



# Community Collaboration

Empowering Libraries in an Open Platform



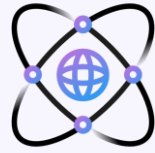
Itai Veltzman, September 2024

# Agenda



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What is openness?



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Your ability to connect



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Keep your data safe anytime  
anywhere



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Collaborate and share

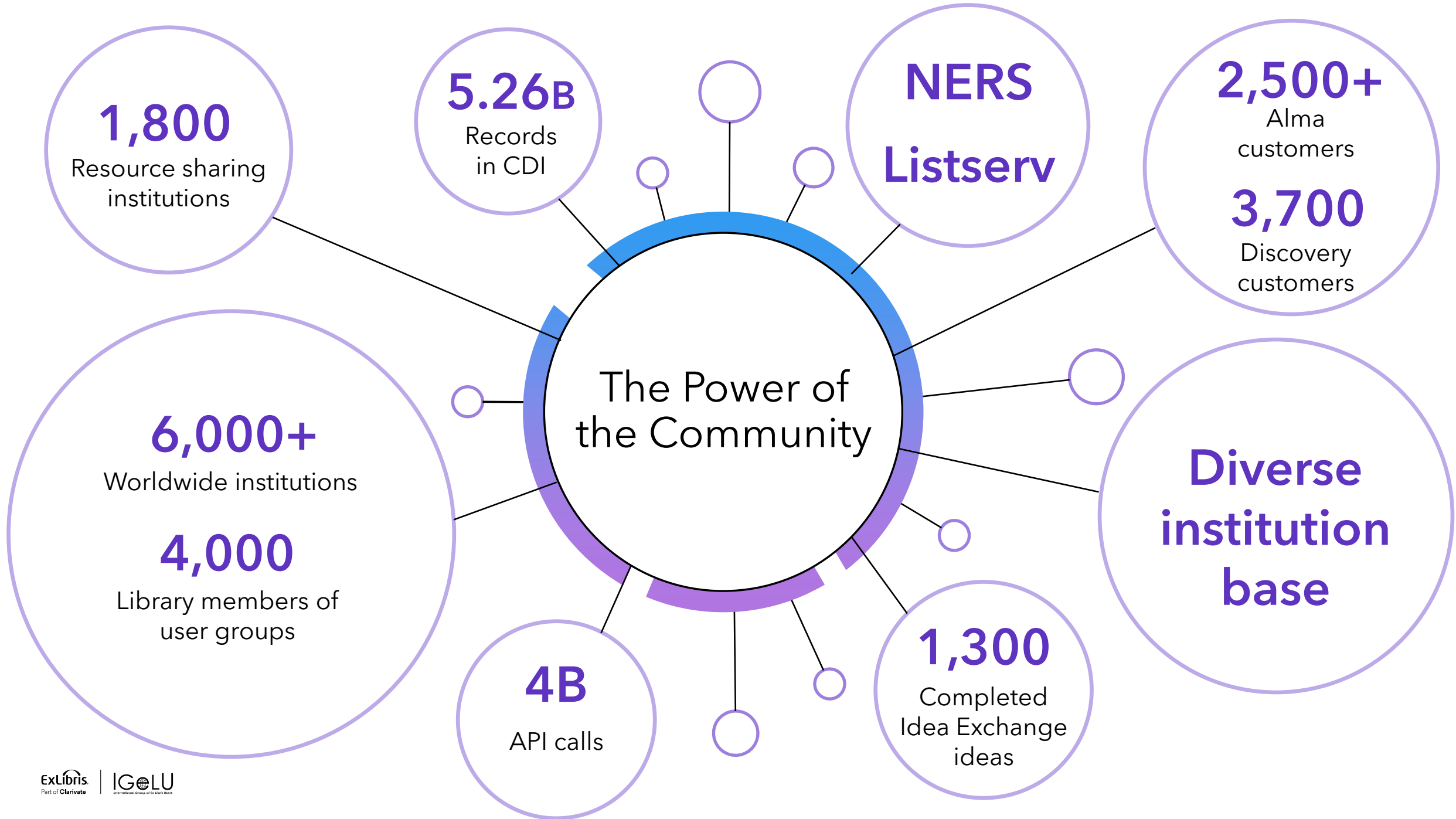


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What's next?

Openness == Community

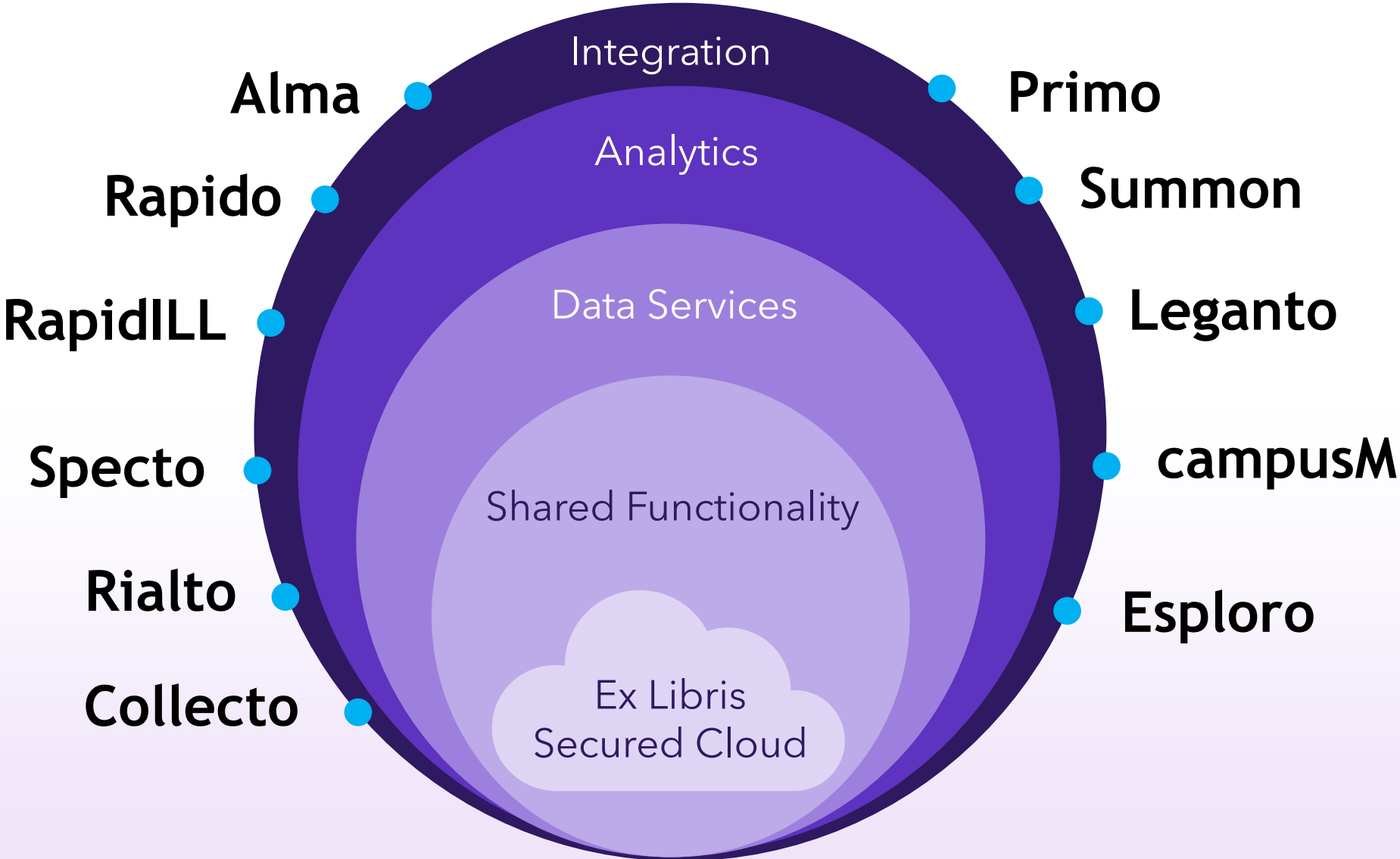
Being part of the  
**Library of Tomorrow**



