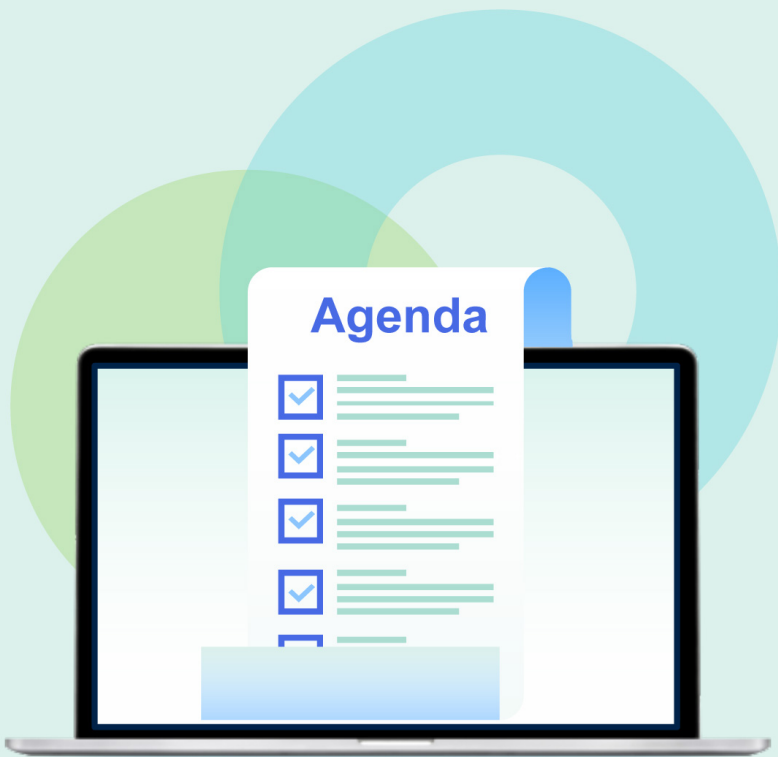




Cloud Apps and the Alma Open Platform

IGELU 2020 Digital Conference

Josh Weisman | VP Development | Resource Management



- State of the Alma Open Platform
- Open Platform Highlights
- Wrap-Up



State of the Alma Open Platform

Ex Libris Open Platform

Ex Libris is committed to an **open platform**, which includes support for integrations via open standards and REST APIs. This support enables institutions to integrate Ex Libris solutions with local systems, create innovative services, increase the value of the library, and help meet the institution's goals and objectives.



