Getting Ready for Alma and Discovery Implementation

The purpose of this document is to explain the requirements necessary to implement Alma and Discovery (Primo and Summon), including:

- Roles and Responsibilities
- Data migration/conversion requirements and interactions
- Training requirements
- Discovery requirements
- Appendixes for other requirements and recommendations

**Note**

- Additional technical IP and port requirements as well as authentication requirements are described in [Technical Requirements for Alma and Discovery Implementation](#).
- It is recommended that you view the [Introduction to Alma Configuration video](#) session before completing your migration form, as the mapping and migration of libraries and locations has implications for subsequent configuration.
- Alma does not support HTTP.

### Roles, Responsibilities, and Skills

**Ex Libris**

**Roles**

- Get the library up and running successfully with Alma and Discovery.
- Coordinate all activities related to Alma and Discovery implementation and perform all activities that are Ex Libris’ responsibility as detailed in the project plan (for example – data migration, configuration, training, implementation support, documentation, and so forth).

**Responsibilities**

- Allocate an expert implementation team (project manager and implementation analyst) to work with the library implementation team and deliver agreed upon services to meet the “Go Live” date.
- Perform Alma and Discovery implementation, including Alma and Discovery configuration (based on the library's input) and data migration (including the extraction of data from Ex Libris’ products).
Perform integration of the Ex Libris Discovery interface with Alma, including configuration for new Discovery customers and transition from a local installation to the hosted cloud for existing Discovery customers, as relevant.

Provide documentation and deliver the functional workshop, if applicable per contract, to the library implementation team in support of the Alma and Discovery implementation, provide detailed project plans, and coordinate testing activities with the library project manager.

Provide executive project reports and regular communication with the library project manager.

The Library

Responsibilities

• Implement Alma and Discovery within the agreed upon timeframe, according to the agreed upon contractual scope.
• Manage the internal library implementation team.
• Form a library implementation team of functional experts and appoint a project manager who serves as the primary contact for the Ex Libris project manager and manages the library implementation team.
• Test workflows end-to-end in the Alma and Discovery production environments and provide feedback to the Ex Libris implementation team concerning any necessary configuration modifications.

Alma and Discovery Project Team Roles/Skills

• Project Manager
  ○ leads and coordinates activities related to the implementation of Alma and Discovery for the institution
  ○ responsible for ensuring that institutional staff resources are available to assist as necessary
  ○ manages internal and external communications about the status and priorities of the project
  ○ keeps the project moving and on track
  ○ helps to mitigate project risks
  ○ acts as primary point of contact with the Ex Libris project manager – including the following specific activities:
    • upgrading Ex Libris’ source systems, when relevant, to a supported version prior to the Alma and Discovery implementation project and preparing the source systems for the data extract based on the requirements of the source system
    • arranging access to data and the necessary space allocation required for data extraction (Ex Libris products) or delivering data (for non-Ex Libris products)
    • managing the library implementation team in determining and reviewing migration and configuration settings
    • preparing, scheduling, and training the library staff in a timely manner and within the timeframe of the agreed upon Go Live date
    • attending project meetings

Note

Access to many Alma configuration menus in the production environment is provided to customers only after successful completion of the Alma Certification Training course and upon Go Live. During the implementation stage of the project, Alma configuration modifications are made by the Ex Libris implementation team in response to customer testing and feedback.
- reviewing project plans
- managing and overseeing the testing processes and providing feedback
- setting and communicating relevant priorities with the Ex Libris project manager

- Project Team - Functional Experts
  - Acquisitions – has overall familiarity with workflows in the current system including ledgers/funds, POs and invoices, and acquisition of print monographs and serials
  - Digital – has overall familiarity with workflows in current system including selection, acquisition, organization, and accessibility and preservation of digital resources
  - E-Resources – has overall familiarity with workflows in current system including procurement, licensing, and management of all electronic resources acquired by the institution
  - Fulfillment – has overall familiarity with workflows in the current system including patron registration and management, circulation policies, and calendars
  - Interlibrary Loan – has overall familiarity with workflows in the current system including lending and borrowing and external resource sharing management applications
  - Resource management – has overall familiarity with workflows in the current system including bibliographic and authority records, inventory, and local practices
  - Data Experts
    - Acquisitions – has full understanding of the institution’s acquisitions data including ledgers/funds, POs, and invoices
    - Digital – has full understanding of the institution’s digital repository and data
    - E-Resources – has full understanding of the institution’s electronic resources data including procurement, licensing, and management
    - Fulfillment – has full understanding of the institution’s patron and circulation data including patron import, circulation policies, and calendars
    - Interlibrary Loan – has full understanding of the institution’s policies for lending and borrowing, profiles for external resource sharing applications, and integration with NCIP
    - Resource management – has full understanding of the institution’s bibliographic, authority and inventory data, and access to external resources
    - Discovery – has full understanding of the institution’s metadata and definitions of what should be discovered and displayed to the end users in Discovery

