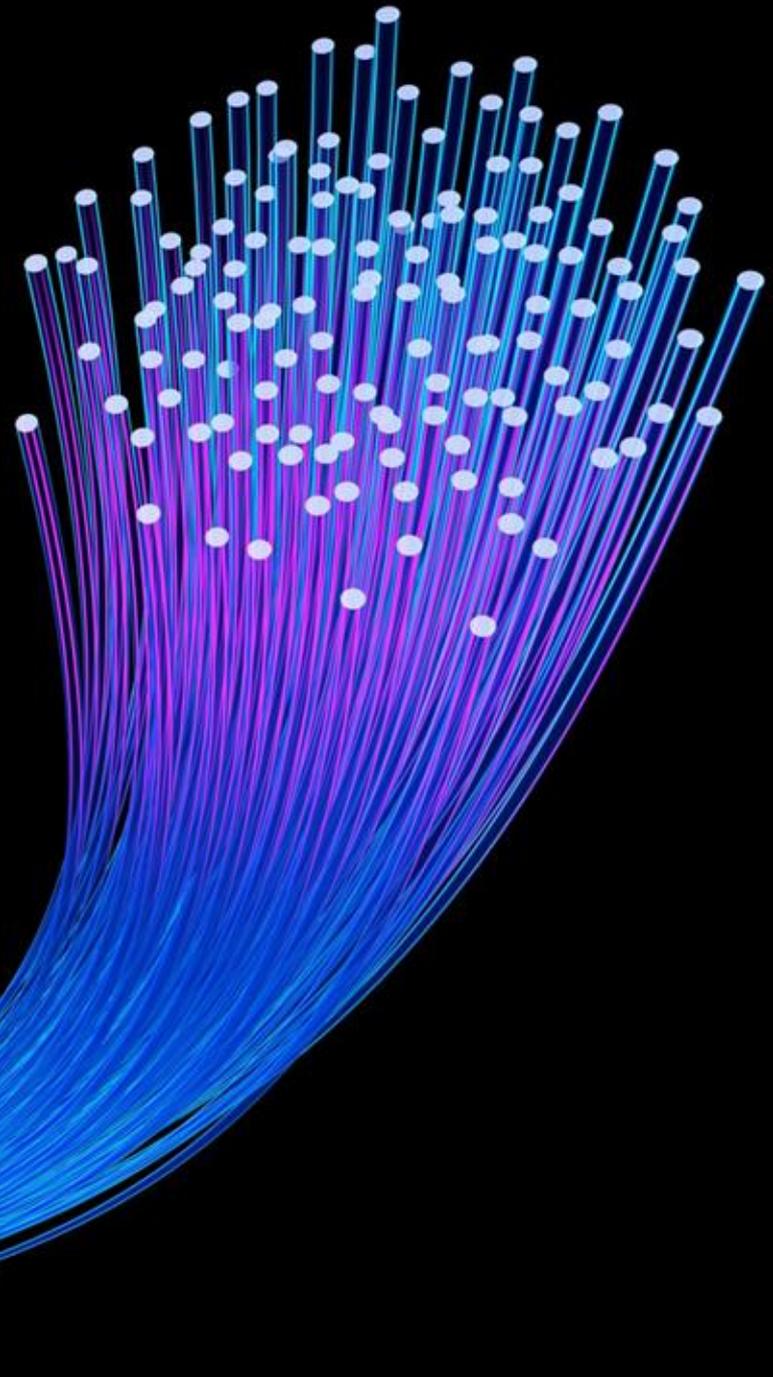


NIST Common Access Platform

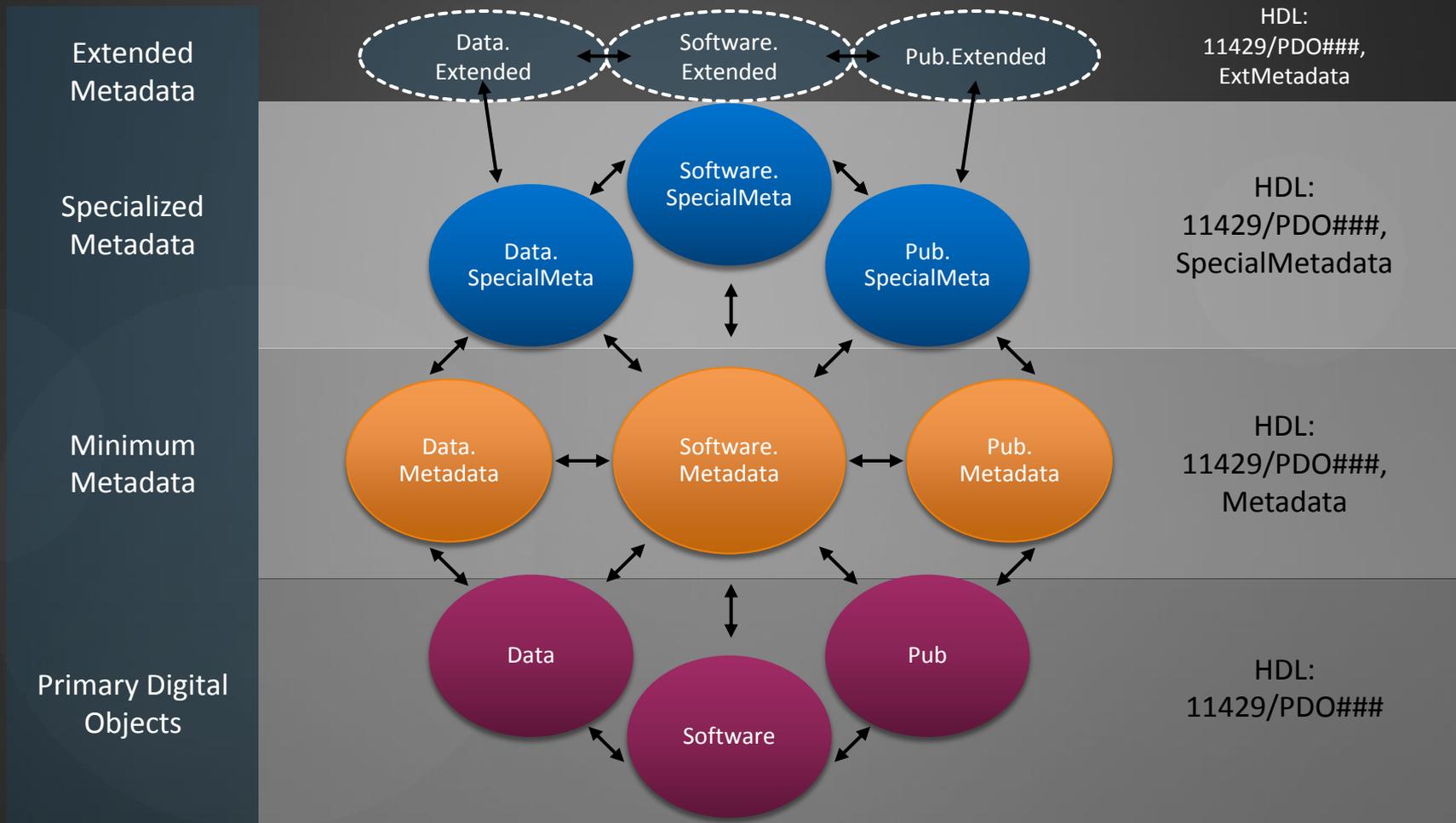
WO CHANG, NIST, NOVEMBER 3, 2014

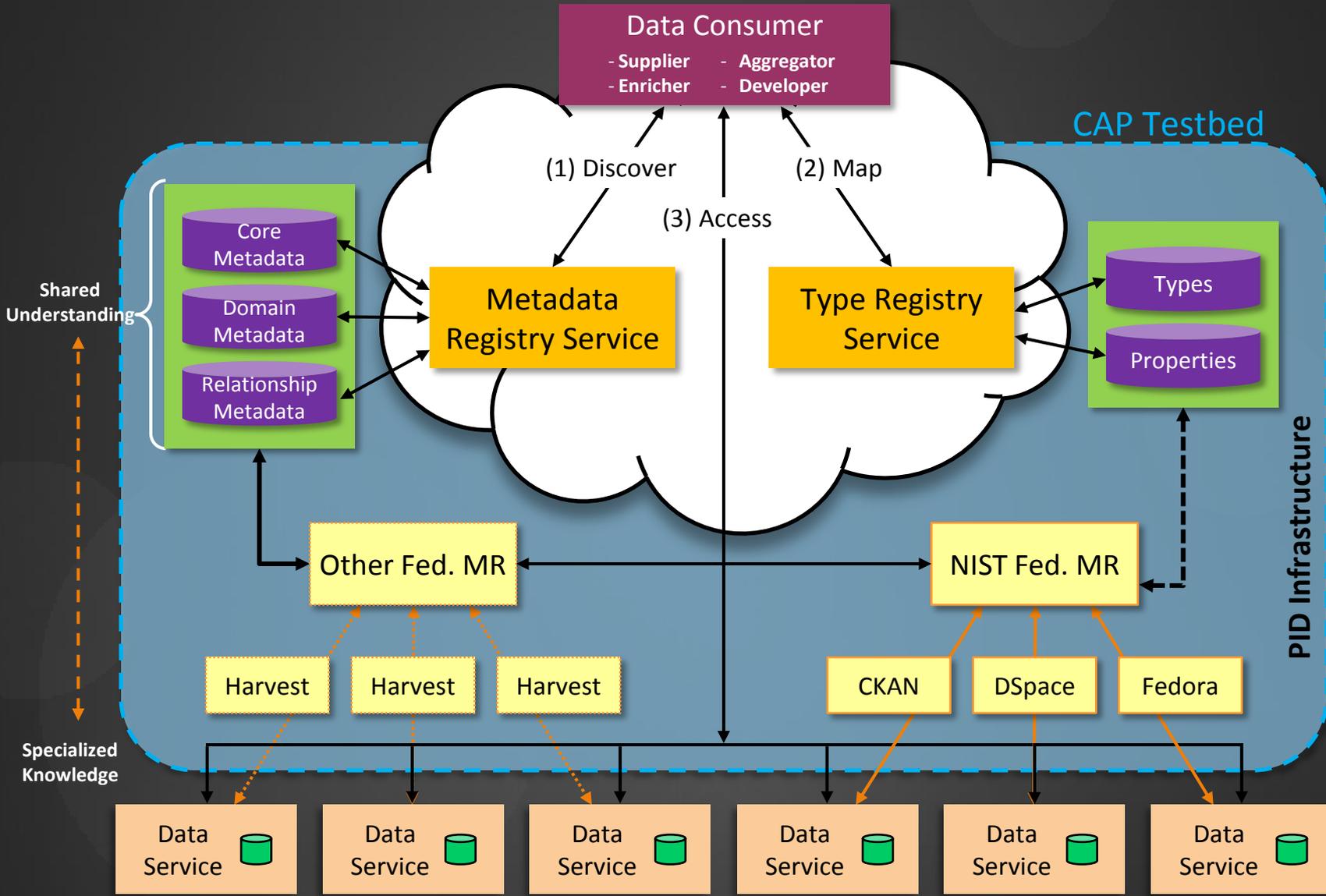


Conceptual Model: Problem Space



Logical Model (PIDs)





Fed. MR – Federated Metadata Registry

NIST CAP Conceptual Architectural Diagram

Persistent Identifiers (e.g. Handle System)

hdl:11429/12345.C4F

protocol prefix identifier

<http://hdl.handle.net/11429/12345.C4F>



PID Client

via PKI optionally



PID Resolver

In this example the Handle System maps a persistent identifier to a set of metadata.

