PROCURING A NEW MASSACHUSETTS VIRTUAL CATALOG

PHASE 1: FINAL REPORT

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Submitted by:

Melissa Stockton, Quipu Group

Lori Bowen Ayre, Galecia Group

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INTRODUCTION

Melissa Stockton and Lori Bowen Ayre have completed the work scheduled for Phase 1 of the project to procure a new virtual catalog and interlibrary lending solution for Massachusetts libraries (a.k.a. MassVC). On-site meetings with the MassVC Governance Group and selected members of the MassVC Liaison and User Groups were held in May, 2011. The consultants have completed a survey of other resource-sharing services from across the country and have spoken to service providers, software vendors and open source communities regarding the current offerings in these areas. The information from all of these activities is contained in this Final Report. This document provides recommendations and models for the procurement process followed by a thorough report of the background research completed by the consultants.

Paul Kissman (MBLC) and Walter Stine (FLO) provided the consultants with key background information about the functionality and features desired by Massachusetts libraries. This background information was supplemented with on-site meetings and discussions with members of the Governance Group and the Liaison and Users Groups. All those involved have been clear that the highest priority of this project is interlibrary lending functionality (ILL). The addition of a discovery layer would be a welcome service; but, a stable, current and flexible interlibrary lending system takes precedence. There is virtually no desire for a shared ILS across the state; however, all libraries were interested in the ability to easily extend their patrons' access from their local catalog to other collections around the state. Additionally, flexibility in how the local and statewide collections are presented to each library's users is an important feature for any state-wide system.

A wide variety of models for interlibrary lending and discovery were identified in discussions with consortia, vendors and service providers. Single-vendor as well as cross-vendor solutions were explored, as were open source solutions. Although the resource-sharing and discovery market has matured, it continues to evolve, with a number of important features still in development or being planned. As a result of this dynamic market, it was no surprise to learn that many of the consortia contacted were in an implementation or development phase of some type of resource-sharing initiative.

When looking at the capabilities of current ILL software, the biggest gap in functionality is the lack of integration between the ILL software and the integrated library system's (ILS) circulation module. This is a problem for open source as well as proprietary vendors. Third-party ILL systems can generally provide circulation integration with an ILS only if that ILS supports NISO's Circulation Interchange Protocol (NCIP). If NCIP is not supported, ILL software vendors have had to rely on workarounds such as screen-scraping to improve the integration with ILS circulation systems. However, in the case where the ILL vendor is the same as the ILS vendor, the integration is generally seamless because direct database calls can be made, instead of using NCIP messaging.

Robust discovery systems provide an opportunity to reduce the ILL burden for libraries and improve services for patrons. For the purposes of this project, we have defined a discovery interface as one that combines discovery of library catalog information as well as other repositories of information such as OAI (Open Archives Initiative) repositories, subscription databases, and digital collections, plus readily available texts and videos from Internet sites such as OpenLibrary.org, Project Gutenberg, HathiTrust, Ted Talks, etc. Discovery systems in this document represent a variety of methodologies for resource retrieval including federated or meta-search products which search all resource targets simultaneously when a search is entered as well as consolidated indexing discovery layers such as VuFind which create a centralized search index.

Discovery systems use various technologies to harvest information for display to users. Z39.50 is often used to capture data from library catalogs, OAI-PMH services are used for Open Archive repositories and OpenURL is used

for article and journal databases that require patron authentication for access. For harvesting content from websites, a number of technologies are employed including OpenURL, SearchRetrieve via URL (SRU), OpenSearch, and, when necessary, screen-scraping.

The next few years should bring a number of developments to fruition which will improve the interoperability and customization choices available for both interlibrary lending and discovery products. For example, FulfILLment is an open source, ILS agnostic, interlibrary loan product with an integrated discovery component. It is currently in development. The eXtensible Catalog (XC) is another open source product that is in active development. It is more a set of tools than a product but the tools are designed for building a robust discovery environment and developing communication channels with the ILS (NCIP Toolkit). IndexData, an open source and proprietary software developer, also provides software components that are being used by different companies in new and interesting ways to provide discovery and ILL products. The consultants have taken into account trends and in-progress initiatives while providing recommendations for the near term procurement process.

One of the complicating factors associated with an ILL product procurement relates to inconsistent NCIP support across ILS systems. NISO Circulation Interchange Protocol (see http://www.niso.org/workrooms/ncip) is a protocol that defines the messages that can be passed between the ILS and an external program as it relates to lending, borrowing, and providing access to electronic resources. If an ILS provides NCIP support, it is easy for an ILL vendor to provide seamless integration of the ILL functionality inside the circulation module, or "circulation interoperability."

None of the ILL products currently available can offer circulation interoperability with all of the ILS products relevant to the MassVC procurement, largely because of the lack of NCIP support in some ILSs. Neither of the open source ILS products provides NCIP support today but a developer has been engaged to add NCIP support to Evergreen and that is expected to be available relatively soon. Sirsi/Dynix and ExLibris products support NCIP 1.0. And, Polaris and Millennium (very recently) have implemented NCIP 2.0 support.

Like URSA, most ILL products rely on a combination of NCIP support in the ILS to provide for circulation integration; however, It is possible to provide the same level of integration with screen-scraping or direct database calls (in the case of the open source products).

 To that end, the consultants have provided three possible models for the procurement process for MassVC.

INTERLIBRARY LENDING ONLY (ILL ONLY)

The goal of this model is to simply replace and enhance the interlibrary lending processes currently provided through the URSA system which is being end-of-lifed. This model would ensure that every ILS could participate in resource-sharing through an ILL system that will continue to be supported and developed by the vendor. Any system selected in this model would be required to have a search or finding tool that would include holdings information from all of the library catalogs and would provide support for patron-initiated requesting. However, it would not necessarily include a discovery layer service for searching or requesting other types of resources.

Evaluating the level of integration with the ILS (separate ILL component or ILL integrated with the circulation module) would be an important selection criterion, as would the vendor's plan for extending circulation interoperability to all participating libraries in the future.

Products that fall into this category include Lyrasis D2D, and Relais D2D, Auto-Graphics AGent Resource Sharing, Innovative's INN-Reach, and WorldCat Navigator.

INTERLIBRARY LENDING PLUS (ILL PLUS)

This model would seek an enhanced interlibrary lending system which provides full circulation interoperability for all relevant library systems. This model would move the ILL workflow into each library's local circulation module rather than requiring any duplicate data entry in a separate ILL application. This model would require Massachusetts to sponsor additional development with the ILL vendor selected and may require some libraries or networks to upgrade their ILS (e.g. to a version with NCIP support or to add an NCIP module). Adding an NCIP module may involve additional charges by the ILS vendor as well. If NCIP support is not available on an ILS, it may be that the ILL vendor would develop the appropriate interface (with screen-scraping or database calls). Regardless of how it was accomplished, some testing would be required to get all libraries on a new ILL system with circulation interoperability. Any solution selected under this model would be required to provide a search interface for end users which would incorporate catalog and holding data from all member libraries and would include the capability for patron initiated requests.

Products that fall into this category include LyrasisD2D, RelaisD2D, Auto-Graphics AGent Resource Sharing, Innovative's INN-Reach, and WorldCat Navigator.

DISCOVERY PORTAL WITH INTERLIBRARY LENDING (ILL AND DISCOVERY)

In this scenario, the objective would be to procure the best possible interlibrary lending solution, as well as a flexible and inclusive discovery portal. The primary objective of this model is to provide an efficient ILL system for all libraries while simultaneously reducing ILL requests by ensuring that the discovery interface provides users with free and immediately available e-books and articles. This discovery layer would be the interface for searching all the MassVC catalogs and subscription databases, as well as other content freely available over the Internet. The system would make use of OpenURL, SRU, OAI-PMH, OpenSearch, and other technologies to provide direct access to online content. User authentication would be passed from the local system to the state discovery interface and on to online subscription services. A mobile interface would be included to ensure users could gain access to online content on their hand-held devices as well as interact with the ILL features of the system. The page style and the content searched would be customizable at the library level. The portal would provide each library or library system with the ability to customize the resources included in the searches entered by their users. Libraries could choose to use the portal as their main user search interface or could pass their users to a generic discovery portal if items were not found in the local system or are unavailable. Alternatively, participant libraries could decide to send their users to a customized discovery portal or could utilize the indexes and harvested data provided with the portal in their own discovery layer solution.

Products that address the ILL and Discovery Model are LyrasisD2D with Discovery Layer Service, Auto-Graphics AGent Resource Sharing, Innovative's Inn-Reach with Article-Reach and the Next Generation OPAC, and WorldCat Navigator. Each of these products provides a flexible ILL module as well as a robust discovery component. WorldCat Navigator provides discovery of articles (in addition to the union catalog) as does INN-Reach when configured with Innovative's ArticleReach product and Next Generation OPAC. The Lyrasis Discovery Layer Service

in combination with other Relais products (resold by Lyrasis), as well as Agent Resource-Sharing provide support for discovery of articles as well any URL-based content.

The ILL and Discovery procurement model introduces two open source products into the mix. XC and VuFind are open source discovery products that do not have a native ILL component but which can integrate with some of the other ILL products. Both products can pass a string (for a known item or a search string) from the discovery interface to an ILL product for processing (so the user doesn't have to enter their search request again). Both of these products could be used to provide a separate discovery interface for a broad range of data repositories to reduce ILL demand. However, a separate ILL product would still be required to handle the actual ILL requests.

Masterkey, an IndexData product, forms the foundation of the D2D products offered by Relais and Lyrasis. Masterkey could also be used with an ILL product to augment the discovery environment. This would require a custom solution developed with the MBLC, IndexData and the selected ILL vendor.

CONSULTANT RECOMMENDATIONS

The consultants recommend that the MassVC procurement process proceed using the most expansive model described above, a Discovery Portal with Interlibrary Lending. By combining the search for both solutions, MassVC could identify a solution that:

1. Streamlines ILL workflow in every library;
2. Reduces traditional ILL volume and increases "discovery and download" opportunities for patrons;
3. Allows for local control, configurations, and customizations; and
4. Integrates ILL delivery with the new statewide delivery system.

Further, the consultants recommend that the development and maintenance of the discovery portal be centralized. Identifying collections, ingesting and normalizing the metadata, configuring and maintaining links to web content is labor-intensive and requires a level of technical sophistication not readily available in all libraries. By centralizing the work of building and maintaining the repository, all Massachusetts libraries would benefit.

STREAMLINE WORKFLOW IN EVERY LIBRARY

The most efficient workflow for ILL would be accomplished by moving to a shared ILS. In such a scenario, the ILL workflow is transformed into a Holds/Request workflow that is natively part of the circulation module. The consultants recognize that this solution is not suitable for Massachusetts. The Massachusetts networks have indicated a preference for staying on their own ILS.

Barring a decision to move to a statewide ILS, the next most efficient workflow for staff is to move to an ILL system that can be configured to support circulation interoperability on all relevant ILS products.   As noted above, there are several issues that come into play when looking at circulation interoperability between ILL and ILS system. A key part of the MassVC procurement should therefore focus on these issues. It will be important to identify all the costs involved to provide circulation interoperability for all the member libraries and to identify all the components that would be affected, the time required to make it happen, and who would need to provide services to get it done (e.g. Would Massachusetts have to hire their own programmers? Would the ILL vendor make the connectors needed? Would some libraries need to upgrade their ILS or buy a new module?)

REDUCE TRADITIONAL ILL VOLUME AND INCREASE "DISCOVERY AND DOWNLOAD" OPPORTUNITIES FOR PATRONS

No single library can contain all the material that patrons require. The tradition of interlibrary loan was established in recognition of this physical, economical, and geographical limitation. Traditionally, ILL transactions have been labor intensive for staff and for patrons. Patrons requested the item they wanted from their local librarian who then found the item at another institution, acquired it on the patron's behalf, circulated it, and ensured the safe return of the borrowed item to the lending library.

One of the most important changes made in library software in the last ten years was the introduction of patron-initiated requesting. Unlike traditional ILL which requires the librarian as intermediary, patron-initiated requests do not require staff to handle the transaction. The patron can search for and select items from other libraries, usually via a union catalog and some kind of reciprocal borrowing agreement, or a shared ILS. The item is transferred from one library directly to the pick-up location specified by the patron. This has been a wildly popular

service and the source of much angst among library delivery departments who have struggled to keep up with the volume. Patron-initiated requesting became possible because library software developments made it possible to discover and request material from other libraries' catalogs.

We are now at another important milestone along this same trajectory. Because of yet more advances in library software plus the explosion of freely available content on the web, we can now put items into the patron's virtual hands. Patrons can now discover more than just bibliographic records that point them to a physical item. Libraries can connect patrons directly to digital content. Some of the digital content may be owned by the patron's library (ebooks, downloadable audiobooks, articles and newspapers). And, more and more of it is freely available content that is on the Internet waiting to be found.

The consultants believe that the best ILL service is one that provides instant access to the content a patron seeks without requiring them to jump through hoops. What could be easier than clicking a link to access what you need? Therefore, we strongly recommend incorporating a discovery component to the ILL procurement: one that is focused on making library-owned as well as freely available digital content more easily discoverable for all Massachusetts libraries.

We recommend that the MBLC as the managing agency of the MassVC, or a team designated by the libraries take on the additional role of developing a statewide discovery portal containing freely available digital content. The portal should be architected in such a way as to allow each network or library to customize a local version of the discovery portal for the purposes of adding their locally licensed content into a robust discovery interface pre-populated with free online content.

An example of this type of portal, using IndexData's MasterKey Toolkit as the discovery engine, is available at http://mk2.indexdata.com (screenshot below). This portal or discovery tool includes a number of open access resources such as The Library of Congress Catalog, Ted Talks, Internet Archive, MIT Courseware and Open Library eBooks. This discovery tool also incorporates library catalogs representing different local ILS solutions as well as full text articles from an online journal.

As of this writing there is no combination of products that can provide discovery and ILL functionally for all Massachusetts networks and libraries with circulation interoperability. There is not even a single product that can provide an integrated interface to all the ILL tools currently in use. But the right products are evolving and this procurement is an opportunity to move Massachusetts a very large step forward in this direction.

Screenshot of IndexData's demo site at http://mk2.indexdata.com.

ALLOW FOR LOCAL CONTROL, CONFIGURATIONS, AND CUSTOMIZATIONS

It is important to ensure that any solution selected allows individual networks and libraries to continue to use certain products that have become established and reliable components of their workflow. For example, some libraries have developed workflows around ILLiad and would like to continue to use this product. Other libraries have experimented with discovery layer products and would like to keep them as part of their patron interface. Any ILL solution selected should allow for these variations.

During the Project Launch meetings, there was clear consensus that each patron would begin their search at their local library website, not a statewide portal. Each library system and network will want to integrate the discovery and ILL functionality into their own website so this type of integration must be a requirement of the MassVC procurement.

Each network or library will also need to have the ability to customize their discovery portal to provide access to licensed content and to support the various relationships they have with other libraries. For example, the system must be sophisticated enough to allow UMass Amherst to continue to interface with the variety of ILL systems in which they participate. UMass Amherst uses an Aleph-based resource-sharing system with other Five Colleges libraries, WorldCat Navigator as a part of their membership in the Boston Library Consortium and RapidILL for non-returnables (articles). Therefore, for UMass Amherst, the portal would need to integrate with all of the above systems, plus Summon, which they use to provide discovery capability for their subscription databases.

INTEGRATE ILL DELIVERY WITH THE NEW STATEWIDE DELIVERY SYSTEM

While we hope that the new ILL system will reduce some ILL volume by providing a robust discovery interface for freely available digital content, we know that it is a distinct possibility that ILL volume will increase. Therefore, it is important that the system is able to take advantage of the new statewide delivery system being implemented.

Many ILL products can generate book bands or some other kind of label for the requested items. These book bands or labels could be configured to print a barcode or destination code as well as human readable destination information). The ILL system would also need to be able to discern and utilize information on the specific borrowing location of each item moved through the delivery service. This would ensure that the new sort-to-light system sorting system could be utilized to sort ILL material as efficiently as it will sort intra-network material.

LEVERAGE OPEN AND/OR OPEN SOURCE SOFTWARE

Open source products create more opportunities for accessing data in ways that haven't been possible with proprietary products. Choosing open source, community-supported products creates more possibilities for putting software pieces together in new and interesting ways. Some Massachusetts libraries have already made significant investments in open source ILS products (Koha and Evergreen). We urge the libraries to continue their exploration of open source opportunities beyond the ILS products because these products offer an opportunity to develop a completely customized resource-sharing environment for Massachusetts.

Even without additional investments in open source technologies, proprietary products increasingly recognize the value of opening up their products so they can also be integrated with other types of software. These types of integrations generally rely on robust APIs in the software and compliance with established standards and protocols such as NCIP, ISO ILL, OAI-PMH, OpenURL, SRU, and Z39.50. When procuring ILS systems, adherence to these standards and support for the various protocols related to ILL and discovery should be mandatory requirements.

USE ILL & DISCOVERY MODEL FOR MASSVC PROCUREMENT

Since an unsatisfactory interlibrary lending system is already in place and the replacement of this system was clearly the highest priority from the Governance, Liaison and User Groups, the interlibrary lending procurement should be the primary focus for any type of procurement process. However, we recommend that a procurement document be created which requests pricing and configuration options for both a state-wide interlibrary lending solution as well as a discovery layer for the state. This procurement document would be distributed with the instructions that a response could be provided for ILL Only, Discovery Only or ILL and Discovery.

A single procurement document would allow the vendors and service providers that offer a combination solution to provide the most complete and integrated look at their product offerings. This would also ensure that the Massachusetts library reviewers would learn which ILL solutions will provide the most efficient workflow, flexibility and interconnectivity for interlibrary lending across the state. And finally, it will provide an opportunity to learn about the discovery systems and the ways they can be integrated and used to provide better service to patrons while reducing ILL volume.

Once the responses to the procurement document have been received and reviewed, the consultants recommend that a small task form be formed to evaluate the responses. Staff involved in the evaluation will need to consider the long term opportunities associated with implementing a robust discovery interface that supports the ILL

functionality. The task force should be as small as possible while ensuring that each network and someone from all the library types are represented (large universities, community colleges, schools, small and large public libraries).

Once selected, the implementation of an interlibrary lending system will be complex and multifaceted and will require one or more staff dedicated to the project. Unless a single product is found that addresses the discovery and ILL functionality (and we don't think it will), we recommend moving forward right away with the implementation of the selected ILL system. This implementation will require staff time at the libraries as well as at the central system office and will require a lot of work with vendors whose products need to be integrated into the ILL system.

The procurement document will gather information on the discovery layer interfaces available, and the responses will give the group enough information to see the current status of each discovery product, the interconnectivity capabilities with local systems, and the future plans for each product or system. The procurement document will be developed with the expectation that it will be used when entering into one or more contracts with vendor(s) or service provider(s).

Since the interlibrary lending system will be implemented first, this will give MassVC a chance to review the responses regarding the discovery layer and may provide information about one or more systems of interest to the group. The discovery layer procurement adds open source products into the mix for consideration (there are no open source ILL solutions - yet) and it is quite possible that none of these products will be represented in the responses. However, any open source discovery product of interest to MassVC could be loaded into a sandbox environment to be fully tested and evaluated.

PROCUREMENT METHODOLOGY

Before proceeding into a procurement process, MassVC will need to decide what model or service level they wish to pursue. As noted above, the consultants recommend that MassVC proceed using the ILL and Discovery Model. This allows MassVC to gather information on both discovery and interlibrary lending options using one procurement process. The procurement document will include both systems but will instruct vendors that they can respond to one or both sections. Each system will be weighted and scored separately. Overall weighting should favor functionality for interlibrary lending, followed by circulation interoperability, followed by discovery layer.

ESTABLISH OPEN SOURCE EVALUATION TEAM

In order to assure that the open source products available are fairly evaluated, the consultants recommend that an Open Source Evaluation Team be created to research the functionality available in some of the relevant open source products by installing them and experimenting with them. Proprietary products have no such option. Instead, the library must rely on the representations of the vendor.

Given the number of viable open source discovery products currently available, the consultants strongly recommend establishing an evaluation team and test environment for learning more about them. The two products are VuFind (http://vufind.org) and XC (http://www.extensiblecatalog.org). In addition, an open source ILL/Discovery product is scheduled for beta release in January 2012, FulfILLment (http://www.fulfillment-ill.org.)

Both VuFind and XC are very promising discovery layer products (or suites of products in the case of XC). Many other library systems and consortia are already working with VuFind (see http://vufind.org/wiki/installation_status). There is a smaller group of people involved with XC and no list of demo sites available. But sponsors of the XC project include the Andrew Mellon Foundation, CARLI and the University of Rochester (see a complete list of sponsors at http://www.extensiblecatalog.org/about/sponsors).

