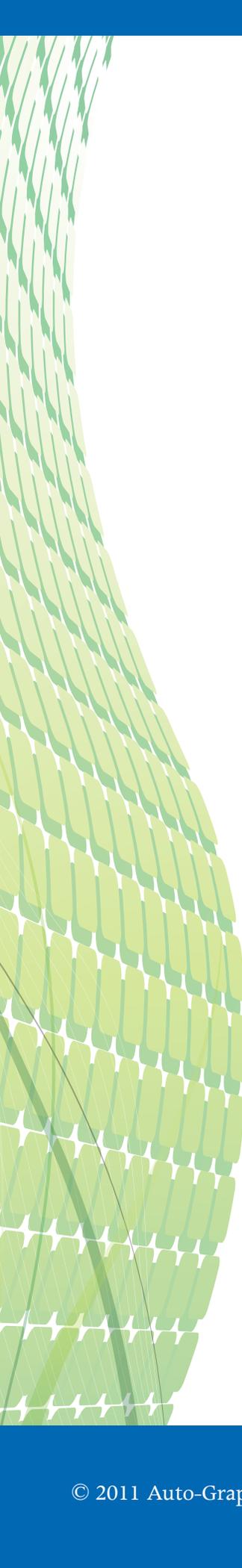
Implementing NCIP: Case Studies

East Hampton, Connecticut Public Library implemented NCIP between reQuest, an AGent Resource Sharing system, and its local circulation system, AGent VERSO. Both systems are provided by Auto-Graphics, Inc. Library Director Sue Berescik commented:

“Roughly speaking, CILL has allowed us to reduce the amount of time we spend on ILL borrowing and lending requests by 55.5 percent, while increasing our ILL volume from 1,472 requests in 2007 to 2,449 requests in 2009, or a 66 percent increase. Our library staff would not have been able to handle the significant increase in ILL requests without CILL. We continue to see the greatest staff time savings on the borrowing side. End-to-end, borrowing supported by CILL takes 61percent less time to execute than those that require staff intervention.”ⁱ

Berescik also reported that the efficiencies provided by CILL in the reduction of the number of steps to complete ILL transactions has allowed staff to provide less ‘on-system’ time managing interlibrary loan requests:

- **Before CILL**, about 20 of 24 allocated staff hours per week were spent on interlibrary loan, or 83.3 percent of the allocated hours.
- **After CILL**, five (5) of 18 allocated staff hours per week are spent on interlibrary loan, or just 27.8 percent of the allocated hours.



She concluded:

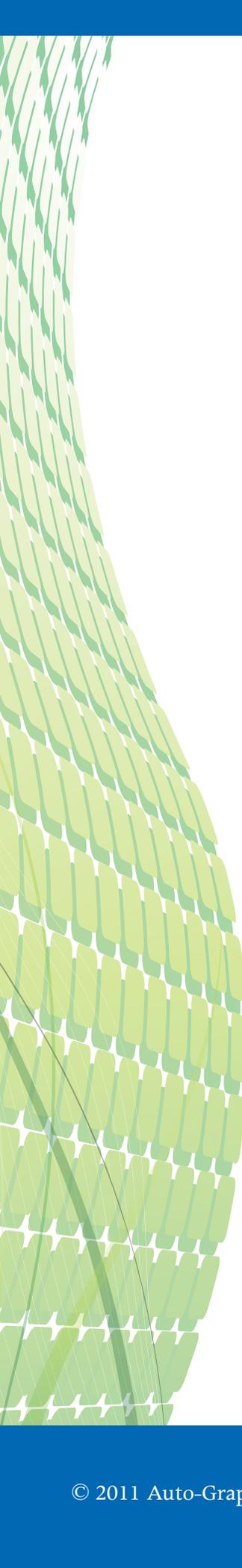
“Overall, CILL has provided us with time savings both in the form of fewer hours and a lower percentage of total hours spent on ILL. This has provided us with the opportunity to divert resources to supporting public programs, person-to-person services, and both traditional and technological outreach efforts.”ⁱⁱ

Vernon Parish Library in Louisiana implemented NCIP between LoanSHARK, an AGent Resource Sharing system, and its circulation system, The Library Corporation’s (TLC) Library.Solution.

According to Howard Coy, Library Director, the implementation process was drawn out. Vernon Parish first began working with TLC in January, 2007 and, in March, 2007, was given a “realistic” timeline of three (3) months.

However, Vernon Parish didn’t begin using NCIP in a production mode until February, 2010. This extended timetable illustrates the complexity of a library working with two vendors, each with different development schedules.

On the borrowing side, NCIP adds a bibliographic record of borrowed item to the circulation database. The circulation system automatically removes the records when the loaned item has been returned, though this step is outside of the NCIP standard but is a great workflow enhancement. The patron’s circulation record now shows complete



title/author information rather than brief, and possibly inaccurate, information entered by a staff member in the pre-NCIP workflow.

The time to process an ILL transaction is now *“a fraction of the time it once took.”* Although Vernon Parish did not quantify the staff cost savings it gained, it is possible to estimate those savings.

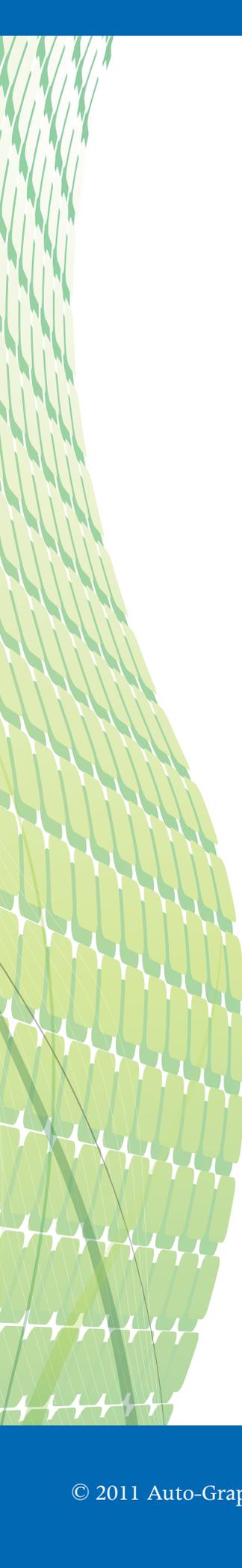
In 2009 Vernon Parish borrowed an average of 43 items per month, or 516 items annually. Based on an estimate of 10 minutes to process a borrowing request using the pre-NCIP workflow, and NCIP reduced processing time by 80 percent, Vernon Parish saved 69 hours, or approximately one-quarter of a staff position.

If the ILL staff members reduced their processing time by 90 percent, Vernon Parish would have saved 77 hours, or approximately one-third of a staff position. Vernon Parish has implemented only the borrowing side of NCIP because TLC has no immediate plans to implement the NCIP messages required to support lending.

Howard Coy summed up their NCIP implementation with the following:

“I don’t know how we functioned so long without NCIP.”ⁱⁱⁱ

When the Boston Library Consortium implemented the NCIP-compliant URSA direct consortial borrowing system in 2003, SirsiDynix estimated that an NCIP-enabled circulation system reduced costs by up to 75 percent, or less than \$8 per transaction



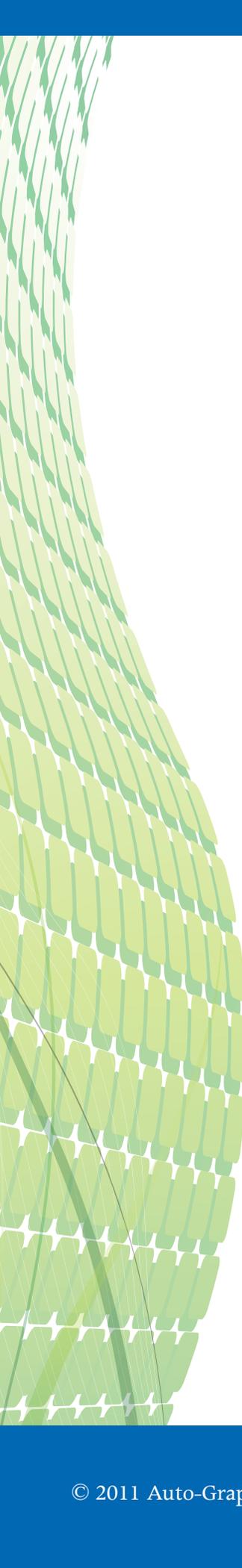
compared with the average of nearly \$30 for a mediated interlibrary loan transaction.^{iv} These estimates include staff, communication, delivery, and other direct costs associated with the transaction.

Challenges Implementing NCIP

Once a state library or individual library decides to implement NCIP, a number of challenges may need to be overcome.

At the state level, the ILL system may support only a few of the NCIP messages included in the Circulation Interlibrary Loan Interaction (CILL) Profile (*see page 14*). Some ILL systems support only the patron authentication messages, so staff cost savings will be minimal as staff members will still need to perform duplicative steps to process ILL requests once the patron has been authenticated. Some ILL systems may support the resource sharing core messages, but not the additional messages in the CILL Profile, again, minimizing workflow efficiencies.

The local library may not have an NCIP-compliant circulation system. Many integrated library system (ILS) vendors charge an additional fee for the NCIP module, and the library may not have funds to pay for the upgrade. If a local library has an NCIP-compliant circulation system it may be using an ILL system that is not NCIP-compliant. Some ILS vendors have opted not to implement NCIP or complete

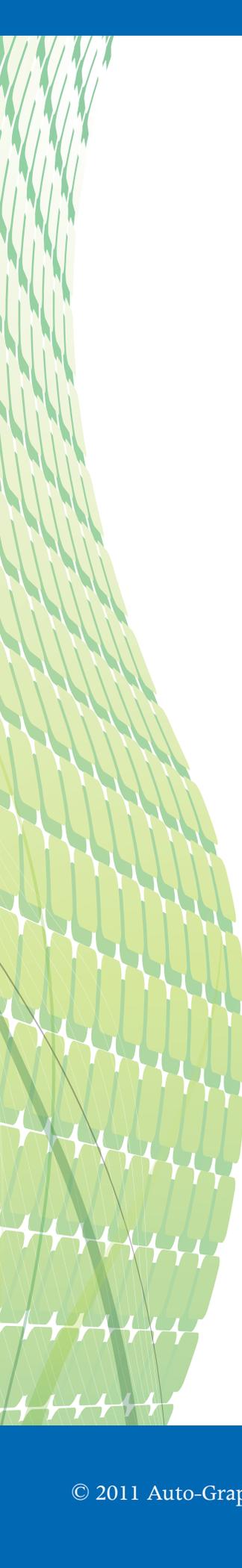


testing with other NCIP implementers. In these cases, the library will never be able to improve their ILL workflow.

