

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.







FAST Pilots

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.



Session Duration: 1 hour

- Welcome & Introductions
- Session Goals
- Overview of the FAST Pilots Proposed Approach
- Discussion Topics
 - Interactive Panel
 - Participant Q&A
- Wrap Up/ Key Takeaways









FAST Key Panelists







FAST Panelists	
Erik Eaker	Humana, FAST Pilots Tiger Team Lead
Yauheni Solad	Yale New Haven Health, FAST Pilots Tiger Team Lead
Rose Marie Nsahlai	ONC, FAST Security Tiger Team Lead
Julie Maas	ONC, FAST Identity Tiger Team Lead
Sandra Vance	AEGIS, FAST Testing & Certification Tiger Team Lead



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)

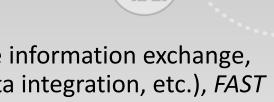
- Invited to join the live interactive discussion with the FAST team
- Encouraged to communicate verbally (mics on) and to turn on video
- Provide their industry expertise and feedback
- Discuss or debate the topic with the facilitator and the panelist group
- Raise questions or concerns
- Feedback will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



Session Description



As the industry is building functional capabilities to support real-time information exchange, in a variety of FHIR workflows (i.e. to address clinical care, clinical data integration, etc.), FAST is working on the technical infrastructural aspects that would support these workflows be run at scale.

Demonstrations to test the Da Vinci functional capabilities have been successfully tested over the last several years. However, testing and validating how the FAST solutions will impact/improve the deployment of those functional solutions at scale is still a process that needs to be established.

Building on the variety of functional aspects that would benefit from a scalability infrastructure, the FAST Pilots team along with an industry expert reaction panel will explore how it is best align the industry needs, with the existent capabilities and the potential of a scaling infrastructure, in a pilot testing environment.









Session Goals

- 1. Review what are we piloting from a FAST perspective
- 2. Does the model using Da Vinci make sense
- 3. Explore interest for potential future pilots partners

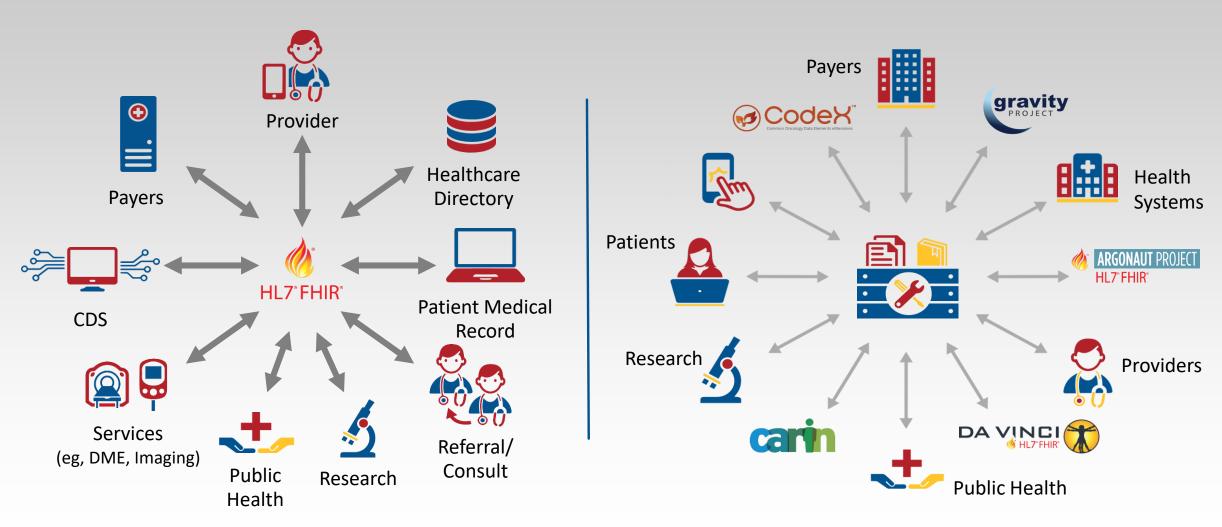




FAST Process and Pilots Approach



FHIR and the Health Care Ecosystem





Paving the Way Towards FHIR "At Scale"

