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Alma Integrates with External Systems: Experiences and Lessons Learned at CWU

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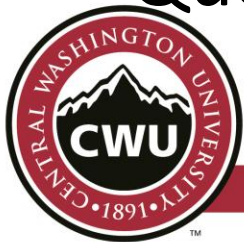
Central Washington University

Minneapolis, MN, May 5-8, 2015

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Agenda

- Overview
- S/FTP Server
- Patron Load
- Bursar Transfer
- EDI/Invoice Payment
- Experiences and Lessons
- Questions and Comments

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Audience

- New Alma users

- Plan to migrate to Alma

- Acquisitions, Circulation & Systems

- People who are interested in the topic

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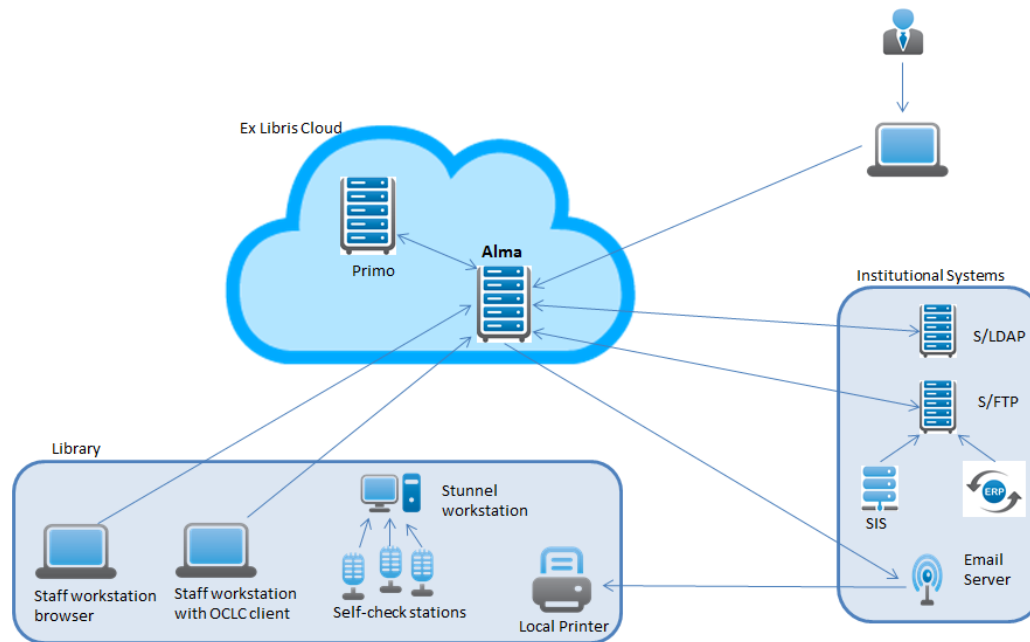# Overview

- Integrates with external systems via standard protocols such as S/FTP

- configures an integration with external system
  - Data transition between Alma and External system
  - External integration profile
  - More information https://developers.exlibrisgroup.com/alma/integrations

Alma integrations diagram

https://developers.exlibrisgroup.com/alma/integrations

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Setting Up an S/FTP

- Facilitates passing data between CWU and Alma
- Chiefly concerns the following functions:

  Importing patron records

  Exporting invoices

  Exporting fines/fees (bursar out)

- Must have username/password authentication.
- Alma does not support SFTP authentication via certificates
- ITS will be responsible for setting up

