



Zoom Meeting Interface and Basic Logistics



*image above is a publicly available tutorial image obtained from Zoom website

- **VIDEO:**
 - **Panelists/Presenters/Facilitators** - Please enable your video using **bottom left video button with camera icon.**
 - **Attendees** - If you did not receive an invitation to be a panelist, you are in attendee only mode and **will not have access to enable video**
- **AUDIO:**
 - **Panelists/Presenters/Facilitators** - Adjust your audio settings as needed (choose computer audio, call in, mute, etc.) using **audio button bottom left, microphone icon. Please remain muted unless speaking.**
 - **Attendees** - If you did not receive an invitation to be a panelist, you are in attendee only mode and **will not be able to enable audio**
- **CHAT:** The chat function is open to **ALL** participants (bottom, middle right, highlighted in orange in this image). Those in Attendee only mode are encouraged to provide feedback and questions via chat throughout the discussion. Chat will be monitored by the *FAST* team and key themes will be pulled into the discussion.
- **TECHNICAL DIFFICULTIES:** Having trouble hearing the presenters or seeing the shared screen? Put your issue in chat and the Meeting Host will help you.



Standards
ONC *FAST* Workshop
September 14, 2020



Session Facilitator



PATRICK MURTA

Chief Interoperability Architect & Fellow

Humana

FAST Chief Architect





FAST Taskforce Antitrust Notice

- The ONC FHIR At Scale Taskforce (*FAST*) (Hereinafter “Taskforce”) is committed to full compliance with existing federal and state antitrust laws.
- All members involved in the Taskforce effort, including its advisory groups, will comply with all applicable antitrust laws during the course of their activities. During Taskforce meetings and other associated activities, including all informal or social discussions, each member shall refrain from discussing or exchanging competitively sensitive information with any other member. Such information includes, but may not be limited to:
 - Price, premiums, or reimbursement charged or paid for products or services
 - Allocation of customers, enrollees, sales territories, sales of any products or contracts with providers
 - Any other competitively sensitive information that is proprietary to a member company
- If you have any specific questions or concerns, seek guidance from your own legal counsel.
- Members should not bring confidential information or intellectual property (hereinafter “Intellectual Property”) owned by their respective member companies into Taskforce meetings. To the extent such Intellectual Property is shared with the Taskforce that shall not be construed as a waiver of member company’s rights to, or ownership in, the Intellectual Property.



Agenda

Session Duration: 1 hour, 30 minutes

- **Welcome & Introductions**
- **Session Goals**
- **Overview**
- **Discussion Topics**
 - Interactive Panel
 - Participant Q&A
- **Wrap Up/ Key Takeaways**





FAST Key Panelists



FAST Panelists	
<i>Alex Kontur</i>	HHS ONC, <i>FAST Directory, Versions & Scale Tiger Team Member</i>
<i>Luis Maas</i>	EMR Direct, <i>FAST Security Tiger Team Lead</i>
<i>Julie Maas</i>	EMR Direct, <i>FAST Identity Tiger Team Member</i>
<i>Sandra Vance</i>	AEGIS, <i>FAST Testing & Certification Tiger Team Lead</i>



Roles & Logistics: Panelist vs. Attendee Modes

FAST Key Panelists

- Invited to join, actively engage and support the conversation
- Encouraged to communicate verbally (mics on) and to turn on video
- Monitor the attendee chat box for feedback, address questions via chat or promote questions that are significant to the discussion topic or warrant a verbal debate /reaction with the panel group

Industry Expert Reaction Panelist (in panelist mode)

- Invited to join the live interactive discussion with the *FAST* team
- Encouraged to communicate verbally (mics on) and to turn on video
- Provide their industry expertise and feedback
- Discuss or debate the topic with the facilitator and the panelist group
- Raise questions or concerns
- Feedback will inform *FAST* next steps

General Audience and *FAST* Technical Learning Community Members (in attendee mode)

- Encouraged to engage and contribute feedback and questions via the chat box
- Do not have the ability to contribute verbally to the conversation (mics off)
- No ability to be on video



Standards

Session Description

This session will explore the possible paths forward for the *FAST* proposed standards. We will examine the potential for inclusion in existing standards as well as the need to create new standards to support an infrastructure that enables FHIR workflows to scale.

The discussion will take into consideration the short versus long term goals and the timing considerations inherent in extending current standards or developing new standards. We plan to have a dynamic conversation led by the *FAST* team with contributing input from SDOs and other industry experts.

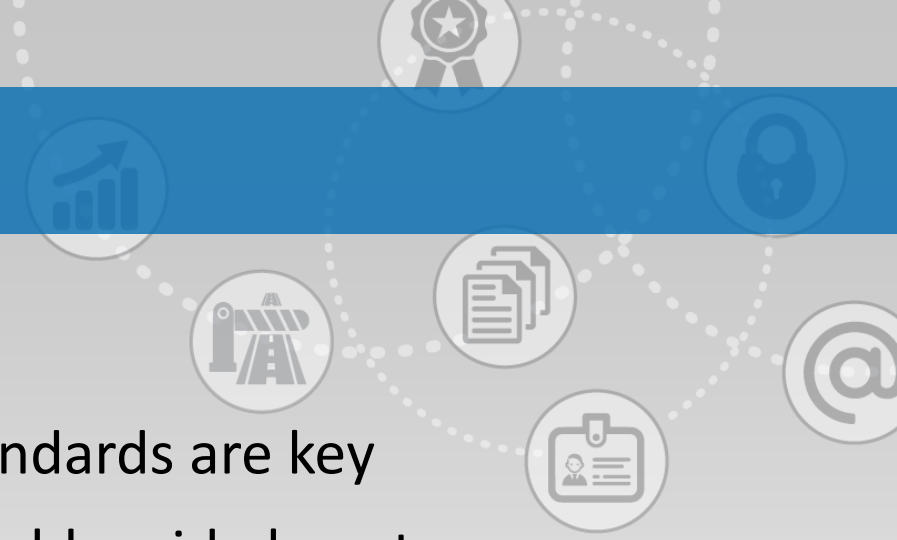
We invite all attendees to contribute or ask questions provide feedback in the chat box.