FUNCTIONAL

USE CASES

HL7® FHIR® ACCELERATOR





















OTHER FHIR INITIATIVES







CONTRACTUAL ENFORCEMENT

carequality

NETWORK/CORE SERVICES



SHARED

Technical Challenges to

FHIR SCALABILITY

Patient & Provider Identity Management

Directory Services

Version Identification

Scale

Exchange Process/Metadata

Testing, Conformance & Certification

Security

RAPID INDUSTRY ADOPTION OF FHIR-BASED SOLUTIONS

CORE SERVICES

Common Scalability **Approaches**

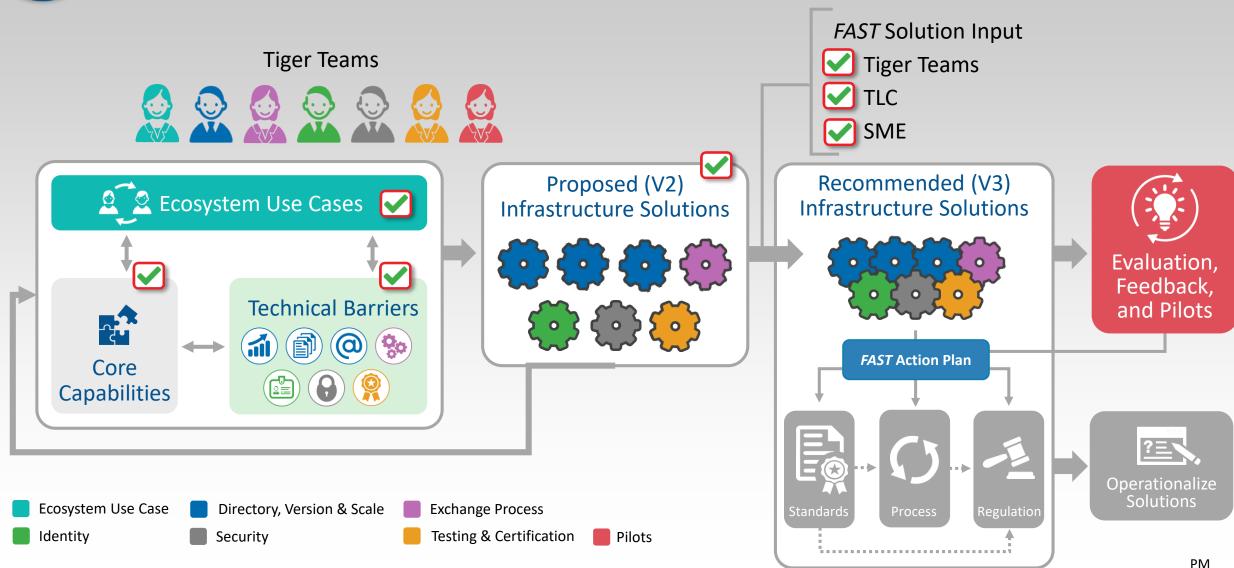
INFRASTRUCTURE USE CASES







FAST Solution Process and Where Are We Now





FAST Proposed Solutions

- Directory, Version & Scale (3) Identity (4) Exchange Process (1) Testing & Certification (1) Security (4)
- A US Wide Solution for FHIR Endpoint Discovery (Version 2)
- A US Wide Methodology for Supporting Multiple Production Versions of FHIR (Version 2)
- US Wide Scaling Requirements for FHIR RESTful Exchange Intermediaries (Version 2)
- Standards Based Approaches for Individual Identity
 Management (Version 2)
 - Mediated Patient Matching
 - Collaborative Patient Matching
 - Networked Identity Management
 - Distributed Identity Management



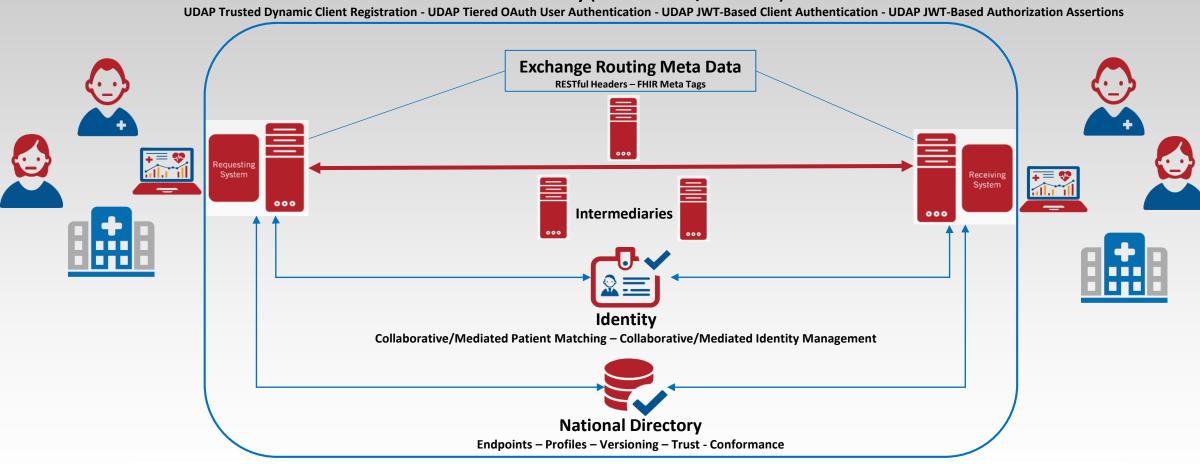
- A Scalable FHIR Testing & Certification Platform (Version 2)
- US Wide Model(s) for Scalable Security Solutions (Version 3 Draft)
 - UDAP Trusted Dynamic Client Registration
 - UDAP Tiered OAuth for User Authentication
 - UDAP JWT-Based Client Authentication
 - UDAP JWT-Based Authorization Assertions



