The UC Davis BIBFLOW Project

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IAML Congress
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Overview of BIBFLOW Project

- A 2-year project of the UC Davis University Library and Zepheira, funded by the Institute of Museum and Library Sciences (May 2014 – April 2016)

- Official title: "Reinventing Cataloging: Models for the Future of Library Operations"

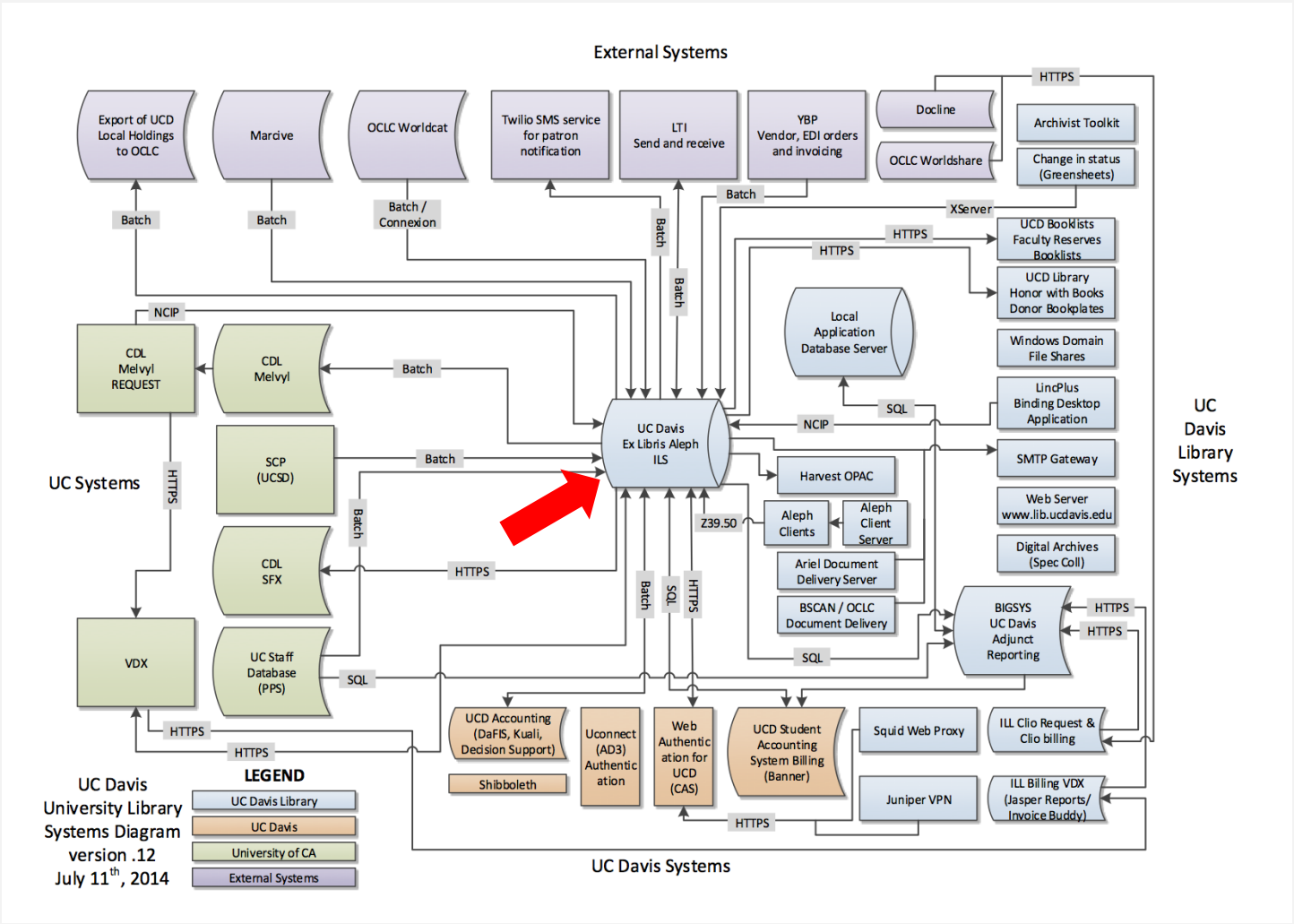
What is BibFrame?

- A web-based replacement for the MARC format
- Designed for a linked data model, utilizing Resource Description Framework (RDF) and Uniform Resource Identifiers (URI)
- www.loc.gov/bibframe

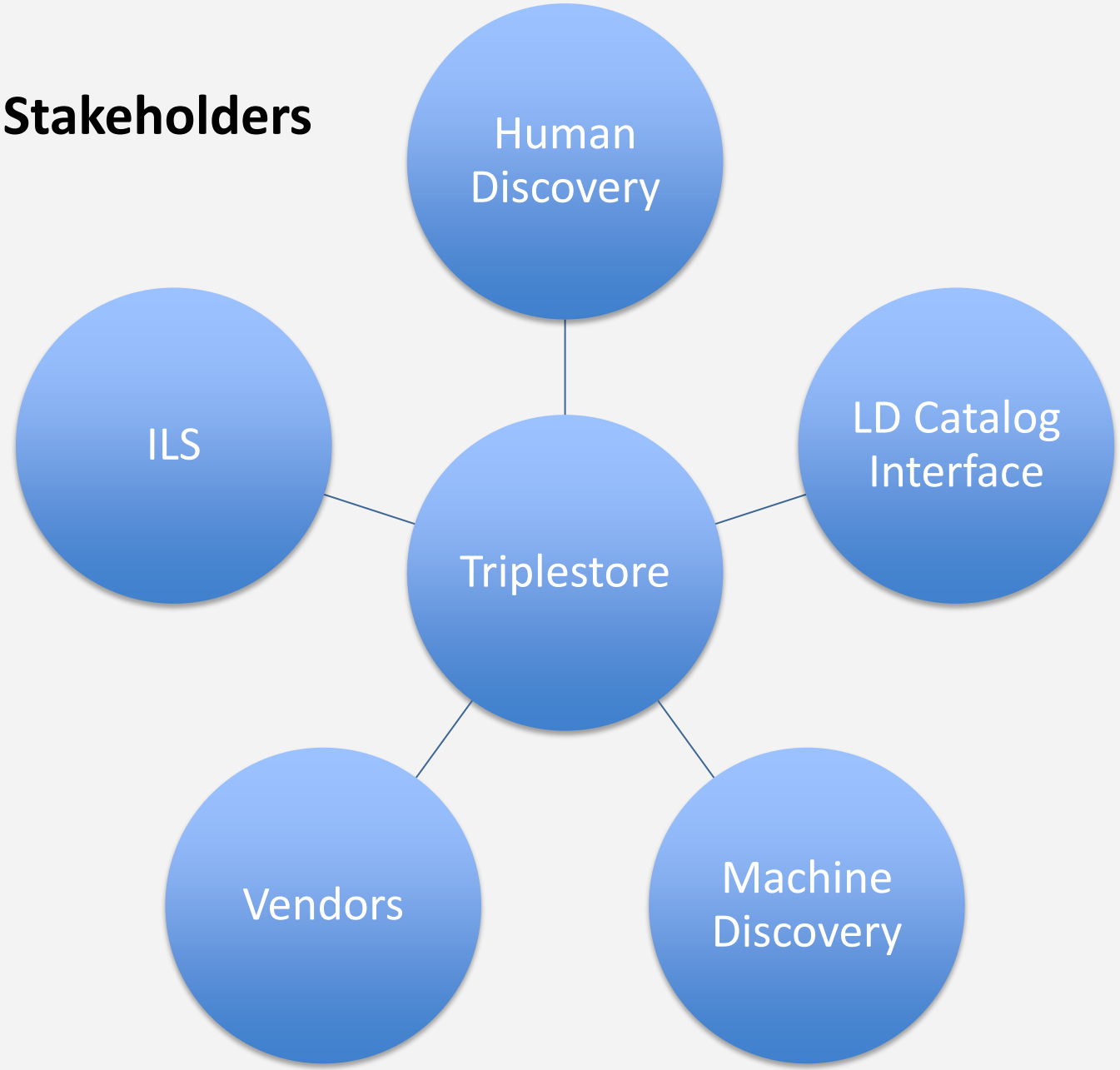
Overview of BIBFLOW Project

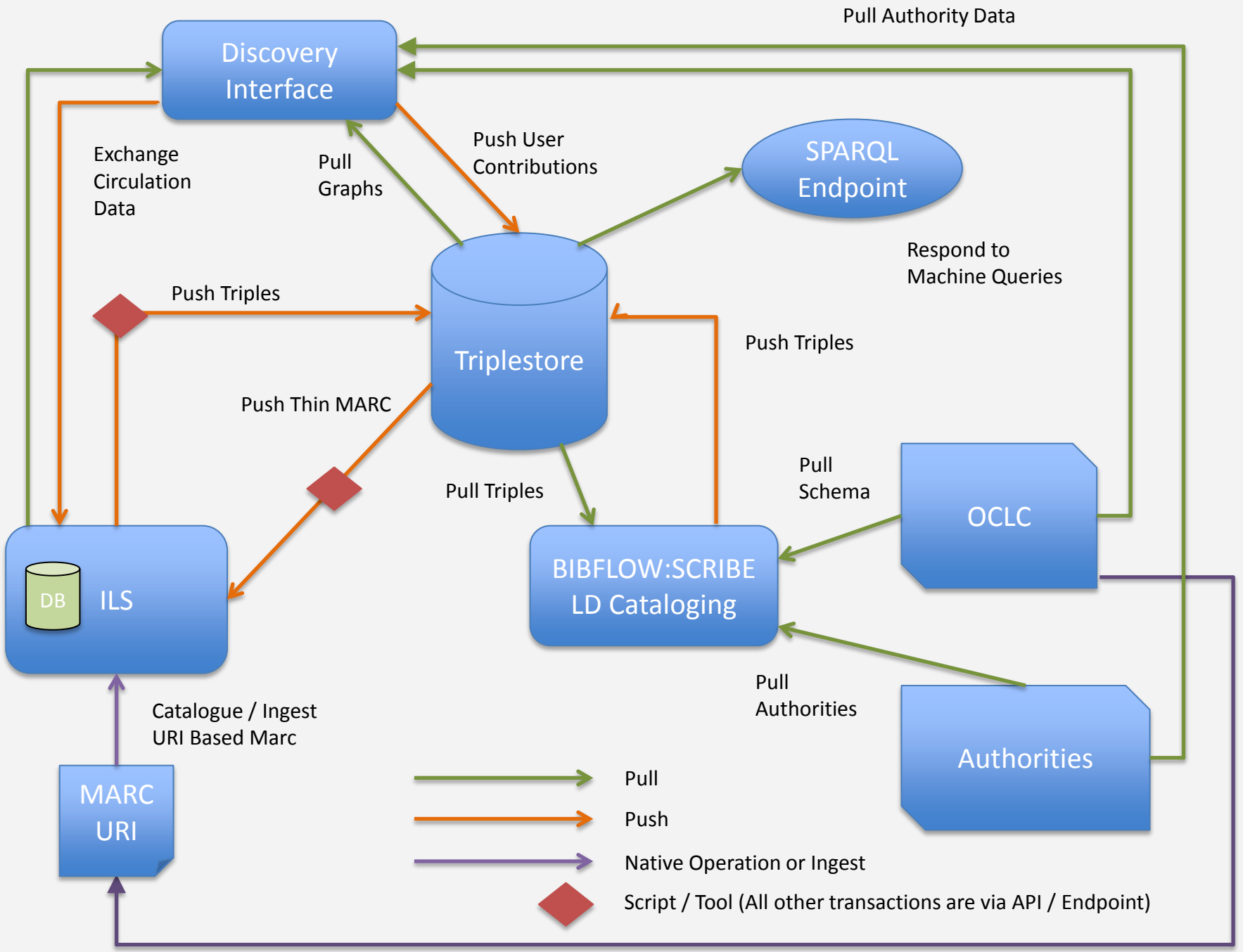
- A research project that will address questions like "What impact will adoption of BIBFRAME have on technical services workflows in an academic library"?

- Its primary purpose is to understand the ecosystem, test solutions, and provide a roadmap of how libraries can iteratively migrate to linked data without disrupting patron or business services.

