

Unlocking Your Library with the Alma Developer Network

IGELU 2016

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Wrap Up

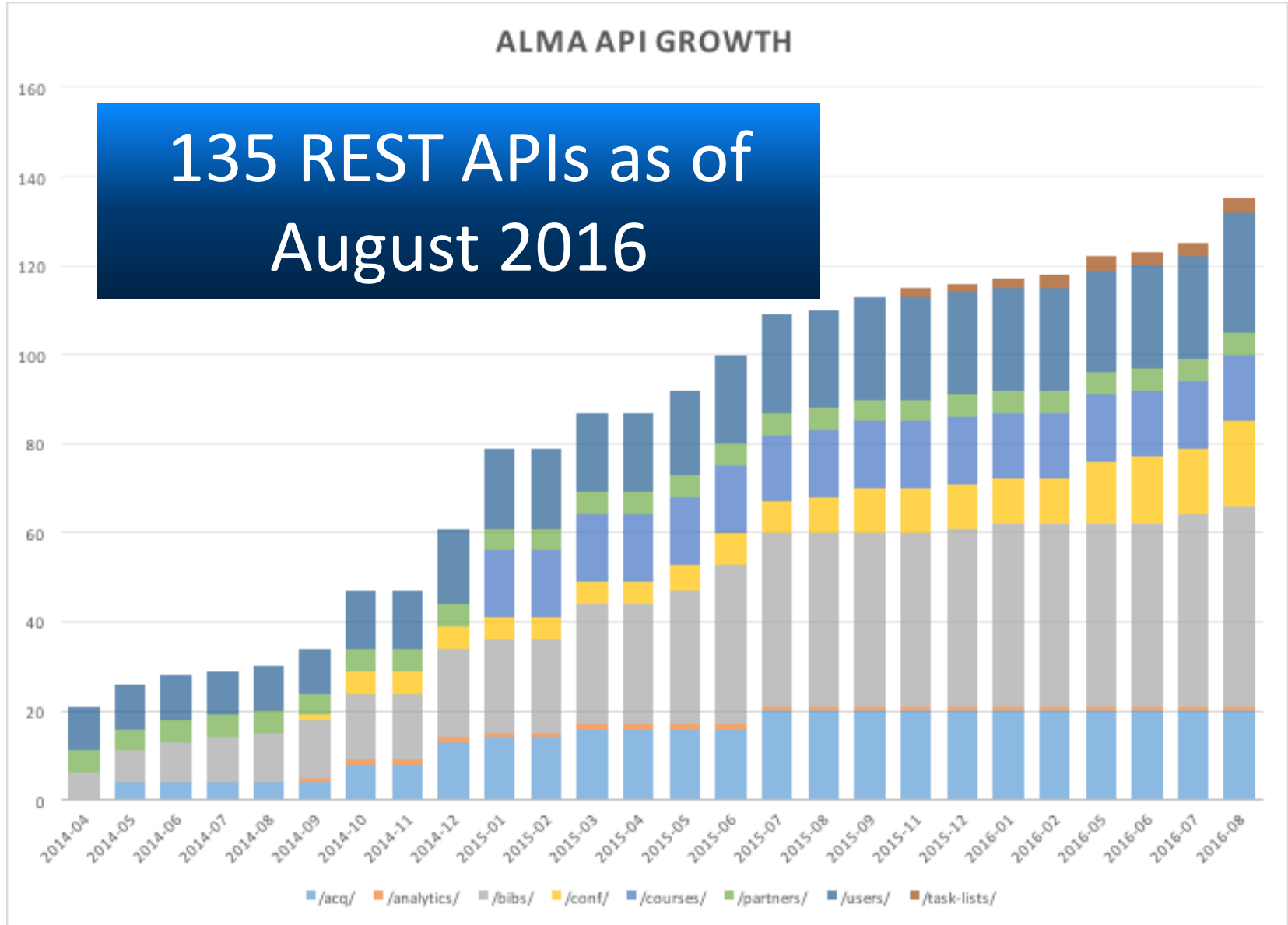


Current State of Alma APIs

- Ex Libris Developer Network launched at ELUNA in May 2014
- At launch- 21 total REST APIs