Standards

Session Goals

1. Discuss why the *FAST* community proposes that standards are key
2. Discuss and propose where the *FAST* standards should reside long term



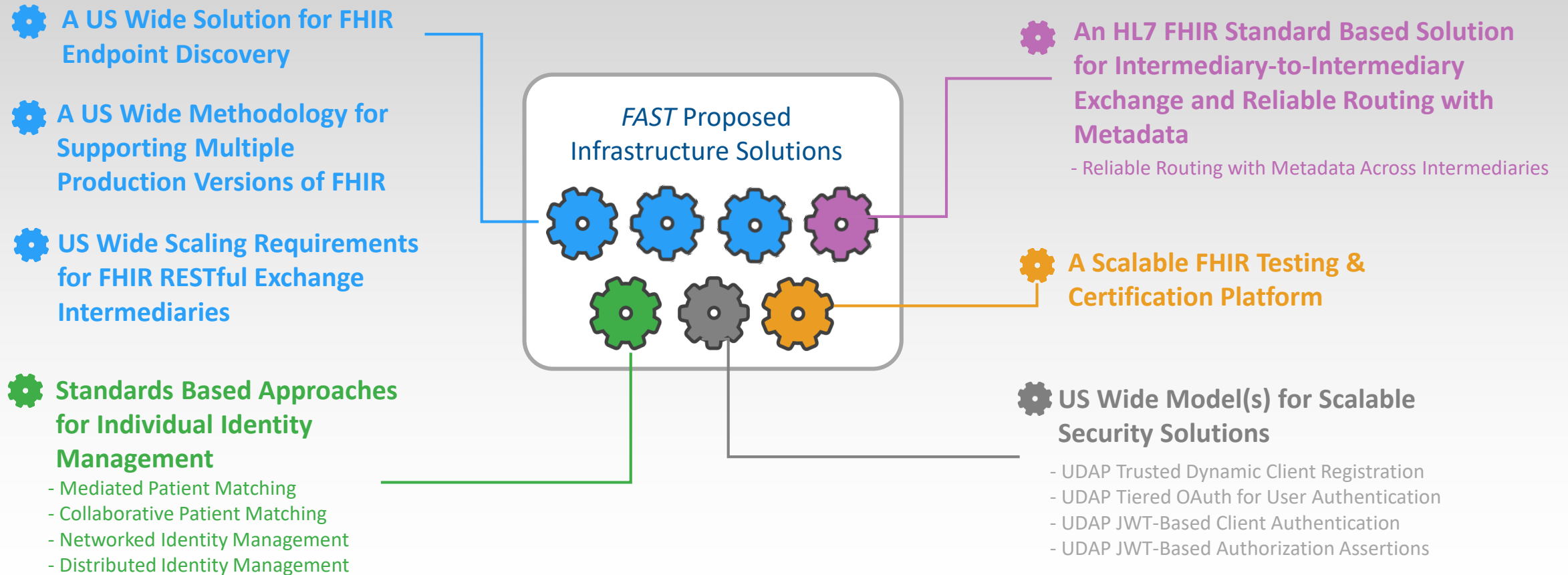
Overview





FAST Proposed Solutions (currently v2)

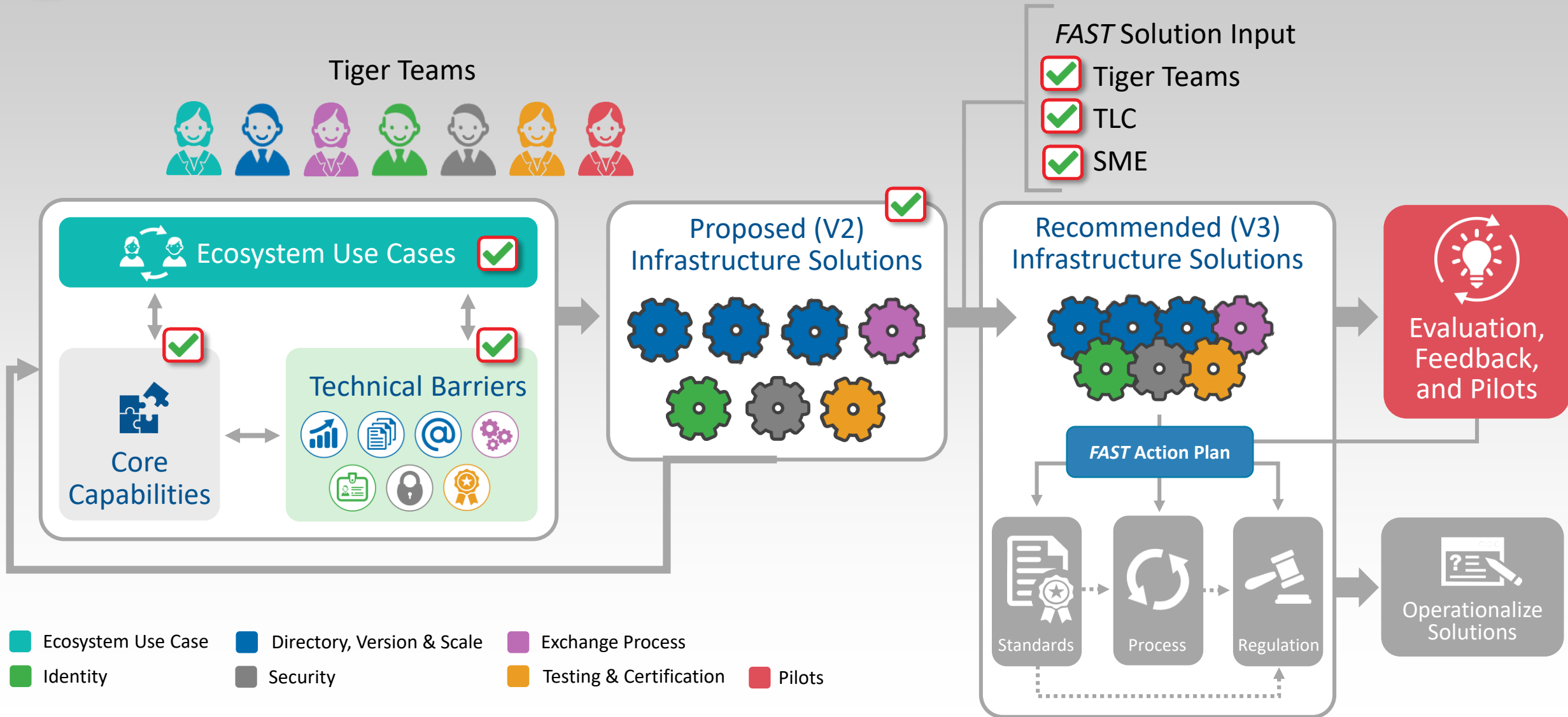
■ Directory, Version & Scale (3) ■ Identity (4) ■ Exchange Process (1) ■ Testing & Certification (1) ■ Security (4)





