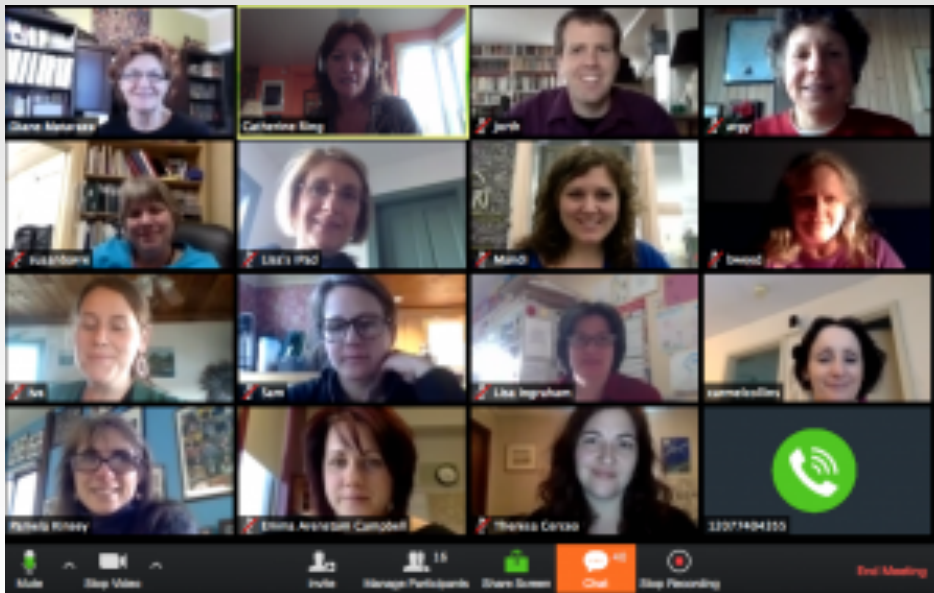## Zoom Meeting Interface and Basic Logistics

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

- **All Attendees will be muted during this presentation.**

- **CHAT:** The chat function is open to *ALL* participants (bottom, middle right, highlighted in orange in this image). Attendees are encouraged to provide feedback and questions via chat during the presentation.

- **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 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.

SK

Presenters – *FAST* Chief Architects

STEPHEN KONYA

Senior Advisor to the Deputy
National Coordinator for
Health IT
HHS/ONC

ONC Lead, FHIR at Scale
Taskforce (*FAST*)

PATRICK MURTA

Chief Interoperability
Architect & Fellow
Humana

FAST Chief Architect

PAUL OATES

*Senior Enterprise Architect and
Lead for the IT M&A Practice,*
Cigna

FAST Chief Architect

SK

Agenda

- *FAST* **2019 in Review & Gratitude**

- **Breakout Sessions – Key Takeaways**
  - Morning: *FAST* Architectural Considerations
    - FAST Solution Interdependencies
    - The Role of Trust Frameworks
    - Testing & Certifications
    - Stakeholder Nuances
  - Afternoon Part 1: *FAST* Pathways to Implementation
    - Standards
    - Regulations
    - Process
  - Afternoon Part 2: *FAST* Pathways to Implementation
    - Timing Considerations/Interim steps
    - Pilots
    - Intermediaries