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Patron Load

- Retrieve data from PeopleSoft

- SFTP compression process

- Retrieving and processing XML files in Alma
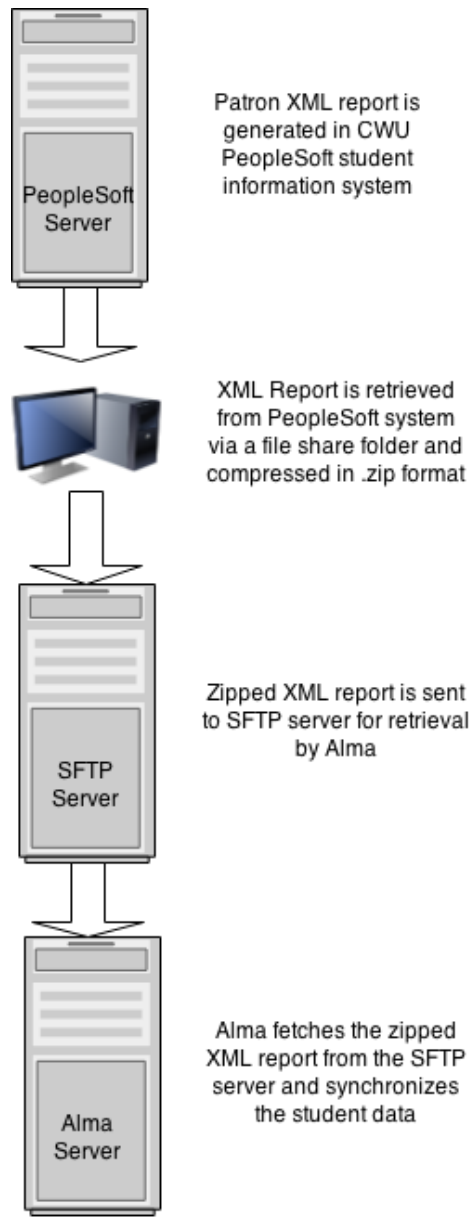
PeopleSoft
Server

Patron XML report is
generated in CWU
PeopleSoft student
information system

XML Report is retrieved
from PeopleSoft system
via a file share folder and
compressed in .zip format

SFTP
Server

Zipped XML report is sent
to SFTP server for retrieval
by Alma

Alma
Server

Alma fetches the zipped
XML report from the SFTP
server and synchronizes
the student data

The diagram was created by Gavin Spomer, Library IT, Brooks Library, Central Washington University

Integration Files

Integration Type	All				Find :		in :	All	▼	Go

| **Add Integration Profile** | | | | | | 1 - 9 of 9 Records | 📇 Tools |

	⬍ **Name**	⬍ **Code**	⬍ **Description**	⬍ **Integration Type**	**Updated By**	**Status Date**	
1	AUGMENTATION	AUGMENTATION	-	Resolver Augmentation	ping.fu	02/09/2015	**Actions**
2	Bursar	BURSAR	CWU bursar system for fines, fees and credits	Bursar	gavin.spomer	01/02/2015	**Actions**
3	EzProxy	PROXY_DEFAULT	EzProxy	Resolver Proxy	exl_impl	09/08/2014	**Actions**
4	Export Invoices	invoices_export_SFTP	Export Invoices	Finance	ping.fu	01/28/2015	**Actions**
5	OCLC Connexion	OCLC Connexion	OCLC Connexion export records to community zone,only use for migration. After go live, don't need it.	OCLC Connexion	ping.fu	10/30/2014	**Actions**
6	SAML Authentication	SAML	-	SAML	exl_impl	10/28/2014	**Actions**
7	Student Information System	SIS	Student Information System	Users	exl_impl	10/15/2014	**Actions**
8	SIS ExL Test Profile	SIS ExL Test Profile	-	Users	exl_impl	10/29/2014	**Actions**
9	Z39.50	Z39.50	-	Z39.50 Server	exl_impl	01/07/2015	**Actions**

| **Add Integration Profile** | | | | | | 1 - 9 of 9 Records | 📇 Tools |

Back

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Integration File: SIS General

