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# Xt-EHR Projectathon II

IHE Europe Webinar Series

**12 December 2025**

IHE EUROPE Integrating the Healthcare Enterprise

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- Please keep your microphone **muted**
- **Questions during the session?** Please use the chat box. We will address the questions in the second part of the webinar
- Note that this webinar will be **recorded** and made available on our IHE-Europe YouTube channel
- Slides will be **available on IHE-Europe webpage**

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# Welcome

*Sofia Franconi*

IHE EUROPE Integrating the Healthcare Enterprise

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# Agenda

| Time | Topic | Speaker |
|---|---|---|
| 11:00 – 11:05 | Welcome and recap of the previous webinar | Sofia Franconi, Andreas Neocleous |
| 11:05 – 11:20 | Further details on the Projectathon outline and specifications supporting the EHDS implementation | Jürgen Brandstätter |
| 11:20 – 11:40 | Imaging Access for EHDS: MADO and XC-WADO testing at the Projectathon | Charles Parisot |
| 11:40 – 11:50 | Organizational aspects - Registration | Nicole Veggiotti |
| 11:50 – 12:00 | Q&A | |

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# Recap from the previous webinar

*Andreas Neocleous*

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# Recap: strategic and regulatory focus

- Webinar positioned the **Xt-EHR Projectathon** as a key instrument for EHDS implementation
- Emphasis on moving from **EHDS/EEHRxF specifications to tested interoperability**
- **Annex II** highlighted as the reference for essential requirements
- General EHR requirements
- Interoperability, security, and logging
- Xt-EHR Joint Action translates Annex II into **technical requirements and testable assertions** for harmonised EHR components

# Recap: Projectathon scope and next steps

- Xt-EHR Projectathon validates **content and transactions** using EU and IHE specifications
- Content: Patient Summary, eP, eD, Discharge Report, laboratory and imaging reports
- Transactions: IHE profiles for infrastructure, security, document and imaging access
- Embedded in **IHE Connectathon Week 2026**
- 24–26 March 2026, Brussels
- Positioned as a practical step to prepare vendors and Member States for **EHDS conformity and labelling**

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# Further details on the Projectathon outline and specifications supporting the EHDS implementation

*Jürgen Brandstätter*

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# Testing of content

- **HL7 FHIR IGs for …**
  - EU Base (R4/R5)
  - ePrescriptions/eDispensations (R4/R5)
  - European Patient Summary
  - Discharge Summary
  - Laboratory Report
  - Imaging Report (R4/R5)

EURIDICE

European Interoperability Specifications for Digital Solutions in Healthcare

https://euridice.org

# Testing of content

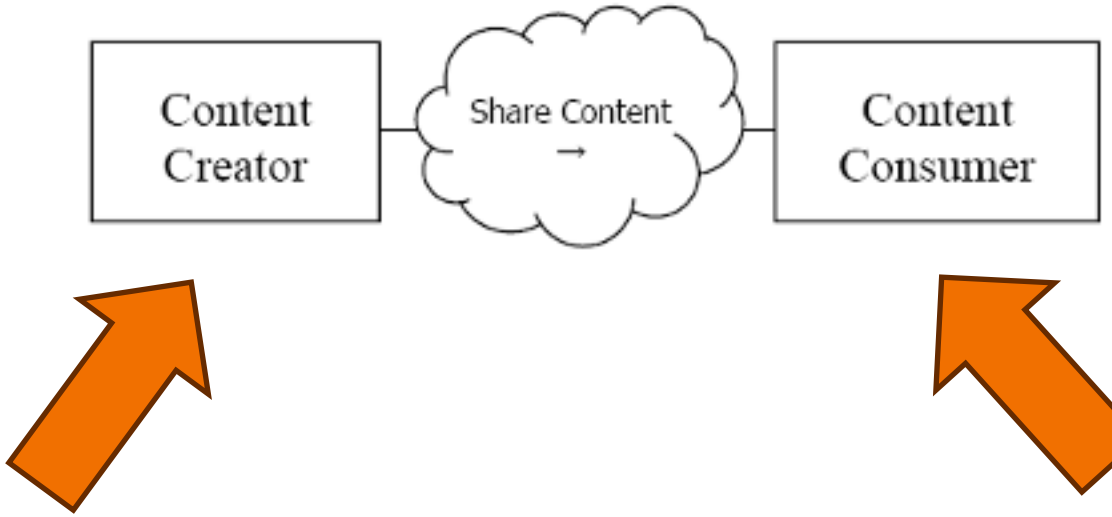
***For "build" versions see: https://build.fhir.org/ig/hl7-eu/...***

| | | | | | |
|---|---|---|---|---|---|
|  | **Base and Core** |  | • https://hl7.eu/fhir/base/<br>• https://hl7.eu/fhir/base-r5 | Begin January | 95% |
|  | **Laboratory Results** |  | • https://hl7.eu/fhir/laboratory | March | 90% |
|  | **Medical Imaging and reports** |  | • https://build.fhir.org/ig/hl7-eu/imaging-r4<br>• https://hl7.eu/fhir/imaging-r5/ | January | 90% |
|  | **Hospital Discharge Report** |  | • https://hl7.eu/fhir/hdr | March | 65% |
|  | **ePrescription eDispensation** |  | • https://hl7.eu/fhir/mpd<br>• https://hl7.eu/fhir/mpd-r5 | February | 85% |
|  | **Patient Summary** |  | • https://build.fhir.org/ig/hl7-eu/eps/ | February | 70% |