FulfILLment is being developed by Equinox Systems, Inc. with OhioNet and several state libraries (see http://www.ohionet.org/products-services/projects-initiatives/fulfillment/collaborative_members). FulfILLment will be the first open source ILL product. Upon beta release, it will be configured to work with Evergreen, Millennium, Koha, Unicorn, and Symphony. While the source code is available, the product is not complete so evaluation will be difficult until beta release in January, 2012.

Open source service providers are often at a disadvantage when responding to traditional RFP documents because most RFPs are written with a bias toward vended systems. The presumption is that

   a.   there is a cost to license the software, and
   b.   there is a one-to-one relationship between the software and vendor, and
   c.   the features available in the product are relatively static.

In an open source environment, the cost of the software is free. Costs are for services only (hosting, support, migration, customization, feature development). Service providers often work with more than one open source product and most open source products have more than one service provider available. The services offered by these various companies can also be mixed and matched (e.g. one company could provide hosting for a product

and another company or individual could do development of a specific feature). And, unlike proprietary products, no one service provider has control over the software or the use of the software.

Questions that show the benefits of an open source product selection are also generally omitted. For example, the costs of migrating to or migrating away from a certain product, ability to access the database directly, costs associated with database-level access, etc.

In addition, traditional RFPs tend to ask questions addressing the financial stability of the company. These are not as important in an open source context because if a company gets bought out or fails to provide satisfactory service, the library can simply contract with a different vendor to provide those services without interruption in their use of the product. The more important question to ask when looking at an open source product has to do with the viability of the open source community, the number of active developers, and the infrastructure in place to protect and evolve the software.

Creating an open source evaluation team is not necessary with the ILL Only and ILL Plus procurement models because there are no open source products that are viable contenders at this time. However, if the ILL & Discovery model is chosen, it will be important to create an environment where XC and VuFind can be installed and evaluated.

In addition, establishing an Open Source Evaluation Team will be useful for evaluating FulfILLment when the beta version becomes available. By developing internal competencies with open source products, new opportunities become available for lower cost solutions that dramatically increase the amount of control libraries have over their software environment.

DEVELOPING THE PROCUREMENT DOCUMENT

The consultants recommend that a small Procurement Team (e.g. no more than 10 people) be formed for the purposes of developing the procurement document. The team should be composed of representatives from each library type, each network, ILL staff, and other key stakeholders.

The best procurement document is one that asks all the right questions without anything extraneous. Shopping lists of detailed specifications may look impressive but they tend to muddy the waters and can often tie the hands of respondents with out-of-the-box solutions. The consultants will work closely with the Procurement Team to ensure that the requirements are complete yet do not contain unnecessary or irrelevant elements.

We envision a procurement document containing the following key areas:

- Description of MassVC and the libraries which would be participating (library types, collection sizes, resource-sharing activity, authentication methodologies, discovery layer products currently in use, ILL products currently in use, ILS system including a summary of specific modules installed (as relevant to ILL and discovery and article integration and the level of NCIP connectivity currently available).
- Functional requirements of interlibrary lending product and any development or customization costs required to provide for circulation interoperability for all relevant ILS products.
- Functional requirements of discovery portal and any development or customization costs to provide for integration of all content types (subscription based and free) and local control for each library or network.
- Questions regarding the vendor or open source communities supporting the product including questions about the stability of the company or community, development roadmap of the product(s), customization and support options, and cost.

- Possibilities for integrating with the MLS delivery system
- Possibilities for expanding beyond the confines of MassVC to support additional libraries not currently participating in the virtual catalog, including interlending possibilities beyond Massachusetts.

Once created, reviewed and finalized, the procurement document will be released. Specific vendors identified in this report will be contacted and the document will also be advertised through numerous mailing lists, blog postings, and other appropriate sources.

SCORING OF RESULTS

For scoring the procurement document, we recommend assigning multipliers to each question to ensure that the most critical components are weighted accordingly. Evaluators will be asked to rate the response on a scale from 1 to 3 and the multiplier will be applied to each score (e.g. a question with a weight of 50 that gets rated 2 by an evaluator would get a total score of 100 from that evaluator). The specific weighting schema used will be discussed with the MassVC representatives before the procurement document is completed. Weighting each item in the procurement document ensures that those questions with the highest priority are given a higher total score than the lower priority items. The weighting system used for the Automated Sort procurement process recently completed in Massachusetts could be used as a template for this procurement.

It is also useful to provide guidelines to evaluators for how to assign the 1, 2, or 3 rating as was done in the Automated Sort procurement. These guidelines can also be shown on the procurement document so that the respondent understands what the most desirable response is.

Should open source products be involved in the procurement, it may be possible to find a service provider willing to complete the RFP. However, if no service provider is forthcoming, we recommend a novel approach which is to have the Open Source Evaluation Team complete the evaluation forms and "respond" to the RFP. This can be done in cooperation with active members of the relevant open source community to ensure an accurate RFP response is developed.

SERVICE PROVIDER DEMONSTRATIONS

Once the final scores have been tallied, the top 2-3 vendors will be asked to provide an in-depth demonstration of their system. Questions which arose from the procurement document responses will be given to the vendor for clarification. Each vendor will be asked to demonstrate specific features and functions of their system. As much as possible, those attending the demonstrations should be able to see the same function performed in each system being reviewed. The Open Source Evaluation Team may need to provide demonstrations of the software which they implemented and scored. Scores or comments may be collected from those attending the demonstrations.

SELECTION AND NEGOTIATION WITH SERVICE PROVIDERS

The scores from the procurement document review, together with the comments from the demonstrations will be the main tools used to determine the winning solution. The selected solution may involve one or more proprietary vendors or service providers. If there are multiple providers involved in the chosen solution, all parties must be aware of the interdependencies and be willing to work together.

BACKGROUND RESEARCH

The following section describes the research that was conducted that brought consultants to the conclusions presented in this report.

ON-SITE MEETINGS AND PROJECT LAUNCH

Two half-day meeting were held at Minuteman Headquarters on May 9, 2011. The morning meeting included 16 representatives from the Governance Group. The afternoon meeting included 26 representatives from the Liaison and Users Groups. Representatives from MassCat and a few other libraries which are not currently part of MassVC were also included in both meetings.

The Governance Group meeting provided information on the history of MassVC as well as the complex set of relationships between libraries in the state. The group was asked to discuss negative and positive aspects of the current URSA system and to describe their long-term desires for the future capabilities of a MassVC system.

The Liaison and User Group meeting also included a discussion of the positive and negative aspects of the current URSA system and the future prospects for MassVC. This group was also asked to give details on the types of materials which are shared with other libraries and the types of interlibrary lending and discovery products being utilized or reviewed at the local level.

From these discussions, the consultants have identified several items that garnered agreement from the majority of participants as well as other features and functionality which would be desired in a new system. The items related to future functionality will be the basis for the functional specifications which will be created in Phase 2 of the MassVC project.

Several broad statements were found to have agreement from all participants:

- System must allow for local control of lending and borrowing policies;
- Some libraries would use a state-wide discovery tool as their main search interface; however, other libraries will have their own solutions. A new system would need to be flexible enough to allow other types of discovery products to interface and exchange information with the individual solutions;
- Searches and authentication information entered into local search or discovery platforms should be transferred to the state-wide system without the need to re-enter any information.

The discussions concerning the positive and negative aspects of URSA brought up many different thoughts. The consultants will be using this information as we complete the functional specifications which will be included in the procurement document created in Phase 2 of the project. Although not exhaustive, the list below is a sampling of requirements articulated during the two meetings.

- Better public searching mechanisms and quick response time
- Ability to brand and customize the public interface for each library
- Library-specific pull lists and labels
- Adequate information on multi-part sets
- Ability to apply correct lending policies for all types of materials
- Seamless interfaces with local ILSs

- Interface with other ILL systems such as ILLiad for un-filled requests
- Ability to quickly and easily correct problems with a request or to correct mistakes made during the processing stages
- Ability to interface with new statewide delivery service
- Ability to maintain user authentication information between local and statewide systems
- Ability to display only those items which are available to the end user
- Adequate control over how requests are distributed among participating libraries
- Ability to track location and status of items during the ILL process
- Support for mobile devices

The discussions regarding the future functionality of MassVC included a number of issues which were related to the negatives experienced using the URSA system. Other ideas which were brought out for inclusion in a future MassVC were:

- A system that would deal with copyright management
- A system to handle the discovery and delivery of non-returnable items, utilizing electronic resources whenever possible
- Integration of ILL items in patron's local ILS account

CONSORTIA CALL SURVEY

A total of nine consortia were contacted and interviewed regarding the types of discovery and interlibrary lending solutions they have in place and the methodologies they employed for procuring those solutions. A total of 19 questions were asked of each participant.

The consultants believe that the information gained through these phone calls will be extremely useful to MassVC as they move towards a new resource-sharing solution. Those contacted were very accommodating and can be contacted later in the selection process for detailed information on specific technologies.

The richest information gathered during this process surrounds the solutions selected more than procurement strategies. In general, the consortia interviewed used a standard procurement strategy involving an RFP process.

DESCRIPTIONS OF CONSORTIA CONTACTED

The consortia were selected in coordination with the MassVC representatives to ensure a wide range of technological and resource-sharing approaches were represented (open source and proprietary; various levels of integration between ILL, catalog, and discovery layer; union catalog, shared index, and Z39.50 calls to local catalogs; locally hosted and vendor hosted; consistent circulation and ILL policies throughout system and varied policies) and to ensure that a wide range of content types were represented (digital licensed content, readily available Internet-based content, library-owned returnables, and non-returnables).

BOSTON LIBRARY CONSORTIUM (BLC)

The BLC is a consortium of 17 members, consisting largely of academic libraries, with several special libraries such as Woodshole Oceanographic Institution. BLC is currently implementing a discovery and interlibrary lending

system using WorldCat Local and WorldCat Navigator. The consultants spoke to two people related to this consortium, Amanda Schmidt, Assistant Director for BLC and Kathy Leigh, Head of Access Services at University of Massachusetts, Amherst. The phone calls gave the consultants a view of the solution from both the consortial administration viewpoint as well as from an individual library point of view.

LINK+

A consortium of 50+ academic and public libraries within California and Nevada that provides a single searchable catalog and user-initiated borrowing service through an Innovative Interface INN-Reach system. The Link+ system is run by Innovative Interfaces and includes libraries that do not utilize Innovative Interfaces for their local catalog. The consultants spoke to Marsha Pollak from the Sunnyvale Public Library, one of the members of the Link+ consortium. Due to difficulties in contacting appropriate individuals within Link+ and the similarities between Link+ and other INN-Reach sites contacted, less information was gathered from this group than from the other consortia.

HSLC

HSLC works under the auspices of the Office of Commonwealth Libraries in Pennsylvania. The services provided by HSLC cover over 3000 libraries, of all types, in the state. HSLC has been utilizing an OCLC VDX solution for interlibrary loan. HSLC is currently working on a project to move a group of libraries to Evergreen and into a union catalog situation. In conjunction with this project, they are also developing the capability for VuFind to accept patron requests and to automatically forward them to the Evergreen system. The consultants spoke with John Houser, Technical Coordinator for HSLC.

MIDWEST COLLABORATIVE FOR LIBRARY SERVICES (MCLS)

MCLS provides services for all types of libraries in Michigan and Indiana. They have an INN-Reach union catalog (MelCat) which supports interlibrary lending for over 400 libraries, the majority of the libraries involved are public or academic and the group includes some special and school libraries. MCLS is currently involved in a project to move interested libraries to an Evergreen ILS. The consultants spoke to Randy Dykhuis, Executive Director of MCLS as well as Debbi Schaubman, Manager, Shared Library System.

MINITEX

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. The consultants spoke to Becky Ringwelski, Associate Director of Minitex.

OHIO LIBRARY AND INFORMATION NETWORK (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. They are currently working on a project to implement a new discovery layer, utilizing open source tools from IndexData. In addition, they are one of the primary development partners (with Equinox Systems, Inc.) working on FulfILLment. The consultants spoke to John Magill, Executive Director and Anita Cook, Central Catalog Coordinator for OhioLINK.

ORBIS-CASCADE

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. The consultants spoke to John Helmer, Executive Director and Anya Arnhold, Resource Sharing Program Manager for Orbis-Cascade.

PENNSYLVANIA ACADEMIC LIBRARY CONSORTIUM, INC. (PALCI)

PALCI serves 74 academic libraries of all sizes. 49 of the libraries participate in EZ-borrow, their ILL solution. PALCI is utilizing a hosted Relais ILL system for resource-sharing but have not yet begun any projects related to a discovery interface for their member libraries. The consultants spoke to Scott Anderson of Millersville University, who is currently overseeing the implementation of the Relais system.

TEXSHARE

Texshare provides database purchasing and courier services to over 700 libraries in Texas and also maintain a statewide catalog for resource-sharing. The statewide catalog, Library of Texas (LOT) includes 225 libraries. LOT is a highly customized version of IndexData's MasterKey Toolkit. It provides a discovery environment for interlibrary sharing statewide. Requests are submitted online by patrons and then sent via email to participating libraries for fulfillment. TexShare is currently working with OCLC to implement OCLC MetaSearch and WorldCat Navigator. The consultants spoke to Beverley Shirley, Division Director and Susan Bennett, the TexNet ILL Coordinator.

CONSORTIAL CALL SUMMARY

Selected questions asked during the interviews with consortia staff and a summary of the responses are listed below. Where appropriate, responses are listed by consortia. A more general summary of responses is included for other questions. The questions are divided into General Survey Questions, Procurement Survey Questions and Additional Survey Notes.

GENERAL SURVEY QUESTIONS

- **Do you have a single system for discovery and interlibrary lending?**

    a.   **If so, what system?**
    b.   **If not, what system are you using for discovery/searching? Interlibrary lending?**

    NOTE: **Discovery is defined as a public interface which provides access to library catalogs as well as other electronic resources.**

Consortia	Single System for Discovery and ILL?	Description
BLC	Yes	WorldCat Local and WorldCat Navigator
Link+	No	INN-Reach Union Catalog
HSLC	No	Currently have an INN-Reach Union Catalog and utilize VDX
MCLS	No	Currently have an INN-Reach Union Catalog but does not consider it a discovery layer
Minitex	No	• Uses Z-Portal (discovery) and VDX (ILL) for public library resource sharing • Uses Aleph ILL system for the academic libraries • Uses ILLiad and OCLC Resource Sharing for University of Minnesota and external MnLink activities Uses Auto-Graphics Agent ILL System for public libraries in Wisconsin (staff interface only)
OhioLINK	No	Currently have an INN-Reach Union Catalog but are working on a new discovery layer using code from IndexData. OhioLINK is also working on the development of the FulFiLLment ILL system.
Orbis-Cascade	Yes	• All libraries are using WorldCat Navigator for interlibrary lending • WorldCat Group and WorldCat Local are both available as a discovery interface
PALCI	No	The Relais ILL solution is used by all participating libraries but no discovery layer tool has been implemented
TexShare	No	• Currently using an IndexData federated search interface which accepts patron requests and emails them to the libraries • Working on an OCLC solution using MetaSearch and WorldCat Navigator

- **How long did it take to implement your current environment?**

Consortia	System	Implementation
BLC	WorldCat Navigator	Have been implementing for 2 years; all libraries using lending side; full borrowing implementation in Fall 2011
HSLC	VuFind/Evergreen	Began working in February, 2010, not yet released
MCLS	INN-Reach	
	Evergreen	For Evergreen, 9-12 months
Minitex	Z-Portal/VDX	An initial locally installed VDX system had a long implementation period but move to hosted version was quick
	Aleph ILL	

Consortia	System	Implementation
OhioLINK	INN-Reach	Released in 1992
	IndexData Discovery	Planning for a 9-12 month implementation
Orbis-Cascade	WorldCat Navigator	6-9 months
PALCI	Relais D2D	A year for implementation; due to issues with non-NCIP ILS's
TexShare	IndexData Discovery	IndexData solution took about 6 years to fully implement all of the features they required
	OCLC Navigator	Navigator will be released on a planned 3-4 year schedule

▪ **Do your members have separate ILS solutions locally? If so, which systems are involved?**

Consortia	ILS Solutions Involved
BLC	Aleph, Voyager, Millennium
Link+	Millennium, Dynix, CARL
HSLC	"Every flavor of every system"
MCLS	Everything from Follett to Voyager to Millennium to Evergreen
Minitex	Aleph, SirsiDynix (Horizon and Symphony), Millennium and Evergreen
OhioLINK	Millennium
Orbis-Cascade	Millennium, Voyager, Evergreen
PALCI	Millennium, Voyager, SirsiDynix flavors, TLC
TexShare	Includes Millennium, various SirsiDynix systems, Koha, Evergreen, Follett, Polaris, etc.

▪ **Can all the local systems (ILS) connect to the shared discovery/interlibrary loan system? If not, which ones can't and why?**

All of the local systems connect to the solutions in place for the consortia contacted. With Z39.50 as a baseline tool, the discovery layers were able to connect to all participating libraries. The main difference in connectivity is in the interlibrary loan systems and is related to the availability of NCIP for the ILS.   If NCIP connectivity was available, that was used. If NCIP support was not offered by the ILS, then screen-scraping is required.

The problem with screen-scraping is that it requires data to be entered correctly and in the appropriate fields by catalogers or the request will fail. ILL programs which interact through screen scraping have to be modified when the ILS changes how the data is displayed on the screen.

For INN-Reach sites that include non-Millennium libraries, a DCB (Direct Consortial Borrowing) server is used to manage connections between the union catalog and the local ILS. Each non-Millennium ILS runs DCB client software that communicates with one or more DCB servers. If DCB-based INN-Reach ILSs support NCIP, the lending activity is automatically reflected in their local catalog. Those libraries that do not have NCIP-enabled ILS's must perform double check-out, both in the INN-Reach system and their local system. However, no matter which ILS is involved, it is still a manual process to send bibliographic information to the INN-Reach system for all DBC-based libraries.

- **What types of materials are available for discovery and lending? Ebooks, articles, paper books, AV materials…**

Every consortia provides some degree of discovery and lending for books and AV materials. The specific material loaned is determined by each library. Orbis-Cascade is the only consortium with an official agreement designating the types of returnable materials to be made available for loan to other libraries.

For non-returnables, some mentioned using RapidILL (www.rapidill.org) and ILLiad as their sources for articles. MCLS is working on the release of "ArticleReach" from Innovative Interfaces. ArticleReach will allow articles to be requested and filled through the INN-Reach system as well as including a tracking mechanism for copyright.

None of the interviewees had much to report in the area of ILL of electronic resources. Article databases and subscription ebook services are being included in most discovery tools such as the IndexData tool currently in development by OhioLINK and the Z-Portal system used by Minitex. Many of the consortia have groups in place that are looking at the contractual, copyright and technological issues behind ILL for electronic resources.

- **Does the system control the movement of requested, returnable materials? Does this work differently for libraries using different local solutions?**

TexShare is the only group that does not have a system which controls the movement of returnable items to some extent. However, the group is moving to WorldCat Navigator which will bring this true interlibrary lending functionality.

For all of the other ILL systems utilized, the ability of the ILS to connect to the shared system via NCIP, and which profile and version of NCIP is supported is what makes the difference. Libraries connecting with the Circulation Profile of NCIP have the best experience. These libraries are able to perform the traditional ILL functions within their ILS' circulation module, with very little, if any, interaction with the ILL system itself. The Direct Consortial Borrowing (DCB) Profile for NCIP has fewer messages defined and does not provide the same level of circulation integration. Libraries using the NCIP DCB profile have to do more work in their own ILS as well as in the ILL tool because this version of NCIP does not allow the ILS to "talk" back to the interlibrary lending system. Libraries using other, non-NCIP connections (e.g. direct connections when the ILL product and ILS are from the same vendor such as Millennium and INN-Reach, Agent Verso and Agent ResourceSharing, or screen scraping when two different vendors are involved) have even less integration. Some systems are not integrated with the ILL system at all, in which case, staff use the ILL interface to locate and act upon requests (the legacy approach to ILL).