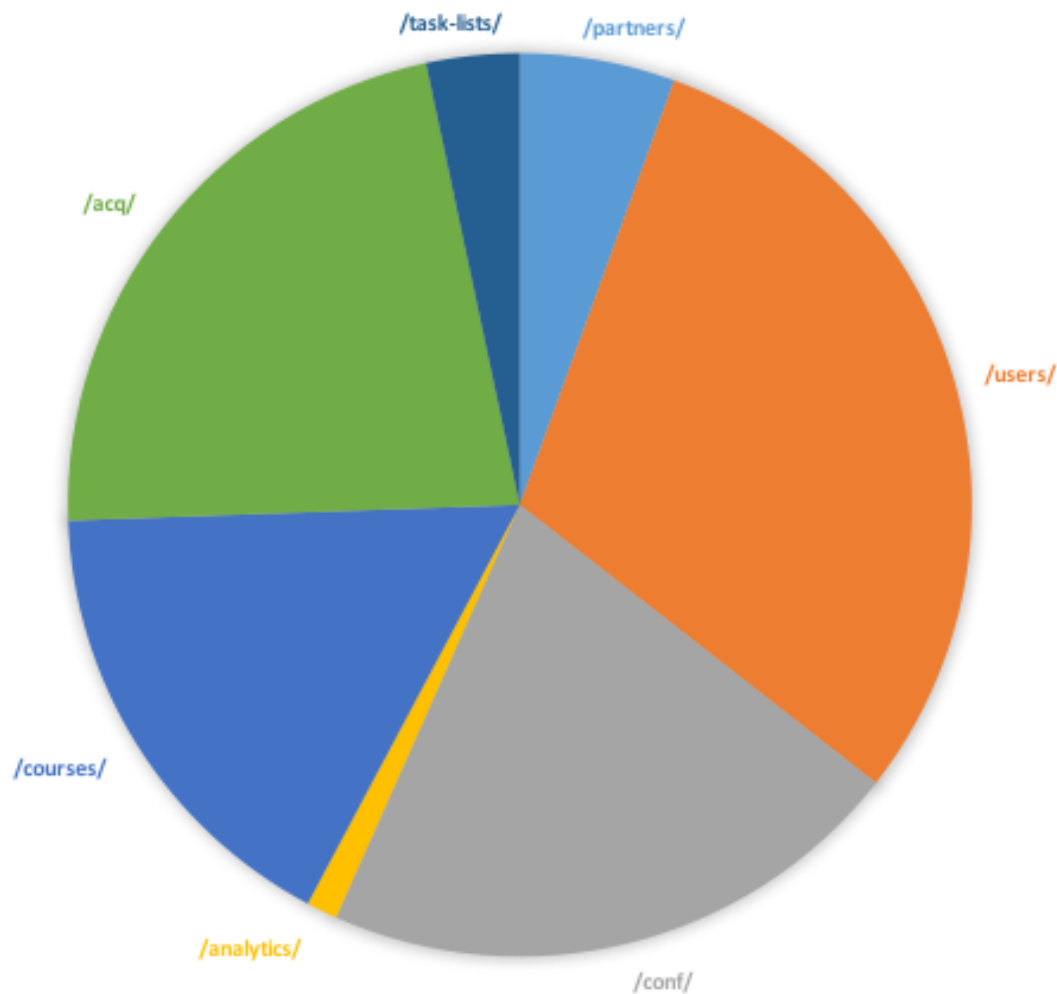
**Now there are 135 REST APIs in
8 areas!**

