



IHE[®] | EXPERIENCE
EUROPE | DAY | 13
SEPTEMBER
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IHE Document Sharing using FHIR platform: Mobile Health Document Sharing (MHDS)



John Moehrke – IHE IT-Infrastructure co-chair
By Light Consulting



John Moehrke

24/10/22

Architect: Healthcare Informatics Standards - Interoperability, Privacy, and Security

CyberPrivacy – Enabling authorized communications while respecting Privacy

IHE Co-Chair IT Infrastructure Planning & Technical Committee

HL7 Co-Chair Security WG, FHIR Management Group, FHIR facilitator, and FHIR Foundation founding member

Employee of ByLight Professional IT Services -- Contractor to VHA MyHealthVet

JohnMoehrke@gmail.com

<https://www.linkedin.com/in/johnmoehrke> |

<https://healthcaresecprivacy.blogspot.com>

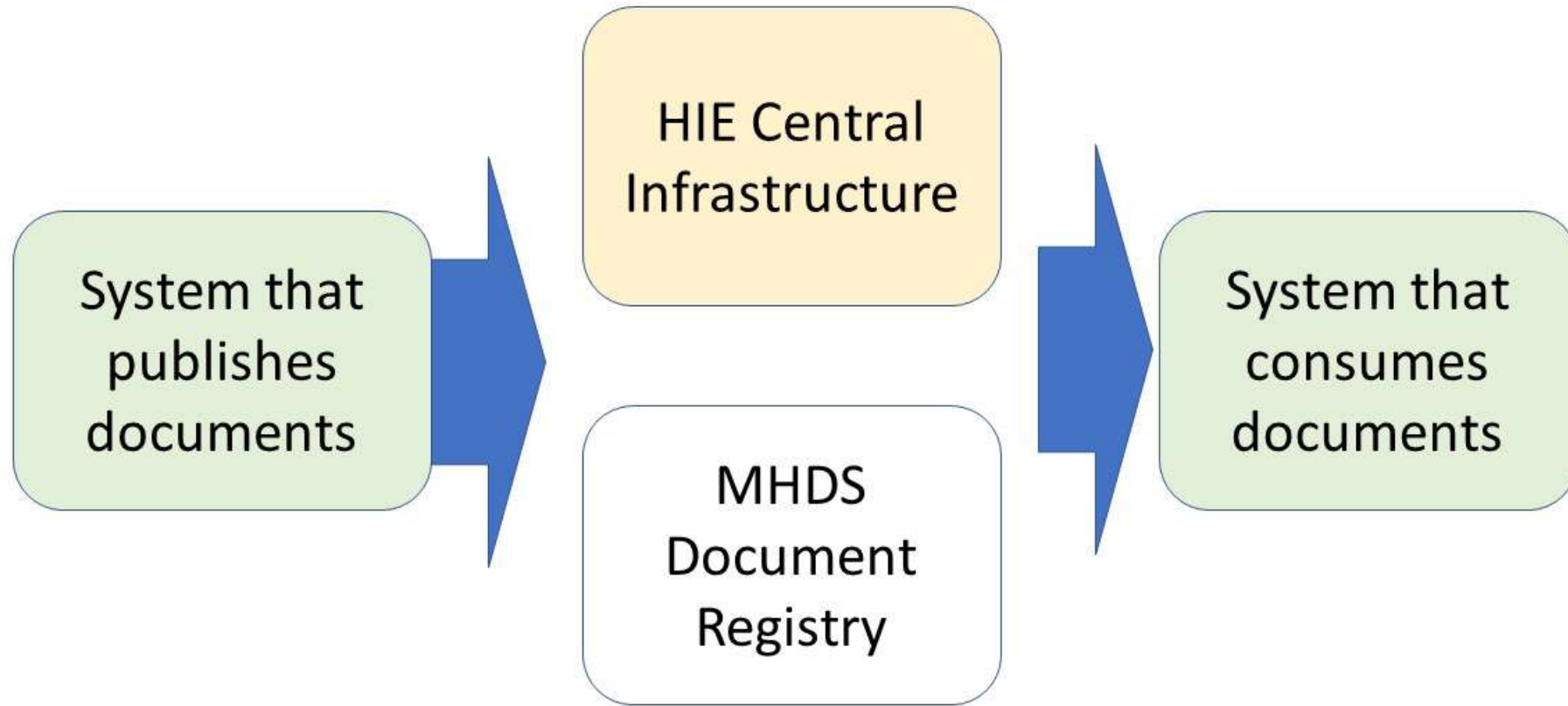
Twitter: [@JohnMoehrke](https://twitter.com/JohnMoehrke)