- **What was the total cost of implementation? <$100,000; $100,000-$500,000; $500,000-1million; over 1 million**

Consortia	System	Costs
BLC	WorldCat Local and WorldCat Navigator	Ranged from $300,000 - $450,000 for implementation of both WorldCat systems, including FirstSearch, Local and Navigator for 17 members. This would figure out to be $17,647 - $26,470 per member, per year. OCLC cataloging membership and authentication paid by individual libraries

Consortia	System	Costs
MCLS	INN-Reach	Cost was $2.5M for licensing 550 members in INN-Reach software, server, 2 DCBs, WebBridge, ResearchPro. This figures out to approximately $4545 per member. Ongoing cost is approximately $450,000 per year, or $818 per library, per year.
MCLS	Evergreen	Actual figure not provided. Costs include hardware, people and small fee to Grand Rapids Public for hosting the server. They have about 2 FTE for the project.
OhioLINK	IndexData Discovery Layer	12-18 month contract with IndexData has a one-time project fee of $1M for 90 members. This figures out to approximately $11,111 per member. They also have 2 FTE dedicated to the project on staff. Staff costs are covered by state money and not paid by member libraries.
PALCI	Relais	Actual figure not provided. Fixed annual payment, divided among libraries. PALCI charges most individual libraries $3000 - $5000 per year.
TexShare/LOT	IndexData Discovery Layer	For the use of 225 participants, TexShare budgets $30,000 per year for maintenance; $20,000 a year budgeted for enhancements. This figures out to be approximately $222 per library per year. The last big upgrade installed cost an additional $50,000 and is a cost that must be figured in to future budgets.

PROCUREMENT SURVEY QUESTIONS

▪ **What process did you go through to determine the solution now in place?**

Consortia	Procurement Process
BLC	OCLC solution selected by Board of Directors
HSLC	Began with statewide committees which made recommendations on the functionality required in an interlibrary lending and discovery system. HSLC evaluated potential solutions against these recommendations and selected VuFind to provide a shared discovery platform, Evergreen to provide a consortial ILS, and agreed to develop a VuFind connector for Evergreen which would allow patrons to request items through the VuFind interface.

Consortia	Procurement Process
MCLS	Went through an RFP process for a resource-sharing system in 2003/2004 and selected INN-Reach. New project with Evergreen grew from a desire to participate in the open source community and to make it easier for all libraries to participate more fully in resource sharing.
Minitex	No RFP issued. Committee was empowered to evaluate options and recommend solutions.
OhioLINK	Went through an RFP process for a discovery layer in 2009 and from that process selected the IndexData proposal which was the least expensive and believed to have the most potential.
Orbis-Cascade	Had a very short timeline for the decision and migration so the process was very informal.
PALCI	Created a general RFI which was followed by an RFP specifically geared toward an interlibrary lending solution and not a discovery layer. They received 4 responses to the RFP from OCLC, Relais, IndexData and SirsiDynix.
TexShare	For IndexData Discovery Layer, focus groups were held regarding functional requirements for a shared user interface and an RFP was issued. For the WorldCat Navigator solution now being implemented, the selection followed an extensive ILL study done for the state. An RFP was then issued for an interlibrary lending system.

The decision process described by TexShare was interesting. For their interlibrary lending solution, TexShare had two finalist vendors, OCLC and AutoGraphics. Each potential solution represented a different resource sharing model for TexShare—a solution based around OCLC services or a group catalog. The group felt that if they did not go with an OCLC related solution then they would then have to design and support a "library of last resort" whereas this would not be necessary with the WorldCat database behind their ILL system. This was one of the primary reasons TexShare selected WorldCat Navigator as their ILL solution.

Another consideration that moved them in this direction was the fact that OCLC was already in use by many around the state and they already had groups set up for Resource Sharing. They felt that if they were to go with a different ILL system, many of the libraries (especially the academics) would continue their OCLC ILL system and therefore the new system would just add another interface for them to deal with on a daily basis. [Consultant Note: At this time, both RelaisD2D and Agent Resource-Sharing integrate seamlessly with OCLC Resource-sharing and ILLiad and Navigator. The library can choose to work entirely in their OCLC product or entirely in the ILL tool.]

- **What were the cost areas involved? What pricing models are in use?**

Open Source

The costs involved in the open source projects include hardware or hosting services, support staff, technical/development staff and potentially contract development services.

WorldCat Local

The costs relate to the subscriptions for OCLC FirstSearch and WorldCat Local which must be active for every library participating in the group. OCLC does offer some group pricing for larger consortia.

WorldCat Navigator

Each library must have an OCLC Cataloging Membership and an authentication system as well as the subscription to WorldCat Navigator. The consultants are still unclear regarding the existence of transaction charges, OCLC has said that there are no transaction costs, however, one user indicated that there were transaction costs for each "lend" completed through Navigator. This information will need to be investigated further.

Relais

Costs include annual maintenance, hosting and support charges.

IndexData Discovery

Costs include an annual maintenance fee and other fees associated with open source solutions such as money for development or feature customization or additional technical staff.

- **Do you have any documents from the last procurement process that you could share with us? Requirement documents or other procurement contracts, etc.**

OhioLINK sent a copy of the RFP they used for a discovery layer and this document is included as Appendix A.

Orbis-Cascade issued an RFI in February 2011 and the RFI and Task Force report is available at
http://www.orbiscascade.org/index/rfi.

- **Did you find any limitations such as money or technology when selecting your current solution?**

Across the board, for both discovery layer and interlibrary lending systems, the limitations for the consortia were technological. Although money is always a consideration, it was not seen as a limiting force in their search for shared system software. Interoperability, customization and library-level policy enforcement were all mentioned as issues in the technical area.

ADDITIONAL SURVEY NOTES

The consultants asked each consortial representative if they had anything that they wished to add or any "words of wisdom" to impart as MassVC begins this procurement process. Here are the comments we received:

Consortia	Advice
BLC	There is a great deal of staff time required to implement any ILL solution and some of the systems have a fairly high learning curve for staff.
HSLC	• The hardest part of the process has been the internal processes/policies/procedures and getting an agreement among the group. • HSLC is committed to open source and have been working to set the appropriate expectations in the libraries regarding support and how support can be found in an open source environment. • The social and community aspects of an open source project are very different from dealing with proprietary vendors. You must be willing to invest in the community if you expect to get any response from them. It has been a learning experience just to become a part of the library open source community.
MCLS	• Get as many things into the contract as you can • Look for things that are as modular as possible • Keep in mind what the impact of the cloud computing services may have—especially things like III's Sierra and OCLC's Web Scale Management—could change the playing field for everyone
OhioLINK	• Their experience is that the small to medium sized libraries benefit the most from enterprise level solutions such as the discovery tool they are developing • Look for functionality which maintains patron satisfaction; if a new feature is only going to help the library staff and may be inconvenient to patrons, do not do it! Patron-centric thought processes should rule
PALCI	• If a turnkey solution is not available or offered, be creative about how you approach the vendor. PALCI did not accept the first version of the contract from Relais and were able to get some important features with further negotiation

SERVICE PROVIDERS AND TECHNOLOGICAL APPROACHES

The ILL marketplace is not a large one. Two vendors offer ILL products based on a combination of Index Data's Masterkey suite of tools (Relais and Lyrasis). A few ILL variations are available through OCLC. Innovative Interfaces' INN-Reach product is very popular, especially for Innovative customers. And, the only other products of note are Auto-Graphics' AGgent Resource Sharing product, and the forthcoming open source product, FulfILLment.

IndexData provides open source and commercial versions of several of their products including PazPar2 (metasearching middleware web service), Zebra (indexing system), Metaproxy (several components), Masterkey: Drupal (embeds a metasearch interface in Drupal), and Masterkey Connect (a screen-scraping tool for harvesting data when there is no API). All of these components together represent the product known as "Masterkey."

Relais International uses Masterkey for the discovery side of their ILL product called D2D. D2D handles returnables whereas another product called Relais Express handles non-returnables. Relais D2D includes features critical in a consortial environment including de-duping, load balancing, and scoping. To date, Relais D2D is used to discover library catalog information only. However, because the underlying discovery product (Masterkey) is capable of searching many other types of metadata and data repositories, it was only a matter of time before this would be developed. Lyrasis stepped in to do just that.

At the recent ALA Annual Conference in New Orleans, Lyrasis announced the availability of their Discovery Layer Service which is IndexData's Masterkey product more fully exploited to include library catalogs, subscription-based electronic resources and other freely available content. Lyrasis also offers their members Relais D2D integrated with the Discovery Layer Service, as well as Relais Express. These are all products that Lyrasis sells separately or integrated together in various combinations.

OCLC provides many resource-sharing products including ILLiad, WorldCat Resource-Sharing, and the most recent addition, WorldCat Navigator. WorldCat Resource-Sharing (WCRS) is their entry-level product for ILL of both returnables and non-returnables. For high volume libraries borrowing 200,000 items or more each year, OCLC recommends ILLiad. Another ILL offering from OCLC is VDX. It provides most of the same features as WCRS and ILLiad plus it integrates with the ILS. Neither WCRS nor ILLiad provide circulation integration; however, both of these products handle non-returnables better than the other OCLC ILL options including their newest offering, WorldCat Navigator.

WorldCat Navigator is based on the VDX ILL product. It uses WorldCat Local as the patron interface. In the Summer of 2012, OCLC plans to replace the VDX platform with their Webscale Management Service platform. The strength of WorldCat-based products is the automatic access to the holdings of 10,000 libraries using it. To libraries subscribed to OCLC's FirstSearch, their users also have access to many databases as well. While 10,000 library holdings is significant, it is still limited to libraries that use WorldCat. Navigator provides a lot of control over how requests are targeted (scoping and load balancing) and takes care of de-duping (a function of WorldCat itself). ILL requests can be placed to non-WorldCat libraries via an "external" request. External requests may be made electronically or via email depending on the ISO ILL support of the lender's ILL product.

INN-Reach is the ILL product available from Innovative. When combined with Innovative's Article-Reach product and their Next Generation OPAC, it provides much of the functionality as the products mentioned above in terms

of discovery and management of both returnables and non-returnables, as well as discovery of freely available digital content. It also includes de-duping, load balancing and scoping.

Auto Graphics has a product, AGent Resource-Sharing (AgentRS) that provides ILL functionality for returnables and non-returnables and also supports discovery of a broad range of material (subscription databases, free digital content, OAI repositories, digital libraries, etc) and is suitable for consortia. It stands apart from the other products mentioned so far in the amount of flexibility it offers users of the system. Each library has control over what targets are available for their users' discovery, what information is required when placing an ILL request, whether fees are required and loan periods for each item type. With Agent RS you can restrict the user's ability to request items by any number of factors (e.g. number of requests per week or number of active requests per month), and you can specify mediated or unmediated access down to the user level.

Another area where some of the products distinguish themselves relates to real-time availability of an item. One has to define "real-time" to have a useful conversation with the vendors of these products because all will say their product does provide real-time information about items requested. However, depending on how the library is integrated with the ILL product, this might not be completely accurate. For example, in the case of INN-Reach, the ILL request doesn't query the live ILS (as in the case of AgentRS, for example, which uses Z39.50 queries to first identify the items and then to verify that it really is available at the time of the request). The INN-Reach system creates a union catalog. Innovative libraries are kept in sync automatically, but non-Innovative libraries update a "DCB server" which in turn updates the union catalog with bibs and items. How often the DCB server is updated depends on the frequency with which the library runs a "cronjob" (or scheduled server process). So, while the system does get up-to-the minute availability of any item requested, it doesn't necessarily have up-to-the-minute information about bibs and items (which are only updated when the cronjob runs). That said, the Innovative representative (Tom Jacobson) reported that the success rate for INN-Reach requests is at least 90%. Jacobson reports that MeL (Michigan Electronic Library) estimates that 91% of their requests are successful. This means that 91 out of 100 requests placed by MeL users are attached to items that are actually available. At MeL, 100 libraries are using the Innovative ILS, while 300 of them rely on DCB servers. Jacobson's point is that the lack of "real-time availability" of holdings on the DCB servers is not an issue. This might be a useful metric to ask of all the ILL vendors to see if providing real-time availability of holdings and shelve status (like AgentRS does for instance) makes a significant difference.

Copyright clearance functionality is another point of distinction. Only Innovative's ArticleReach and AgentRS offer copyright clearance functions. This is also provided in ILLiad, but not WorldCat Navigator (at this time).

The forthcoming ILL product being developed by Equinox and OHIONET, FulFillment, represents not so much a new way of handling ILL and discovery, but potentially better integration of all the components. According to Mike Rylander, one of the developers, FulfILLment uses a number of different algorithms for finding the best item for fulfilling a request based on all available information. FulfILLment introduces an abstraction layer absent from the other products, the so-called "Local Automation Integrator" which builds connectors for each discovery target. Essentially, the Equinox developers have taken the position that NCIP is handy when available but the lack of NCIP support will not hamper the ability to provide circulation-based ILL transactions for FulfILLment users. The beta version of FulfILLment is due out in January, 2012. At that time, it will have connectors built for Evergreen, Koha, Millennium, as well as Unicorn and Symphony.

See Table 1: ILL and Discovery Products to see how each of the vendor's product offerings compare.

Table 1: ILL and Discovery Products

Legend: ■ = filled (black), ▦ = partial (gray), blank = not applicable

ILL/DISCOVERY PRODUCT COMPARISON	Lyrasis	Relais	AutoGraphics	Innovative	ILLiad	Navigator	WorldCat	FulfILLment	XC	VuFind
ILL Circ Interoperability with ILS										
None or N/A					■				■	■
Millennium	■	■	■	■		■	■	■		
Horizon	■	■	▦			■	■	■		
Symphony	■	■	▦	■		■	■	■		
Polaris	■	■	▦	■			▦	▦		
Aleph/Voyager	■	■	■			■	■	▦		
Evergreen	▦	▦	▦	▦		▦		■		
Koha	▦	▦	▦					■		
Other ILL Features										
Call pass ILL request to WorldCat	■	■	■	■		■		▦		■
Can use another discovery interface and send ILL request through	■	■	■	■		■				
Can communicate 2-ways with other ILL products (ISO ILL)	■	■	■			■		▦		
No ILL, but can pass query to ILL									■	■
Can be patron-initiated or mediated	■	■	■	■	■	■	■	■		
Discovery Targets										
Catalogs (e.g. Z39.50)	■	■	■	■		■	■	■	■	■
Websites (various approaches)	■		■	■			■		▦	■
Articles (OpenURL)			■	■		■	■		▦	■
Open Access (OAI-PMH)	■		■	■			■		▦	■
Digital Collections (e.g. DC & XML)	■		■	■			■		■	■
Hosting										
Hosted Only	■	■				■				
Local Install Only									■	■
Either			■	■				■		
Underlying Architecture										
Z39.50	■	■	■							
Index/Shared DB									■	■
Union Catalog			■	■		■	■	■		
Gets real-time item status for all ILSs	■	■	■					■		■

ILL/DISCOVERY PRODUCT COMPARISON	Lyrasis	Relais	AutoGraphics	Innovative	ILLiad	WorldCat Navigator	FulfILLment	XC	VuFind
Consortial Features									
Load balancing	■	■	■	■		■	■		
Scoping	■	■	■	■			■		
De-duping	■	■	■	■			■		
Articles Functionality									
Includes copyright clearance			■	■					
Integrates with Ariel/Odyssey/ILLiad	■	■	■	■		■			

KEY		
Primarily ILL Product	▓	Planned
Discovery Only	■	Present/Yes
		No

The following sections contain the consultant's notes from conversations with vendors, representatives, and sometimes users of each of product listed. In some cases, information pulled from the product website have been included (and are noted).

RELAIS D2D

- ILL
  - o Circulation interoperability with multiple ILSs but these are developed as the demand arises so not available for all ILS products today. Currently available for Millennium, Sirsi/Dynix products, Polaris, ExLibris products, TLC and VTLS.
  - o Patron initiated only (but add Relais ILL to get staff-mediated option)
  - o Initiator only (not a responder to ILS)
- Consortial support
  - o Load balancing and scoping using an unlimited number of "tiers"
  - o De-duping
- Discovery
  - o Targets supported
    - Library catalogs (Z39.50)
    - Articles (with Relais Express)

COMPANY

Vendor: Relais International

Contact Info: Dan Denault, Director of Sales and Marketing

                 Office 888-294-5244 ext. 229

                 Cell (613) 513-6655

Reference Customers:

Borrow Direct - Circulation interoperability with Aleph, Millennium and Voyager. Original seven members of Borrow Direct have been "live" with Relais D2D since August 2010. Migrated from URSA.

This was Relais' first US installation of D2D. Two new members will be added during the summer 2011: Harvard University and MIT. All members are using D2D for ILL and discovery (except Cornell).

- Brown University
- Columbia University
- Cornell University – using WorldCat Local for discovery
- Dartmouth College
- Princeton University
- University of Pennsylvania
- Yale University
- Harvard University (Q3 '11)
- Massachusetts Institute of Technology (Q3 '11)

PALCI – EZ Borrow Consortium

50 academic libraries in Pennsylvania, New Jersey and West Virginia. Circulation interoperability with 5 different ILS: Horizon, Millennium, Symphony, TLC and Voyager. PALCI members went "live" with Relais D2D in March 2011. Migrated from URSA.

Committee on Institutional Cooperation (CIC)

Implementation Q3 '11. Will use Relais D2D Discovery, Check Availability, Load Balancing and then Relais D2D will pass requests on to each library's ILL management system (ILLiad) for processing of requests. The request that is passed to ILLiad will include the routing list (lender string) based on the Relais Check Availability and Load Balancing. This means that CIC won't have "circ interoperability" but they felt sticking with their ILLiad workflow was more important.

- Michigan State University
- Northwestern University
- Pennsylvania State University
- University of Chicago
- University of Iowa
- University of Michigan

FUNCTIONALITY

D2D has two key parts: discovery and requesting. The discovery piece is implemented with IndexData's MasterKey product. Currently D2D is only discovering collections using Z39.50 (e.g. library catalogs). However, MasterKey can be used with many other protocols besides Z39.50 and OpenURL. Relais and Lyrasis are working together to enhance D2D to support those other protocols.

Designed for consortia. Per Denault, competitors are URSA and OCLC WorldCat/ILLiad.

Workflow

Determines availability in real-time. Availability is determined by looking at:

- Material type
- Item type
- Patron type
- Circ status
- Location of item (e.g. reference shelf)
- Public notes field

Next the system does a load balancing step and this determines who gets assigned the request. A lending string is developed to send out the request. The lending string works directly with the circulation system using NCIP:

1. Updates the borrowing patron record in the borrowers ILS
2. Checks out the item in the lending ILS to a patron record (can be generic ILL patron or an ILL to a specific library – whichever way the library would like to do it)
3. Updates circ status in both systems

This product can work with either NCIP 1.0 or NCIP 2.0. With NCIP 2.0, there is some data clean-up done in the ILS (reducing more steps for staff). At this time, only Polaris and (very recently) Millennium supports NCIP 2.0.

Libraries using other ILL systems (e.g. ILLiad) can continue to use it if they like. In this case the lending string is passed to the ILL system instead of the ILS. This is how CIC libraries do it.

Load Balancing

Can group suppliers geographically, called "tiers." There is no limit to the number of tiers you use. Internal suppliers (i.e. a library and their branches) also have control over how requests are distributed throughout their system.

Even if a library uses another product for ILL, the load balancing work is done by D2D and this result is passed through in the lending string.

Aging

All libraries in a tier or consortium must agree on the number of days a request will sit with a supplier before moving on.

Library of Last Resort

Failover: when a search fails in D2D, it can automatically escalate to the library's ILL system (whatever that is).

D2D supports patron-initiated only (Relais ILL required if mediated ILL desired also)

Currently, requests using D2D are patron-initiated. They are looking into changing this. If you wanted staff mediated ILL, you would have to buy Relais ILL too.

Theoretically, any data repository that is OpenURL compliant can become a search target of their discovery system.

HOSTED only. Not currently available for local installation.

Masterkey creates a virtual union catalog at the time of search which is how it is able to get the real-time status of the item. Must be very efficient because PALCI is using it successfully with 50 different libraries.

Some smaller libraries don't have a Z39.50 catalog so this can cause complications but there are workarounds.

Requests are placed from one library to another library (versus from a patron to a library) so the item requested goes on the library's pull list and it only appears on patron record at the point the item is checked out (scanned to send it to the lending library). This is how AgentRS works as well.

Authentication

Users must be logged in before using D2D. Shibboleth and LDAP supported (possibly others).

Discovery in D2D

BorrowDirect and PALCI have their users start their searches at D2D and let the system manage the search and the request, if necessary. This way, customer doesn't have to work in two places.

Facets can be configured by library. The newer version (2) has a much nicer, more customizable user interface and supports facets by material type ("medium"). See Masterkey demo site screenshot earlier in this report.

Because it is a Z39.50 search, results start coming in as soon as they are available and are de-duped as they come in.