Most ILS vendors have implemented NCIP as a responder only. That is, the circulation system is unable to send an NCIP message to the resource sharing system, but only responds to a query from the resource sharing system. Having the circulation system function as a responder only has significant limitations in ILL workflow.

For example, a patron will need to return the borrowed item to the ILL office, not to the circulation desk. If she returns the item to the circulation desk, circulation staff would discharge the item from the patron's record, but the circulation system could not send an NCIP message to the ILL system asking the ILL system to update the ILL request to Returned. The circulation staff member would need to ask the ILL staff member to update the ILL request manually.

Similarly, an item loaned by the local library will need to be returned to the ILL department rather than to circulation desk as the ILL system must send the NCIP message to the circulation system directing the circulation system to check in the item from the borrowing library. The inability for the circulation system to initiate any NCIP messages requires library staff to modify internal procedures so that their workflow fits the limitations of how the circulation system implemented NCIP rather than the NCIP implementation supporting their current workflow.



Staff Cost Savings Using NCIP

The cost savings enjoyed by Vernon Parish Library and East Hampton Public Library may be greater or lesser than what other libraries have realized. But, their averages will be used to illustrate the potential savings that can be realized by using the NCIP CILL Profile between a library's resource sharing system and its circulation system.

To illustrate the potential staff cost savings on a statewide level, the following chart estimates staff cost savings for several states using the AGen Resource Sharing system.

Several scenarios are provided: all libraries using the ILL system have NCIP-compliant circulation systems, 75 percent of the libraries are NCIP-compliant, 50 percent are NCIP-compliant, and finally, just 25 percent of the libraries have NCIP-compliant circulation systems.

These estimates also assume that a staff member spends ten (10) minutes to process one borrowing or lending request. These estimates also assume a conservative 50 percent savings in staff time processing borrowing and lending requests after NCIP has been implemented (or now 5 minutes per request).

The savings will be significantly greater if libraries realized a 60 or 75 percent savings in the amount of time a staff member spends processing one ILL request.

Staff Time Savings in Hours

Statewide System	2009-2010 Filled Borrowing and Lending Requests	Number of Hours to Process ILL Requests Statewide Without NCIP	Number of Hours to Process ILL Requests – 25% NCIP Circ. Systems	Number of Hours to Process ILL Requests – 50% NCIP Circ. Systems	Number of Hours to Process ILL Requests – 75% NCIP Circ. Systems	Number of Hours to Process ILL Requests – 100% NCIP Circ. Systems
Connecticut	193,284	32,214	28,187	24,161	20,134	16,107
Kansas	153,049	25,508	22,320	19,131	15,943	12,754
Louisiana	136,676	22,779	19,932	17,085	14,237	11,390
New Jersey	167,971	27,995	24,496	20,996	17,497	13,998
Wisconsin	188,340	31,390	27,466	23,543	19,619	15,695

These estimates illustrate the significant savings in staff time possible in a state even if only one-quarter of the libraries using an NCIP-compliant resource sharing system have an NCIP-compliant circulation system. Savings may be even greater in libraries with complicated or labor-intensive procedures, ones that take more than ten minutes to process one request.

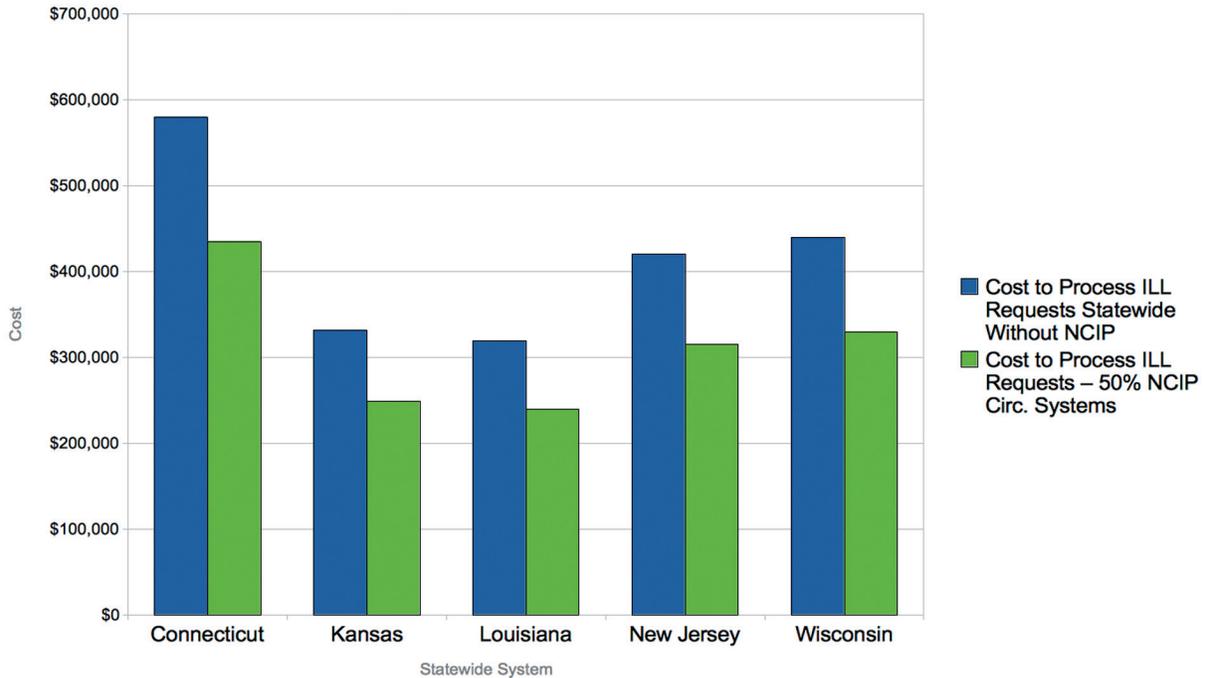
Like East Hampton Public Library, any staff cost savings at the local level will likely be used to have existing staff perform other library functions. These examples do not assume or imply that any staff cost savings will result in layoffs or terminations of individuals processing ILL requests, a fear expressed by more than one ILL staff member.

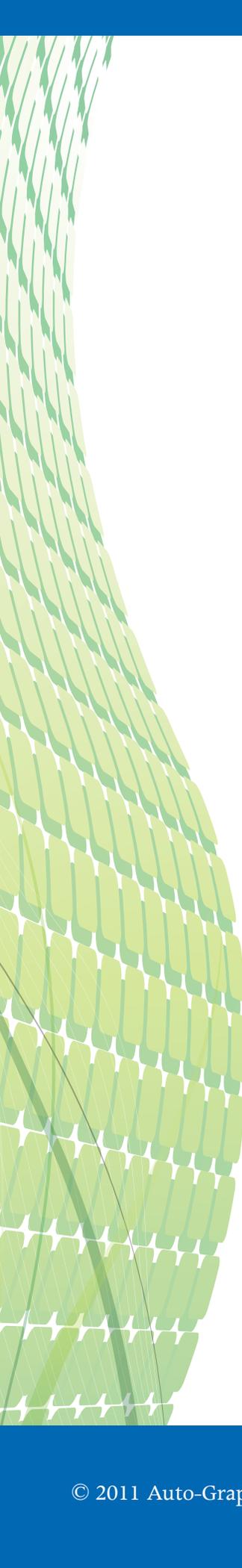
Staff Cost Savings

Statewide System	Hourly Cost for Library Technician	Hours to Process ILL Requests Statewide Without NCIP	Cost to Process ILL Requests Statewide Without NCIP	Hours to Process ILL Requests – 50% NCIP Circ. Systems	Cost to Process ILL Requests – 50% NCIP Circ. Systems	Total Savings With NCIP
Connecticut	\$18	32,214	\$579,852	24,161	\$434,898	\$144,954
Kansas	\$13	25,508	\$331,604	19,131	\$248,703	\$82,901
Louisiana	\$14	22,779	\$318,906	17,085	\$239,190	\$79,716
New Jersey	\$15	27,995	\$419,925	20,996	\$314,940	\$104,985
Wisconsin	\$14	31,390	\$439,460	23,543	\$329,602	\$109,858

* Hourly Rates were obtained from The Bureau of Labor Statistics (BLS) and then rounded to the nearest whole dollar. Occupation: Library Technicians (SOC code 254031) Period: May 2010 ^v

Staff Cost to Process ILL Requests Comparison



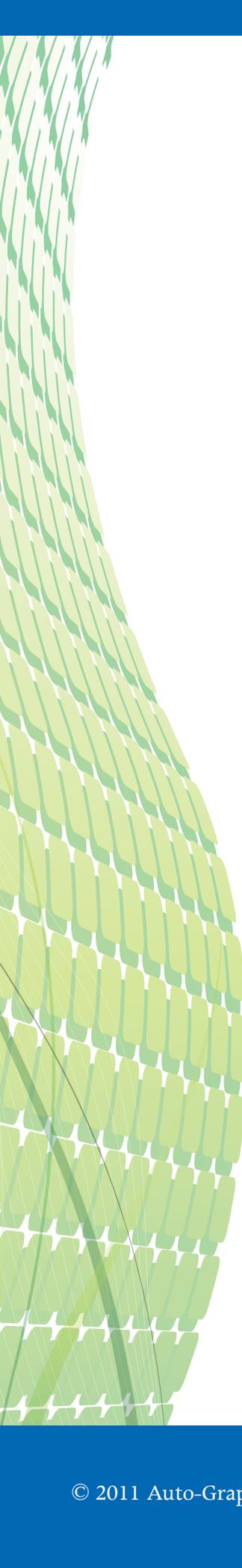


NCIP Core Messages

In an effort to simplify implementation, address the perceived barriers to implementing Version 1, and to facilitate support of a common, baseline workflow, in 2009 the NCIP Standards Committee developed the core message set. The Standards Committee identified which NCIP messages had already been implemented by vendors, and from that list, defined a core message set for resource sharing and a slightly different core message set for self-service applications. For the resource sharing core message set, the resource sharing system always sends the messages to the circulation system and the circulation system always responds to the messages. This decision was based on the way vendors had already implemented the core messages.