- Public Services Staff
  - reviews the end-user systems that are impacted by Alma implementation (Discovery, MetaLib)
  - assists in planning the transition from the OPAC or former discovery layers to Discovery

Migration

As part of the move to Alma, data from your source systems may be migrated to Alma. The migration schedule is coordinated with your Ex Libris project manager and performed by Ex Libris using our Alma MigrationEngine (Alma ME) based on your contractual scope with Ex Libris. Ex Libris system migrations (for example, from Aleph, Voyager, SFX, and Verde) are performed directly on your native server and then loaded to your Alma instance. Non-Ex Libris system migrations require you to provide extracted data to Ex Libris. In this case, the conversion is done outside your native environment and then loaded to your Alma instance.
The Alma Migration Engine does not perform any data cleaning during its processing. This may be done optionally by you prior to or after migration to Alma – see Appendix B – Optional Data Preparations for some best practices for data preparation. The source data is brought over to Alma in a manner that is suitable to Alma’s workflows.

The move to Alma involves two cycles: the test load cycle close to the beginning of the implementation process and a final cutover cycle at the end of the implementation process.

**Migration Input and Guide**

Each migrated system is accompanied by a migration guide that explains the data conversion logic that applies to each area. Each migrated system may also be accompanied by a migration form that collects any decision that may be required to be made as part of the processing. Contact your Ex Libris project manager to provide you with information regarding the migration guide/form.

**Migration Scope**

The scope of your site’s migration is determined by your Ex Libris contract. As noted, there are two cycles of migration, the test load cycle and the final cutover cycle immediately preceding go-live. Therefore, any areas in scope for your site’s migration that are to be included in the final go-live migration must be provided prior to the first test migration. Any areas in scope, but not provided in time for the first test migration, are not included in the final cutover migration scope.

**Security**

As Alma and Discovery is a hosted solution, it is Ex Libris’ strong recommendation that no secure private data such as social security numbers or other sensitive information be stored or passed to Alma or Discovery. All data is transferred to the Ex Libris Alma environment via secure FTP.

Additionally, as part of implementation, any email or FTP address is anonymized/scrubbed to ensure no stray communications are sent to external parties (vendors, patrons, etc.) during testing. These addresses are unanonymized/scrubbed upon Go-Live in coordination with your Ex Libris project management team.

For information on migrating PIN codes (used primarily with self-check machines), see PIN Code Migration.

**Areas to Be Migrated Once**

There are four areas of data migration that are deeply tied to the configuration processes of Alma and are unlikely to have frequent changes. Therefore, they are only migrated from the source systems once (during the test load) and are retained like standard configuration. These areas are:

- Libraries
- Locations
- Vendors and Vendor Interfaces
- Resource Sharing Partners

For these core data areas, it is mandatory that any change done to a library, location, vendor and vendor interfaces, or resource sharing partners after the test load (at the inception of the Alma and Discovery implementation process) be done in both the source system and in Alma throughout the implementation period.

Additionally, customers who have not contracted for an acquisitions data migration can request that the Funds and Licenses entities be retained for Go-Live even though they are normally deleted and refreshed with the latest data at cutover for all data areas other than the ones noted above. The data they have entered in Alma during implementation and
do not want to re-enter post Go-Live will be retained.

If you request to retain funds, the fund codes, their structure and their allocations are retained, while encumbrances or expenditures added during implementation/testing are removed.

If you request to retain licenses, the core licenses, their terms and any attachments are retained, while any e-inventory associations are removed (since e-inventory is replaced at cutover).

**Unfulfilled Hold Requests**

Since hold requests that are not yet tied to an item and patron on a hold shelf are not migrated to Alma, it is recommended to keep the number of unfulfilled hold requests to a minimum at the time of your cutover to Alma. This keeps the amount of manual request re-creation in Alma to a minimum.

**Historical Data**

Various historical data elements may be included in migration to Alma:

- **Historical count of loans per item** (for example, an aggregate number) and most recent historical loan date. These statistics, when provided, are tightly integrated into Alma analytics reporting and may aid libraries in their continued weeding and collection development activities.

- **When acquisitions data is contracted for**, historical acquisition data (closed orders, payment info) can be migrated to Alma.

- **Full historical loan transactions** are not migrated to Alma - only active loan transactions for currently discharged items are included. However, for Ex Libris systems Aleph and Voyager, a csv report is provided during the cutover go-live period for library’s use and future reference outside of Alma.