Request Management

Requests can be managed in the My Account interface of D2D. There are four statuses for requests:
1. Ship Loans (lending shipped)
2. Doc Loaned (borrower checked it out to patron)
3. Return loan (borrower got it back from patron)
4. Complete loan (lender got the item back)

Staff Interface

It's a simple staff interface composed of two screens: "Request Processing" and "Loan Tracking"
- Request Processing is same for borrower and lender and is used to place and fill the request
- Loan Tracking is everything else.

Also a robust "Query Screen"

Notes field – can include this info on the book band. Info in Notes field can also be used to identify appropriate targets for filling a request.

INTEGRATION

MassVC ILSs supported for circulation integration (today)
- SD Horizon
- SD Symphony
- Ex Libris Aleph
- Ex Libris Voyager
- Innovative's Millennium-supported
  - currently screen-scraping but they are working with Millennium to use NCIP. Millennium is just now developing NCIP responder functionality.
  - to date, Millennium has only be an NCIP initiator.

Circ integration not available at this time for the following:
- Koha-no NCIP
- Evergreen – no NCIP

ILL
- OCLC WCRS -Springfield Tech, C/W MARS Academics
  - D2D would replace this
- OCLC ILLiad - Boston Public for doc delivery (statewide), UMass Amherst, Lesley Public (FLO), MBLN for book requests (staff only)
  - libraries using ILLiad could use D2D or circ-based ILL with fallback to ILLiad, or could keep using ILLiad if that fit their workflow better.

Discovery
- WorldCat Local/Navigator - UMass Amherst and UMass Lowell (BLC)
  - one library is using WorldCat for discovery now (Cornell) and D2D for ILL.

- Presumably would not require a change to use D2D for ILL
    - Innovative's Encore with Synergy (MLN)
    - Aquabroswer (OCLN)
    - Bibliocommons (MBLN)

Meta/Federated Search
- EBSCO Integrated Search (FLO)
    - From Relais website: EBSCOHost has been tested with Relais using OpenURL
- Serials solution 360 Search (federated search service) (UMass Lowell) and A-Z (MBLN, MLN)
    - From Relais website: Relais International customers who would like to add a request link to their Serials Solutions page should send an e-mail message to clients@serialssolutions.com, regarding 360 Link (previously, Article Linker). Please provide Serials Solutions with your Relais Access URL and they will set up the links for you.
- DocLine (medical libraries)
    - From Relais website: Relais is able to receive lending requests from Docline and pass them into Relais. However, there is no mechanism in place for sending requests from Relais to Docline.

Overdrive (SAILS) – integration would be via catalog records

Using IndexData's MasterKey with RelaisD2D could provide discovery capability in the same interface as the ILL product. For example, Massachusetts could use MasterKey to link to subscription databases, search OpenLibrary (and other free stuff on the web) and allow patrons to click through to these resources. Within the same interface, D2D could be used to give them access to the catalogs from several different libraries and provide the D2D ILL functionality. Per Dan Denault, cost would vary depending on number of targets selected for discovery. This is basically what Lyrasis is now offering so it might be faster and more affordable (and faster) to purchase through Lyrasis.

LYRASIS DISCOVERY LAYER SERVICE WITH RELAIS D2D

- ILL
  - Circulation interoperability with multiple ILSs but these are developed as the demand arises so not available for all ILS products today. Currently available for Millennium, Sirsi/Dynix products, Polaris, ExLibris products, TLC and VTLS.
  - Patron initiated only (but add Relais ILL to get staff-mediated option)
  - Initiator only (not a responder to ILS)
- Consortial support
  - Load balancing and scoping using an unlimited number of "tiers"
  - De-duping
- Discovery
  - Targets supported
    - Library catalogs (Z39.50)
    - Websites
    - OAI repositories
    - Digital collections
    - Articles (with Relais Express)

COMPANY

Lyrasis is partnering with Relais and IndexData and acting as a value-added reseller.

Contact: Tim Daniels, tim.daniels@lyrasis.org, Cell 770-337-8759

FUNCTIONALITY

Lyrasis is working on a product with Relais and IndexData that will leverage the full power of MasterKey to provide federated search and a full-featured discovery environment and the ILL functionality of Relais D2D. They've code-named it D3D or Enhanced D2D but it was announced at Annual as the Discovery Layer Service.

With the DLS from Lyrasis and the Relais D2D product, Lyrasis provides an out-of-the-box solution for providing ILL with a robust discovery service. Lyrasis also plans to provide for more out-of-the-box customization possibilities than are currently part of Relais' D2D product.

In the meantime, Lyrasis also sells D2D, Relais Express, and DLS configured separately or integrated and can provide discounted pricing to Lyrasis members. Daniels thought the MBLC (or MLS?) was a Lyrasis member and felt that the discount could be applied to everyone participating in the D2D solution should MBLC/MLS decide to enter into a contract.

AUTO-GRAPHICS AGENT RESOURCE-SHARING

- ILL
    - Circulation interoperability with multiple ILSs
    - Only product that can be initiator and responder (used CIL profile instead of DCB)
    - Patron-initiated or mediated (can be set at user level)
- Discovery
    - Targets supported
        - Weblinks (free stuff on the Web)
        - Articles requiring authentication via OpenURL
        - Wordcat using Z39.50 (I think)
        - OAI-PMH repos (this is theoretical, none are in production)
    - Can use alternative discovery product and still use it for ILL and get consortial support features
- Consortial support
    - Load balancing
    - Scoping
    - De-duping

COMPANY

Vendor: Auto-Graphics

Contact Info: Jan Sheppard, (800) 776-6939 x1548, jas@auto-graphics.com, and Mary Jackson, mej@auto-graphics.com

Reference Customers: lots of statewide systems including New Jersey, Wisconsin, Tennessee

Mary recommends we talk with Wisconson (WisCat) because they have so fully exploited the power of AgentRS. They have the highest ILL to citizen ratio in the nation. Do all unmediated. Really focus on streamlining the process for both staff and patrons. "They really look at the process from the patron's point of view."

FUNCTIONALITY

Agent Resource Sharing is a circulation to ILL product and is fully compliant with NCIP (2.0). It eliminates 60 keystrokes from the typical ILL transaction.

Unique to AgentRS is that it can act as both an initiator and a responder to an ILL request (at least with Agent Verso, their ILS). The distinction is that most ILL products tell the ILS what to do through NCIP and if the ILS is NCIP compliant it can do it. This is common of ILL products that follow the DCB3 profile (of NCIP). AgentRS using the Circ ILL profile (aka CIL) which includes the ability for the ILS to tell the ILL software what to do.

DCB3 stands for Direct Consortial Borrowing. Version three is what everyone uses. DCB1 exists but no one has implemented it. DCB1 defines how to support ILS to ILS ILL transactions. With the DCB3 profile, the ILS is always the responder. INN-Reach and URSA both use DCB3.

There are nine core messages in NCIP including: accept item, cancel requested item, check-in item, check out item, look up item, look up user, recall item, renew item, and request item.

Depending on which profile you use, there are another 11 or so more messages in the set. With the CIL profile (used by AgentRS), many of these messages relate to financial transactions.

Staff vs. User Initiated

- The library can configure AgentRS down to the user level whether their ILL requests shall be user initiated, mediated, or disallow entirely.
- Currently, this is a user setting, not a "user group" setting.

Internal Processing

1. User pulls up a bib record and places a request
2. AgentRS re-executes the search and finds out who owns the items (Z39.50 query)
3. AgentRS applies the lending policies of the owners and creates a lending list in order of the borrower's preferences (who are their preferred lenders)
4. AgentRS checks availability (a second Z39.50 query) and compares the real-time availability against that lending string that was built based on the borrower's preferences

Two Z39.50 queries involved: one for holdings and one for real-time availability. How Z39.50 targets are built differs implementation by implementation. Ideally, you use each ILS's Z39.50 server so you can get the most accurate holdings info and the most current availability info.

- When querying some kind of union catalog or WorldCat as one of the targets, it is often the case that the holdings data is not as accurate as it is when you query the ILS directly because you are relying on someone to keep WorldCat or that union catalog up to date (in addition to their ILS)
- In terms of real-time availability, it is especially important to query the ILS as your Z39.50 target because otherwise you get out-of-date availability info (e.g. Jackson believes INN-Reach requires users to upload holdings and availability info nightly into a union catalog which is then the Z39.50 target so this info wouldn't be as accurate as a query against the live ILS).

Other targets possible besides the catalog:

- OCLC WorldCat
- Gale, EBSCO, and other databases (via OpenURL)
- Internet Archive (via a simple weblink)
- OAI repositories (this is theoretical at this point, not in live production)
- EBooks (because they are in the catalog)

Could AgentRS be used to reduce the number of ILL transactions necessary because readily available versions are available? Yes.

Discovery of Licensed Content:

- Each library can determine whether they want to make their licensed content discoverable outside of their local user group. For example, BLC may have content that they've licensed for all BLC members and that could be discoverable only by BLC.
- In addition, Dartmouth may have other databases they subscribe to but which Amherst does NOT subscribe to.
- Dartmouth could still make it discoverable (assuming the license allows it) and thereby make it available for ILL.

- Or Dartmouth could choose to NOT make it discoverable at all. Each library has complete control over their own "discovery pool."

Scoping:

- Each library can scope their searches (discovery level) up to five different levels.
- One of those levels could be WorldCat (e.g. their library of last resort)

Each Library ("Participant") Has a Lot of Flexibility

Participants have control over if labels print and if so what's on them, the form borrowers fill out (Consortia creates mandatory fields and then each library can customize beyond that), how patrons are notified, how fast they'll respond to requests, their Preferred Lender List, what their patrons can do (mediated or not, by user), how to calculate due dates on their lent items, how to communicate with lenders outside of RS system, who the lender of last resort is ("Primary Default Lender,") what material they lend and for how long and what has a fee associated with it (by format type), how to restrict their borrowers from asking for too much stuff (lots of different ways to configure it).

Also a lot of control over the search view of an authenticated patron, a guest, and staff. So (for example), guests would not necessarily see subscription databases that they can't get into.

Pros and Cons vis-à-vis WorldCat

The sharing community would be MassVC members and then beyond that, it would be up to each library to set up "external communications." Some WorldCat members would use WorldCat and they could use other options as well. So, by default you aren't discovering WorldCat holdings but you also are less restricted to WorldCat libraries. As long as the library is ISO ILL compliant, AgentRS is happy to handle the transaction. Implication is that WorldCat isn't so accommodating with "external" lenders.

Home Delivery

Seems like it would be very easy to implement an optional home delivery service using this system. Some customization and perhaps minor development would be required but essentially it could be added to the loan form that patrons fill out (yes, I want it shipped to my home, yes, that's my address, yes, I'll pay the $5 fee) and whether a lending library allows such a thing with their stuff could also become part of their Participant Record.

Other things mentioned:

- Includes Copyright Compliance Support
- Financial support
- Intuitive interface

INTEGRATION

- ☐ Innovative's Millennium –currently screen scraping but they just developed NCIP support so that should be changing
- ☐ SD Horizon – supported but none in production
- ☐ SD Symphony – supported but none in production
- ☐ Ex Libris Aleph – supported but no customers using it so needs testing

□   Ex Libris Voyager - have systems in production
□   Evergreen – no NCIP support so would have to develop scripts (screen scraping)
□   Koha - no NCIP support so would have to develop scripts (screen scraping)

Integration with other ILL products

- AgentRS can push the ILL request into another ILL product (e.g. ILLiad)
- AgentRS can accept a request from another ILL product
- Note that if someone is using ILLiad, they can only borrow from other OCLC members. But with AgentRS, the borrowing and lending pool can include all those OCLC options and beyond.
- Yes, some libraries use AgentRS just for discovery and stick with the ILL tool that works best for their workflow.
- RS is fully ISO ILL compliant so can interact with WCRS seamlessly
- Rutgers is an example of a library using both OCLC and Agent RS.

INNOVATIVE

- ILL (INN-Reach)
    - Millennium acts as the initiator with INN-Reach
    - Circ integration provided for Polaris and Symphony
    - Other ILSs require some duplicate data entry
- Discovery
    - Using Article-Reach
        - Subscription databases
    - Using Next Generation OPAC
        - Websites
        - OAI repositories
        - Digital collections
- Consortial support
    - De-duping
    - Scoping
    - Load balancing

COMPANY

Vendor: Innovative Interfaces

Contact Info: Tom Jacobson (703) 534-1255, tomj@iii.com

Reference Customers: Debbi Schaubman (MeL), (517) 394-2420, schaubmd@mcls.org

- The INN-Reach MeL system was selected because Michigan needed to be able to handle the load (e.g. no Z39.50 URSA type product) and no one was going to change their ILS (e.g. moving everyone to Evergreen not an option.)
- Michigan has schools on Follet, U-Mich on Aleph, and other academic and public libraries on Voyager, Symphony and Millennium.
- 330 of the libraries in MeL are NOT using Millennium
    - These libraries batch load bib and item data to 3 DCB servers
    - DCB servers communicate with INN-Reach Central Server
    - Record and circ updates go to Central Server
    - The more frequent the batch process runs, the more accurate the data on Central Server is
- Millennium libraries have their record and circ info automatically synced in the Central Server
- System has been up since 2005 and it has been very stable
- Also use Innovative's Proxy Server, OpenURL product, and federated search so hard to say the price (says Debbi) but website says "cost of MeL is approximately $5 million per year with a savings to the state's libraries, schools, colleges and universities of over $72 million per year."
- Debbi notes that Orbis Cascade had a highly functioning INN-Reach system and moved to Navigator but are not happy with it.
- Debbi is working with a developer to add NCIP support to Evergreen so that the interface to INN-Reach is better. She has complete confidence that Innovative will work with them to add the Evergreen connector once NCIP support is there.

FUNCTIONALITY

"Uniform Circulation Policy"

INN-Reach was described as a resource-sharing system for friends. The concept is that the group agrees on a set of policies that shall apply to items shared through INN-Reach. It isn't designed to support different circ policies for different libraries (like AgentRS seems to be). Jacobson says that with traditional ILL (and WorldCat), you are not sharing based on a "close-knit pre-arranged agreement." Each group is supposed to adopt a uniform circulation policy when joining into an INN-Reach system. While it is technically possible for libraries to have differing loan periods, Jacobson reports that "you would run into some problems." This might be another item to pursue in the RFP since the Auto-Graphics product provides support for a lot of policy variety (and FulfILLment will also).

Based on Union Catalog Rather Than Live Z39.50 Calls

Another component of INN-Reach is the union catalog that contains all the bibs, item records as well as some summary serial status data, and perhaps some on-order information for all the participating libraries.   With Millennium, each transaction updates the local ILS as well as the union catalog immediately. With non-Millennium libraries, this info is updated via a batch process that runs as frequently as the library decides to run it. INN-Reach grabs the new file when it is there so it is up to the library to run a cronjob that queries their system, creates the file and places it where INN-Reach can grab it. Nightly updates are typical but some do it more frequently and some quite a bit less frequently.

Tom reports that the fact that the system doesn't make calls to the live ILS at the time of the request isn't a problem. They've seen the same fill rate at all- Millennium networks as they do at MeL where there are 300 non-Millennium members (100 are Millennium). The rate is 91% at Mel. So roughly 9 out of 10 INN-Reach requests succeed; meaning they place a request on an item that really is available.

Load Balancing

INN-Reach can do load balancing in a couple of ways. One way is to try to keep the lending to borrowing ratio 1-1. It can also create groups to optimize delivery routes or assign libraries priority numbers. The system then looks for the available material within the region with the highest priority.

Lender of Last Resort

Has an option to kick out requests that can't get filled in the INN-Reach group to a lender (e.g. WorldCat).

Workflow

1. Patron places request
2. INN-Reach communicates with ILS to verify person can make request
3. If ILS says yes, request is placed and item gets added to the INN-Reach Pull List
4. Staffperson gets item and scans bar code number to update INN-Reach that item is on its way. Depending on which ILS they are using, they may or may not have to enter info into their own ILS too.
5. Staffperson puts the item into the delivery system
6. Receiving library scans item into INN-Reach to receive it. Depending on which ILS they are using, they may or may not have to enter info into their own ILS too.
7. Item checked out by patron

8. Item returned by patron
9. Receiving library scans item into INN-Reach to check-in (can they return to any library?). Depending on which ILS they are using, they may or may not have to enter info into their own ILS too.
10. Sends item back to lending library who scans it into INN-Reach to close out ILL transaction. Depending on which ILS they are using, they may or may not have to enter info into their own ILS too.

Patron Initiated

System is designed to support patron-initiated requests but it does allow for staff mediate requests (set by group). Ideally, everyone agrees to provide unmediated loans as part of joining an INN-Reach system. Can profile groups of patrons who can use the system (or not) and limit how many requests they can make or have active at any one time.

Differentiators per Jacobson

INN-Reach is in use by whole states, Jacobson wasn't sure the other products could handle similar loads. They've processed a million transactions in Michigan. Seamless, easy on staff, and fast. He noted that an academic San Diego INN-Reach consortium promised delivery by 5pm that day if the request is placed by 10am.

INN-Reach and ArticleReach are two separate products, though for sites that need both, they overlap and share the same union catalog, but we have many sites that do just one and not the other.

There are a couple of specific things regarding INN-Reach and ArticleReach that need correcting, and a couple of broader areas that are in general overlooked.

The "Next Generation OPAC" Innovative has developed for the INN-Reach and ArticleReach union catalogs supports inclusion of repositories and digital collections through OAI-PMH harvesting. The "Next Generation OPAC" is based on Encore but it evidently lacks some of the functionality of Encore.

The INN-Reach and ArticleReach union catalog's traditional OPACs and Next Generation OPACs support the inclusion of e-resources through the use of URLs

INTEGRATION

Integration with Millennium

The way INN-Reach works with Millennium is based on Innovative's proprietary code. It is seamless and efficient and very much streamlines the workflow.

Integration with Other ILSs and NCIP

If you are not on Millennium, you can still use INN-Reach. You have to purchase Innovative's "DCB Client" which becomes the NCIP "initiator" for communications to the ILS. For example, the DCB will ask the ILS if the requesting patron is authorized to make an ILL request. It is not necessary for the ILS to support NCIP to work with INN-Reach. However, if they do, they may have a more streamlined workflow.

Polaris and SirsiDynix Symphony have implemented NCIP and are working with the "DCB Client" to take care of much of the work on both the ILL request management side and the ILS management side. However, if you are

not on either of these two ILSses, staff must keep their ILS up-to-date manually. The DCB client can't do any creation of circ records in the ILS without NCIP.

If a library is using an ILS that supports NCIP other than Polaris and Symphony, they would have to work with Innovative to develop the integration currently available for Polaris and Symphony. Innovative is currently working with appropriate parties to provide circ integration for Evergreen and TLC.

Jacobson states that Innovative can provide an NCIP Initiator designed to work with any NCIP Responder; in addition Innovative will provide an NCIP test-bed for vendors interested in doing interoperability testing, and will participate in testing. INN-Reach is open to any ILS that is interested in using an industry standard to integrate with the system

Integration with ILS Discovery Interface

Innovative provides a direct search button that you can integrate onto your OPAC or discovery interface somewhere. When the search in the local catalog fails, the user can click on that button and the search query will be passed to the INN-Reach system.

There is no support right now for passing credentials so the user would have to authenticate in the INN-Reach system (they do have some support for some single sign-on technology but Jacobson didn't mention Shibboleth or LDAP or anything I recognized.)

Integration with Subscription Databases

INN-Reach does not currently display articles because it doesn't handle the authentication of patrons inside the INN-Reach database. This is handled by the ILS. However if you purchase Article-Reach you can integrate these items.

ArticleReach fully integrates with the Library's link resolver and e-resources, as well as the Library's print collection – as such, ArticleReach ensures the most appropriate copy of an article is identified for each given request – e.g. depending on the patron

- First referring the user to an e-resource
- If not available then looking to refer the request to the patron's home library print collection
- Then referring the request to other ArticleReach members, and
- Finally if necessary passing the request to a more traditional ILL system

In addition Innovative provides an Innovative-hosted Ariel Receiving station to facilitate desktop delivery and provides an Innovative-hosted Web server to provide access to the e-copies of the articles.

WORLDCAT NAVIGATOR

- ILL
  - Circulation interoperability available for all ILSs, but not required (costs extra)
  - Integrates electronically with other ILL products that support ISO ILL (e.g. D2D and AgentRS)
  - Patron initiated or mediated requests are supported
- Discovery
  - Targets supported
    - Z39.50 repositories (catalogs)
    - WorldCat
    - Articles
  - Can use an alternative discovery interface and pass search query through to Navigator for ILL process
- Consortial Features
  - Load balancing
  - De-duping
  - Scoping

COMPANY

Vendor: OCLC

Contact Info: Katie Birch (Katie.birch@oclc.com)

Reference Customers:

- Texas State Library, Sue Bennett
- BLC already using Navigator

FUNCTIONALITY

Per Birch, one important thing to know is that Navigator is currently built on the VDX platform and that this is about to change. Starting the summer of 2012 and continuing through the end of 2013, all customers will be moved to the new version which is built on the WMS (OCLC's Webscale Management System) platform.