The nine messages in the resource sharing core message set include:

- [Accept Item](#)
- [Cancel Request Item](#)
- [Check In Item](#)
- [Check Out Item](#)
- [Lookup Item](#)
- [Lookup User](#)
- [Recall Item](#)
- [Renew Item](#)
- [Request Item](#)



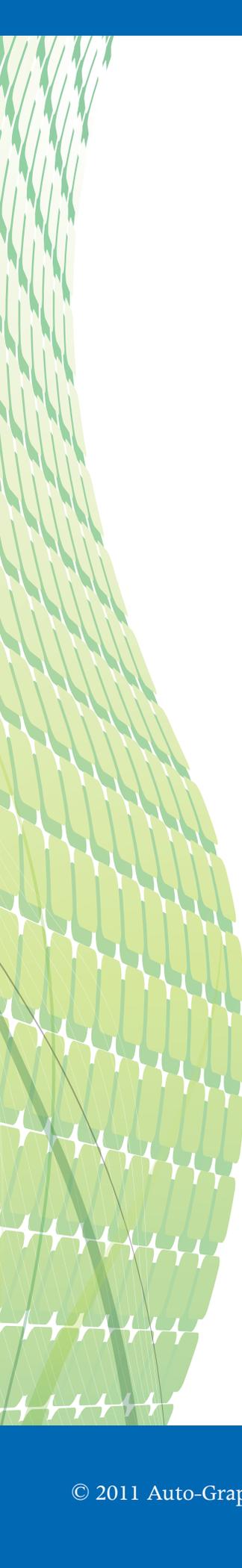
NCIP Application Profiles

An Application Profile describes how the NCIP protocol is used to support a specific environment or process with a given set of practices and policies. Each application profile prescribes the specific set of NCIP messages needs to support that application.

Three key application profiles support the NCIP protocol: circulation/interlibrary loan (CILL) interaction, direct consortial borrowing (DCB), and self-service circulation.

Circulation/interlibrary loan interaction (CILL)

NCIP supports the linking of a library's circulation system and its interlibrary loan system. Without NCIP, a library staff member must check out an item the library is loaning on its circulation system and then update the request in the ILL system to indicate the item has been shipped. On the borrowing side, a library staff member may need to create a temporary bibliographic and item record manually in the local circulation system to be able to check out the borrowed item to the patron. By using NCIP the library's circulation system and its ILL system can exchange information about patrons and items automatically – eliminating duplicate data entry, lessening manual intervention, and ensuring consistency in loan information, bibliographic information, and transaction updates.



Direct Consortial Borrowing (DCB)

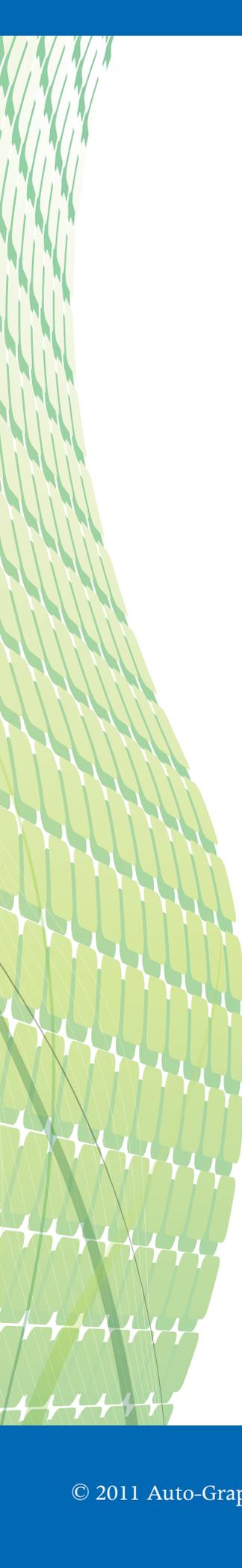
Some library consortia now share materials among members and track them as circulation transactions. In this way the individual circulation systems record and track loans without the need of a separate interlibrary loan system. To-date DCB has been implemented using a third-party software application interfacing between disparate circulation systems. The DCB application manages transactions and uses NCIP messages to communicate with the local circulation systems.

Self Service

Libraries provide self-service online circulation systems to allow patrons to do their own checkout and status tracking. Similar to SIP2, NCIP also supports self-service application, including an offline recovery mode.

The CILL Profile and the Interlibrary Loan Workflow

The CILL Profile defines the complete set of messages needed to manage interlibrary loan transactions between a library's ILL system and its circulation system. Implementing NCIP will reduce the number of duplicative steps a staff member needs to take to complete borrowing and lending transactions on each system.

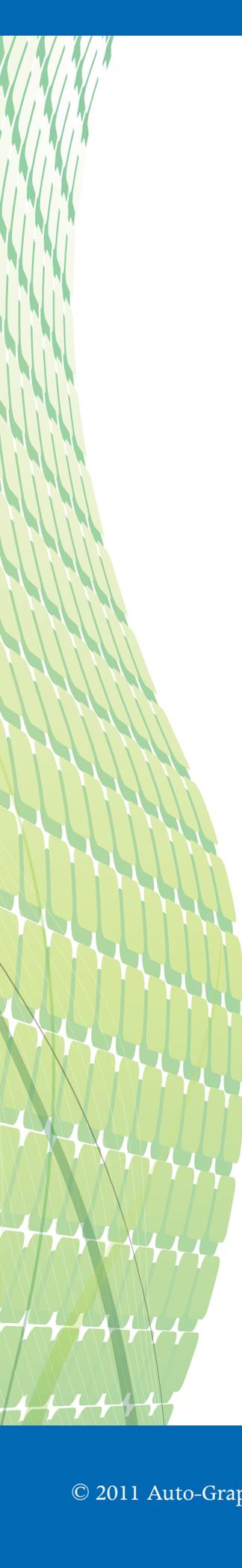


On the borrowing side, when a patron logs into the ILL system, the ILL system sends an NCIP message to the circulation system to validate the status of the individual. If the patron is not blocked, she can search, find records, and submit ILL requests. When the requested item arrives at the borrowing library, the ILL system sends an NCIP message to the circulation system to create a temporary bibliographic and item record.

Depending on local policy, the ILL or circulation system notifies the patron. The circulation staff member checks out the item to the patron. The patron returns the item to the ILL department where the ILL staff member updates the ILL request to Returned, which triggers the NCIP message to the circulation system to discharge the item from the patron.

Depending on the local circulation system, the temporary bibliographic and item record may be removed or suppressed, but this functionality is outside the NCIP standard. Additional NCIP messages support renewals, recalls, overdues, and all other typical borrowing functions.

On the lending side, a new request is received in the ILL system and a staff member retrieves the item from the stacks or branch library. When the ILL staff member updates the ILL transaction to Shipped, an NCIP message is sent to the circulation system, which checks the item out to the patron, i.e., the borrowing library.

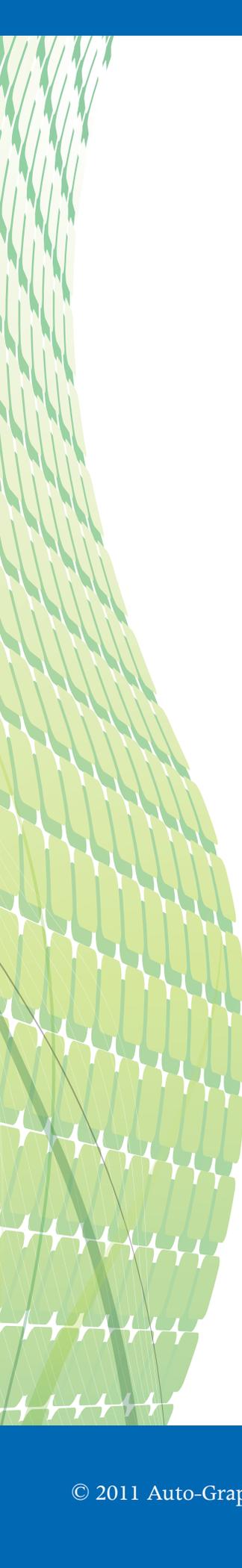


When the item is returned to the ILL department and the staff member updates the ILL request to Checked In, the ILL system sends an NCIP message to the circulation system to discharge the item from the borrowing library. Additional NCIP messages support other lending functions such as recalling an item, sending an overdue notice, and sending fines or fees.

A typical, and manual, borrowing workflow may include 22 or more steps. With NCIP, the number of borrowing steps is reduced by 50 percent to just 11 steps. On the lending side, the traditional manual workflow of 14 steps is reduced to eight (8) steps using NCIP, or 42 percent fewer steps. See Table 1 for a summary of the traditional (non-NCIP) and NCIP-enabled workflows. The specific steps each ILL staff member performs may vary depending on local policies and workflow. However the table reflects a typical workflow managing borrowing and lending transactions.

What NCIP does not Support

The standard was written with one basic assumption – a known item. Thus, the standard does not support the discovery of an item. Other standards, such as Z39.50, support the discovery process. NCIP does not require libraries to lend items; whether a specific item is available to send to the requesting or borrowing library is local library or consortium policy.



NCIP does not require libraries to change their policies such as the length of the loan period, whether renewals are granted, whether fees are charged, or how to handle lost or damaged items. Those policies are set by individual lenders or may be set by a consortium.

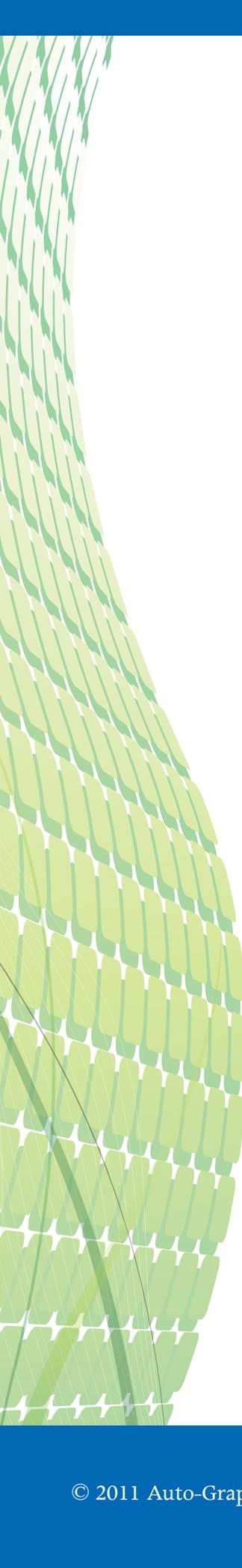
From a technical perspective, the base standard, Part 1, does not dictate how messages are conveyed. Part 2, the Implementation Profile, describe how messages are encoded (XML) and transmitted (HTTP, HTTPS, or TCP/IP). Vendors who have implemented NCIP have all followed Implementation Profile 1, but it is not a requirement of the base standard.

Calculating Your Staff Cost Savings Using the NCIP Savings Calculator

Developed by Auto-Graphics, the NCIP Savings Calculator permits librarians at the state or local level to estimate the number of staff hours one or more libraries can save when implementing NCIP between the resource sharing system and one or more local circulation systems.

Two calculators are provided: one for individual libraries and the second for statewide calculations.