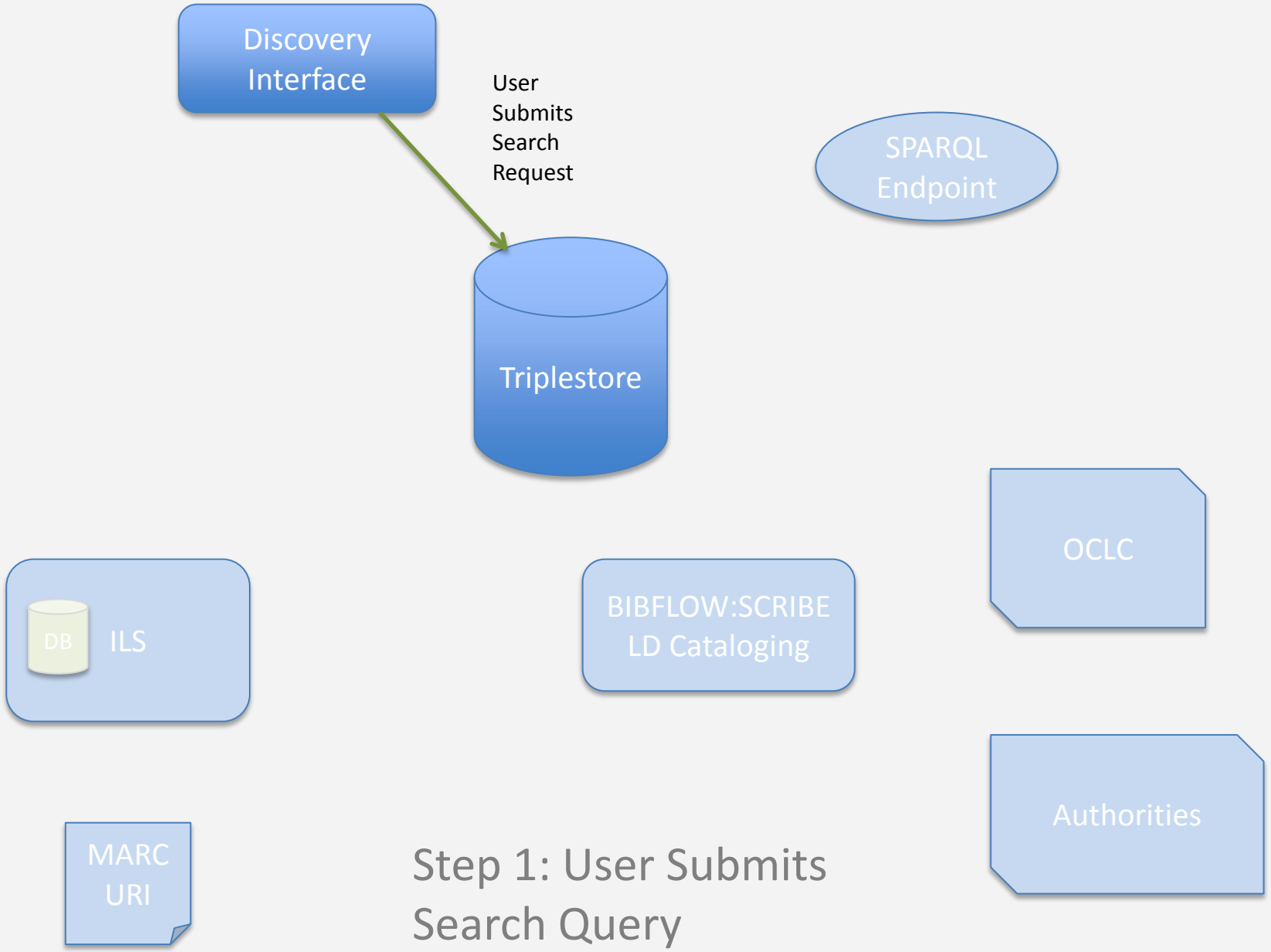

External Systems
Export of UCD Local Holdings to OCLC
Marcive
OCLC Worldcat
Twilio SMS service for patron notification
LTI Send and receive
YBP Vendor, EDI orders and invoicing
Docline
OCLC Worldshare
Archivist Toolkit
Change in status (Greensheets)
HTTPS
XServer
Batch
Batch / Connexion
UCD Booklists Faculty Reserves Booklists
UCD Library Honor with Books Donor Bookplates
Windows Domain File Shares
LincPlus Binding Desktop Application
SMTP Gateway
Web Server www.lib.ucdavis.edu
Digital Archives (Spec Coll)
Local Application Database Server
NCIP
CDL Melvyl REQUEST
CDL Melvyl
SCP (UCSD)
CDL SFX
VDX
UC Staff Database (PPS)
UC Systems
UC Davis Ex Libris Aleph ILS
Harvest OPAC
Aleph Clients
Aleph Client Server
Z39.50
Ariel Document Delivery Server
BSCAN / OCLC Document Delivery
BIGSYS UC Davis Adjunct Reporting
SQL
UC Davis Library Systems
UCD Accounting (DaFIS, Kuali, Decision Support)
Shibboleth
Uconnect (AD3) Authentication
Web Authentication for UCD (CAS)
UCD Student Accounting System Billing (Banner)
Squid Web Proxy
Juniper VPN
ILL Clio Request & Clio billing
ILL Billing VDX (Jasper Reports/ Invoice Buddy)
UC Davis Systems
UC Davis University Library Systems Diagram version .12 July 11th, 2014
LEGEND
UC Davis Library
UC Davis
University of CA
External Systems

Roadmap: Primary Stakeholders

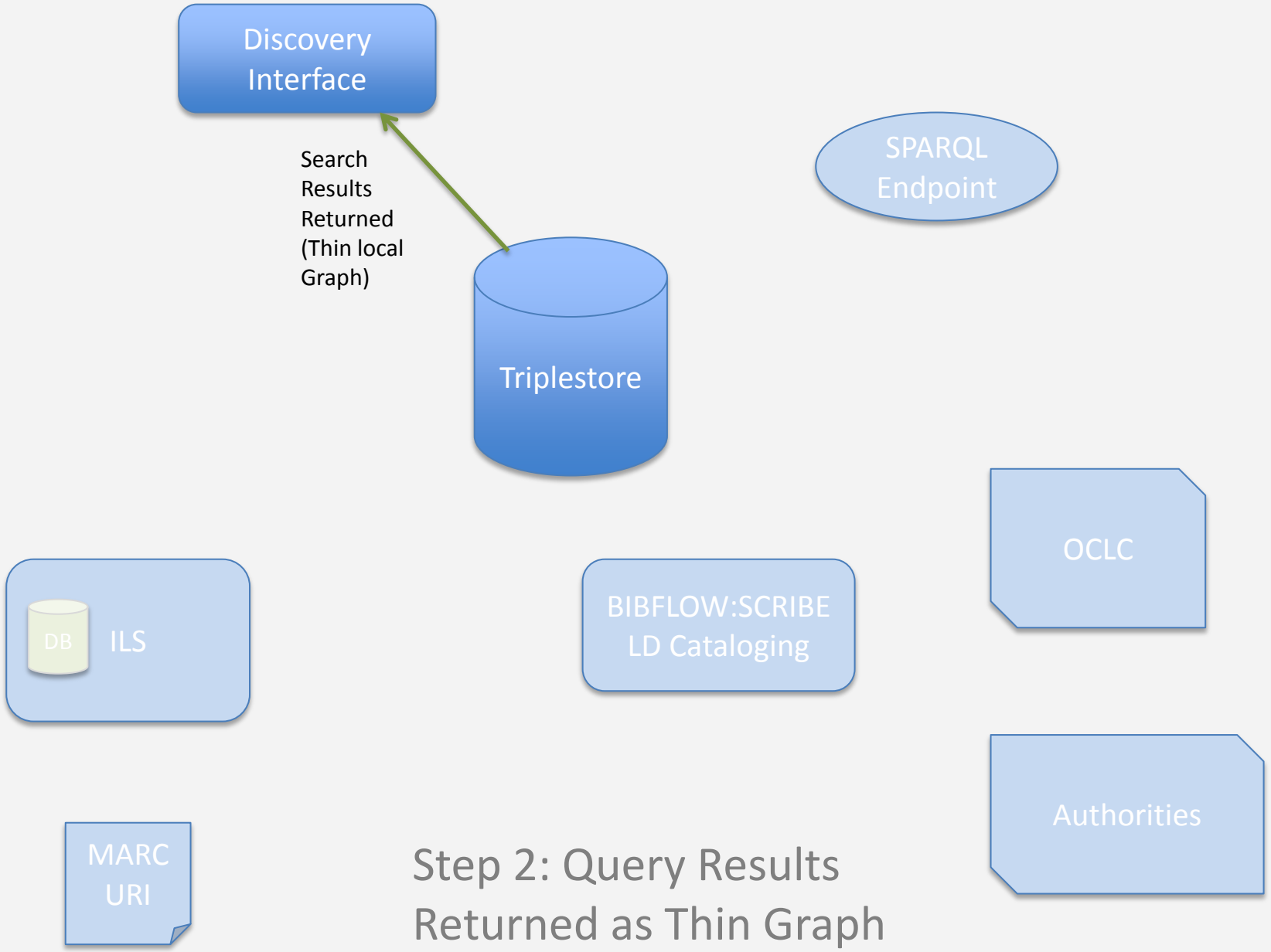



Pull Authority Data
Discovery Interface
Exchange Circulation Data
Pull Graphs
Push User Contributions
SPARQL Endpoint
Respond to Machine Queries
Push Triples
Triplestore
Push Triples
Push Thin MARC
Pull Triples
Pull Schema
OCLC
DB
ILS
BIBFLOW:SCRIBE LD Cataloging
Pull Authorities
Authorities
Catalogue / Ingest URI Based Marc
MARC URI
Pull
Push
Native Operation or Ingest
Script / Tool (All other transactions are via API / Endpoint)