FAST Solution Process and Where Are We Now

Tiger Teams





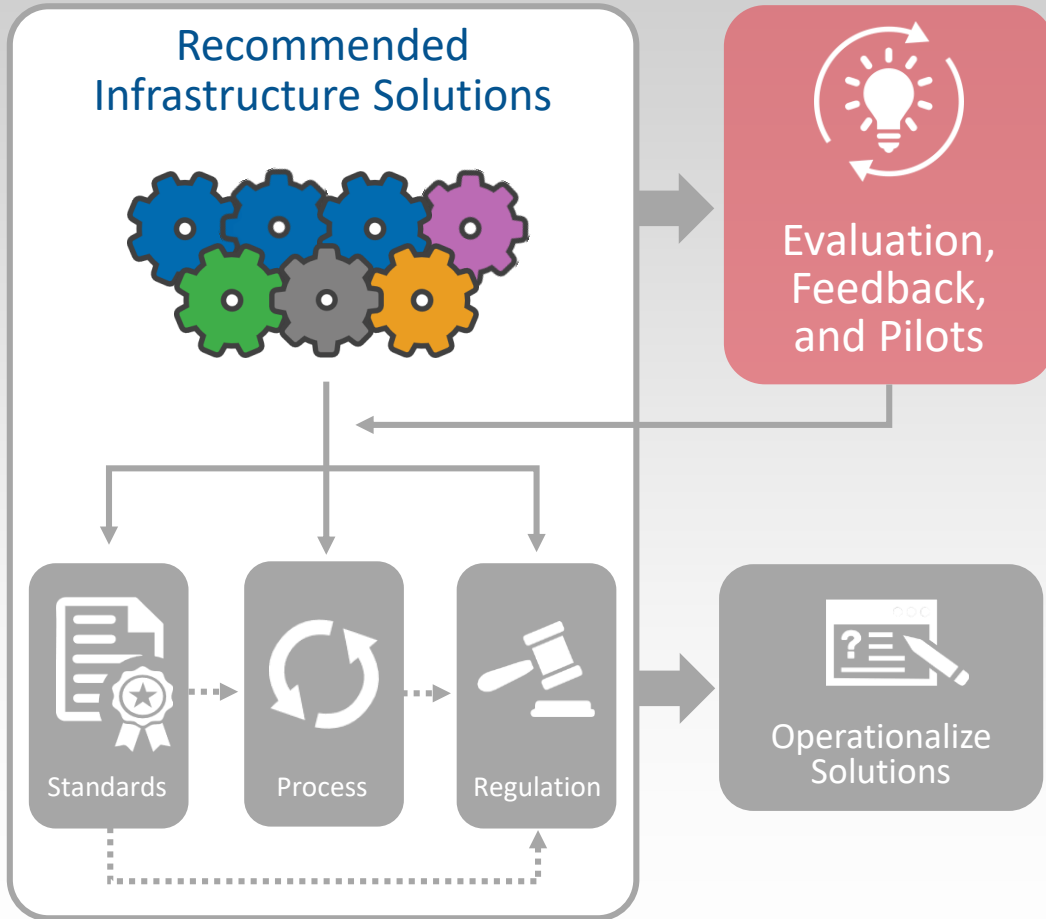
Path to Solution Execution

- How do we make the results of *FAST* persistent?
- Creating standards (examples)
 - Updating FHIR core specification
 - Creating FHIR Implementation Guide(s)
 - Updating specific artifacts and tools (e.g. FHIR version management/conversion)
- Supporting testing and piloting (e.g. making certain the solutions are implementable)
- Supporting regulatory process
- Establish persistent process
 - Testing & Certification
 - Endpoint Directory(ies)
 - Trust Frameworks