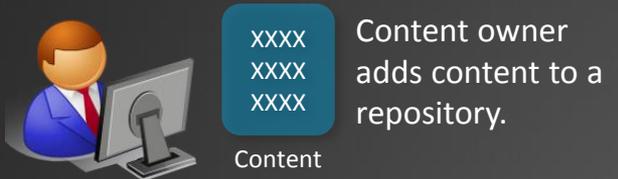
11429/12345.C4F

1	PK	publickey
2	IP	rights data
3	Publisher	NIST
4	GUID	a8-0c-22-7f-c1-00
5	URL	http://pubmed.nih..
6	HDL	11429/789

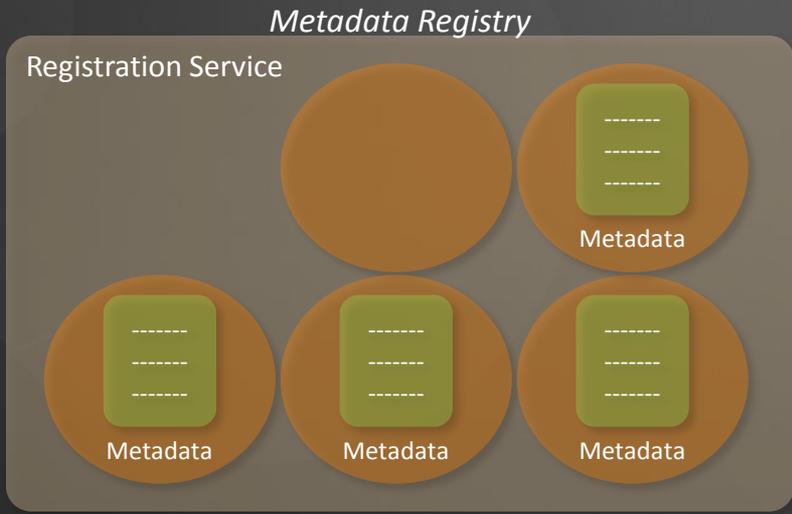
... ..



Metadata Registry – Example



Metadata for that content is generated in the Repository and pushed, via a Registration Service, into Metadata Registry, creating a digital object.