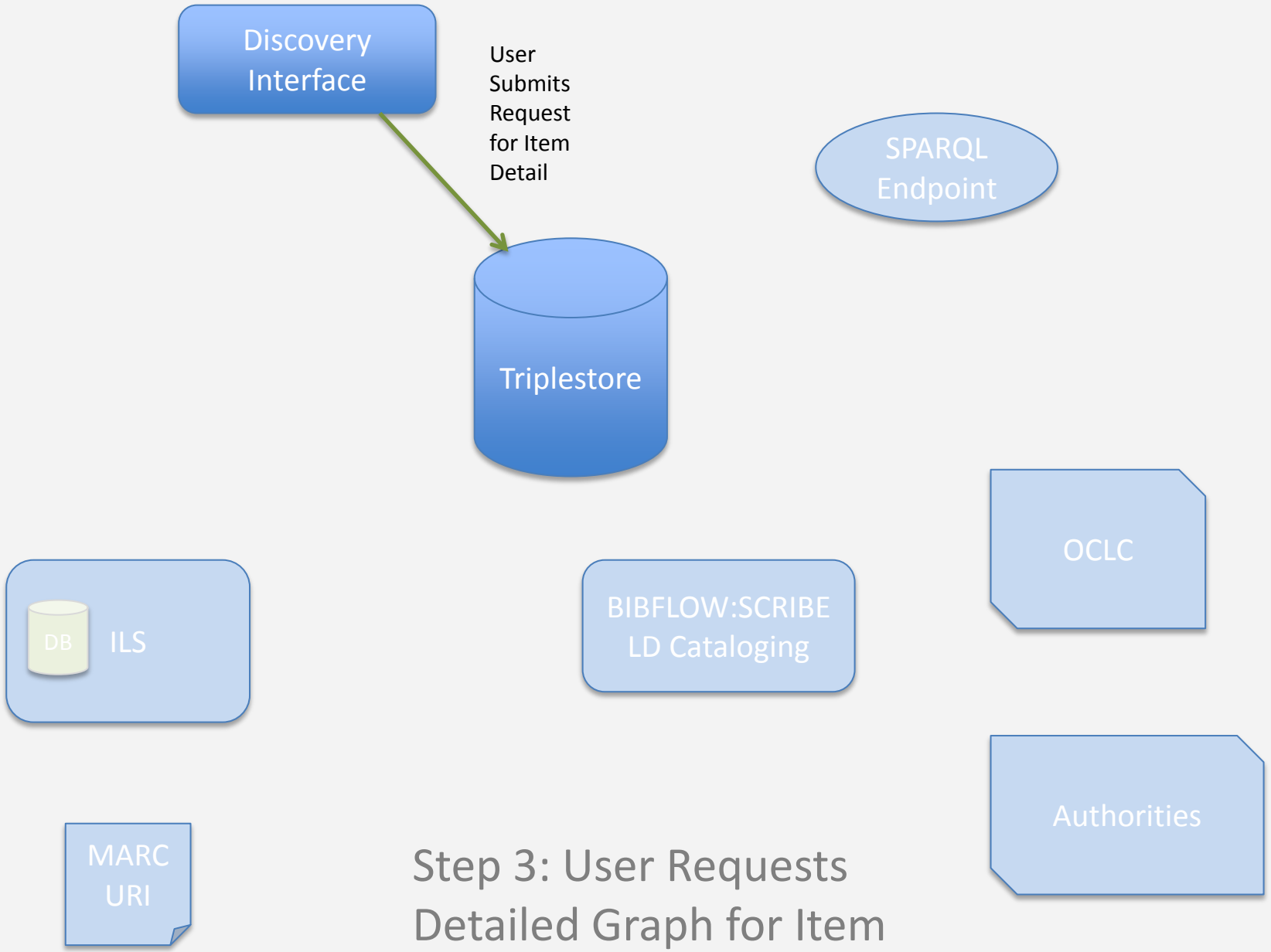
Discovery Information Flow



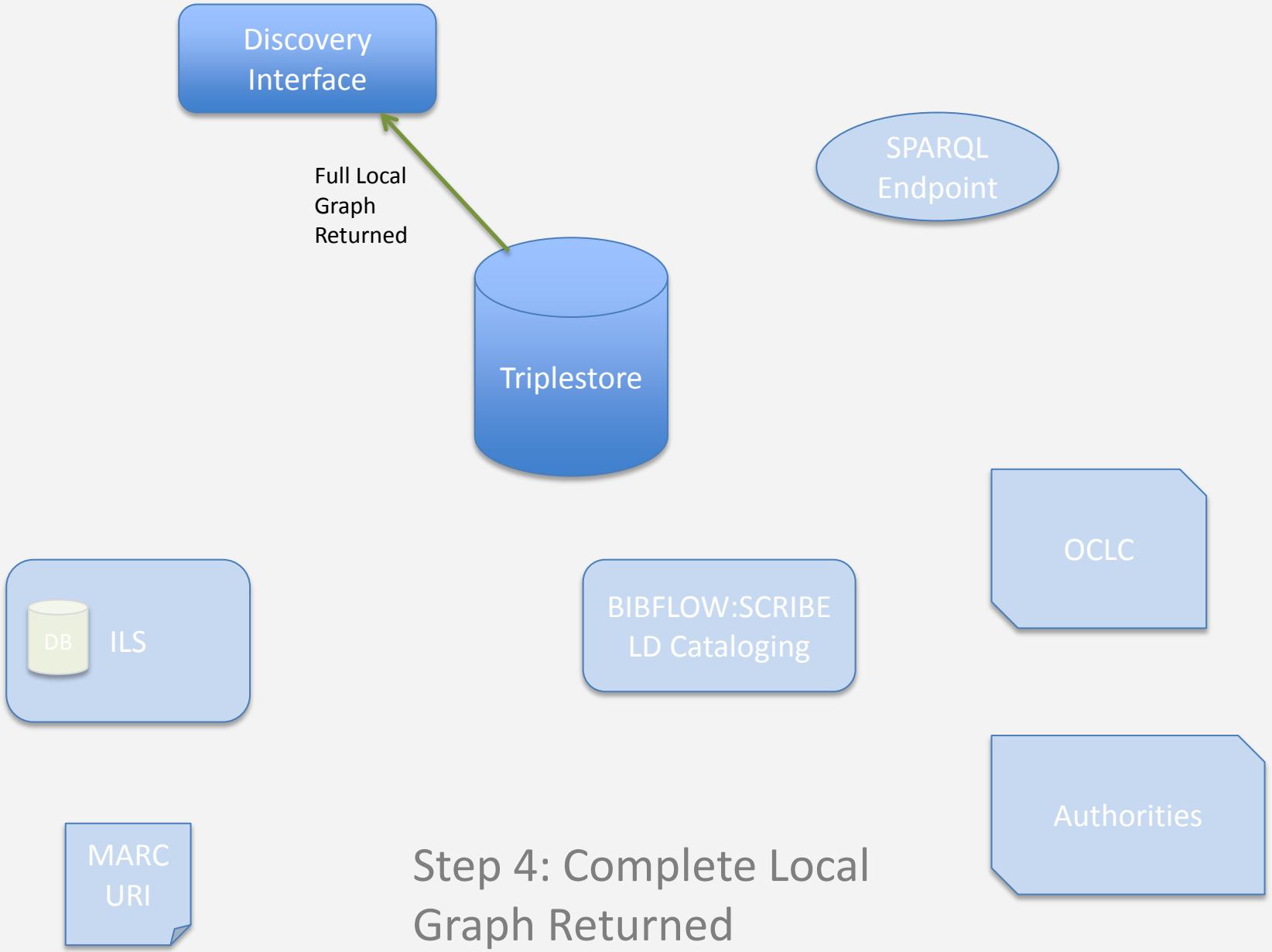
Step 1: User Submits Search Query



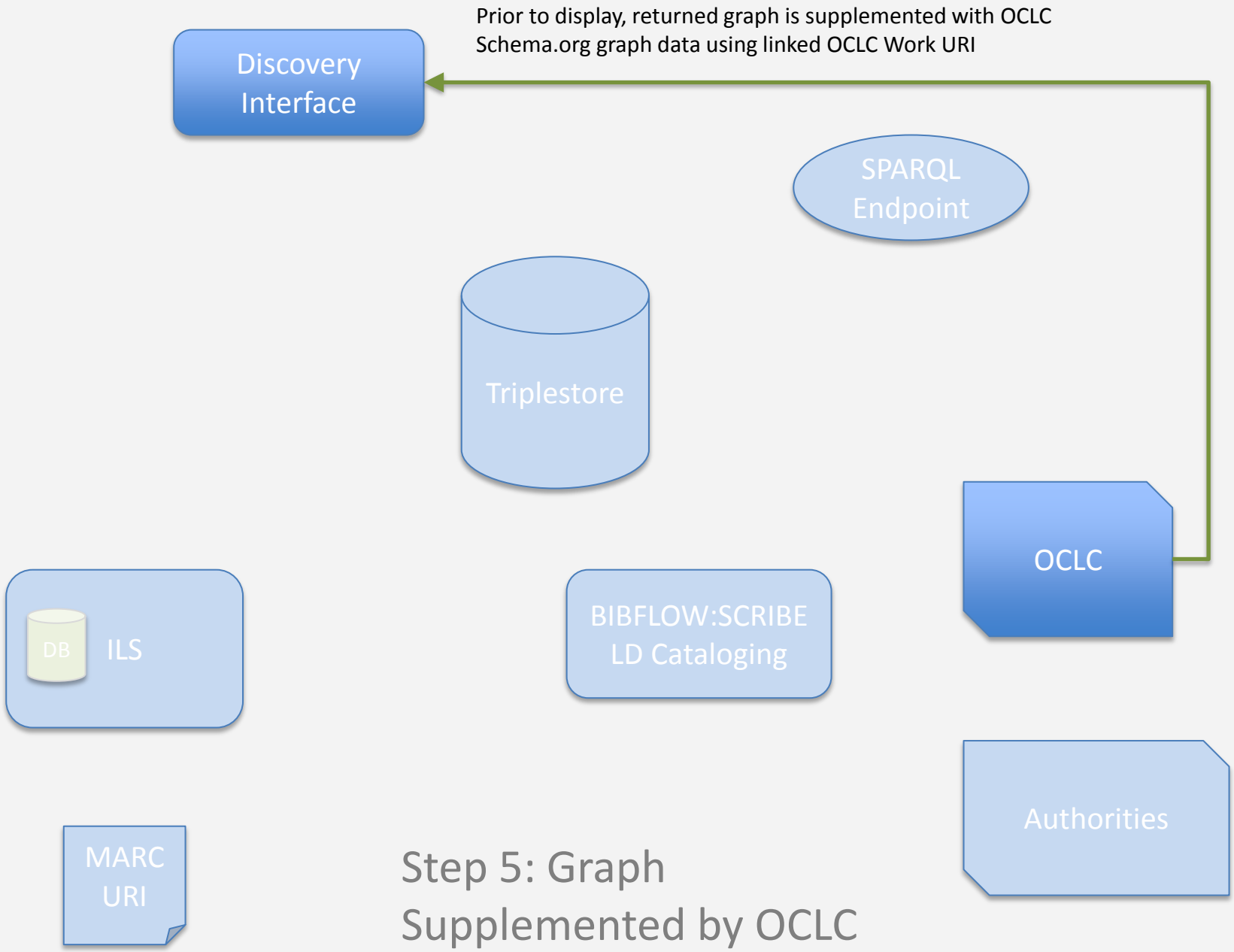
Step 2: Query Results Returned as Thin Graph



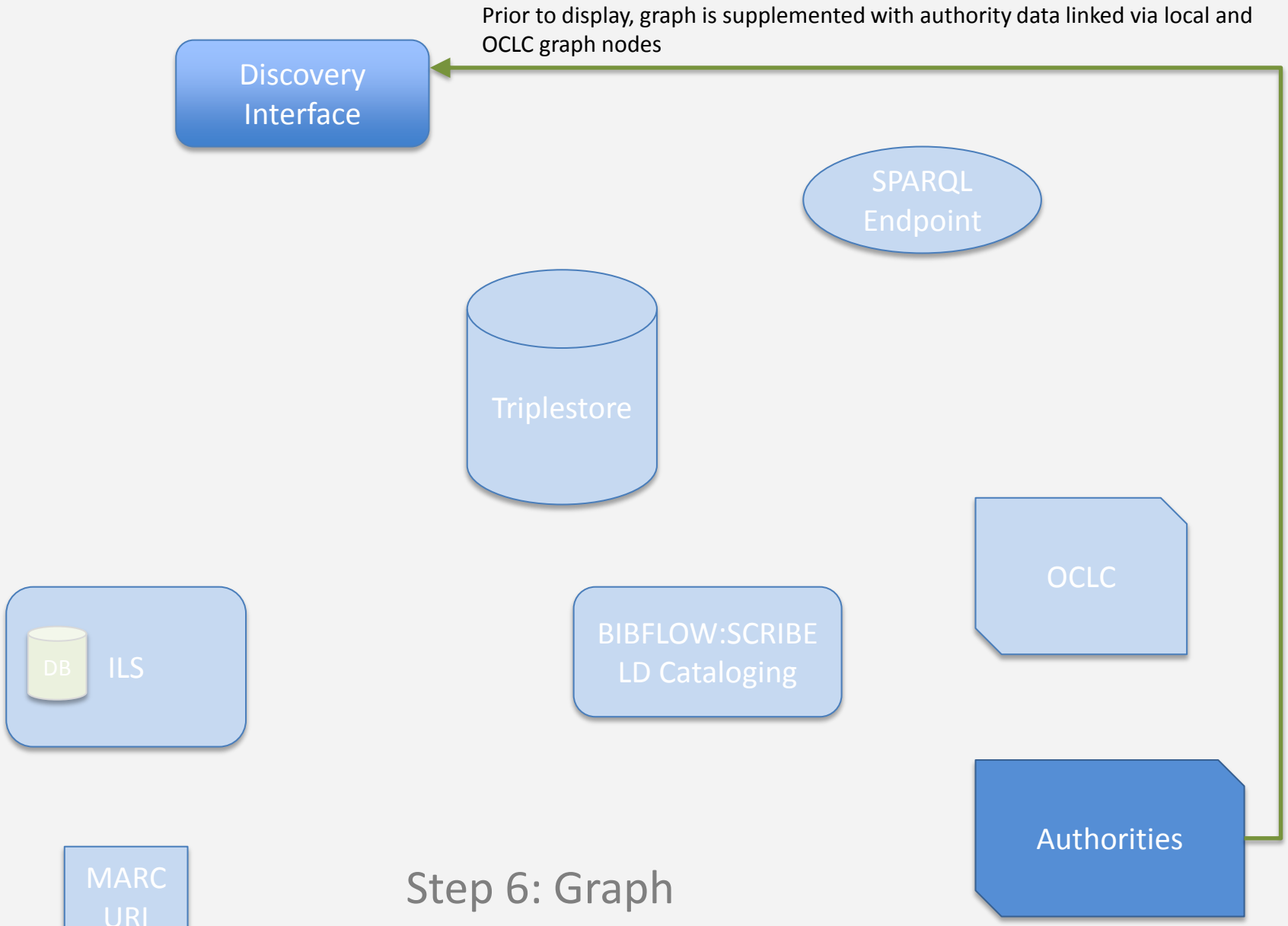
Step 3: User Requests Detailed Graph for Item