- **Path to Execution**
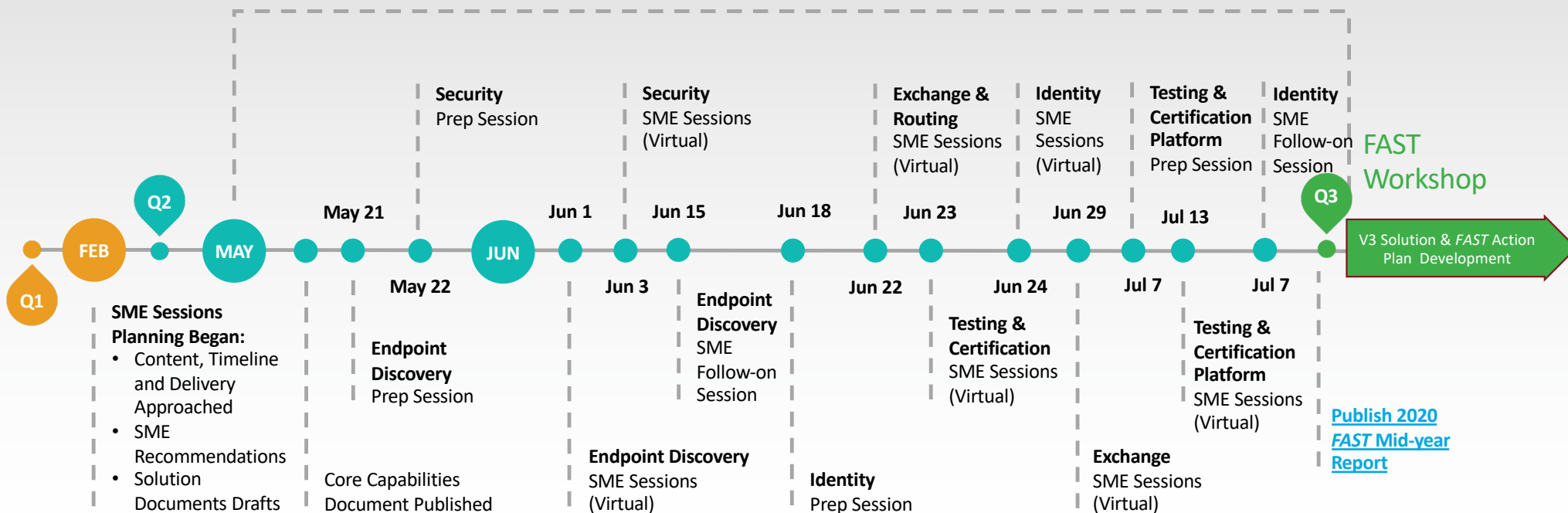
- **Learn More & Get Involved with *FAST***

SK

FAST 2019 in Review & Gratitude
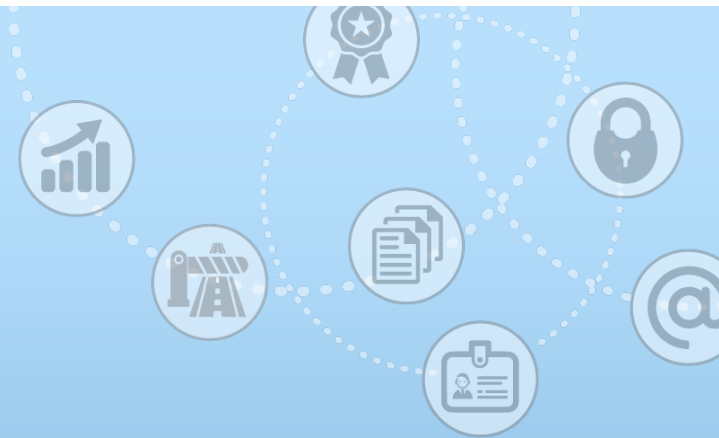
Content/Solution Development Accomplishments

- Finalized Draft v2 Proposed Solutions
- Developed content, prepare, and deliver the SME Prep Sessions
- Developed content, prepare, and deliver the SME Sessions
- Coordinated support staff and assigned roles for notetaking, polling and running the virtual platform for all SME Sessions

Timeline markers:

- **Q1**
- **FEB**
- **Q2**
- **MAY**

SME Sessions Planning Began:
- Content, Timeline and Delivery Approached
- SME Recommendations
- Solution Documents Drafts

May 21

May 22
Endpoint Discovery Prep Session

Core Capabilities Document Published

- **JUN**

Security Prep Session

Jun 1

Jun 3
Endpoint Discovery SME Sessions (Virtual)

Security SME Sessions (Virtual)

Jun 15

Endpoint Discovery SME Follow-on Session

Jun 18

Identity Prep Session

Exchange & Routing SME Sessions (Virtual)

Jun 22

Jun 23

Jun 24
Testing & Certification SME Sessions (Virtual)

Identity SME Sessions (Virtual)

Jun 29

Jul 7
Exchange SME Sessions (Virtual)