Alma Open Platform



Integrations & Standards

- Widely adopted standards
- Configure integrations with other systems



REST APIs

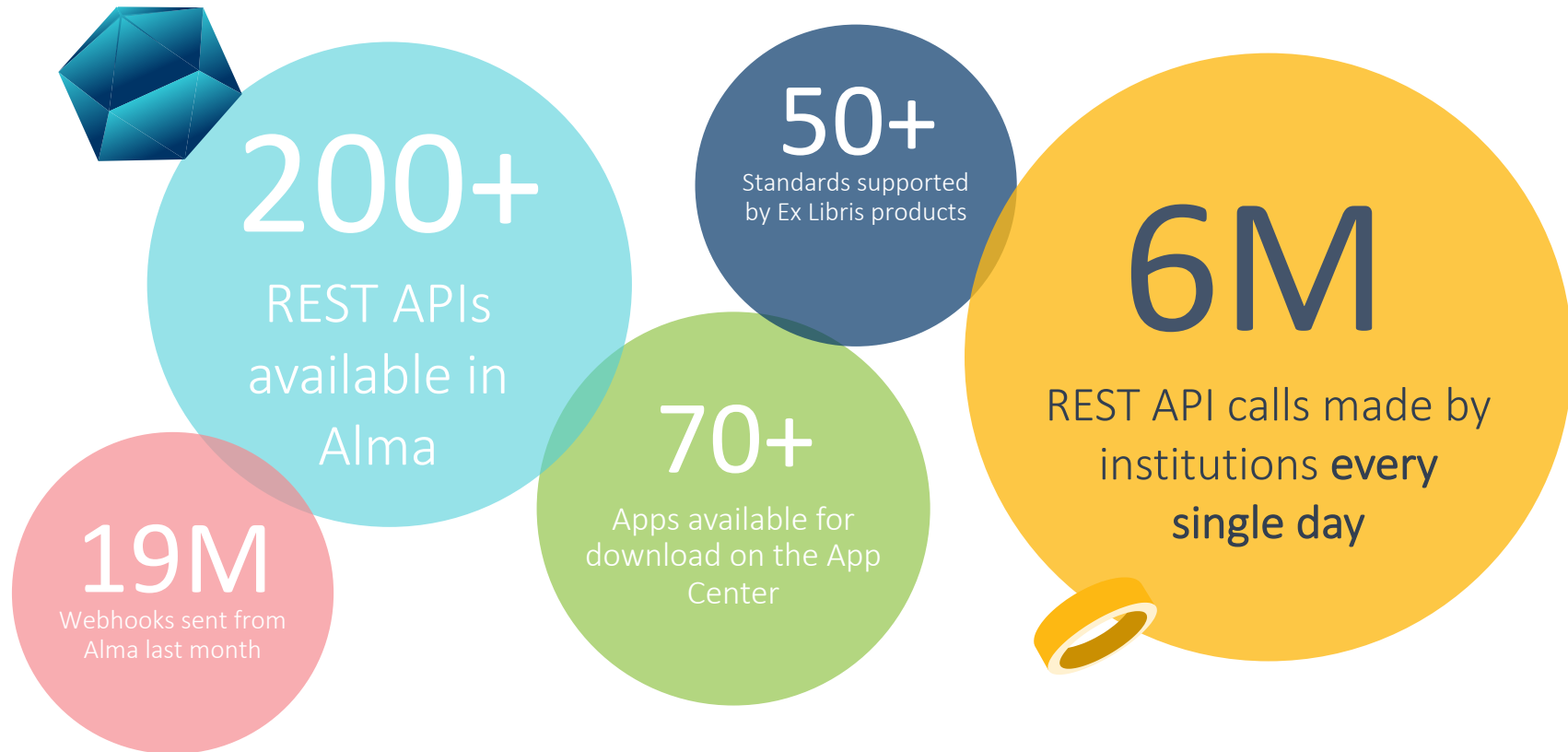
- Sound REST practices
- Data
- Workflows



Community

- Blog
- Forum

Open Platform in Numbers



Recently Released in the Open Platform



Authentication

OpenID Connect & SAML
JIT User Provisioning



API Management

Control API access by API
and improved reports



API for Integration Profiles

Retrieve information about
integrations



Invoice Attachments API

Retrieve the contents of
attachments on invoices



Print Daemon

App extension to print
automatically from queue



Cloud Apps

New framework for
developing and hosting apps

Coming Soon



MFT Service

Easier integrations with an Ex Libris-hosted file transfer service for every institution



Integration Transforms

Ability to include an XML transform as part of an integration profile



REST APIs

Continual API improvements, including support for logical sets of users and network zone sets



Cloud Apps

New Cloud Apps will continue to offer efficiencies, integrations, and new functionality