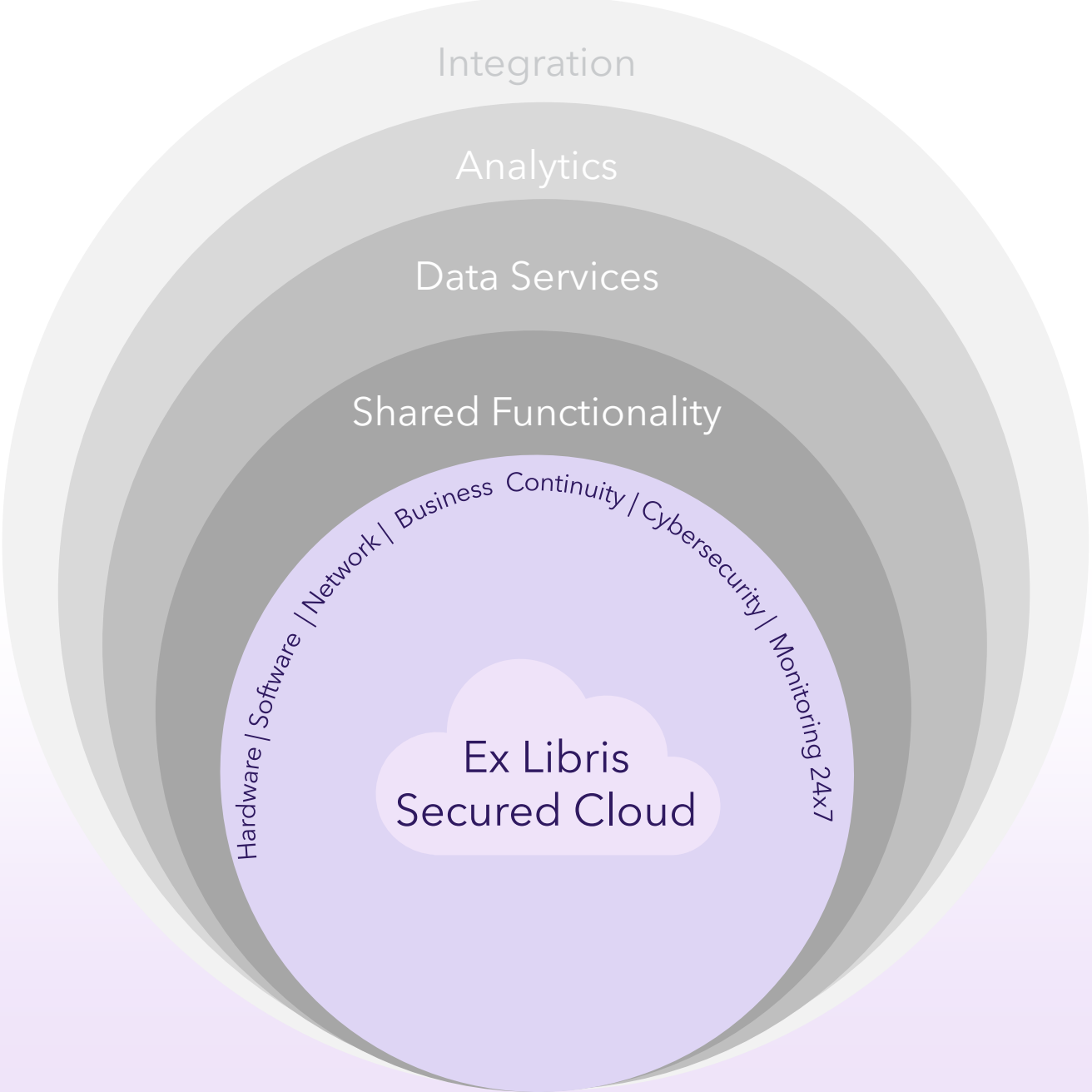
# What does “Open Platform” actually mean?



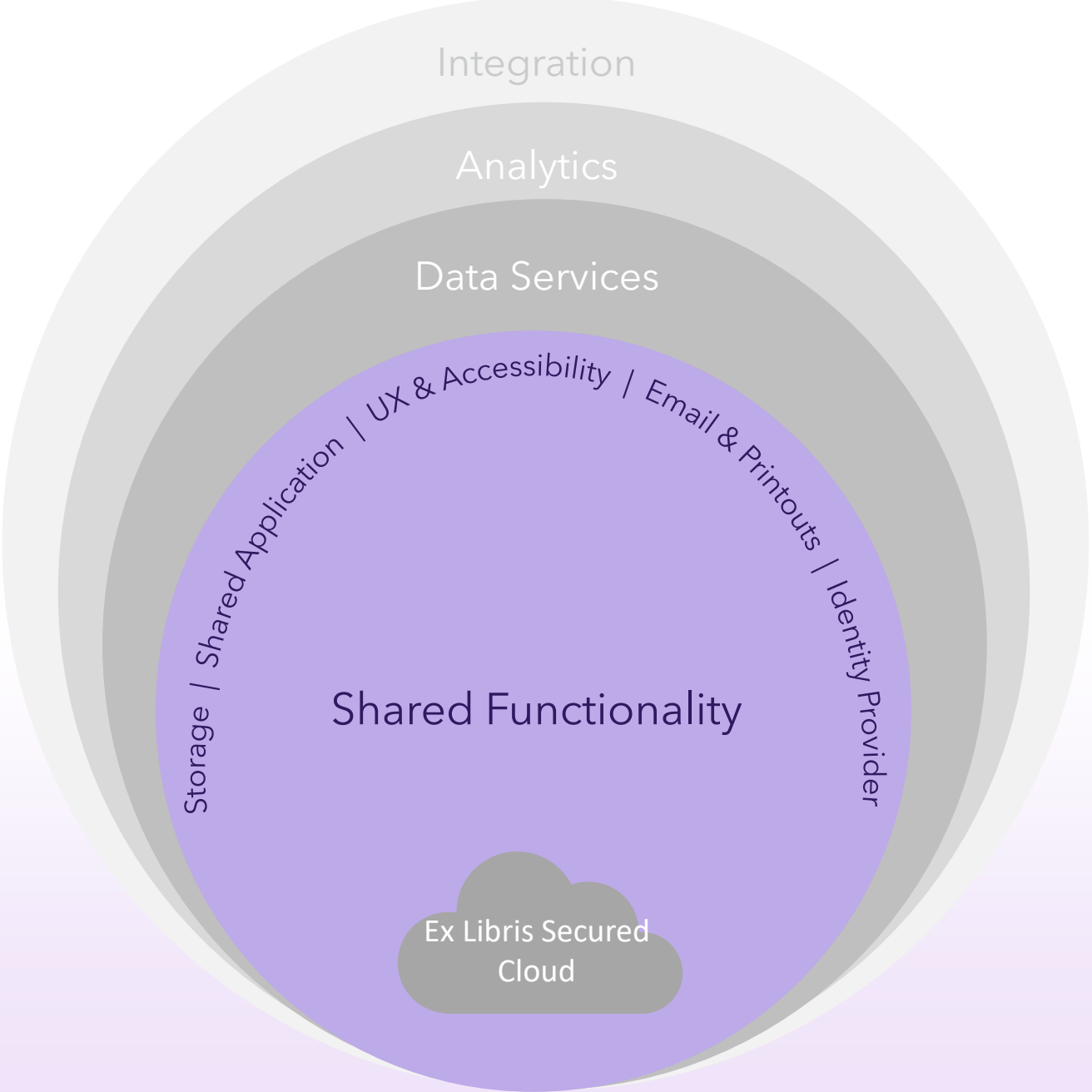
# The Library Open Platform



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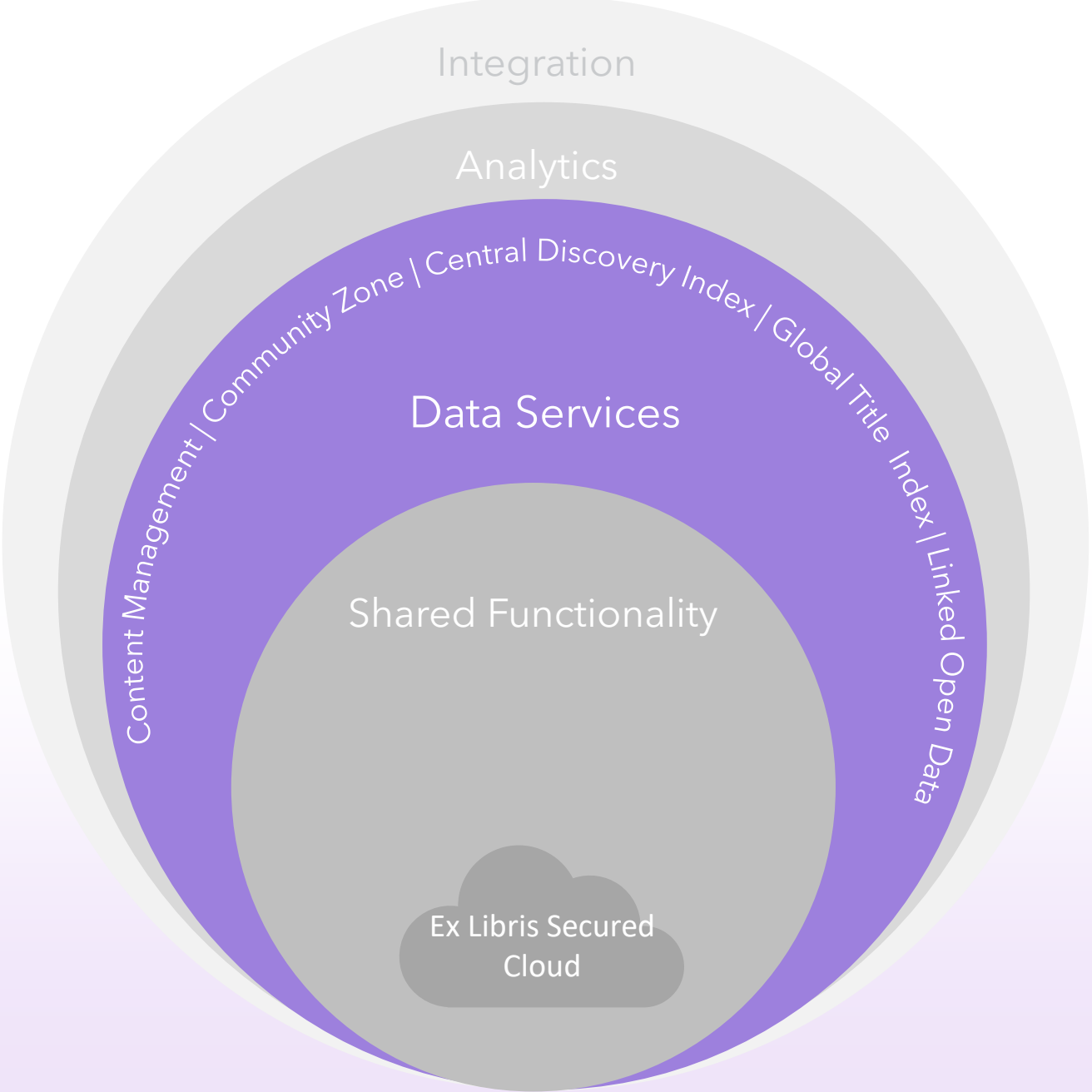