**ILS-Managed E-Resources**

As part of the move to the unified Alma system, it is recommended to identify the electronic resources that may have been in your ILS system as physical resources, so that Alma can correctly convert them and treat these resources in the manner appropriate for electronic resources. To achieve this, it is **mandatory** to provide Ex Libris with a list of ILS system numbers that represent electronic resources and an indication if any of these electronic resources are package or database resources. Include in the list a bibliographic ID and an indication if that resource is a portfolio, package, or database.

Prepare the file in a comma delimited format, and include the following:

```
BibliographicID,TypeOfElectronicResource
```

The specific formats required for each ILS are documented in your ILS to Alma migration guide. Additionally, the document [Electronic Resource Handling in Alma Migration](#) describes the process in depth.

**Authorities**

Authority Data – The Alma Community Zone includes various global authorities to which bibliographic records can be linked (local authority files can be loaded using Alma standard tools post implementation, when covered by your Alma subscription).

**Digital Records**

If you subscribe to managing Digital resources in Alma, the following can be performed using Alma standard tools post
implementation:

- Metadata and objects can be ingested into Alma
- Remote Digital repository metadata can be harvested into Alma via OAI-PMH

**Patron Driven Acquisition (PDA)**

For sites using a PDA program/s in their source system/s, it is recommended to mark your PDA records in your source system in an Alma-supported indexed field, which allows you to build a set of those records and associate those portfolio records with your PDA profile post-migration in Alma. The suggested fields to use for this are local bibliographic 9XX fields. This allows you to fully leverage Alma’s robust PDA capabilities.

**Ex Libris Systems**

As noted, the extract, transform, and load are all performed using Ex Libris tools. The extract and transform are done within your native Ex Libris system and the load is done into your Alma instance. When deployed in your native Ex Libris system environment, you download, install, and run our standalone AutoExtract package. The AutoExtract package invokes the relevant processing that extracts and transforms your data to disk. These files are then automatically packaged and securely transferred to the Ex Libris FTP and loaded by Ex Libris to your Alma instance.

Depending on the amount of data and the system resources, it is advisable for this processing to be scheduled during library off-hours to avoid any detrimental performance to library patrons or staff during processing. On standard powered machines, the duration of processing is approximately 4 hours per million bibliographic records; however, this may vary slightly from site to site.

The following Ex Libris systems can be migrated to Alma:

- Aleph
- Voyager
- SFX/ 360 Link
- Verde/ 360 Resource Manager/ Intota v.1
- Meridian
- UStat/ 360 Counter/ Intota Assessment

**Note**

- Alma institutions should have one UStat account only. In case a single Alma institution has libraries or campuses with their own autonomous electronic resource management, the library/campus-specific usage data must be marked separately using UStat's Subscriber field rather than multiple USTAT accounts. Only one USTAT Account may be migrated to a single Alma institution.
- It is strongly encouraged NOT to upgrade any of your Ex Libris systems prior to implementing Alma if you are already on one of the supported versions listed below.
<table>
<thead>
<tr>
<th>System</th>
<th>Versions Supported</th>
<th>Minimum Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aleph</td>
<td>v18, v19, v20, v21, v22, v23</td>
<td>All SPs for versions noted (and working C-compiler)</td>
</tr>
<tr>
<td>MetaLib</td>
<td>v4</td>
<td>v4.5.2 (Not migration data related, but Primo &lt;&gt; Alma interoperability</td>
</tr>
<tr>
<td></td>
<td></td>
<td>required version)</td>
</tr>
<tr>
<td>SFX</td>
<td>v4</td>
<td>v4.1.2 (Nov 2012 version of SFX or later) + and latest KB version</td>
</tr>
<tr>
<td>Verde</td>
<td>v2</td>
<td>Latest SP</td>
</tr>
<tr>
<td>Voyager</td>
<td>v7, v8, v9</td>
<td>All releases for versions noted</td>
</tr>
<tr>
<td>Intota</td>
<td>v1, v2</td>
<td>All releases for version noted</td>
</tr>
<tr>
<td>360 Link / Core</td>
<td>Latest version</td>
<td></td>
</tr>
<tr>
<td>360 Resource Manager /</td>
<td>Latest version</td>
<td></td>
</tr>
<tr>
<td>Intota ERM</td>
<td></td>
<td></td>
</tr>
<tr>
<td>360 Counter / Intota</td>
<td>Latest version</td>
<td></td>
</tr>
<tr>
<td>Assessment</td>
<td></td>
<td></td>
</tr>
<tr>
<td>USTAT</td>
<td>Latest version</td>
<td></td>
</tr>
</tbody>
</table>

**KB (Knowledge Base) Level Requirements for SFX and Verde**

Two weeks prior to migrating to Alma, verify that the KB level of SFX and Verde are up-to-date with the Ex Libris Central KB version using standard SFX tools. Do not update the KB level after this time. Community Zone updates are done on an ongoing basis in Alma. It is analogous to the KB updates in SFX, only centrally managed for all customers in Alma in the Community Zone.