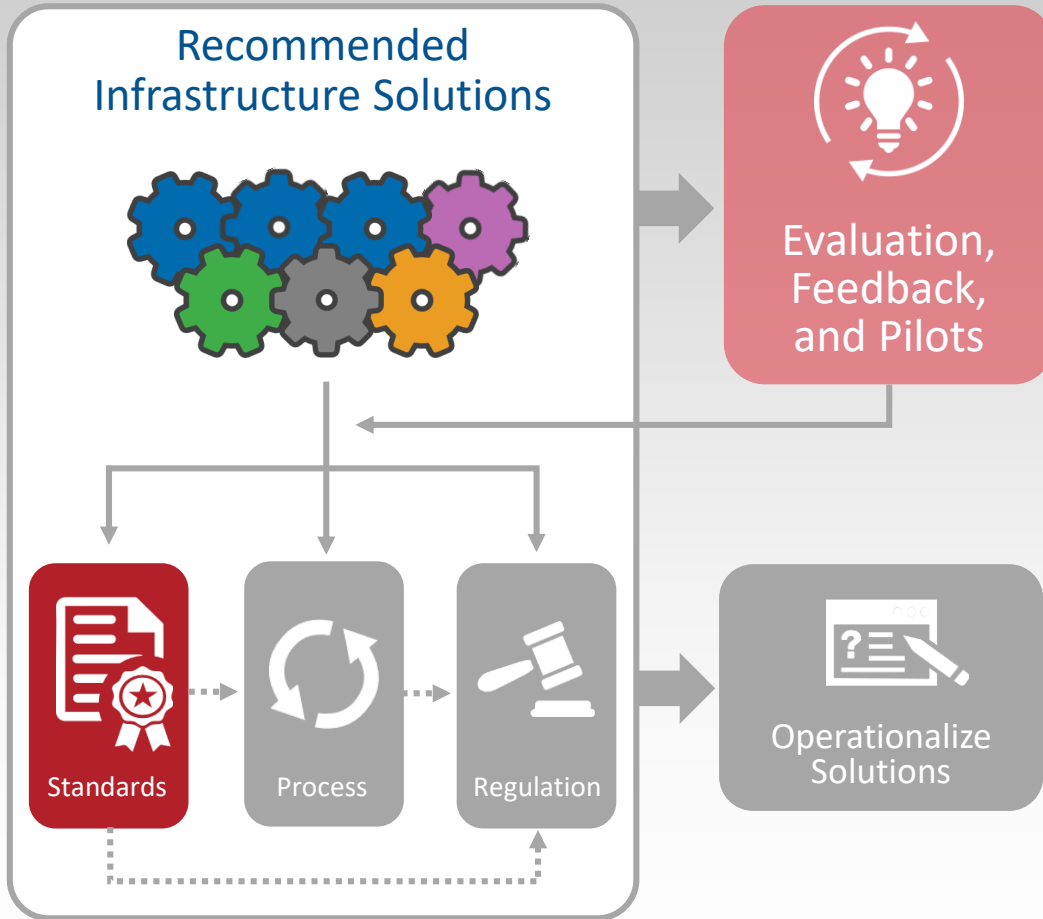


Assessment Process





Assessment Process



Identify relevant, existing or new standards, and work with standards bodies to include *FAST* recommendations where appropriate

Potential Owner(s)
HL7, NIST, ONC, etc.



Discussion





Initial FAST Review - Overview

FAST Solution Areas	Standard(s)	Regulation	Ongoing Process
Directory	<ul style="list-style-type: none"> HL7: Update VhDir IG for US Realm HL7: Endpoint query IG HL7: IG for attestation and validation 	<ul style="list-style-type: none"> CMS authority to operate Incentives for participation 	<ul style="list-style-type: none"> Provide Directory services
Version	<ul style="list-style-type: none"> HL7: Standards for version control HL7: Conversion process/tool 	None planned	<ul style="list-style-type: none"> Provide tools with each version release
Scaling Architecture	<ul style="list-style-type: none"> HL7: Intermediary / Endpoint performance criteria TBD: SLA for RESTful FHIR exchanges Incorporate declaration of compliance into directory metadata 	<ul style="list-style-type: none"> May consider for future incorporation into TECCA and HIPAA (as they start to cover FHIR exchanges) 	<ul style="list-style-type: none"> Testing and certification of compliance with guidance and SLAs
Security	<ul style="list-style-type: none"> HL7: Publish standard for security as part of FHIR core specification NIST: Add to their security standards TBD : Trust framework (standard) 	<ul style="list-style-type: none"> Add to next version of ONC/CMS certification regulations 	<ul style="list-style-type: none"> Testing and certification of compliance with guidance and SLAs
Identity	<ul style="list-style-type: none"> HL7: Publish standard for identification as part FHIR specification for patient matching operation 	<ul style="list-style-type: none"> Add to next version of ONC/CMS certification regulations 	<ul style="list-style-type: none"> Testing and certification of compliance with guidance and SLAs
Exchange	<ul style="list-style-type: none"> HL7: Publish as brief FHIR IG for FHIR R4 	<ul style="list-style-type: none"> Non planned but may be candidate for HIPAA 	<ul style="list-style-type: none"> Testing and certification of compliance with guidance and SLAs
Testing and Certification	<ul style="list-style-type: none"> HL7: Endpoint test standards 	<ul style="list-style-type: none"> Add to next version of ONC/CMS certification regulations 	<ul style="list-style-type: none"> ONC and CMS required certification process



Discussion

FAST Solution Areas

Standard(s)

Directory

- HL7: Update VhDir IG for US Realm
- HL7: Endpoint query IG
- HL7: IG for attestation and validation

Session Goal #1: Discuss why the *FAST* community proposes that standards are key

?

Ability to exchange information from a validated directory to a distributed directory

- Do you agree with the proposal to adapt the Validated Healthcare Directory (VHDir) for US Realm?
- Are there alternatives?



Discussion

FAST Solution Areas

Standard(s)

Session Goals #1: Discuss why the *FAST* community proposes that standards are key

Directory

- HL7: Update VhDir IG for US Realm
- HL7: Endpoint query IG
- HL7: IG for attestation and validation



How to access a federated endpoint directory

- Is this a variance of the VHDir for US Realm?
- Is this a variance of the Da Vinci Payer Data Exchange (PDex) Implementation Guide?
- Is this a new standard (i.e., IG)?



Discussion

FAST Solution Areas

Standard(s)

Session Goals #1: Discuss why the FAST community proposes that standards are key

Directory

- HL7: Update VhDir IG for US Realm
- HL7: Endpoint query IG
- HL7: IG for attestation and validation




We need an implementation guide for how you contribute attested information and the standards by which you request information from primary sources

- Do you agree?
- Are there alternatives?



Discussion

FAST Solution Areas	Standard(s)	Session Goal #2: Session Goal: Discuss and propose where the FAST standards should reside long term
Directory	<ul style="list-style-type: none">• HL7: Update VhDir IG for US Realm• HL7: Endpoint query IG• HL7: IG for attestation and validation	<p style="text-align: center;"></p> <p style="text-align: center;">Should FAST Security solutions become part of the core FHIR specification?</p> <p style="text-align: center;">If so, discuss the initial and long-term intended conformance requirements (i.e., SHOULD vs. SHALL)</p>
Security	<ul style="list-style-type: none">• HL7: Publish standard for security as part of FHIR core specification• NIST: Add to their security standards• TBD : Trust framework (standard)	




Discussion

FAST Solution Areas	Standard(s)	Session Goal #1: Discuss why the FAST community proposes that standards are key
Directory	<ul style="list-style-type: none">• HL7: Update VhDir IG for US Realm• HL7: Endpoint query IG• HL7: IG for attestation and validation	<div style="text-align: center;"></div> <p>Given that federal agencies are required to follow NIST standards, do we believe there are enhancements needed to existing NIST standards?</p>
Security	<ul style="list-style-type: none">• HL7: Publish standard for security as part of FHIR core specification• NIST: Add to their security standards• TBD : Trust framework (standard)	