# The Library Open Platform

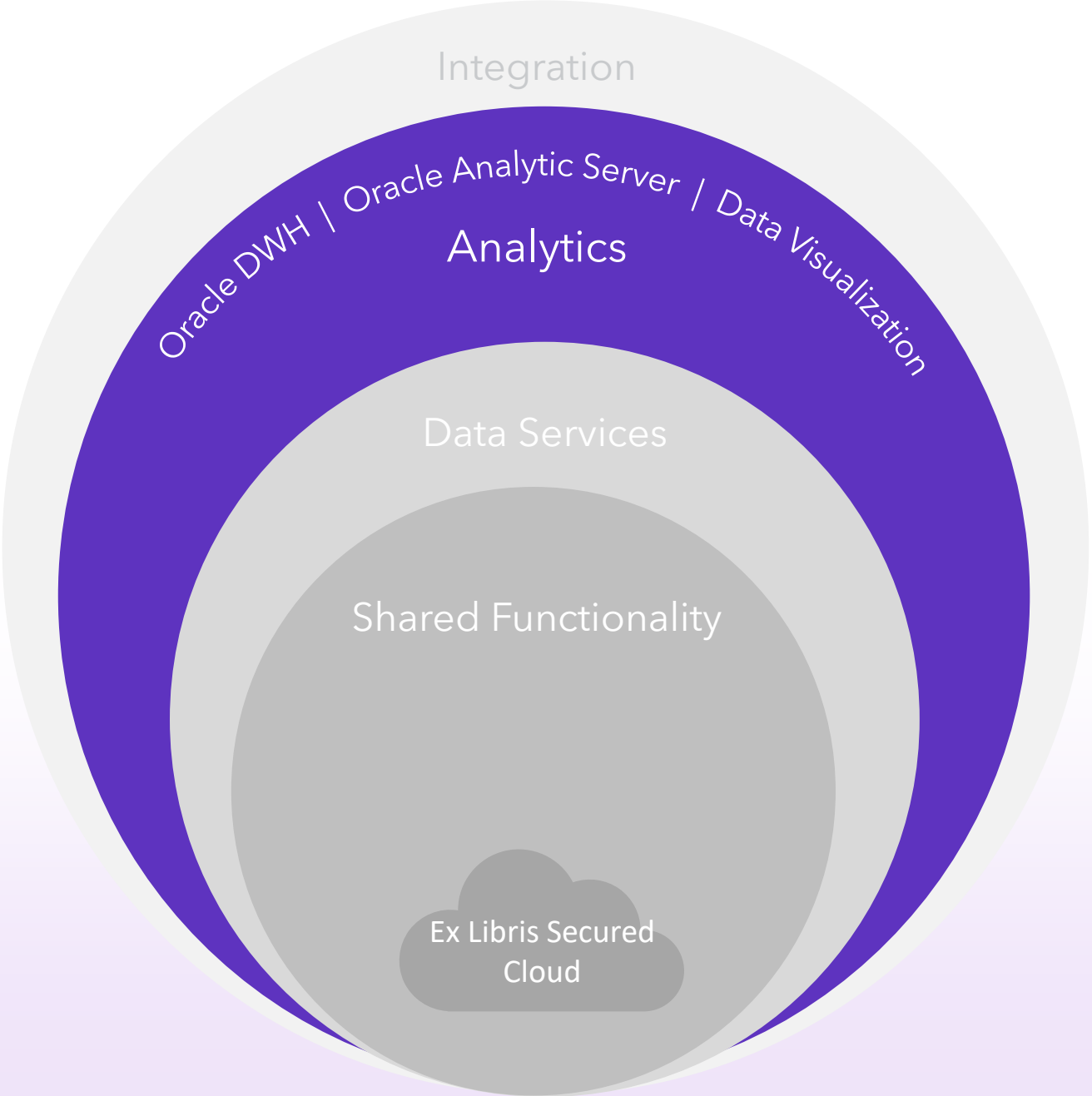




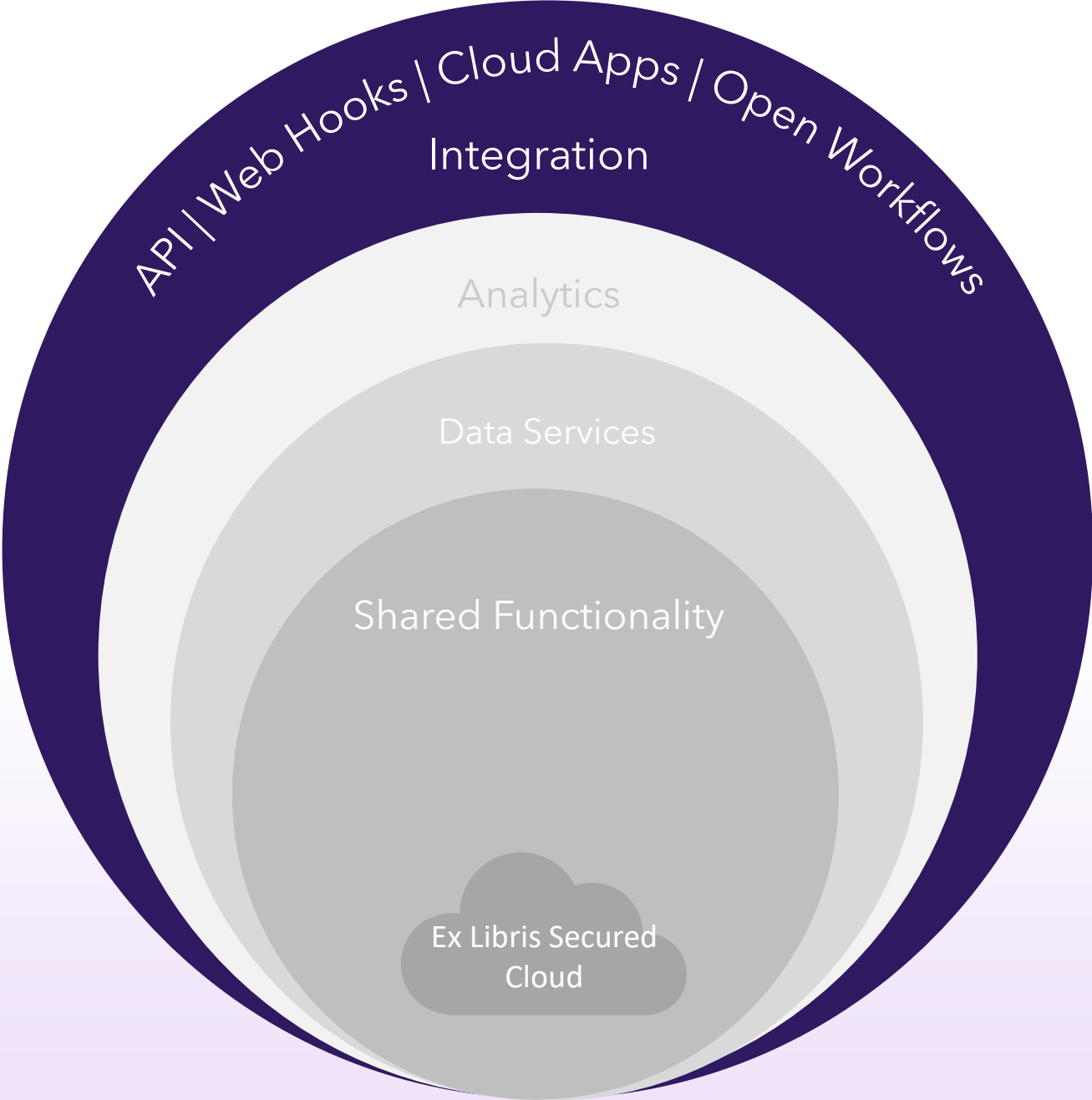
# The Library Open Platform



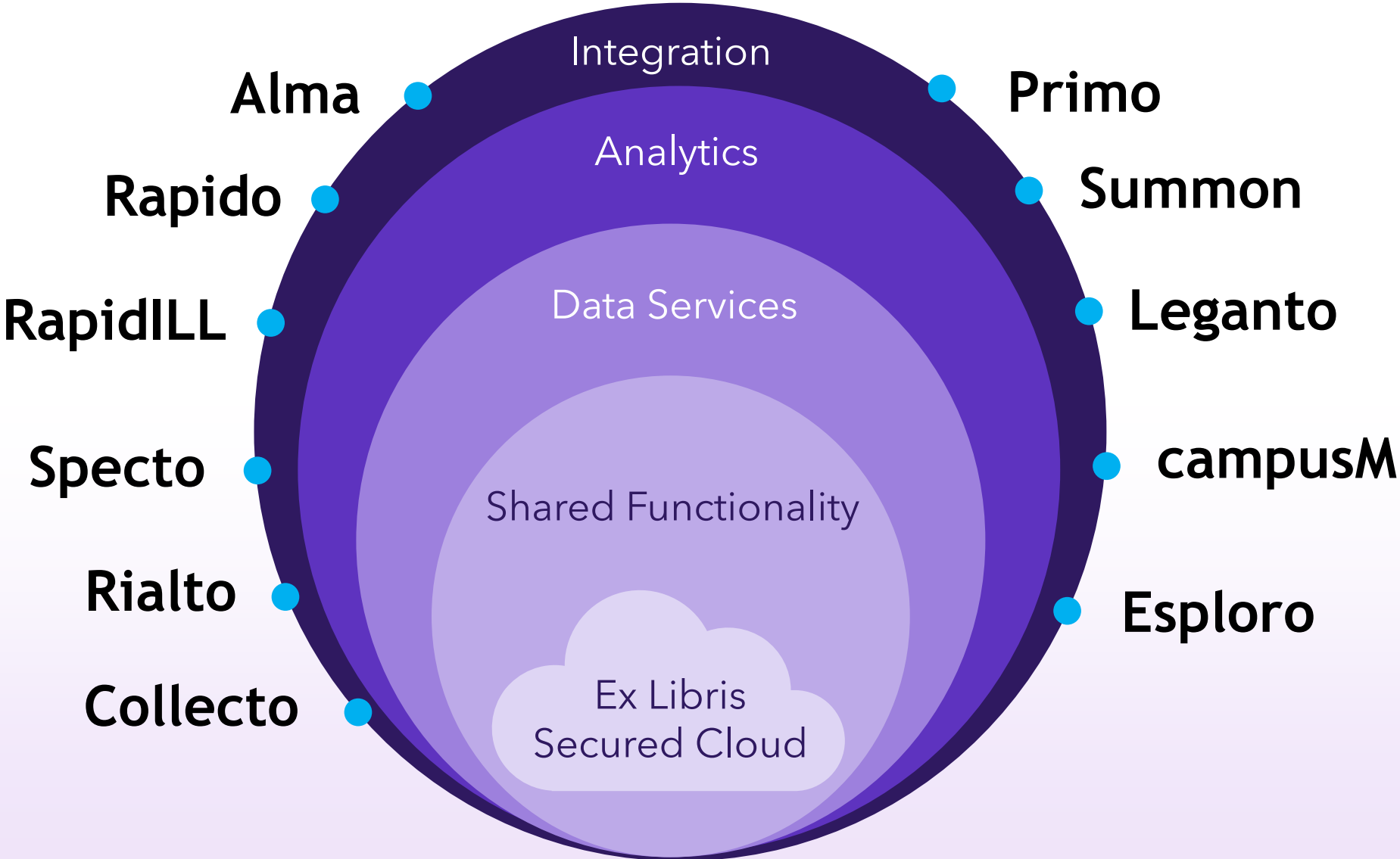
# The Library Open Platform



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# The Library Open Platform



# How open is the platform?



RESTful APIs



WebHooks



Open Standards

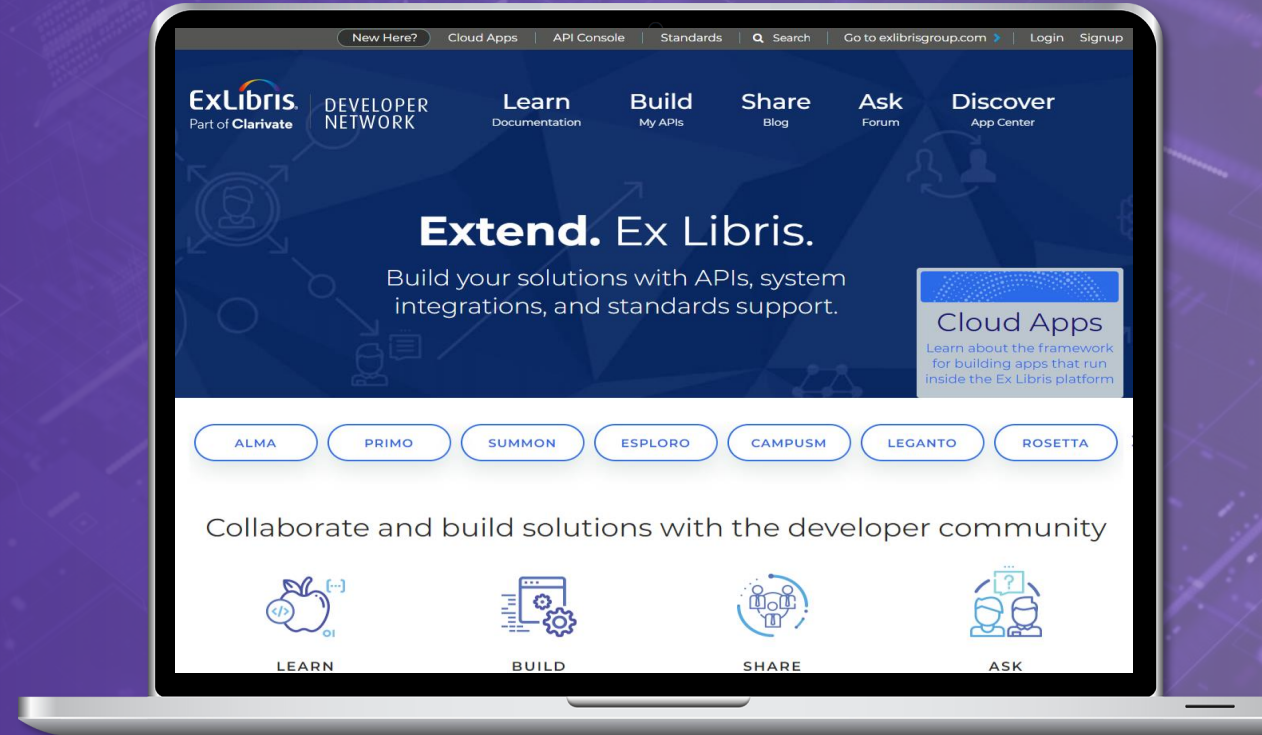


CloudApps

**4B** API calls in  
last 12 months

**48%**  
Growth in last 2  
Years

**>200 M**  
Webhooks in 2023



# How do our customers use our REST APIs?

Université  
de Liège

Enabling patron  
digitization requests



Linked Data info cards  
for identities in  
metadata



Custom letters and  
notifications via Alma  
Print Extension



Displaying library's  
opening hours on  
website

BOSTON  
COLLEGE

Course Reading  
List for Mobile

LANCASTER  
UNIVERSITY



Cash payment  
integration

MANCHESTER  
1824

Sentry Security Gate  
check



University of  
South Australia

Custom Portal/  
discovery



FREE UNIVERSITÄT BOZEN  
LIBRERIA UNIVERSITARIA DI BOZANO  
FREE UNIVERSITY OF BOZEN - BOZANO

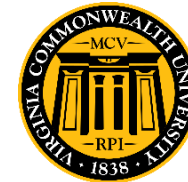
Real time  
synchronization with  
SIS

WITH  
PLYMOUTH  
UNIVERSITY

Reading Lists  
integration



Patron card via  
portal



ILLiad add-on  
integration

# Many possible integrations

Using industry standards

- Bursar
- Courses
- Digital
- EDI
- Electronic Holdings
- Finance
- Linked Data
- NCIP
- OAI
- Resource Sharing
- OpenAthens
- RFID
- Self Check
- SMS
- SRU
- Stunnel
- SWORD
- Users in Alma
- Webhooks
- Z39.50





# Over 50 Cloud Apps are out there...



## Print address

Zahra Mousavi  