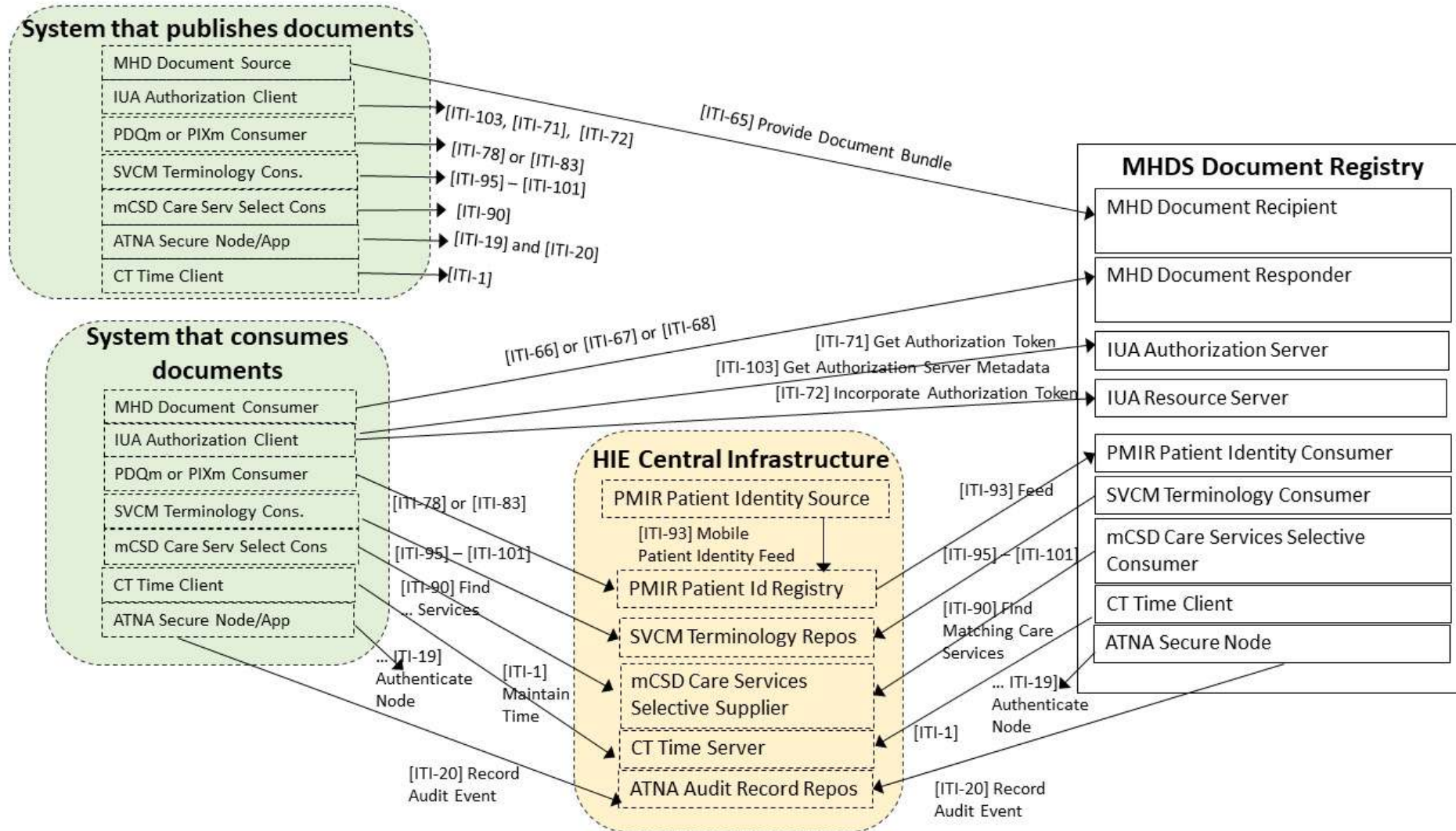
Courtney's third law: There are no technical solutions to management problems, but there are management solutions to technical problems.