**Technical Migration Requirements**

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**Note**

Since the Intota/360 products are hosted, there are no technical migration requirements for these products.

- **Backup** - Before deploying and running conversion programs on any native Ex Libris system server (other than hosted Ex Libris systems), a backup must be taken. This is confirmed in the Migration Request Form and Checklist. Contact your project manager for more information.

- **DB Archiving and Scheduled Processes** - Before deploying and running conversion programs on any native Ex Libris system server, disable any scheduled processes (cron jobs, backups, DB archive log mode) that may interfere with the performance of the migration process. This is confirmed in the Migration Request Form and Checklist. Contact your project manager for more information.

- **Access to Source System** - Ex Libris requires direct SSH and S/FTP access to your Ex Libris system servers in order to support the migration conversion and any troubleshooting necessary throughout the implementation process. Open
access to the Ex Libris IPs in the following table (Mandatory IPs marked in red). Open access to both the IP of Ex Libris HQ as well as your nearest Ex Libris office.

<table>
<thead>
<tr>
<th>Region</th>
<th>IPs</th>
<th>Ports</th>
</tr>
</thead>
<tbody>
<tr>
<td>NA</td>
<td>216.147.208.23</td>
<td></td>
</tr>
<tr>
<td></td>
<td>216.147.212.33</td>
<td></td>
</tr>
<tr>
<td>EU</td>
<td>216.147.214.21</td>
<td>HTTPS (80,443)</td>
</tr>
<tr>
<td></td>
<td>216.147.218.23</td>
<td>SFTP (10022)</td>
</tr>
<tr>
<td>APAC</td>
<td>216.147.220.23</td>
<td></td>
</tr>
<tr>
<td>CA</td>
<td>216.147.222.23</td>
<td></td>
</tr>
<tr>
<td>CN</td>
<td>124.251.9.9</td>
<td></td>
</tr>
</tbody>
</table>

**Space Preparations for Extract**

<table>
<thead>
<tr>
<th>System</th>
<th>Free Disk Space Required</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aleph</td>
<td>5 G per 1M Bib Records</td>
</tr>
<tr>
<td></td>
<td>Additionally, 2G free in <strong>TS1</strong> tablespace per 1M bibliographic records. This is needed for table lookup purposes during the extract.</td>
</tr>
<tr>
<td>Voyager</td>
<td>5 G per 1M Bib Records</td>
</tr>
<tr>
<td>SFX</td>
<td>2 G</td>
</tr>
<tr>
<td>Verde</td>
<td>2 G</td>
</tr>
<tr>
<td>Meridian</td>
<td>2 G</td>
</tr>
</tbody>
</table>

**Verde/ILS Data Requirements**

**E-Products** - Migration of information from Verde is limited to e-products that are represented in SFX and/or ILS systems. Therefore, any non-SFX or non-activated SFX e-product of types standalone, package, or constituent must be represented by a suppressed bibliographic record from the ILS system in order to be migrated. It is suggested that any records in Verde not yet represented in either SFX or your current ILS and are needed for ongoing management in Alma, be added in preparation for your migration from Verde.

**E-Acquisitions** - Any Acquisitions record in Verde that is not linked to an ILS order is migrated, but is not represented by a purchase order in Alma. Rather, the acquisitions data is stored on the Alma e-inventory (e-product), as is consistent with Verde. If you would like acquisitions record data from Verde to enrich your ILS order, update/add the order number from the ILS to Verde prior to migration.
Cutover Preparation and Approach for Third-Parties that Are Provided Library Data and Services

Many external (non-Discovery) third-party providers (for example, Google Scholar, EBSCO, RefWorks, etc.) target your library resources in your current library systems (before Alma). These include electronic access where current openURL, base URL syntaxes, and icons are registered with the search provider who offers link resolving services for your licensed e-material. They also include sites that search your library and catalog resources via protocols such as Z39.50.