SIS Actions: Import and Synchronize

External System

Code SIS   Name Student Information   Integration Type Users
                         System

| General Information | **Actions** | Contact Info |

Actions

Import

Active* ⦿ Active ⦿ Non Active

Plugin* ExternalSystemUserXmlToX ▾   Record Type* Public ▾

Input File Path* patron_import

User XSD Version V. 1 ▾

Run

Create Sample File

Synchronize

Active* ⦿ Active ⦿ Non Active

Plugin* ExternalSystemUserXmlToX ▾   Record Type* Public ▾

Match ID Type* Primary Identifier ▾   Synchronization Type ⦿ Swap All

Unmatched Record ⦿ Add ⦿ Reject

Input File Path* patron_synchronize

Schedule Not scheduled ▾

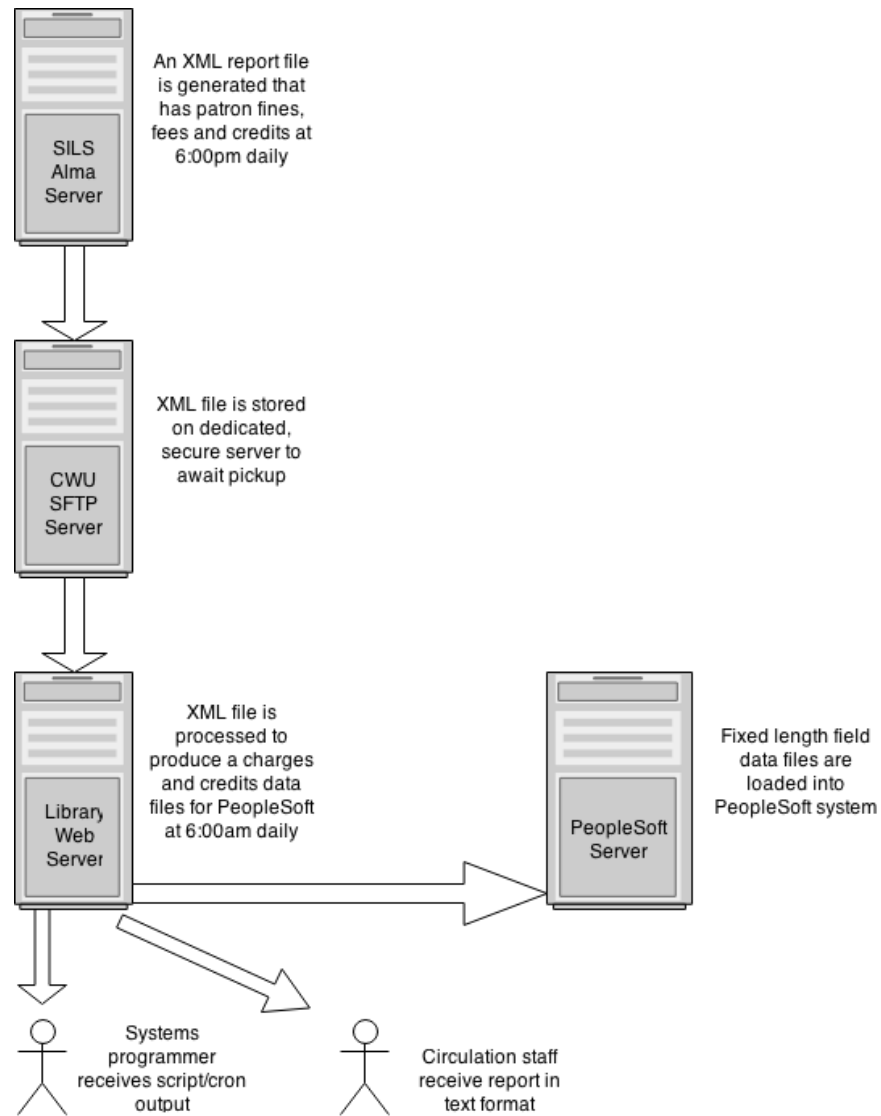User XSD Version V. 1 ▾

Run

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Bursar Transfer

- An XML report file generated in Alma

- S/FTP

- The XML file is processed

- Load data into PeopleSoft

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SILS Alma Server — An XML report file is generated that has patron fines, fees and credits at 6:00pm daily

CWU SFTP Server — XML file is stored on dedicated, secure server to await pickup

Library Web Server — XML file is processed to produce a charges and credits data files for PeopleSoft at 6:00am daily

PeopleSoft Server — Fixed length field data files are loaded into PeopleSoft system