# Testing of content



- **Content – Testing (no-peer)**



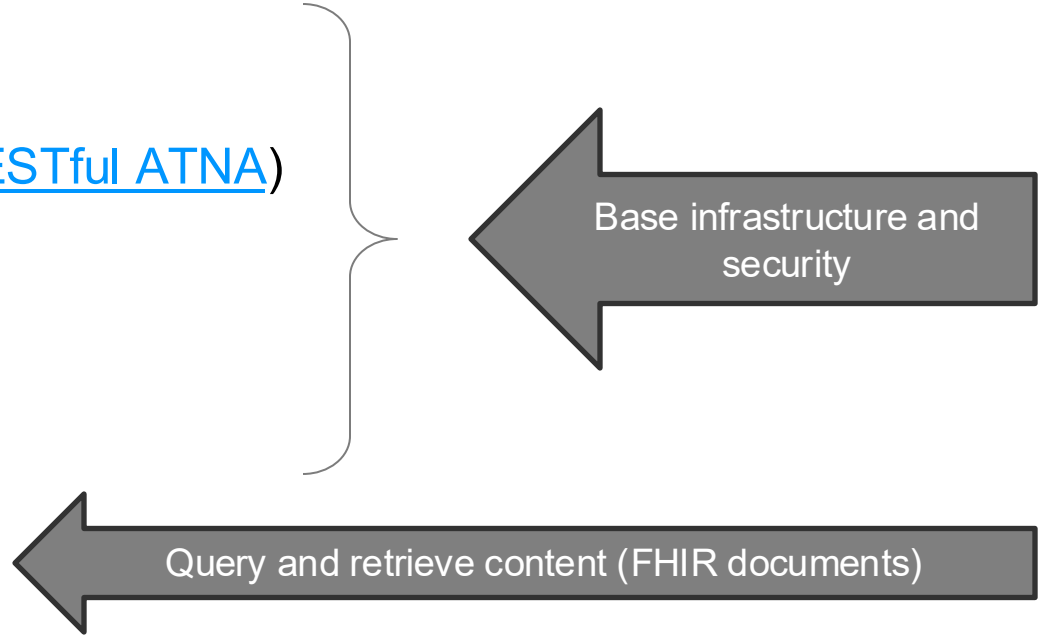

Register for this actor,
if you **CREATE** the content

Register for this actor,
if you **DISPLAY** the content

# Testing of transactions

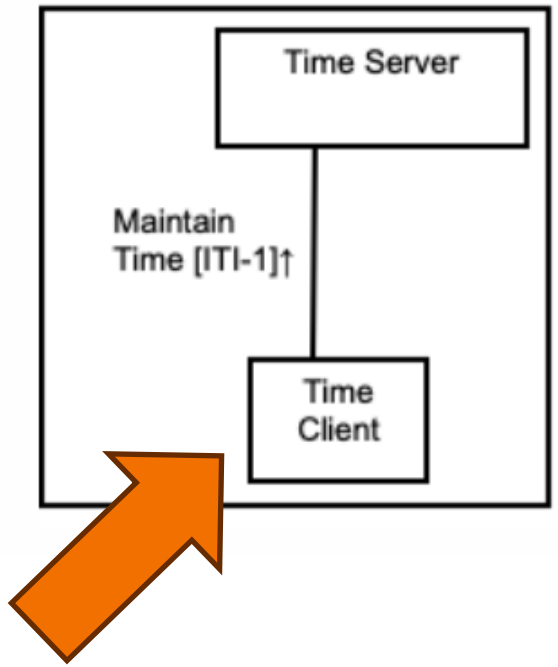


- **Transaction – Testing (peer-to-peer or peer-to-simulator)**
  - IHE Profiles for Infrastructure
    - Consistent Time (CT)
    - Audit Trail and Node Authentication (ATNA, RESTful ATNA)
    - Internet User Authentication (IUA)
    - Query for Existing Data for Mobile (QEDm)
    - Patient Demographics Query (PDQm)
    - Mobile access to Health Documents (MHD)



# Testing of transactions

- Consistent Time (CT)



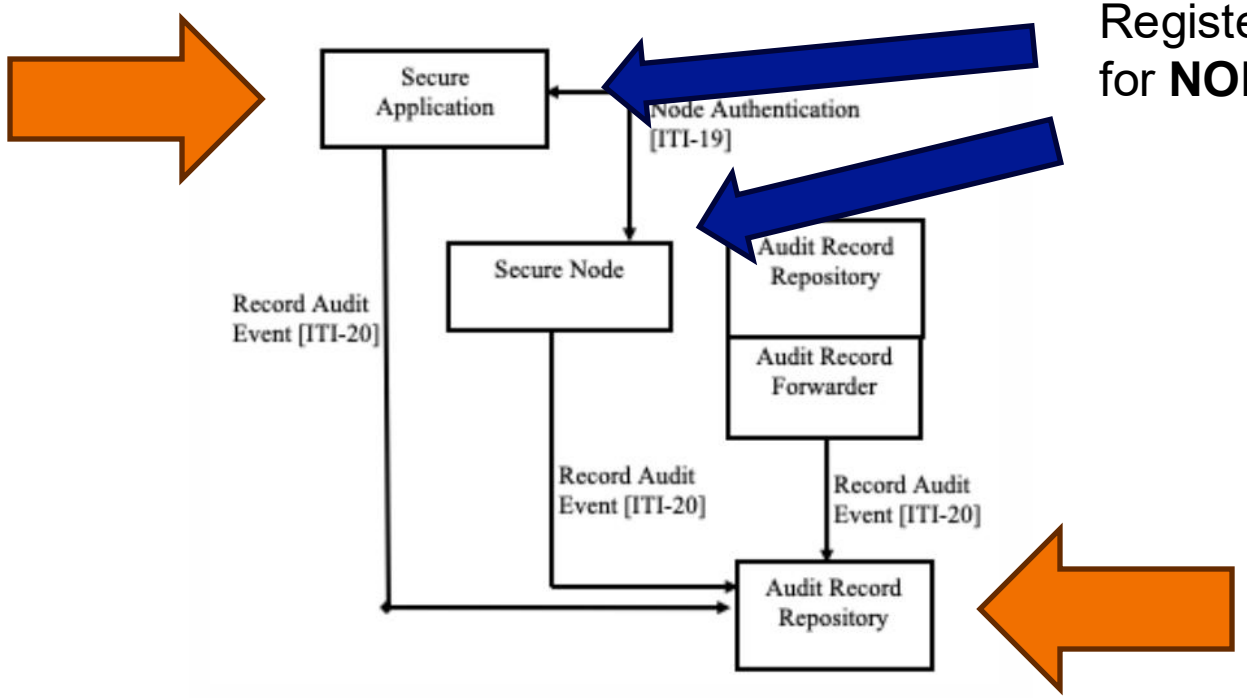

Register for this actor, if your system needs to **synchronize time** (= all)

# Testing of transactions



- Audit Trail and Node Authentication (ATNA, RESTful ATNA)