Step 4: Complete Local Graph Returned

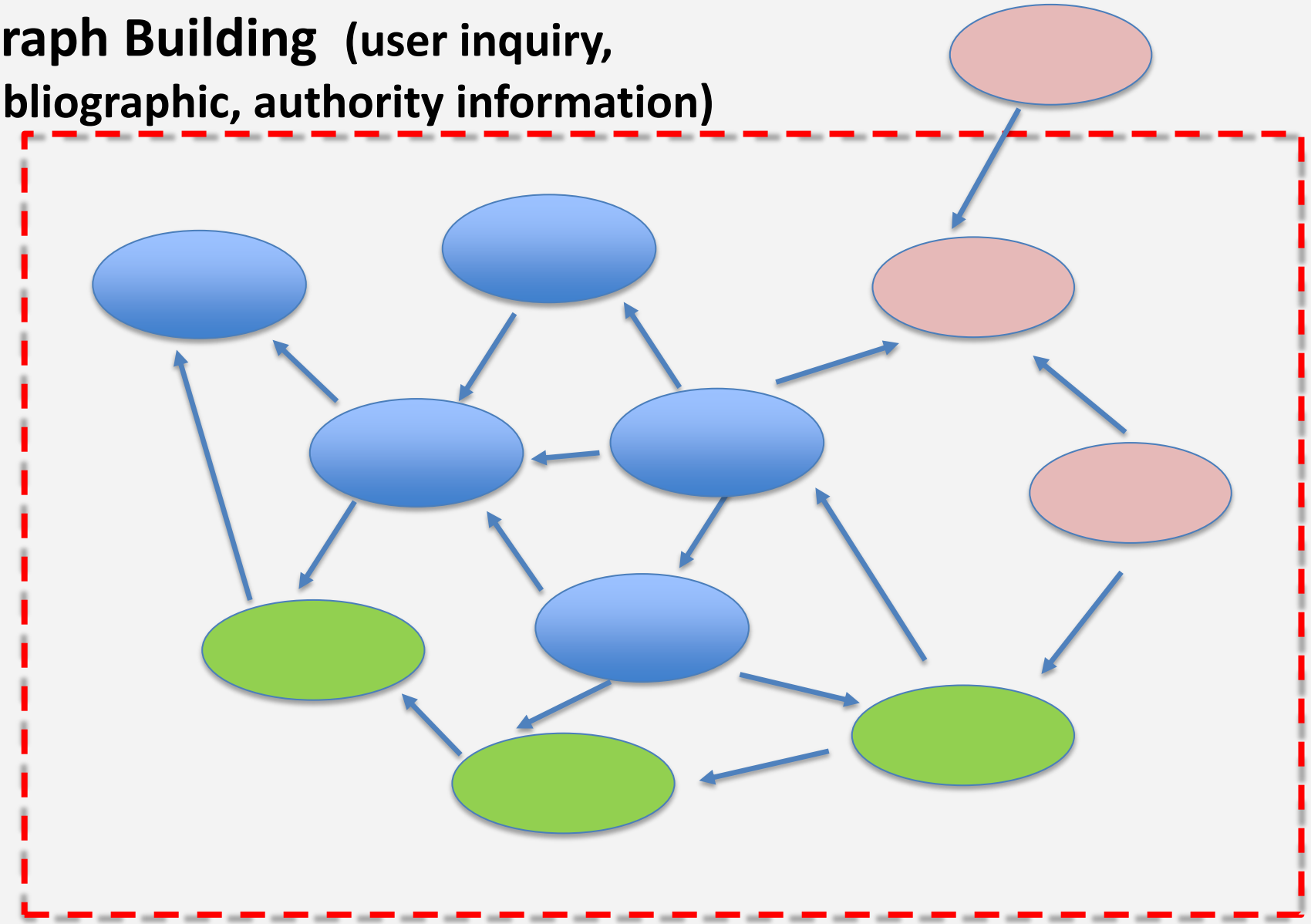


Step 5: Graph Supplemented by OCLC Schema.org graph

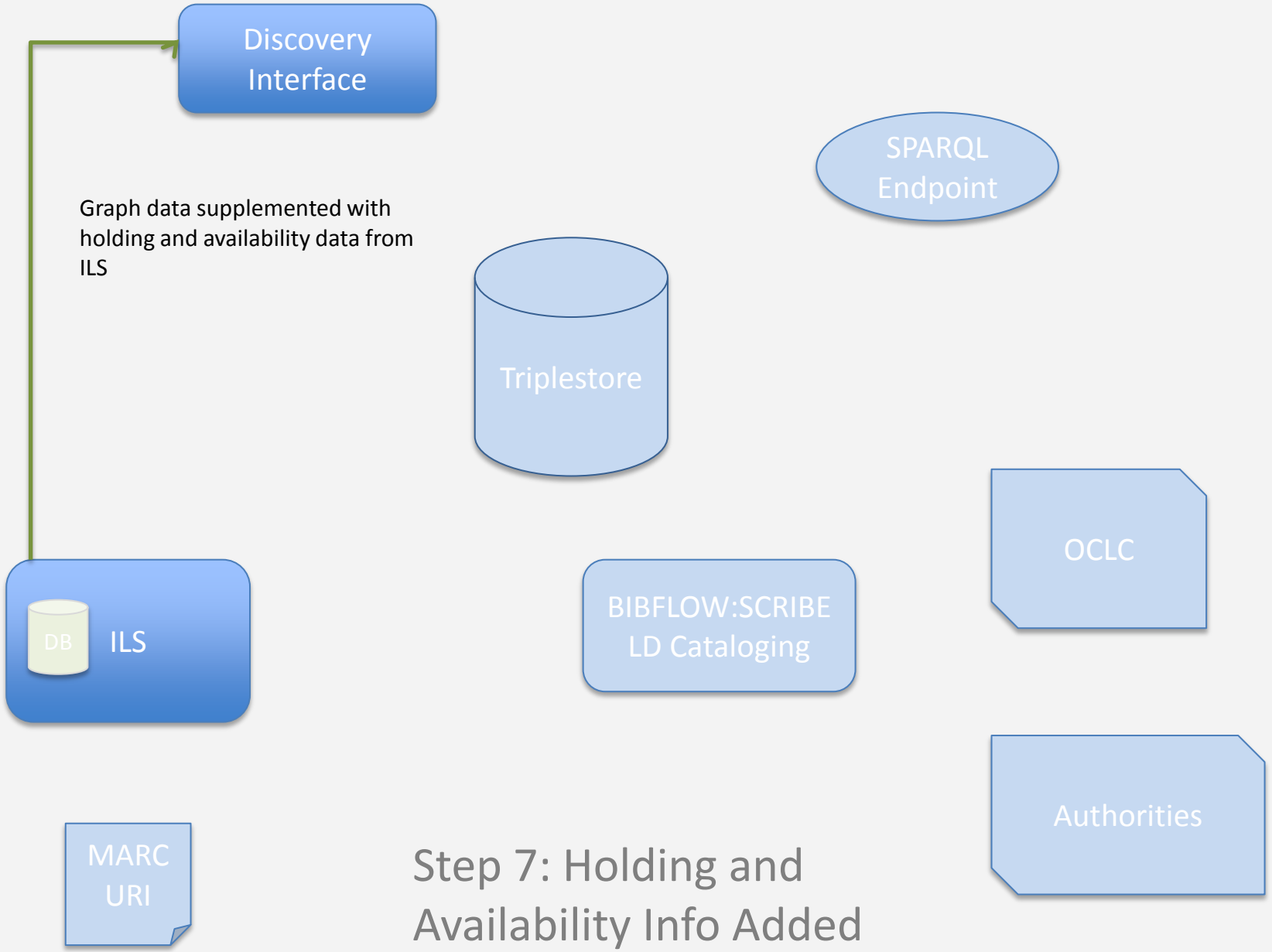


Step 6: Graph Supplemented by Authority Graphs

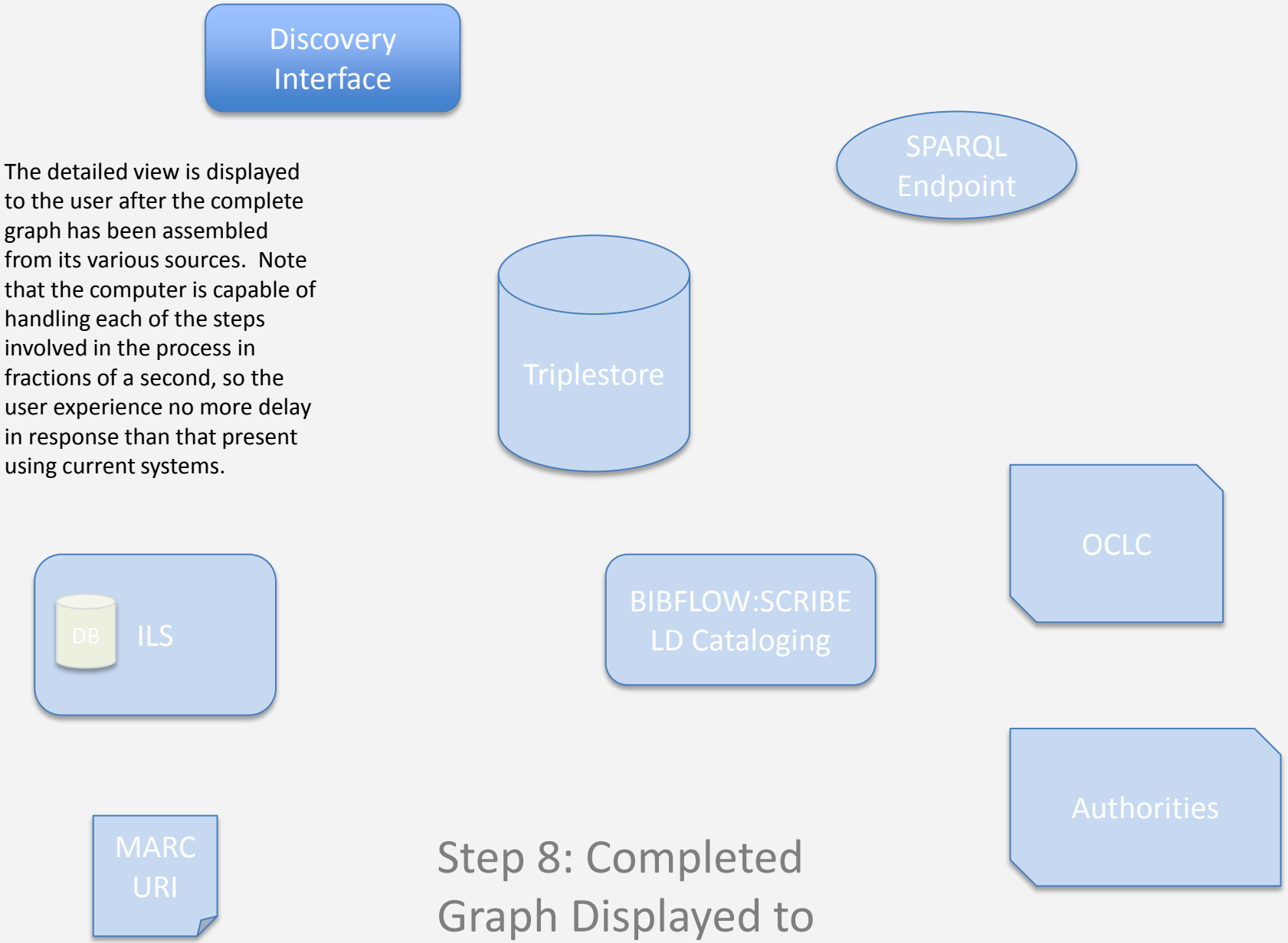
Graph Building (user inquiry, bibliographic, authority information)



Triples in the rectangle form a record view which is displayed to a user via the discovery interface