Alma | Cloud App

It gives the possibility to select one or more users or partners and print their addresses. The



## InnReach locations setup

Ori Miller  
Alma | Cloud App

Easy setup of Alma's libraries & locations into InnReach



## Switch PO-Line type

Liron Menda  
Alma | Cloud App

Change a PO Line from Physical to Electronic. It is done by creating a new PO Line, and



## Libris Holdings

Royal Institute of Technology - Sweden  
Alma | Cloud App

Cloud App which connects records in Alma to Libris Holdings. Libris is the Swedish



## Orbis Cascade Label Printer

Orbis Cascade Alliance  
Alma | Cloud App

This Cloud App developed by the Orbis Cascade Alliance generates individual spine labels to send to



## Bulk Scan-In

Liron Menda  
Alma | Cloud App

This app allows you to perform the scan in operation on file of barcodes. Supports configuring



## CSV User Loader

Josh Weisman  
Alma | Cloud App

Create, update, and delete Alma users from a list in a comma separated file. Supports flexible



## Address manager

Marie Vařkiová  
Alma | Cloud App

An app to add/edit user addresses of type "alternative" in Alma. It displays the available



## Download BIB

omid soleimani  
Alma | Cloud App

The Download BIB app allows users to select a record in an Alma screen and download the



## Display user statistical category type

Technion Israel Institute of Technology  
Alma | Cloud App

Display users' statistical category types, for users in Alma screens such as Borrowing Requests and



## Last Copy

GIL Support  
Alma | Cloud App

This app can be used to identify whether a potential candidate for weeding is the last publicly-