API Growth



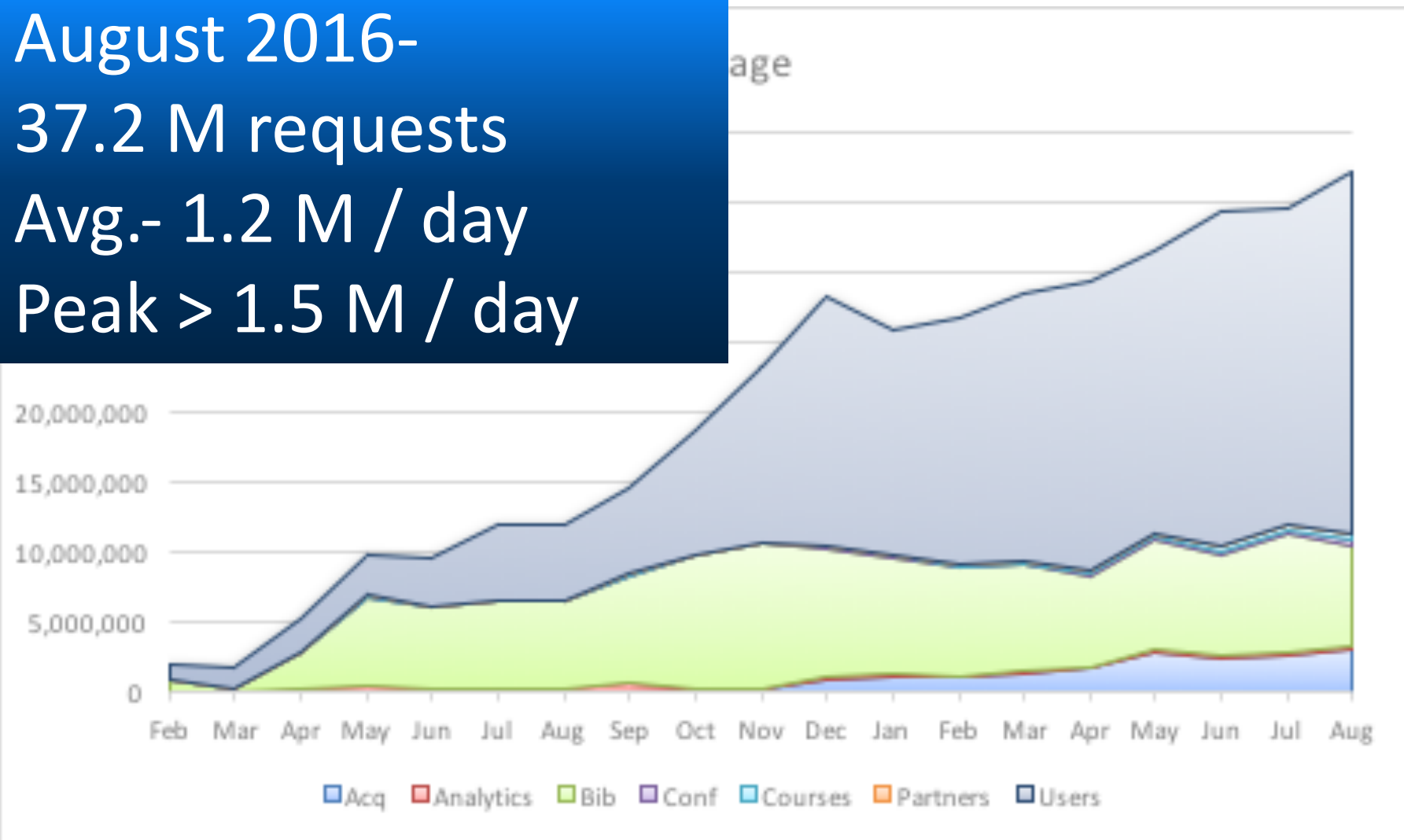
API Areas

ALMA API AREAS - SEPTEMBER 2016



API Usage

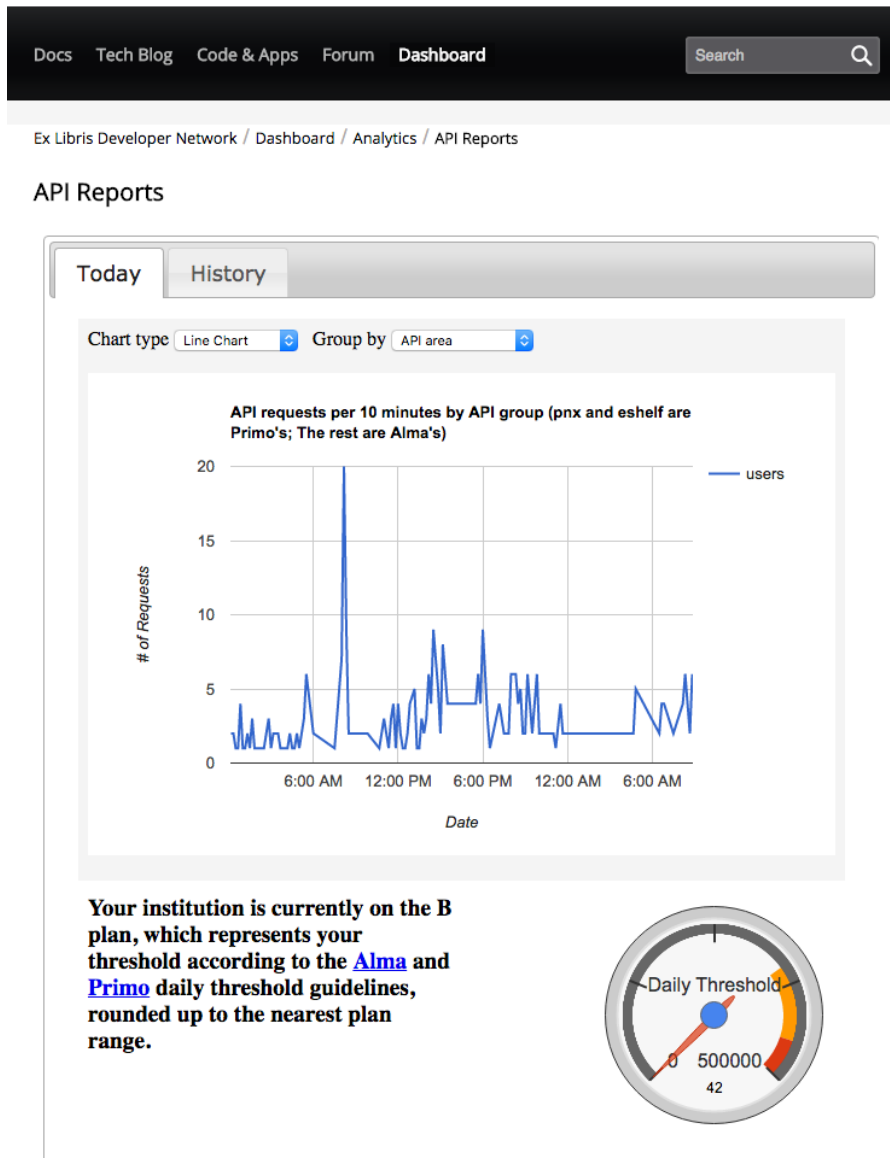
August 2016-
37.2 M requests
Avg.- 1.2 M / day
Peak > 1.5 M / day





Quick Developer Network Refresher

API Dashboard Improvements



API Dashboard Improvements

[Docs](#) [Tech Blog](#) [Code & Apps](#) [Forum](#) [Dashboard](#)

Search



