Talk Amongst Yourselves

Improving System-to-System Communication to Speed Request Processing

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For an analogy, I settled on the phone system because in many ways:

Our current library systems communicate like the Bell System, it works but it’s mostly built on old cumbersome technologies. Analog ones, with wires

But we now have options to move to the equivalent of digital technologies. Wireless
Putting the Pieces Together

This is a Process for patrons and staff.

A before B, followed by C.
Discovery Layers

Patrons discovery materials in a wide variety of places and ways.

Discovery layers tend to be subject specific or location specific:

✓ subject specific databases (PubMed) or
✓ local holdings information (catalog), i.e., what your library owns

I found it. Now how do I get it if I can’t just click a link?
OpenURL

Allows us to bridge between systems:

Patrons can populate forms with data from one library system (discovery) to another (delivery)

But this can only send information one way and we still have separate systems.

http://www.centurylink.com/wholesale/img-lnp_s57.gif
ILLiad

Manages the delivery process and allows staff to process requests from multiple order and deliver systems. But we’re still calling directory assistance.

Addons automate work, particularly Server Addons

These provide very powerful tools to do things

But since OCLC is introducing Tipasa, further ILLiad development is curtailed. We are at the end of the line so to speak.
IDS Logic/Relais Web Services/Alma Request API

These work via Server Addons in ILLiad to route request automatically.

**IDS Logic** - the glue that holds the interoperability together, it does what other systems don’t or can’t. Its work equals a full-time staff position.

**Relais Web Services** - allow unmediated searching and requesting of on-shelf materials from our consortia and routing to OCLC if needed. We run a full 35% of our total ILL loan borrowing request through these.

**Alma Request API** - places a hold for locally available loanable copy.

Again, Server Side Addons are very powerful tools both for what we can do with them now and as an indication of how future modular development can happen.
Patron submits Loan Request

IDS Logic Borrowing Availability checks Alma via Z39.50 for loanable local copy

- Yes
- No

IDS copies Alma MMSID copied into ILLiad

- Yes
- No

ILLiad Server Addon uses Alma Request API to place a Local Hold. ILLiad request closed.

ILLiad Routing Rule determines if the Request Contains an ISBN?

- Yes
- No

Request Routed to Custom Queue named UBorrow Find Item Search

ILLiad Server Addon runs and searches UBorrow via Relais Availability Web Services

Thus - Multiple Records Returned with availability

- Yes
- No

No available copies?

- Yes
- No

Single Match Found?

- Yes
- No

Addo routes Request to Awaiting Direct Request Sending and request is sent out unmediated

Addo routes Request to Awaiting OCLC Sending and request is sent out unmediated

Automated Loan Request Processes and Programs used at Northwestern University

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ILLiad to Alma NCIP

NCIP is a protocol that handles circulation of ILL in the local LSP.

Borrowing loan requests- everything is handled locally so easy for staff, easy for patrons.

Lending loan requests- 50% reduction in work, no more update ILLiad, checkout in local LSP.

We leverage the local circulation system to do what it does best, manage circulations because this is just easier and a better use of system functionality.
ILLiad in Primo

Links to External Systems & Choices

Again - Links to External Systems, not Shared Functionality

Check ILL@NU
Check ILL@NU
It works, yes. But it’s not elegant or scalable

Again. Our current library systems communicate like the Bell System, it worked but it’s analog technologies were cumbersome. Trunk lines anyone?

Caller ID Box? ->
Preferred and Better Future

Leveraging contemporary tools to build the future discovery to delivery system.

Can we do it?

Yes we can!

And we don’t even need Bob, the builder man. ->

https://upload.wikimedia.org/wikipedia/en/c/c5/Bob_the_builder.jpg
Patron Focused Workflow

Our current systems are based upon communication between library staff systems upon which we have duct taped system-specific patron interfaces.

But if we make the patron the center of this (as it should be anyway) and we rethink processes from that direction, we can both shield patrons from learning our staff systems and leverage these tools more effectively to make our jobs easier too.

We need a Resource Delivery Management System or Suite.
A Patron Dashboard

✓ Everything they need in one place.
✓ They can manage everything in one place.
✓ Do everything they need to in one place.
✓ It’s their tool, not the tip of some library system iceberg.
Integrated Smart Management

**Smart Fulfillment** (*noun*): a unified patron interface including expanded request management functionality that leverages library, identity management and tracking systems interoperability to automate and simplify request processing and item provisioning.

How do we get here? What pieces need to fit together? Do we have them? Do we just need to put them together differently?

Yepper!
APIs to rule the world

We have, or have in development, tools that allow systems to talk and listen to each other thus we can streamline work and automate it better.

To continue the phone analogy, we can move from a land line to just a cellphone.

Which gives us the ability to things we could not do before like provide Amazon-like “where’s my stuff” shipping info or use our University Identity Management systems to get patron addresses or display all of a patron’s requests and circulations in a single interface.
**Envisioned Loan Request Workflow**

**Inputs**
- Local Catalog
- Databases (WorldCat, PubMed, Amazon)
- Formatted Citation Lists, bibliographies
- Get It Button

**Resource Delivery Management System**
Tracks and manages requests by calling external systems via APIs and protocols to update statuses and route requests.

**Patron Dashboard**
- Displays all requests (Local loans, ILL, Doc Del)
- Displays real time request statuses
- Request options (download, renew, cancel, etc.)
- Completed Requests

**Local LSP**
- Provide Patron Information
- Manage Loans
- Send notifications

* Local availability includes shared consortial catalogs where applicable. † If used.

**Next Tool**
Envisioned workflow for ALL!

✓ We leverage individual systems to do what they do best.

✓ API calls to other systems populate the patron’s view.

✓ APIs do the work that computers can do for us.

✓ We do the work we need to, microforms, journal issues?

✓ Intersystem communication replaced rekeying.

✓ Seamless.
Next Generation Discovery to Delivery Systems: a Vision

Our Vision
We envision a future state where system interoperability and communication replace today’s silos. Local identity management systems authenticate patrons and display appropriate available services to them in the discovery layer(s) while request placement and routing is managed by back office platforms communicating between each other using library defined automated routing, APIs and other tools or protocols. In our vision, a unified single patron interface displays all loans, requests, and fees regardless of which library backend system manages or fills the request. Patrons choose when and how they receive communications regarding request statuses and item transit updates.

In closing

Per my sister- “Best convo with my brother...ever...”
Questions

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