The patron interface is based on WorldCat Local.

As a replacement for URSA, Navigator would involve:

1. Uploading every library's records into WorldCat and setting up a batch process to keep WorldCat up-to-date
2. Setting up a Group Catalog for MassVC
3. Configuring the connections to the ILSs (Z39.50, NCIP, SIP, telnet + screen-scraping) and how much work this is depends on whether the library wants to use the circ integration (which they can do for every ILS one way or another) or if they just want to use Navigator separately from their ILS (duplicate work for staff). Even without circ integration, Navigator needs Z39.50 and/or SIP connectivity to every ILS to determine real-time availability of requested items.
4. Configuring every library's preferred lenders and other relevant settings at the library level

OCLC recommends using consistent policies as much as possible especially for turnaround time, charges for interlending and other circ policies. There is flexibility but it works better when everything is more consistent.

Discovery

The shared catalog would serve as the new discovery interface for anyone who wanted to use it. It would allow patrons to search once and get results about what is available in their local library as well as in the 10,000 other libraries using WorldCat.

Alternatively, libraries could keep their patrons inside their own ILS interface and send them off to the group catalog with an active link (contains search query and re-executes it automatically in group catalog, and possibly authentication info too).

Real-Time Availability and Load Balancing and Delivery Optimization

Once a request is executed, the system looks at the requesting library's preferred lender list and checks the availability of the item at each lender (in order of requester's priority) and picks the library that meets the needs of the borrower and which follows the rules set by the system for how to optimize and/or load balance.

Load balancing is how the system is configured to work with the group as a whole. You can set it up with a "net lender" model or you can set it up to equally distribute the requests. Or you can set it up to optimize delivery. Or some combination of all of these things.

There is a lot of opportunity to also build in tight integration with the delivery system. For example, if Navigator knows the delivery routes AND the guaranteed turnaround time that available items can get pulled off the shelf and put into transit, it will optimize the selection based on the fastest, shortest way to get the item to the patron. In order for this to work, the libraries would all have to stick to the turnaround time (so Navigator can count on that in its selection of who should fill the request). I'm not sure everyone needs to agree the same turnaround time or just stick to what they promised….but Birch was clear that sticking to the promised turnaround time was beneficial overall.

Request Beyond WorldCat

You can use Navigator to send requests outside of WorldCat using email but they are not managed within Navigator. You can send electronically to ILL systems that are fully ISO ILL compliant (e.g. D2D and AgentRS) or you can send an email.

Tiers Used to Define Lender Pool

There are some global policies that get set to establish tiers of lenders and then each library has some control over the nuances. For example the BLC libraries might want to always seek items in their local library and then BLC and then in the new group catalog whereas a public library might want to prioritize their local library, then their network, and then the group catalog.

Misc

It is possible to prevent users from making requests for items readily available in their local library.

Can configure book bands to print out (if you want) and you can have them print pretty much whatever you want on them. These could be used to automate the sort of ILL items.

INTEGRATION

The following products are currently supported for circ integration

- ☐ Innovative's Millennium – yes, in production (using telnet and screen-scraping)
- ☐ SD Horizon – yes, in production
- ☐ SD Symphony – yes, in production
- ☐ Ex Libris Aleph – yes, in production
- ☐ Ex Libris Voyager – yes, in production
- ☐ Evergreen – currently testing
- ☐ Koha – not mentioned

FULFILLMENT

Not yet released, beta version due to be tested with OhioNet in January 2012

- ILL
    - Patron initiated
    - Integrated with Circulation
    - Plan is to be ISO ILL compliant
- Discovery
    - Uses both a virtual union catalog (external ILSs) and actual catalog (Evergreen consortia)
    - Targets supported
        - Catalogs (Z39.50)
        - Open Access (OAI-PMH)
        - Websites using SRU, OpenSearch, and other technologies
        - Articles via OpenURL
- Consortial Features
    - De-duping
    - Load balancing
    - Scoping

COMPANY

Vendor: Equinox with development partners (see below)

Contact Info: Grace Dunbar, gdunbar@esilibrary.com and Mike Rylander (miker@esilibrary.com)

Development Partners:

The development of the open source resource sharing solution is being funded by members of a multi-state collaborative of libraries, library consortia and library service organizations. Members of the collaborative include:
- OHIONET
- State Library of Ohio
- State Library of Kansas
- State Library of Illinios
- State Library of Indiana
- State Library of Iowa
- State Library of Missouri
- State Library of South Carolina
- WiLS

FUNCTIONALITY

FulfILLment is built on some of the subsystems that are part of Evergreen (an open source integrated library system). As of Evergreen 2.0, the product provides an elaborate holds system that offers multiple levels of control (e.g. state, consortium, library system, and branch) and also includes five methods for handling holds including opportunistic capture and stalling, soft and hard boundaries, FIFO (First In - First Out), weighting, and looping. This

level of control is much more flexible and (and complicated) than any other library system currently provides. These five methods of controlling holds will also be a part of FulfILLment and will provide resource-sharing communities a new level of control over how holds are managed, prioritized, filled, and tracked.

From the FulfILLment website:

FulfILLment will join the basic process of the scalable Evergreen library software with "connectors" to other integrated library systems creating a virtual union catalog for library systems or networks implementing FulfILLment.

FulfILLment leverages the underlying architecture of Evergreen and many of its concepts and algorithms. Some of the greatest strengths of Evergreen — its hold and circulation policy flexibility, its open and extensible OpenSRF architecture, and its easy integration with external services — are at the heart of FulfILLment and can be applied directly to the problem of inter-system ILL.

FulfILLment brings the benefits of a circulation and hold system based on the core algorithms in Evergreen to the ILL problem space. By encouraging and facilitating the participating institutions to collect and enter all relevant information about ILL policy and system definition, FulfILLment can provide not only truly automated mediation of ILL request (holds) but also full ILL transaction (circulation) management and automated transit management.

Next Generation Discovery Interface (NGID)

If the infrastructure and algorithms of Evergreen are the heart of FulfILLment, the FulfILLment Next Generation Discovery Interface (NGID) is its public face. The FulfILLment NGDI is a hybrid physical/virtual union catalog which automatically loads and deduplicates bibliographic records from all participating institutions for central search. Records can be pulled in using standard protocols such as OAI-PMH, Z39.50 or SRU, or can be automatically pushed into the NGDI from the local systems by whatever means are available.

FulfILLment leverages the hold targeting and capture algorithms from Evergreen — arguably the most advanced in the world in terms of policy and process modeling — and uses them to find the best item to fulfill the request of the patron based on all available information.

Local Automation Integrator (LAI)

FulfILLment's hands and eyes consist of the Local Automation Integrator, or LAI. The LAI uses Jangle Core to facilitate communication with other ILSs. Jangle Connectors supply the code to realize the abstract APIs defined by the Jangle Core for specific target ILSs.

The LAI uses the best and most appropriate protocol for each participating institution's ILS, be it NCIP, SIP2 or a custom connector, to query each local ILS that advertises items on the requested record in real-time in order to provide status information to the hold processing mechanism. Data concerning the requesting patron is also pulled in real-time, and can be automatically obfuscated or expunged if required as soon as all open ILL requests and transactions for that patron are completed.

Once an ILL request has been accepted by the lending library and the item captured for remote circulation, FulfILLment tracks the complete life-cycle of this transaction. Both ends of the ILL, the lending and borrowing

libraries, know the current status of items on loan and can generate reports based on this information using the Evergreen Reporter, one of the most advanced and flexible reporting engines available for an ILS.

INTEGRATION

This information gathered in a follow-up email exchange between the consultant and Equinox:

Q: I would like to know which connectors are done (besides Millennium), or at least which ones are due out next.

A: We're working on a Sirsi Unicorn/Symphony connector now and we understand that Polaris is interested in building their own connector. (And I understand some TLC libraries in Indiana really want a TLC connector but there's no direction from OhioNet to pay us to create either of those.) Obviously when it's released it will also work with Evergreen and Koha.

Q: Also, how could we learn more about Jangle Core?

A: The primary source of technical documentation can be found at:
http://code.google.com/p/jangle/

Q: Does NCIP come into play at all?

A: We use the term "best and most appropriate" to describe which protocol (native, SOAP, NCIP, screen scraping, etc) will be used in any particular FulfILLment connector. If NCIP is the best and most appropriate API for a particular need, development time and cost aside, that would be the first choice.

Q: In Millennium and other non-Evergreen ILSses, does the staff use a separate ILL interface to manage and monitor the ILL activities? Do they look like any different from Holds?

A: Holds (in the local system) for a specific set of accounts (FulfILLment proxy patrons) will be "checked out" to that use, and depending on the capabilities of the connector for a particular ILS, either FulfILLment will automatically discover the captured hold and deliver a transit report for the held items, or when the ILS can't provide the needed information a FulfILLmen UI will be used to manage the transaction.

Q: From the patron side, are the Evergreen users ILLs and Holds all managed within the same UI? Whatever non-Evergreen users?

A: Initially, the holds management UIs will be separate -- patrons found the items and placed holds through the FulfILLment UI, and they will manage their holds there. Later integration might be possible, though.

VUFIND

- Discovery
  - Targets supported
    - Z39.50
    - Dublin Core
    - OAI-PMH
- ILL
  - Not an ILL product at this time, can send user off to login to ILS with "Place Request" box
  - Working on "Place Hold" and "Renew" functionality now
  - There's an ILLiad add-on that makes it easy to pass requests through to ILLiad (after first checking to see if the item is available locally).
- Not designed to support consortia

COMPANY

Vendor: Developed by Villanova University

Contact Info: Demian Katz, demian.katz@villanova.edu, (610) 519-8745

Users:

Swansaa University - https://ifind.swwhep.ac.uk/

- This is the most modern implementation of VuFind
- Facets by Institution, Library, Location, Format, Call number, Dewey number, Author, Language, Genre, Region, Corporate author, Year of publication
- No holds can be placed in system, no ILL integration
- This group has developed their own de-duping program and are happy to share it with others
- They are running VuFind on Evergreen

MnPALS
- PALS has many layers of resource sharing. The state-wide resource sharing system is VDX (ILL) with a Z-Portal Gateway (http://www.mnpals.net/).
- There are also smaller groups of resource sharing groups including an Aleph-based group and an Evergreen-based group. Both use their native ILS' ILL functionality to place holds within their consortium and then use VDX for requests beyond their local catalog.
  - They have implemented VuFind with Evergreen (egview.mnpals.net)
    - Facets by Institution, Library, Format, Call number, Author, Language, Genre, Era, Region , Year of publication
    - "Place hold" puts you in Evergreen catalog at bib record where you click Place Hold (again) and then have to login to your catalog
  - They have also implemented VuFind with Aleph (http://plus.mnpals.net/)
    - VuFind interacts with the Aleph X-Services API for the ILL service
    - The Aleph ILL system also sends and receives requests from VDX (both are ISO ILL compliant)

CARLI (vufind.carli.illinois.edu)

- Facets by Format, Author, Topic, Subject area, Language, Genre, Era, Region, Title
- "Place hold" shows you the item status and provides a log in link to place the request. Also displays the option to "Text me this call number"

FUNCTIONALITY

Basic Functionality

Original intent of VuFind was to replace an OPAC. Since that original intention, scope has expanded to include faceted searching of WorldCat, Dublin Core records, and OAI-PMH (XML) records. It also works with Summon.

The VuFind index is Apache SOLR. VuFind does NOT do any of the work you'd expect in a union catalog (e.g. de-duping). It assumes a "known results set" is being used. So any de-duping, clean up or massaging of data in a consortium needs to happen outside of VuFind.

SWWHEP (Wales folks from first example above) have built a de-duper and they are willing to share with others.

INTEGRATION

With both Summon and WorldCat, the results are made to look like other VuFind results (with faceting and weighting) but they are not integrated in the same VuFind index as the results from one or more catalogs.

You can pass info from VuFind to WorldCat (e.g. when you don't find what you are looking for in your master VuFind index). There's also an ILLiad add-on that helps you make sure you don't place an ILLiad request if you have the item locally (check the VuFind index for you).

Primo Central integration is being prototyped. No work on EBSCO Discovery (as far as Demian knows.)

Libraries with VuFind integration by ILS (from vufind.org/wiki/installation_status)

- Innovative's Millennium – Colorado State uses it for their catalog and integrates their digital library, use ILLiad for ILL
- SD Horizon – Douglas County (uses paper-based requests for ILL)
- SD Symphony – Stephen F. Austin University (ILLiad for ILL)
- Ex Libris Aleph – Brandeis (uses WorldCat for ILL), UnivMichigan (has nice "Get This" button to integrate with their ILL)
- Ex Libris Voyager –Purdue – one of their facets is "Access" and distinguish between those things available online and those available in the library.
- Evergreen – MnPALS and HSLC
- Koha – testing at Brac University (Bangladesh)

Coming Soon

In next version, the ability to place holds and renew items will be part of VuFind. These requests will be passed back to the relevant ILS.

XC

Product Name: eXtensible Catalog (XC)

Category:

- Discovery
    - Targets supported
        - Library catalogs (using MARC to XC Transformation Services)
        - Digital libraries and possibly others (using DC to XC Transformation Services)
    - Creates one data repository based on XC Schema from multiple data repositories
- ILL
    - Discovery layer acts as ILL initiator (using NCIP)
    - Voyager is the only ILS that is currently supported for ILL/Holds
    - Goal is to build more ILS NCIP connectors
- Consortial support
    - Next round of funding will be used to develop de-duping (not there now)

COMPANY

Contact Info: Randall Cook, Project Manager of XC Project

rcook@library.rochester.edu, (585) 273-2042

Currently no production systems using the XC toolkits end-to-end. They are working on stability issues. Rochester hopes to have a live, updating system by the end of the summer.

LeHigh University uses XC and the NCIP Toolkit on their SirsiDynix system for their EZBorrow implementation. EZBorrow is PALCI's implementation of RelaisD2D.

Kyushu University just announced a pilot version of a new discovery interface called Cute.Search that interfaces with their library catalog (known as Cute.Catalog).   The pilot is a combination of Summon (from Serials Solutions) and eXtensible Catalog software. The Kyushu pilot provides a single search point for discovery of a combination of different library resources. Local holdings are displayed via the XC Drupal Toolkit with live circulation status being obtained via the XC NCIP Toolkit.

How Kyushu system works: Cute.Search is a standard Summon instance that uses XC for real-time status and redirects local holdings links to Cute.Catalog, which is an instance of the XC Drupal Toolkit. Kyushu's catalog records have been processed through the Metadata Services Toolkit, and those have been loaded into Summon. When a search lands a user on results that are local results, the full record info is displayed via the XC Drupal Toolkit. The Info link and the Diagram (http://www.lib.kyushu-u.ac.jp/research/20110628_search_catalog.html?skinid=9) give an overview of this.

 You can directly access the XC Drupal Toolkit catalog user interface here - http://catalog.lib.kyushu-u.ac.jp/en

FUNCTIONALITY

XC is composed of several components (toolkits). The core of XC is the XC Schema. This was developed by Jennifer Bowen (of Rochester) and it includes many of the best RDA elements and rules as well as the most popular MARC tags. And it is FRBRy too.

The discovery layer is the Drupal Toolkit. It harvests data from the XC Schema. It also…

- Provides a single user interface for searching across ILS, digital repository, and library web page content.
- Implements innovative faceted browse features
- Offers powerful tools to build web applications that tie into ILS content and functionality
- Integrates fully with an existing ILS to display live circulation status and place requests in the circulation system
- Works with existing authentication systems such as the ILS patron database and LDAP servers

The Metadata Services Toolkit works with catalog or other metadata to convert it to XC Schema (e.g. MARC to XC Transformation Services and DC to XC Transformation Services).

There are two other toolkits that can be used with or without the discovery layer and they address ILS connectivity: OAI Toolkit and NCIP Toolkit.

- The OAI Toolkit is a separate toolkit that makes the data in an ILS harvestable via OAI-PMH.
- The NCIP Toolkit manages communications between the ILS and the discovery layer (Drupal Toolkit or something else)
  - NCIP Toolkit Version 1
    - Discovery layer acts as an NCIP intiator, not a responder
    - The Voyager connector written for ODBC – working with Voyager (in development now to switch over to Web Services in place of ODBC)
    - Aleph has a working connector for discovery only (no lookups of user or item info available)
  - NCIP Toolkit Version 2
    - Came out of the ILS Interoperability Group that meets 2x per month and is composed of reps from OCLC, Notre Dame, Rochester and …(?). LeHigh built a connector to Sirsi/Dynix using this and it was a big success in the PALCI implementation.
    - Eastern Oregon may be testing with OCLC.

Coming

Rochester received funding for further development of the Metadata Services Toolkit. They will be focusing on aggregation and de-duping of data (important for consortia) and some authority services (this will include moving further down the FRBR road and allowing more discovery of items at levels beyond just the "manifestation" level that occurs now).

INTEGRATION

For discovery purposes, all of the Massachusetts ILSses are supported. The MARC to XC Transformation Services would be used to convert catalog data to XC Schema so the Drupal Toolkit could harvest the data.

NCIP connector is what is needed to support using XC for ILL/Holds. Today, there are NCIP connectors as follows:

- ☐ Innovative's Millennium - no
- ☐ SD Horizon - no
- ☐ SD Symphony - no
- ☐ Ex Libris Aleph – NCIP responder only
- ☐ Ex Libris Voyager - yes
- ☐ Evergreen - no
- ☐ Koha -no

ILL - with NCIP Toolkit Version 1, XC can only act as an initiator so wouldn't be able to respond to an ILL request from an ILL product. However, Version 2 may be changing that and making it so XC can be both an initiator and responder….not sure about this.

Other discovery products. Libraries that wanted to retain their own discovery solution could still have their catalog ingested and available via the XC interface (e.g. from outside of their local library system).

WRIGHT STATE
UNIVERSITY

ATTENTION

Wright State University invites you to participate in this Invitation to Negotiate No. 601908 Negotiation. This emailed version is being sent to you for ease in the completion of this proposal. Please email Mary J Pasquinelli, Sr. Purchasing Agent at mary.pasquinelli@wright.edu if you require a hardcopy of the ITN.

The email is included and becomes part of ITN 601908. The wording of the ITN issued by the University shall not be altered, changed or revised in any manner whatsoever. Proposal responses shall reflect the identical university wording of the ITN.

All terms, conditions and specifications as described in the original university ITN document, sent by mail and email, will prevail.

NOTE: Responses must be submitted in hard copy with one (1) electronic document as directed in the ITN.

Contact me at (937) 775-2522 with any questions.

Mary J Pasquinelli
Sr. Purchasing Agent

WRIGHT STATE
UNIVERSITY

INVITATION TO NEGOTIATE NO. 601908

FOR

OhioLINK Discovery Layer

Issued by
WRIGHT STATE UNIVERSITY
3640 COLONEL GLENN HIGHWAY
DAYTON, OHIO 45435
As Administrative Agent for
OhioLINK

Sealed bids will be received until Monday December 15, 2008, 3:00 p.m. local time.

At the
PURCHASING DEPARTMENT
Wright State University
301 University Hall
3640 Colonel Glenn Highway
Dayton, Ohio 45435

Envelopes must be sealed and designated in the lower left hand corner:
"SEALED bid No. 601908 and Due 3:00 P.M. local time on Monday December 15, 2008.

Note:

1. **AN OPTIONAL pre-bid conference** will be held on Monday, November 10, 2008 at 10:00 a.m. local time at OhioLINK offices, 2455 North Star Road, Suite 300, Columbus, Ohio, 43221. Vendors must register by Friday November 7, 2008 at 3:00 p.m. local time to be eligible to participate in the pre-bid conference.

2. No Public bid opening will be held due to the complexity of responses and need for committee review.

3. Please submit one (1) original with one (1) Microsoft Word file of the proposal on CD and one (1) email delivered copy as a Microsoft Word attachment. The email copy should be sent to peter@OhioLINK.edu.

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1. DEFINITION OF TERMS

Wherever the following terms appear, they shall have the meanings set forth opposite each.

1.1 (ITN) Invitation to Negotiate: A competitive process whereby suppliers and contractors have an opportunity to initially submit pricing proposals for consideration. Once reviewed, the University has the opportunity to determine which proposers it wishes to conduct negotiations with for the purpose of arriving at the terms deemed to be in the best interest of the University and OhioLINK.