- Publication of Document based information
 - Content agnostic but CDA[®] and FHIR[®] preferred
- Persistence and lifecycle management of Documents, DocumentReference, and List resources
 - Enabling centralized document storage, or distributed document storage at a service identified at the source
- Patient Identity Management
 - specifically, a golden patient identity for use within the domain, cross-reference to other identities, and lifecycle of updates
 - Appropriate comprehensive handling of patient identity updates including merge
- Participant Organizations management
 - Enabling use of mCSD directory for author identity management
- Authorization management
 - Consent
 - User Role-Based-Access-Control (RBAC) or Attribute-Based-Access-Control (ABAC)
 - Application
 - PurposeOfUse
- Encryption and Integrity requirements
- Audit Log Management
- Consumption side can be further refined using [mXDE](#) and [QEDm](#)

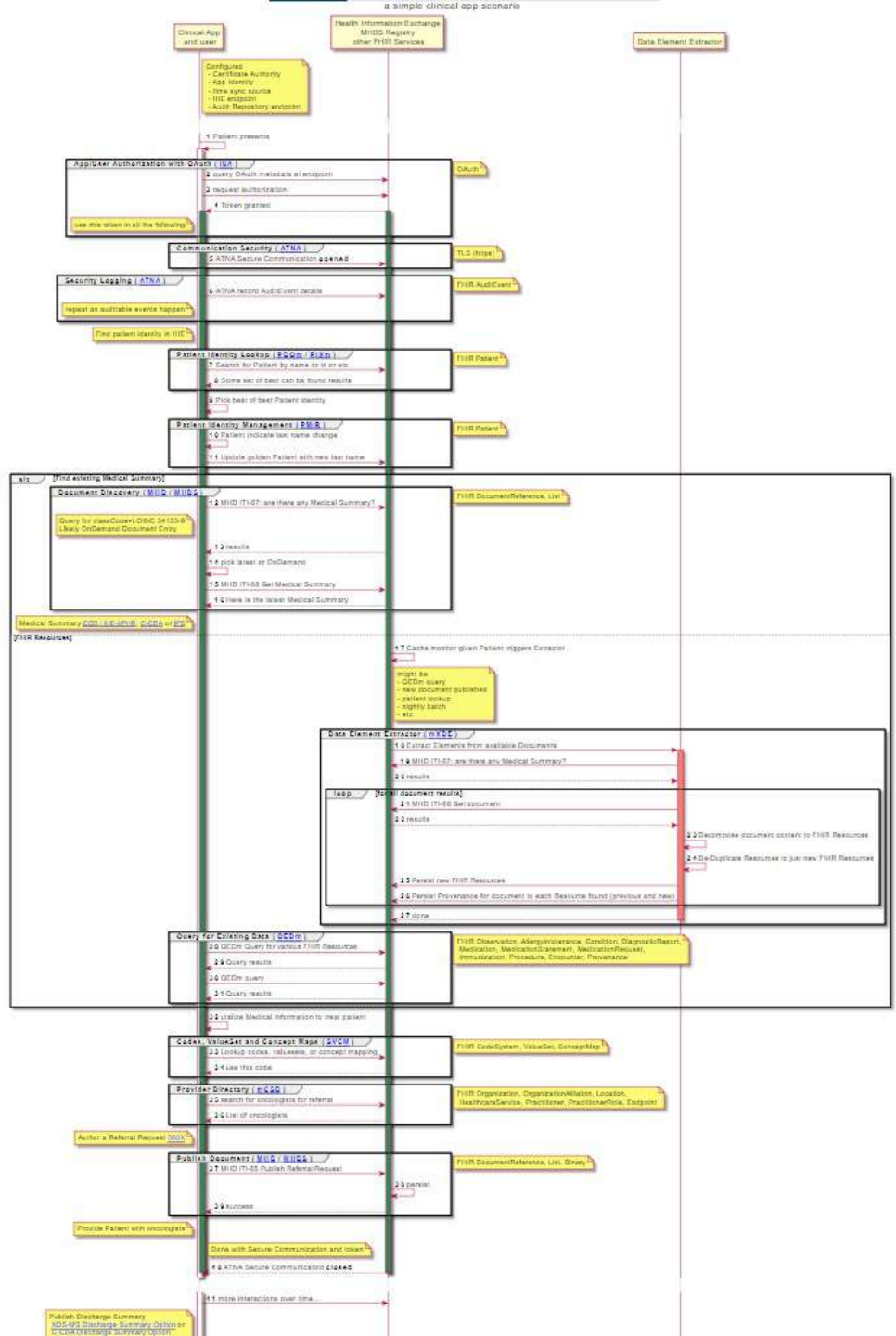


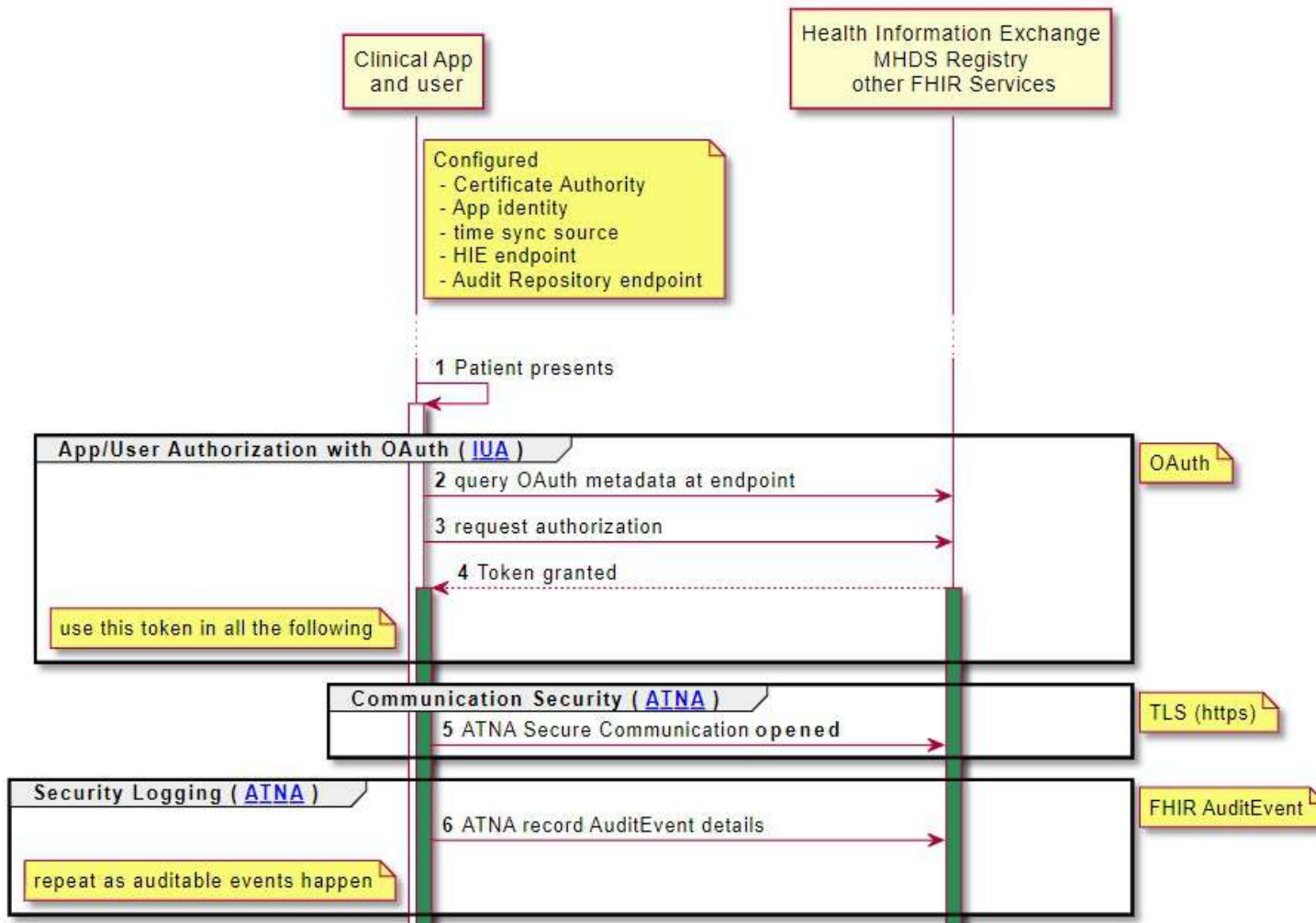
- [ITI Technical Framework: Vol. 3 - Section 4.0 Metadata used in Document Sharing](#)
- [Health Information Exchange: Enabling Document Sharing Using IHE Profiles](#)
- [Document Sharing Metadata Handbook](#)
- [Template for XDS Affinity Domain Deployment Planning](#)