Register for this actor, if you **WRITE** audits



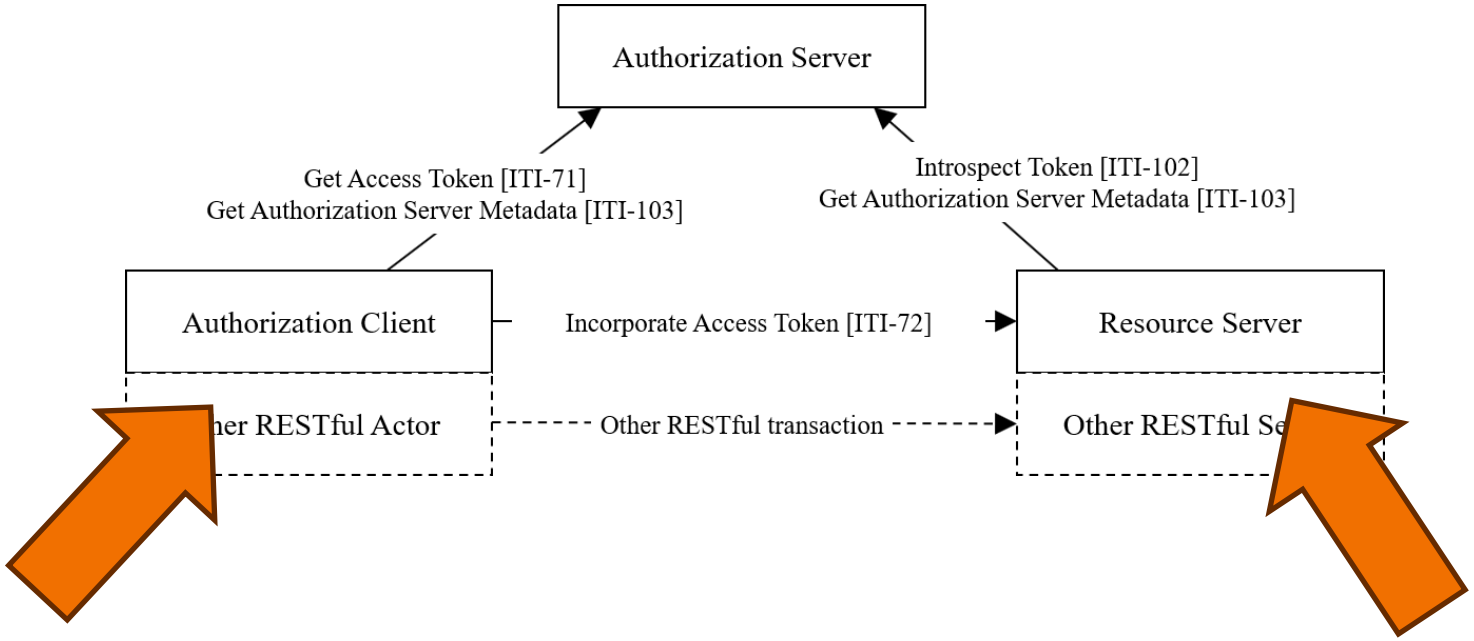

Register for these actors, for **NODE AUTHENTICATION**

Register for this actor, if you **RECEIVE** audits

# Testing of transactions



- Internet User Authentication (IUA)



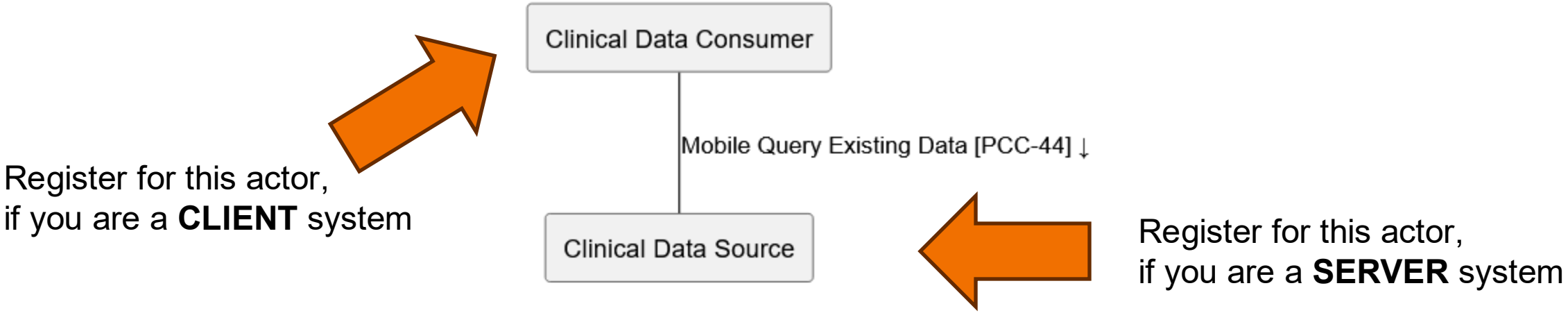

Register for this actor,
if you are a **CLIENT** system

Register for this actor,
if you are a **SERVER** system

# Testing of transactions



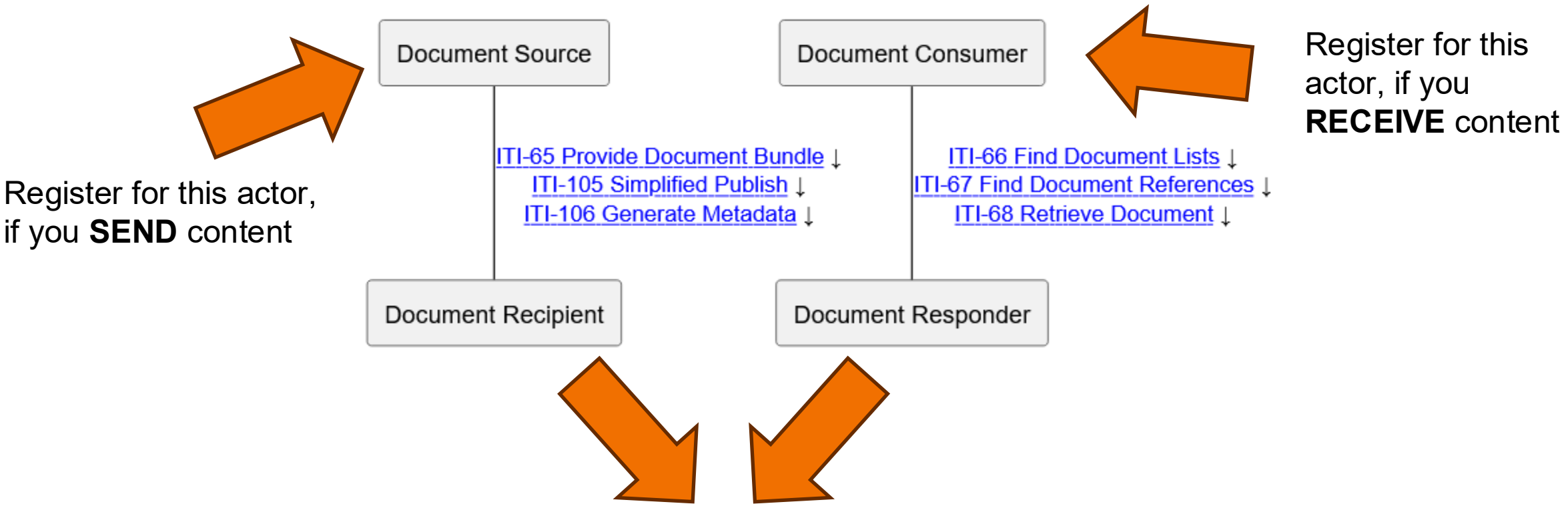
- Query for Existing Data for Mobile (QEDm)



# Testing of transactions



- Mobile access to Health Documents (MHD)



# Testing of transactions



- **Transaction – Testing (peer-to-peer or peer-to-simulator)**
  - IHE Profiles for Imaging
    - Web-based image access (WIA) ← International standard for WADO-RS
    - Cross-Community Web-Based Access to DICOM Objects (XC-WADO)
    - Manifest-based Access to DICOM Objects (MADO) ← Developed by Xt-EHR (D7.2)

*The Manifest-based Access to DICOM Objects (MADO) Integration Profile specifies actors and transactions to* ***retrieve patient-relevant DICOM Instances from medical imaging studies*** *being held within a community. Each community may have multiple sources of medical image data that publish it for sharing within the community. It may be combined with XC-WADO for cross-community access.*

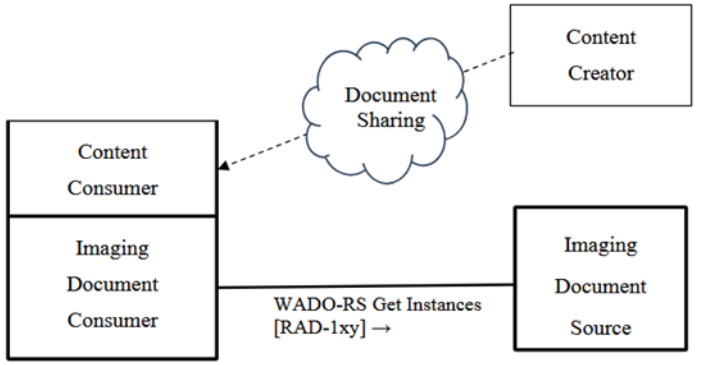



**Figure X.1-1: MADO Actor Diagram**

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# Imaging Access for EHDS: MADO & XC-WADO testing at the Projectathon