Conceptual Integrated Architecture



Security (Authenticate/Authorize)



CONFORMANCE & CERTIFICATION (Testing & Certification Program)

PILOTS (FAST Capability Vetting with Existing HL7 Accelerators)





Use Da Vinci Use Cases to Test *FAST* Core Capabilities





Example CDS/FHIR Transaction Journey – Prior Authorization Support Pilot (Da Vinci)

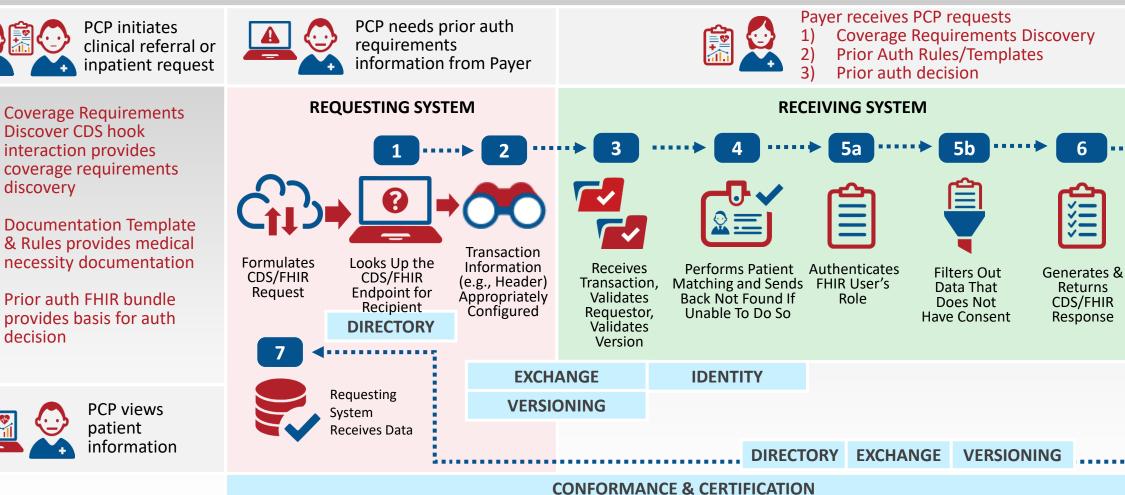
SECURITY

PILOTS



- Discover CDS hook interaction provides coverage requirements discovery
- & Rules provides medical necessity documentation
- provides basis for auth decision





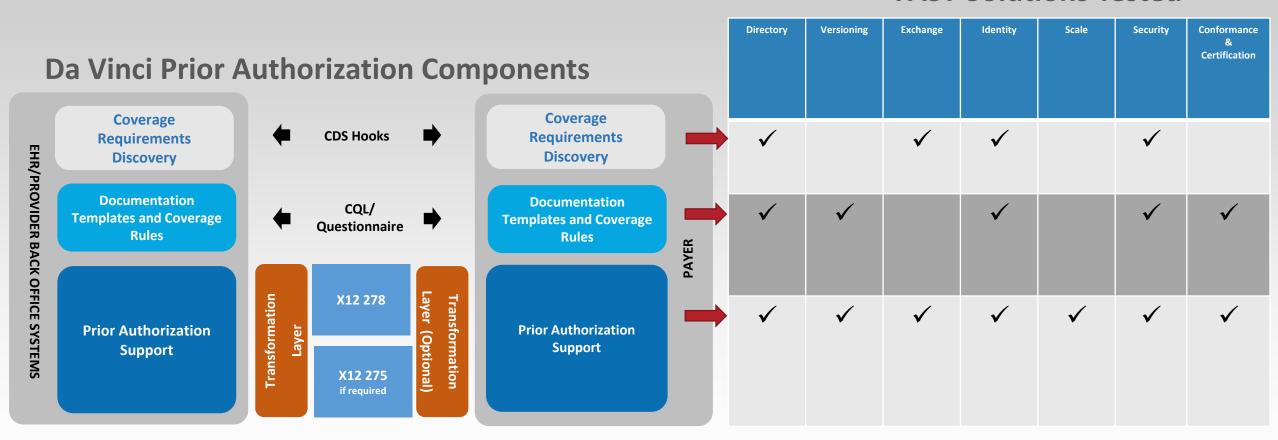
PM

Returns



FAST Prior Authorization Support Pilot (Da Vinci)