Open Platform Highlights

Open Platform Highlights



Authentication

New support for
OpenID Connect and
JIT SAML user
creation



API Management

New reporting and
control options



Cloud Apps

New framework for
writing and hosting
apps in the Ex Libris
cloud

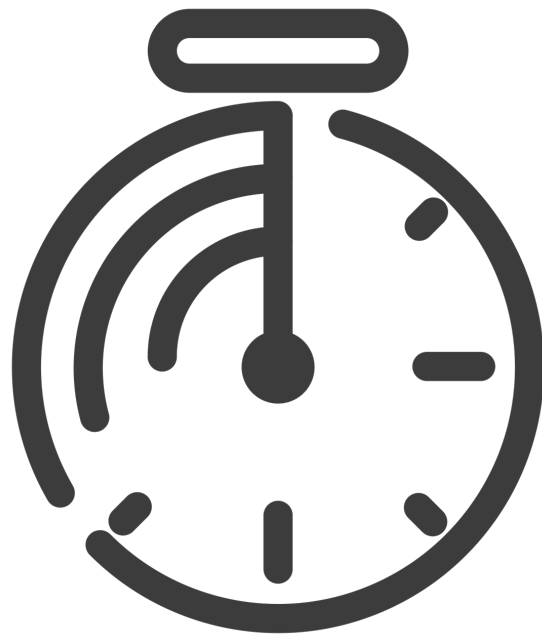
Authentication Updates

- Alma now supports OpenID Connect as an authentication protocol for institutional identity providers
- [OpenID Connect](#) is an authentication layer built on top of OAuth 2.0
- Supported by providers such as Auth0, Okta, and OpenAthens



Authentication Updates

- Alma introduced just-in-time (JIT) user provisioning/self-registration support for SAML-backed institutions.
- Just-in-time (JIT) means users can be created in Alma only when the patrons log in to receive services.
- Alma also supports updating user information on each login, allowing the user record in Alma to remain up to date with the record in the identity system.



Resources: Authentication

- OpenID Connect
 - [Background](#)
 - [Documentation](#)
 - [Blog](#)
- SAML-JIT User Provisioning
 - [Documentation](#)
 - [Blog](#)
- [Authentication Update Blog](#)



API Management

Three features added from NERS requests:

- API History: Limit by Date Range
- API History: Detailed Log Files
- Limit API Key to IP Frand



API History – Limit by Date Range

Reports

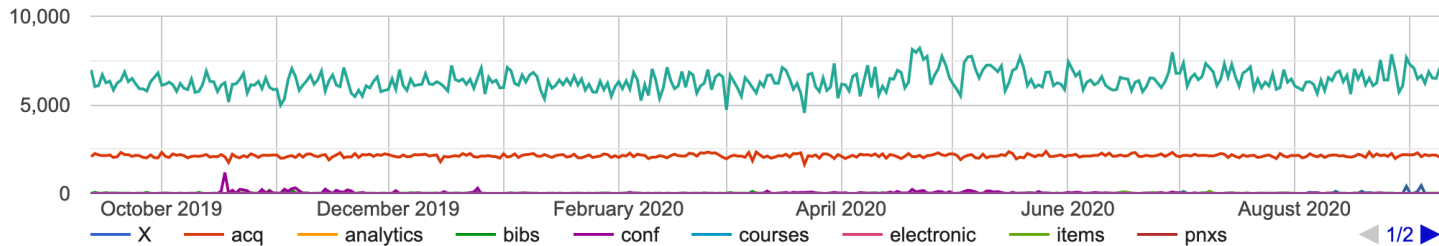
Overview Today History

API Traffic History

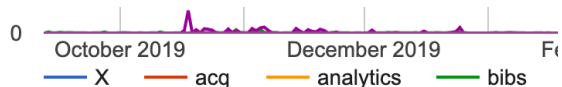
Group By: API Area

From: 04/09/2019 To: 09/09/2020 Go

Download in CSV



API History – Detailed Log Files



Add/Edit API Key

Name

All read-only to Prod

Description

Enabled



Save detailed
log files



Allowed IP
Range

Optional - Only requests within the IP Range will be allowed. CIDR format (Example: 1.2.3.4/32)

Restriction
Profile code

Optional - the code of the Integration Profile which limits access to specific vendors.