Discussion

FAST Solution Areas	Standard(s)	Session Goal #1: Discuss why the FAST community proposes that standards are key
Directory	<ul style="list-style-type: none">• HL7: Update VhDir IG for US Realm• HL7: Endpoint query IG• HL7: IG for attestation and validation	 <p>Does the group support advancing changes to the OAuth definition to support the FAST solution?</p>
Security	<ul style="list-style-type: none">• HL7: Publish standard for security as part of FHIR core specification• NIST: Add to their security standards• TBD : Trust framework (standard)	




Discussion

FAST Solution Areas	Standard(s)	Session Goal #2: Discuss and propose where the FAST standards should reside long term
Directory	<ul style="list-style-type: none">• HL7: Update VhDir IG for US Realm• HL7: Endpoint query IG• HL7: IG for attestation and validation	 What are participant reactions to HL7 as a governing body for Security?
Security	<ul style="list-style-type: none">• HL7: Publish standard for security as part of FHIR core specification• NIST: Add to their security standards• TBD : Trust framework (standard)	



Discussion

FAST Solution Areas	Standard(s)	Session Goal #1: Discuss why the FAST community proposes that standards are key
Directory	<ul style="list-style-type: none">• HL7: Update VhDir IG for US Realm• HL7: Endpoint query IG• HL7: IG for attestation and validation	 <p>Should the FAST Identity recommendation extend the patient match operation?</p>
Security	<ul style="list-style-type: none">• HL7: Publish standard for security as part of FHIR core specification• NIST: Add to their security standards• TBD : Trust framework (standard)	
Identity	<ul style="list-style-type: none">• HL7: Publish standard for identification as part FHIR specification for patient matching operation	




Discussion

FAST Solution Areas	Standard(s)	Session Goal #1: Discuss why the FAST community proposes that standards are key
Directory	<ul style="list-style-type: none">• HL7: Update VhDir IG for US Realm• HL7: Endpoint query IG• HL7: IG for attestation and validation	<div></div> <p>How does identity proofing play into the matching process and how will existing or new match operations standards support identity proofing?</p>
Security	<ul style="list-style-type: none">• HL7: Publish standard for security as part of FHIR core specification• NIST: Add to their security standards• TBD : Trust framework (standard)	
Identity	<ul style="list-style-type: none">• HL7: Publish standard for identification as part FHIR specification for patient matching operation	



Discussion

FAST Solution Areas	Standard(s)	Session Goal #2: Discuss and propose where the FAST standards should reside long term
Directory	<ul style="list-style-type: none">• HL7: Update VhDir IG for US Realm• HL7: Endpoint query IG• HL7: IG for attestation and validation	 <p>The FAST team believes that the RESTful header approach should be included as part of the core FHIR specification for exchange (e.g., REST, Messaging, etc.)</p> <p>We are soliciting feedback on this proposal</p>
Security	<ul style="list-style-type: none">• HL7: Publish standard for security as part of FHIR core specification• NIST: Add to their security standards• TBD : Trust framework (standard)	
Identity	<ul style="list-style-type: none">• HL7: Publish standard for identification as part FHIR specification for patient matching operation	
Exchange	<ul style="list-style-type: none">• HL7: Publish as brief FHIR IG for FHIR R4	



Initial *FAST* Review – Standards

<i>FAST</i> Solution Areas	Session Goals:
	<i>FAST</i> Initial Review: Standard(s)
Directory	<ul style="list-style-type: none">• HL7: Update VhDir IG for US Realm• HL7: Endpoint query IG• HL7: IG for attestation and validation
Security	<ul style="list-style-type: none">• HL7: Publish standard for security as part of FHIR core specification• NIST: Add to their security standards• TBD : Trust framework (standard)
Identity	<ul style="list-style-type: none">• HL7: Publish standard for identification as part FHIR specification for patient matching operation
Exchange	<ul style="list-style-type: none">• HL7: Publish as brief FHIR IG for FHIR R4



FAST Next Steps – Standards

Session Goals:

1. Discuss why the *FAST* community proposes that standards are key
2. Discuss and propose where the *FAST* standards should reside long term

FAST Solution Areas

Standard(s)

Next Steps :

- *FAST* proposed Standards
- "Path to Execution" with the Appropriate Organization(s)

Directory

- HL7: Update VhDir IG for US Realm
- HL7: Endpoint query IG
- HL7: IG for attestation and validation



Security

- HL7: Publish standard for security as part of FHIR core specification
- NIST: Add to their security standards
- TBD : Trust framework (standard)



Identity

- HL7: Publish standard for identification as part FHIR specification for patient matching operation



Exchange

- HL7: Publish as brief FHIR IG for FHIR R4



Wrap Up





Breakout Sessions Schedule

2:30pm – 3:00pm: Afternoon Break

3:00pm – 4:00pm: **Afternoon Breakouts Part 2 - FAST Pathways to Implementation** (limited attendance, concurrent)

Room #1:

Timing Considerations / Interim Steps

Session Goals:

1. Capture feedback on interim plans for endpoint directories.
2. Explore options for interim security solutions above and beyond what already exists – what do we need for 2021?
3. Capture any concerns regarding recommended metadata approach.
4. Discuss implementation planning and timelines to prepare for Testing & Certification (above and beyond HL7 tooling, and what’s available in the industry to use voluntarily).

Room #2:

Pilots

Session Goals:

1. Explain and reiterate what we are seeking to pilot from a *FAST* perspective (test *FAST* core capabilities with Da Vinci use cases initially provided as the workflow).
2. Discuss if the model of using Da Vinci use cases makes sense
3. Explore interest for potential future pilots’ partners.

Room #3:

Intermediaries

Session Goals:

1. Identify intermediary requirements for RESTful FHIR exchanges.
2. Identify intermediary- intermediary exchange requirements.
3. Define service level required for intermediaries to meet (1) and (2).



FAST Workshop – Full Day Agenda and Resources

- View the [FAST Workshop Summary and Detailed Agenda](#)
 - Morning and Closing Plenary
 - Breakout Room Sessions Schedule
 - Handouts and Resources
- Explore these *FAST* resources
 - New to *FAST*? Breakout sessions target interactive discussion and references the *FAST* work to date. Please consider exploring any of the following *FAST* artifacts before attending these breakout sessions:
 - [The FAST 2020 Mid-Year Report](#)
 - [The FAST 2019 End of Year Report](#)
 - [SME Panel Session Pages](#)

CONTINUE THE CONVERSATION!