FAST Solutions Tested





Example CDS/FHIR Transaction Journey – PDex (Da Vinci Payer Data Exchange)



PCP initiates clinical referral or inpatient request



PCP needs prior auth requirements information from Payer





Payer receives PCP requests Payer PDex Interactions

- Payer receives CDS request and creates CDS card
- 2) CDS Card is returned in real time & PDex bundle is available

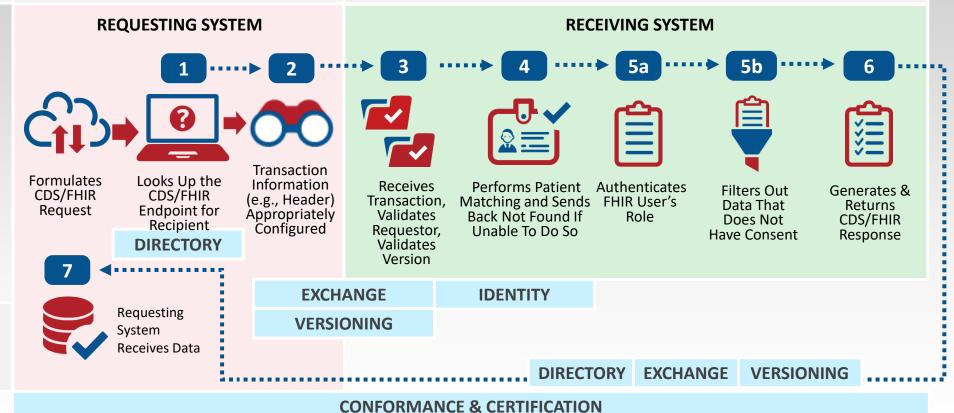
PM

EHR PDex Interactions

- [START] PCP's EHR requests CDS Card from payer
- CDS Card is processed & PDex bundle is made available to EHR for visualization and integration [END]



PCP views patient information



SECURITY

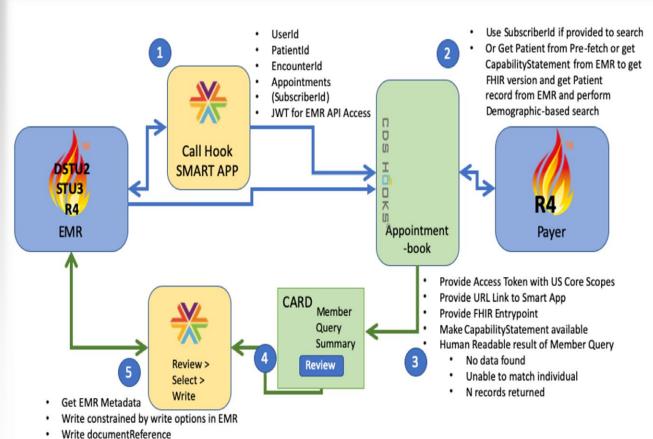
PILOTS

19



FAST Pilots Support with Da Vinci PDex (Payer Data Exchange)

PDex (Payer Data Exchange)



(Optional - complete or selected DocumentBundle + PDF)

FAST Solutions Tested

	Directory	Versioning	Exchange	Identity	Scale	Security	Conformance & Certification
00	√	√	√	√		✓	✓
345	√	√	√	✓		✓	✓



Example CDS/FHIR Transaction Journey - CDex (Da Vinci Clinical Data Exchange)



PCP initiates clinical referral or inpatient request



PCP needs prior auth requirements information from Payer





Payer receives PCP requests **Payer CDex Interactions**

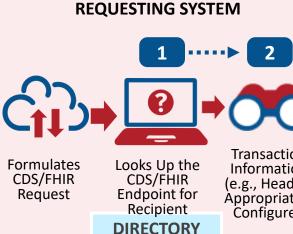
[START] Payer requests information from EHR

RECEIVING SYSTEM

CDex response received and process [END]

EHR CDex Interactions

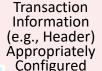
- PCP's EHR receives Cdex request and creates response
- CDex response bundle is returned asynchronously