*Charles Parisot*

IHE EUROPE Integrating the Healthcare Enterprise

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# Testing Focus is on MADO and XC-WADO Profile

**Xt-EHR D7.2 Imaging Study and Related Imaging Report Specifications (Public Consultation)**

*(Ref. to MADO Profile*

*(Ref. to FHIR Imaging Report*

**XC-WADO IHE Profile**

*Cross*-Community WADO-RS Retrieve [RAD-160]

*EURIDICE Web Site (MADO Page)*

**Draft MADO IHE Profile**

***Chap 4:* Intra-Community WADO-RS Retrieve [RAD-1xy]**

***Chap 6.X.1: DICOM KOS Based Imaging Study Manifest***

***Chap 6.X.2: FHIR based Imaging Study Manifest***

***Chap 6.X.3: FHIR based Imaging Manifest Envelope***

HL7 Europe Web Site and EURIDICE website Snapshot & continuous build

**Draft FHIR Imaging Report IG**

*(Ref. to FHIR Imaging Manifest)*

*(Ref. to MHD Envelope for FHIR and KOS Manifests)*

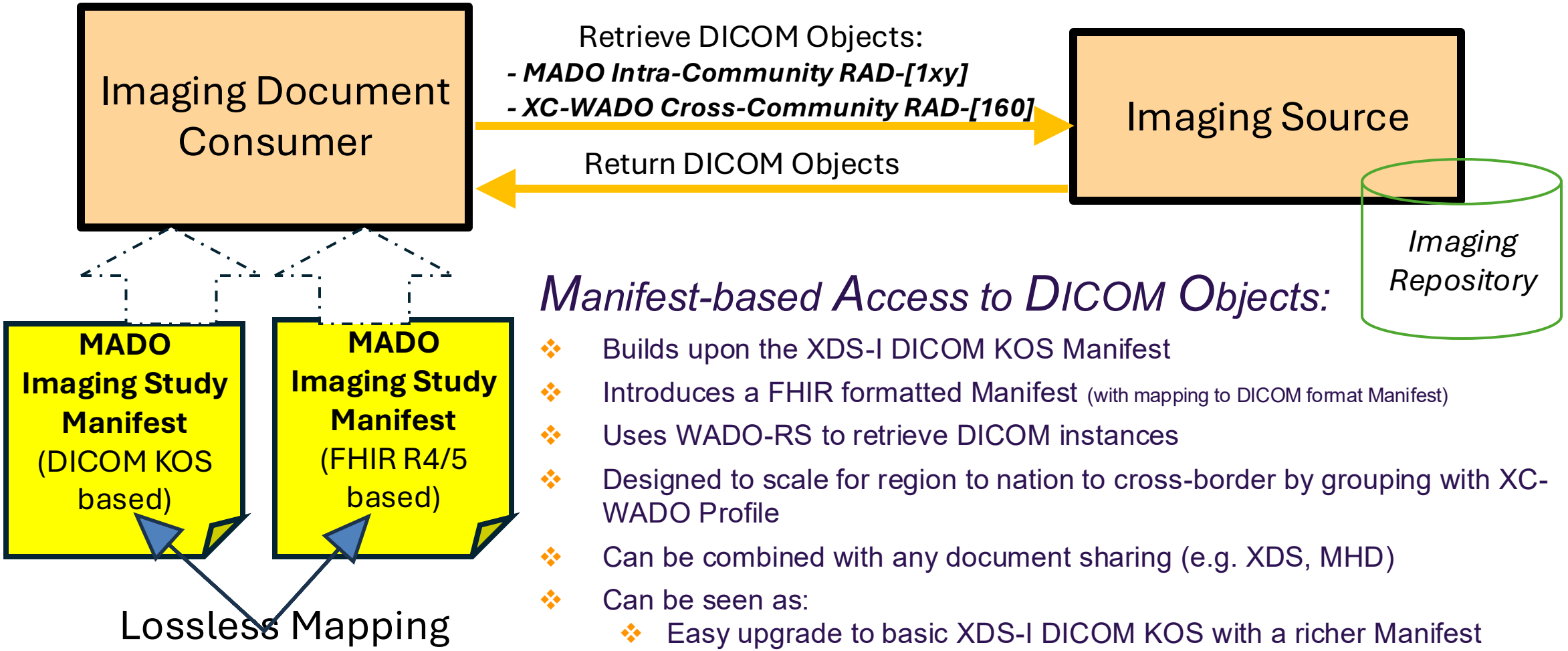
HL7 Europe Web Site

**Draft FHIR Imaging Manifest IG**

**Draft FHIR Manifest (MHD) Envelope IG**

# Actors, Contents &Transactions for MADO and XC-WADO Profiles

Manifest-Based Access to DICOM Objects (MADO) - EURIDICE - European Interoperability Specifications for Digital Solutions in Healthcare




## *Manifest-based Access to DICOM Objects:*

- Builds upon the XDS-I DICOM KOS Manifest
- Introduces a FHIR formatted Manifest (with mapping to DICOM format Manifest)
- Uses WADO-RS to retrieve DICOM instances
- Designed to scale for region to nation to cross-border by grouping with XC-WADO Profile
- Can be combined with any document sharing (e.g. XDS, MHD)
- Can be seen as:
  - Easy upgrade to basic XDS-I DICOM KOS with a richer Manifest
  - Adds imaging to FHIR Based MHD document sharing
  - Easy security and privacy deployment

# Xt-EHR Projectathon focus at the IHE Europe March Connectathon

## 1. Specification Availability

- The Public Comment version of the MADO profile is the current basis for the Xt-EHR Projecathon.
- The **MADO Profile Trial Implementation Version** is due to be released mid-February 2026 as implementation **ready. This leaves only 4-5 weeks** before the March 23-27 European Connectathon.
- The **sharing of documents** (Imaging Study Manifests) **is only playing a supporting role (query/retrieve)** and could be performed either in XDS or in MHD.
- The MADO Profile can be grouped with Cross-Community WADO-RS (XC-WADO) Trial Implementation Profile (stable since Juned 2025)

## 3. Mode of Testing

- **Xt-EHR Projectathon Level Testing** is best, even in a “near Connectathon rigorous mode”.
- Simultaneous Participation with **Connectathon** is possible.
- Vendors acting as **sources** to **bring their own test data** (test imaging studies and test manifests).