Systems programmer receives script/cron output

Circulation staff receive report in text format

The diagram was created by Gavin Spomer, Library IT, Brooks Library, Central Washington University

Integration File: Bursar General

Bursar Actions

		Group Name
1	☑	student
2	☑	grad student
3	☑	faculty
4	☑	adj faculty
5	☑	emeritus
6	☑	lib faculty
7	☑	admin exempt
8	☑	staff
9	☑	dist civil svc
10	☑	library staff
11	☑	family
12	☑	temporary
13	☑	associate
14	☑	courtesy
15	☑	community
16	☐	lib dept loan
17	☐	off site loan
18	☑	music ta
19	☑	alumni
20	☑	dist admin
21	☐	no summit
22	☐	summit inst
23	☑	summit v stu
24	☑	summit v grad
25	☑	summit v fac
26	☑	summit v staff
27	☑	summit v spec
28	☐	summit v test
29	☐	Default

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Electronic Data Interchange (EDI)

- Incoming invoice

- Sending orders to vendors

- Configure EDI communication with a vendor

  1. On the Search Vendors page (Acquisitions > Acquisitions Infrastructure > Vendors) select a vendor. The Vendor Details page opens.

  2. Click the EDI Information tab

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EDI Configuration

Invoice Export

- Ready to Be Paid

- Every Wednesday at 11:00 PM

- XML file -> SFTP

- Accounts Payable picks it up

- A script to import required data into PeopleSoft: invoice number, vendor code, and unique identifier, etc.

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```mermaid
flowchart
    A[Vendor Creates EDI File] --> B[EDI File Uploaded to Vendor SFTP Server]
    B --> C[EDI File Retrieved Manually in Alma]
    C --> D[Invoice Processed by Collection Development]
    D --> E[Invoice Reaches "Ready for Payment" status]
    E --> F[Every Wednesday, Invoices Are Uploaded to Library SFTP Server]
    F --> G[Invoice Is Received and Processed by Accounts Payable]
    F --> H[Job Confirmation Email Generated and Sent]
```

Vendor Creates EDI File

EDI File Uploaded to Vendor SFTP Server

EDI File Retrieved Manually in Alma

Invoice Processed by Collection Development

Invoice Reaches "Ready for Payment" status

Every Wednesday, Invoices Are Uploaded to Library SFTP Server

Invoice Is Received and Processed by Accounts Payable

Job Confirmation Email Generated and Sent

Integration File: Invoices General

External System

Code invoices_export_SFTP Name Export Invoices   Integration Type Finance

| General Information | Actions | Contact Info |

External System

Code * invoices_export_SFTP   Name * Export Invoices

Integration * Finance   S/FTP Connection * CWU SFTP
Type   Type

System (for Ex * Oracle PeopleSoft
Libris'
informational
purposes)

Default ☐

Description Export Invoices

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Invoices Actions

Export Invoices For Payment

Active* ⦿ Active ◯ Non Active

Plugin [ ] ▾

Output File Path [invoices_export]

Run

Schedule [Every Wednesday a] ▾

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Experience & Lessons Learned: Collaboration with University IT

- Present at Academic Technology Advisory Council (ATAC)

- Point of Contact

- Inform external systems admin/support

- Timeline

- Communication, information sharing, follow up and track

- Open firewall to particular IP address and ports

- Testing firewall rules

Experiences & Lessons: Technical Issues

- The match will be done on <username> and Alma user 'primary ID'
- No loans show up in My Account
- Shibboleth authentication by adding <type>EXTERNAL</type> to XML
- Duplicate users in PeopleSoft
- "UTF-8" type error, even though the file has the encoding="UTF-8" in it
- String index out of range: -6
- The <resourcesharinglibrarycode> element needs to be in the <userdetails> section of the XML.
- java.lang.Exception: com.exlibris.core.infra.common.exceptions.InfraException: Failed to rename file in FTP server. 3: Permission denied.

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Experiences & Lessons: Testing & Vendors Support

- Testing

- Listservs

- Communication with vendors

- SF Case for ExL

- Known Issues

- Job Monitoring

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Questions? Comments?

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