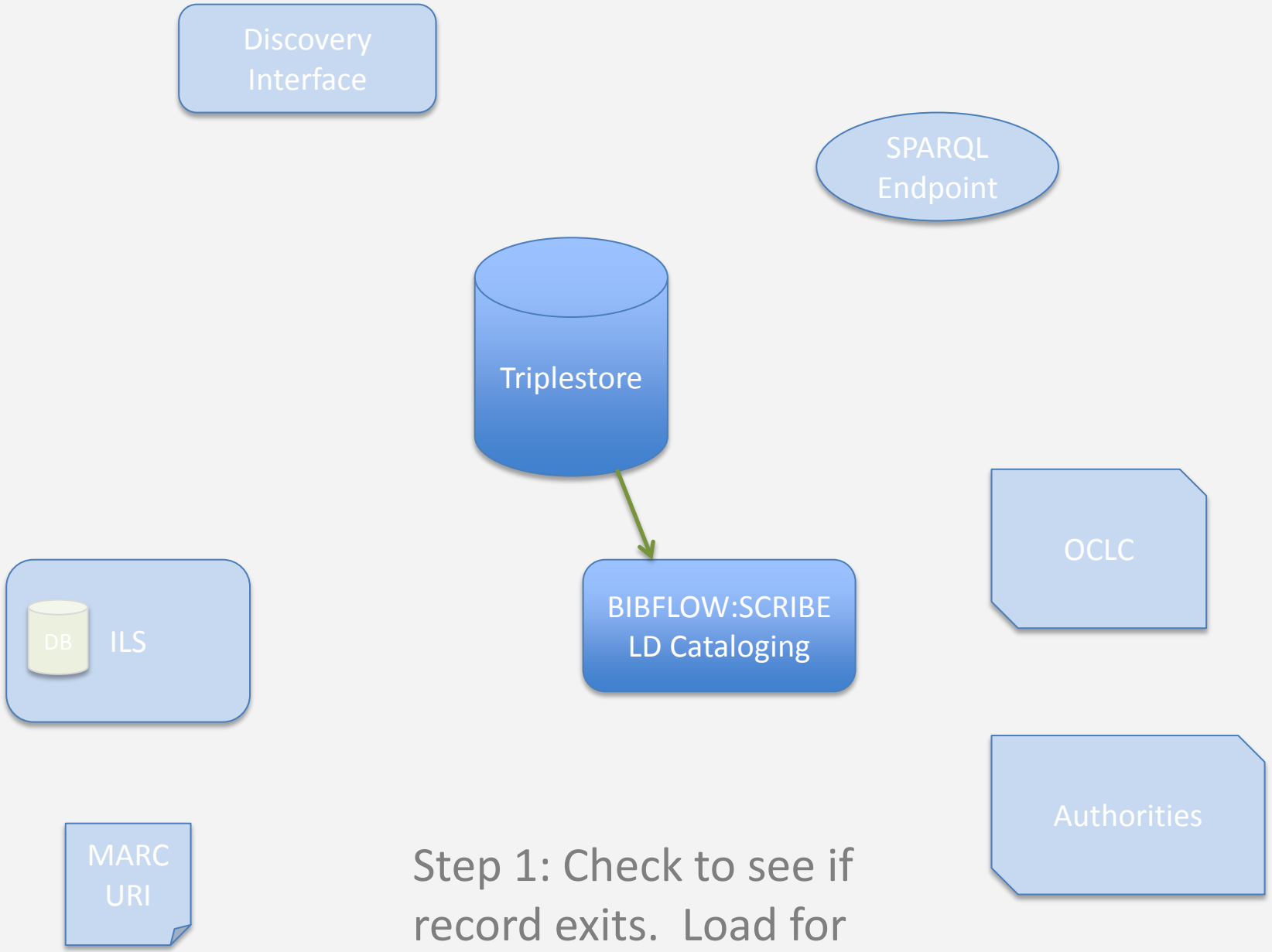


Step 7: Holding and Availability Info Added

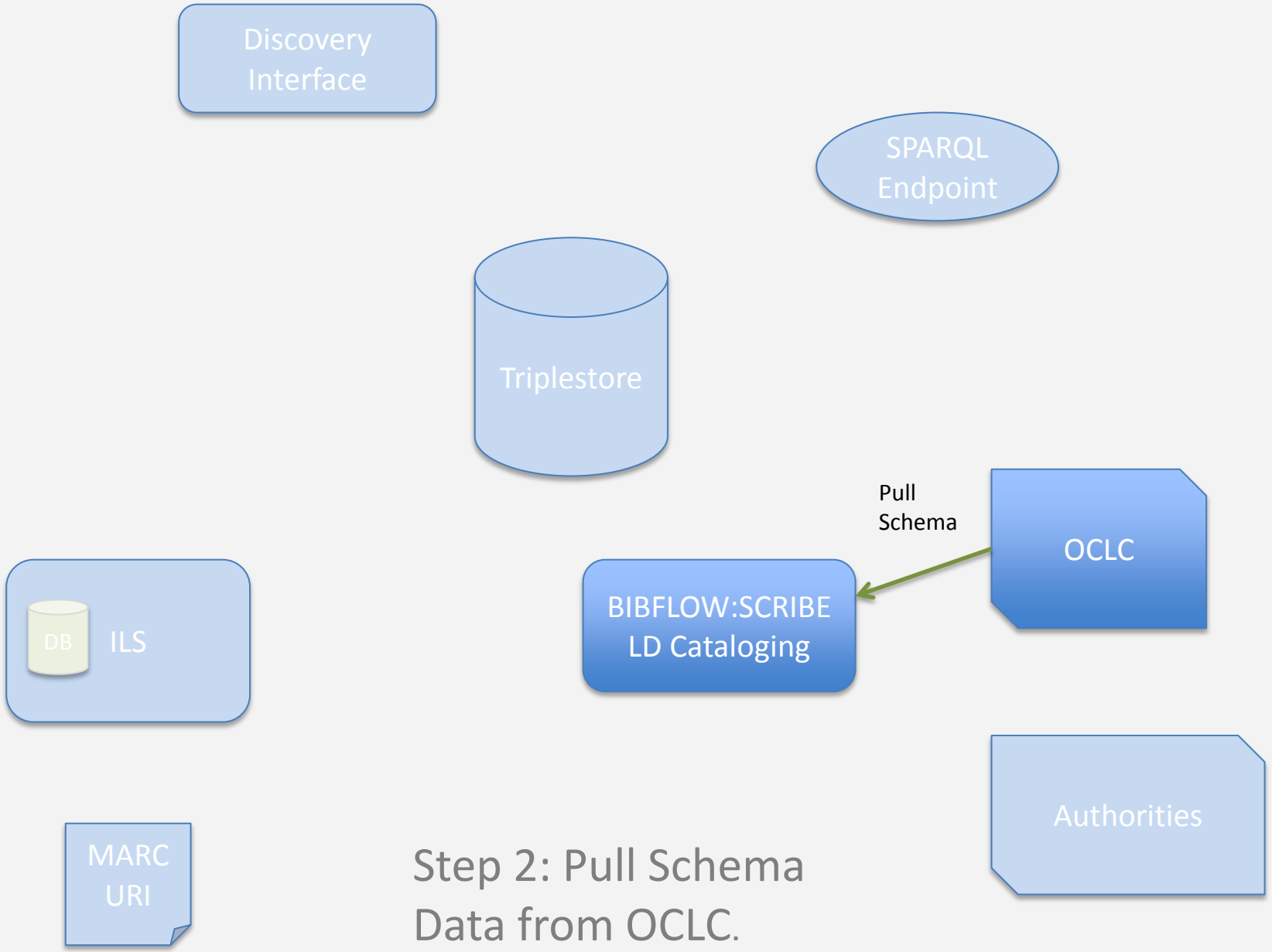


Step 8: Completed Graph Displayed to User

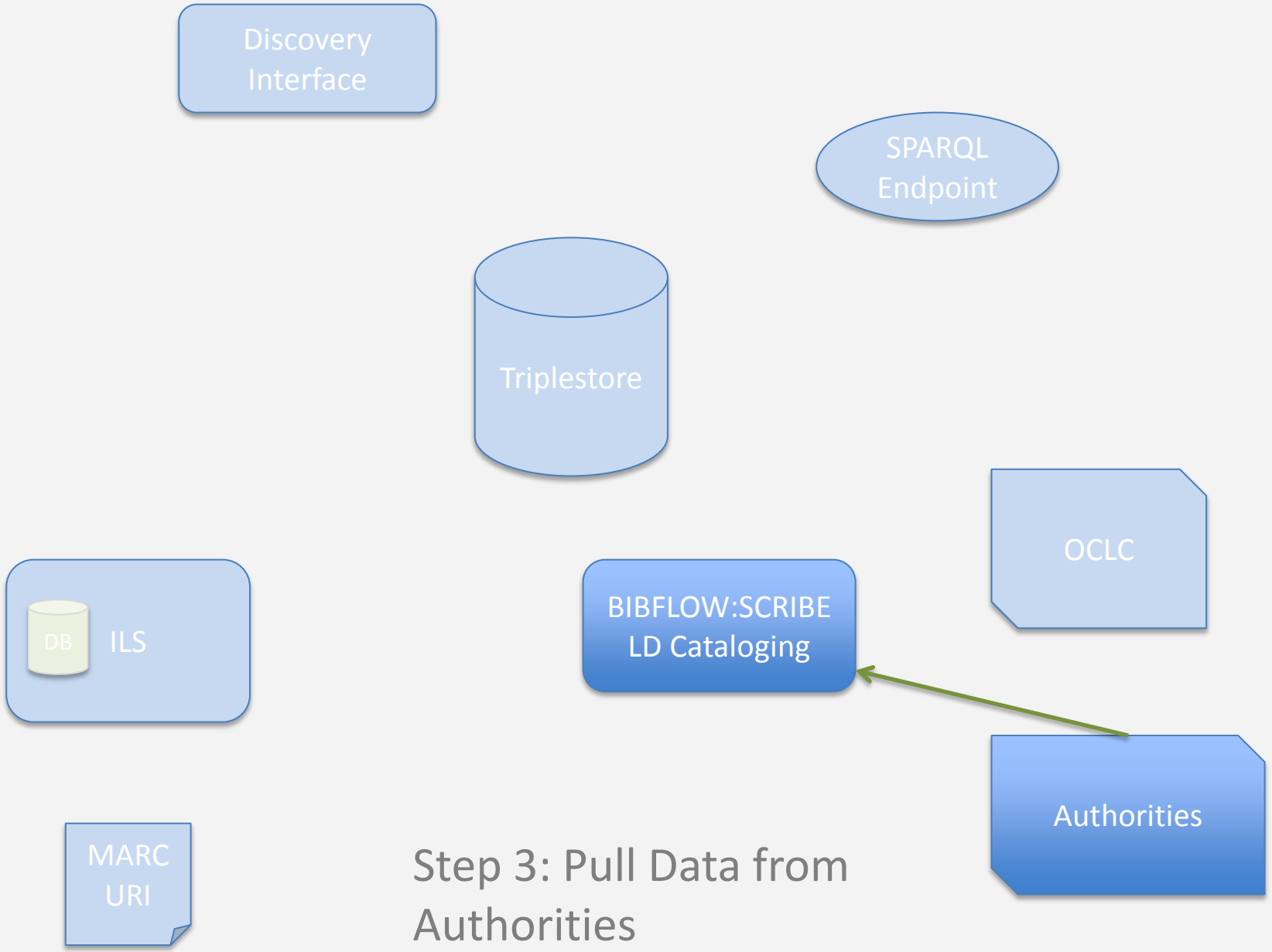
Cataloging Data Flow



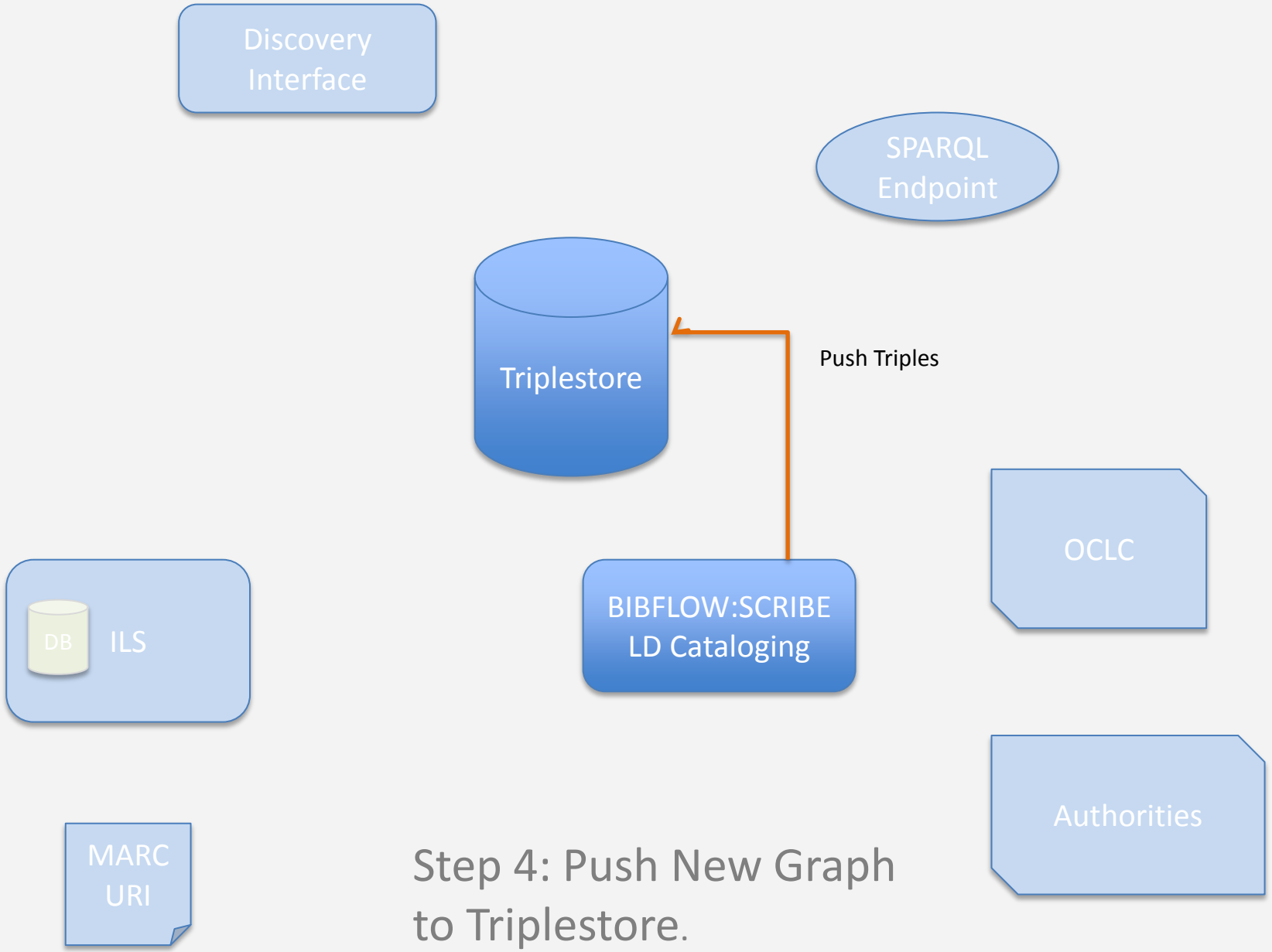
Step 1: Check to see if record exits. Load for Edit if Yes. New if No.