## 4. Organize testing so that a **good showcase** can be presented to visitors

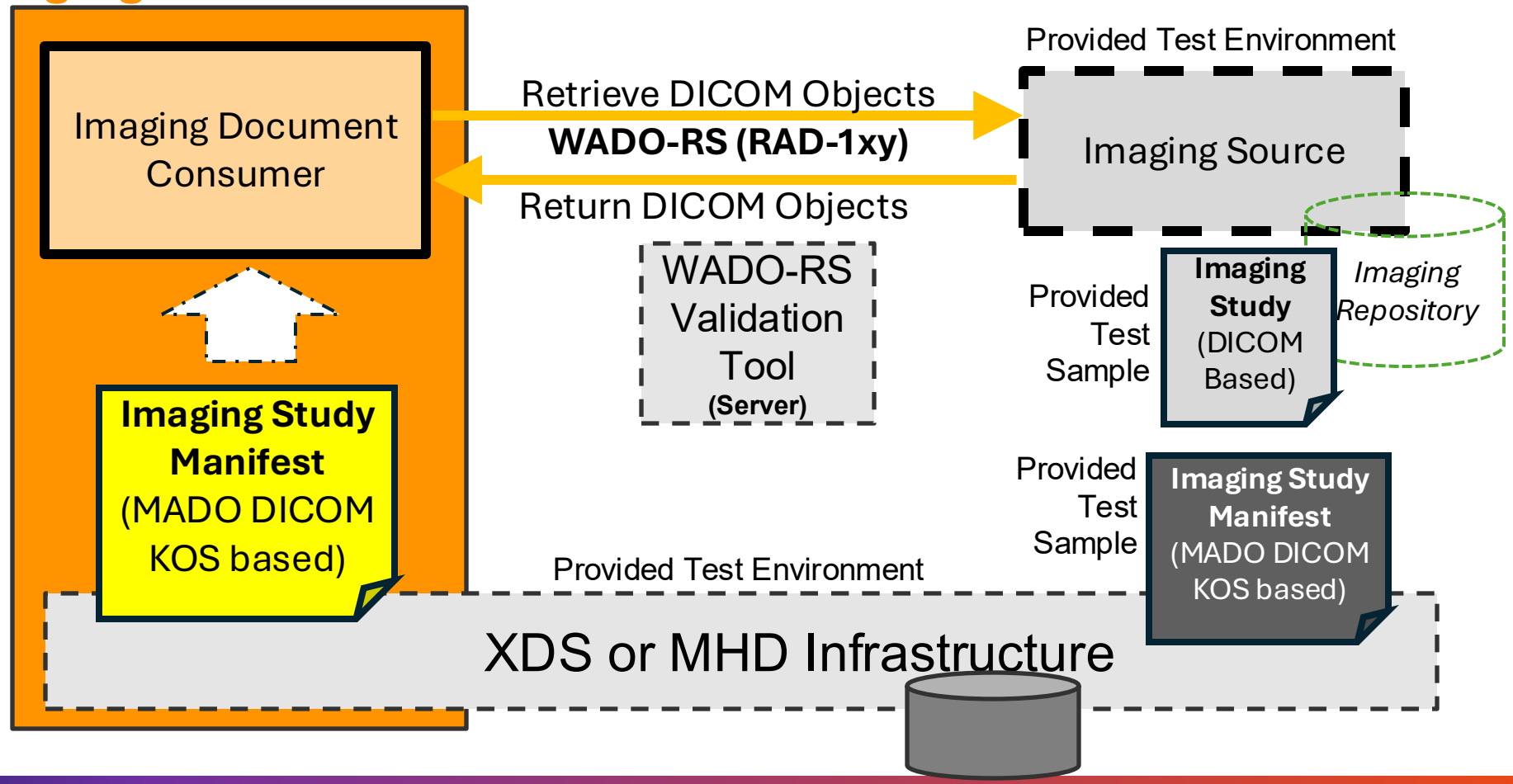
# **Basic Testing:** Maximize high-visibility integration, keeping complexity low

Consider *participation opportunities* **starting with** simpler implementation and higher showcase visibility

## 1-MADO Imaging Document Consumer

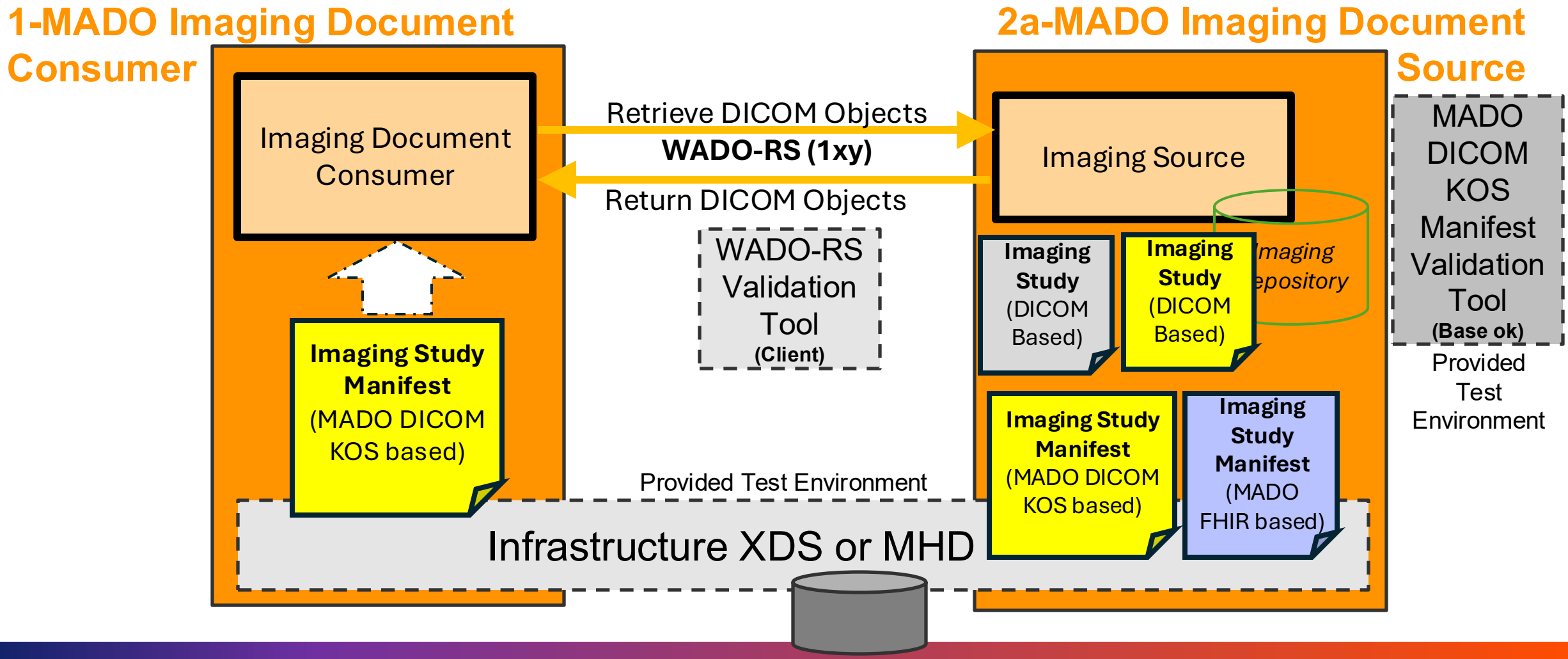
- Support: Query/retrieve Imaging Study Manifest in DICOM Format
- **Retrieving a series/instance/study (vanilla WADO-RS) and launch viewer**
- Option: Retrieving key images only and launch viewer