## Appointment Scheduler

Josh Weisman  
Alma | Cloud App

Provides an interface to schedule appointments or events for Alma users. Features include: Define



## Invoice Line Tax Calculator

Josh Weisman  
Alma | Cloud App

This app allows you to configure tax rates per invoice line type. When you select invoices from a



## Interlibrary Add-on

Jorgen Jegsvien  
Alma | Cloud App

This Cloud App is adding features to help handling Borrowing Request activities more



## Trove Search

Nishen Naidoo  
Alma | Cloud App

Search TroveSimilar to the Hathi Trust app, use metadata from bib records and resource sharing



## POL Post Correction

Metadata Hangzhou  
Alma | Cloud App

When viewing a Purchase Order Line with status SENT: modify the Currency, Vendor, and Fund



## Print Bib Records

Ori Miller  
Alma | Cloud App

Allows quickly printing records from the repository hit list. Provides an XSL-based printing



## Touchnet Payment Helper

Josh Weisman  
Alma | Cloud App

Integrates a "Pay with Touchnet" option when accessing a user with an open balance. For



## Delete Your Sets

George Heydon  
Alma | Cloud App

This app enhances the existing Manage Sets admin page in Alma, allowing users to bulk



## Call Number Assistant

Metadata Hangzhou  
Alma | Cloud App

Look up title sequence number via external API and enhance the call number field based on this



## SpineOMatic Cloud App

Mark Gobat  
Alma | Cloud App

Prints spine and other labels for items from Alma. Supports defining layouts, templates,



## Alma Refine

Josh Weisman  
Alma | Cloud App

Refine bibliographic records with services that adhere to the OpenRefine standard.



## Receive New Serial Items

Ori Miller  
Alma | Cloud App

Currently in BETA. Search for (or navigate to) a continuous PO line. Supports specifying the



## NACSIS Holdings for Alma

Shay Hadar  
Alma | Cloud App

This app provides an integration with the Japanese NACSIS catalog. Currently supports the



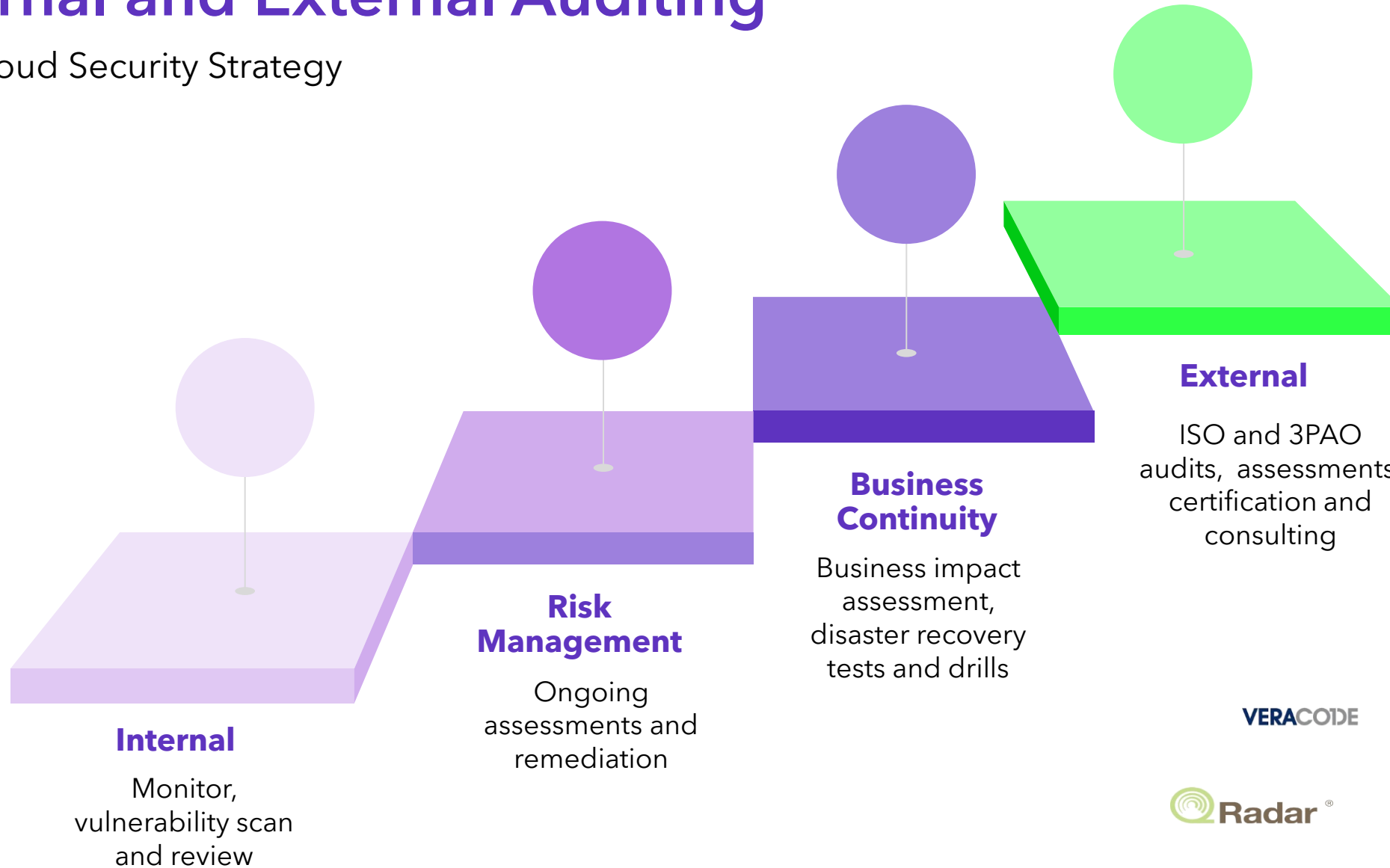
# Is being open enough?

What about cloud security  
and data protection?