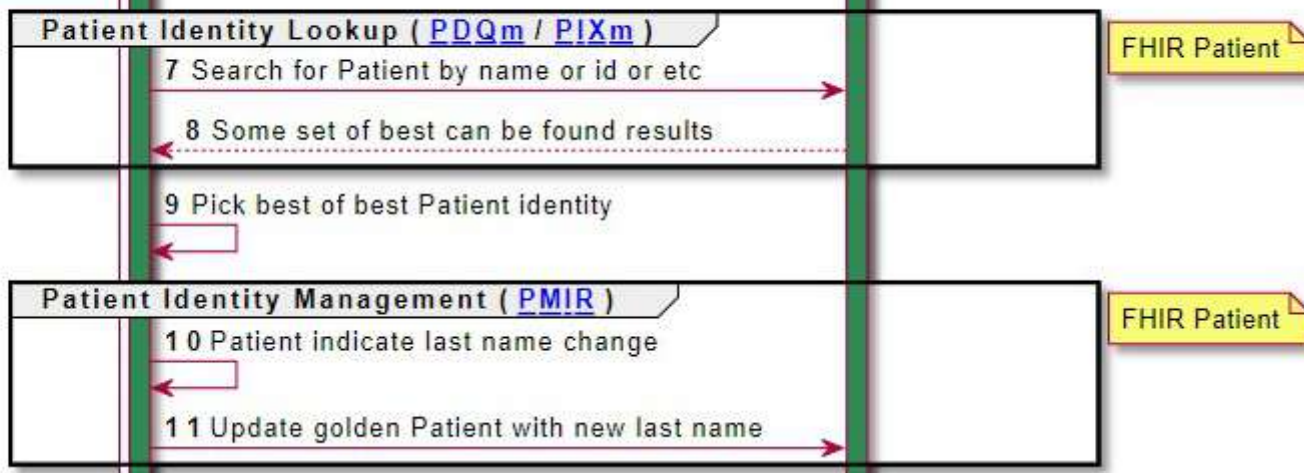
Sample Use-Case Flow





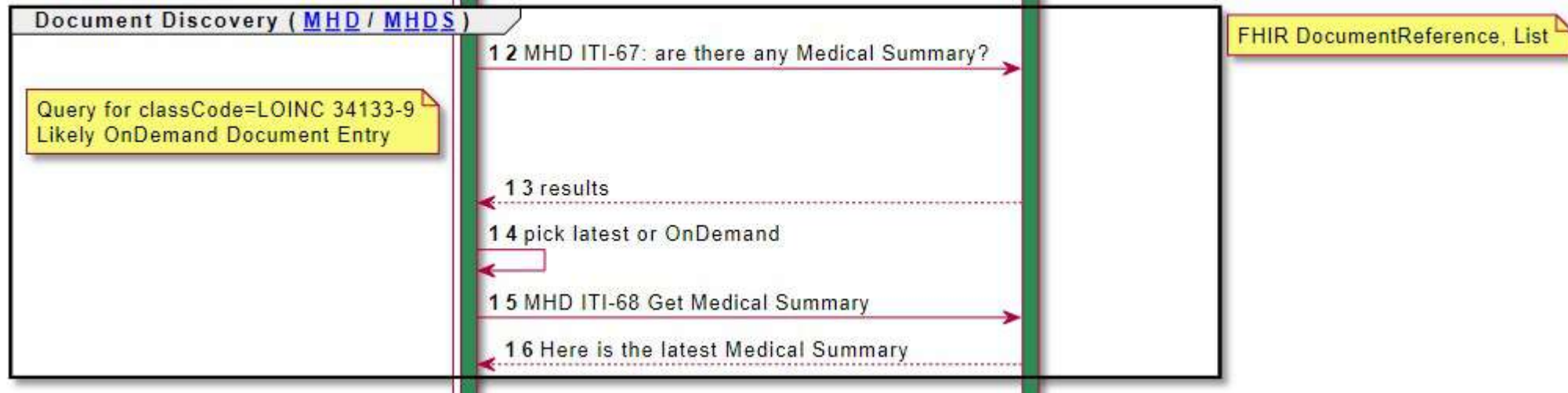
- Configuration
 - Directory
 - Time Sync
 - Code Conformance Rules
- App / User Identity
 - Oauth
- Secure Communication
 - TLS (https)
- Audit Logging
 - FHIR AuditEvent