*Within one community. Using a Retrieve URL (end-point) and no security (except Dual TLS).*

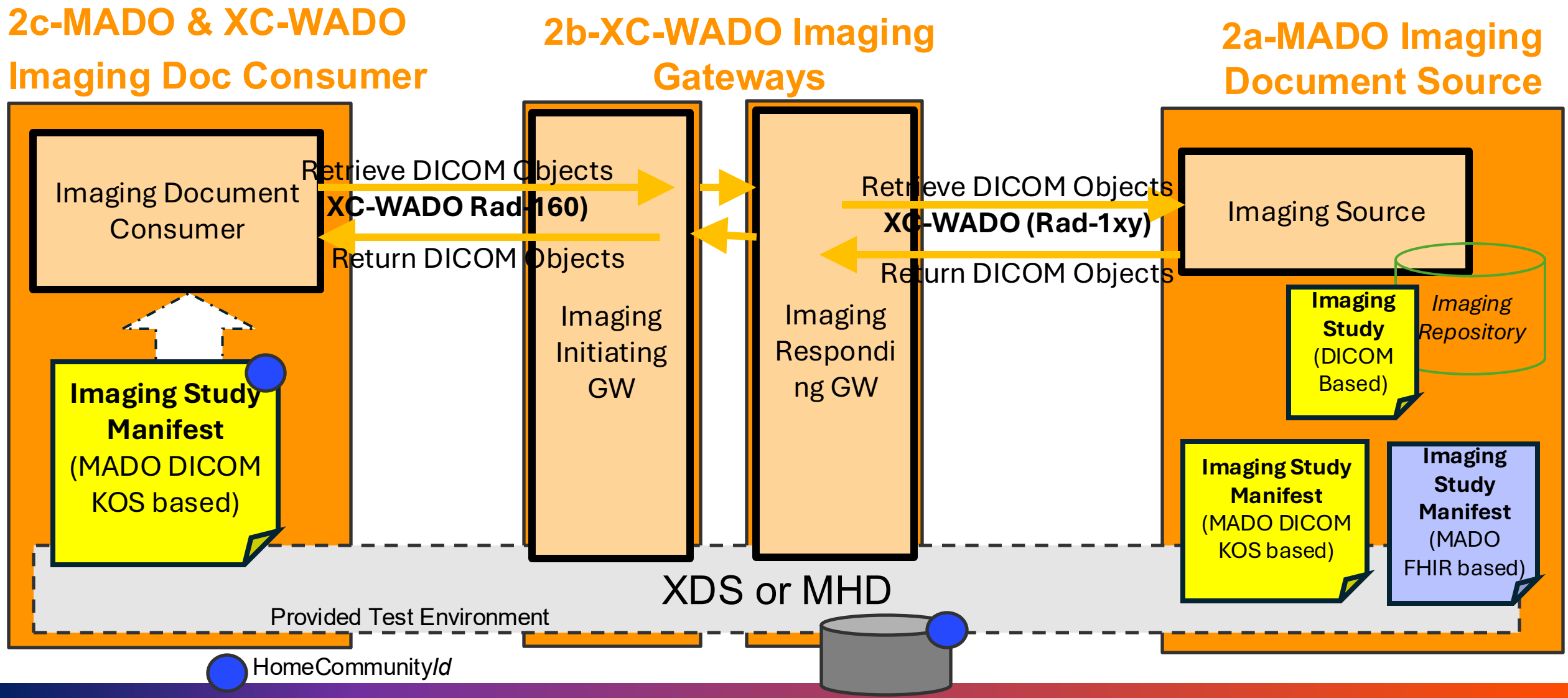


# **Intermediate Testing:** Some high-visibility integration, middle complexity

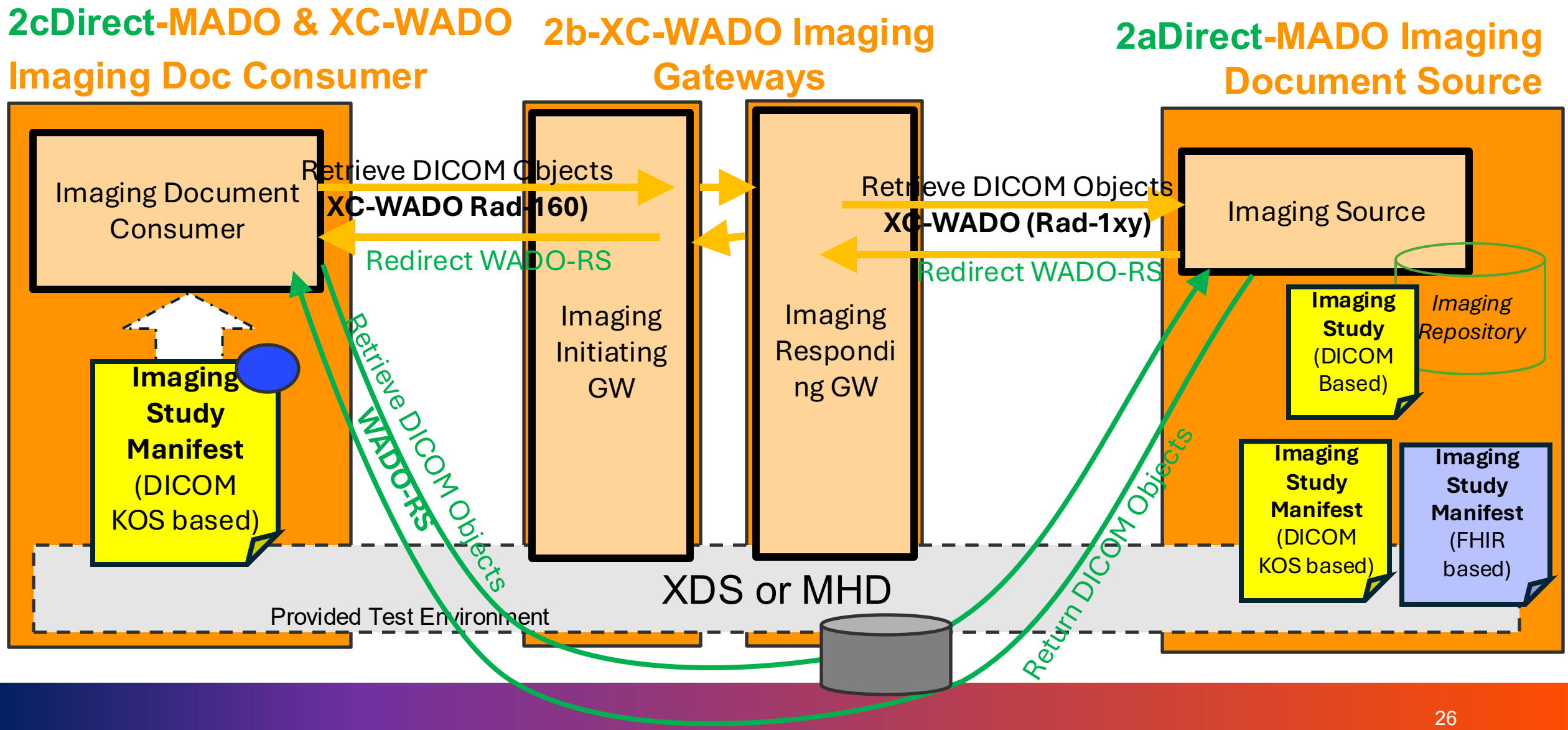
Consider further ***participation opportunities building upon previous lower priority testing***