# Internal and External Auditing

Our Cloud Security Strategy



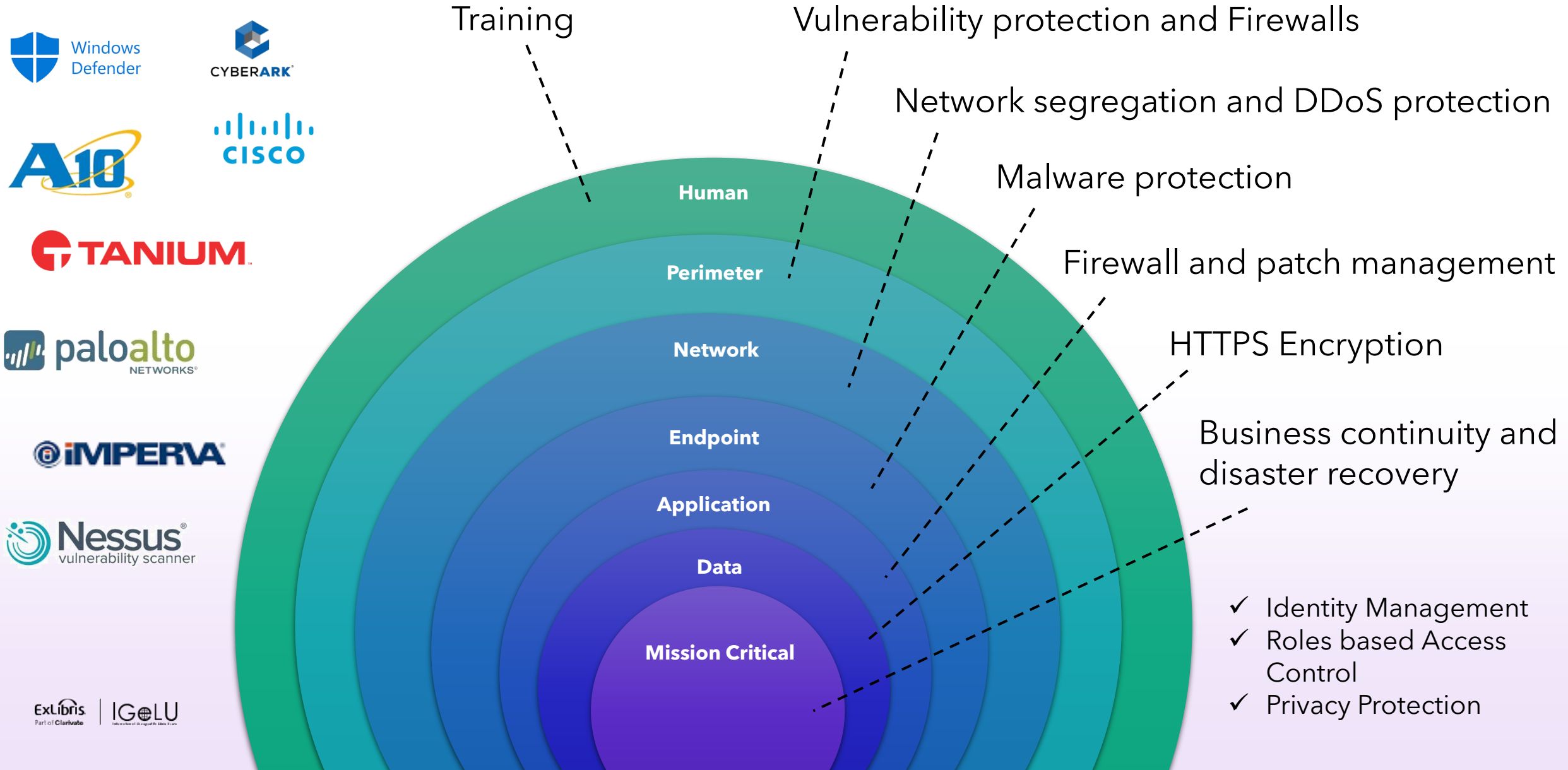
VERACODE



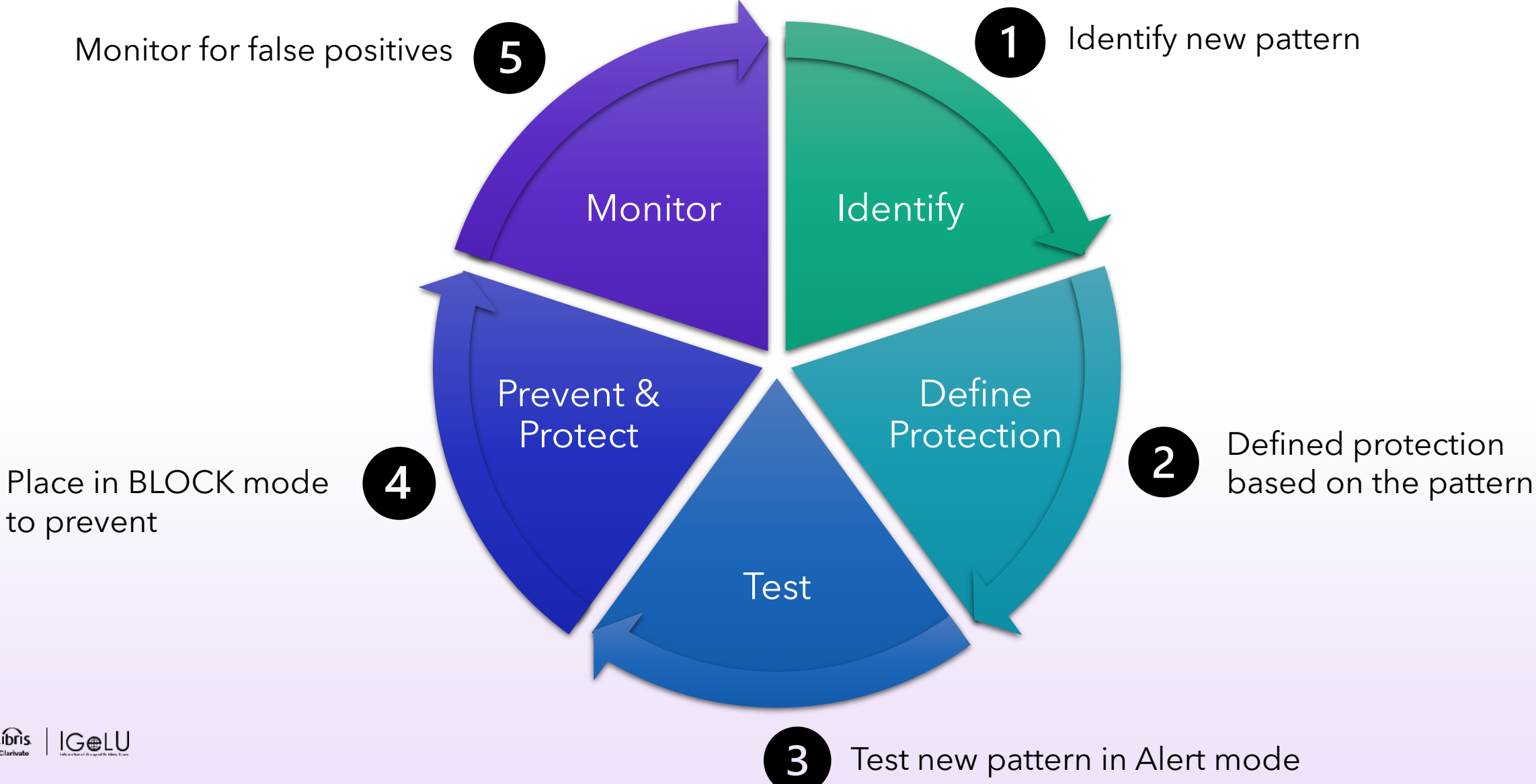
# Best-in-class security and privacy standards



# Cloud Cybersecurity for all Layers



# Security Operation throughout the year



# Security and Privacy Incident Management 24x7

- Incident response
- Event management
- Escalation
- Ongoing updates
- Root cause analysis
- Service Disruption Policy
- Uptime reports



See Ex Libris **S**ecurity **O**perations **C**enter



# Collaborate and share



# Using the Community Zone

- Content
  - Bibliographic Record
  - Portfolio
  - Collection
  - General Electronic Service
- Rules and Templates
- Import Profiles
- Publishing Profiles

**Data.** (99541000000102969)

Record 08 95 MARC21 Bib **Community Record**

LDR	01448ngm#a22003731#4500
001	99541000000102969
005	20210607122642.8
006	m     o  c

Electronic Collection Editor

Contribute to Community Cancel

Electronic Collection Description General Additional Notes Group Settings History CDI

Summary and inventory information

Type Database

Interface name

Rule sharing

Name\* Add 245 h (video)

Description: Add 245 h (video) when pgs 6 of LDR is g

Contact name Stein, Adam

Contact email Adam.Stein@exlibrisgroup.com

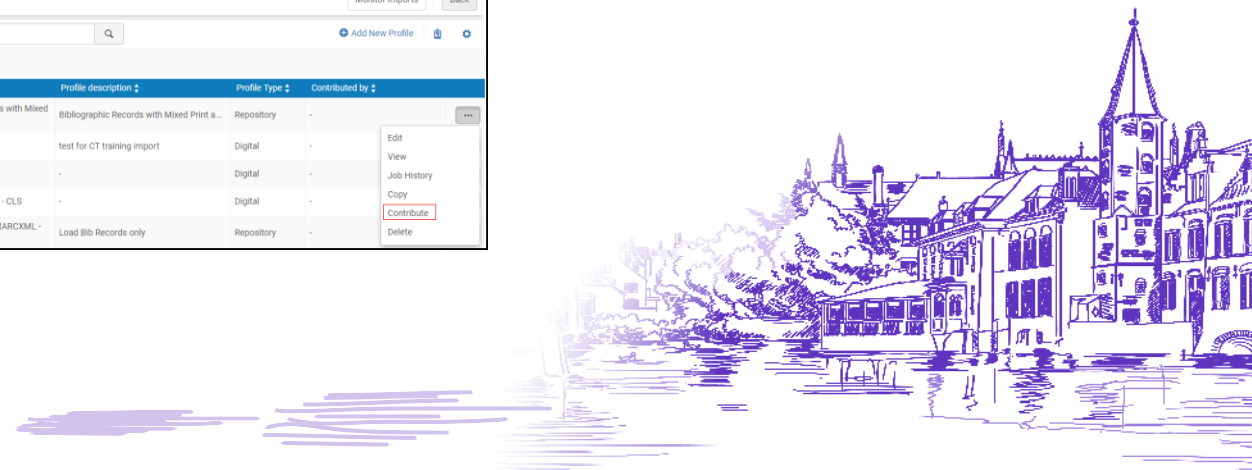
Ok Cancel

Import Profiles

1 - 18 of 18 Profile name Add New Profile

Profile type: All

ID	ID#	Profile name	Profile description	Profile Type	Contributed by	
1	88284800000521	L. Bibliographic Records with Mixed Print a...	Bibliographic Records with Mixed Print a...	Repository	-	...
2	950112340000521	A... Botany 101 - CT	test for CT training import	Digital	-	Edit View Job History Copy Contribute Delete
3	949467330000521	A... CLS_D_SPACE	-	Digital	-	
4	949378350000521	A... Dublin Core Example - CLS	-	Digital	-	
5	30786370000541	A... Load Bib Records - MARCXML - import when...	Load Bib Records only	Repository	-	



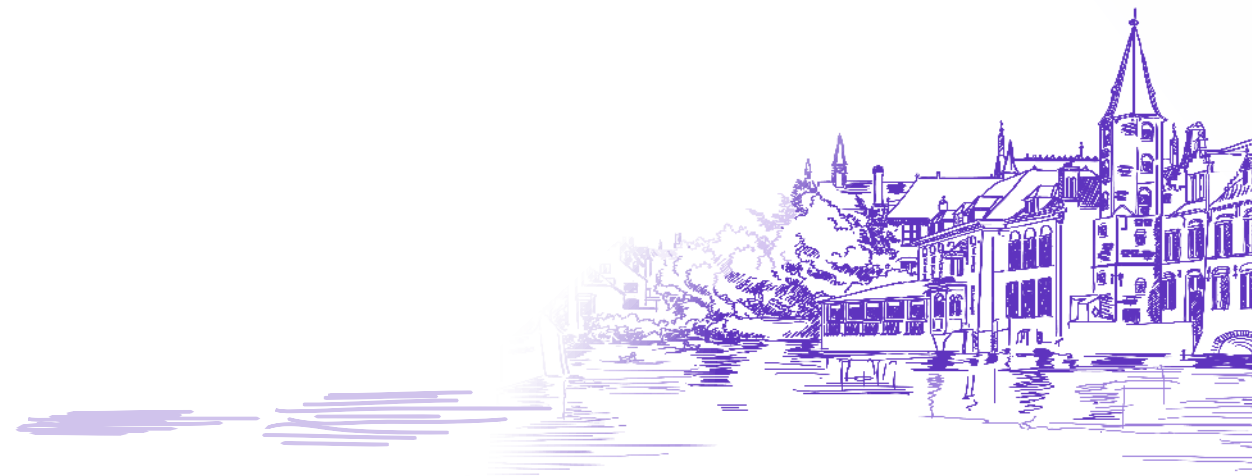


# Using the Community Zone

- Content
  - Bibliographic Record
  - Portfolio
  - Collection
  - General Electronic Service
- Rules and Templates
- Import Profiles
- Publishing Profiles