[Ex Libris Developer Network](#) / [Dashboard](#) / [Analytics](#) / [API Reports](#)

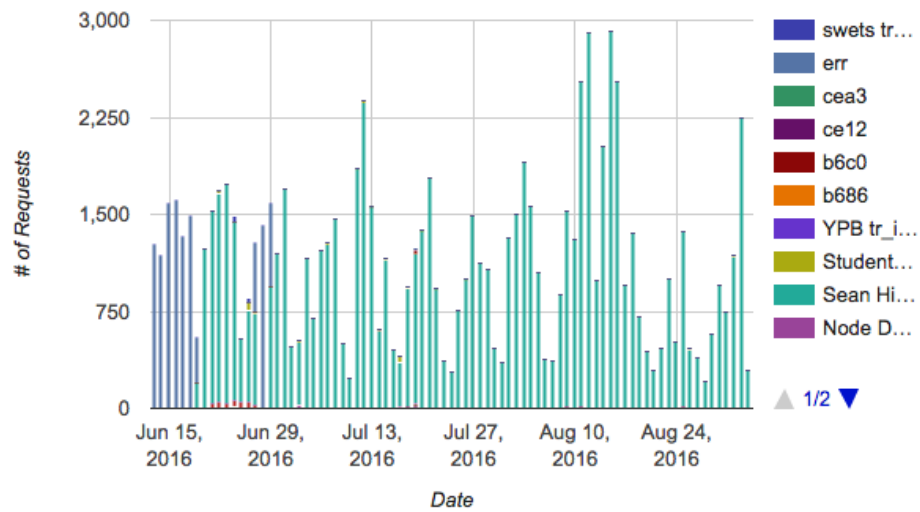
API Reports

Today

History

Chart type ☒ Stacked ☒ Group by

API requests per day by Application (and last four characters of the API-key)





API Highlights

API Highlights

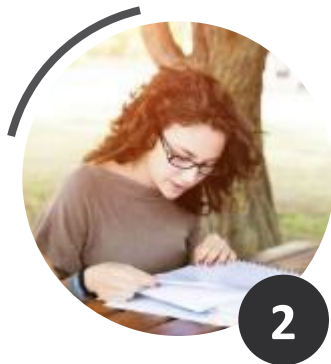


Social Authentication

Allows students and staff to log in with Google or Facebook social network credentials