Jul 7
Testing & Certification Platform SME Sessions (Virtual)

Testing & Certification Platform Prep Session

Jul 13

Identity SME Follow-on Session

FAST Workshop

- **Q3**

V3 Solution & *FAST* Action Plan Development

Publish 2020 *FAST* Mid-year Report

7

SK

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

FAST Proposed Infrastructure Solutions
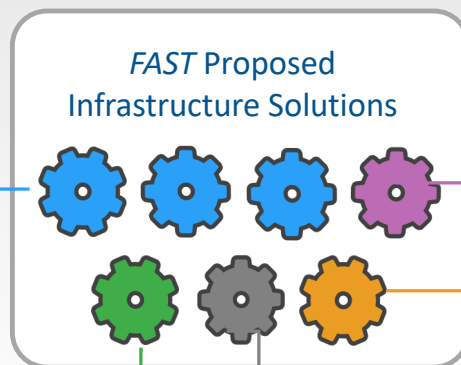
An HL7 FHIR Standard Based Solution for Intermediary-to-Intermediary Exchange and Reliable Routing with Metadata (Version 3 - DRAFT)
- Reliable Routing with Metadata Across Intermediaries

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

PO

Break Out Sessions – Key Takeaways

FAST Solution Interdependencies – Key Takeaways

Session Goals
1. Confirm that each one of these solutions can be implemented independently.
2. Explore if there are potential groupings of solutions to implement simultaneously.
3. Gather from participants the things that they would rather have sooner.

Key Takeaways

- There was consensus that solutions can be implemented independently however, the proper sequence should be ensured, testing simple or most important (MVP approach) use cases first.
- Recommended solutions groupings from discussion included high priority as Identity and Security because they go across all use cases, with Directory being next level
- Consider that stakeholders will not all be at the same level when designing pilots. Could there be a glide path for adoption?
- Consider partnering with an organization for piloting to test maximum capabilities can be tested.
- Use reference architecture or sandbox since not all core capabilities will be available near term.

FAST Trust Frameworks – Key Takeaways

Session Goals

1. Consider how "trust frameworks" fit in the model of evolving FHIR-enabled interoperability.

2. Given the multitude of technical approaches determined or impacted by trust frameworks (HIE-based, or Direct), consider if there are particular challenges and opportunities for trust frameworks in achieving FHIR-enabled interoperability at scale.

Key Takeaways

- The group agreed that the path to scale FHIR efficiently is through some common approach via Trust Frameworks
- The group pointed out "current art" that can be used to inform how to nationally deploy trust frameworks.   Several organizing bodies are working on this now or have prior examples.
- There are some refinements needed, such as agreement on purpose of use taxonomy
- There is a practical limit to the number of trust networks, but for now that seems to be something that can be controlled organically
- Trust needs to occur between trust networks, but there are local exceptions to sharing data (i.e., trust between networks doesn't mean that data will be shared) so we need a way of telling each other why we could not respond to a FHIR request
- We have a list of things that *FAST* needs to pursue next, and we do need some form of convening trust authority to pull the various trust networks together and agree on specifics of moving the *FAST* security and identity work forward

PO

Testing & Certification – Key Takeaways

Session Goals

1. Confirm scope of testing & certification proposed solution is appropriate.
2. Validate if it can be done without undue burden/adding another process step for organizations.
3. Consider the pros and cons of automated, ongoing certification.
4. Discuss the potential role of sanctioned bodies in supporting certification.

Key Takeaways

- Testing could be done in phases, to help manage the complexity and enable tracking of the aspects that have been met versus those that haven't.
- Will be critical to test how the different pieces of the "stack" work together—especially different Implementation Guides that profile the same resources, potentially in conflicting ways.
- The testing and certification process must be nimble, to enable new tests to be added over time.
- Costs can be borne differently by different types of organizations, as this process will involve stakeholders other than vendors—provider organizations, agencies, payers, etc.
- Testing "early and often" is critical. The testing platform can enable a test-driven development process, which will reduce costs overall.
- Governance should enable testing and certification to be "modular", enabling testing and certification in steps, potentially through multiple testing providers

PO

Stakeholder Nuances – Key Takeaways

Session Goals

1. Solicit requirements for scaling solutions from organizations other than payers, providers, and consumers (e.g., public health, HIE, quality, research and pharma, etc.)