Join the Technical Learning Community to stay up to date – receive updates about FAST presentations & events, provide additional input and follow our progress.

[JOIN THE LINKEDIN GROUP](#)

&

[SIGN UP FOR THE TLC](#)

All content is available on the [FAST Project Page](#) or <https://tinyurl.com/ONC-FAST>



Thank You

Connect with *FAST* on [LinkedIn](#) to stay informed

For more information on the *FAST* Initiative,
visit the *FAST* [Project Page](#) or <https://tinyurl.com/ONC-FAST>

Have any further questions/suggestions?

Please contact Stephen Konya at Stephen.Konya@hhs.gov
& Diana Ciricean at Diana.Ciricean@hhs.gov

APPENDIX

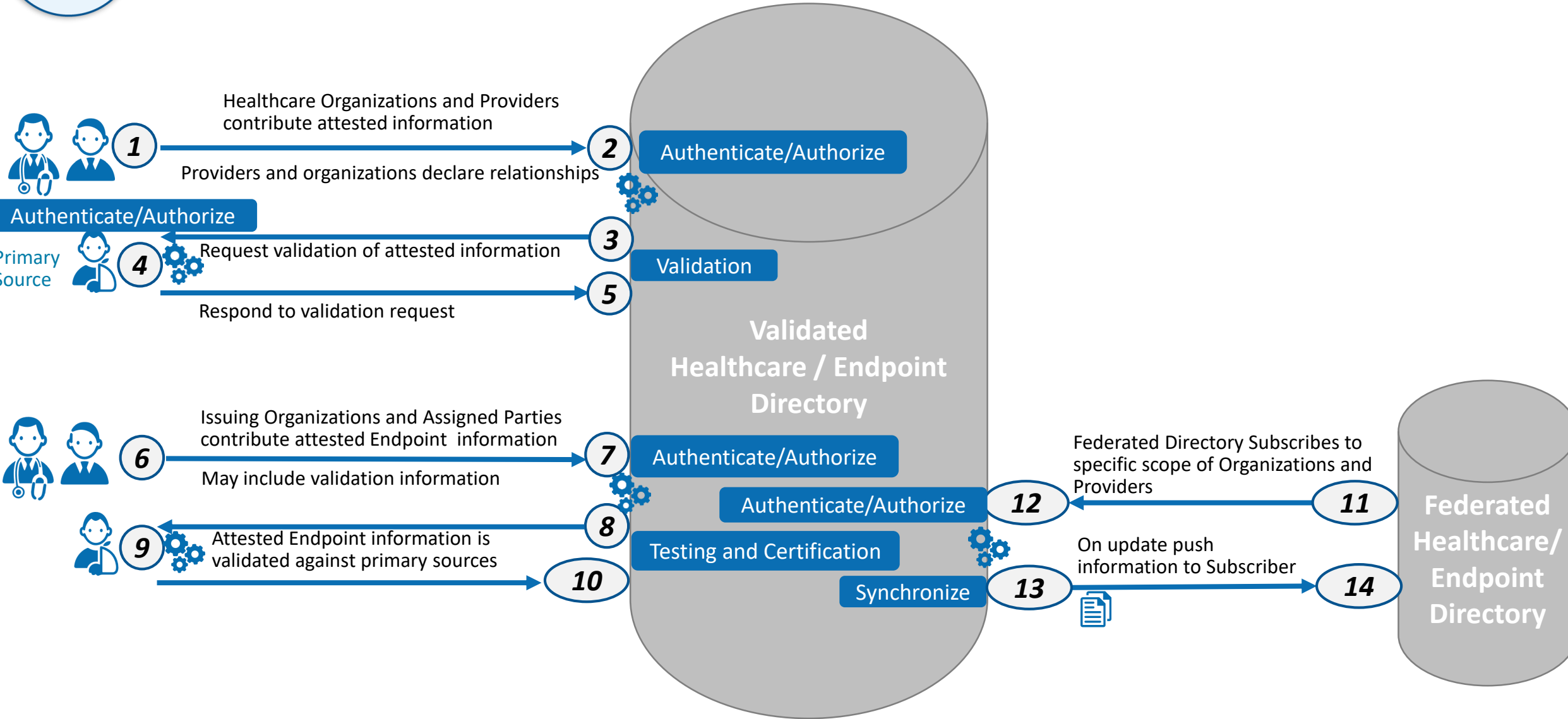


***FAST* Endpoint Directory**





FAST Endpoint Directory – Architecture and Workflow





Overview and status



BARRIER

The industry lacks a generally available method to find all FHIR endpoints and their associated capabilities and attributes, as well as a common process for maintaining the information and validating its accuracy



SOLUTION

One national source for validated directory information that is available to any national or local directory workflow environment



IN SCOPE

Individual and entity demographics to determine endpoint relationships, computable endpoint information such as accessibility requirements, metadata for routing, trust framework, implementation guides and certification status

Federated access by HIEs, state directories, EHRs
A FHIR standard implementation guide for use of the directory



OUT OF SCOPE

Manual / portal access, creation of a trust framework, non-FHIR related endpoints, application certification process



STATUS

Incorporating feedback from industry stakeholders



OPEN ITEMS

Define the minimum viable product (MVP) and outline the incremental steps/roadmap to build a directory of endpoints



CURRENT SOLUTION

[FAST Endpoint directory proposed solution document](#)
(version 3 in progress)

FAST Identity Management





Solution Options: Low to High Complexity

Multiple options progressing from low to high complexity (technical and process)

Patient directed access to identity and demographic data, support for multiple identities, and Trusted Identity Providers as source of demographic data and metadata for matching

Best practices compliant matching service using demographic data from Requestor

Current state enhanced with best practices e.g. roster exchanges

1

Collaborative Patient Matching

2

Mediated Patient Matching

3

Networked Identity Management

4

Distributed Identity Management

Includes Patient directed workflows
Focus on identity management

Payer/Provider interactions
Focus on patient matching





Overview and status



BARRIER

The industry currently employs a range of patient matching and identity management processes with inconsistencies and limited scalability as volume and the number of participants increase



