



FHIR at Scale Taskforce: 2019 End-of-Year Report

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What is FAST?

The [FHIR at Scale Taskforce \(FAST\)](#) initiative, launched in 2017 and led by the Office of the National Coordinator for Health IT (ONC), brings together a highly representative group of motivated healthcare industry stakeholders and health information technology experts. The group, comprised of industry-wide expert volunteers, is set to identify Fast Healthcare Interoperability Resources (FHIR®) scalability challenges and potential approaches, to address current technical, regulatory or policy barriers, as well as to identify relevant industry gaps. The group focuses on the infrastructure needed to support efficient health information flow, between multiple exchanging partners and to accelerate the FHIR standard adoption at scale.

PROGRESS AT A GLANCE

35 [technical and regulatory barriers](#) defined across 6 Tiger Team focus areas

15 [ecosystem use cases](#) developed

15 [core capabilities](#) identified

11 [proposed solutions](#) developed

1900+ attendees at 6 interactive [Technical Learning Community](#) Webinars and industry meetings

FAST Evolution



Why FAST and Why Now?

FHIR adoption expanded rapidly over the last few years. The FHIR-related functional use cases explored by the industry uncovered important scalability challenges, calling for infrastructural approaches to support these use cases to scale. The Centers for Medicare and Medicaid Services (CMS) and ONC proposed rules ([CMS-9115-P](#), [RIN 0955-AA01](#)) that call for the use of Application Program Interfaces (APIs) to facilitate access to patient health data, provider directories and care coordination — [FHIR V4 release](#) as well as the [FHIR Accelerator Program](#) are drivers to increased FHIR-based solutions adoption. Specifically, the accelerator initiatives came together and built on functional use cases aiming to facilitate data integration to improve patient outcomes, provider workflow, and the transition to value-based care. While FHIR accelerator initiatives are generally focused on addressing particular functional aspects, the FAST Initiative is focused on addressing the infrastructure needed to scale FHIR-based solutions, essential to support broader adoption of the FHIR standard.

Launched under the Payer + Provider (P2) FHIR Taskforce name in October, 2017, the initiative continued to broaden its stakeholder participation and industry engagement, as well as its focus to address core infrastructure and scalability issues that affect various aspects in the industry at large. Acknowledging the industry-wide interest and participation, as well as the applicability of the FAST approaches to many areas across the industry, most importantly focusing on patients' outcomes in general, the Taskforce was rebranded as FAST in January of 2019. Since then, FAST Tiger Teams have developed over 15 ecosystem use cases, identified infrastructural core capabilities needed to scale FHIR, and proposed solutions in the respective areas of focus for each of the Tiger Teams, in addition to engaging with the Technical Learning Community (TLC) and other FHIR initiatives to continue to inform on the taskforce goals and approaches.



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How Does *FAST* Do It?

The *FAST* collaborative adopted a taskforce model to better harness the knowledge and expertise of various Subject Matter Experts (SMEs) across the industry continuum. Seven Tiger Teams, staffed entirely by volunteer SMEs, have performed gap analysis on industry models and functional use cases and identified technical and regulatory/policy barriers and core capabilities that are essential to FHIR-based solutions scalability. The Tiger Teams' goal is the development of proposed approaches to remove the taskforce-identified infrastructural scalability challenges, through additional standards work, processes, or proposed regulatory measures.

The taskforce architectural needs are driven and supported by two *FAST* Chief Architects, who ensure the taskforce is focused on the industry's most relevant infrastructural challenges and solutions.

The Tiger Teams' work product is presented for feedback to the *FAST* Coordinating Committee members and ultimately to the Executive Steering Committee, comprised of a public-private mix of significant, top industry leaders who have acknowledged the importance of the *FAST* work and provide continuous support and member resources to the taskforce.

The work coming out of the Tiger Teams is approved by the Coordinating and Executive committees and then presented to the TLC, soliciting industry feedback through webinars and documentation of the gathered feedback, to further validate or reshape the nature of proposed solutions.