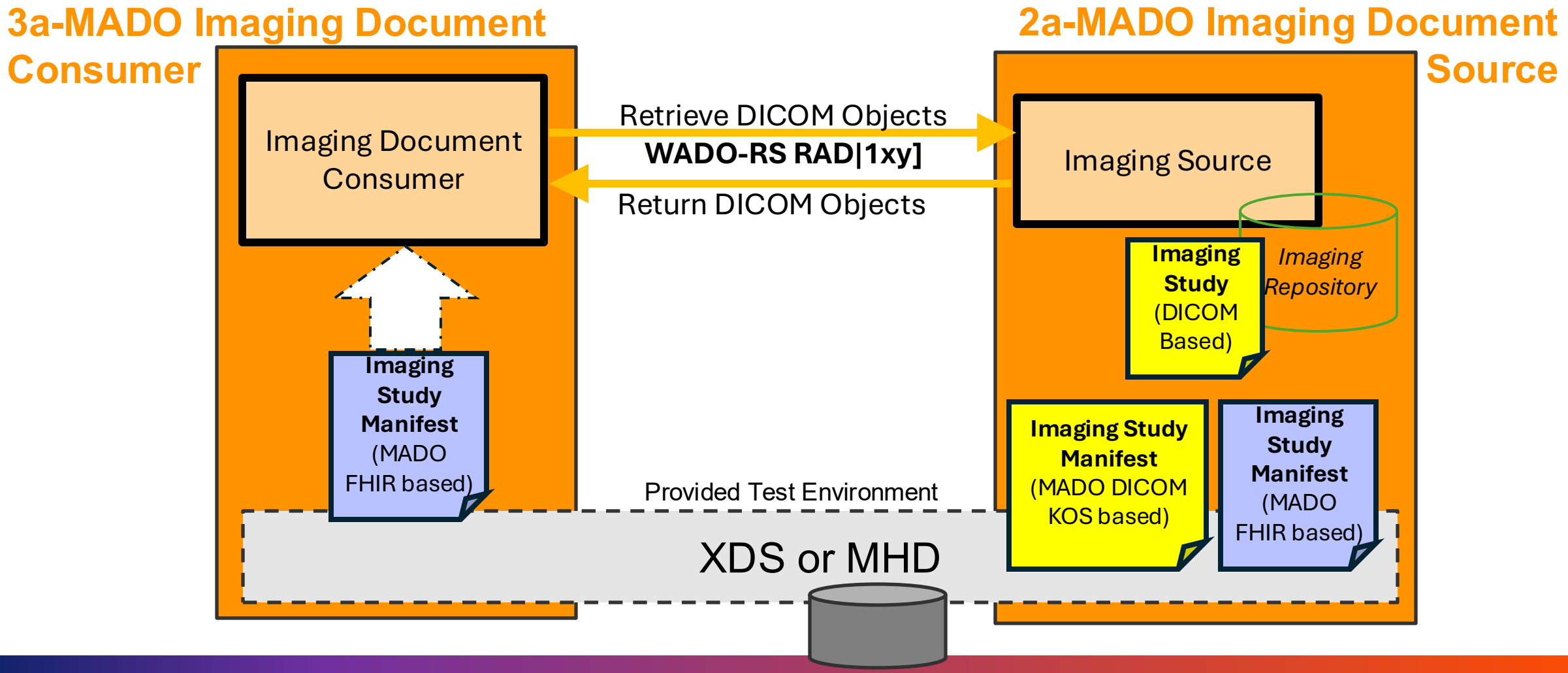
# **Intermediate Testing:** Some high-visibility integration, middle complexity



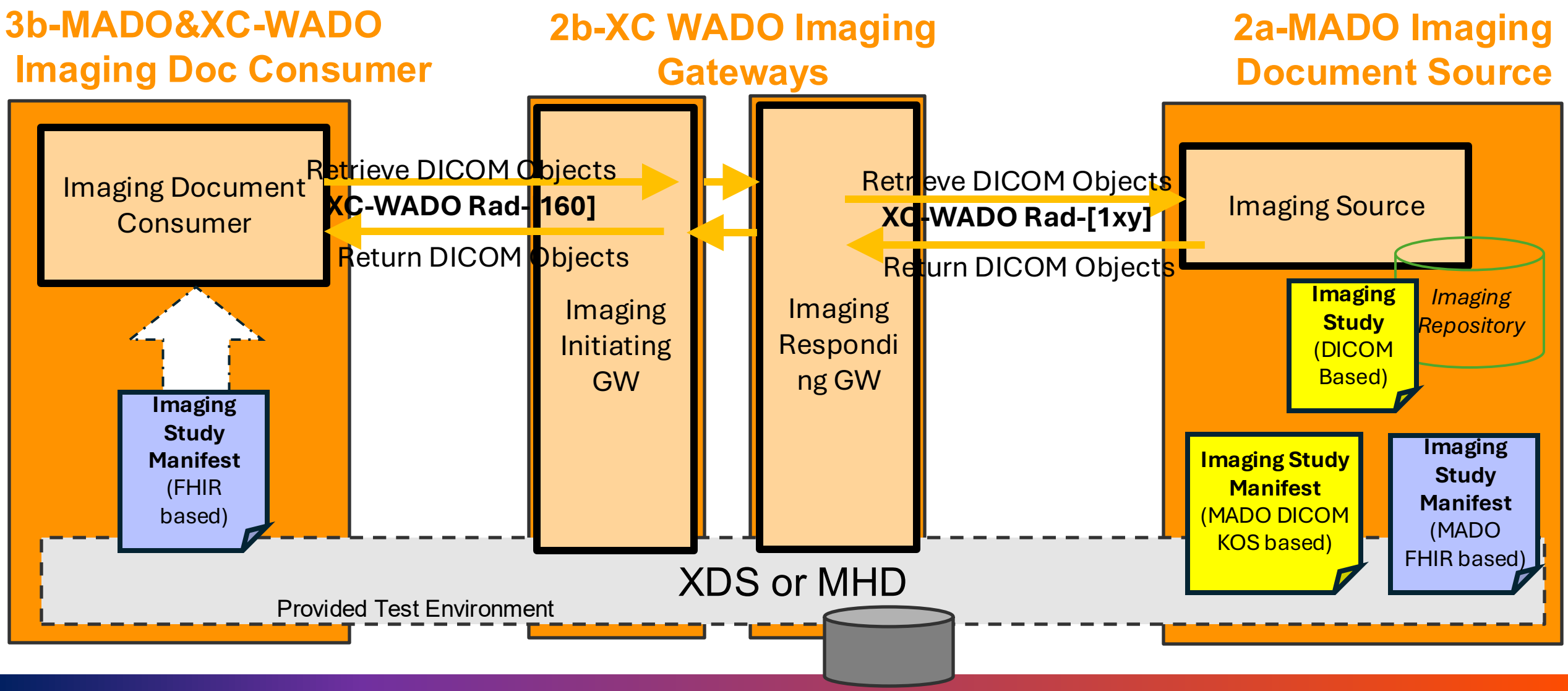
# GW Bypass Testing: Some high-visibility integration, middle complexity