Find patient identity in HIE



PDQm or PIXm to lookup patient

PMIR if necessary to update the golden patient identity



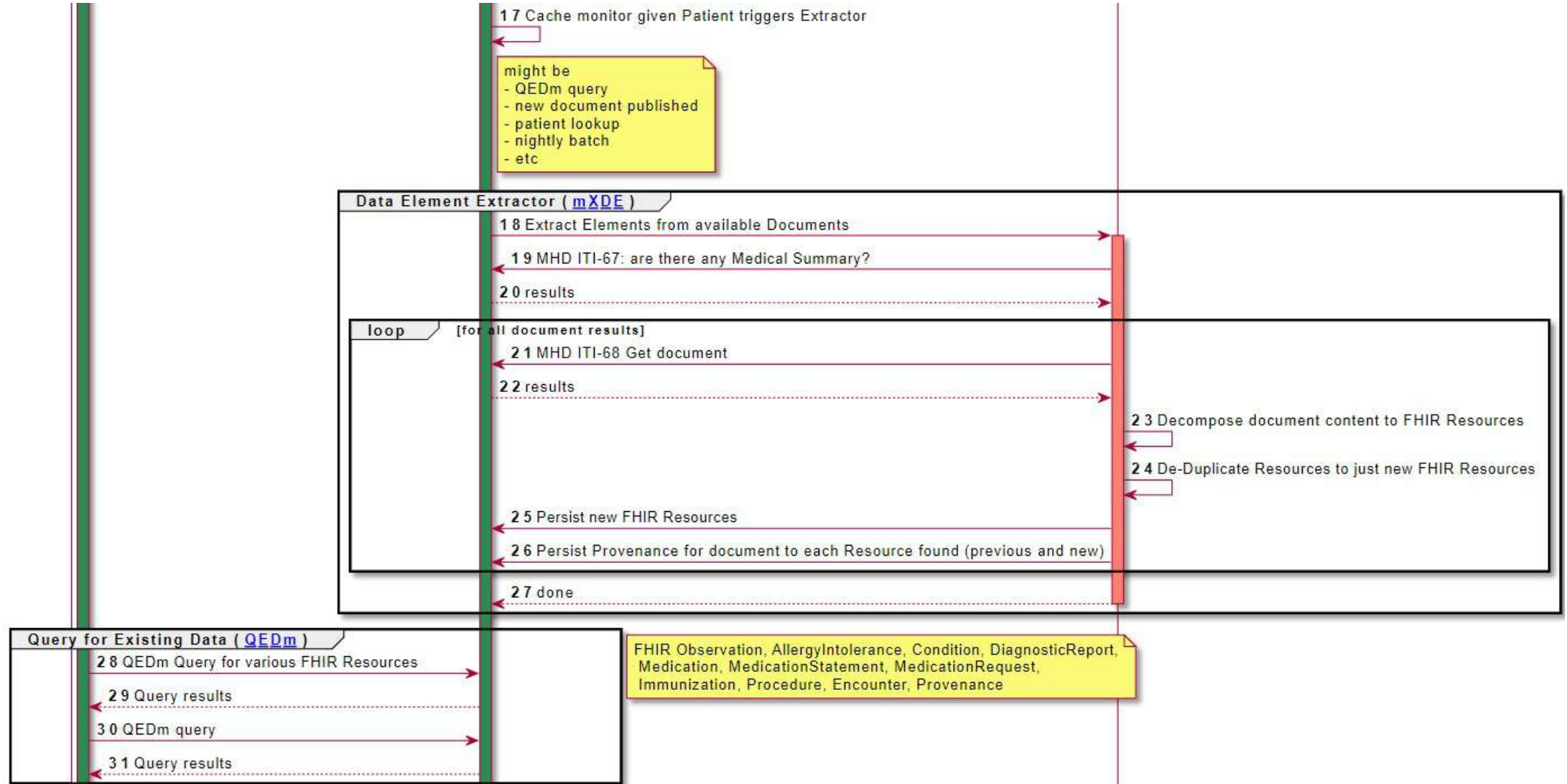
MHD: Document Consumer -> Document Responder