SOLUTION

Establish a set of patient matching and identity management patterns and best practices that the industry can adopt to reduce the variations that exist today and provide a bridge to new approaches in the future



IN SCOPE

Patient matching during payer/provider interactions: *Collaborative* and *Mediated Patient Matching*

Patient-directed workflows focusing on identity management: *Networked* and *Distributed Identity Mgmt.*



OUT OF SCOPE

Patient as a requester or responder, contractual arrangements. (Security and directory considerations are addressed by other *FAST* solutions)



STATUS

Incorporating feedback from industry stakeholders



OPEN ITEMS

Pursue provider identity matching. Apply proposed solutions to use cases, capture patient matching recommendations, explore steps to Distributed Identity Management, consider how regulation/policy might address challenges that can't be solved by the market



CURRENT SOLUTION

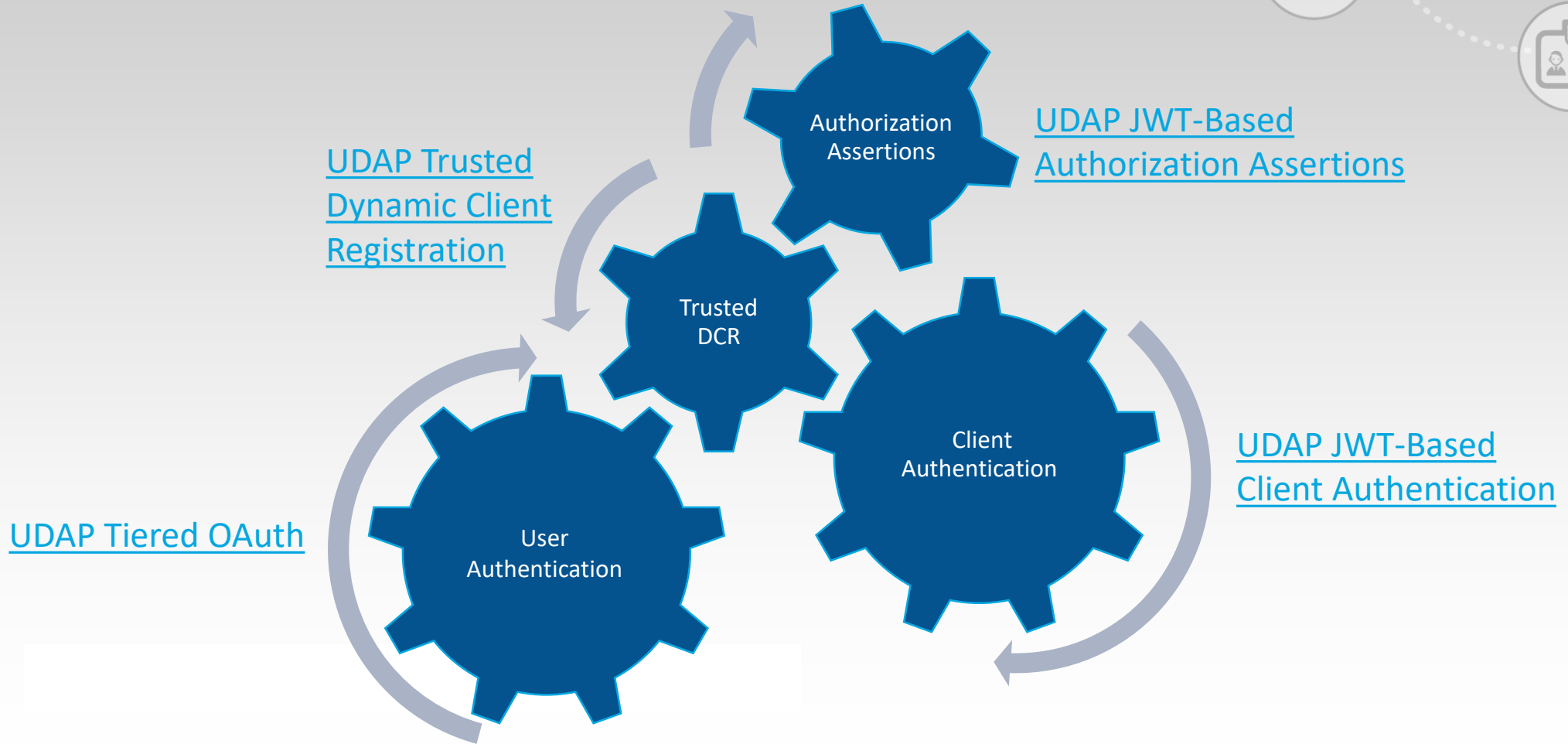
[FAST Identity proposed solution document](#)
(version 3 in progress)

FAST Security





Proposed Solution: Trusted Ecosystem





Overview and status



BARRIER

Today, we have limitations on our ability to ensure, in a scalable way, that the requestor of information using a FHIR based information exchange is appropriately authenticated and has the authorization to see the data requested. Current registration processes are manual and too time-consuming to support expected growth



SOLUTION

Leverage existing credentials and authorizations and best practice standards to establish common security processes that facilitate automated exchange and reuse existing infrastructure where possible



IN SCOPE

Trusted Dynamic Client Registration using Unified Data Access Profiles (UDAP)

JWT-Based Client Authentication & Authorization



OUT OF SCOPE

Directory for Endpoint Discovery, Trust Policy Governance, Requirements for a specific architecture, Patient/provider or provider/patient



STATUS

Incorporating feedback from industry stakeholders



OPEN ITEMS

Cross-solution overlaps, explore standard authorization metadata requirements, recommendations related to privacy



CURRENT SOLUTION

[FAST Security proposed solution document](#)
(version 3 in progress)