Reduces password fatigue

Allows saved sessions



Process Orchestration

APIs to manage processes and sets

Create sets and add/remove members

List and run processes, manage job instances



Digital Resource Management

Create BIB records in DC

Add/remove files from representations

Digital deposit APIs



Webhooks

Alma initiates calls when events happen

Sends payload to customer-hosted REST endpoint

First supported event is job end

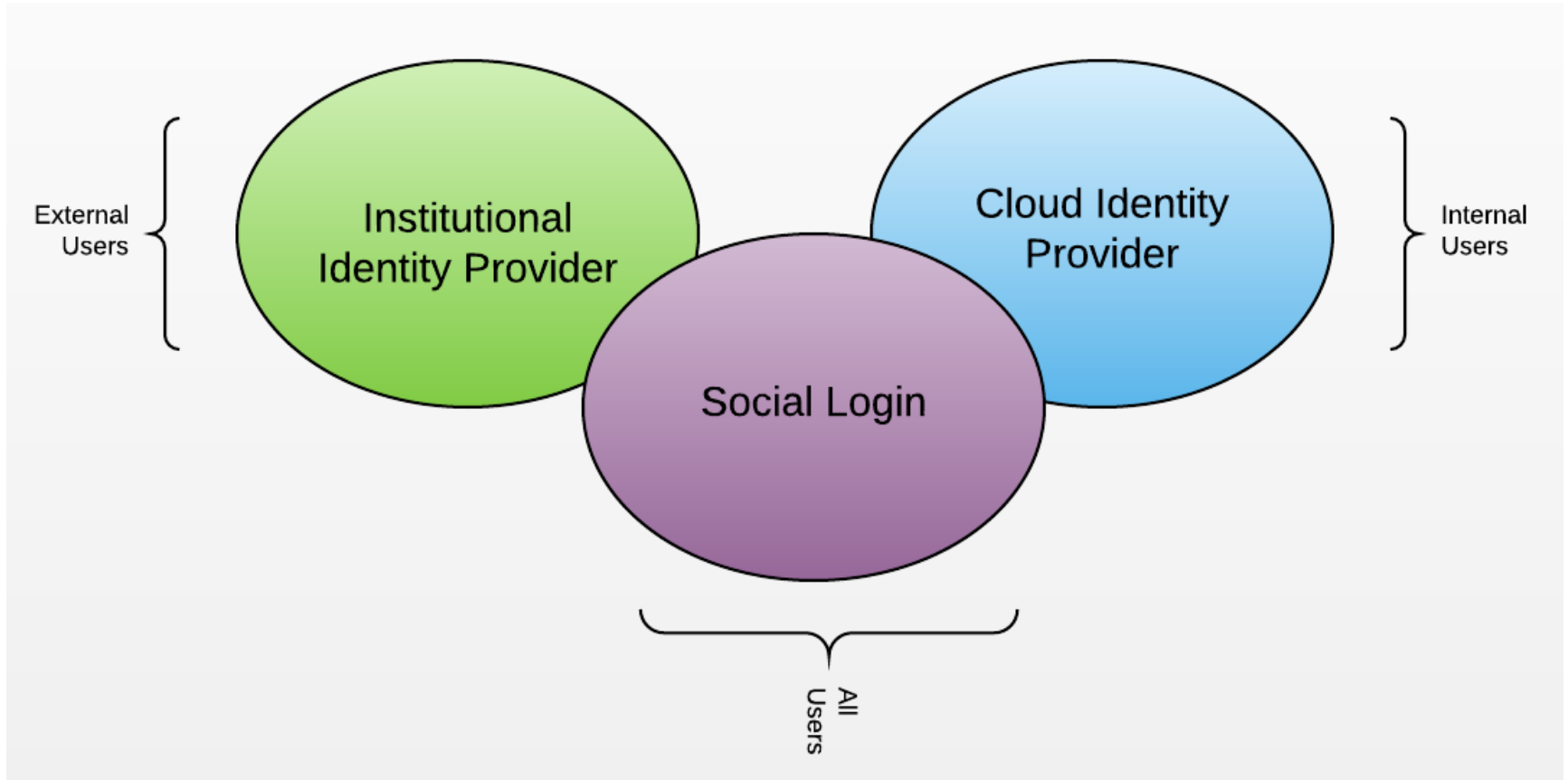


Social Authentication

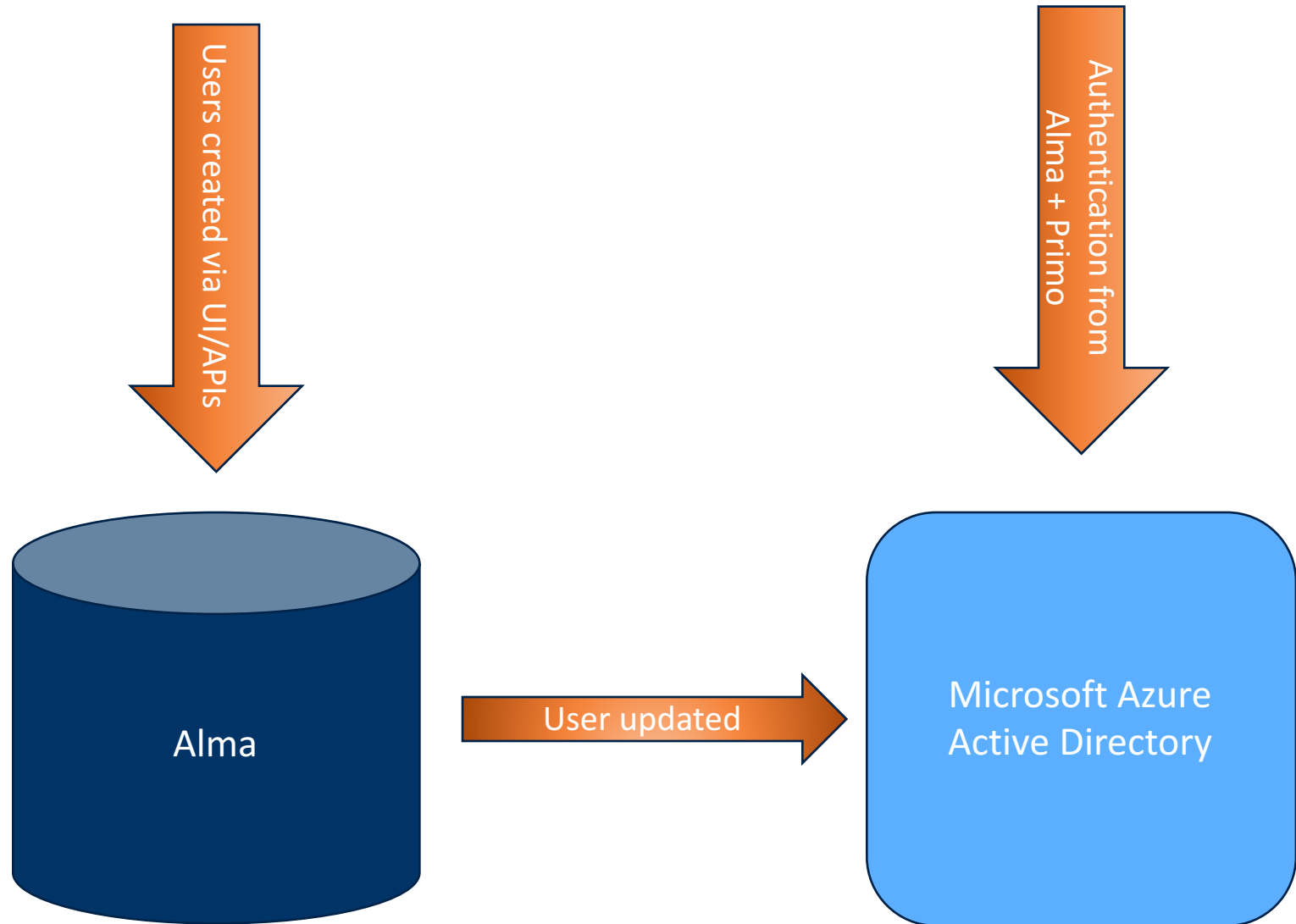
Authentication Landscape in Alma

- In the past year, there has been considerable development around authentication in Alma
- Best practice is:
 - Alma holds *basic operational information* about users
 - Alma manages *authorization*
 - *Authentication* is managed by a system external to Alma
- Alma supports 3 types of authentication methodologies:
 - Institutional identity management
 - LDAP
 - SSO technologies such as SAML and CAS
 - Social authentication
 - Staff authenticate for Alma and students for Primo using Google, Facebook (or other social networks, coming soon)
 - Cloud identity management
 - Users can be created in Alma but are synchronized with and authenticated against a cloud identity management provider (Microsoft Azure AD)