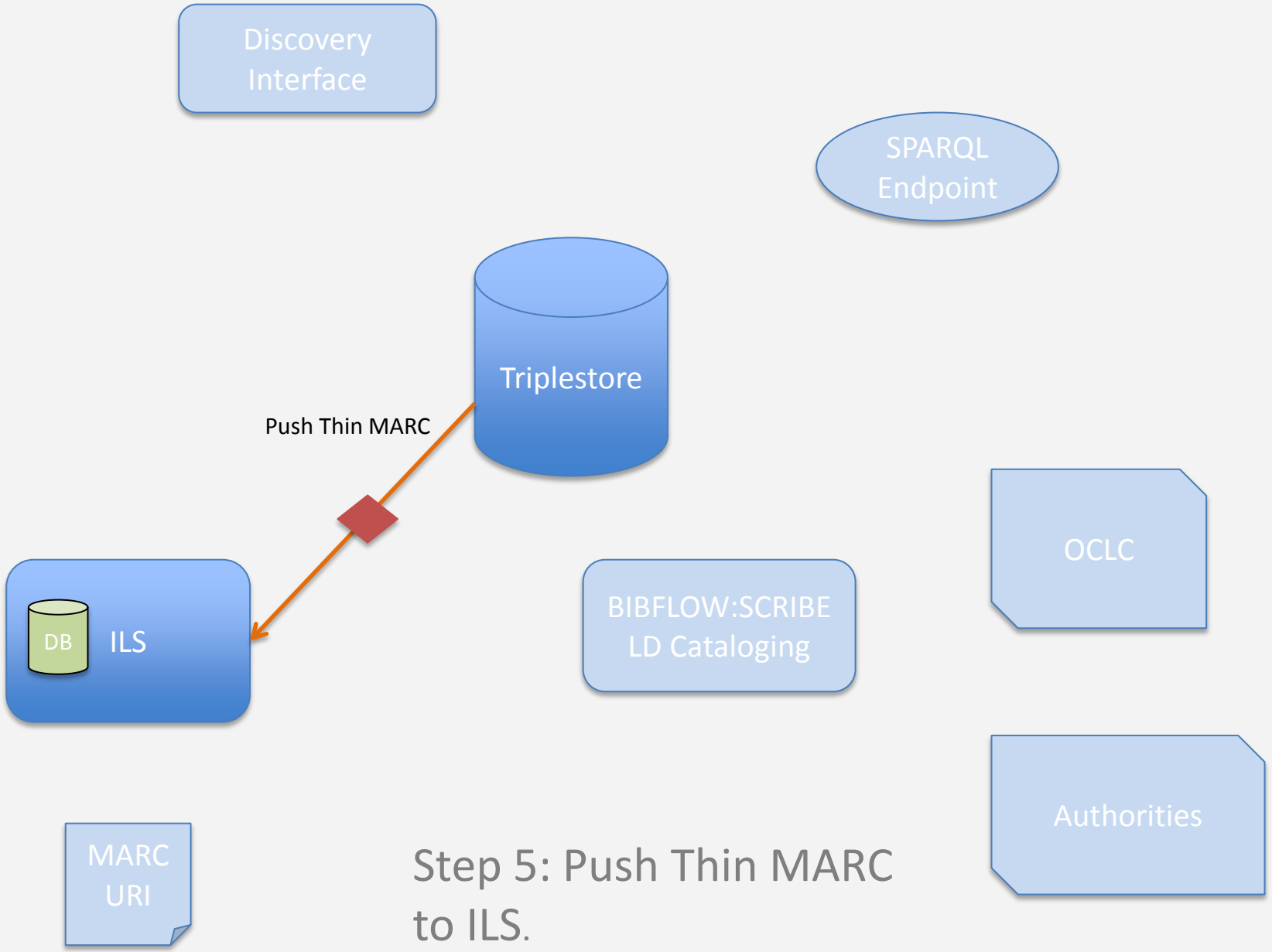
Step 2: Pull Schema Data from OCLC.



Step 3: Pull Data from Authorities

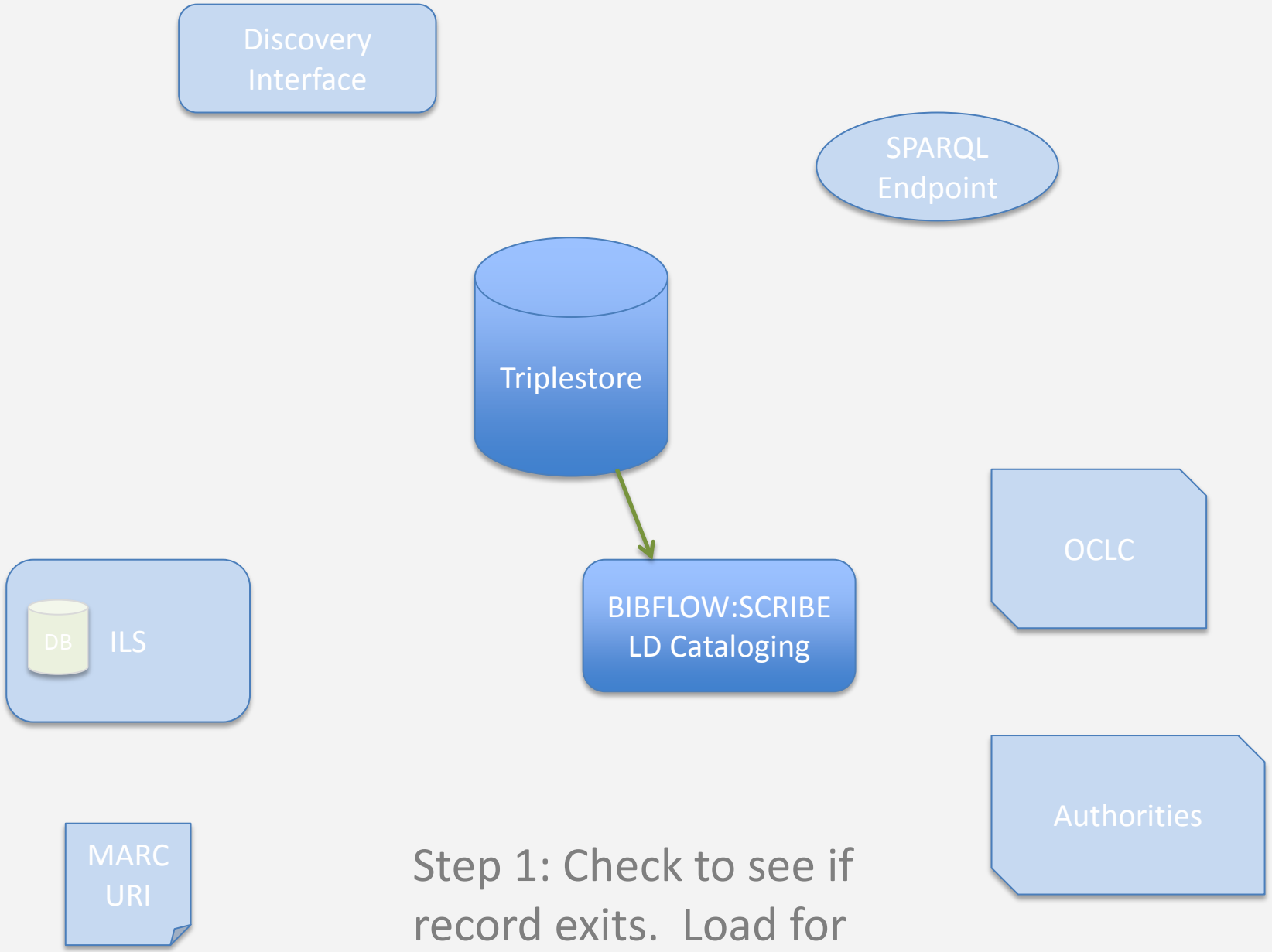


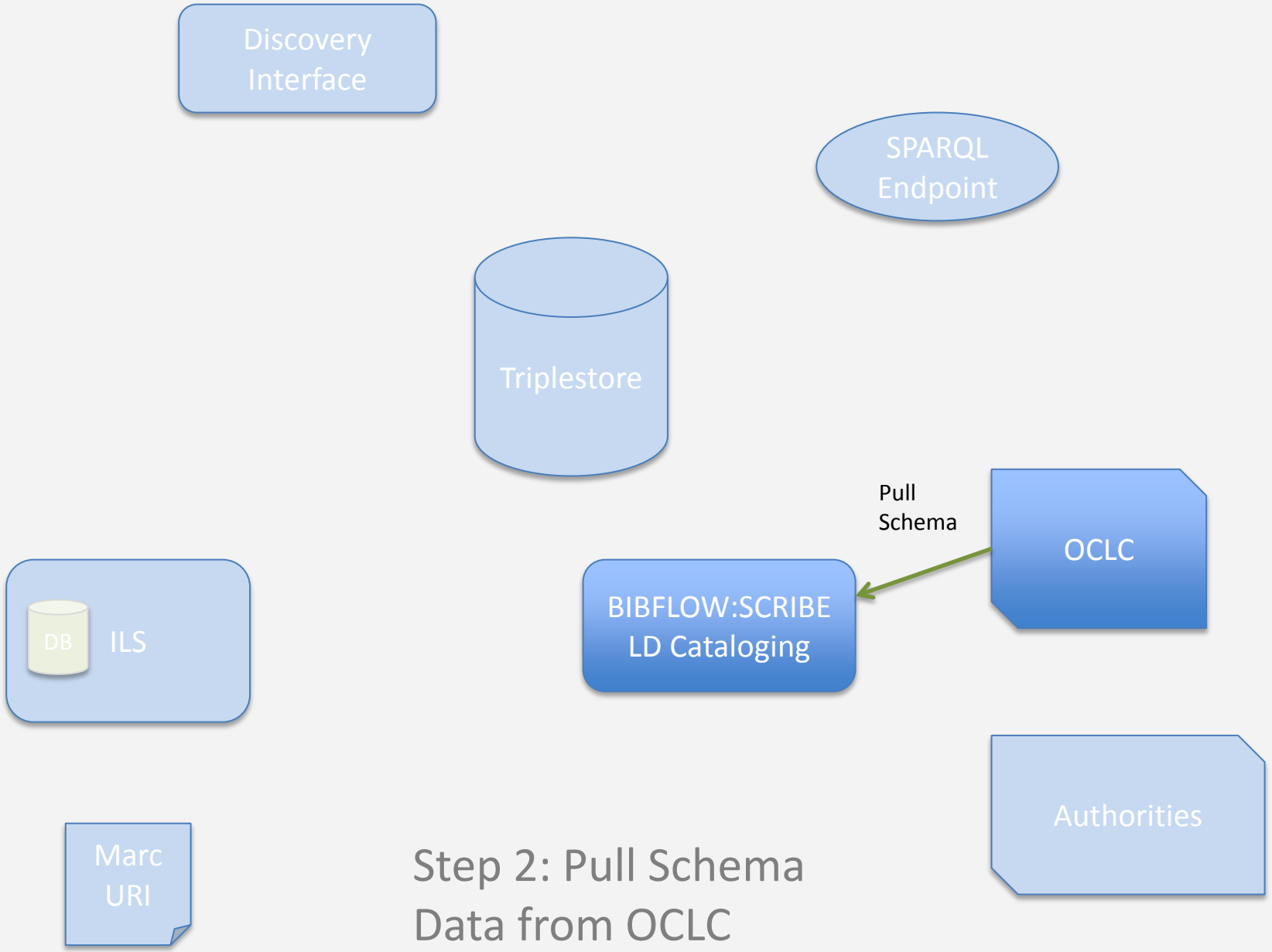
Step 4: Push New Graph to Triplestore.