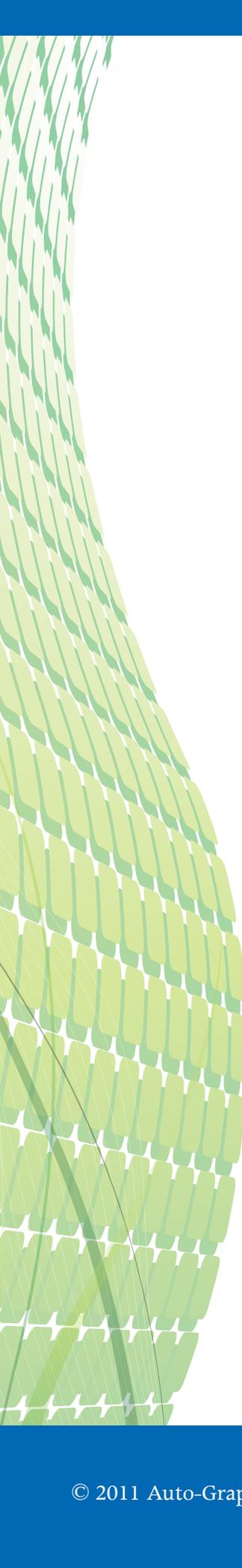
Using the individual library calculator, a user simply enters the hourly rate, the number of borrowing and/or lending transactions,



and selects the number of minutes to process one borrowing and one lending request. The calculator then displays the number of hours staff members spend processing ILL requests, the estimated number of hours worked annually using an NCIP-compliant system, and the staff cost savings. This calculation assumes a 50 percent savings in the amount of time to process one ILL request. The calculator totals the staff cost savings for borrowing and lending requests.

The following example illustrates how the NCIP Savings Calculator estimates staff cost savings. A library processed 3,444 borrowing transactions and 3,331 lending transactions in the previous fiscal year. If 10 minutes each were saved in processing borrowing and in processing lending transactions, the library would realize a savings of approximately one-third of a staff position, and could assign that staff member other tasks. The library would also realize a staff cost savings of \$14,115, assuming an hourly rate of \$25.00.

The Statewide Calculator is a tool for state librarians and others at the statewide (or consortial) level to determine potential statewide (or consortium-wide) savings. It calculates staff cost savings if 25, 50, 75, or 100 percent of libraries have NCIP-compliant circulation systems interacting with the state's NCIP-compliant resource sharing system.



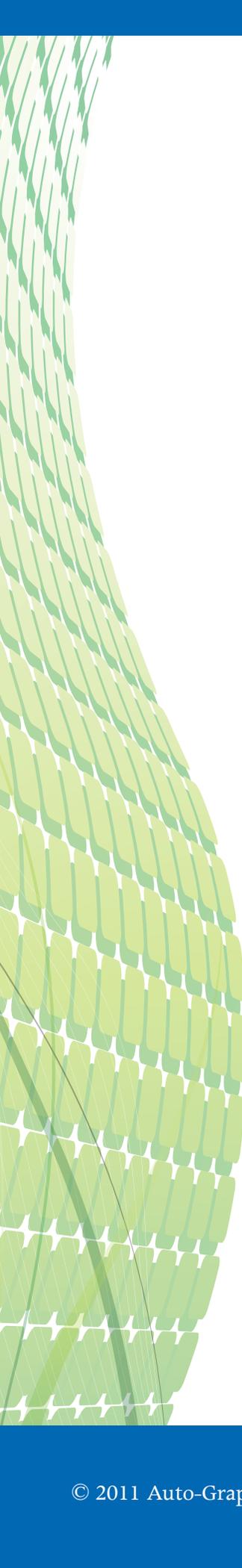
Conclusion

Implementing NCIP saves significant staff time—at the local library and aggregated at the statewide level. The saved staff time directly translates into cost savings for individual libraries and frees staff to perform other library tasks.

Patron satisfaction is increased because libraries are obtaining needed items more quickly as a result of more efficient and less labor-intensive workflow. If the state has funded the resource sharing system, the aggregated savings can be quantified and will validate a substantial return on investment for the state.

For example, if just 25 percent of the libraries in New Jersey implemented NCIP in their local circulation systems, the number of hours library staff members spend processing requests would drop from approximately 28,000 to 24,500 hours, or a 13 percent reduction. If one-half of New Jersey libraries used NCIP with JerseyCAT, the Auto-Graphics' Resource Sharing system, the total number of hours required to process ILL requests would drop by 25 percent.

Savings like these are the most compelling reason to implement the NISO Circulation Interchange Protocol.



To learn more about how implementing NCIP can achieve significant time and cost savings, please visit the NCIP Savings Calculator at - www4.auto-graphics.com/ncipsavingscalculator.

Developed by Auto-Graphics, Inc., the NCIP Savings Calculator permits librarians at the state or local level to estimate the number of staff hours, and thus staff costs, one or more libraries can save when implementing the NISO Circulation Interchange Protocol (NCIP) between the resource sharing system and one or more local circulation systems.

Two calculators are provided: one for individual libraries and the second for statewide calculations.

End Notes

i. East Hampton Public Library Realizes a 75% Reduction in the Number of Allocated Staff Hours to Perform ILL Tasks after Implementing Auto-Graphics' Circulation-Interlibrary Loan Link (CILL).

http://www4.auto-graphics.com/solutions/agentresourcesharing/cs_EHPL.htm

ii. Ibid.

iii. Howard Coy, "Vernon Parish Library NCIP Implementation," Auto-Graphics AGent User Group Meeting, 2011, PowerPoint, slide 13.

iv. Michael Rogers, Boston Library Consortium Launches NCIP ILL Service, Library Journal, May 1, 2003.

<http://www.libraryjournal.com/article/CA292602.html>

v. This United States Department of Labor Bureau of Labor Statistics. Hourly figures were rounded to the nearest whole dollar.

<http://www.bls.gov/oes/2009/may/oes254021.htm>

For More Information

NCIP Standard

Part 1 - http://www.niso.org/kst/reports/standards?step=2&gid%3Astring%3Aiso-8859-1=&project_key%3Astring%3Aiso-8859-1=2d46d484a625029ef698b96b7537c334348c8eb8

Part 2 - http://www.niso.org/kst/reports/standards?step=2&gid%3Astring%3Aiso-8859-1=&project_key%3Astring%3Aiso-8859-1=599708d764b8a1cccb7fad45d74ec70c1b7cb235

NCIP Standards Committee website

<http://www.ncip.info>

Borrowing Process Without / With NCIP

BORROWING		
	Without NCIP	With NCIP
1	 <p>Patron signs into local ILL system</p>	 <p>Patron authenticates against local ILS, is linked to the ILL system, searches, finds item, places request, and request is sent to the first lender based on lenders selected by the borrowing library</p>
2	 <p>Patron keys in bib. Info into Web-based ILL request form</p>	
3	 <p>Patron submits request to ILL office</p>	
4	 <p>Staff search and find locations</p>	
5	 <p>Staff create ILL request and send to first lender</p>	
6	 <p>Staff receive item</p>	 <p>Staff receive item</p>
7	 <p>Staff update the ILL system to Received</p>	 <p>Staff update the ILL system to Received which creates a temporary bib/item record in the local OPAC & places it on hold for the patron. The circ. system emails a notice to the patron.</p>
8	 <p>Staff create temporary bibliographic and item record in circ system</p>	
9	 <p>Staff place a circulation hold/reserve on the item for the patron</p>	
10	 <p>ILL system emails a notice to the patron</p>	
11	 <p>Staff deliver the item to the pickup location</p>	 <p>Staff deliver the item to the pickup location</p>

BORROWING

	Without NCIP	With NCIP
12	 Patron picks up the item at the pickup location	 Patron picks up the item at pickup location
13	 Staff check out the item on circ. system. Due date assigned by local circ. system.	 Staff check out the item to the patron, using the due date assigned by the lender
14	 Patron requests a renewal at the ILL office	 Patron requests renewal at the circ desk, and the circ. system sends a renewal request to the lending library's ILL system
15	 Staff updates ILL system to Request Renewal	
16	 Staff receive new due date via ILL system	 Circ. system updated with new due date and emails patron with the new due date
17	 Staff notify patron of new due date	
18	 Staff update the circ. system with the new due date	
19	 Patron returns the item to ILL or circ.	 Patron returns the item to ILL or circ.
20	 Staff check in the item from circulation system	 Staff check in the item from the circ. system, which results in the ILL system being updated to Returned. Or, staff update the ILL system to Returned which discharges the item from the circ. system.
21	 Staff update ILL system to Returned	
22	 Staff ship the item back to the lending library	 Staff ship the item back to the lending library
# of steps	22	11

Lending Process Without / With NCIP

LENDING		
	Without NCIP	With NCIP
1	 <p>Lender prints off request</p>	
2	 <p>Staff check OPAC and write location & call number on request if not already included on request</p>	 <p>Lender receives request for available item, ILL system places a hold on item, and the circ. system prints a pick slip</p>
3	 <p>Staff retrieve item from stacks</p>	 <p>Staff retrieve item from stacks</p>
4	 <p>Staff update the ILL system to Will Supply</p>	
5	 <p>Staff check out item on circ. system</p>	 <p>Staff check out item on circulation system; circ. system assigns due date and updates the ILL system to Shipped</p>
6	 <p>Staff update the ILL system to Shipped and assign a due date, which may be different from the circ. system's due date</p>	
7	 <p>Staff place a bookband on the item with the ILL system-assigned due date</p>	 <p>Staff place a bookband on the item with the circulation system-assigned due date</p>
8	 <p>Staff ship item</p>	 <p>Staff ship item</p>
9	 <p>Lender receives renewal request on the ILL system</p>	 <p>Lender's circulation system receives renewal request and grants renewal based on local rules. Lender's circulation system sends "renewal granted" to the borrower's ILL system, which updates its circ. system with the new due date.</p>

LENDING		
	Without NCIP	With NCIP
10	 Staff check the circ. system and renew the item	
11	 Staff update the ILL request on the ILL system to Renewed	
12	 Staff receive the returned item	 Staff receive the returned item
13	 Staff update the ILL system to Checked In	 Staff check in the item on the circ. system, which updates the ILL system to Checked In
14	 Staff discharge the item on the circ. system	
# of steps	14	8

About the Author



Mary E. Jackson

Product Manager

Resource Sharing

Mary E. Jackson is an internationally recognized authority on interlibrary loan, document delivery, and resource sharing issues. She has published over 100 books, articles, reports, books reviews and columns; has consulted for a wide variety of libraries, consortia, and networks; and has given presentations and workshops in the U.S., Canada and over 15 other countries. As the Product Manager for Resource Sharing, Ms. Jackson is responsible for leading the development efforts for Auto-Graphics' AGen Resource Sharing™ product.