The image displays three screenshots from the Ex Libris Community Zone interface:

- Top Left:** A record detail view for ID (99541000000102969). It shows tabs for Record, 08, 95, MARC21 Bib, and Community Record (highlighted with a red box). Below the tabs is a table with LDR and other identifiers.
- Top Right:** The 'Electronic Collection Editor' interface. It has tabs for Electronic Collection Description, General, Additional, Notes, Group Settings, History, and CCI. A 'Contribute to Community' button is highlighted with a red box.
- Bottom Left:** A 'Rule sharing' dialog box. It contains fields for Name\* (Add 245 h (video)), Description (Add 245 h (video) when pos 6 of LDR is g), Contact name (Stein, Adam), and Contact email (Adam.Stein@exlibrisgroup.com). The contact information fields are highlighted with a red box.
- Bottom Right:** An 'Import Profiles' table listing various profiles. The table has columns for ID, Sta, Profile name, Profile description, Profile Type, and Contributed by. A 'Contribute' button is highlighted in red for the profile with ID 5.



# The Open ILL Network



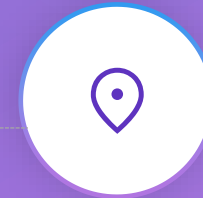
**Fill rate:**  
Physical items: **87%**  
Digital items: **92%**



Filled by 1<sup>st</sup> lender: **96%**



2023 requests fulfilled:  
**2.6 million**



**~1,500** active libraries:  
**Rapido, RapidILL, Alma RS**

# Open ILL Network

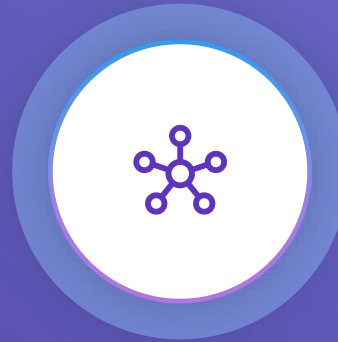


## Interoperability

Advocate for standards based, open and extensible approaches to ILL interoperability

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Example:  
ILL system to ILL system



## Integration

- Combining systems to function as a unified whole
- Support integration approaches

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Example:  
ILL system with ILS

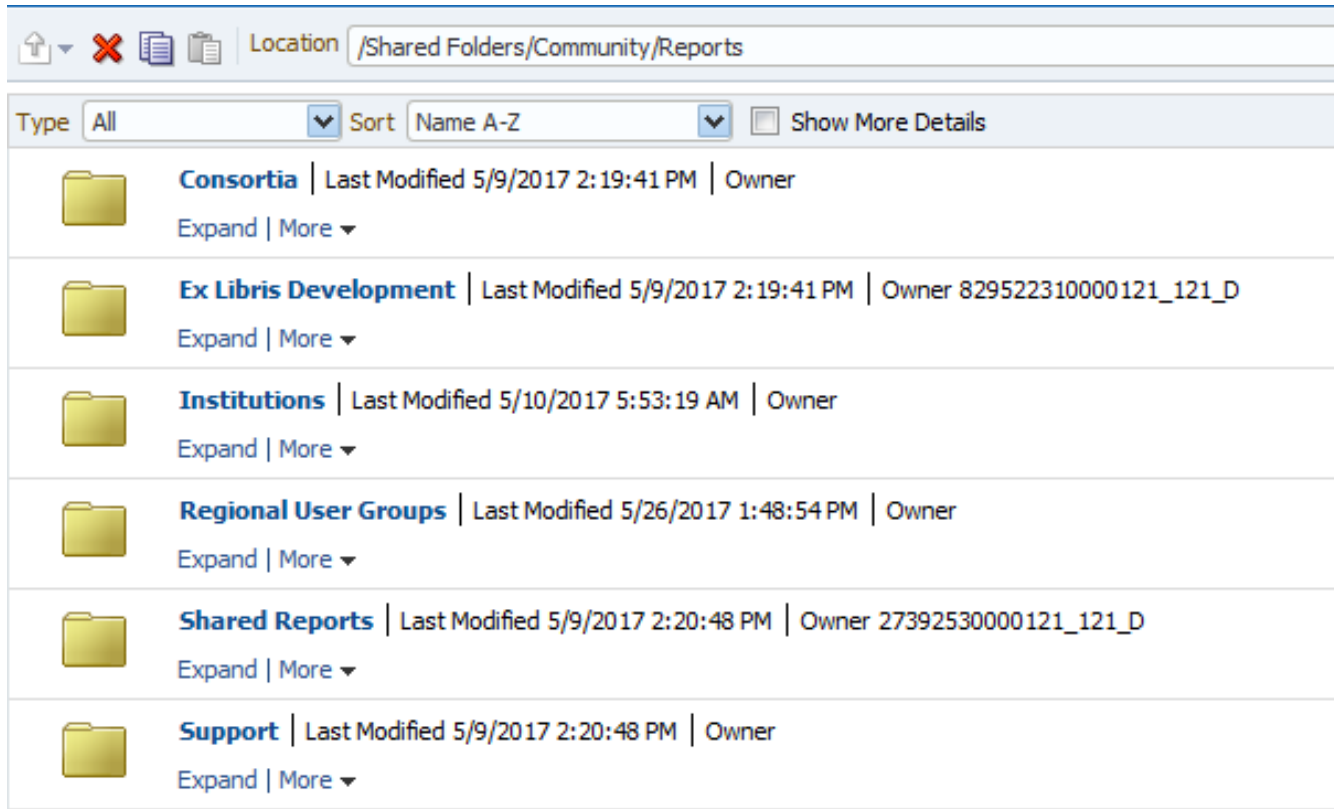


## Flexibility

- Do no harm
- Adapt to changing circumstances
- Be responsive and resilient
- Provide reasonable notice

# Sharing reports

In Analytics you have a Community folder, which enables institutions to contribute and share reports with one another.



The screenshot displays a file explorer interface for the path `/Shared Folders/Community/Reports`. The interface includes a toolbar with icons for navigation and actions, and a header section with filters for 'Type' (set to 'All'), 'Sort' (set to 'Name A-Z'), and a 'Show More Details' checkbox. Below the header, a list of folders is shown, each with a yellow folder icon, a name, a 'Last Modified' timestamp, and an 'Owner' name. Each folder entry also includes 'Expand' and 'More' options.

Folder Name	Last Modified	Owner
Consortia	5/9/2017 2:19:41 PM	Owner
Ex Libris Development	5/9/2017 2:19:41 PM	829522310000121_121_D
Institutions	5/10/2017 5:53:19 AM	Owner
Regional User Groups	5/26/2017 1:48:54 PM	Owner
Shared Reports	5/9/2017 2:20:48 PM	27392530000121_121_D
Support	5/9/2017 2:20:48 PM	Owner

[Community Folder Structure - Ex Libris Knowledge](#)



# What's next?



# What are we hearing?



There is a **learning curve** for writing Cloud Apps



Cloud Apps are great!  
For **UI integration...**



We need an **easy** way to send SMS's



Give us tools to **schedule scripts**



What about **AI** for developers?

# What do we want to change?

- Lower the technical barrier
- Enable new capabilities (e.g. custom batch jobs)
- Enable better integrations in the Enterprise ecosystem