FAST Organization & Community Engagement

TIGER TEAMS IDENTIFY:

- Ecosystem Use Cases
- Regulatory and Policy Barriers
- Gap Analysis of Industry Models and Functional Use Cases
- Technical Barriers
- Core Capabilities

EXECUTIVE STEERING COMMITTEE
(public-private mix)

COORDINATING COMMITTEE
(public-private mix)

- SEVEN TIGER TEAMS**
- Ecosystem Use Case
 - Identity
 - Security
 - Directory, Versions and Scale
 - Exchange Process
 - Testing & Certification
 - Pilots

TECHNICAL LEARNING COMMUNITY (TLC)



INFORMATION SHARING WITH TLC THROUGH:

- Website
- Periodic webinars
- Newsletters
- TLC Meetings
- LinkedIn Group



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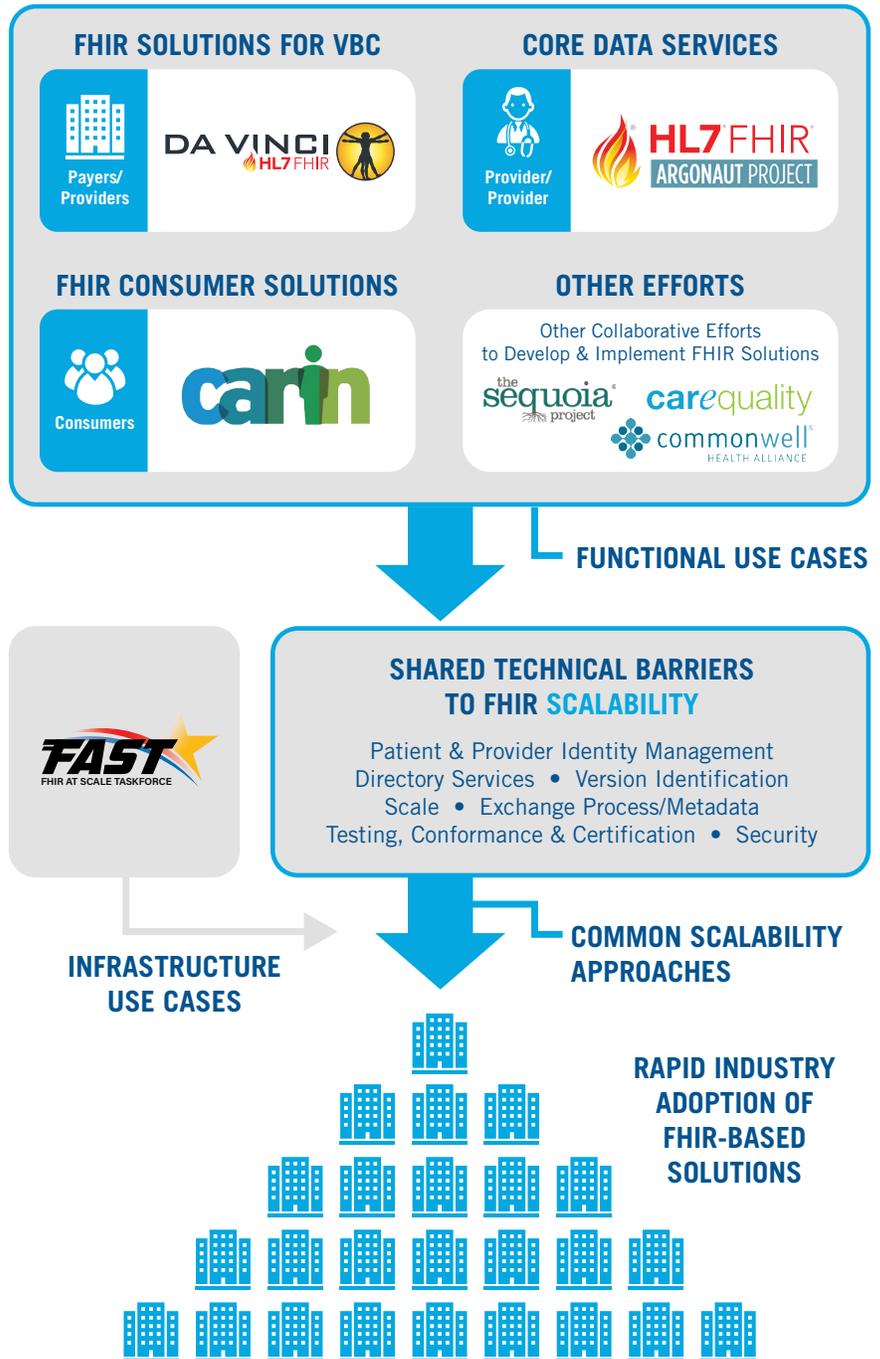
FAST Coordination and Collaboration With Other FHIR Initiatives & Industry Engagement