Upon Go-Live, it is crucial that these external parties be updated regarding the change of address in order to continue to search and provide relevant services. Alternatively, some sites follow a more sophisticated approach using and maintaining their own URL redirect tools. More information regarding sites that implement such a solution can be found in the following location:

https://developers.exlibrisgroup.com/blog/Alma-link-resolver-set-it-and-forget-it

**Link Resolving:** For sites not implementing their own solutions, the third-parties should be instructed to point the base URLs, link syntaxes, and icons to Alma. Do not point them before Go-Live, since delivery and Discovery are still being provided based on the old systems. For Google scholar, if you have an existing Google Scholar account, it is recommended that you set a new test-restricted label for testing purposes, so that you can distinguish between your old and new system resolving. Following verification post Go-Live, change the label to the active one your patrons will access and retire the old account.

The URL of Alma-Primo’s base services page is:

http://<primo server host:port>/openurl/<primo institution code>/<primo view code>?

The URL of Primo VE’s base services page is:

https://<Primo server host>/discovery/openurl?institution=<Primo institution code>&vid=<Primo view code>

The URL of Alma-Summon’s base services page is:

https://<Alma domain>/discovery/openurl?institution=<Alma institution code>&vid=<view id>

Alma’s default View It icon is located at:

https://<Alma domain>.exlibrisgroup.com/view/link_resolver.gif

Do not shut down your previous link resolver system immediately after cutover because:

- It takes time to contact the known external search providers and have them update the relevant link information.
- It takes time to determine which unknown external search providers link to your link resolver data and have them update the relevant link information.

The following is the recommended method for handling the cutover from your link resolver system to Alma:

- Based on our best practice, leave the link resolver system up and running temporarily for one month after Go-Live as a fallback for delivery purposes for all third-party discovery providers.
- Update the providers during that month-long period (including those based on incoming requests to your link resolver system for providers of which you are not aware) in order to ensure that the new Alma URLs are on file with all of the providers so that they are linked to Alma instead of your previous link resolver system.
- In addition to notifying vendors about changes to the base URL for the link resolver, all third-parties that have any type of integration with Alma should be notified of the upcoming base URL change, including those for EOD and EDI.
Since all updates to E-resources occur only in Alma after Go Live, it is recommended to complete the vendor updates as quickly as possible.

Search Providing (Z39.50): the third-parties (such as other catalogs, RefWorks, etc.) should be instructed to point to your institution’s Alma base URL and port (210) immediately upon Go-Live, similar to the procedure for link resolving described above.

Additionally, it is recommended to review the Alma and Primo Cutover Process document that details the entire cutover process to Alma and its associated Discovery environment.

Non-Ex Libris Systems

Non-Ex Libris systems may also be migrated to Alma. However, the method by which this is done is different than for Ex Libris systems. There are three types of source systems: ILSs, link resolvers, and ERMs.

For ILSs and ERMs, the conversion takes place on Ex Libris’ servers based on extracted data that is provided to Ex Libris from your source system. This track follows a more traditional ETL process: Extract (Customer responsibility), Transform, and Load (Ex Libris’ responsibility).

For link resolvers, an Excel input form for activating e-resources is provided by Ex Libris and filled in by the migrating institution in which LR names and titles are matched to Community Zone global names and titles, where relevant. This Excel is returned to your Ex Libris project team and is activated/loaded in your Alma instance.

Data Format Requirements

Each system being migrated has its own specific data delivery document that indicates what fields and formats to provide to Ex Libris for each migrating area in order for Ex Libris to convert the files and data (typically based on the formats your native system is able to provide) into the Alma structure. This document is provided by your Ex Libris project manager.

The specific data fields and areas may vary from system to system; however, the standard supported formats for each area are listed below. The specific areas that Ex Libris migrates are denoted in your contract agreement.

<table>
<thead>
<tr>
<th>Area</th>
<th>Standard Expected Format</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bibliographic records</td>
<td>Marc ISO 2709, Marc21 XML, or Unimarc XML</td>
</tr>
<tr>
<td>_holdings records</td>
<td>Marc ISO 2709, Marc21 XML or csv (comma delimited fields)</td>
</tr>
<tr>
<td>Items</td>
<td>csv (comma delimited fields)</td>
</tr>
<tr>
<td>Patrons</td>
<td>csv (comma delimited fields)</td>
</tr>
<tr>
<td>Loans</td>
<td>csv (comma delimited fields)</td>
</tr>
<tr>
<td>Holds (requests on the hold shelf)</td>
<td>csv (comma delimited fields)</td>
</tr>
<tr>
<td>Vendors</td>
<td>csv (comma delimited fields)</td>
</tr>
<tr>
<td>Funds + encumbrance/expenditure transactions</td>
<td>csv (comma delimited fields)</td>
</tr>
<tr>
<td>Orders</td>
<td>csv (comma delimited fields)</td>
</tr>
<tr>
<td>Invoices</td>
<td>csv (comma delimited fields)</td>
</tr>
</tbody>
</table>
### Area | Standard Expected Format
--- | ---
Course readings | csv (comma delimited fields)
Electronic identification | csv (comma delimited, in the format described in [ILS-managed E-Resources](#))
ERM data: license, interface, ERM linking Excel | xml – based on documented xsd
| Excel for ERM linking

## Data Delivery Process and Form

Provide validated data and relevant mapping forms and input for each area in your contractual scope in the formats listed above at least two weeks prior to your test migration date assigned by your Ex Libris project manager. Data is provided to Ex Libris on the day of your cutover start date according to your particular project plan.