Available log files

- TR_INTEGRATION_INST.5d0cf2.2020-06.log
- TR_INTEGRATION_INST.13522c.2020-06.log
- TR_INTEGRATION_INST.5d0cf2.2020-07.log
- TR_INTEGRATION_INST.13522c.2020-07.log
- TR_INTEGRATION_INST.5d0cf2.2020-08.log
- TR_INTEGRATION_INST.13522c.2020-08.log
- TR_INTEGRATION_INST.5d0cf2.2020-09.log
- TR_INTEGRATION_INST.13522c.2020-09.log

Limit API Key to IP Range

Add/Edit API Key

Name

All read-only to Prod

Description

Enabled



Save detailed
log files



Allowed IP
Range

109.253.223.8/32

Resources: API Management

- [Documentation](#)
- Blogs
 - [Reports by time range](#)
 - [Detailed log files](#)
 - [Limit IP Range](#)



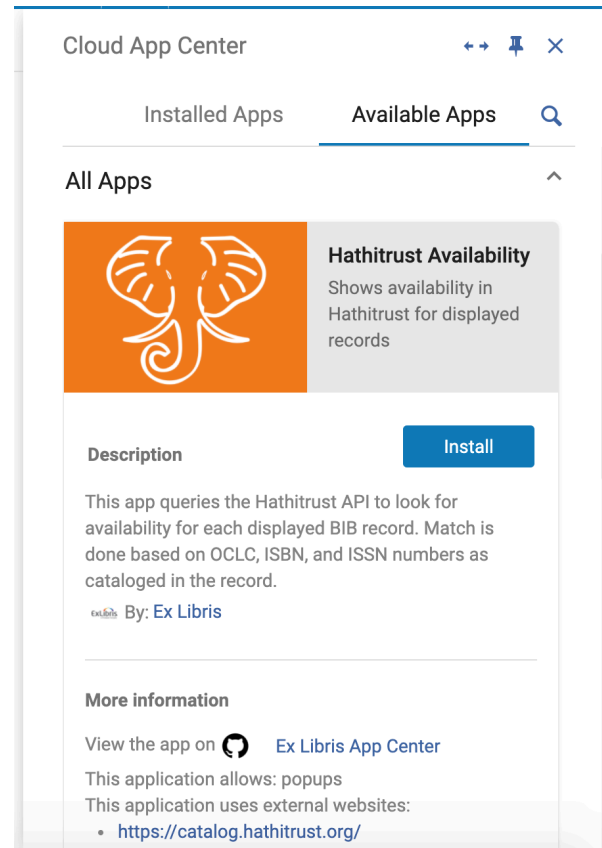
Introducing **Cloud Apps**, an open framework which enables apps written by Ex Libris community members to run *inside* the Ex Libris higher-ed cloud platform.

Cloud Apps can improve library **efficiency** by extending the functionality of Alma services and of other Ex Libris cloud solutions in an **agile** way.



Introducing Cloud Apps

- Cloud Apps are easily searched, installed, and launched within Alma by the end user
- Cloud Apps can respond to the context of the user's session, thereby offering additional functionality depending on the screen.
- Since Cloud Apps run in the Ex Libris platform, they don't require an API key or other local runtime environment.



Benefits of Cloud Apps



Institutions can offer time-saving apps supported by the community while adhering to their governance policy.



Users can enjoy new functionality and streamlined workflows integrated into their working environment.



Developers can deliver innovative apps to their own institution and the wider community without the need to host or manage the runtime environment.