Requesting

Receives Data

System



Receives Transaction, **Validates** Requestor,



Version

Performs Patient **Back Not Found If** Unable To Do So Validates



Authenticates Matching and Sends FHIR User's Role



Filters Out Data That Does Not **Have Consent** Generates &

Returns CDS/FHIR Response





PCP views patient information **EXCHANGE**

IDENTITY

VERSIONING

DIRECTORY

EXCHANGE

VERSIONING

CONFORMANCE & CERTIFICATION

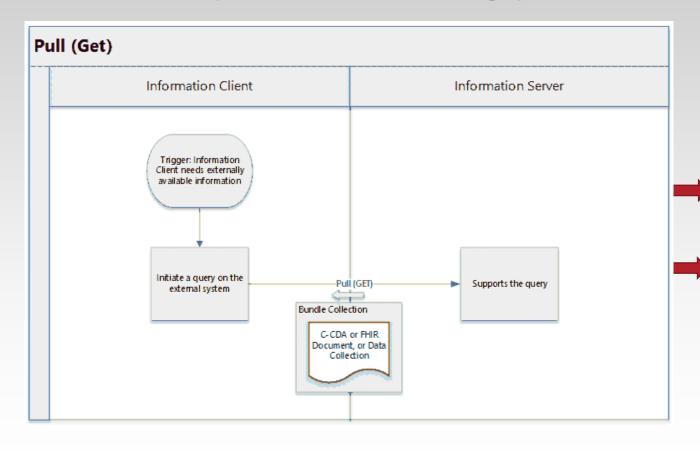
SECURITY

PILOTS



FAST Pilots Support with Da Vinci CDex (Clinical Data Exchange) (Da Vinci)

CDex (Clinical Data Exchange)



FAST Solutions Tested

Directory	Versioning	Exchange	Identity	Scale	Security	Conformance & Certification
√	√	√	√		√	✓
✓	✓	√	✓		✓	√



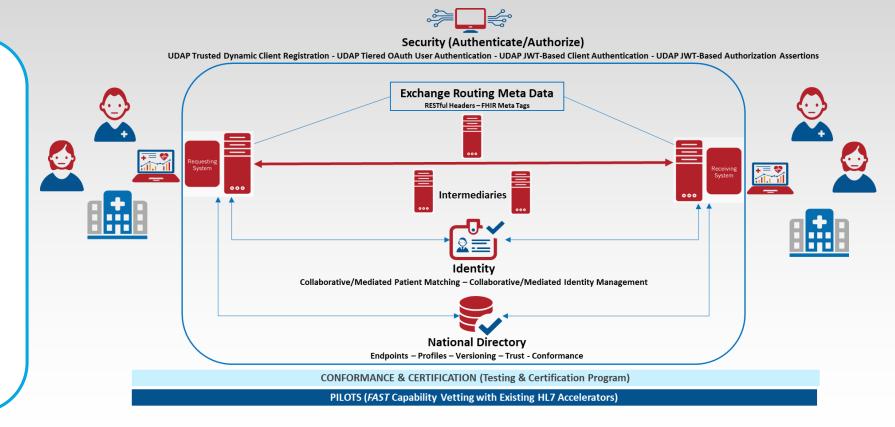




Session Goal 1: Review what we are piloting from a *FAST* perspective (test core capabilities with Da Vinci use cases provided as the workflow)

?

Do you feel that you have a good understanding of what *FAST* is proposing in terms of testing *FAST* core capabilities with Da Vinci use case part of pilots?

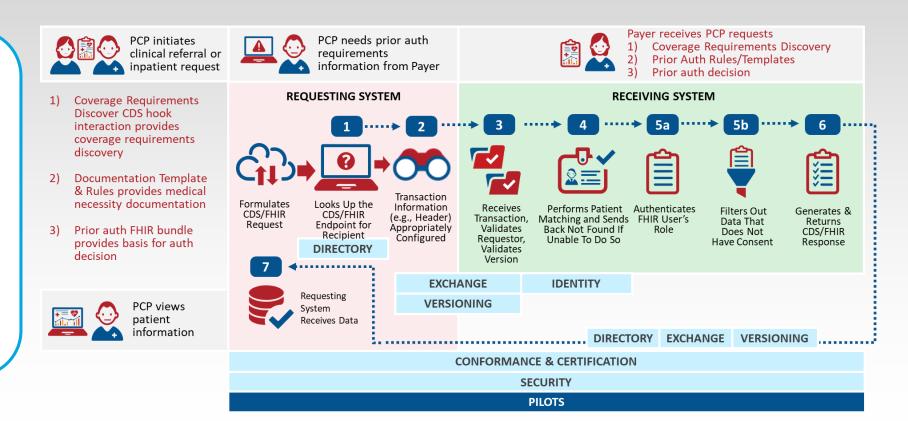




Session Goal 1: Review what we are piloting from a FAST perspective (test core capabilities with Da Vinci use cases provided as the workflow).

?

Are there any aspects of the pilots work that FAST is proposing that need further clarification to support public or organizations understanding?



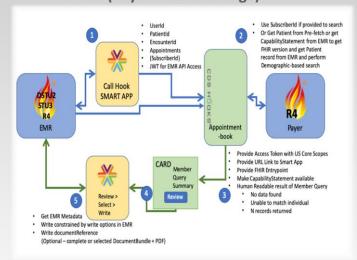


Session Goal 2: Does the model using Da Vinci make sense?

