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User Journey of Migrating to FOLIO, Open Athens, and New EBSCO Discovery UI

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User Journey of Migrating to FOLIO, Open Athens, and New EBSCO Discovery UI

Abstract

Emporia State University (ESU) Libraries and Archives made the decision to switch from Sierra and EZProxy to EBSCO hosted FOLIO and OpenAthens. ESU also upgraded to the new EDS UI at the same time. While there were a few challenges with migration ESU Libraries and Archives has seen a great benefit to not only help the efficiency of the library, but in supporting its students and faculty by migrating and upgrading to the new systems.

Keywords

Library management software, migration, upgrade, proxy, FOLIO, OpenAthens, EZProxy, Sierra, information technology, academic library

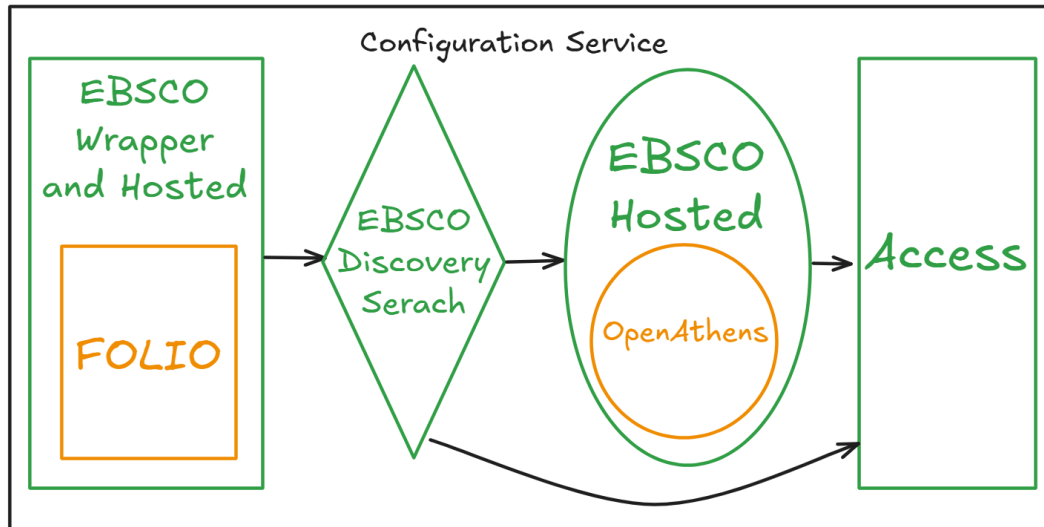
BACKGROUND

ESU is a D-2 university located in Emporia, KS. The library supports approximately 5,000 students including undergraduate, graduate, and doctoral students. The University Library and Archives (ULA) supports multiple departments and research areas. ULA has approximately 182 databases and over half a million records for its physical collection in our LMS system.

SELECTING NEW SOFTWARE

At ESU in the fall semester of 2023, the library was interested in upgrading to FOLIO or looking at other library management software (LMS) because the libraries current LMS contract was going to end that year. The IT Librarian created a table with pros and cons for each LMS was beneficial not only for selecting which platform to go with, but it also made it easier for ULA members to see the differences and when it came time to select multiple systems. The IT Librarian conducted the same analysis for the OpenAthens vs EZProxy. This was not done for the new EBSCO Discovery Search User Interface (UI) because the ULA staff agreed that it needed to be upgraded regardless of selections for our LMS and authentication service provider.

There was opposition to migrating every service to EBSCO because ULA was putting all of its eggs in one basket. However, with the way the systems connect and the way FOLIO is maintained it creates a unique environment because the system can be looked at as separate software purchased through a vendor for software as a service (SaaS), meaning ESU pays for access to the software that EBSCO provides. However EBSCO does not entirely maintain all of the software, which makes the service look like the following diagram.

Figure 1*Example of the configuration of services*

This is an advantage because FOLIO is open-source software which is maintained by the community and EBSCO provides access and configures the cloud hosting environment, plus some other added features. Not only did it mean that ESU IT would not need to maintain the system, but, in worse case scenarios, the IT Librarian could code wanted features or help solve bugs in FOLIO through FOLIO's [GitHub](#) (n.d.). [OpenAthens](#) (n.d.) because FOLIO is a separate entity, but their software is sold and partially maintained through EBSCO (n.d.-c).