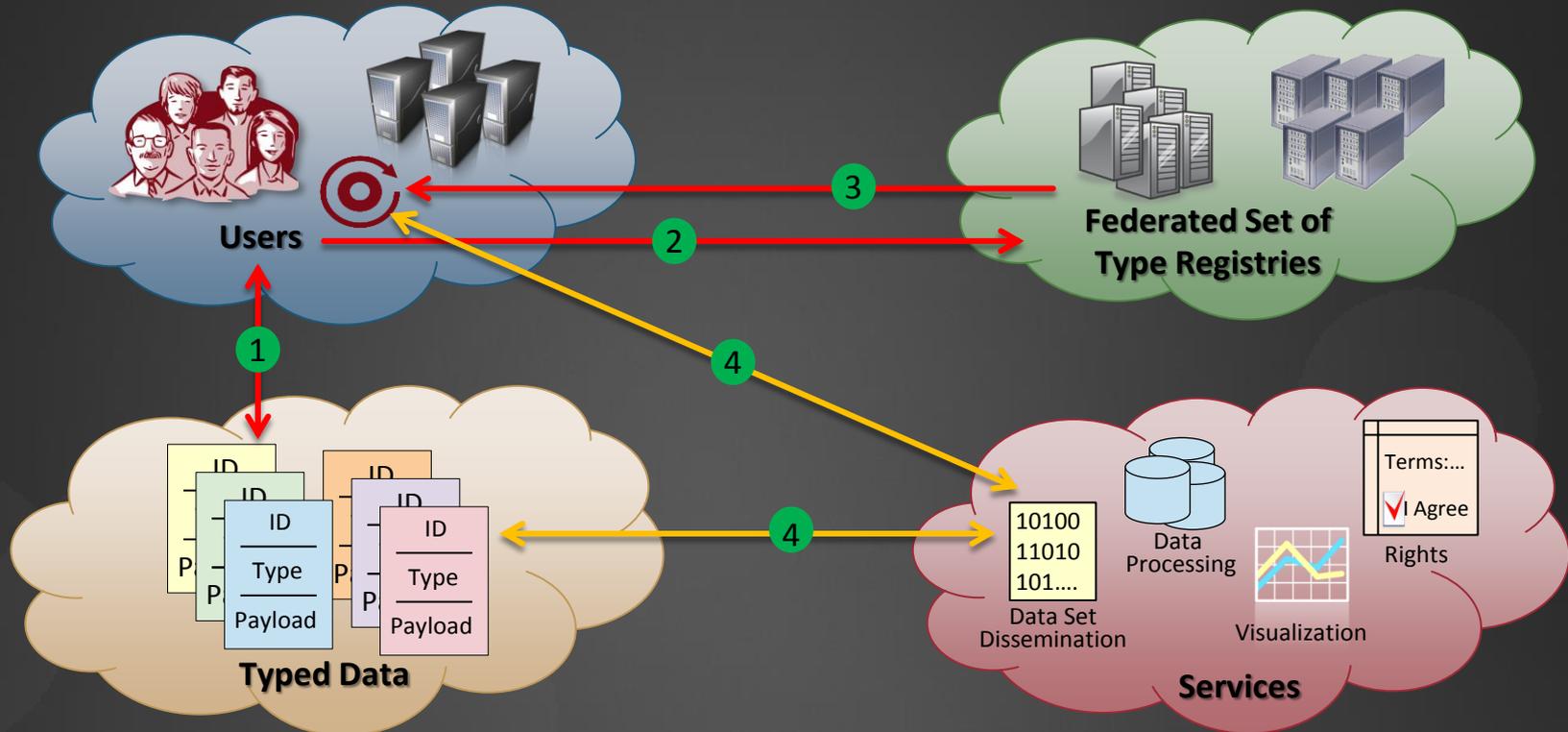
Information Management Service



Discovery Service