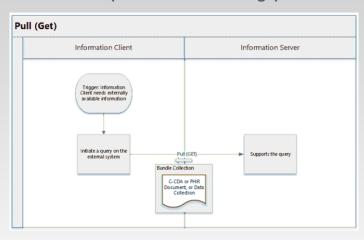
?

Please provide
feedback on the
proposed technical
approach to use Da
Vinci use cases to pilot
FAST core capabilities

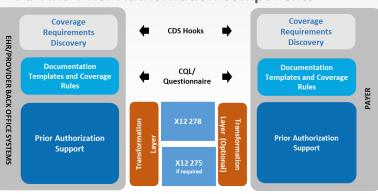
PDex (Payer Data Exchange)



CDex (Clinical Data Exchange)



Da Vinci Prior Authorization Components



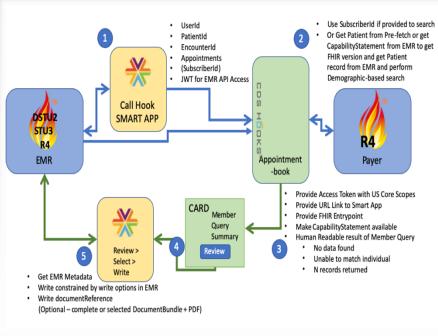


Session Goal 2: Does the model using Da Vinci make sense?

?

How do the benefits of using Da Vinci use cases to pilot the *FAST* core capabilities resonate with this group?

PDex (Payer Data Exchange)



FAST Solutions Tested

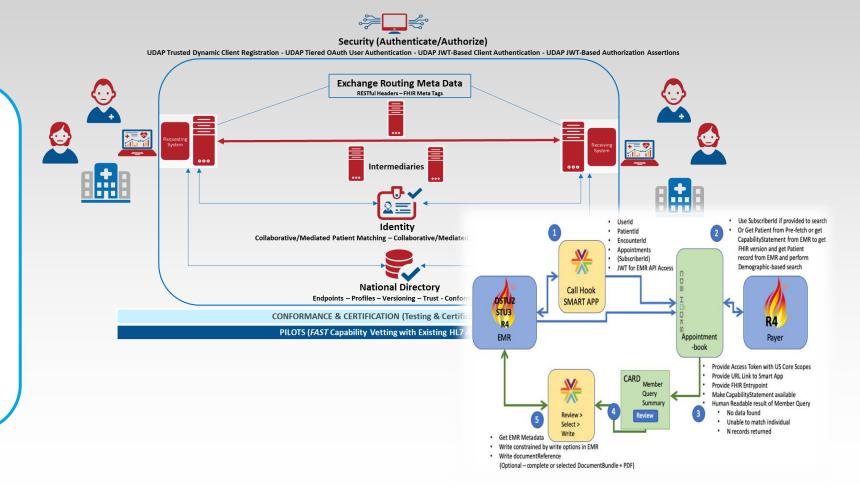
	Directory	Versioning	Exchange	Identity	Scale	Security	Conformance & Certification
0 0 0	✓	✓	✓	✓		✓	✓
345	√	✓	✓	✓		✓	✓



Session Goal 2: Does the model using Da Vinci make sense?

?

Do you agree that this is a better way to solve a problem, leveraging trust and existing, tested use cases that already exists with the prior Da Vinci work?

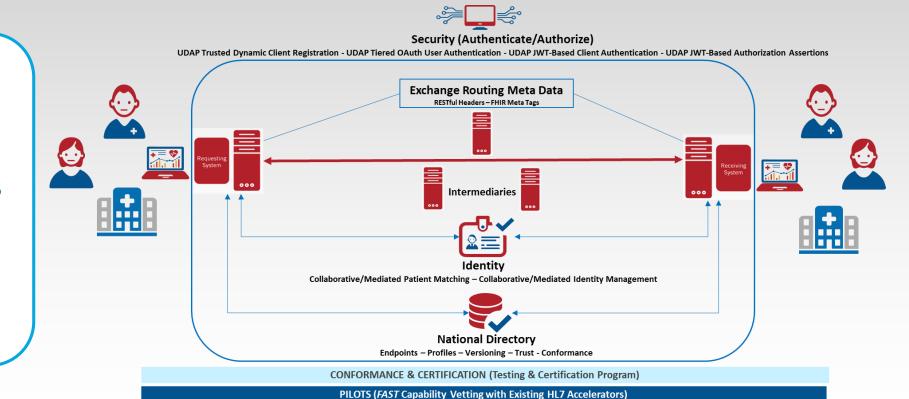




Session Goal 3: Garner interest/commitment for potential future pilots partners

?

What is the level of interest to potentially support the *FAST* pilots through your organization in the future?