# **Advanced Testing:** No additional visible integration, more complexity



# **Advanced Testing:** No additional visible integration, more complexity



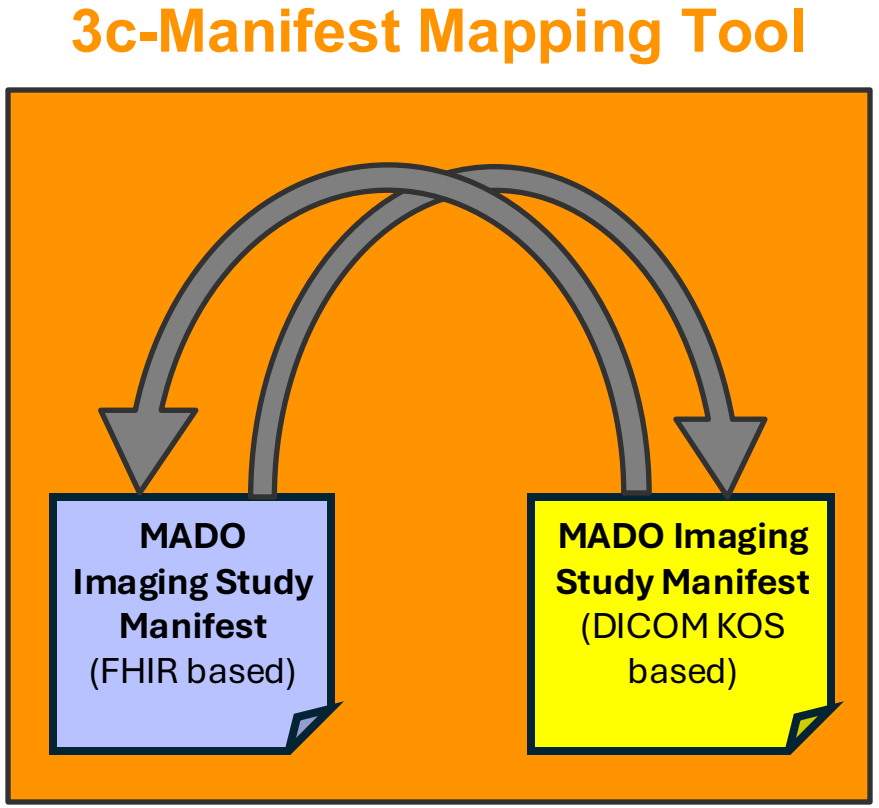
# **Advanced Testing:** No additional visible integration, more complexity

Provided Test Environment

FHIR Manifest Validation Tool (TBC)

Provided Test Environment

DICOM KOS Manifest Validation Tool



# Choices to participate in IHE Europe - Xt-EHR Projectathon

**Summary: When you register, you have to select among one or more Actors among:**

## Actors for Xt-EHR Projectathon:

**1 - MADO Imaging Document Consumer (DICOM KOS Manifests)**

**2a- MADO Imaging Document Source**

**2b- XC WADO Imaging Gateways**

**2c - MADO&XC-WADO Imaging Document Consumer (DICOM KOS Manifests)**

Identified so far as more popular

**2aDirect- MADO Imaging Document Source (DICOM KOS Manifests)**

**2cDirect - MADO&XC-WADO Imaging Document Consumer (DICOM KOS Manifests)**

Experimental NCP Bypass

**3a - MADO Imaging Document Consumer (FHIR Manifests)**

**3b - MADO&XC-WADO Imaging Document Consumer (FHIR Manifests)**

**3c- Manifest DICOM/FHIR Mapping Tool**

Questions on these actors: Please contact Charles Parisot (charles@interopehealth.com)

# Plan going forward - Xt-EHR Projectathon

- Participants registered before January 15th, will be invited to a Technical MADO/XC-WADO Projectathon t-con on **January 16th, 2026 13 – 14.30 CET**
  - Update on the MADO Public Comment resolutions
  - Overview of test tools available and planned
  - Initial Proposal on Xt-EHR Projectathon configuration. Participants feedback.
  - Question/Answers
  - Next Participants T-con. January 26, 2026 to be confirmed.
- **Testing of MADO & XC-WADO** at the Xt-EHR projectathon :
  - System installation: **Afternoon of Monday March 23rd 2026**
  - 2 1/2 days of testing – **9:00 am Tuesday 24 until mid-afternoon Thursday 26**
- **Non-Testing participants (tentative education program):**
  - Tuesday 24 Overview of Xt-EHR D7.2
    Overview of MADO Profile
    Overview of XC-WADO and end-to-end addressing with MADO

*Any questions, please contact Charles Parisot (charles@interopehealth.com)*

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# Organizational aspects - Registration

*Nicole Veggiotti*

IHE EUROPE Integrating the Healthcare Enterprise

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# Organizational aspects

The IHE-Europe Connectathon Week 2026 will take place from Monday, 23 March to Friday, 27 March 2026, in Brussels, Belgium.

**The Xt-EHR Projectathon 2026 will take place in the IHE-Europe Connectathon Week on the Connectathon Floor from Tuesday, 24 March to Thursday, 26 March 2026,** with a very dynamic schedule that alternates educational and testing sessions

**Monday afternoon will be dedicated to connectivity/preparatory tests in Gazelle**

*Where? The EGG, Rue Bara 175, 1070 Brussels.*

*About a 15-minute walk from Brussels-South Station (Gare du Midi)*

# Xt-EHR Projectathon Draft agenda

The Xt-EHR Projectathon 2026 will take place in the IHE-Europe Connectathon Week
**on the Connectathon Floor**

| Mon | Tue | | Wed | | Thu | |
|---|---|---|---|---|---|---|
| pm | am | pm | am | pm | am | pm |
| **Connectivity/preparatory tests in Gazelle on the testing floor** 14:00 - 18:00 | **Testing** 9:00 - 13:00 | **Testing** 14:00 - 18:00 | **Testing** 9:00 - 13:00 | **Testing** 14:00 - 18:00 | **Testing** 9:00 - 13:00 | **Closing Ceremony** Starts at 14:00 |
| | **Opening Ceremony and Educational Sessions** Starts at 10:30 | **Educational Sessions** | | **Educational Sessions** | | |

# Registration starts today!!

| Who | How much | Information |
|---|---|---|
| Vendors registered in the Connectathon floor | €0 per system and €450 per additionnal participant | 3 days Projectathon Lunch + coffee break |
| **Vendors** or **Organisations** NOT registered in the Connectathon floor | €790 per system and €450 per participant | |

Link for registration:

https://forms.clickup.com/4728722/f/4g9wj-10432/YD4C8GXVHDIN9JCZJE

If you have any question/doubt, you can refer to: xt-ehrprojectathon@ihe-catalyst.net

**We will close the registration at the end of February**

# Series of Webinar to get ready for the Projectathon



**Next webinars:**

16 January:

- 11h - 12h CET: Detailed agenda and use cases/test cases of Xt-EHR Projectathon
- 13h – 14h30 CET: MADO and WADO telco

Stay tuned!!

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# Questions?

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