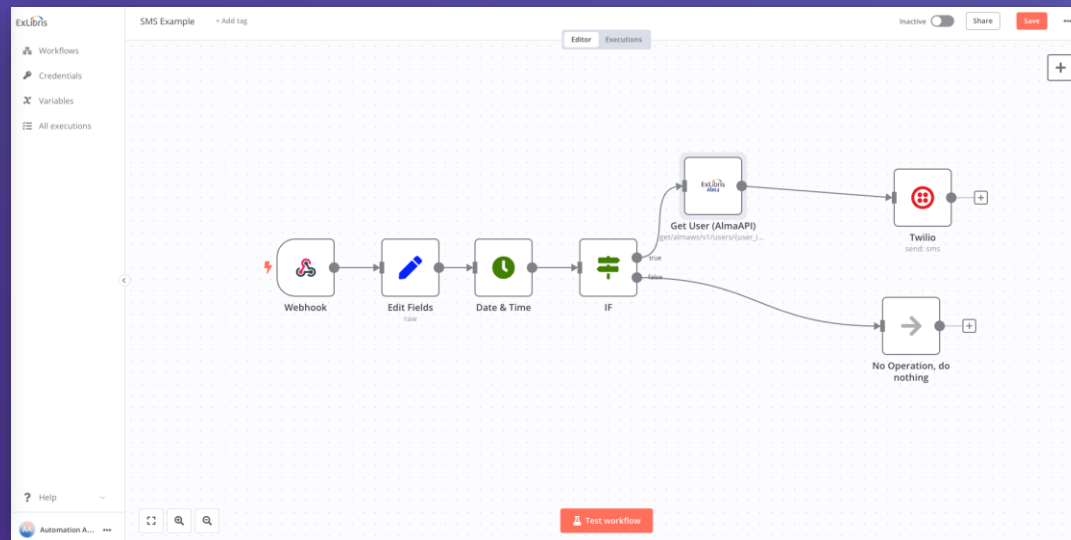




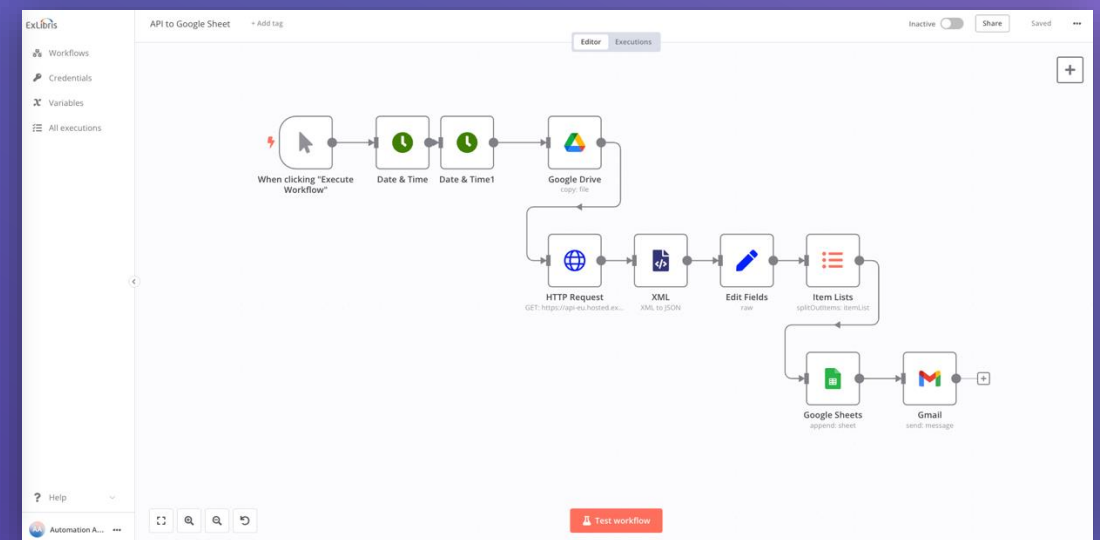
# Library Open Workflows - Examples



## Send SMS on checkout



## Automatic report to Google Sheet
























# How will we be able to share workflows?

## Workflow templates






































### Categories

- All Categories
- Acquisitions
- Resources
- Fulfillment
- Analytics
- Admin
- Resource Sharing






































### Workflows (12)

<b>Automated Web Scraping: email a CSV, save to Google Sheets &amp; Microsoft Excel</b> 2 months ago   Ex Libris	    
<b>Update Alma users based on Excel 365 data</b> 5 day ago   Ex Libris	
<b>Get all Excel workbooks</b> 1 week ago   Ex Libris	
<b>Reconcile Rent Payments with Local Excel Spreadsheet and OpenAI</b> 1 month ago   Ex Libris	    
<b>Get CSV from URL and convert to Excel</b> 7 months ago   Ex Libris	
<b>Convert SQL table into Excel spreadsheet</b> 1 year ago   Ex Libris	
<b>Working with Excel spreadsheet files (xls &amp;xlsx)</b> 1 year ago   Ex Libris	   
<b>Insert Excel data to Postgres</b> 4 years ago   Ex Libris	

# Very large number of included integrations

 <b>Action in an app</b> Do something in an app or service like Google Sheets, Telegram or Notion →	 AlmaApi →	 Microsoft OneDrive →
 <b>Data transformation</b> Manipulate data, run JavaScript code, etc. →	 AWS S3 →	 Microsoft Outlook →
 <b>Flow</b> IF, Switch, Wait, Compare and Merge data, etc. →	 DebugHelper →	 Microsoft SQL →
 <b>Files</b> CSV, XLS, XML, text, images, etc. →	 Dropbox →	 Microsoft Teams →
 <b>Core</b> Code, HTTP Requests (API Calls), Webhook, and other helpers →	 GitHub →	 MongoDB →
	 GitLab →	 MySQL →
	 Gmail →	 Postgres →
	 Google Chat →	 RSS Read →
	 Google Cloud Firestore →	 S3 →
	 Google Cloud Realtime Database →	 Send Email →
 <b>Advanced AI</b> <span>New</span> → Build autonomous agents, summarize or interrogate documents, etc.	 Google Cloud Storage →	 seven →
	 Google Drive →	 Slack →
	 Google Sheets →	 Snowflake →
	 Microsoft Excel 365 →	 Sticky Note →
 <b>Add another trigger</b> Triggers start your workflow. Workflows can have multiple triggers. →	 Microsoft OneDrive →	 Twilio →

# All the actions you need

<p><b>Popular</b> ▾</p> <ul style="list-style-type: none"><li> <b>Filter</b> Remove items matching a condition</li><li> <b>If</b> Route items to different branches (true/false)</li><li> <b>Loop Over Items (Split in Batches)</b> Split data into batches and iterate over each batch</li><li> <b>Merge</b> Merges data of multiple streams once data from both is available</li></ul> <p><b>Other</b> ▾</p> <ul style="list-style-type: none"><li> <b>Compare Datasets</b> Compare two inputs for changes</li><li> <b>Execute Workflow</b> Helpers for calling other n8n workflows. Used for designing modular, microservice-like workflows. →</li><li> <b>Stop and Error</b> Throw an error in the workflow</li><li> <b>Switch</b> Route items depending on defined expression or rules</li><li> <b>Wait</b> Wait before continue with execution</li><li> <b>Workflow</b> Triggers based on various lifecycle events, like when a workflow is activated →</li></ul>	<p><b>Popular</b> ▾</p> <ul style="list-style-type: none"><li> <b>Code</b> Run custom JavaScript or Python code</li><li> <b>Date &amp; Time</b> Manipulate date and time values →</li><li> <b>Edit Fields (Set)</b> Modify, add, or remove item fields</li></ul> <p><b>Add or remove items</b> ▾</p> <ul style="list-style-type: none"><li> <b>Filter</b> Remove items matching a condition</li><li> <b>Limit</b> Restrict the number of items</li><li> <b>Remove Duplicates</b> Delete items with matching field values</li><li> <b>Split Out</b> Turn a list inside item(s) into separate items</li></ul> <p><b>Combine items</b> ▾</p> <ul style="list-style-type: none"><li> <b>Aggregate</b> Combine a field from many items into a list in a single item</li><li> <b>Merge</b> Merges data of multiple streams once data from both is available</li><li> <b>Summarize</b></li></ul>	<p><b>Popular</b> ▾</p> <ul style="list-style-type: none"><li> <b>Code</b> Run custom JavaScript or Python code</li><li> <b>HTTP Request</b> Makes an HTTP request and returns the response data</li><li> <b>Webhook ⚡</b> Starts the workflow when a webhook is called</li></ul> <p><b>Other</b> ▾</p> <ul style="list-style-type: none"><li> <b>Execute Command</b> Executes a command on the host</li><li> <b>Execute Workflow</b> Helpers for calling other n8n workflows. Used for designing modular, microservice-like workflows. →</li><li> <b>Execution Data</b> Add execution data for search</li><li> <b>n8n</b> Handle events and perform actions on your n8n instance →</li><li> <b>No Operation, do nothing</b> No Operation</li><li> <b>Respond to Webhook</b> Returns data for Webhook</li><li> <b>Wait</b> Wait before continue with execution</li></ul>	<p><b>Popular</b> ▾</p> <ul style="list-style-type: none"><li> <b>Convert to File</b> Convert JSON data to binary data →</li><li> <b>Extract from File</b> Convert binary data to JSON →</li></ul> <p><b>Other</b> ▾</p> <ul style="list-style-type: none"><li> <b>Compression</b> Compress and decompress files →</li><li> <b>Edit Image</b> Edits an image like blur, resize or adding border and text →</li><li> <b>FTP</b> Transfer files via FTP or SFTP →</li><li> <b>Local File</b> Triggers a workflow on file system changes →</li><li> <b>Read/Write Files from Disk</b> Read or write files from the computer that runs n8n →</li></ul>
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# Open Workflows - Timeline

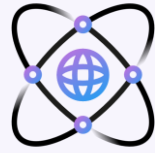


# Why choose Library Open Workflows?



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Lowering the  
technical barrier



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Making the complex possible



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Centralized and standardized



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Less dependency on  
experts (IT)



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Secured environment



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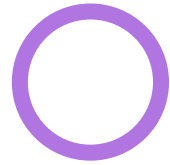
Future-ready

# Library Open Platform



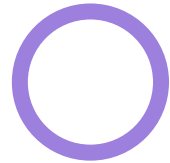
## Takeaways

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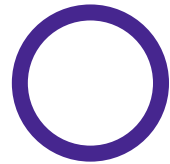
Community is driving the openness

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It must be an open and secured platform

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Boost productivity by using open workflows



# Your Voice Matters!

Register now for our  
**Voice of Customer survey**  
launching **October 22<sup>nd</sup>**



Don't miss your chance to win a prize at IGeLU 2024 by registering for our survey!



[Sign up now](#)





Thank You

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