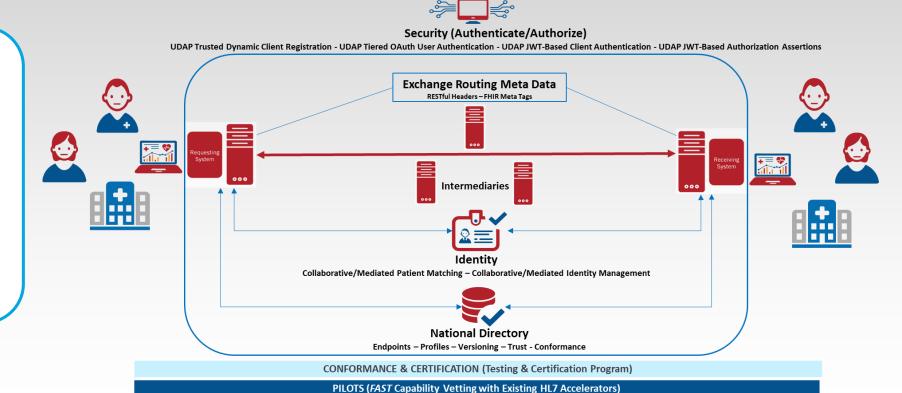




Session Goal 3: Garner interest/commitment for potential future pilots partners.

?

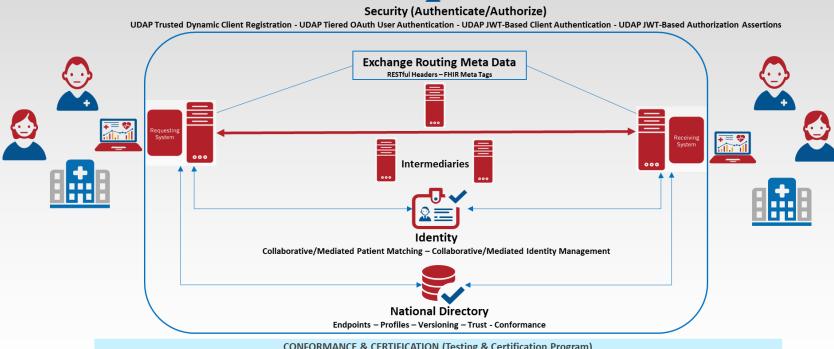
What other information might be needed for organizations like yours to potentially support the *FAST* testing and pilots?





Session Goal 3: Garner interest/commitment for potential future pilots partners

What level of piloting would you be interested to support?



CONFORMANCE & CERTIFICATION (Testing & Certification Program)

PILOTS (FAST Capability Vetting with Existing HL7 Accelerators)







FAST Workshop – Full Day Agenda and Resources



- 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
 - <u>SME Panel Session Pages</u>









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

<u>JOIN THE LINKEDIN GROUP</u>

&

SIGN UP FOR THE TLC





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 <u>Stephen.Konya@hhs.gov</u> & Diana Ciricean at <u>Diana.Ciricean@hhs.gov</u>