Key Takeaways

1. Regardless of whether FHIR is being used in public health, to transmit SDOH data or data across multiple HIEs, the infrastructure will be crucial for use at scale
2. A key consideration should always be how the data will be used by the end-user
3. Determining and transmitting the minimum data necessary to the right user with the rights to view will continue to be a complex challenge
4. *FAST* should consider using Gravity SDOH use cases as part of pilots to test *FAST* infrastructure solutions
5. The idea of "policy scalability" was broached as a barrier especially in the context of public health. How can we get all the stakeholders with different priorities to align and agree on a common policy infrastructure?
6. There is room at the table for all stakeholders to get involved and help move the industry forward whether through *FAST* or one of the FHIR accelerators
7. Having a common roadmap with a timeline that captures interdependencies will be key to success

SK

Standards – Key Takeaways

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

Key Takeaways

- VHDir seen as an option which would build on the community's prior work.
- The group suggested several areas for additional evaluation to meet current industry needs among which :
  - Consider directory alternatives that already exist and assess how those can inform improving/building on VHDir
  - Prioritize the steps of directory implementation, starting with the requirements of the rule, organizational needs, special use cases and then identify what can wait
- *FAST* Security solution:
  - We should have standards to provide a level of security that the community can adopt (which can point to NIST where needed)
  - Consensus that the FAST Security solution should not become part of the FHIR core spec

PM

Regulations/Policy – Key Takeaways

Session Goals
1. Consider the current regulatory landscape and how it presents opportunities or challenges related to each of the proposed solutions
2. Explore policy concepts and considerations that would allow for transparent and predictable update cycles in response to industry need.
3. Discuss ways to mitigate impact of understanding and implementing regulatory requirements for smaller organizations.

Key Takeaways

- Unstructured data poses a challenge to complying with the Minimum Necessary rule; e.g., determining if certain information is inside of an unstructured document
- Specifying the purpose of use in requests will enable responders to provide only the information needed. Auditing will also help manage appropriate use and control repurposing. Requirements could be covered in regulations, including documenting the requests and purposes noted
- Naming of standards should follow large scale testing to ensure they are refined and ready for use. Needs to be balanced: be careful not to name too soon, but not wait too long either
- Patient matching is challenging in that a single algorithm can't be mandated. However, models and guidance could be provided
- Opportunity to meet needs through means other than regulation, for example by leveraging approaches that have been implemented and tested by private networks.
- Regulating parties: ONC / HHS makes sense, with other organizations such as NIST, FDA playing roles in certain areas
- In order to not inhibit innovation, it is important to define a floor, but not a ceiling. Also should be open to alternative approaches that accomplish the regulation goals

Process – Key Takeaways

Session Goals
1. Explore process related elements for implementation of FHIR-enabled interoperability at scale (e.g. process related governance, funding, and operational considerations, etc.)
2. Identify key things necessary to deploy solutions in a sustainable manner.
3. Explore limitations and opportunities to convene related groups that need to avoid any implication of anti-trust.

Key Takeaways

1. There was consensus that having a convener is likely the best approach to maintain momentum and stay on course vs leaving it to happen organically. Many felt a coalition may be the most effective model.
2. There was a popular suggestion to have ONC put out a request for information (RFI) to gain industry suggestions on who the convener should be, what the convening organization should be responsible for, how its governed etc.
3. Some key desirable attributes of a convening body mentioned during the discussion included: inclusive, transparent, equal footing for all member organizations, clear scope/mission/governance, consensus-driven
4. The duties of the convener could be being a home base for resources, aligning business need with tech (and vice versa), evaluation & metrics, oversight of roadmap creation and execution, priority setting, sunsetting decisions, building bridge across other FHIR accelerators for better alignment of work.

PO

Timing Considerations/Interim Steps – Key Takeaways

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).