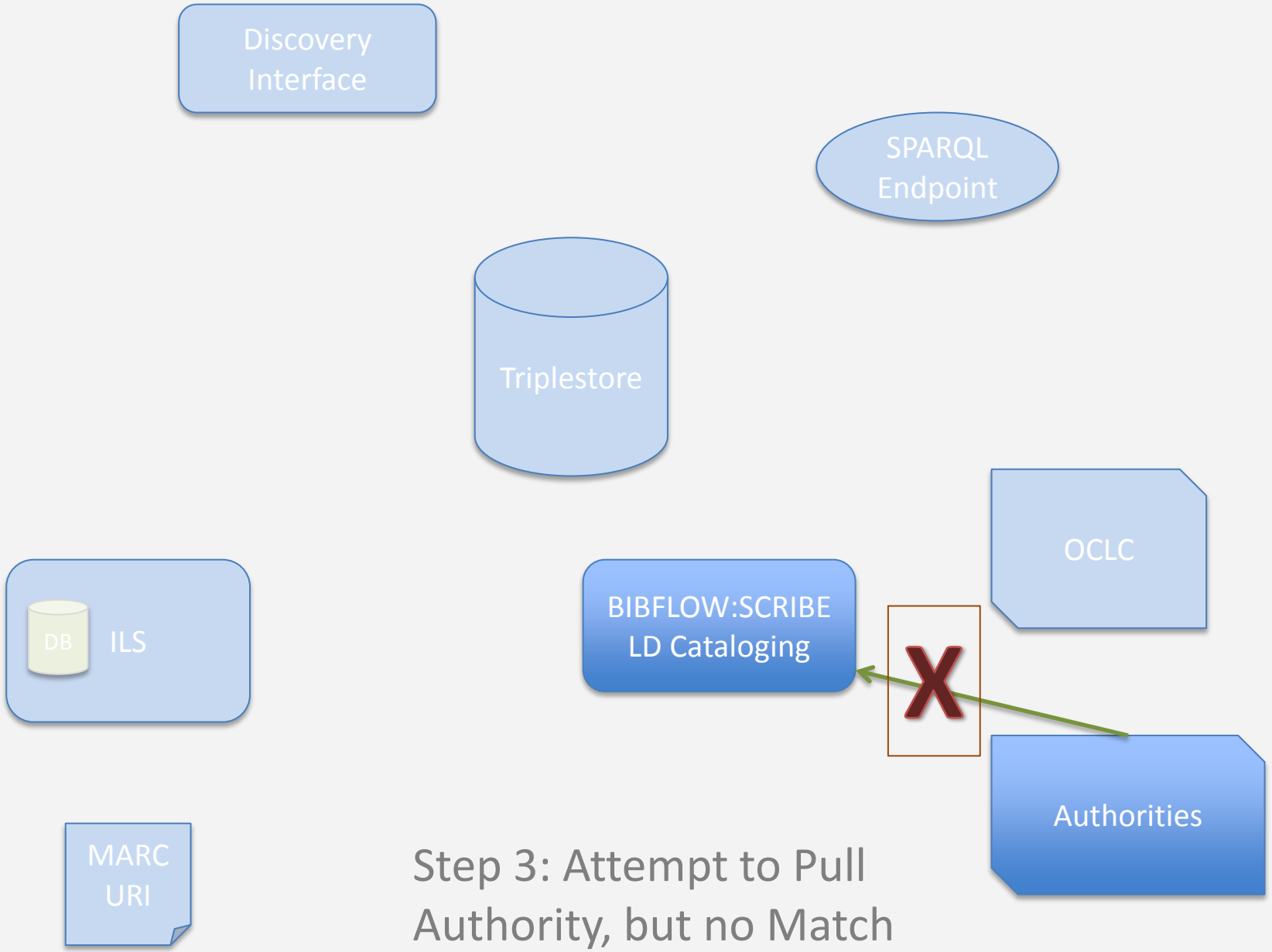
Step 5: Push Thin MARC to ILS.

Cataloging Data Flow if No Authority Found

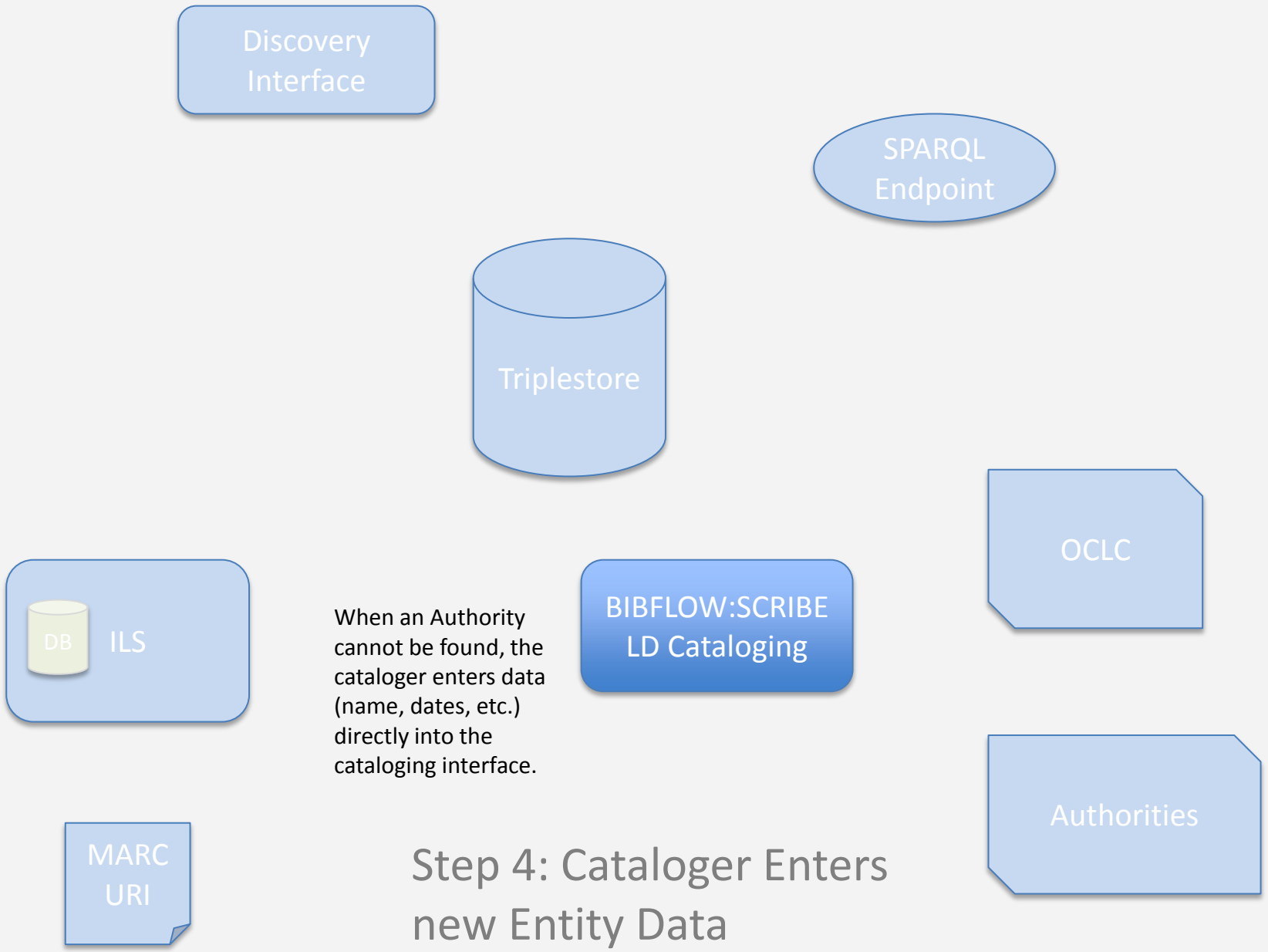

Discovery Interface
SPARQL Endpoint
Triplestore
OCLC
DB
ILS
BIBFLOW:SCRIBE LD Cataloging
Authorities
MARC URI
Step 1: Check to see if record exits. Load for Edit if Yes. New if No