1.2 Owner, University: The Board of Trustees of WRIGHT STATE UNIVERSITY, Dayton, Ohio as fiscally responsible for OhioLINK.

1.3 OhioLINK: Ohio Library and Information Network with Wright State University acting as Administrative Agent acting on behalf of OhioLINK.

1.4 Contractor: The party or parties (in case of a multiple award) awarded the contract, its heirs, executors, administrators, successors or assignees.

1.5 Proposer: Any firm or individual invited by the Purchasing Department, who submits a proposal to fulfill the conditions and terms of this invitation to negotiate.

1.6 Firm: Any qualified potential proposer.

1.7 Terms specific to this project:

1.7.1 PCIRC: self-service, point-to-point consortial borrowing of physical items initiated online by the end-user

1.7.2 ICOLC: The basis for OhioLINK's statistical reporting requirements are the International Coalition of Library Consortia (ICOLC) REVISED GUIDELINES FOR STATISTICAL MEASURES OF USAGE OF WEB-BASED INFORMATION RESOURCES October 4, 2006, which supports data collected and distributed according to COUNTER and SUSHI guidelines.
http://www.library.yale.edu/consortia/webstats06.htm

2. PROPOSER QUALIFICATIONS; TO BE CONSIDERED, A PROPOSER MUST:

Notice: Contractor warrants that it is not subject to an unresolved finding for recovery under O.R.C. 9.24. If the warranty is false on the date the parties accept an order or sign an Agreement resulting from this competitive process, the

transaction is "ab initio," and the Contractor must immediately repay to the University any funds paid under the order or Agreement.

2.1 Own and operate adequate facilities and equipment devoted to the Manufacture of that which it proposes to furnish or to the services required.

2.2 Exercise strict quality control and inspection in every aspect of performance so that the end product conforms to the intent of the specifications.

2.3 Have been engaged in the type of services proposed operating under its current business name for a minimum of the past 2 years.

2.4 Have a staff with commensurate experience and supervision who will furnish the end product bid.

3. <u>SCOPE OF SERVICES</u>

3.1 Introduction and overview

OhioLINK is evolving its suite of services in the face of changes in user expectations. To that end, we seek to employ a state-of-the-art unified search interface for all OhioLINK content and that of its members. The key deliverables of this new interface are to:

3.1.1 Provide a unified, general search environment for the entire consortium for all types of content in the local integrated library systems, institutional repositories (including, but not limited to, those housed in the Digital Resource Commons), the OhioLINK Electronic Journal and Electronic Book Centers, the Electronic Theses and Dissertations service, consortially-supplied databases, and locally subscribed databases for each individual OhioLINK institution.

3.1.2 Supplement, not replace, existing search interfaces for specific content types.

3.1.3 Provide basic and advanced search features, flexible search session and user profile features, and rich export options.

3.1.4 Provide a search experience closer to that of common Internet search engines, closer to the end-user's daily online reality.

3.1.5 Incorporate modern Web 2.0 interface features like faceted searching, tag clouds, end-user tagging and ratings, and search history breadcrumbs.

3.1.6   Deliver the appropriate copy (electronic or physical) requested by users while hiding the varied and intricate nature of library services such as Open URL, OhioLINK PCIRC, and interlibrary loan.

3.1.7   Make all of the above available to non-library service points/systems such as campus portals and learning management systems.

3.2   OhioLINK believes the best course of action to provide this service is to build a pre-computed index of as much metadata as possible while using a federated search tool to interrogate remaining databases for which metadata is not available for pre-indexing. Results from the pre-computed index and the federated search are available to the new end-user library interface proposed herein as well as to other non-library services points. Users are led to the appropriate copy through a delivery resolver. These four components make up the envisioned system:

3.2.1   <u>Unified, Pre-computed Index</u>
OhioLINK houses and serves through specialized interfaces a wide variety of content in a wide variety of formats. Content includes MARC records describing physical and digital items, records from general and specialized index/abstract databases, citations and full text from electronic journals and electronic books, and metadata in derivatives of Dublin Core that describe images, videos, audio files, and documents. Our concept of the unified, pre-computed index is to bring all of the metadata records together under a common index structure for the purpose of searching and browsing. This will involve harvesting, transforming, and computing relevancy rankings for disparate metadata sets, and returning results to search queries in such a way that other applications can make use of the data. Most data is universally available to OhioLINK members; some metadata sets are limited to particular member institutions.

3.2.2   <u>Federated Search</u>
Although OhioLINK has a great deal of metadata under its control, some metadata sets are not harvestable in their entirety from external metadata providers. In these cases, OhioLINK seeks to deploy a federated search engine to retrieve records from the metadata provider. Results to search queries must be returned in such a way that other applications can make use of the data. Most external metadata providers are universally available to OhioLINK members; some metadata providers are limited to particular member institutions.

3.2.3   <u>End-user Interface</u>
The end-user interface combines search results from both the unified, pre-computed index and the federated search engine with social media tools (tags, recommendations, etc.) in a coherent user interface. The end-user interface must take into account the orders of magnitude difference in

response time from the unified index component and the federated search engine component. The ideal interface returns the results of the unified index component to the user as soon as possible. The federated search component searches the configured resources and periodically updates the user interface with the number of new hits found. Minimally, federated search results are displayed separately from the pre-computed index results. At the user's request, the end-user interface retrieves the most current results from the federated search component, combines it with the previous unified index results with best-effort relevancy ranking and insertion of new results into the existing facets, then returns the result to the user's browser. The federated search component continues searching and updating the counter of new hits in the user interface until it has exhausted all external metadata providers.

3.2.4 Delivery Resolver
The final component is a delivery resolver that will help the user retrieve the most appropriate content for their needs. It takes the form of an OpenURL resolver that is programmed with the various delivery mechanisms available to members of the OhioLINK community. The delivery resolver includes the initiation of a PCIRC request through the union catalog.

3.3 Modularity and interoperability

3.3.1 The new discovery layer system should be modular in design. Each component of the system should be interoperable with other modules and other systems via common standards and protocols. Respondents should address modularity and interoperability of each component that they propose.

3.3.2 Any respondent can respond to any or all portions of the project. Respondents who address some subset of system components, but not the complete system, must explain interactions and standards compliance. They must explain how each module interacts with other vendors' products, describing standards, APIs, and any other appropriate aspects of interoperability.

4. <u>RECEIPT AND OPENING OF PROPOSALS</u>

4.1 Sealed proposals will be received in the Purchasing Department, 301 University Hall, Wright State University, Dayton, Ohio 45435, until 3:00 PM, local time on Monday December 15, 2008.

Packages containing one (1) original with one (1) Microsoft Word of the proposal on CD must be sealed and addressed to the Purchasing Department and designated in the lower left-hand corner as "Sealed Bid No. 601908 and DUE:

3:00 P.M. local time on Monday December 15, 2008". One email copy should be sent to peter@OhioLINK.edu by the above deadline. The proposals will *not* be publicly opened and read due to the expected complexity of the proposals.

4.2 Owner may waive any technical or formal defect in any proposal not prepared and submitted in accordance with the provisions herein. Any proposal may be withdrawn prior to the above scheduled time for the opening of proposals or authorized postponement thereof. Any proposal received after the time and date specified shall not be considered. The physical receipt of the proposal at the Wright State University Purchasing Department, and prior to the time specified is solely the responsibility of the proposer.

4.3 Prior to the time and date designated for receipt, proposals submitted early may be modified or withdrawn only by written notice to the University prior to the designated date and time for receipt of proposals.

4.4 Withdrawn proposals may be resubmitted up to the time designated for receipt of proposals provided that they are then fully in conformance with these general terms and conditions.

4.5 Each proposer shall be solely responsible for all costs resulting from the preparation and delivery of their proposal.

4.6 All materials submitted in response to this ITN shall become the property of the University upon delivery and are to be appended to any formal documentation which would further define or expand the contractual relationship of the University and the proposer.

5. <u>ADDENDA AND INTERPRETATION</u>

5.1 Interpretation of the meaning of the attached proposal documents or other pre-proposal documents will be provided to any proposer. A firm shall promptly notify the University of any ambiguity, inconsistency, or error which they may discover upon examination of the ITN document. Requests for such interpretation regarding this document or process shall be addressed to Mary J Pasquinelli, Sr. Purchasing Agent, Purchasing Office, Room 301 University Hall, Wright State University, 3640 Colonel Glenn Hwy., Dayton, Ohio 45435, phone (937) 775-2411, FAX (937) 775-3711, and must be in writing if relevant to all bidders (email to: mary.pasquinelli@wright.edu).

5.2 Any questions concerning the scope or opportunities outlined in this Invitation to Negotiate shall be directed to Mary J Pasquinelli at: mary.pasquinelli@wright.edu and not to any other person(s) at the University or OhioLINK.

5.3 DEADLINE FOR QUESTIONS: In order to allow sufficient time to distribute addenda if required, all questions must be submitted by 5:00 P.M. local time on Tuesday, November 18, 2008. The University will provide written responses of all questions to all proposers by Monday December 1, 2008

5.4 OPTIONAL VENDOR MEETING: A meeting to discuss additional questions concerning this ITN will be held at 10:00 a.m. Monday November 10, 2008 at the OhioLINK offices, 2455 North Star Road, Suite 300, Columbus, Ohio, 43221. Vendors must register by Friday November 7, 2008 at 3:00 p.m. local time to be eligible to participate in the pre-bid conference. Vendors can register by emailing Mary Pasquinelli at mary.pasquinelli@wright.edu and Peter Murray at peter@OhioLINK.edu by the stated date and time.

5.5 Under no circumstances will verbal statement(s) of a proposer or the University or OhioLINK or OhioLINK employee be considered as binding. The University will determine whether any addenda should be issued as a result of any question or other matters raised. Changes shall be accomplished ONLY upon the written approval of Mary J Pasquinelli, Sr. Purchasing Agent.

6. <u>OBSERVANCE OF LAWS AND REGULATIONS</u>

6.1 In performing the services required under a contract, Contractors will be required to comply with all applicable federal, state, and local laws, statutes, ordinances, and regulations, including but not limited to obtaining at its own expense requisite permits, licenses, and certifications; observing all requirements relating to fair and minimum wages and conditions of employment; to provide equal opportunity to all employees or persons, without regard to their race, sex, color, religion, ancestry, national origin, age, disability, veteran status, or sexual orientation, and remaining at all times in compliance with all executive orders issued or that may be issued by federal or state agencies with regard to equality of opportunity, including those dealing with affirmative action.

6.2 The University agrees to provide all cooperation reasonably necessary for such compliance.   In addition, the Contractor shall also comply with all University Public Safety, parking, and other policies and regulations as may currently and/or in the future pertain to service under the contract. These laws, ordinances, regulations and policies shall apply to the contract throughout, and they will be deemed to be included in the contract the same as though written out in full.

6.3 The Contractor shall secure and pay for all federal, state, and local licenses and permits required in the operation of their business. Contractors shall also pay for any and all taxes and assessments attributable to its association with the providing of the services requested herein including but not limited to sales taxes, excise taxes, property taxes, and federal, state, and local income taxes.

7. <u>INDEMNIFICATION</u>

7.1 Each of the parties to this Agreement has the status of an independent contractor. Each party shall agree to indemnify and hold the other party, its officers, agents and employees, harmless to the extent permitted by law, from any and all claims, actions and proceedings, judicial or otherwise, judgments, damages, costs, expenses, and reasonable attorneys' fees, arising from or in connection with its respective responsibilities under this Agreement but only in proportion to and to the extent such liability, loss, expense, attorneys' fees, or claims for injury or damages are caused by or result from the negligent acts or omissions of the indemnifying party, its officers, agents or employees that occur during performance of this Agreement.

8. <u>RIGHTS RESERVED BY OWNER</u>

8.1 The Owner reserves the right to negotiate the details of any proposed contract resulting from this competitive negotiation process with the successful Proposer(s). The University may request clarifications from any proposer prior to entering into or during any resulting negotiations.

8.2 The University reserves the right to analyze proposals and award to the most responsive and responsible Contractor as follows:

8.3 Accept or reject all or any part of any response, waive minor technicalities and select a vendor(s) that best serves the interests of the OhioLINK institutions.

   8.3.1 Unless noted otherwise, use any or all of the ideas presented in proposals without limitation.

   8.3.2 Eliminate from consideration any vendor who does not follow the instructions outlined in this document.

   8.3.3 University and OhioLINK will not consider any information contain in responses as 'proprietary' unless those sections are clearly and specifically identified as such.

8.4 Should the University enter into negotiations for the purpose of reaching a mutually agreeable contract and be unsuccessful within a reasonable time, the University reserves the right to close negotiations and enter into negotiations with other Contractors that submitted proposals for services outlined in this ITN.

8.5 Cancellation of the ITN. The University and OhioLINK reserve the right to cancel all or part of this ITN at any time. In addition, the issuance of this ITN

does not imply any commitment to purchase any products or services from any proposer.

8.6 Non-Appropriation of Funds. In the event that funds for this project are not appropriated or are withdrawn, OhioLINK reserves the right to cancel, without penalty, any contract award resulting from this request.

9. <u>PRICING AND PAYMENT TERMS</u>

9.1 Please provide pricing as specified in Paragraph 12 that will meet any of the requirements as defined in Paragraph 12.

The focus of this ITN is in creating unified search interface across the OhioLINK community. Therefore, the pricing structure should be as simple as possible to meet this objective. Initial price must be valid until August 31, 2009.

9.2 All prices must be firm. Check your proposal carefully, for it may not be changed or corrected after the date fixed for proposal closing. Proposer will be expected to deliver at the price(s) quoted, unless later changed during contract award negotiations.

10. <u>TAXES</u>

10.1 The Owner and OhioLINK are tax-exempt institutions and are free from all State and Federal taxes. No such taxes shall be included in the Contractor's prices. However, the Contractor may be liable for the payment of sales and use taxes on materials which it purchases for the fulfillment of any resulting contract.

11. <u>BEGINNING AND COMPLETION</u>

11.1 It is the intent of OhioLINK to seek funds from its members and from its own appropriations once the Contractor(s) has been selected. If appropriate funds can be obtained, contracts, potentially payable over multiple years, may be awarded to proposers who have submitted proposals that best serve the needs of the OhioLINK institutions.

12. <u>SPECIFICATIONS</u>

12.1 The Ohio Library and Information Network, OhioLINK, is a consortium of 89 Ohio college and university libraries, and the State Library of Ohio, that work together to provide Ohio students, faculty and researchers with the information they need for teaching and research. Serving more than 600,000 students, faculty, and staff at 87 institutions, OhioLINK's membership includes 16 public/research universities, 23 community/technical colleges, 49 private

colleges and the State Library of Ohio. For an initial list see:
http://www.ohiolink.edu/members-info/

12.2 The system covers these sets of content.

12.2.1 The initial dataset for the unified index is expected to include these
sources (shaded counts indicate best estimates; estimates are not
available for some databases; counts subject to further revision):

Database	Records (Millions)
Academic Search Complete	18.00
AGRICOLA	4.10
Alt HealthWatch	*
America: History and Life	1.00
Annual Bibliog of English Language & Lit	1.58
Art Full Text	1.80
Arts & Humanities Citation Index	*
ATLA Religion Database	1.58
Bibliography of Native North Americans	0.12
Biological Abstracts	14.66
Business & Industry	3.72
Business Source Complete	10.00
CINAHL Plus with Full Text	2.00
Communication & Mass Media Complete	1.00
Compendex	7.86
Compendex Historical 1884-1968	1.72
Computers & Applied Sciences Complete	3.00
Consumer Health Complete	*
Contemporary Women's Issues	0.09
Digital Resource Commons	0.12
EBSCO Animals	*
Economia y Negocios	0.07
Education Full Text	0.76
Education Research Complete	3.00
Electronic Book Center	0.04
Electronic Journal Center	9.30
Electronic Theses & Dissertations Center	0.02
Environment Complete	1.96
ERIC	1.27
Film & Television Literature Index with FT	1.00
Fuente Academica	*
Funk & Wagnall's New World Encyclop.	*
Garden, Landscape & Horticulture Index	1.00
Gender Studies Database	0.75
GeoRef	2.99
GreenFILE	0.38
Health Source: Consumer Edition	0.50
Health Source: Nursing/Academic Edition	*
Historical Abstracts	1.00

Humanities International Complete	2.47
Inspec	9.98
Inspec Archive 1898-1968	0.88
Insurance Periodicals Index	0.50
International Political Science Abstracts	*
Internatl. Bibliog. of Theatre and Dance	0.50
Library, Information Sci .& Tech. Abstracts	1.00
MAS Ultra: School Edition	6.00
MasterFILE Premier	14.00
MedicLatina	*
MEDLINE	16.70
MEDLINE 1950-1965	1.80
Middle Search Plus	2.00
MLA Directory of Periodicals	*
MLA International Bibliography	1.80
Newspaper Source	*
OhioLINK Library Catalog	10.50
PAIS International	0.59
Primary Search	0.50
Psychology and Behavioral Sci. Coll.	*
PsycINFO	2.23
PsycINFO Historical 1806-1966	0.35
Regional Business News	*
Religion and Philosophy Collection	*
RILM Abstracts of Music Literature	0.50
Science Citation Index Expanded	*
Social Sciences Citation Index	*
SocINDEX with Full Text	1.99
Sociological Abstracts 1963-2005	0.72
SPORTDiscus with Full Text	*
TOPICsearch	0.11
Vente et Gestion	*
Vocational and Career Collection	*
Women's Studies International	0.59
Worldwide Political Science Abstracts	0.51
Estimates of Asterisked Databases	50.00
Estimated Total	222.59

12.2.2 The initial set of remote databases is expected to include these sources:

Database	Source
America's News Magazines	NewsBank
America's Newspapers	NewsBank
American & English Literature	Chadwyck-Healey
American Heritage Dictionary	Bartleby.com
American Periodical Series Online	ProQuest
Anthropology Plus	OCLC
AP Images	Associated Press

ARTFL	U of Chicago
ArticleFirst	OCLC
Biography Reference Bank	Wilson
Chicano Database	OCLC
China Online Journals	Wanfang Data
Clase and Periodica	OCLC
Columbia Encyclopedia	Bartleby.com
Dissertation Abstracts	ProQuest
FRANCIS	OCLC
Gongwer News Service	Gongwer
GPO Monthly Catalog	OCLC
Hand Press Book Database	OCLC
HarpWeek	HarpWeek
Historical Statistics of the United States	Cambridge UP
History of Science, Technology & Med.	OCLC
images.MD	Current Medicine
Index to 19th-century Amer. Art Period.	OCLC
LexisNexis Academic	LexisNexis
MathSciNet	AMS
NetLibrary	NetLibrary
Oxford English Dictionary	Oxford UP
Oxford Reference Online	Oxford UP
PapersFirst	OCLC
ProceedingsFirst	OCLC
Roget's II The New Thesaurus	Bartleby.com
Russian Academy of Sciences Bibliogs.	OCLC
Safari Books Online	ProQuest
Science Online	Facts on File
SCIPIO	OCLC
Stanford Encyclopedia of Philosophy	Stanford U
World Almanac	OCLC
World Book Web	World Book
WorldCat	OCLC

12.2.3 In addition, each member institution will want to add resources to the system for local subscriptions. A representative sample of institutions with large numbers of local subscriptions is listed below. While these numbers represent data sources made available locally at each institution, the sources are not mutually exclusive (e.g. more than one institution may locally subscribe to a particular database.) Across the breadth of OhioLINK members, all will have local subscriptions albeit the smaller institutions will have fewer.

Institution	Local Subscriptions
Case Western	110
Wright State	84
U Toledo	39
Kent State	36

12.3 The OhioLINK authentication environment:

12.3.1 User authentication: general. OhioLINK has deployed a Shibboleth infrastructure for user authentication, authorization, and identification. OhioLINK, as a service provider (Shib-SP), is a member of the InCommon federation. A handful of member institutions, as identity providers (Shib-IdP), are members of the InCommon federation. Since not all OhioLINK member institutions have deployed Shibboleth IdPs, OhioLINK runs a gateway between the legacy authentication system (described below) and an OhioLINK-hosted Shib-IdP. This OhioLINK-hosted Shib-IdP is not a member of the InCommon federation. Instead, it is configured in the OhioLINK-hosted Shib-SP services as a bilateral trust. Proposed systems are expected to operate in this environment.

12.3.2 User authentication: PCIRC. OhioLINK's PCIRC service is based on the Innovative Interfaces INN-Reach software. Users identify themselves to this system based on a combination of a barcode/unique-identifier index, a fuzzy match of the user's name, and an optional PIN.