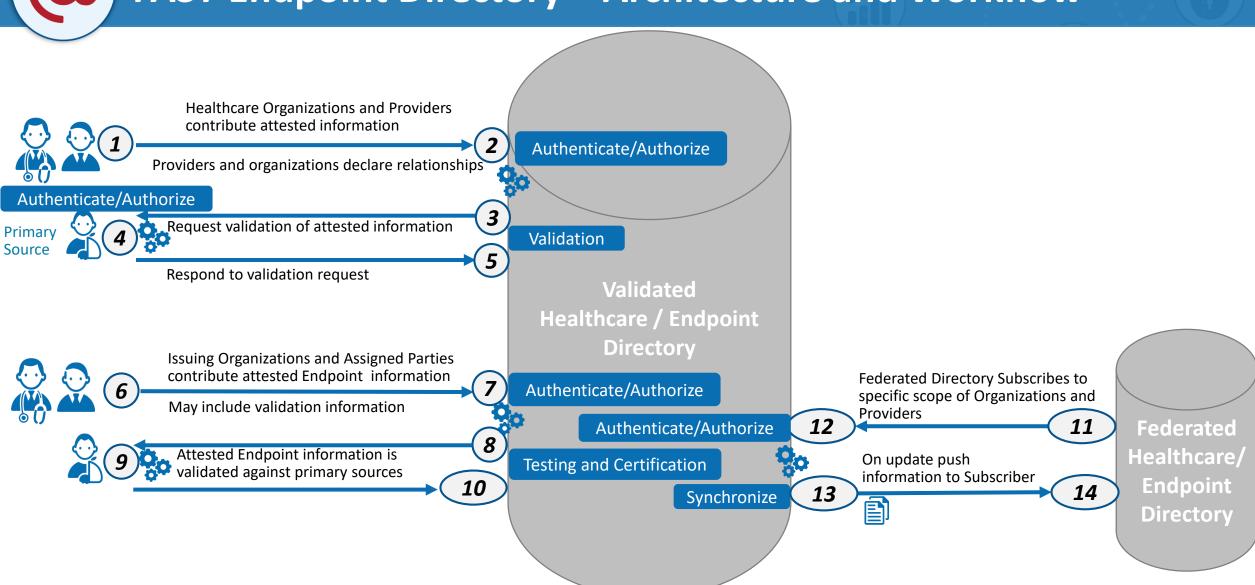




FAST Endpoint Directory



FAST Endpoint Directory – Architecture and Workflow







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



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



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

<u>FAST Endpoint directory</u> <u>proposed solution document</u> (version 3 in progress)







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

Distributed Identity
Management
Networked Identity
Management

Includes Patient directed workflows Focus on identity management

Mediated Patient Matching

Collaborative Patient Matching

Payer/Provider interactions Focus on patient matching





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



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



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

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



OUT OF SCOPE

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



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

<u>solution document</u> (version 3 in progress)

PO





FAST Security



Proposed Solution: Trusted Ecosystem





UDAP JWT-Based Authorization Assertions **UDAP Trusted Authorization Assertions Dynamic Client Registration** Trusted DCR Client **UDAP JWT-Based** Authentication User Authentication

UDAP Tiered OAuth

Client Authentication





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 timeconsuming to support expected growth



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

<u>FAST Security proposed</u> <u>solution document</u> (version 3 in progress)



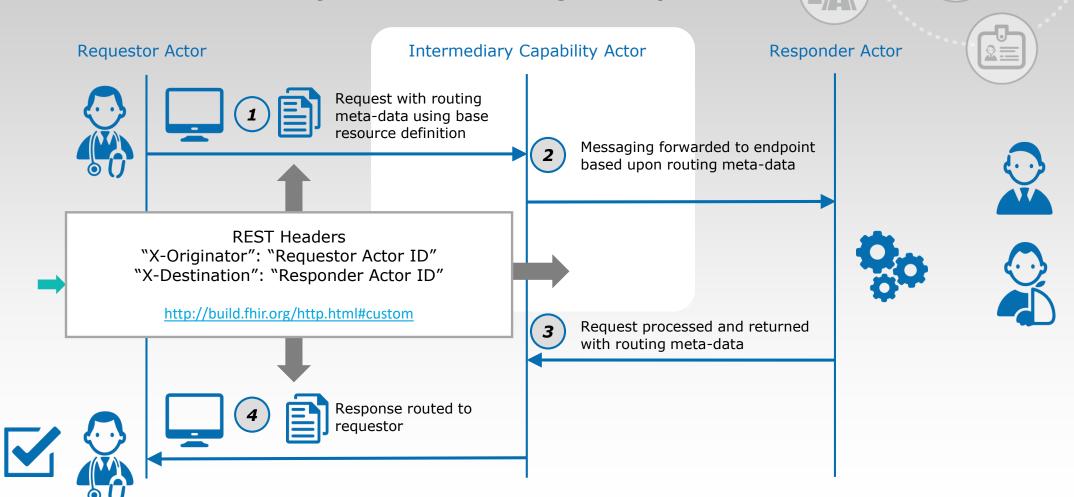


FAST Exchange



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







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



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



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



Value set defining exchange identifiers

Capturing provenance information from exchange through multiple intermediary "hops"



Incorporating feedback from industry stakeholders



OPEN ITEMS

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



CURRENT SOLUTION

<u>document</u>
(version 3 in progress)

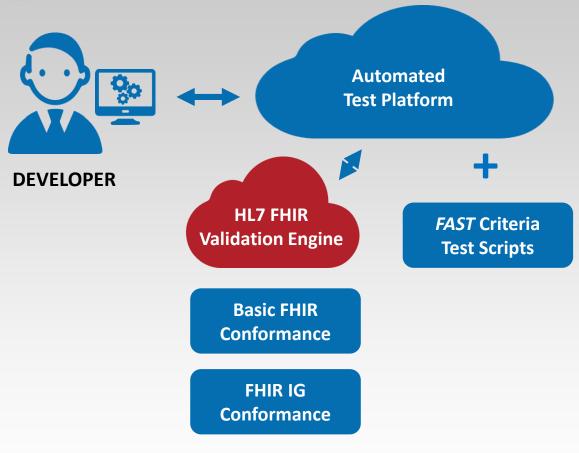




FAST Testing & Certification



Proposed Solution: ONC FAST Testing & Certification Program



Certification Body

FAST Readiness Criteria related to...

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





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



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



Incorporating feedback from industry stakeholders



OPEN ITEMS

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



CURRENT SOLUTION

<u>FAST Testing & Certification</u> <u>solution document</u> (version 3 in progress)