Prior to joining Auto-Graphics, Ms. Jackson spent 13 years with the Association of Research Libraries (ARL) in Washington, DC in a variety of roles, most recently as the LibQUAL+® Services Manager and the Director of Collections and Access. Prior to her affiliation with ARL, Ms. Jackson managed the Interlibrary Loan Department and served in other positions at the University of Pennsylvania Libraries in Philadelphia, Pennsylvania. Ms. Jackson holds a Bachelor of Arts from Carroll College (now Carroll University) and a Master of Science (MS) from Drexel University.

RAILS RESOURCE SHARING PROJECT: CONSORTIA INTERVIEW QUESTIONS

About Person Interviewed	
Name	George Machovec
Role in Consortium	Executive Director
Name of Consortium	Colorado Alliance of Research Libraries
Phone Number	303-759-3399
Email	George@coaliance.org
About the Consortium	
<p>The Alliance runs Prospector which is an INN-REACH system with 42 member libraries. INN-REACH was launched in 1999 and when they were selecting a system the majority of their members used the Innovative system.</p> <p>Half of the libraries are public and half are academic, with a total of 42 participants. All libraries are both lenders and borrowers except the State Library and CRL which are only lenders (you can't be JUST a borrower).</p> <p>80% of the circulation through Prospector is from the public libraries.</p> <p>Loan period for all Prospector items is 3 weeks with one renewal and 1 week for media items with no renewal. Some libraries embargo their media items and this is partly because the lending period for media is only 1 week and that barely gives the patron time to get the item.</p> <p>In terms of losts and overdue items, the money collected by the lending library stays at the lending library. They have found it all works out equitably enough and it isn't worth the time to track the details of who who's who what. The borrowing library policies control the policies and determine fines and fees.</p> <p>They have 2 shared public systems in the group (all Innovative): Marmot, Flat Irons. Also, CSU Fort Collins /Pueblo is a shared academic Innovative system.</p>	

RAILS RESOURCE SHARING PROJECT: CONSORTIA INTERVIEW QUESTIONS

SOFTWARE USED BY CONSORTIUM	
Resource Sharing Software	INN-Reach
<p>The INN-Reach went live in 1999. The primary criteria for choosing Inn-Reach were</p> <ol style="list-style-type: none"> 1. patron initiated borrowing 2. circulation interoperability <p>At the time, the only options were URSA and INN-Reach.</p> <p>System has met their expectations. “What it does, it does well, but don’t expect it to do more.”</p>	
How the System Works	
<p>All non-Innovative systems must use a DCB Server to connect to the INN-Reach system. Copies of new or modified bib and patron records are stored on the DCB. These are updated via a daily cron job that looks for a file (can be as frequently updated as the library likes). When INN-Reach looks for items to fill a request, the status of patrons and items is real-time for all Innovative libraries but anyone using the DCB server is only as current as their last update. Although this sounds like it could result in requests being made for items that are no longer available, no one has complained about this latency.</p>	
Discovery Layer Software	Encore
<p>Alliance has been using Encore since 2011. Alliance offers four user interface options:</p> <ol style="list-style-type: none"> 1. Encore 2. Encore mobile, a custom mobile interface 3. “classic” OPAC 4. Custom mobile interface designed by Quipu Group <p>Plus 10-12 of the members have their own discovery layer. Updating the records and statuses was the biggest issue with the other discovery layer products.</p>	
ILL Software	RAPID and PASS2ILL
<p>PASS2ILL is a product from Innovative which allows the library to pass requests through to ILLiad or CLIO at the discretion of the local library. If a request cannot be filled, the library gets a notification that the request was cancelled so they can try to fill it via ILL.</p>	

RAILS RESOURCE SHARING PROJECT: CONSORTIA INTERVIEW QUESTIONS

About Each ILS		
Part of Consortium	Library System	Integration
	Auto-Graphics Verso	
	Evergreen	
✓	Ex Libris Aleph	NCIP to DCB
✓	Ex Libris Alma	NCIP responder in development
	Will use DCB, Innovative is currently working with Link+ in California to develop an NCIP interface for Alma.	
✓	Ex Libris Voyager	Proprietary
	Voyager uses a custom connector that bypasses the DCB that is proprietary. It is not an open API.	
✓	Innovative Interfaces Millennium	Proprietary
✓	Innovative Interfaces Sierra	Proprietary
	OCLC Webscale Management System	
x	Koha	
	The Koha consortium is not part of Prospector. One reason is that each library in the consortium is seen as a branch of one system. This instance of Koha is Liblime Koha.	
✓	Polaris	DCB with NCIP
✓	SirsiDynix Horizon	DCB, no NCIP
	Horizon libraries use the DCB but they do not have an NCIP connector. As a result, they must update both INN-Reach and Horizon with every status transaction (Check-in, Check-out) and they have to manually create temporary bibs and patron records. They also have to log into the DCB Server to print Pull Lists.	
	SirsiDynix Symphony	
	TLC Carl.X	
	TLC Library.Solutions	

RAILS RESOURCE SHARING PROJECT: CONSORTIA INTERVIEW QUESTIONS

Costs and Cost-Sharing
<p>Innovative uses a subscription model for those libraries connecting to Prospector via a DCB which is a fee that is on top of the INN-Reach maintenance of subscription fee. Most Alliance members with Innovative systems pay approximately \$6000 per year. Other stand-alone libraries pay about \$12,000 per year. Groups and Alliance member libraries get discounts.</p> <p>They have observed that Innovative is more open to negotiating than they used to be.</p> <p>The costs from Innovative are passed through to the members. There is a one-time charge of \$24,000 for joining Prospector and getting everything set up and then the 15% annual maintenance charge (plus the extra \$6,000 per year if you are not on Innovative and are using the DCB).</p>
Vendor Support and Development
<p>Have the vendors for your resource-sharing and discovery layer products been easy to work with notified about a problem or bug?</p>
<p>Basically satisfied with Innovative as a vendor although frustrated that many products that are available in Millennium are not available for INN-Reach and they would be useful if applied to the larger consortia such as “Shared Print Management” and “Decision Center”.</p>
<p>Innovative hosted an INN-Reach Summit which began high level discussions between Innovative and INN-Reach users.</p>
<p>What types of problems have you experienced with your selected solution(s)?</p>
<p>Libraries using DCB connection have reported issues with Claims Returned Items, Notices and reports.</p>
<p>Are you happy with the timing and functionality improvements you have seen with new versions and updates to the software solution(s)?</p>
<p>The Alliance is interested in Shared print management/collection management information and statistics for what is borrowed—maybe Collection HQ integration or the new Innovative product called Decision Center.</p>
Future Plans
<p>Are you planning to look for another solution in the next 2-3 years or are you planning to stay with your current solution(s)?</p>
<p>The group is interested in connecting up two INN-Reach systems: Prospector and MOBIUS.</p>

RAILS RESOURCE SHARING PROJECT: CONSORTIA INTERVIEW QUESTIONS

About Person Interviewed	
Name	Kaitlyn Lyons and Peter Collins
Role in Consortium	Support Librarian (EZBorrow) and Asst Project Manager (BorrowDirect)
Name of Consortium	EZBorrow
Phone Number	
Email	kalyons@palci.org
About the Consortium	
<p>PALCI (Pennsylvania Academic Library Consortium, Inc.) runs the EZBorrow resource-sharing program for all PALCI members. It is focused primarily on sharing physical books although they are exploring sharing ebooks now. They do not lend media due to short loan periods. Penn State also participates in the BorrowDirect resource-sharing consortia, which is a smaller group of select academic and research libraries.</p> <p>The system supports 100% unmediated requesting. Group assumes a 12 week checkout with all items that are shared, checkout time is 6 weeks plus one optional renewal...can't send a renew message through the NCIP connections at this time.</p> <p>There is one shared ILS on EZBorrow and that is a group of libraries sharing a Millennium system (TriColleges).</p>	

RAILS RESOURCE SHARING PROJECT: CONSORTIA INTERVIEW QUESTIONS

SOFTWARE USED BY CONSORTIUM	
Resource Sharing Software	RelaisD2D
<p>When selecting their resource-sharing software, their primary criteria was:</p> <ul style="list-style-type: none"> -platform neutral -circulation interoperability with multiple ILSs <p>Went live in 2011. Systems “met our expectations.” The workflow isn’t as flexible as ILLiad especially regarding some of the terminology used. However working with Relais has been positive. Kaitlyn said “they listen to us.”</p>	
How the System Works	
<p>Relais doesn’t place the Hold because Z39.50 (which is how the available items are discovered) doesn’t look at barcode number. It is looking at titles. Relais creates the lending string of locations that have the item. When it the item is pulled off the shelf and scanned, the “Place Request” message is sent. Relais uses only five NCIP messages: LookupUser, RequestItem, AcceptItem, CheckInItem, and CheckOutItem. Each of these status changes in Relais kick off updates to the appropriate ILS via SIP or NCIP so the staff do not ALSO have to update their ILS when they update Relais.</p> <p>The pull lists for all members are done in Relais and NOT in the local ILS. The Relais Pull List doubles as a set of Book Bands that can be used as routing slips for the pulled items.</p>	
Discovery Layer Software	N/A
<p>Looking into integrating a discovery layer with each library catalog’s API so they could initiate requests on the library catalog side instead of in Relais.</p> <p>Members have a variety of discover layers in use, including VuFind, Summons, and WorldCat local.</p>	
ILL Software	ILLiad
<p>They use OpenURL to pass requests from a static ILL form to ILLiad. The form is presented to the user when their search request fails to locate an item they want.</p>	

RAILS RESOURCE SHARING PROJECT: CONSORTIA INTERVIEW QUESTIONS

About Each ILS		
Part of Consortium	Library System	Integration
	Auto-Graphics Verso	
	Evergreen	
✓	Ex Libris Aleph	Use NCIP and SIP
	Ex Libris Alma	
✓	Ex Libris Voyager	Use NCIP and SIP
✓	Innovative Interfaces Millennium	Use NCIP via Telnet
	<p>Innovative supports the following NCIP messages: "Lookup user" "Checkout" "Check in" and "Accept". When Millennium "accepts" an item, it creates a virtual hold in Millennium. These virtual records are more limited than regular records (statistics and perhaps other ways we are still researching).</p> <p>Kaitlyn reports "mushy search results" from Innovative's Z39.50 connection but the relevancy ranking employed by Relais helps the problem by putting these odd results at the bottom of the list in the public display.</p>	
✓	Innovative Interfaces Sierra	
✗	OCLC Webscale Management System	
	<p>Relais is not able to communicate with OCLC WMS yet, two of the needed NCIP messages are missing and there isn't a Z39.50 client that allows Relais to pull in an individual library's holdings.</p>	
	Koha	
	Polaris	
✓	SirsiDynix Horizon	NCIP and SIP
✓	SirsiDynix Symphony	NCIP and SIP
✓	SirsiDynix Unicorn	NCIP and SIP
	TLC Carl.X	
✓	TLC Library.Solutions	NCIP and SIP

RAILS RESOURCE SHARING PROJECT: CONSORTIA INTERVIEW QUESTIONS

Costs and Cost-Sharing
What pricing model is used by your vendor(s)?
Costs are divided by the number of libraries. EZBorrow has 50 libraries involved and BorrowDirect has 10 but is less expensive per library.
How are these costs split among the participating libraries?
3 tiered pricing based on FTE
Vendor Support and Development
Have the vendors for your resource-sharing and discovery layer products been easy to work with notified about a problem or bug?
They have been happy working with Relais and feel the company has been receptive to their needs. The company has a limited capacity for development due to their small number of employees.
What types of problems have you experienced with your selected solution(s)?
The Z39.50 searching is natively slower than some other technologies but it works. They would like the patron searching feature to be quicker and slicker. They are hoping that Relais moves to web staff modules in the very near future. Currently only have clients for MS Windows.
Are you happy with the timing and functionality improvements you have seen with new versions and updates to the software solution(s)?
They could be faster with some improvements but seem to do things as quickly/slowly as those companies with larger staff.
Future Plans
Are you planning to look for another solution in the next 2-3 years or are you planning to stay with your current solution(s)?
They are looking to have an API to integrate the ILL service into discovery layer products to offer full availability information and integrated requests. This integration may entail sending requests to Relais in an XML package.