The FAST Initiative recognizes that ongoing collaboration and coordination with industry leading efforts and broader industry stakeholders is key to understanding industry challenges and successes, ensuring a wide gap analysis, maintaining awareness of new developments, and avoiding duplication of efforts. The FAST Initiative aspires to maintain transparency and communication, welcoming industry feedback with the goal to inform Tiger Team efforts and approaches.

The figure to the right shows a simplified graphical representation of several FHIR initiatives currently working on addressing specific functional use cases, aimed to facilitate data exchange among various industry stakeholders. These functional approaches experience common technical challenges related to implementation. FAST is focused on addressing these shared technical barriers with the intention to propose infrastructural approaches that could allow these individual FHIR-based solutions to be implemented or deployed at scale.

Focused on addressing the most common or relevant industry-experienced infrastructural barriers and scalability challenges, FAST's work complements the functional work being done by other FHIR-focused collaboratives.

Collaborative Efforts Toward FHIR Adoption

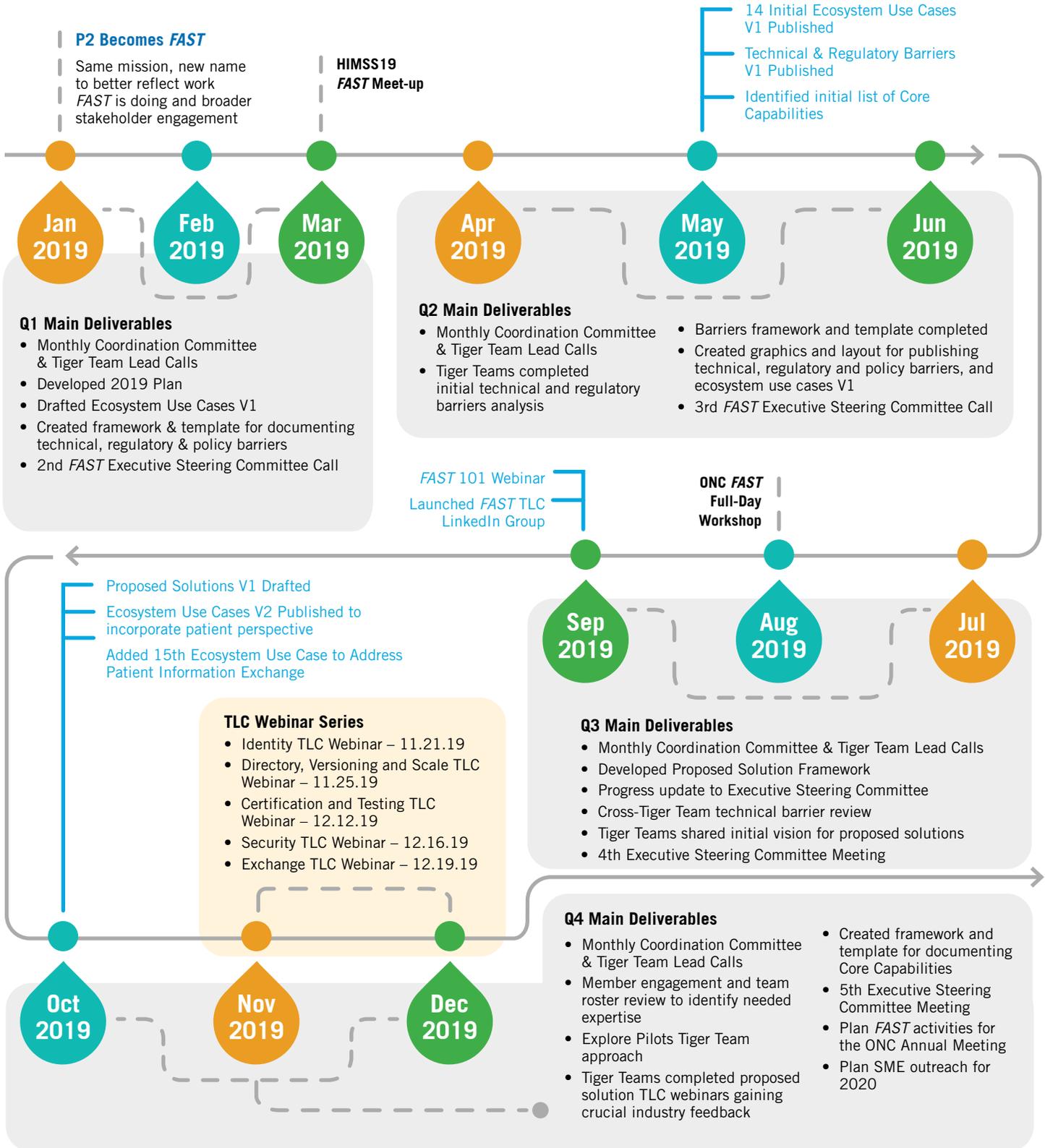




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2019 Year in Review





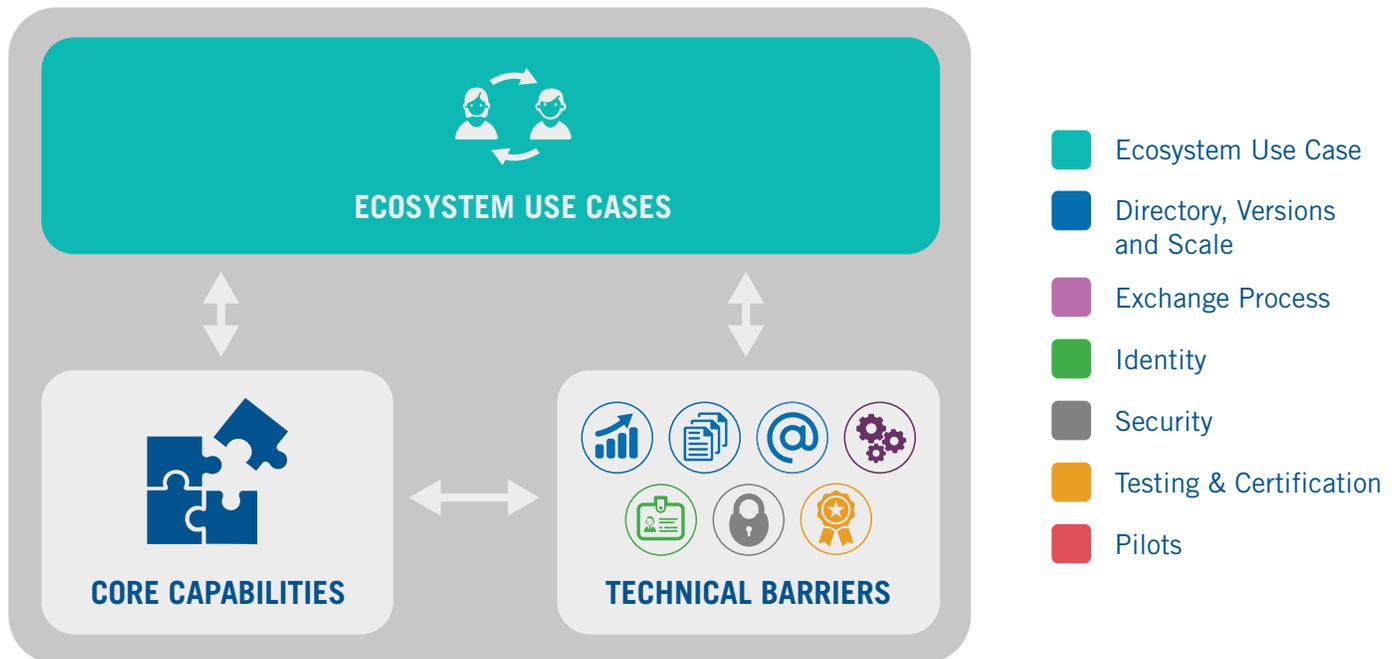
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FAST Ecosystem Use Cases and Core Capabilities