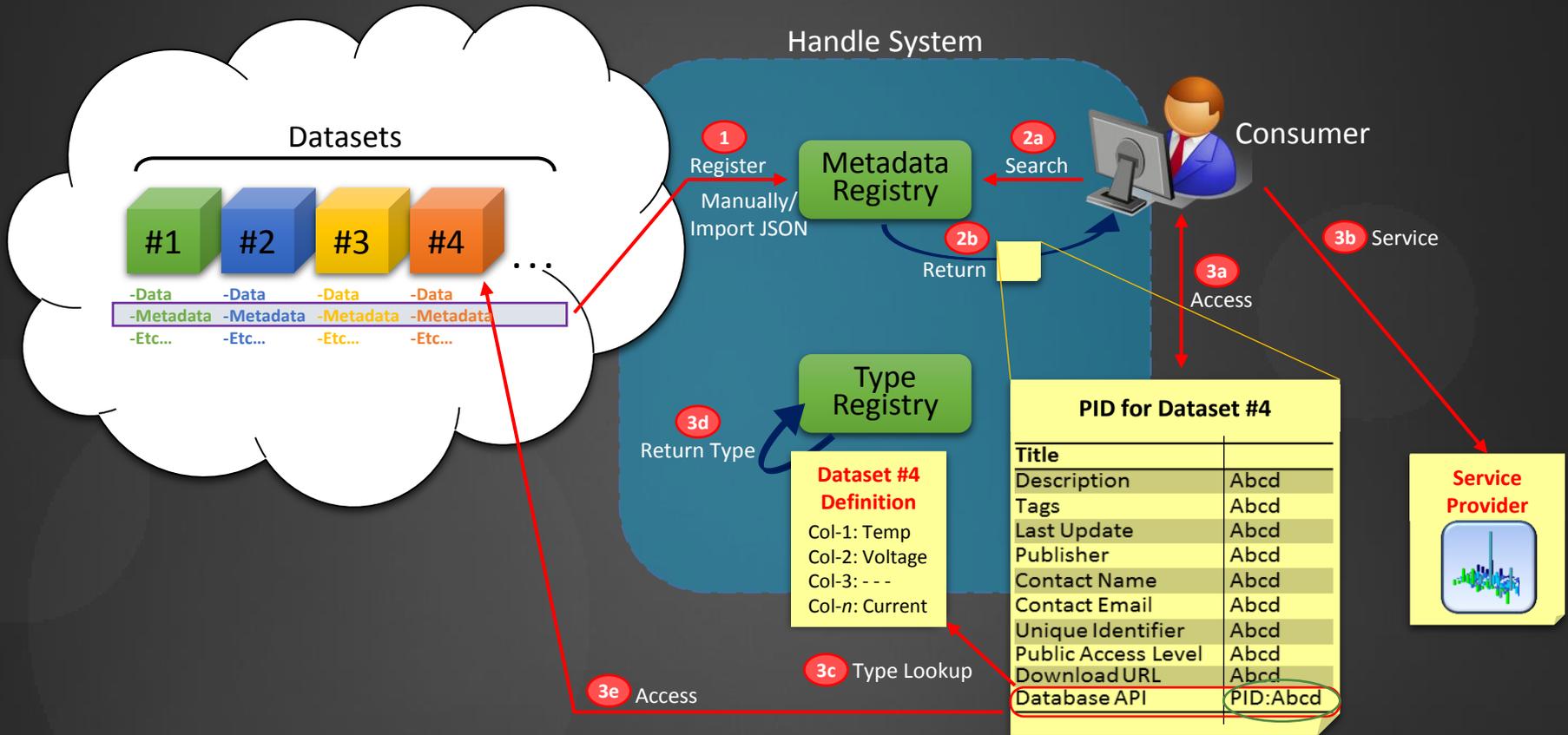
The Metadata Registry provides Information Management and Discovery Services for users.