RAILS RESOURCE SHARING PROJECT: CONSORTIA INTERVIEW QUESTIONS

About Person Interviewed	
Name	Wendy Allen
Role in Consortium	Resource Delivery Manager
Name of Consortium	MARINA
Phone Number	(302) 362-7048
Email	wallen@prattlibrary.org
About the Consortium	
<p>MARINA is a state-funded resource-sharing system for public libraries in Maryland. It is run out of Enoch Pratt Public Library. It is closely associated with the statewide ILL service known as MILO.</p> <p>MARINA is composed of 24 county, 3 regional libraries, 5 community libraries, and some correctional libraries. The community and correctional libraries are set up for mediated borrowing.</p> <p>There are some shared systems on Millennium, Symphony and Polaris.</p> <p>Everybody shares books and some lend A-V but some do not. Some also restrict new material for the first six months. This can be accomplished in one of two ways: requests can be manually rejected by staff or an item type of "new" can be created which disallows the items to be requested (but can be more labor intensive because each item's item type has to be changed after six months.)</p>	

RAILS RESOURCE SHARING PROJECT: CONSORTIA INTERVIEW QUESTIONS

SOFTWARE USED BY CONSORTIUM	
Resource Sharing Software	RelaisD2D
<p>When selecting their resource-sharing software, their primary criteria was:</p> <ul style="list-style-type: none"> -price -circulation interoperability with multiple ILSs -having holds show up on the ILSs pull list (but they later decided that wasn't very important) <p>Signed the contract with Relais in January 2012 and went live in January 2013. All the integration work with each ILS was done by Relais. "I didn't have to do anything."</p> <p>System "met our expectations." Like the patron interface better than previous system (URSA) which they felt was "clunky." A web-based staff interface is in the work which they report looks very promising.</p>	
How the System Works	
<p>Relais doesn't place the Hold because Z39.50 (which is how the available items are discovered) doesn't look at barcode number. It is looking at titles. Relais creates the lending string of locations that have the item. When it the item is pulled off the shelf and scanned, the "Place Request" message is sent.</p> <p>Relais uses only five NCIP messages: LookupUser, RequestItem, AcceptItem, CheckInItem, and CheckOutItem. Each of these status changes in Relais kick off updates to the appropriate ILS via SIP or NCIP so the staff do not ALSO have to update their ILS when they update Relais.</p> <p>Each of these status changes in Relais kick off updates to the appropriate ILS via SIP or NCIP so the staff do not ALSO have to update their ILS when they update Relais.</p> <p>The pull lists for all members are done in Relais and NOT in the local ILS. The Relais Pull List doubles as a set of Book Bands that can be used as routing slips for the pulled items.</p>	
Discovery Layer Software	N/A
ILL Software	RelaisILL
<p>In 2013, MARINA also implemented RelaisILL. When patrons don't find what they are looking for in RelaisD2D, they are offered a blank form which they can fill out and it will be automatically forwarded to their local library. The local library sees the form in a "review file." For some libraries, Pratt Enoch Public Library brokers those ILL requests.</p>	

RAILS RESOURCE SHARING PROJECT: CONSORTIA INTERVIEW QUESTIONS

About Each ILS		
Part of Consortium	Library System	Integration
	Auto-Graphics Verso	
✓	Evergreen	
	Not using NCIP or any other kind of integration. Libraries have to manually manage each request in Evergreen and in Relais.	
	Ex Libris Aleph	
	Ex Libris Alma	
	Ex Libris Voyager	
✓	Innovative Interfaces Millennium	Use NCIP via Telnet
	Innovative Interfaces Sierra	
	OCLC Webscale Management System	
	Koha	
✓	Polaris	NCIP
	SirsiDynix Horizon	
✓	SirsiDynix Symphony	NCIP
	"Request Item" not supported. Separate Pull List (can get via email to each branch per transaction or per day). Also, option to print from Relais client. Pull Lists come in the form of book bands.	
	SirsiDynix Unicorn	
	TLC Carl.X	
✓	TLC Library.Solutions	NCIP

RAILS RESOURCE SHARING PROJECT: CONSORTIA INTERVIEW QUESTIONS

Costs and Cost-Sharing
All costs are paid for by a state grant. Libraries don't have to pay for anything, including delivery.
Vendor Support and Development
Have the vendors for your resource-sharing and discovery layer products been easy to work with notified about a problem or bug?
Basically happy. Support has been good. Hosted by Relais.
What types of problems have you experienced with your selected solution(s)?
There have been some development issues related to unique needs of public libraries versus academic libraries. For example, it is difficult to isolate searches for Large Print books (this is being addressed).
Are you happy with the timing and functionality improvements you have seen with new versions and updates to the software solution(s)?
Good development cycle. Relais is good about getting input from everyone Not too many updates.
Future Plans
Are you planning to look for another solution in the next 2-3 years or are you planning to stay with your current solution(s)?
No plans to switch. Requests are increasing.

RAILS RESOURCE SHARING PROJECT: CONSORTIA INTERVIEW QUESTIONS

About Person Interviewed	
Name	Walter Stine and Kelly Drake
Role in Consortium	Executive Director and Systems Librarian
Name of Consortium	Fenway Libraries Online (FLO) runs resource sharing software for MassVC (Massachusetts Virtual Catalog)
Phone Number	
Email	walter@flo.org and kelly@flo.org
About the Consortium	
<p>Massachusetts Virtual Catalog (MassVC) is a statewide union catalog and resource sharing initiative. MassVC represents over 500 libraries in Massachusetts and includes 325 of the 370 public libraries in the state. The group includes libraries of all types and sizes and these participating libraries utilize a wide range of local ILS products, some large regional, ILS systems containing many libraries as well as other standalone or individual ILS systems.</p> <p>The MassVC libraries share all types of materials and most libraries allow their patrons to request items, however, there are a few small libraries that only provide mediated requesting through MassVC.</p> <p>The group has been using an URSA system which is now nearing end-of-life. They were concerned that some of the newer systems could not connect with URSA (Ex Libris' Aleph is one example) and wanted to have a more seamless integration between the ILL system and the local ILS systems.</p>	

RAILS RESOURCE SHARING PROJECT: CONSORTIA INTERVIEW QUESTIONS

SOFTWARE USED BY CONSORTIUM	
Resource Sharing Software	auto-graphics SHAREit
<p>MassVC selected the SHAREit software from auto-graphics after a procurement process that included consulting assistance from Lori and Melissa. The primary criteria for choosing SHAREit was circulation interoperability. Their members have many different ILS solutions, including ExLibris Voyager, Ex Libris Alma, Ex Libris Aleph, Koha, Innovative Millennium and Innovative Sierra.</p> <p>Although auto-graphics looked stable and solid when the contract was signed in late 2012, there have been many issues with the company through this implementation process. Some progress has been made but organization and project management skills have not been evident on the vendor side. MassVC has put an extraordinary amount of staff time and other resources toward making this implementation successful and is currently planning on staying with the selected solution for the time being.</p> <p>They are now looking for a first round of libraries being released on SHAREit in the summer of 2014.</p>	
How the System Works	
<p>SHAREit provides an option for libraries to use a physical union catalog or a virtual catalog based on Z39.50 or a hybrid. In the hybrid mode, some libraries can make their bib and patron information available via Z39.50 while others become part of the union catalog. The benefit of this approach is that smaller libraries that might not have a Z39.50 interface can still participate while the system reaps the benefit of using a union catalog (which provides faster search results).</p> <p>In terms of policies, the system provides for a lot of flexibility for each participating member.</p> <p>The NCIP implementation requires the ILS to support a “CreateUser” message which is not one of the 9 core NCIP messages. This is one of the reasons that the MassVC system is still not live with SHAREit (but not the only reason).</p> <p>Also, the “CancelRequest” message is not currently working with any ILS. Walter and Kelly feel that auto-graphics should have escalated this development but it seems that it is moving down the priority list rather than up.</p>	
Discovery Layer Software	N/A
ILL Software	N/A

RAILS RESOURCE SHARING PROJECT: CONSORTIA INTERVIEW QUESTIONS

About Each ILS		
Part of Consortium	Library System	Integration
	Auto-graphics Verso	NCIP
✓	Evergreen	NCIP 2.0 in development
	Although Evergreen does have an NCIP responder, it was built for INN-Reach which behaves differently from ShareIt. Therefore, the decision was to build a new one from scratch. This is being headed up by MVLC (a network within the MassVC consortium).	
✓	Ex Libris Aleph	NCIP 1.0 supported
	Version 1.0 NCIP interface is available but it doesn't support "cancel request"	
✓	Ex Libris Alma	NCIP 2.0 in development
	They have just started testing with Ex Libris on the NCIP connection. They will be using NCIP 2.	
✓	Ex Libris Voyager	NCIP supported
	Since the system is no longer being enhanced and is at end-of-life, Ex Libris would not work on getting NCIP implemented. MassVC created their own connector in PERL which uses SIP to communicate with Voyager but translates the messages into NCIP for Share-It. They still need to finish testing. The messages they are supporting are "Request item" "Checkin" "Checkout" "Lookup User".	
✓	Innovative Interfaces Millennium	
	Innovative took the position that developing an NCIP responder for ShareIt was a new development project and wanted to charge MassVC accordingly. Since the network currently on Millennium is migrating to Sierra in March/April 2014, they decided to roll that development cost into the Sierra instead.	
✓	Innovative Interfaces Sierra	NCIP responder to start development soon
	As mentioned above, one network is migrating to Sierra from Millennium and they will pursue development of an NCIP 2.0 responder for ShareIt.	
✓	OCLC Webscale Management System	Have not begun discussing integration options yet