The following is the default naming convention for data files:

CustomerName+DataType+sequence+date+[.<file_extension>].

For example: `centralu_bib_01_20120420.mrc`, `centralu_bib_02_20120420.mrc`, `centralu_bib_03_20120420.mrc`, etc.

### Validating Data Files

Data files should be validated using the Migration Validation tool, available for download from the FTP server. For connection information, contact your Ex Libris project manager.

The PC system requirements for using the Migration Validation tool are:

- 2.5 GHz or higher processor
- 8 GM RAM (64-bit)
- 25 GB available hard disk space
- Java 8

For customers who are not able to use the validation tool, validate each file using the field mapping form specific to your ILS in the [ILS migration guides](#).

### Placing files on the SFTP server

When using the Migration Validation tool, the data files are automatically placed on the correct SFTP server, using customer credentials. The Field mapping form and Data Delivery form are not required when using the Migration Validation tool. The migration form should be provided to the project team via SF case.

For customers who are not able to use the validation tool, the files should be validated using the validation process described for your ILS in the ILS Migration guides. Place the validated files on the drop-point on the Ex Libris SFTP server with the access credentials provided by your Ex Libris project manager. Also provide the *Delivered Files* Excel which indicates which files have been provided to Ex Libris, along with the Field Mapping and Migration forms.
Training

Alma Training is delivered in a series of online (recorded and live) sessions and may include an on-site workshop (as specified in contract). The on-site workshop, if applicable, during the implementation offers a deep hands-on level familiarization with the Alma system with the specific institutional workflows kept in focus.

Sandbox Environment

Each customer is entitled to a standard Alma sandbox environment for training and testing purposes. Upon "Go Live" and depending on your agreement with Ex Libris, this sandbox may remain standard (standard Ex Libris data and setup) or be upgraded to premium (a copy of your production data). During implementation, training sessions typically take place on your standard Alma sandbox.

The Alma sandbox is accessed on port 80 via a URL provided to you by your Ex Libris project manager. The sandbox is provided to you with an out-of-the-box administrative, "super user" that can access (or define access to) all areas of Alma and can be used to define and manage other users and their roles. A similar user is available on your production environment. Note that until the Alma certification process is complete and upon "Go Live," certain areas of configuration access that are available on the sandbox are limited on production.

Note

If you are working with multiple institutions and are entitled to multiple sandboxes, the specific institutions to be represented on these sandboxes must be determined at the time of initial provisioning. Unless otherwise stipulated in your contract, you may not change the institutions represented on your sandboxes thereafter.

Requirements for Skype and Microsoft Teams

Ex Libris uses Skype or Microsoft Teams for all of its online meetings and training offerings. Additionally, it is recommended that you have the following equipment available:

- A monitor for individual viewing and ability to project on a large screen for group viewing
- Speakers and a microphone or telephone with conference call or hands-free capability for audio participation

Room Requirements for the Functional Onsite Workshop (If Applicable)

The following are the technology requirements for rooms where the on-site workshop or consulting occurs:

- Presenter’s workstation:
  - The ability for the Ex Libris presenter to connect a laptop to the Internet (wired or wireless)
    OR
  - A presenter’s PC with at least one of the Alma-supported browsers connected to the Internet with the Alma
and Discovery URLs accessible and the following applications installed: PowerPoint, Word, Excel, PDF reader

- Allow connecting to an LCD projector via standard VGA cable to demonstrate to an audience (overhead installation preferred)
- Situated at the front of the room, ideally to one side and facing the participants

The room should be a quiet place where disturbances are minimal. The ability to control temperature, light, and organization of the space will allow participants to be as comfortable as possible. The Ex Libris presenter and participants will need access to the room prior to the day’s start as well as during lunch and breaks.

Provide the Ex Libris presenter with any necessary logon IDs and passwords to use the workstations, as well as the necessary administrative privileges in case the presenter needs to reinstall clients or perform other similar functions. Having back-up support for the PCs and projector nearby will also be appreciated.

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### Discovery Integration Requirements

Alma, Primo, and Summon are delivered as a cloud-based SaaS solution.