Use Cases

**Cloud Apps written by Ex Libris or the community
can be used for one of several use cases**



Functionality

Adding new
functionality not
currently supported



Productivity












Workflow shortcuts
or productivity
enhancements



Integration


Integrating with
external systems or
data sources

Cloud Apps @ Launch

 <p>HathiTrust Availability Mark Gobat Alma Cloud App</p> <p>Queries the HathiTrust API to look for availability for each displayed BIB record. Match is</p>	 <p>Print in LIBstick Technion Israel Institute of Technology Alma Cloud App</p> <p>Integrates Alma with the LIBstick label printing service to generate physical items label/s. When</p>	 <p>E-Collection Quick Update Mark Gobat Alma Cloud App</p> <p>Currently in BETA. Select one or more records from a list of e-collections, and quickly update</p>
 <p>Receive New Serial Items Ori Miller Alma Cloud App</p> <p>Currently in BETA. Search for (or navigate to) a continuous PO line. Supports specifying the item</p>	 <p>Invoice Line Tax Calculator Josh Weisman Alma Cloud App</p> <p>This app allows you to configure tax rates per invoice line type. When you select invoices from a</p>	 <p>Appointment Scheduler Josh Weisman Alma Cloud App</p> <p>Provides a simple interface to schedule appointments or events for Alma users. Features</p>
 <p>Alma Role Toggler Jeff Peterson Alma Cloud App</p> <p>Quickly activate/deactivate an Alma user's roles.</p>	 <p>CSV User Loader Josh Weisman Alma Cloud App</p> <p>Create Alma users from a list in a comma separated file. Supports flexible configuration in multiple</p>	 <p>Touchnet Payment Helper Josh Weisman Alma Cloud App</p> <p>Integrates a "Pay with Touchnet" option when accessing a user with an open balance. For</p>
 <p>Print Bib Records Ori Miller Alma Cloud App</p> <p>Allows quickly printing records from the repository hit list. Provides an XSL-based printing</p>	 <p>Alma Refine Josh Weisman Alma Cloud App</p> <p>Refine bibliographic records with services that adhere to the OpenRefine standard.</p>	

Cloud Apps for Developers

[New Here?](#) | [Cloud Apps](#) | [API Console](#) | [Standards](#) | [Search](#) | [Go to exlibrisgroup.com](#) | [Login](#) | [Signup](#)

 **DEVELOPER NETWORK**

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[Share](#)
Blog

[Ask](#)
Forum


[Discover](#)
App Center

Ex Libris Cloud Apps


Build easy-to-install apps, integrated into the Ex Libris platform, to fulfill the needs of your institution.

1 

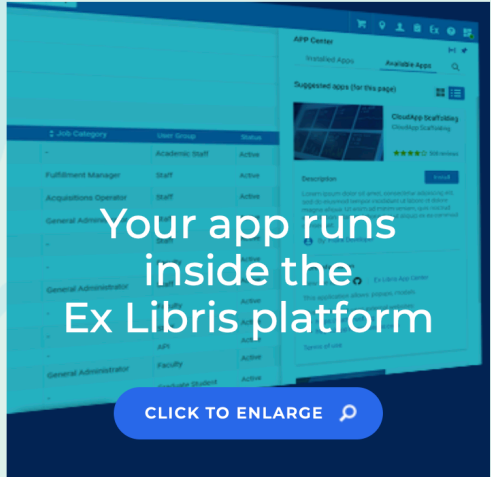
DEVELOP
Use the Cloud Apps CLI to develop your app in your local environment

2 

PUBLISH
Add your app to the App Center where it can be discovered by the community

3 

INSTALL
Users install and run your app in the Ex Libris platform



Your app runs inside the Ex Libris platform

[CLICK TO ENLARGE](#)

<https://developers.exlibrisgroup.com/cloudapps/>

Resources: Cloud Apps

- [Press release](#), [blog](#), & [marketing](#) and [demo](#) movies
- Developer Network [blogs](#) on Cloud Apps
- Knowledge Center [documentation](#) on configuring and using Cloud Apps
- Extensive [documentation](#) in the Developer Network on building Cloud Apps (including a getting started guide and tutorials)



Wrap Up

Important Resources

- [Getting started](#)
- Demos/samples:
 - [General](#)
 - [C#](#),
 - [Java](#),
 - [Angular](#),
 - [Ruby](#)
- [API Thresholds](#)
- [Working with the APIs in a network](#)

Summary

- APIs and integration protocols allow you to extend Alma beyond its built-in features
- Documentation, samples, and standards allow your developers to focus on your specific requirements and not on “plumbing”
- You’re a critical part of the community- share your efforts on the Developer Network!

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