This appeared to be the best option, it would simplify the ULA tech stack (the combination of technologies used for the library's online presence) because triaging issues would have a single point of support through EBSCO Connect instead of working through a variety of vendors unless they are third party database providers. The connection between the systems is maintained by the same provider making it less likely to have compatibility issues when upgrading. There is a potential drawback to having everything in the system and in theory if the entire system went down then we would not be able to get access to the rest. This is something that needs to be considered carefully, but being hosted on Amazon Web Service (AWS) (EBSCO, n.d.-b) means there are already failover and rollback systems in place. There are disadvantages to having multiple software platforms. For example, if one upgrades and no longer supports

connection to your discovery search layer then this begins a new software or SaaS selection process.

PREPARING FOR MIGRATION

Each migration team contacted the ULA, providing a full list of team members, project roles, responsibilities, and the implementation plan. The migrations were well mapped out, each week EBSCO and ULA discussed and learned about how each service/software was handled. Depending on the week, the ULA staff would have other team members join us when discussing specific topics relevant to a member's job duties. One recommendation is to have at least one person be at all the weekly meetings so that way they can be a backup in case the team lead is out during any critical point during the migration. ESU had separate meetings for our IT team, and EBSCO met to discuss how the emailing feature and SSO (Single Sign On) would work. Since ULA moved/upgraded all three systems the ULA staff were in multiple meetings a week and had to stay on top of any issues that might arise during the implementation process. EBSCO provided each migration/update with its own Monday board which was used to keep track of where assigned tickets or action items were. This greatly helped when managing all the issues or providing progress reports to ULA staff who did not attend that week's meeting and the Dean.

A month before ULA's go live date, EBSCO started instructional training sessions. The sessions took about three days with additional special training sessions. Usually this would take a week, but since ULA decided not to integrate our existing finance, agreements, licenses, and invoices systems into FOLIO those days were removed from training. This was a great refresher for the ULA staff, who were not majorly involved during the migration process. ULA librarians and staff were able to ask more questions and address specific concerns. The training sessions were recorded, which allowed ULA staff to revisit them when needed. EBSCO provided specialized instruction sessions, which greatly helped ESU because ULA provide support and hosting in our collection for other on-site campus libraries. Not only could those on-site campus library staff get training directly from EBSCO, but it also reduced some of the workload on the ULA, which meant ULA could focus on making sure all the migration data would be correctly loaded into our system.

The migration from EZProxy to OpenAthens and upgrade to the Discovery Search had fewer meetings but had more action items associated with them. Both

started with a form that the ULA needed to complete before the migration process began. The EBSCO teams helped the ULA fill out most of the forms during the initial meetings, leaving ULA staff to collect some minor information such as URLs and standard operating procedures specific to ESU.

With the migration from EZProxy to OpenAthens ULA used the A-Z database list which was provided through the export all records feature in the LibGuides application. After exporting the list, ULA librarians discussed what databases were coming up for renewal or that would be added/removed during migration. From this discussion ULA was able to create a complete list of databases and provide that information to EBSCO's implementation team. There were some small incompatibilities between OpenAthens and existing vendors, not all could be accessed using federated access. Most of these issues were resolved by EBSCO and the IT librarian contacting the provider. However, the only one that had to be changed completely was CloudLibrary authentication. While this was not a big issue and was able to be resolved outside of OpenAthens, it is worth noting.

To help all faculty and librarians while migrating I created a Script to run in an Excel document that would convert 1000 links at a time. Replace the OLD PROXY STRING with your current proxy and then the NEW PROXY STRING with your OpenAthens one:

```
function main(workbook: ExcelScript.Workbook) {
  // Get the source and destination worksheets
  let sourceWorksheet = workbook.getWorksheet('Sheet1');
  let destinationWorksheet = workbook.getWorksheet('Sheet2');
  let i = 0;
  for (i; i < 1000; i++) {
    // Set the value to replace
    let currentCellValue = sourceWorksheet.getCell(i,0).getValue().toString();
    currentCellValue = currentCellValue.replace('OLD PROXY STRING', '');
    currentCellValue = currentCellValue + 'NEW PROXY STRING';
    destinationWorksheet.getCell(i,0).setValue(currentCellValue);
  }
}
```

CHALLENGES WITH OUR MIGRATION

For FOLIO, one of the challenges ULA faced while migrating was cleaning up old data and fixing broken/incomplete records. ULA's old LMS relied on downloading two CSV files which then had to be modified through Excel and then uploaded into Sierra for patron loading. This process was very time-consuming and prone to errors. If a comma was out of place the entire system would input new patrons with incorrect data. This only happened a few times, but these records had to be removed from the system because it caused issues in Sierra and would cause issues when migrating. It took approximately two months to clean up and correct the data. Some of this time was due to checking if the patron had any items checked out in Sierra or fines associated with the account.