12.3.3 User database. OhioLINK does not operate a union database of users from its member institutions. Instead, OhioLINK relies on member institutions to authenticate users based on local campus mechanisms (whether through a Shib-IdP or by supplying attributes to the OhioLINK-hosted Shib-IdP). Several existing OhioLINK services have personalization databases that are created in an ad-hoc manner by users at member institutions. The ideal candidate solution under this ITN would leverage Shibboleth attributes from the IdP (e.g. Shibboleth Targeted-ID or eduPersonPrincipleName) as a key into a database of user personalization, as opposed to forcing the user to create an account specific to the candidate solution.

12.4 The OhioLINK systems environment:

12.4.1 Candidate solutions that use Linux as an underlying operating system strongly preferred (Redhat Enterprise Server or Ubuntu distribution). Solutions based on Microsoft Windows Server will not be considered.

12.4.2 Candidate solutions that use PostgreSQL or MySQL as a relational database management system are preferred. Oracle is acceptable.

12.4.3 Candidate solutions that use Apache HTTPD and/or Tomcat are preferred. OhioLINK strongly prefers systems that allow its technical staff to control the configuration of the HTTPD and Tomcat services.

12.4.4 OhioLINK prefers installations of software on servers controlled by OhioLINK and/or its member institutions. Software-as-a-Service (vendor-hosted implementations) will be considered, however.

12.4.5 The dataset of MARC data for member-curated collections comes from 63 discrete installations of Millennium systems from Innovative Interfaces. Most MARC records from these systems are aggregated into a Millennium-based union catalog run by OhioLINK using the INN-Reach software. Since some records are unique to institutions, an ideal candidate solution will harvest bibliographic and holdings records from each of these installations rather than relying on the aggregation of the OhioLINK union catalog. Candidate solutions are expected to integrate into the PCIRC service at the union catalog.

13.   <u>GENERAL RESPONSIBILITIES OF THE CONTRACTOR</u>

13.1 The Contractor will coordinate its work with the University or a representative of the Owner.

13.2 The selected contractor shall not use the name of OhioLINK or any OhioLINK member library or Institution in advertising or other promotional materials without first obtaining written consent from the OhioLINK partner and the Institution.

13.3 Any conditions which the Contractor wishes to stipulate other than those included in this ITN must be specifically stated in writing in the Contractor's cover letter.

13.4 If the Contractor cannot accept a provision of the ITN, it must state in the same letter the number and title of the unacceptable provision.

13.5 No announcement concerning OhioLINK's selection of a Contractor(s) and/or awarding of a contract(s) as a result of this ITN may be made by the Contractor without the prior written approval of OhioLINK.

13.6 Financial Responsibilities of the Contractor(s):

13.6.1 The Contractor shall submit invoices as determined in negotiation to Wright State/OhioLINK, Suite 300, 2455 North Star Rd., Columbus, OH, 43221.

13.6.2 The Contractor may be audited as outlined in paragraph titled "Rights Reserved by Owner."

14.   DURATION, TERMINATION AND TERMS OF CONTRACT

14.1 The award documents shall be a contract incorporating by reference the terms and conditions of the Invitation to Negotiate and the Contractor's proposal as negotiated. The contract shall be awarded by the WSU Purchasing Department acting as administrative Agent for OhioLINK.

14.2 In the event the selected Contractor breaches any of the terms and provisions of the contract, the University reserves the right to accurately and specifically describe the unsatisfactory condition in a written notice to the Contractor and expect that this be corrected within a thirty (30) day period from the date the notice is received by the Contractor. If the described condition is not corrected satisfactorily within this time period, a thirty (30) day notice of cancellation of the contract may be given to the Contractor, by registered or certified mail. A meeting may be called by either party to review problem resolution.

14.3 If, during the term of the contract, a Contractor should be adjudged bankrupt, become insolvent, make a general assignment for the benefit of creditors, cease conducting business in the normal course, suffer or permit the appointment of a receiver for its business or assets, or shall otherwise become the subject of proceedings under the Federal Bankruptcy Act or any other statute of any state relative to insolvency or protection of rights of creditors, then the University may issue a written notice of termination of the contract by registered or certified mail to the Contractor and may terminate the contract immediately and without further notice.

14.4 The failure of either the Contractor or the University to insist upon strict performance of any of the terms or conditions of the contract shall not be construed as a waiver or relinquishment for the future of any such term or condition, and the same shall be and shall remain in full force and effect.

14.5 If either party is prevented from performing under the contract because of fire, explosion, water, civil disorders, labor disputes, vandalism, acts of God, energy related closings, other casualties, or other disturbances beyond the control of either of the parties, the disruptions shall not be considered a default of the terms of the contract.

14.6 Either party to the contract may make a written request for a review of its provisions and terms at any time and may agree to amend or revise any or all provisions and terms. All such mutually agreed upon adjustments must be in writing, signed by the authorized representatives of both parties, and the contract amended to include same.

14.7 Neither party shall assign or transfer the contract or any part of same nor enter into any subcontracts for services under this contract without the prior written

approval of the other party. This includes the contractor's ability to assign all or a portion of the support and corresponding display to a third party.

14.8 The Contractor will provide databases as described herein as an independent Contractor of the University, not as the University's agent or representative. The Contractor shall not, in any manner, use the credit or the name of the University in connection with its business or affairs except as specifically authorized in the Contract or as approved in writing prior to such use by the University.

15.   EVALUATION OF AWARD

15.1 This invitation to negotiate is part of a competitive procurement process which helps to serve OhioLINK's best interests. It also provides companies with a fair opportunity for their services or support to be considered. The Invitation to Negotiate or "ITN" process of competitive negotiation should not be confused with the Request for Proposal (RFP) process of competitive sealed bidding. The Request for Proposal process is usually used where the goods or services being procured can be precisely described and price is generally the determinative factor. With the ITN competitive negotiation process, price is not required to be the determinative factor, although it may be, and the University and OhioLINK have the flexibility needed to negotiate with Contractors to arrive at a mutually agreeable relationship.

16.   BASIS AND METHOD OF SELECTION

16.1 After review of proposals, resulting negotiations, and approval of funding, an award(s) may be made to the Contractor(s) who is(are) determined by the University and OhioLINK to be the most responsive and responsible Contractor(s) to best meet the needs and objectives of OhioLINK's community at the terms and price deemed to be in the best interest of OhioLINK. The University and OhioLINK reserve the right to reject any or all proposals if they are in its discretion judged unacceptable, to waive any technical or formal defect therein, to accept or reject any part of any proposal, and to award the contract to other than the contractor proposing the highest level of support according to its own judgment of its best interests, or to make awards for any portion of the work and to perform a portion or all of the areas by WSU employees or temporary services, or a combination thereof.

16.2 In considering award of a contract, the University and OhioLINK will consider a number of factors as detailed in Paragraph 12.

16.2.1 Funding permitting, it is the intent of the University and OhioLINK to award any contract(s) resulting from this ITN to the contractor(s) submitting the proposal(s) that best serves OhioLINK on the basis of specification requirements, terms and conditions of the proposal, and costs. OhioLINK

reserves the right to enter into negotiations with the most responsive ITN proposer(s) for purposes of finalizing any resulting contract award(s). WSU and OhioLINK reserve the right to negotiate the final details of any resulting agreement.

17.   FORMATION OF THE AGREEMENT WITH SELECTED CONTRACTOR(S)

17.1   All proposals received will be carefully evaluated by the University and OhioLINK. The University and OhioLINK may then conduct formal negotiations with one or more contractors to arrive at a mutually agreeable contract or multiple contracts deemed to be in the best interest of OhioLINK.

17.2 The University and OhioLINK may determine to make awards based on the proposals as submitted without negotiation. Therefore, each Contractor must include in its written proposal all requirements, terms, or conditions it may have and should not assume that an opportunity will exist to add such matters after the proposal is submitted.

17.3 The University and OhioLINK will award any resulting contract or contracts to the selected Contractor(s) as follows:

17.3.1 Both parties will execute a mutually satisfactory written agreement based on this Invitation to Negotiate, the proposal submitted, and the result of any clarifications or negotiations. Any subsequent changes to the contract shall require a formal amendment.

18.   PREPARATION OF PROPOSALS

18.1   Proposals shall be accompanied by the Proposal Statement printed on goldenrod beginning with Paragraph 21 of this Invitation to Negotiate. All applicable blank spaces shall be filled in, typewritten or handwritten (printed) in ink.

18.1.1 The Proposers responses, Vendor Response Form (Paragraph 22), must be submitted as specified below. Contents and materials must be clearly marked. Both paper copies and email are to be identical except for literature and/or attachments; and must be submitted together by the deadline specified. Proposers are encouraged to submit additional narrative information, materials, and documents in support of a proposal.

18.1.2 Materials are to be submitted on letter size (8 1/2 x 11) paper and must be presented in loose-leaf notebooks (or in other binders which permit easy photocopying, disassembly, and re-assembly of sections of the response, as desired).

18.1.3 The required Microsoft Word attachments are to be submitted in one email message sent to the address noted in Paragraph 4.1.

18.2 To be considered for selection, paper by the University's Purchasing Office and the Microsoft Word format via email to peter@OhioLINK.edu, must be received by the designated date and hour. Proposals received via either paper or electronic after the date and hour designated are automatically disqualified and will not be considered. WSU is not responsible for delays in the delivery of mail by the U.P.S., Postal Service, private couriers, or the intra-university mail system or delays in email delivery via the Internet. It is the sole responsibility of the proposer to insure that its proposal reaches the Purchasing Office by the designated date and hour.

18.3 The "ITN" Proposal Statement (Paragraph 21) shall indicate the full name of the company submitting the proposal and shall bear the signature of a principal duly authorized to execute contracts for the Firm. The name of each person signing the proposal shall be typed or printed in ink below the signature(s).

19.   PROPOSAL RESPONSE

19.1 The University and OhioLINK will consider comprehensive proposals responding to all functional requirements from one proposer or coalitions of proposers. The University and OhioLINK will consider proposals responding to only selected functional requirements by one proposer or coalitions of proposers. In order to be considered responsive, it is required that firms respond to all relevant questions. See 3.2.2. Responses must be received by the Purchasing Department prior to the appointed due date and time for this ITN.

19.1.1 It is the responsibility of the Firm to attach any additional information necessary to fully explain the intent of its proposal.

19.2 Bid process results and the contract resulting from your proposal will be a matter of public record. Any specific proprietary information contained in the response must be clearly marked as such.

20.   CALENDAR OF EVENTS (ESTIMATED)

October 22, 2008	ITN emailed to potential proposers
November 10, 2008	Optional Pre-bid Meeting @ OhioLINK
November 18, 2008	Deadline for questions
December 1, 2008	Addendum to Vendors (Q&A Response)

December 15, 2008	ITN responses due from proposers
January 12 – 16, 2009	Task force evaluation of responses
February 2 - 6, 2009	Vendor meetings w/task force
March 13, 2009	Task force recommendation to OhioLINK

"ITN" PROPOSAL STATEMENT

21.   PROPOSAL SUBMITTED BY:

Company: _____

INVITATION TO NEGOTIATE NO. 601908

For

OhioLINK Discovery Layer

Issued by
WRIGHT STATE UNIVERSITY and
OhioLINK on behalf of OhioLINK

TO: Wright State University
Purchasing Department
Mary J Pasquinelli, Sr. Purchasing Agent
301 University Hall
3640 Colonel Glenn Highway
Dayton, OH 45435

COMPLETE AND RETURN THIS PROPOSAL STATEMENT

Please submit one (1) original with one (1) Microsoft Word file of the proposal on a CD and one (1) email delivered as Microsoft Word attachments. The email copy should be sent to peter@OhioLINK.edu

The undersigned proposer, in response to your Invitation to Negotiates for the above named project, having examined the ITN documents and the site, and being familiar with the conditions surrounding the proposed project, hereby proposes to provide databases as described herein in an acceptable professional manner equal to or exceeding industrial practices in the marketplace.

Proposer understands that the University reserves the right to reject any and all proposals, make partial awards, or waive irregularities or technicalities in any proposal, and to accept any proposal in whole or in part which ever is deemed to be in its best interest.

Proposer agrees that the offer(s) contained in its proposal may not be withdrawn for a period of one hundred eighty (180) calendar days after "due date" of the proposals.

Proposer hereby certifies: (a) that this proposal is genuine and is not made in the interest or on behalf of any undisclosed person, firm, or corporation; (b) that proposer has not directly or indirectly included or solicited any other firm to put in a false or sham proposal; (c) that firm has not solicited or induced any person, firm, or corporation to refrain from sending a proposal.

Date: _____

Name of Firm: _____

Corporate mailing address: _____

                                 _____

                                 _____

Name of Principal Officer: _____

Title of Principal Officer: _____

Corporation organized under the laws of: _____
                                                State

Number of years in business: _____ Years

Number of employees on staff: Full Time_____ Part Time_____

Person to contact regarding this proposal:

Signature: _____

Print: _____

Title: _____

Telephone: (   )_____ Fax: (   )_____

22. <u>**VENDOR RESPONSE FORM**</u>

INSTRUCTIONS FOR COMPLETING THE VENDOR RESPONSE FORM

Vendor will complete the following response form for each item and provide corresponding commentary as noted below.

22.1 General Requirements for Responses:
22.1.1 Respond with a check in the "Yes" column if you provide the feature.
22.1.2 Respond with a check in the "No" column if you do not provide the feature.
22.1.3 Respond with a check in the "Dev" (Under Development) column if the feature is in development or scheduled for development.
22.1.4 Respond with a check in the "Com" (Comments included below) column if you include comments.
22.1.5 Comments are encouraged on any necessary explanation of any feature.
22.1.6 Comments are optional for "Yes" and "No" replies.
22.1.7 Comments are required for "Dev" (Under Development) replies. Please comment on the nature of the feature, how it is planned to work, any actual or potential development partners, and an estimated deployment timeline. Development partners could include a variety of organizations, including but not limited to commercial vendors, consortia, cooperatives, and the OhioLINK technical staff.
22.1.8 Enter comments for Section 22.2 at the bottom of the "Specific Features" table. Add as many table rows as are needed. Label each comment with the ITEM#.
22.1.9 Unless additionally directed, in sections 22.3 through 22.9 insert your response on the line labeled "n.nResponse" immediately below the item itself.

VENDOR RESPONSE FORM

MUST BE RETURNED WITH RESPONSE

OhioLINK – Discovery Layer

Please place your Company Name and Date as footer on this document. The table cells will expand as needed to hold the text entered.

A.   Contact Information

Company Name:	
Mailing Address:	
Company Representative:	
Email Address:	
Telephone Number(s):	
Date:	

22.2 Specific Features:

ITEM #	ITEM	Yes	No	Dev	Com
1	**Major Component: Unified Index**				
1.1	The system accepts and integrates records from all data sources.				
1.2	The system supports these harvesting standards:				
1.2.1	OAI-PMH				
1.2.2	RSS/AtomPub				
1.2.3	Full replacement XML files				
1.2.4	Incremental XML files				
1.2.5	Other harvesting standard [comments required]				
1.3	The system supports these input metadata standards:				
1.3.1	MARC/MARCXML				
1.3.2	Dublin Core				
1.3.3	XML with arbitrary schema				
1.4	The system provides faceting ability.				
1.4.1	The system generates facets based on data in records.				
1.4.2	The system supports delivery resolver availability data embedded into facet(s).				
1.5	Record transformation.				
1.5.1	The system de-duplicates records from multiple sources.				
1.5.2	The system creates FRBR work sets.				
1.6	Indexing.				

1.6.1	The system employs a strong relevance algorithm across all metadata.				
1.6.2	The system provides the ability to search all metadata fields.				
1.7	Search query syntax:				
1.7.1	Fielded searching (e.g. title keyword)				
1.7.2	Left-anchored string searching (i.e. "field starts with")				
1.7.3	Boolean and proximity searching (and, or, not, near, phrase)				
1.7.4	Pre-limit by multiple facets				
1.7.5	Copy and paste citation searching				
1.7.6	Scope search results by source database name				
1.8	User interface support:				
1.8.1	The system supplies index-suggested terms to the user interface application for misspelled words/phrased				
1.8.2	The system supplies index-suggested terms to the user interface application for partial word/phrase entry				
1.8.3	The systems indexes and searches end-user-supplied tags just like it indexes and searches other metadata				
1.8.4	The systems indexes and searches end-user-supplied reviews just like it indexes and searches other metadata				
1.8.5	For subject and name searches, provides cross-references to established terms and name-forms from related terms and name-forms. (Controlled vocabulary)				
1.9	External exposure. System data can be accessed by:				
1.9.1	OAI-PMH				
1.9.2	XML gateways				
1.9.3	API. Explain API functionality [comments required]				
1.10	Search functionality				
1.10.1	All search fields and indexing configurable by local administrator				
1.10.2	Configurable set of fields included in default search				
1.10.3	Additional fields (beyond default) searchable by user request				
1.10.4	Auto-search for synonyms/related terms				
1.11	Administrative component.				
1.11.1	Describe the administrative component(s) of this module, taking care to distinguish between any central and local portions. [comments required]				
2	**Major Component: Federated Search Engine**				
2.1	The system supports these real-time external searching standards:				
2.1.1	SRU/SRW				
2.1.2	Opensearch				
2.1.3	Z39.50 (preferably SRU)				
2.1.4	Other [comments required]				
2.2	Presents results in a machine-readable format to the user interface.				
2.3	Calculates/resolves a persistent identifier for each record retrieved through the federated search engine				
2.4	Local site administration of local federated search database targets				
2.4.1	Local specification of total target set.				
2.4.2	Local specification of default target set.				
2.5	Search functionality:				

2.5.1	All search fields and indexing configurable by local administrator.				
2.5.2	Configurable set of fields included in default search				
2.5.3	Additional fields (beyond default) searchable by user request				
2.5.4	Auto-search for synonyms/related terms				
2.6	Administrative component.				
2.6.1	Describe the administrative component(s) of this module (beyond item 2.4) taking care to distinguish between any central and local portions. [comments required]				
3	**Major Component: User Interface**				
3.1	The system can determine the user's institution based on:				
3.1.1	IP address range of browser				
3.1.2	Patron authentication [comments required]				
3.2	Interface style/branding based on user's institution.				
3.2.1	Style/branding configurable by local administrator.				
3.2.2	Describe how you would provide local institutional branding on a system that was completely centralized. [comments required]				
3.2.3	Describe how you would provide local institutional branding on a system that included local components at member sites. [comments required]				
3.3	Scope search requests to unified index and federated search engine based on user's institution				
3.4	Search input				
3.4.1	Single input box with simple search like Google				
3.4.2	Advanced search option with multiple boxes and drop-downs for Boolean and field selection.				
3.5	Search operator functionality comparable to search engines like Google (esp booleans)				
3.6	End-user can select/de-select target databases.				
3.7	Suggest terms/spellings for low result searches based on unified index content				
3.8	Offer on-the-fly drop-down search string completion based on unified index content				
3.9	Search unified index				
3.10	In the background, repeat search in federated search tool				
3.10.1	By default, display federated search results below unified index results.				
3.10.2	Upon user request, integrate unified index and federated search results into single display.				
3.11	Faceted browsing of search results				
3.11.1	Facets collapsible by user				
3.11.2	Collapsed facets persist for session or until changed by user				
3.11.3	Single facet can be removed from search by end-user				
3.11.3.1	Single facet can be removed from search breadcrumb trail.				
3.11.4	End-user can exclude facets (e.g. "no books", "no biology articles", etc.)				
3.11.5	Facets display the number of results				
3.11.6	Facets are echoed to user as they're added				
3.12	Tagging				
3.12.1	System-generated tags				
3.12.2	User-generated tags				