RAILS RESOURCE SHARING PROJECT: CONSORTIA INTERVIEW QUESTIONS

About Each ILS		
Part of Consortium	Library System	Integration
✓	Koha	NCIP responder in development
	MassCat is the group of school libraries in the state sharing a Koha system. They have contracted for the programming required to implement the NCIP 2.0 in Koha and will work through the development phase with the contractor and Auto-Graphics.	
✓	Polaris	NCIP supported
	Polaris is the only ILS that supports all six of the messages that AutoGraphics wants the responder to support. It is also the only ILS that allows the staff to generate one Pull List from within Polaris that also includes items requested through ShareIt.	
	SirsiDynix Horizon	
✓	SirsiDynix Symphony	Version 1.0
	Although Symphony theoretically should be working using NCIP 1.0 and one of the MassVC networks is licensing it, they haven't managed to get it working yet.	
	TLC Carl.X	
	TLC Library.Solutions	

RAILS RESOURCE SHARING PROJECT: CONSORTIA INTERVIEW QUESTIONS

Costs and Cost-Sharing
Not discussed.
Vendor Support and Development
Have the vendors for your resource-sharing and discovery layer products been easy to work with notified about a problem or bug?
MassVC has been very disappointed with AutoGraphics. They report that the product is managed poorly and that the company has an ineffective management team. They have poor quality control, release process have system processes that run amok.
What types of problems have you experienced with your selected solution(s)?
If the product worked like they said it worked, it would be good. But it does not.
Are you happy with the timing and functionality improvements you have seen with new versions and updates to the software solution(s)?
No.
Future Plans
Are you planning to look for another solution in the next 2-3 years or are you planning to stay with your current solution(s)?
Although MassVC has not been happy with auto-graphics, they intend to stick with the company and get the system working. They plan to take control over their server environment as soon as the system is up and stable.

RAILS RESOURCE SHARING PROJECT: CONSORTIA INTERVIEW QUESTIONS

About Person Interviewed	
Name	Randy Dykhuis and Debbi Schaubman
Role in Consortium	Executive Director and Manager of Shared Library Systems
Name of Consortium	MCLS (Midwest Collaborative for Library Services)
Phone Number	800-530-9019
Email	dykhuis@mcls.org and schaubmd@mcls.org
About the Consortium	
<p>Melcat consists of 415-420 libraries in Michigan, all types and all sizes! The consortium is funded by the state library and really is contracted for resource sharing software and support. The group is made up of mostly public libraries, a large number of academic libraries, and a few special and school libraries.</p> <p>Group includes shared Innovative, Symphony and Horizon systems. In the shared systems, individual members do not have the ability to force people to use smaller systems before hitting MelCat—MelCat is what the patrons see.</p> <p>Some libraries do choose to mediate requests but most allow for fully unmediated requesting from patrons. Libraries can opt out of sharing certain types of materials or materials from specific locations but not at an individual item level.</p>	

RAILS RESOURCE SHARING PROJECT: CONSORTIA INTERVIEW QUESTIONS

SOFTWARE USED BY CONSORTIUM	
Resource Sharing Software	INN-Reach
<p>The decision to use INN-Reach was made in 2004. At that time, the big question was between a physical union catalog database and a virtual database, with INNREACH (from Innovative) and URSA (from SirsiDynix) as the only real potentials.</p> <p>The main criteria in their selection was that it be “usable by ALL.” Findability was important and they felt INNREACH was easier and more stable. They have been happy with their decision.</p>	
How the System Works	
<p>All non-Innovative systems must use a DCB Server to connect to the INN-Reach system. Copies of new or modified bib and patron records are stored on the DCB. These are updated via a daily cron job that looks for a file (can be as frequently updated as the library likes). When INN-Reach looks for items to fill a request, the status of patrons and items is real-time for all Innovative libraries but anyone using the DCB server is only as current as their last update. Although this sounds like it could result in requests being made for items that are no longer available, no one has complained about this latency. They maintain a 90% fill rate.</p> <p>Different ILSs have different capabilities vis-a-vis the level of control over what's exported. Different libraries also have different skill levels in this area and this affects the quality of the information available via INN-Reach.</p>	
Discovery Layer Software	Encore
<p>They are in the process of working with Innovative and EBSCO for enhancing Encore with EBSCO’s EDS service. The state library also purchases licensed database access, digital collections and educators resources for all libraries in the state and these are included in the Encore search.</p>	
ILL Software	ILLiad
<p>Each library decides what happens to requests for their own patrons that go un-filled.</p>	

RAILS RESOURCE SHARING PROJECT: CONSORTIA INTERVIEW QUESTIONS

About Each ILS		
Part of Consortium	Library System	Integration
✓	Autographics Verso	DCB with NCIP
✓	Evergreen	DCB with NCIP
	Ex Libris Aleph	
	Ex Libris Alma	
✓	Ex Libris Voyager	
	Use the DCB but do not use NCIP with it.	
✓	Innovative Interfaces Millennium	Proprietary
✓	Innovative Interfaces Sierra	Proprietary
✓	OCLC Webscale Management System	
	<p>PLANNING TO USE DCB with NCIP—NOT CURRENTLY IN USE.</p> <p>In order for them to load bib/item data, they need to get a MARC record with 9xx's (or some other tag) for each associated holding. The 9xx needs to have the info needed to identify and circ the item: barcode, call number, shelving location, etc. OCLC has not, to date, provided an export with the data formatted correctly.</p> <p>They also said that they can't export patron data due to legal restrictions. One of the WMS libs has been able to provide pat data to us via their student info system. However, since public libs don't have external patron databases, they don't have a way to get us their data.</p>	
	Koha	
✓	Polaris	DCB with NCIP
✓	SirsiDynix Horizon	DCB, no NCIP
✓	SirsiDynix Symphony	NCIP supported
	DCB with NCIP. Libraries still get pull list from DCB staff interface.	
	TLC Carl.X	
	TLC Library.Solutions	In development
	Close to having an NCIP responder to DCB	

RAILS RESOURCE SHARING PROJECT: CONSORTIA INTERVIEW QUESTIONS

Costs and Cost-Sharing
This is state funded but libraries must pay for their delivery costs and must have at least 3 stops a week.
Vendor Support and Development
Have the vendors for your resource-sharing and discovery layer products been easy to work with notified about a problem or bug?
What types of problems have you experienced with your selected solution(s)?
Ebook records are proving to be a problem in INN-Reach because they appear available when they really aren't. Libraries can delete ebook records from the file made available to the DCB (some do and this can be somewhat managed by MCLS). MCLS has to depend on the Innovative Interfaces local libraries to control their own contribution of ebook records.
Are you happy with the timing and functionality improvements you have seen with new versions and updates to the software solution(s)?
Future Plans
Are you planning to look for another solution in the next 2-3 years or are you planning to stay with your current solution(s)?

RAILS RESOURCE SHARING PROJECT: CONSORTIA INTERVIEW QUESTIONS

About Person Interviewed	
Name	Sue Bennett
Role in Consortium	TexNet Coordinator
Name of Consortium	TexNet/TexShare
Phone Number	512-463-5406
Email	sbennett@tsl.state.tx.us
About the Consortium	
<p>TexShare is a group of over 500 libraries in the State of Texas. The majority of libraries in TexShare are public libraries. There are a few small academic libraries involved and 7 or 8 prison libraries (which do not loan).</p> <p>The project to adopt the OCLC resource sharing environment started in January of 2010. It was an expedited process due to state budget cuts which eliminated regional centers that had previously responded to interlibrary lending requests. Approximately 416 of their member libraries are part of their OCLC resource sharing group. All the participating libraries are using OCLC Navigator. They hope to move the remaining 100 into the OCLC Navigator group in the next year.</p> <p>The new resource sharing group asks libraries to both lend and borrow. In the previous regional center organization, libraries were not asked to lend but just sent their borrowing requests through specific libraries in their region. These regional centers used OCLC to fulfill the requests and so each library was already a “member” of OCLC Resource Sharing, even if they had not accessed the system directly themselves.</p>	

RAILS RESOURCE SHARING PROJECT: CONSORTIA INTERVIEW QUESTIONS

SOFTWARE USED BY CONSORTIUM	
Resource Sharing Software	OCLC Navigator
<p>Libraries use Navigator to move materials through resource sharing cycle, including articles, AV materials, etc.</p> <p>The majority of the libraries involved are doing mediated requesting. Some are allowing users into the OCLC WorldCat Group catalog to place their own requests, however, this ability is new to most of the libraries as the implementation of Navigator was the first time the patrons were provided an interface into this resource sharing group.</p>	
How the System Works	
<p>Library staff access Navigator to perform the major transactions and those are reflected automatically in their local system through NCIP.</p> <p>As with other products, temporary item records are created in the local ILS through NCIP when an item is received at the borrowing library. The temporary records cannot be deleted automatically through NCIP at this time. Each ILS has a different way to allow the library staff to delete these records in some kind of batch mode.</p>	
Discovery Layer Software	WorldCat (Texas Group Catalog)
<p>The discovery layer for patrons displays search results from libraries in the same geographic area (using IP of user), then shows Texas holdings, then all of WorldCat.</p> <p>Users are authenticated against their home catalog. When a request is placed, the user must login. User then sees the ILL page for their home library customized in the OCLC system.</p>	
ILL Software	N/A
All OCLC	

RAILS RESOURCE SHARING PROJECT: CONSORTIA INTERVIEW QUESTIONS

About Each ILS		
Part of Consortium	Library System	Integration
	Autographics Verso	
	Evergreen	
	Ex Libris Aleph	
	Ex Libris Alma	
	Ex Libris Voyager	
✓	Innovative Interfaces Millennium	Use Innovative's NCIP
	Innovative Interfaces Sierra	
	OCLC Webscale Management System	
	Koha	
✓	Polaris	
<p>The integration with Polaris is fairly recent and sounds like the most robust. Polaris libraries can now get their pull list from their local ILS and can also checkout items through Polaris and have this change in status communicated to OCLC Navigator.</p>		
✓	SirsiDynix Horizon	NCIP
✓	SirsiDynix Symphony	NCIP
	SirsiDynix Unicorn	NCIP and SIP
	TLC Carl.X	
✓	TLC Library.Solutions	Not using NCIP

In addition, this consortium supports Biblionix Apollo. This is a system for small libraries but they have the ability to connect to OCLC Navigator though NCIP. Biblionix doesn't charge for their NCIP interface.