**Note**

- For Primo/Alma/MetaLib interoperability, MetaLib v 4.5.2 is the minimum version that can be applied.
- Before transitioning to Primo with Alma, it is recommended that you advise your patrons to export/email their e-shelf records from your previous Primo production environment, so that they can later be used for personal reference.

For detailed information on Alma-Primo integration, see the [Alma-Primo Integration Guide](#). For detailed information on Alma-Summon integration, see the [Alma-Summon Integration Guide](#).

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### Appendixes

The following appendixes provide some additional information to help you prepare for your Alma and Discovery implementation.

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### Appendix A – Fulfillment Simplification

When you prepare for your Alma and Discovery implementation, it is important to develop a simplified and maintainable physical fulfillment policy. As part of your implementation, your fulfillment policy setup preferences are solicited based on the best-practice recommendations of the Ex Libris Alma and Discovery project teams.

While in your current ILS system, it is likely that the biggest drivers for fulfillment policy are granular item-level tags (item status/item policy) and user group matrices. In Alma and Discovery, fulfillment policy is primarily driven by physical location and user group. That is, the concept is that items are often grouped and shelved physically together in locations which circulate similarly (open stacks for regular circulation, reference locations for limited circulation, etc.). While a location-driven policy alone may not be a 100% match for all items in all locations for your library, the overall goal is to categorize all locations you manage into a few main categories. If the full location-based simplification cannot be achieved in your library due to exceptional and often manual practices of maintaining item-by-item tags, a limited number of exceptions may be leveraged. It is important to note, that there is no expectation that items be shelved differently to meet this model.
Therefore, when considering simplification in your physical fulfillment policy prior to implementation, the following aspects should be considered:

- Categorize the types of locations you manage, in up to five location type categories. We recommend the following types: Regular, Limited, Short Loan/Reserve, Closed Stack, and Media. However, you may find that you have different paradigms/types in your library. The particular granular policies that actually apply for each type of location are solicited at the time of your implementation.

- Categorize your user groups/borrower statuses into four categories. Our recommendations are: Staff, High priority, Regular priority, and Low priority.

- Most sites are able to group and categorize their locations and user groups into the above matrix. However, in some cases, sites have not physically shelved all items together based solely on policy. Therefore, there may be some exceptional items in those locations. While the continued maintenance of item-level exceptions is not our recommended best practice due to the maintenance and library costs required to continue to manage such granularity, we do allow for up to five item exception types per location type. So, for example, you may have an open stack where most items circulate in a certain way, but there might be particular items in that location (marked with an item level tag) that indicates that the item should circulate exceptionally for that location. It is best to keep the number of exceptional categories among your current item tags (item policy/item status) to be as few as possible. The maximum number of exception types allowed is five.

Mapping out the above in your library prior to your implementation will help simplify and expedite your implementation of Alma and improve your system overall due to the value of Alma’s benefits as a unified and next generation ILS system.

**Appendix B – Optional Data Preparations**

As you prepare for migration to Alma and Discovery, Ex Libris recommends that your institution take advantage of the opportunity to perform some data clean up. While completely optional, undertaking some data clean-up efforts will improve the migration process and provide the best possible outcome as you make the transition to Alma and Discovery.

The following are a number of recommendations that we have gathered during the past several years. Not all of these cleanups must be done now – many can be done in Alma later.

- **Library and collection/location**
  - Identify which of your sublibraries in Aleph (tab_sub_library types 1 and 4) are not an actual active library. Combine rarely used sublibraries into other existing sublibraries. Create unique collection and location names for each library in Alma and Discovery.

- **Bibliographic, holdings, and item data**
  - Fix bibliographic records that do not have a 245/title
  - Identify links pointing to existing source systems that are migrated, so that they can be removed or updated, if necessary. Once a resource is migrated to Alma, the links should be updated to point to Alma.
  - Review non-standard MARC fields (alphanumeric, for instance), revising records as appropriate. Note that migration allows mapping to local 9XX fields.
  - Identify and delete duplicate Bibs.
  - Identify and clean up invalid Unicode characters
  - Identify and re-barcode any duplicate or unintentionally empty item barcodes. In Alma, duplicate barcodes are not supported and non-barcoded items, although supported, cannot circulate in Alma.
  - Consolidate multiple holding records for identical item copies for the same location/call number.
For certain ILSs, identify and correct any location mismatches between holdings and item records. Not doing so may result in multiple holdings records, particularly if the mismatch represents a permanent location in the item record different than the permanent location in the holdings record.

Assign a value for empty collection/location for items/holdings, if applicable.

Since the NUC/OCLC code is associated at the library-level when publishing to OCLC or Libraries of Australia, if there are different owner codes needed for inventory in the same library, consider separating the inventory to different library owners before implementation.