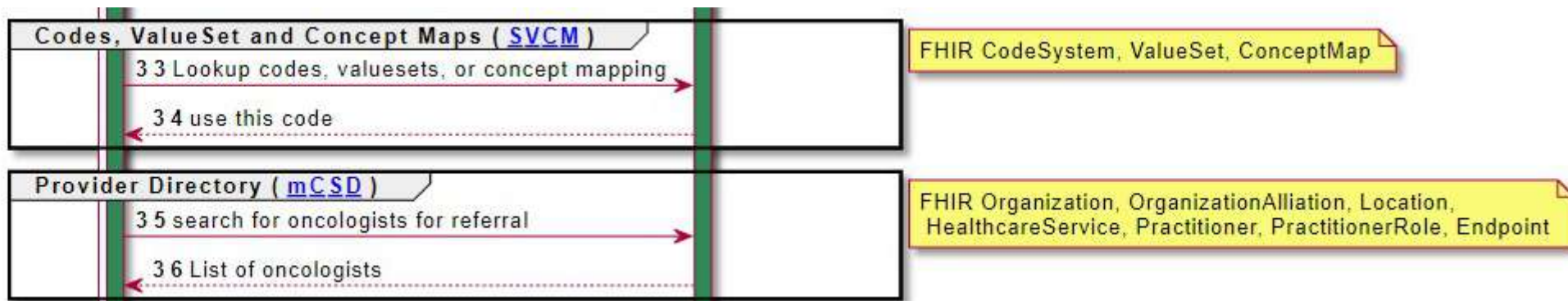
ITI-67 – Find DocumentReference

ITI-66 – Find Lists (SubmissionSets or Folders)

ITI-68 – Retrieve Document

Alternative 2: Retrieve FHIR Resources

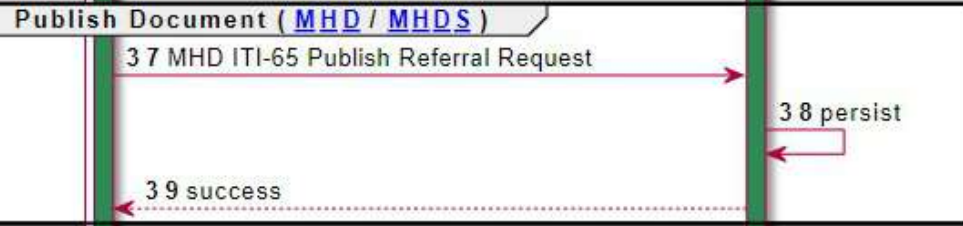




SVCM – to retrieve commonly managed codes, valuesets, and concept maps

mCSD – to retrieve organizational information

Author a Referral Request [360X](#)



FHIR DocumentReference, List, Binary

Publish new documents

- Many kinds of document types profiled
- Many more possible

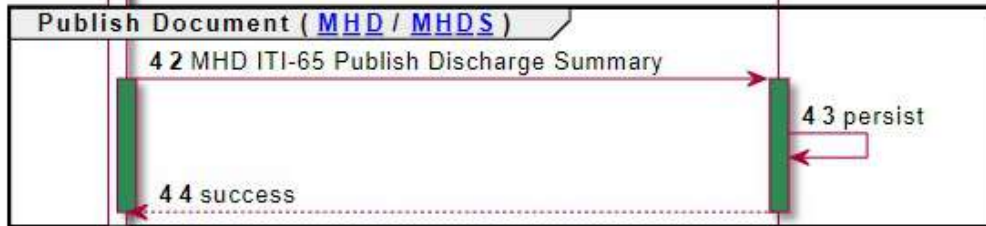
Provide Patient with oncologists

Done with Secure Communication and token

40 ATNA Secure Communication closed

41 more interactions over time...

Publish Discharge Summary
[XDS-MS Discharge Summary Option](#) or
[C-CDA Discharge Summary Option](#)



International Patient Summary



MHDS is based on concepts learned from XDS

- Brings them all together into one Implementation Guide
- Organizational Directory
- Patient Management (golden patient)
- Security / Privacy
- Document Management
- Alternative - Retrieve FHIR Resources