Key Takeaways

- We acknowledged that FHIR deployment will take time and the actual take-up for 1/1/21 and 1/1/22 rules deployment is not known yet as regards how "fast" we need to scale
- Having said that, we identified a few interim steps, however, the group really seems to have energy to drive to the end game for digital identity, trust networks, exchange
- It was a really quick session for a deep topic - - the discussion will require more time and depth

PO

Pilots – Key Takeaways

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: a.) Solicit feedback on the technical approach using Da Vinci use cases. b.) Explore benefits of initially using Da Vinci. c.) Verify the assumption that the best way to solve a problem is to leverage trust that already exists.
3. Explore interest for potential future pilots' partners.

Key Takeaways

1. Consensus was reached that using Da Vinci use cases was a good approach for *FAST* pilots
2. The group expressed interest in learning more about certain aspects of each of the solutions
3. A *FAST* Pilot test plan should be developed to include as many specifics as possible
4. The group suggested other API solutions not covered by Da Vinci yet should also be considered
5. The technical approach is good, acknowledging that testing different capabilities and a sand box approach is needed for capabilities that may not be yet available to be tested.
6. Question was asked if synthetic data would need to be considered for testing *FAST* Pilots. *FAST* team doesn't believe that synthetic data is needed in testing core capabilities.

PM

Intermediaries – Key Takeaways

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).

Key Takeaways

- In order for intermediaries to be transparent, a guiding principle should be that they can format or add to messages, but not subtract (i.e., they need to preserve the context from the original message for end to end auditability)
- Intermediaries should be able to handle when the receiving endpoint service is down
- The group discussed the difference between intermediaries who perform business processing vs. those who strictly provide routing and determined there may be different requirements to consider for different use cases
- Some areas where *FAST* solutions may need adaptations for intermediaries:
    - Security – there's no specification to chain OAuth requests together, which will be challenging when one or more intermediaries are participating in FHIR exchange
    - Testing & Certification – interoperability testing will be more complex than testing for IG or FHIR conformance; do we need midpoint registration and certification?
    - Identity – when dealing with HIEs/broadcast queries, patient matching becomes more complex
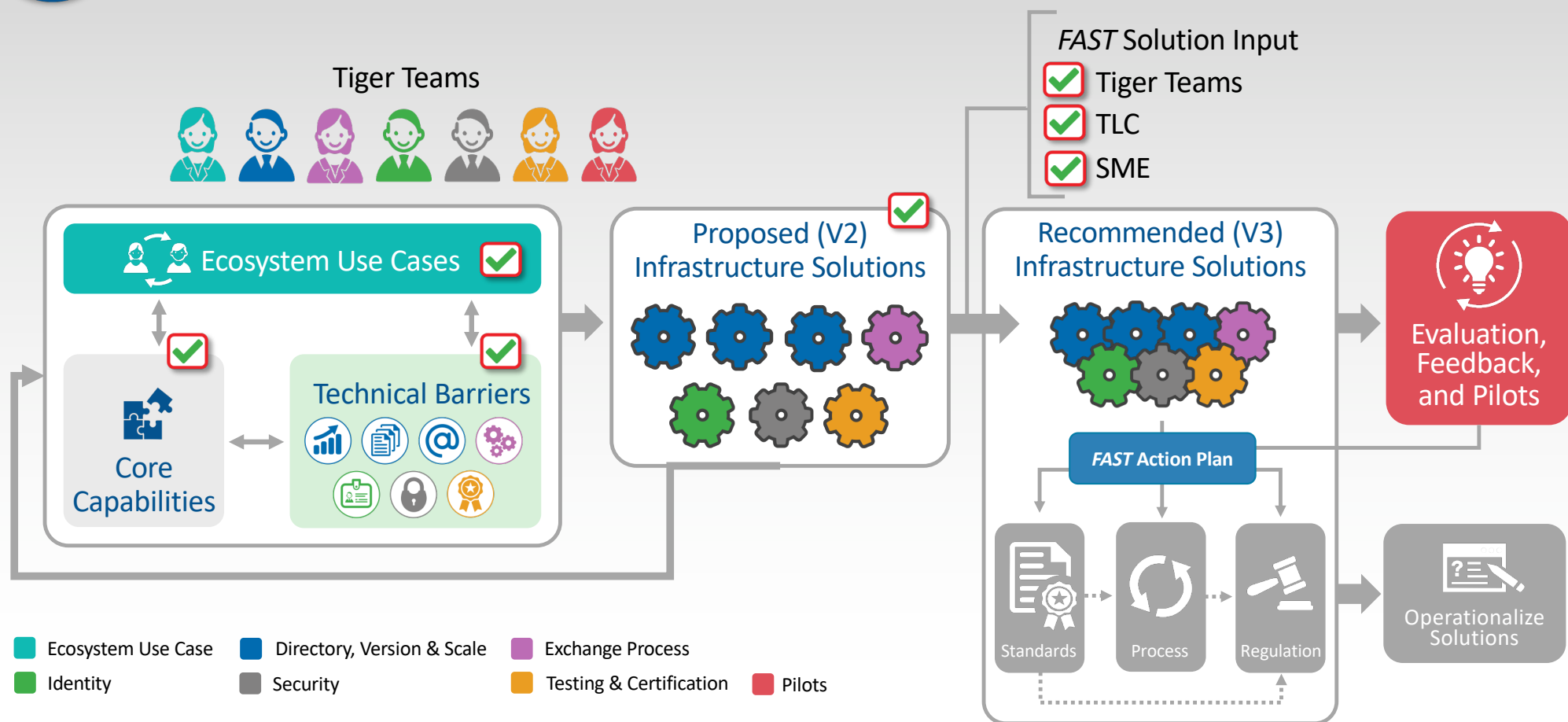
PM