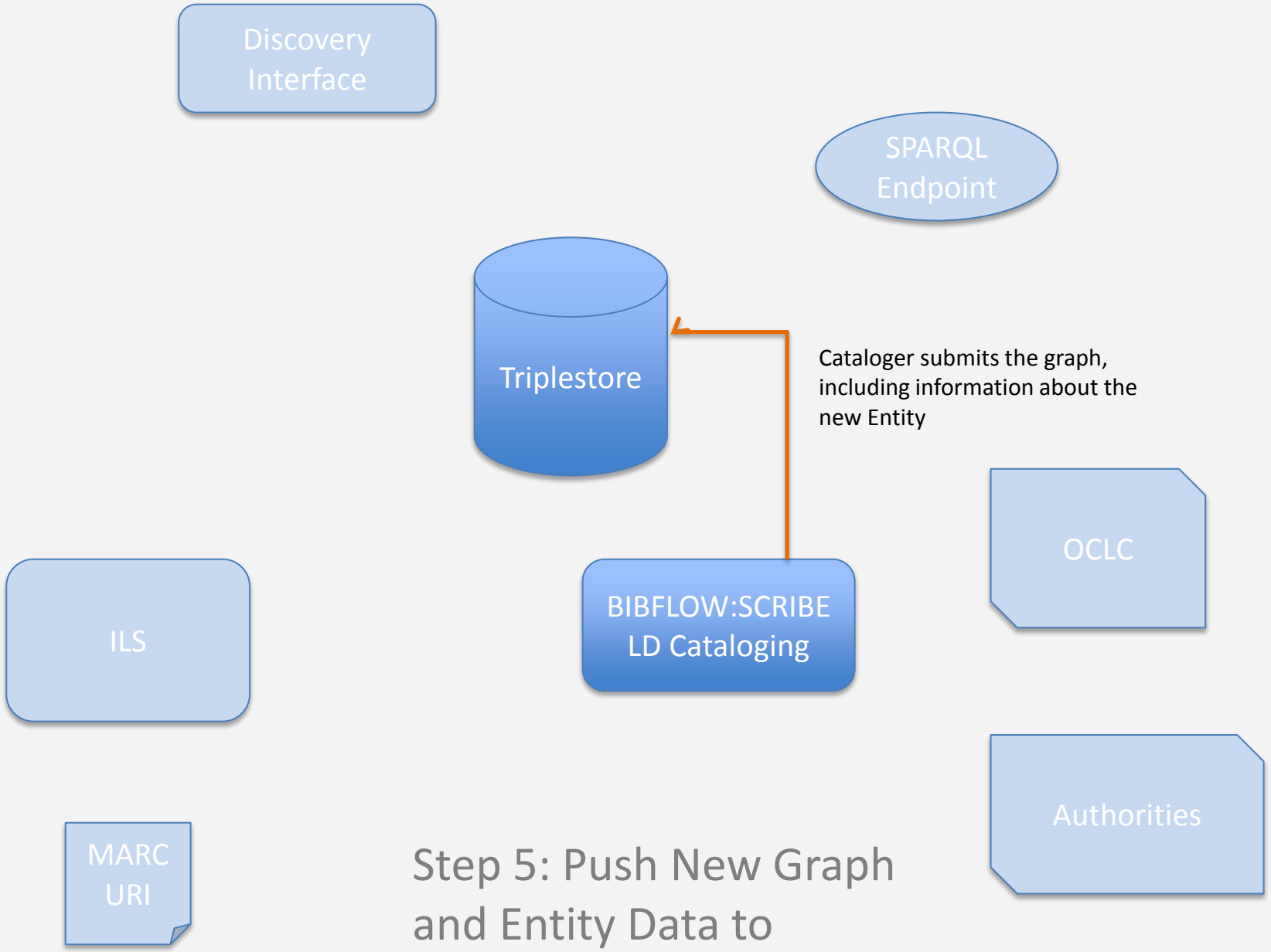


Step 2: Pull Schema Data from OCLC

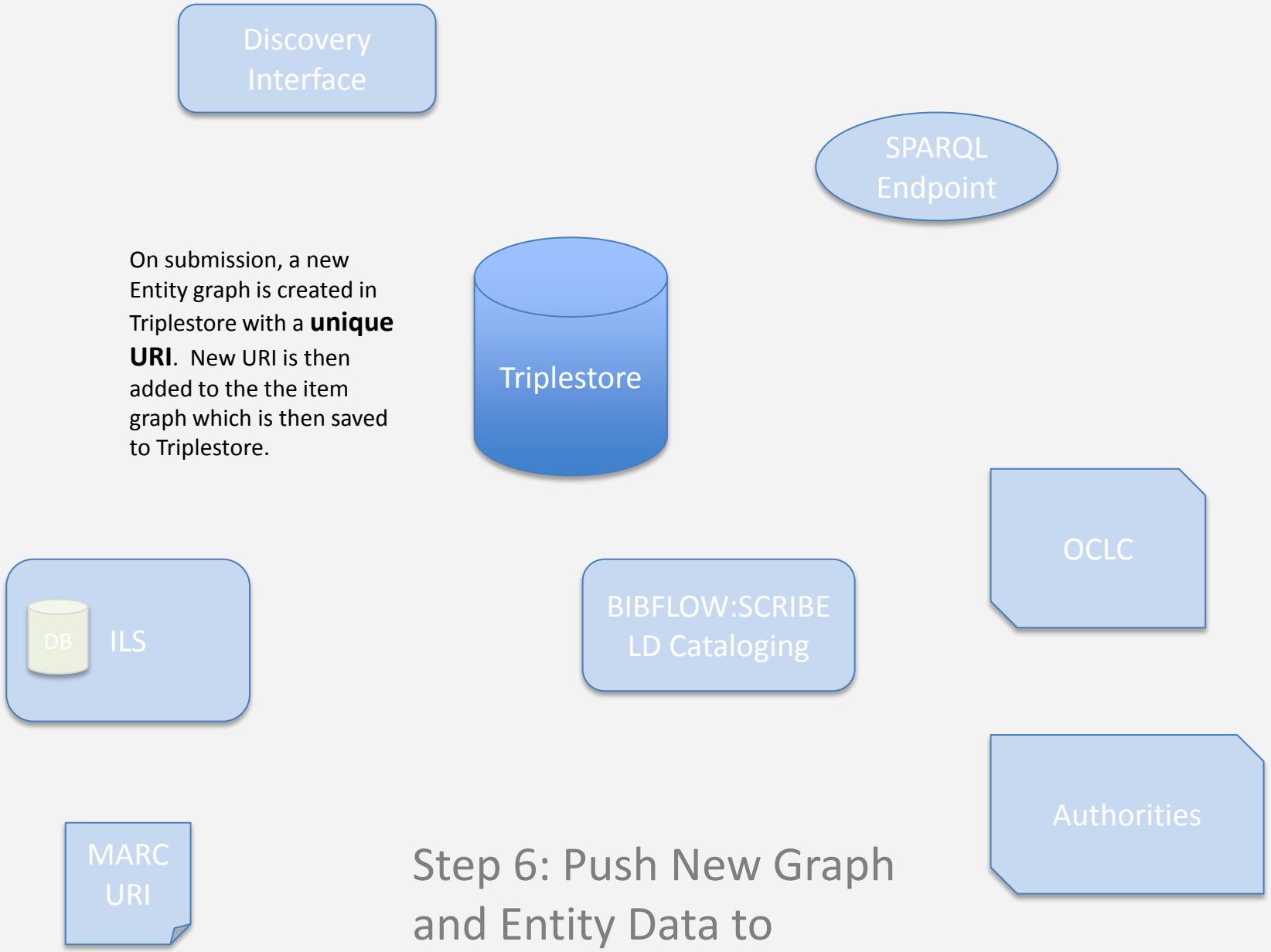


Step 3: Attempt to Pull Authority, but no Match Found

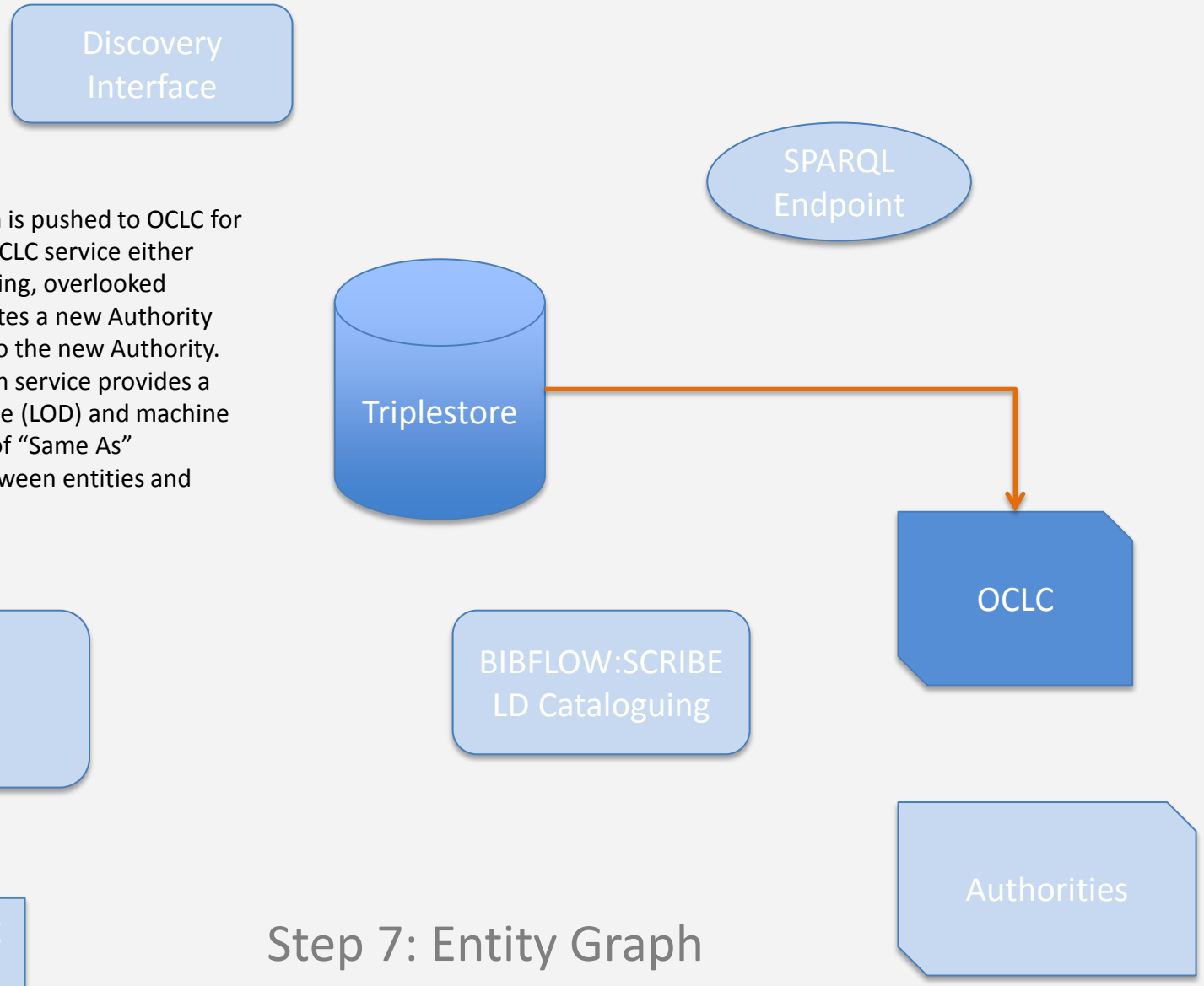

Discovery Interface
SPARQL Endpoint
Triplestore
OCLC
DB
ILS
When an Authority cannot be found, the cataloger enters data (name, dates, etc.) directly into the cataloging interface.
BIBFLOW:SCRIBE LD Cataloging
Authorities
MARC URI
Step 4: Cataloger Enters new Entity Data



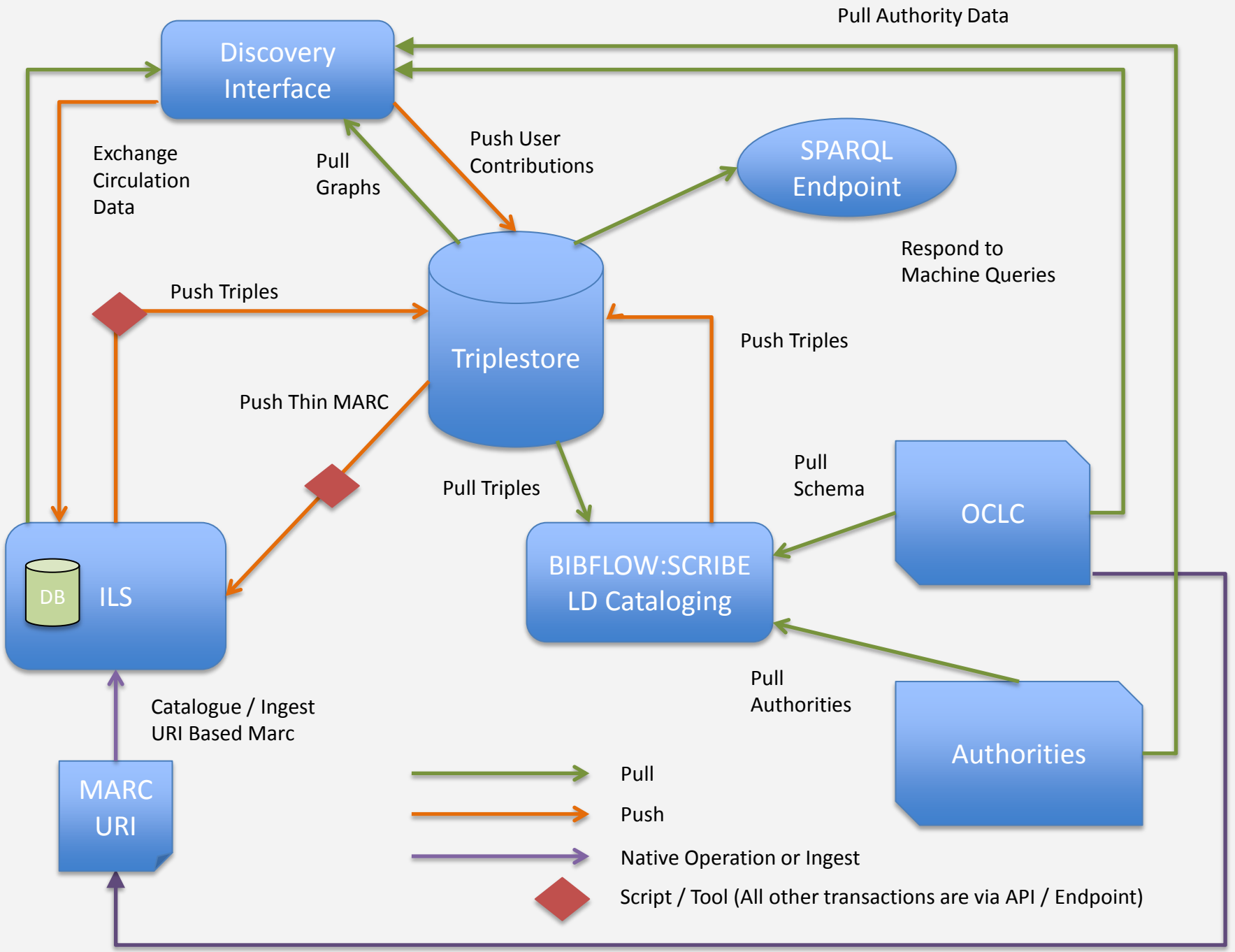
Step 5: Push New Graph and Entity Data to Triplestore



Step 6: Push New Graph and Entity Data to Triplestore



Step 7: Entity Graph Pushed to OCLC for Authority Reconciliation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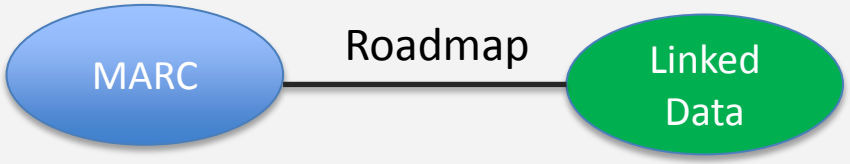
Native Operation or Ingest
Script / Tool (All other transactions are via API / Endpoint)

What did BIBFLOW achieve?

- A roadmap that serves as a bridge from MARC to linked data



- The roadmap provides intermediate steps for libraries to eventually move away from MARC entirely.

Acknowledgements

Carl Stahmer, BIBFLOW Project Manager, provided many of the PowerPoint slides used in this presentation.

Thank you!

BIBFLOW: A Roadmap for Success

UC DAVIS UNIVERSITY LIBRARY

zepheira

INSTITUTE of Museum and Library SERVICES