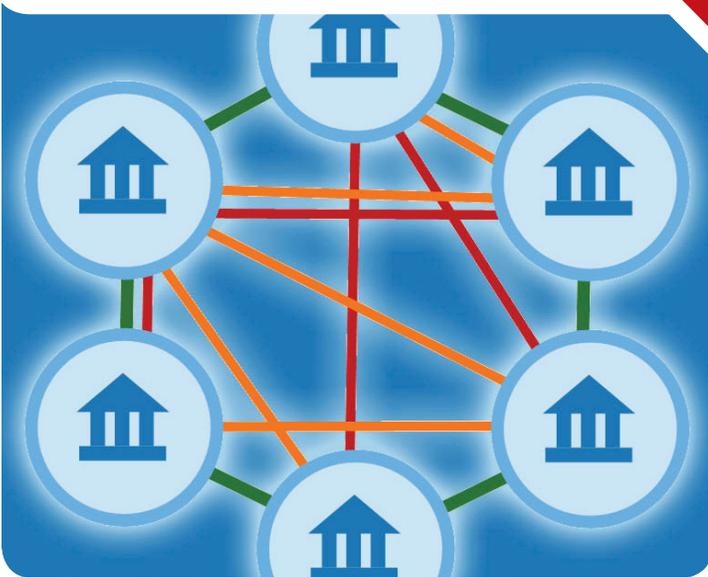
RAILS RESOURCE SHARING PROJECT: CONSORTIA INTERVIEW QUESTIONS

<p>Costs and Cost-Sharing</p>
<p>Costs paid through IMLS grants. Courier system available in the state which does cost the library if they wish to join. State reimburses libraries that are net-lenders in TexShare.</p>
<p>Vendor Support and Development</p>
<p>Have the vendors for your resource-sharing and discovery layer products been easy to work with notified about a problem or bug?</p>
<p>Very good experience with support and response from OCLC. They have had a single implementation manager that has worked with them since the beginning of the project in 2010. In Navigator, library staff have a link to email the OCLC support desk directly</p>
<p>What types of problems have you experienced with your selected solution(s)?</p>
<p>No real issues outside of difficult changes for some libraries. Taking it slow!</p>
<p>Are you happy with the timing and functionality improvements you have seen with new versions and updates to the software solution(s)?</p>
<p>N/A</p>
<p>Future Plans</p>
<p>Are you planning to look for another solution in the next 2-3 years or are you planning to stay with your current solution(s)?</p>
<p>They are happy with their solution at this time and although they know that they will eventually be moving to WorldShare ILL, that migration is not even on the radar yet. They plan to stay with OCLC and are not looking for any other solutions at this time.</p>



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**ANDREW K. PACE, OCLC EXECUTIVE DIRECTOR
OF NETWORKED LIBRARY SERVICES**

Consortia and OCLC WorldShare

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OCLC WorldShare™ Management Services (WMS) provide an integrated approach for your group to share resources and innovation. Unified workflows streamline cataloging, acquisitions, license management, circulation, discovery and delivery, while enabling relevant data to be shared among participating libraries.

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- 1. WorldCat®.** Using this massively aggregated data as the database of record for library operations means there is *one source for record and collection information*. This permeates every step of your workflows—reducing the time it takes to select, acquire, circulate and discover items. This is an opportunity to even more fully leverage the asset built by libraries.
- 2. WorldCat knowledge base.** Complementing and integrated with WorldCat, the rapidly expanding *WorldCat knowledge base combines data about your library's electronic resources*. Also, linking features enable access to the content and help you manage the workflows and discovery by patrons associated with these materials. Collection sets specific to your consortium can be created, automatically updated and deployed for your members.
- 3. WorldShare architecture.** Built from the ground up and based on a multi-tenancy library services platform, this means *a single instance of WMS serves multiple users while you and third parties are able to customize parts of the application*. Updates are made once and software development and maintenance costs are shared.

4. Unique “group aware” model. Because of the WorldShare architecture, each library has its own instance on the same platform but any set of WMS libraries can constitute a group. This allows you to *set the policies and share the collections unique to your consortium and also unique to the libraries within the consortium*.

5. WorldShare extension to metadata and interlibrary loan. Circulation and Acquisitions were the start. Now OCLC *WorldShare Metadata and OCLC WorldShare Interlibrary Loan are being introduced within the same architecture and user interface*. This further unifies library workflows, again saving resources as you streamline operations and minimize movement back and forth between applications.

Always evolving

WorldShare Management Services were built “from the ground up” within a new interconnected Web architecture that provides flexible, open access to library data through APIs and other Web services.

This is WorldShare, built on the foundation of WorldCat—the world's largest aggregation of library information. It also facilitates collaboration and allows your group and your partners to have access to data and Web services. This allows both a consortium office and consortium members to extend WorldShare Management Services in new ways that can benefit the group.

Highlights

WorldCat. With nearly 300 million records, all data for efficient cataloging is built into the system for your ordering and receiving processes. Staff does not have to find authority records and metadata standards, but rather can use tools such as NACO, SACO, VIAF and LCSH.

▶ **WorldCat knowledge base.** Integrated with the WorldCat bibliographic records, the knowledge base contains over 12 million title records from more than 8,000 collections and 5,000 providers. This enables you to efficiently move between licensed to monographic materials.

▶ **WorldShare Architecture.** The underlying architecture of all WorldShare applications expands the community of developers collaborating to propose, discuss and test OCLC Web Services. This code-sharing infrastructure improves the value of OCLC® data for all users by encouraging new OCLC Web Service uses.

▶ **WorldShare extension to metadata and interlibrary loan.** Integrated in the same staff interface and available now, collection management functionality allows you to define and configure your e-book and other electronic collections in one place. Also, you will automatically receive initial and updated customized collections of WorldCat MARC records for all e-titles from *one source*.

WorldShare Interlibrary Loan (replacing WorldCat® Resource Sharing in early 2013) will centralize workflows now managed in multiple systems and provide new functionality that speeds fulfillment of interlibrary loan requests, saving time for library staff and users.

▶ **COMING: WorldShare Analytics.** Providing aggregated, sharable data along with analysis tools, new analytics services will allow your consortium to leverage cooperative information for better decision-making. They will provide cooperative collection development, workflow assessment, collection profile sharing and more.

“Group aware” model

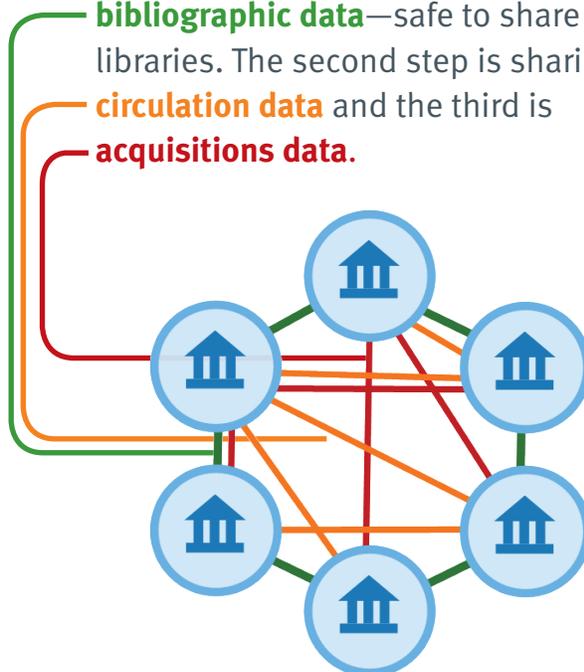
The WMS unique, “group aware” model offers group, individual and mixed identity management and allows each library to customize its discovery interface. You can have integrated circulation and patron management among the group, and allow flexibility in circulation and holds policies, access to patron records, notification and billing options, and collections of payments.

Any set of WMS libraries can constitute a group. Each library manages its own instance—just like every Facebook user has a unique page. It is the WorldShare architecture that has the power to make these libraries “group aware.”

WorldShare Management Services preserve and respect the autonomy, privacy and policy differences among members of the group, while at the same time leveraging the opportunities that come with shared data, infrastructure and community.

You determine the degree of sharing

The degree of data sharing generally determines how consortia members elect to operate with WMS. At the core is sharing **bibliographic data**—safe to share with all libraries. The second step is sharing **circulation data** and the third is **acquisitions data**.



“Webscale management, in conjunction with WorldCat® Local, represents the most significant development in librarianship since automation. My anticipation is that WMS will continue to evolve as new technologies and user needs demand.”

PETER G. OBUCHAN, DIRECTOR OF LIBRARY SERVICES, NEWBURY COLLEGE

Consortia-enabled WorldShare Management Services

Library consortia have been integral to the introduction and growth of services for OCLC cooperative members—notably through the building and enrichment of WorldCat. Faced with budget and resource cuts and outlays for expensive local systems to facilitate the sharing of collections critical to your members, now is the time to consider a new approach.

Today’s technologies coupled with 21st century architecture can provide that new approach—available now as consortia-enabled WorldShare Management Services.

WMS enables you and member libraries to:

- ▶ Improve efficiencies at the consortium and individual library levels
- ▶ Create a better patron experience by providing an intuitive interface and single-search-box access
- ▶ Demonstrate consortial value to attract new members
- ▶ Extend data sharing within and beyond your group to the global library community

Join the growing number of consortial early adopters to realize the benefits of WorldShare Management Services to you and your members.

The future is now.

WorldShare Management Services group functionality

The screenshot shows the WorldShare Management Services interface. On the left is a navigation menu with options like 'Discover Items', 'Discover eResources', 'Manage Orders', 'Receive & Invoice', 'Processed Items', 'Manage Invoices', 'Manage Budgets', 'Manage Vendors', and 'My Apps'. The main area displays search results for 'Tacitus'. The title is 'The Cambridge companion to Tacitus (433551598)'. Below the title is a table with 4 results. The table has columns: Institution, Branch, Shelving Location, Call Number, Barcode #, Enumeration, and Chronology. The results are as follows:

Institution	Branch	Shelving Location	Call Number	Barcode #	Enumeration	Chronology
Shipwrecks	Titanic	MAIN-STACKS	PA6716 .C36 2009	81286769823704		
Constellations	Orion	MAIN-STACKS	PA6716 .C36 2009	81286769823704		
Explorers	Christopher Columbus	MAIN-STACKS	PA6716 .C36 2009	81286769823704		
Battles	Battle of the Bulge	MAIN-STACKS	PA6716 .C36 2009	81286769823704		

Below the table, it says 'Item display scoped to group holdings'. At the bottom of the interface is the OCLC logo and the tagline 'The world's libraries. Connected.'

Member libraries can readily see other members’ holdings embedded in the Acquisitions ordering workflow.



For more information, visit the OCLC website at www.oclc.org/worldshare.

To discuss OCLC WorldShare for groups or to determine the implementation timeframe that is right for your library or consortia, contact your OCLC Library Services consultant or call OCLC Library Services at 1-800-848-5878.