• Enumeration and Chronology in Items/Issues
  
  Items/issues may have a description field such as ‘Vol. 1, No 6 (June 2015)’. This description field will be used to sort items/issues in Alma (for staff) and Discovery (for the end-user).

  If the descriptions are dissimilar, the sorting may be off. All of the items will still be present and viewable, but if there are many items on the same record, it may be difficult for someone to find the item in a sorted list.

  Example of items that may sort incorrectly:

  Vol. 1 No. 1 (January 2017)

  V1 N2 (February 2017)

  March 2017 – V1 N3

  Vol. 1 No. 4 (April 2017)

• Statuses and codes
  
  Standardize statuses and codes to remove extraneous entries and consolidate them into fewer options. Review and reduce purchase order statuses, if this is applicable.

  Review and consolidate material types for items (for example, BK, Book, Monograph)

• Old/inconsistent data
  
  Clean up and/or purge patron records that are inactive or expired and have no outstanding items, fines, fees, or other transactions.

  Clean up and/or purge patron records with fines, fees, or other transactions that are older than a certain date and/or less than a certain amount.

  Clean up and/or remove purchase orders that are old drafts or tests.

  Clean up and/or remove invoices that are old drafts or tests.

  Clean up orders and subscriptions that are old, should have been closed, or require investigation when active, but have been inactive for years.

  Clean up or standardize currency codes for vendors, funds, orders, or invoices that are not standard per the ISO standards for currency.

  Clean up or standardize country codes for patrons or vendors that are not standard per the ISO standards for countries.

• E-resources and package resources
  
  Establish clear categorization of e-resources and electronic-package and database resources in your source ILS system. For example, organize electronic records by location, library, local field, or otherwise distinguishable manner.

  Mark PDA BIB records clearly so that they can more easily be found in Alma and marked for PDA workflows in Alma and Discovery post-migration.
Use KB interface names for electronic interfaces to make use of the Community Zone in the best possible manner.

- Categorize vendor provider indications on electronic records. For example, some sites use the 856 $n or other 856 subfields to consistently store the electronic vendor name providing electronic access. This can be optionally used to display end-to-end users for local e-resources.

- Patron, vendor, library contact names
  - Establish how name fields are stored (Last name, First Name, or First Name/Last Name) when names are entered in one field in the source ILS system.
  - Ensure that all patrons have unique identifiers. Duplicate identifiers are not valid in Alma.

- Naming conventions
  - Standardize how country information is entered such USA, U.S.A., United States, etc. for patron, vendor, and library contact information.
  - Consider standardizing other fields such as St. or Street, Ave. or Avenue for patron, vendor, and library contact information.

- Library and collection/location names
  - Create/ensure unique collection/location names for each library that will be established in Alma and Discovery

- Authority records
  - Identify local authority records, if relevant (keeping in mind the Alma CZ will have various national authorities automatically available globally). When relevant, these can be loaded post Go-Live using standard Alma loading tools.

Appendix C – Joining an Ex Libris User Group

On behalf of IGeLU and ELUNA steering committees, welcome to the Ex Libris user community.

As new members of the Ex Libris community, we invite you to join one or more of the existing active user groups. Most countries are affiliated with a national or regional user group and you can also participate in our two international user groups:

- **IGeLU** – the International Group of Ex Libris Users – is the voice of customers in Europe, Asia, Latin America, and Africa. The organization also welcomes members from North America.
- **ELUNA** – the Ex Libris Users of North America – is the voice of customers in North America.

IGeLU and ELUNA are independent not-for-profit user communities who serve as the collective voice for users of Ex Libris products.

ELUNA and IGeLU both hold annual conferences, which are attended by hundreds of users, as well as dozens of Ex Libris staff members, who present the latest information about product roadmaps among a wide range of topics. In addition, IGeLU national user groups and ELUNA regional user groups host regular meetings at which members share their expertise and have the opportunity to question invited Ex Libris representatives.

Please ask your local professional services team for the contact details of the national or regional user group in your area.

A vital prerogative of the ELUNA and IGeLU membership is the participation in enhancement requests and voting cycles for Ex Libris products. Ex Libris devotes and allocates a mutually agreed amount of developing resources to the enhancement requests and needs that IGeLU and ELUNA members collaboratively have selected and voted upon each year.

Use the links below to take advantage of the benefits of membership!
Appendix D – Required IP List

For IP ranges that must be allowed access to/from your institution for Alma and Discovery, see Alma IP Range and Primo IP Range.

There are no special IP requirements for communicating with Summon; Summon’s IP requirements are covered by Alma’s. See Alma IP Range.