3.12.2.1	Describe input of end-user tags. [comments required]				
3.12.2.2	Describe searching of end-user tags. [comments required]				
3.12.3	External sources for tags (e.g. imported from Library Thing) [comments required]				
3.12.4	Variety of tag functions:				
3.12.4.1	Tag cloud				
3.12.4.2	List of tags in record				
3.12.4.3	Other tag treatment [comments required]				
3.12.5	Tag cloud serves as limiter for search results				
3.12.6	Tag list within records to provide further searching				
3.12.7	Push end-user-supplied tags into the indexing				
3.13	Ratings and reviews				
3.13.1	User-generated comments or rankings (e.g.number of stars)				
3.13.1.1	Describe input of end-user comments or rankings. [comments required]				
3.13.1.2	Describe searching of end-user comments or rankings. [comments required]				
3.13.2	Imported from external sources (such as Amazon, Choice...) [comments required]				
3.13.3	Reviews available via export or API				
3.13.4	Searchable end-user-supplied reviews				
3.13.5	Review content indexed along with all other metadata				
3.14	Similar items function based on other metadata "If you like this book, see also…" [comments required]				
3.15	Similar items function based on other user activity "Other users who searched for this…" [comments required]				
3.16	Sort results by:				
3.16.1	Relevance				
3.16.2	Date Published				
3.16.3	Author				
3.16.4	Title				
3.16.5	Other				
3.17	Individual "permanent" URL for each item				
3.18	Book jacket, cover art, liner etc., catalog enhancement support.				
3.19	Icons representing format.				
3.20	Display several newest titles added that are relevant to search				
3.21	Link to free search w/in book services (e.g. Amazon, Google Book Search)				
3.22	Visual representation of search results/facets				
3.23	Atom/RSS updates to query string results				
3.24	Storing searches within sessions				
3.24.1	Multiple (nested) folders for storing sets.				
3.24.2	End-user can perform boolean operations (AND, OR and NOT) on sets.				
3.24.3	End-user can store results within session.				
3.25	Export options:				
3.25.1	Email				
3.25.2	Print				

3.25.3	Download/Save				
3.25.4	Export for Bibliographic Utility [comments required]				
3.25.5	RIS export format				
3.26	Customization of search results:				
3.26.1	User-selected facets for prominent display				
3.26.2	User-selected level of results list detail				
3.26.3	User controlled # of records displayed per screen				
3.27	Allow option to show-OhioLINK-holdings-info-by-default				
3.28	Allow option to show-number-of-available-copies				
3.29	User account functions:				
3.29.1	Support Shibboleth for authentication and identification.				
3.29.2	Save search query strings.				
3.29.3	Set up search alerts based on saved search query strings.				
3.29.3.1	User-specified timing of search.				
3.29.4	Save results from search queries.				
3.29.5	Save customized search results.				
3.29.6	Capacity for private/personal tags, and to share personal tags with other users				
3.29.7	User account space for notes.				
3.29.8	Public sharing of:				
3.29.8.1	Saved searches				
3.29.8.2	Saved results				
3.29.8.3	Saved tags				
3.30	External interaction:				
3.30.1	Administrator can create HTML 'search widget'				
3.30.2	Administrator can create browser search engine plug-in				
3.30.3	Administrator can create browser toolbar (e.g. Conduit.com)				
3.30.4	Pass-through of searches from local catalogs				
3.30.5	COiNS standard supported in HTML of search result displays				
3.30.6	Enable generation of PCIRC request				
3.31	Use statistics:				
3.31.1	Compatible with COUNTER				
3.31.2	Compatible with SUSHI				
3.31.3	Compatible with ICOLC				
3.31.4	Log files:				
3.31.4.1	User location/affiliation.				
3.31.4.2	Resources used.				
3.31.4.3	Databases used.				
3.31.4.4	Usage levels of each search feature.				
3.31.4.5	Usage levels of each search feature that yields successful results.				
3.32	Administrative component.				
3.32.1	Describe the administrative component(s) of this module taking care to distinguish between any central and local portions. [comments required]				

4	**Major Component: Delivery Resolver**				
4.1	Provide access to full-text when possible. (openURL) [comments required]				
4.2	Enable PCIRC. (self-service consortial borrowing) [comments required]				
4.3	Links to local services [comments required]				
4.4	Administrative component.				
4.4.1	Describe the administrative component(s) of this module taking care to distinguish between any central and local portions. [comments required]				
5	**Capacity/Scalability (all components)**				
5.1	Report your largest implementation in terms of number of records [comments required]				
5.2	Report your largest implementation in terms of number of simultaneous users [comments required]				
6	**Proposed System Performance**				
6.1	The proposed system will operate so that 95% of the responses to a simple inquiry (e.g. author's name or title words) would be completed in five seconds. System response time is defined as the time from when the Respondent's system receives a signal to the time it generates a response.				
6.2	Describe recent typical *average* and *median* response times experienced by users for different types of searches, responses, and Internet network conditions that would typically be available to OhioLINK libraries. [comments required]				
6.3	Respondent can provide 98% availability based upon 24/7 x 365.				

Enter Feature # below	---------- **Comments [See instructions in section 22.I]** ----------------------------	----	----	----	----

22.3 Nature of installation.

Please describe the nature of the system installation that you propose.   Do you propose…

7.1	a hosted solution?
7.1 Response	
7.2	a solution installed entirely at OhioLINK?
7.2 Response	
7.3	a solution installed at individual OhioLINK institutions?
7. 3Response	
7.4	some combination of these options?
7.4 Response	
7.5	something else?
7. 5Response	

22.4 Pricing

8.1	Total cost
8.1 Response	
8.2	Itemized costs for individual components of the system. [Whether or not you propose a complete solution, please submit itemized pricing per component.]
8.2 Response	
8.3	Price structure – explain fixed and variable costs
8.3 Response	
8.4	Recurring costs
8.4 Response	
8.5	Cost for ongoing support
8.5 Response	
8.6	Will you provide any third-party commercial components that we might provide ourselves at a lower cost? For example, we may be able to purchase software licenses more cheaply on state contract. Please offer detail on any and all such third-party components, including product, version, licensing requirements, and price.
8.6 Response	
8.7	Please provide any local institutional costs outside of a general OhioLINK price, for example, variable costs depending on the number of research database subscriptions at local institutions, number of end-user accounts, etc.
8.7	

Response	
8.8	Please provide any pay-to-play basis costs, that is, the average customer price for individual OhioLINK institutional customers, if your proposal includes such costs.
8.8 Response	
8.9	Please explain any other costs not yet addressed.
8.9 Response	

22.5 Secondary Evaluation Elements

9.1	Describe your development/deployment timeline.
9.1 Response	
9.2	Would you work with OhioLINK as a development partner?
9.2 Response	
9.3	Describe your enhancement process.
9.3 Response	
9.4	Can you provide a full-feature trial site?
9.4 Response	
9.5	List start and end dates for trial.
9.5 Response	
9.6	List contact information for vendor staff who would arrange trial.
9.6 Response	
9.7	Can you provide a full-feature trial using OhioLINK data?
9.7 Response	
9.8	Can your staff provide an on-site demonstration at OhioLINK?
9.8 Response	

22.6 Support for Contract

10.1	If any portion of your solution is hosted, describe how you would notify OhioLINK staff and users of access or outage problems.
10.1 Response	
10.2	If any portion of your solution is hosted, would technical support be available to OhioLINK staff? Describe the support schedule hours.
10.2 Response	
10.3	If any portion of your solution is hosted, would technical support be available to staff at individual libraries? Describe the support schedule hours.
10.3 Response	
10.4	If any portion of your solution is hosted, would technical support be available to end-users? Describe the support schedule hours.
10.4 Response	
10.5	If your solution is not hosted, please describe what kind of technical support would be available to OhioLINK staff? Describe the support schedule hours.

10.5 Response	
10.6	Describe any other support issues not addressed above.
10.6 Response	

22.7 <u>Training</u>

11.1	Would you include onsite-training sessions at locations in Ohio as part of the proposed price quote?
11.1 Response	
11.2	Describe the proposed training, including number of onsite sessions at locations in Ohio that would be available to OhioLINK libraries as included in the price quote.
11.2 Response	
11.3	Is an online tutorial available to library staff ?
11.3 Response	
11.4	Is an online tutorial available to end-users?
11.4 Response	
11.5	Is online documentation available to library staff?
11.5 Response	
11.6	Is online documentation available to end-users?
11.6 Response	
11.7	Describe any pricing associated with any elements of training described above.
11.7 Response	

22.8 <u>Licensing</u>

12.1	Indicate with a reply of "Yes" that you have attached a copy of your standard licensing agreement.
12.1 Response	
12.2	If participating OhioLINK libraries or regional systems already own, lease, or subscribe to your proposed product that is selected for the OhioLINK solution, would you provide those libraries compensation for the remaining balance of their contracts?
12.2 Response	
12.3	If a library or regional included in a subsequent agreement with you already owns, leases, or subscribes to all or a portion of your proposed product, describe the method through which those customers would receive compensation for the remaining balance of their contracts. Could they get a credit or a refund at their option?
12.3 Response	
12.4	Confirm with a reply of "Yes" that nothing in the your licensing agreement would restrict the "fair use" rights of a participating library provided by statute in 17 U.S.C.
12.4 Response	

22.9 <u>Current Ohio Customers</u>

13.1	Indicate with a reply of "Yes" that you have attached a list of current Ohio customers and the product that each customer uses.
13.1 Response	

23. AUTHENTICATION OF PROPOSAL

By submitting this proposal, Contractor verifies that there has been no collusion with any other proposer or planned attempt to limit competition by artificially inflating or fixing pricing. Contractor also verifies that it intends to offer services at the level specified herein and does not intend to provide substandard services which are unacceptable to the industry.

24. CONFLICT OF INTEREST

Furthermore, by submission of its proposal, the Proposer certifies that no known relationship exists between the Proposer, its employees, owners, officers or shareholders and Wright State University, its employees or any member of their families. The Proposer must make full disclosure of any known relationship or potential conflict of interest.

25. OHIO REVISED CODE 9.24

Ohio Revised Code (O.R.C.) Section 9.24 effective January 1, 2004, prohibits the State from awarding a contract to any offeror(s) against whom the Auditor of State has issued a finding for recovery if the finding for recovery is "unresolved" at the time of award. By submitting a proposal, offeror warrants that it is not now, and will not become subject to an "unresolved" finding for recovery under O.R.C. 9.24, prior to the award of any contract arising out of this ITN, without notifying the University of such finding.

BY signature authority below, I do hereby confirm on behalf of the contractor that this proposal is genuine and has been prepared by an authorized agent of the company and that the company does not have any findings for recovery as noted above to the State of Ohio as witnessed below:

_____
Name

_____
Title

26. <u>BUY AMERICA / BUY OHIO</u>

PLEASE COMPLETE AND INCLUDE THE FOLLOWING THREE (3) PAGES WITH YOUR PROPOSAL

Page 1
(Proposal Attachment)

BUY AMERICA / BUY OHIO

<u>PREFERENCE TO UNITED STATES AND OHIO PRODUCTS:</u>

State of Ohio AM. H.B. 271 requires that preference be given to products produced or mined in the United States and in Ohio.

A.   BUY AMERICA

Bids will be evaluated to determine that a Bidder's offering is for a "Domestic Source End Product," as defined in the Federal Buy America Act., 21 U.S.C.A., Section 10a-10d. Any Bidder's offering that does not meet this requirement shall be rejected, except in those circumstances where a determination has been made that certain articles, materials and supplies are not mined, produced, or manufactured in the U.S., in sufficient and reasonably available commercial quantities and of a satisfactory quality.

B.   BUY OHIO

   1.   Following the above determination, all remaining bids and quotations shall be evaluated so as to give preference to Ohio bids or bidders who are located in a border state, provided that the border state imposes no greater restrictions than contained in Sections 125.09 and 15.11 of the Ohio Revised Code.

   2.   Ohio products are defined as products mined, excavated, produced, manufactured, raised or grown in the state by a person where the input of Ohio products, labor, skill, or other services constitutes no less than 25% of the manufactured cost.

   3.   Bidders having a significant Ohio economic presence in terms of the numbers of employees or capital investment a bidder has in the state, shall qualify for award of contract on the same basis as if their products were produced in Ohio.

   4.   Where it has been determined that selection of the lowest Ohio bid, if any, will not result in an excessive price or a disproportionately inferior produce or service, the contract shall be awarded to the low Ohio bid at the bid price quoted. Where it is advantageous to award the contract to other than an Ohio bid or bid from a border state, then the contract shall be awarded accordingly. ("Excessive Price" shall be construed to mean a price that exceeds by more than five percent (5%) the lowest price submitted on a non-Ohio bid).

C.   HOW TO QUALIFY UNDER THESE PROGRAMS:

   To qualify for the domestic Ohio preference (Buy Ohio), or to qualify as having significant Ohio economic presence, pursuant to Sections 125.09 and 125.11 of the Ohio Revised Code and Section 123:5-1-26, of the Ohio Administrative Code, bidders must complete the information on the attached form and return it with their bid.

BUY AMERICA CERTIFICATION

The bidder hereby certifies that each product offered in this bid response is a domestic source end product pursuant to Sections 125.09 and 125.11 of the Ohio Revised Code and Section 123:5-1-26 of the Ohio Administrative Code, and the Federal "Buy America Act" and corresponding rules thereto. Exceptions are as follows:

Item _____   Mfg. Location _____

Item _____   Mfg. Location _____

Item _____   Mfg. Location _____

CERTIFIED: _____
                        (Name)

                       _____
                        (Title)

CERTIFICATION FOR BUY OHIO/SIGNIFICANT OHIO ECONOMIC PRESENCE

Failure to complete this form will result in the bidder receiving no consideration for Buy Ohio or Buy America preference.

1. Do you have facilities within Ohio?   ____ (yes) ____ (no)

    Type of facilities: ____ Sales Offices
                                       ____ Manufacturing
                                       ____ Other

    Please specify if "other" _____
    _____

2. Do you pay taxes due the State of Ohio?   ____ (yes) ____ (no)

3. If the bidder is a corporation, are you
        Registered with the Secretary of State?   ____ (yes) ____ (no)

4. Are products offered in this bid
        Manufactured in Ohio?   ____ (yes) ____ (no)

5. If applicable, are the products offered
        Mined in Ohio?   ____ (yes) ____ (no)

6. Are your products located in a border
        State that poses no greater restrictions
        Than those contained in Sections 125.09
        And 125.11 of the Ohio Revised Code?   ____ (yes) ____ (no)

27. **DECLARATION REGARDING MATERIAL ASSISTANCE/NON ASSISTANCE TO A TERRORIST ORGANIZATION**

Company hereby represents and warrants to Agency that it has not provided any material assistance, as that term is defined in O.R.C. Section 2909.33(C), to any organization identified by and included on the United States Department of State Terrorist Exclusion List and that it has truthfully answered "no" to every question on the 'Declaration Regarding Material Assistance/Non-Assistance to a Terrorist Organization.' Contractor further represents and warrants that it has provided or will provide such to Agency prior to execution of this Agreement. If these representations and warranties are found to be false, this Agreement is void "ab initio" and Contractor shall immediately repay to Agency any funds paid under this Agreement.

PLEASE COMPLETE THE ATTACHED FORM AND INCLUDE WITH YOUR RESPONSE.

READ BEFORE COMPLETING YOUR DMA FORM

Forms not conforming to the specifications listed below or not submitted to the appropriate agency or office will not be processed.

- To complete this form, you will need a copy of the Terrorist Exclusion List for reference. The Terrorist Exclusion List can be found on the Ohio Homeland Security Web site at the following address:

  http://www.homelandsecurity.ohio.gov/dma.asp

- Be sure you have the correct DMA form. If you are applying for a state issued license, permit, certification or registration, the "State Issued License" DMA form must be completed (HLS 0036). If you are applying for employment with a government entity, the "Public Employment" DMA form must be completed (HLS 0037). If you are obtaining a contract to conduct business with or receive funding from a government entity, the "Government Business and Funding Contracts" DMA form must be completed (HLS 0038). The Pre-certification form (HLS 0035) should only be completed if you are specifically instructed to do so by the agency or office requesting the form.

- Your DMA form is to be submitted to the issuing agency or entity. "Issuing agency or entity" means the government agency or office that has requested the form from you or the government agency or office to which you are applying for a license, employment or a business contract. For example, if you are seeking a business contract with the Ohio Department of Commerce's Division of Financial Institutions, then the form needs to be submitted to the Department of Commerce's Division of Financial Institutions. Do NOT send the form to the Ohio Department of Public Safety UNLESS you are seeking a license from or employment or business contract with one of its eight divisions listed below.

- Department of Public Safety Divisions:
  Administration
  Ohio Bureau of Motor Vehicles
  Ohio Emergency Management Agency
  Ohio Emergency Medical Services

  Ohio Homeland Security*
  Ohio Investigative Unit
  Ohio Criminal Justice Services
  Ohio State Highway Patrol

- * DO **NOT** SEND THE FORM TO OHIO HOMELAND SECURITY UNLESS OTHERWISE DIRECTED. FORMS SENT TO THE WRONG AGENCY OR ENTITY WILL NOT BE PROCESSED.

*************************** **FOR INSTRUCTIONAL USE ONLY** ***************************

HLS 0038 8/06

Page 1 of 3

OHIO
PUBLIC
SAFETY
EDUCATION · SERVICE · PROTECTION

Ohio Department of Public Safety
DIVISION OF HOMELAND SECURITY
http://www.homelandsecurity.ohio.gov

GOVERNMENT BUSINESS AND FUNDING CONTRACTS
In accordance with section 2909.33 of the Ohio Revised Code

DECLARATION REGARDING MATERIAL ASSISTANCE/NO ASSISTANCE TO A TERRORIST ORGANIZATION
This form serves as a declaration of the provision of material assistance to a terrorist organization or organization that supports terrorism as identified by the U.S. Department of State Terrorist Exclusion List (see the Ohio Homeland Security Division Web site for reference copy of the Terrorist Exclusion List).

Any answer of "yes" to any question, or the failure to answer "no" to any question on this declaration shall serve as a disclosure that material assistance to an organization identified on the U.S. Department of State Terrorist Exclusion List has been provided. Failure to disclose the provision of material assistance to such an organization or knowingly making false statements regarding material assistance to such an organization is a felony of the fifth degree.

For the purposes of this declaration, "material support or resources" means currency, payment instruments, other financial securities, funds, transfer of funds, and financial services that are in excess of one hundred dollars, as well as communications, lodging, training, safe houses, false documentation or identification, communications equipment, facilities, weapons, lethal substances, explosives, personnel, transportation, and other physical assets, except medicine or religious materials.

COMPLETE THIS SECTION ONLY IF YOU ARE AN INDEPENDENT CONTRACTOR

LAST NAME		FIRST NAME		MI
HOME ADDRESS				
CITY	STATE	ZIP	COUNTY	
HOME PHONE		WORK PHONE		

COMPLETE THIS SECTION ONLY IF YOU ARE A COMPANY, BUSINESS OR ORGANIZATION

LAST NAME		FIRST NAME		MI
BUSINESS/ORGANIZATION NAME			PHONE	
BUSINESS ADDRESS				
CITY	STATE	ZIP	COUNTY	

DECLARATION
In accordance with section 2909.32 (A)(2)(b) of the Ohio Revised Code
For each question, indicate either "yes," or "no" in the space provided. Responses must be truthful to the best of your knowledge.

1. Are you a member of an organization on the U.S. Department of State Terrorist Exclusion List? ☐ Yes ☐ No

2. Have you used any position of prominence you have with any country to persuade others to support an organization on the U.S. Department of State Terrorist Exclusion List? ☐ Yes ☐ No

3. Have you knowingly solicited funds or other things of value for an organization on the U.S. Department of State Terrorist Exclusion List? ☐ Yes ☐ No

4. Have you solicited any individual for membership in an organization on the U.S. Department of State Terrorist Exclusion List? ☐ Yes ☐ No

5. Have you committed an act that you know, or reasonably should have known, affords "material support or resources" to an organization on the U.S. Department of State Terrorist Exclusion List? ☐ Yes ☐ No

6. Have you hired or compensated a person you knew to be a member of an organization on the U.S. Department of State Terrorist Exclusion List, or a person you knew to be engaged in planning, assisting, or carrying out an act of terrorism? ☐ Yes ☐ No

In the event of a denial of a government contract or government funding due to a positive indication that material assistance has been provided to a terrorist organization, or an organization that supports terrorism as identified by the U.S. Department of State Terrorist Exclusion List, a review of the denial may be requested. The request must be sent to the Ohio Department of Public Safety's Division of Homeland Security. The request forms and instructions for filing can be found on the Ohio Homeland Security Division Web site.

CERTIFICATION

I hereby certify that the answers I have made to all of the questions on this declaration are true to the best of my knowledge. I understand that if this declaration is not completed in its entirety, it will not be processed and I will be automatically disqualified. I understand that I am responsible for the correctness of this declaration. I understand that failure to disclose the provision of material assistance to an organization identified on the U.S. Department of State Terrorist Exclusion List, or knowingly making false statements regarding material assistance to such an organization is a felony of the fifth degree. I understand that any answer of "yes" to any question, or the failure to answer "no" to any question on this declaration shall serve as a disclosure that material assistance to an organization identified on the U.S. Department of State Terrorist Exclusion List has been provided by myself or my organization. If I am signing this on behalf of a company, business or organization, I hereby acknowledge that I have the authority to make this certification on behalf of the company, business or organization referenced on page 1 of this declaration.

X _____   _____
APPLICANT SIGNATURE   **DATE**