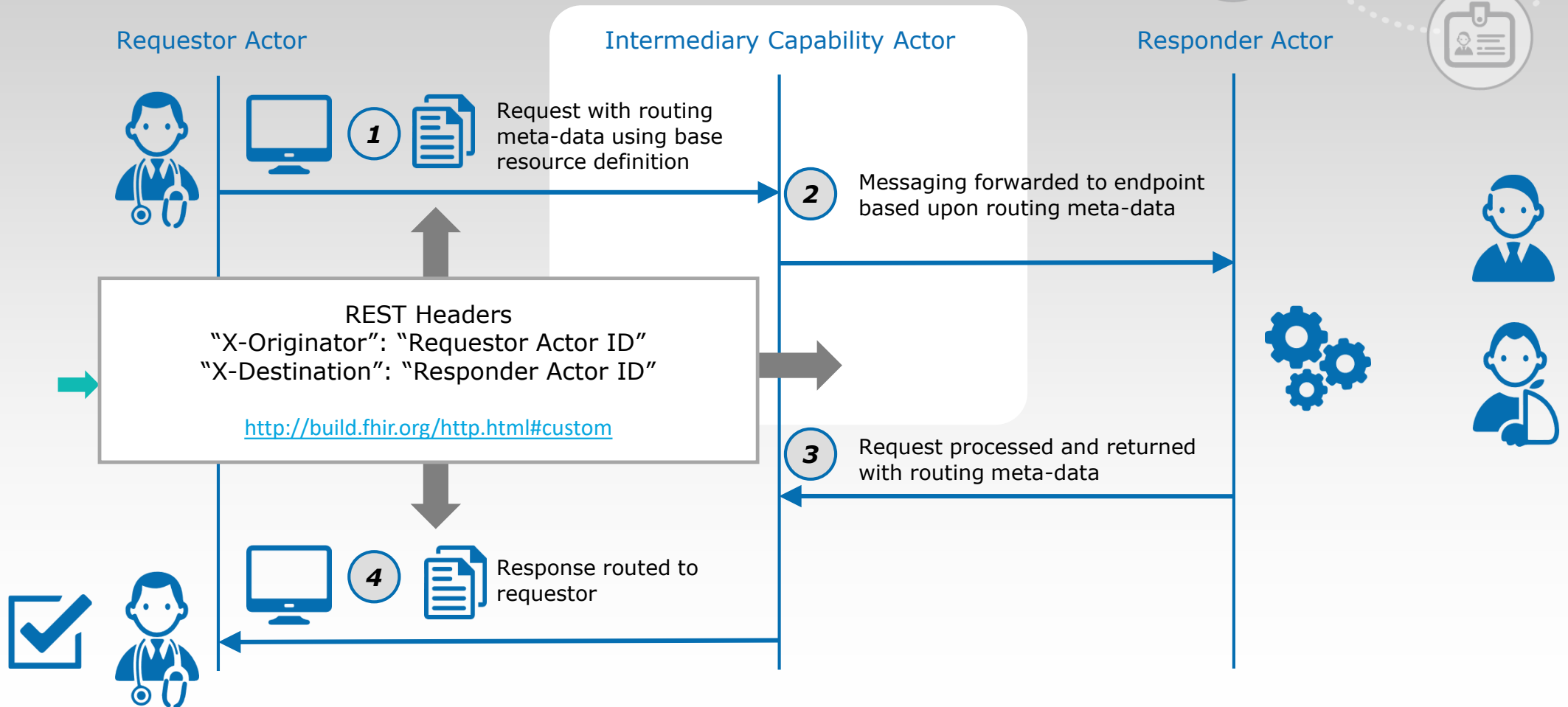
FAST Exchange





FAST Exchange Solution for Routing Metadata – Process Flow

Planning for a hybrid future while learning from existing models such as CAQH CORE and clearing house patterns





Overview and status



BARRIER

FHIR information exchange is typically performed “point to point” between trusted system endpoints. Because healthcare participants may also wish to leverage intermediaries in FHIR exchanges, a solution for conveying routing metadata is needed



SOLUTION

Employ RESTful header parameters to send originator and destination information for use by exchange intermediaries



IN SCOPE

Exchange using intermediaries in addition to point to point connections

Method for exchanging of a minimum set of metadata as HTTP REST headers, or alternatively within FHIR resource .meta tags



OUT OF SCOPE

Value set defining exchange identifiers

Capturing provenance information from exchange through multiple intermediary “hops”



STATUS

Incorporating feedback from industry stakeholders



OPEN ITEMS

Expand direction on usage of the alternative solution employing FHIR .meta elements



CURRENT SOLUTION

[FAST Exchange solution document](#)

(version 3 in progress)

FAST Testing & Certification





Proposed Solution: ONC FAST Testing & Certification Program



DEVELOPER



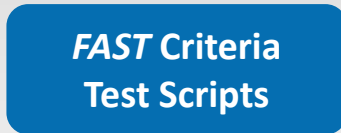
Automated Test Platform



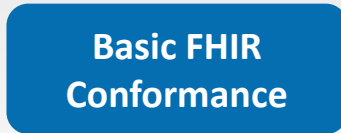
Certification Body



HL7 FHIR Validation Engine



FAST Criteria Test Scripts



Basic FHIR Conformance



FHIR IG Conformance

FAST Readiness Criteria related to...

1. End Point Discovery
2. Authentication
3. Authorization
4. Resource Version Identification
5. Reliable Patient Identity Management
6. Data Provenance
7. Reliable Provider Identity Management
8. Event/Message/Topic Subscription/Publication
9. Guaranteed Message Delivery
10. Role/Context Identification
11. Readiness Credential
12. Standard Based Endpoint Access
13. Synchronous Transaction Support
14. Asynchronous Transaction Support
15. Reliable Payor Identification



Overview and status



BARRIER

FHIR testing capabilities and an associated accreditation/certification are needed to support reliable, trustable exchange between healthcare participants. It must be a process in which specification/ requirements that are well established and broadly shared can be absolutely confirmed



SOLUTION

Testing platform supporting the base FHIR Specification and *FAST* Readiness Criteria

ONC FHIR Testing & Certification Program



IN SCOPE

Testing and certification to the base FHIR Specification and *FAST* Readiness Criteria



OUT OF SCOPE

HL7 FHIR Validation Engine, RFP development to select entity to provide services

Validate ease of establishing connections, conformance to non-blocking requirements, conformance to HIPAA patient privacy



STATUS

Incorporating feedback from industry stakeholders



OPEN ITEMS

Capture test assertions in greater detail, clarify aspects, coordinate with related efforts



CURRENT SOLUTION

[FAST Testing & Certification solution document](#)
(version 3 in progress)