Authentication Landscape



Cloud Identity Provider



Social Authentication

- Staff in Alma or patrons in Primo authenticate using the social network of their choice- Google, Facebook (and others coming in the near future, including Twitter)
- Set up integration profile for supported social networks in Alma
- Benefits for users
 - Transparent login for users, "saved session"
 - No password fatigue
 - Only basic profile details shared with Alma
- Benefits for customers
 - Increased security for Alma customers
 - No leaking of information from Alma to social network

DEMO:

Social Authentication

Social Authentication Links

- [Developer Network Documentation](#)
- [How-To Presentation](#)
- Blog: [Leveraging Social Login with Alma](#)



Process Orchestration

Process Orchestration Explained

Orchestration is the automated arrangement, coordination, and management of computer systems, [middleware and services](#).

Wikipedia, [https://en.wikipedia.org/wiki/Orchestration_\(computing\)](https://en.wikipedia.org/wiki/Orchestration_(computing))

- Alma performs bulk work on sets of various types (bibliographic records, users, items, etc.)
- The work to be performed is defined in jobs of many types (bibliographic record export, remote storage, metadata import, etc.)
- Alma facilitates orchestration workflows with APIs to manage jobs and sets

- Jobs
 - GET jobs, job details
 - POST to run a job (scheduled or manual)
- Job instances
 - GET job instance details (status, outcomes, etc.)
- Sets
 - GET sets, set details
 - GET set details
 - Add/remove members from sets (coming soon)

DEMO:

Run a manual job

Process Orchestration Links

- [Jobs & Sets APIs](#) on the Developer Network
- Blog: [Working with the Alma Jobs API](#)



Digital Resource Management

Digital APIs

- Digital functionality requires a deep level of API support due to complex workflows, digital file handling, and extensive integration scenarios
- APIs which support both remote and non-remote representations and files have been added this year
- As Dublin Core support was added in Alma, the BIB APIs were expanded to support DC as well
- Digital deposit (for institutional repository workflows) is being added by the end of the year, using the SWORD deposit standard protocol

- Collections
 - GET collections, collection details
 - GET collection titles
 - Add/remove titles to a collection
- Representations
 - GET representations, representation details
 - Update, Delete representation
- Files
 - GET a representation's files, file details
 - Add/remove a file to a representation
 - Update a file's properties

DEMO:

Digital APIs

Digital Resource Management Links

- [Developer Network Documentation](#)
- [Digital Blog entries](#)
- [Add file shell script](#)



Webhooks

- New paradigm for communicating with Alma
- When certain events happen in Alma, Alma calls out to a customer's REST end

Developer Day Session....

- Job end is the first event
loans and requests

*Now We're Talking.... Two Way
Communication With Alma Using
Webhooks*

Thursday, 09:30

Implementing a Webhook Listener

- Challenge- GET
 - Called when webhook listener is registered in Alma
- Webhook handler- POST
 - Called each time a particular event happens
 - Provides general information along with an event-specific payload
 - Includes a signature header to ensure the request came from Alma

DEMO:

Webhook listeners

Webhooks Links

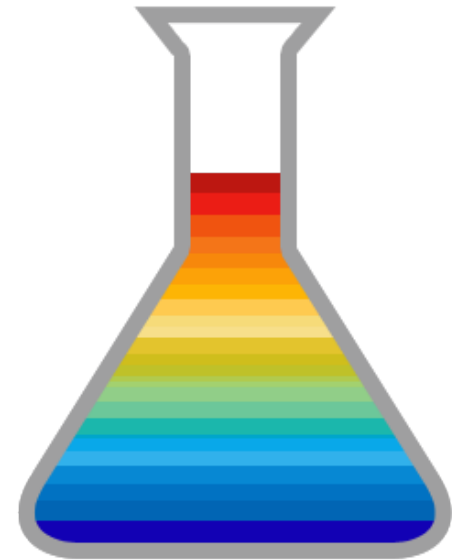
- [Developer Network Documentation](#)
- [Webhooks blogs](#)



Wrap Up

Developer Network Tips & Tricks

- Blog RSS
- Google is your friend
- Configuring Apps- environment, APIs, and permissions
- The forum is the place to get help



Important Links

- [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!



THANK YOU

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