Data Type Registry – Example



- 1 Client (process or people) encounter data of an unknown type
- 2 Resolved the Type to Type Registry
- 3 Response includes type definitions, relationships, properties, and possibly service pointers. Response can be used locally for processing, or, optionally
- 4 Typed data or reference to typed data can be sent to service provider

CAP Workflow – Example

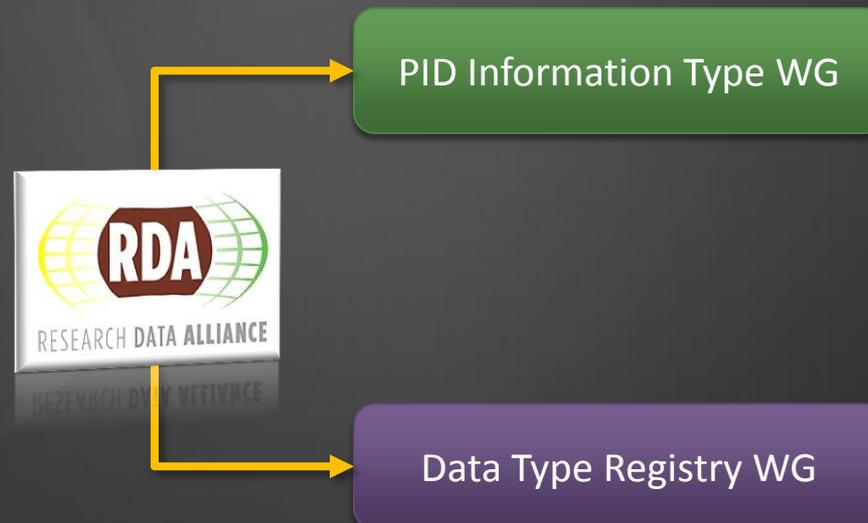


CAP Collaborators

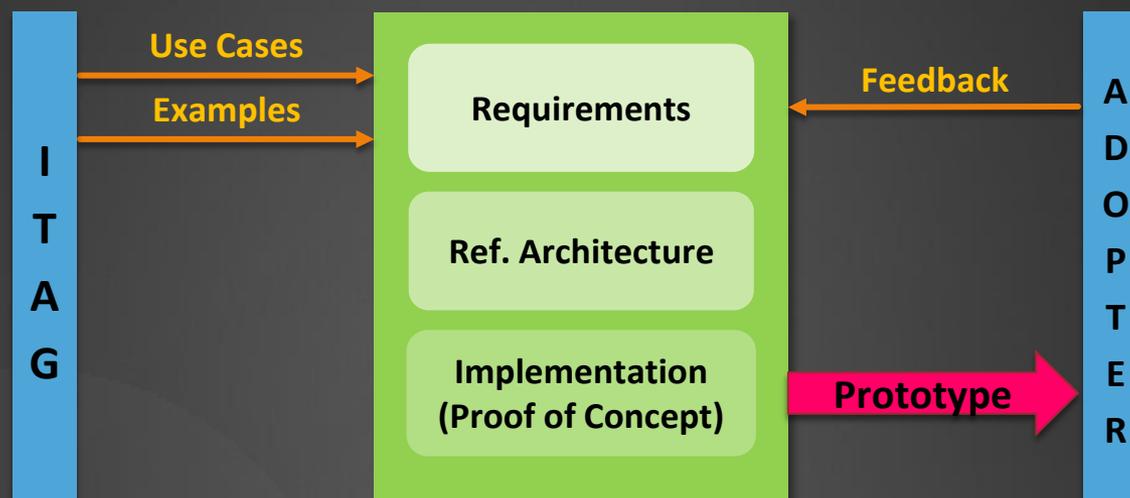
Interagency Technical Advisory Group (iTAG)

To provide a forum for Federal agency and entity coordination on operational requirements and insights on how to maximize access to scientific and technical data. Members of the iTAG are Federal employees participating in their individual capacity as subject matter experts and providing their own perspectives from a range of agency and entity settings including:

- **NIST (Chair)**
- **Census**
- **DOE**
- **NARA**
- **Smithsonian**
- **Treasury**
- **Engage with**



CAP Reference Architecture Development



Provide VM (pre-configured)/instructions to configure CAP instance:

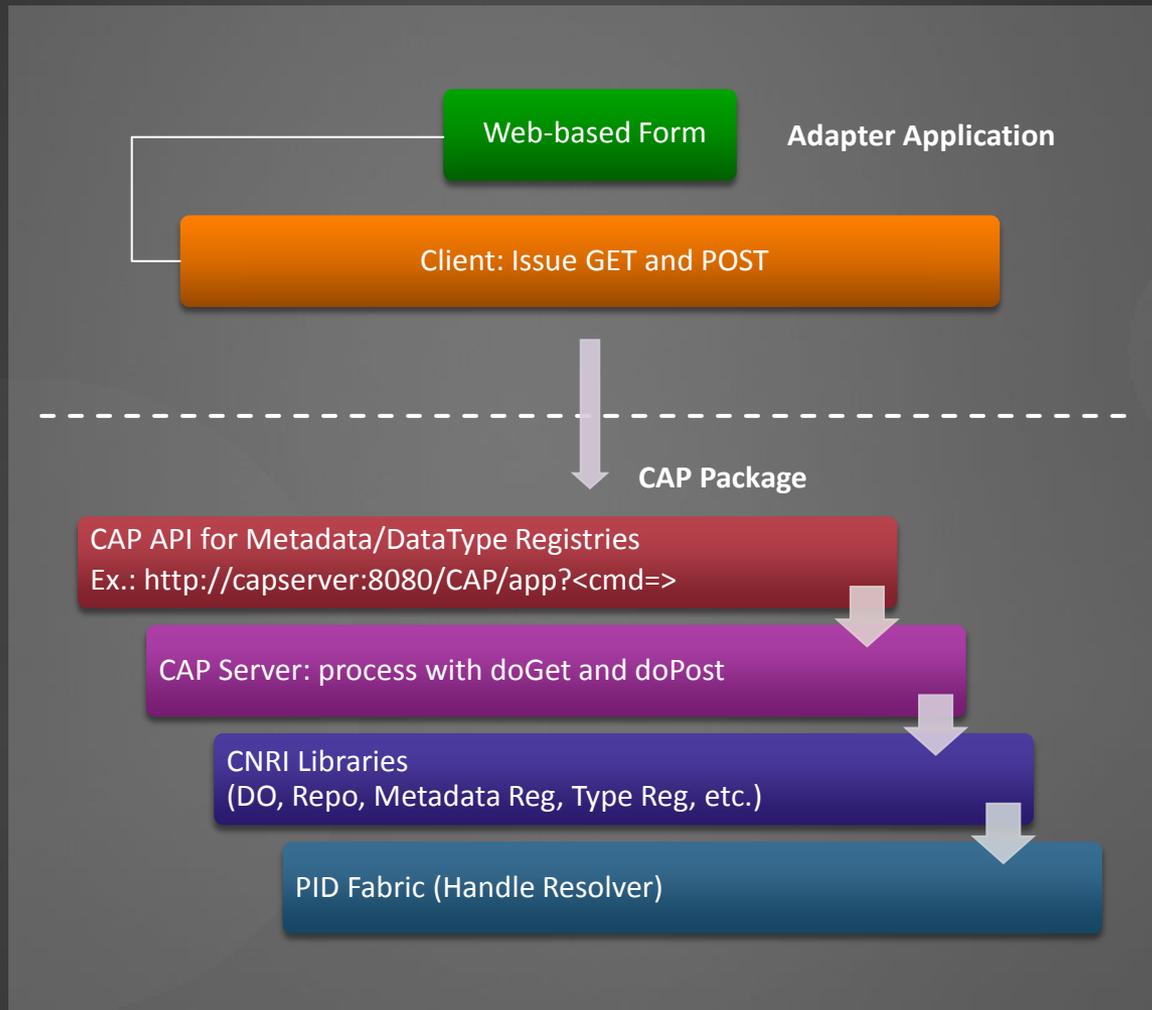
- **Interface:** CAP API, tools, utilities, etc.
- **System:** Handle system, DO libraries, etc.

Adopter: Customize CAP instance with operational needs:

Forms, applications, PID naming, integration with:

- Existing environment (PIV, user profile, etc.)
- Datasets: schemas, type definitions, etc.
- Tools: curation, analytics, visualization, etc.
- Others...

CAP Development Stack



QUESTIONS?

CONTACT: WCHANG@NIST.GOV