Next for *FAST*

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

PO

FAST Solution Process and Next Steps

Tiger Teams

FAST Solution Input
- ✅ Tiger Teams
- ✅ TLC
- ✅ SME

Ecosystem Use Cases ✅

Core Capabilities

Technical Barriers

Proposed (V2) Infrastructure Solutions ✅

Recommended (V3) Infrastructure Solutions

Evaluation, Feedback, and Pilots

FAST Action Plan

Standards

Process

Regulation

Operationalize Solutions

Legend:
- 🟦 Ecosystem Use Case
- 🟩 Identity
- 🟦 Directory, Version & Scale
- ⬛ Security
- 🟪 Exchange Process
- 🟧 Testing & Certification
- 🟥 Pilots

22

Stay Connected

FAST Initiative Output & Products

FAST ARTIFACTS

- *FAST* Initiative Use Cases, Version 1
- *FAST* Initiative Core Capabilities
- *FAST* Regulatory and Policy Barriers, Version 1
- *FAST* Technical Barriers, Version 1
- *FAST* Solutions (Version 2)

FAST COMMUNITY ENGAGEMENT

- SME Sessions
- *FAST* 101 and Keystone Presentations
- Technical Learning Community
- *FAST* Workshop

Stay Engaged!
JOIN THE LINKEDIN GROUP
400+ members & growing!

All content is available on the *FAST* Project Page *or* https://tinyurl.com/ONC-FAST

SK

FAST In View & Stay Connected

FAST In View:

- **AHIMA 20 presentation, October 14-16, 2020**

  - ONC FHIR at Scale Taskforce: Paving an Infrastructure Path to Scalable FHIR Adoption for Better Data Exchange

  - *FAST* Speakers: Stephen Konya, ONC; Patrick Murta, Humana; Alix Goss, Imprado; Carmen Smiley, ONC; Lee Barrett, EHNAC

- **Publish V3 of *FAST* Recommended Solutions**

- **Publish *FAST* Action Plan and Solutions Path Forward**

- **Continue Industry Engagement**

WANT TO GET INVOLVED??

Join the Technical Learning Community (TLC) to get updates and provide input on the technical and regulatory barriers, use cases, and proposed solutions as they are developed.

- *Visit Project Page*

- *SIGN UP!!*

- *JOIN THE LINKEDIN GROUP (400+ members & growing!)*

SK

Stephen Konya
ONC – *FAST* Lead

Patrick Murta
FAST Chief Architect

Paul Oates
FAST Chief Architect

For more information on the *FAST* Initiative,
visit the *FAST* Project Page

Have any further questions/suggestions?

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