ULA also had some issues with duplication of records that included barcodes and instance records that needed to be merged. Resolving this issue did not take as long as fixing users and was completed within a couple of days of each test load of our data. These consistent issues came from ULA's version of Sierra when running create list with the same query the results would return a different number of items, with no changes to any records. The IT Librarian had to repeat this process multiple times after loading our data into FOLIO. It was not difficult to locate the issue with our records because the EBSCO team provided a GitHub repository where there was a specific error file which listed which records were causing issues.

Sierra also had an update for security reasons one month before the migration date. This was a problem because ULA were going to upgrade several versions after the current live version. ULA had no guarantee that migration/upgrade would not cause issues with our extraction of data or if there were other small changes that might cause issues. To prevent these issues, the IT Librarian extracted all the required information before the Sierra upgrade. ULA had no issues with the extraction of data from the old system. ULA used KDiff3 to test the differences between the old exports and new exports.

The biggest issue with OpenAthens was setting up the ability to get emails from OpenAthens to appear in our mailboxes. This was due to the email sender coming from a third party who was blocked by our IT department. This prevented us from getting ULA staff account reset passwords and authentication login passcodes through email. Once this was resolved, ULA staff did not have any errors logging into the system. Another was the expected behavior for how our Academic

Writer access works. This issue was due to how there are two access points into Academic Writer. One for login to training and reference sections and one for logging into their own account where they have access to their own work and saved citations. To resolve this issue, ULA staff recorded a video of how patrons should be able to access different portions of the application and EBSCO was able to resolve the access issues quickly.

The EBSCO team scheduled a daily meeting to ensure that ULA could resolve any issues if they arise after the go live date. The switch lasted a couple of hours, and ULA's go live experience was extremely smooth and there were no major issues.

FEEDBACK AND POST-MIGRATION EXPERIENCE

ULA staff were able to now have a more streamlined process where they would not have to log into multiple systems to complete our day-to-day tasks. FOLIO has helped become more of a one-stop shop. With its integration into eHoldings and our configuration of the agreements, the IT Librarian was able to create custom dashboards. By doing this ULA staff were able to help our Assessment and Instruction Librarian who handles contract renewals by having a specific dashboard for upcoming renewals and the current list of State Library of Kansas resources. Each librarian has access to their own liaison area for contracts to help when assessing upcoming renewals in their area. The eHoldings section has also allowed us to see what coverage we have by title instead of having to go through EBSCO admin for duplicate coverage and assess where we have gaps in our collections or if there are different providers. ULA staff are also able to have more transparency with tracking of physical items in the system. While ESU did not implement the full business features of FOLIO, ULA staff still use agreements to track the physical periodicals ULA receives instead of manually keeping track of them in a separate spreadsheet.

ULA has also been able to automate more processes, such as patron loads which are now being done daily and no longer must be done manually by the librarians. If there are any errors, they are now handled more efficiently and do not need to be inspected by humans before adding them to FOLIO. The automatic emails and hold system have helped with reminders for our patrons and has been invaluable for ULA to keep its children's book collection easily accessible during renovations on the 3rd floor of the library. It has also helped ULA with reporting

because of the way information is sent through the URL in FOLIO. ULA staff have been able to create queries for both our circulation and inventory that can be modified by others to update the date range instead of having to manually build the lists every year. On the back-end ULA staff have been able to have more granular control of permission for our student/graduate assistant workers. This ensures that ULA can keep better control of its collection and removes the off chance of students deleting any information from the system. For resources that are harder to track like access to Academic Writer ULA staff have been able to more accurately gather usage rates through SSO statistics.

For the ESU patron side, the loading of records is almost instantaneous instead of waiting for the catalog records to load. From the instructional sessions by ULA librarians have had positive responses with easier access to features like projects saved, and recent activity. The migration has been a great way to highlight existing features, like concept maps, during these workshop sessions. Changing to OpenAthens has also helped us with enforcing copyright protections because of the automatic stopping of downloading more chapters based on the OpenAthens user downloads per individual title which has helped the ULA create conversations with our students about accessibility features that EBSCO (n.d.-a) provides like screen readers and PDF/EPUB format.

Overall, migrating the three systems was a great success. ESU ULA have been able to support students and librarians better by migrating to FOLIO, OpenAthens, and the new EDS UI.

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