In 2019, Ecosystem Use Cases Tiger Team work was initially focused on the development of the initial fourteen ecosystem use cases that support the infrastructure needs of functional use cases developed by other industry groups. The ecosystem use cases are meant to ensure an efficient and scalable model to support data exchange and accelerated FHIR adoption. As *FAST*'s focus expanded, the Tiger Team identified and developed a fifteenth use case to address provider/patient and payer/patient information exchange. Once the first versions of these fifteen use cases were finalized, the remaining six Tiger Teams completed area-focused gap analysis to further identify technical barriers that need to be overcome, and the core capabilities required to develop scalable FHIR solutions. Throughout 2019 the Ecosystem team revisited version-one of the use cases, and considered industry feedback and patient impact. As a result, a more inclusive set of [FAST Ecosystem Use Cases](#) was published.

FAST TIGER TEAMS



FAST Technical, Regulatory and Policy Barriers

Five of the Tiger Teams: [Directory, Versions and Scale](#); [Identity](#); [Security](#); [Exchange Process](#); [Testing & Certification](#) worked on their respective areas and identified a series of technical, as well as, regulatory and policy barriers. Pilots Tiger Team continued to review the ecosystem use cases and core capabilities while also exploring potential pilot frameworks.

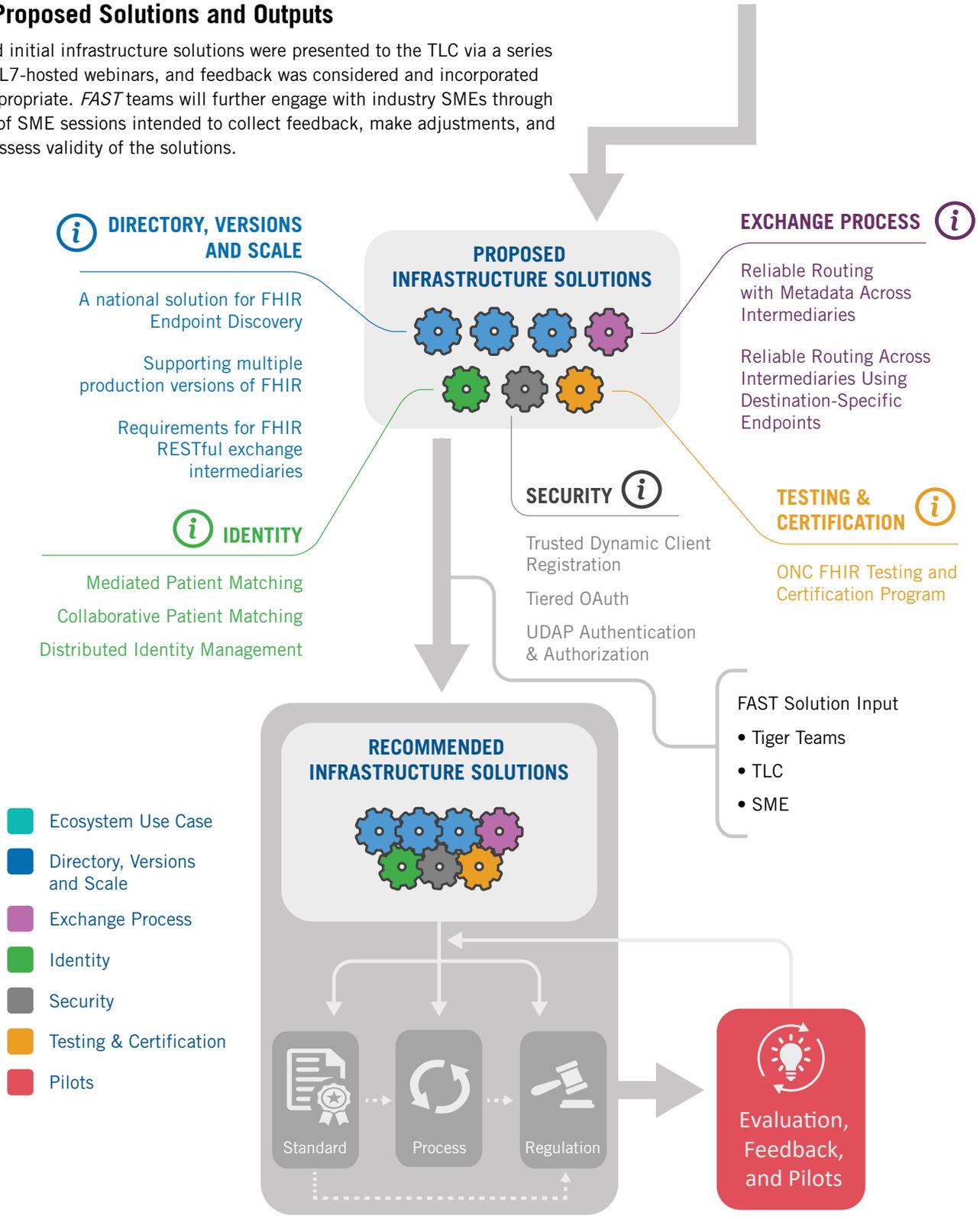


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FAST Proposed Solutions and Outputs

Proposed initial infrastructure solutions were presented to the TLC via a series of five HL7-hosted webinars, and feedback was considered and incorporated when appropriate. *FAST* teams will further engage with industry SMEs through a series of SME sessions intended to collect feedback, make adjustments, and further assess validity of the solutions.





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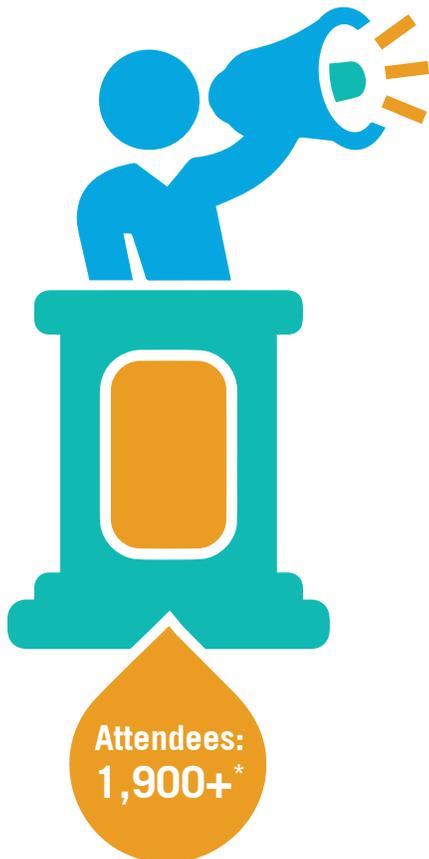
How Do We Communicate, Inform, and Collect Feedback on the *FAST*-Proposed Approaches?

The [FAST Technical Learning Community \(TLC\)](#) is an integral component of *FAST*. The TLC comprises anyone in the industry interested in *FAST*'s work and willing to serve as a sounding board and a source of feedback. The TLC ensures Tiger Teams aren't working in a vacuum and offers a forum to validate and provide additional perspectives on proposed solutions and potential issues that may need further attention.

The 2019 *FAST* Tiger Team accomplishments were communicated in a series of six TLC webinars, hosted by HL7, delivered November – December. These sessions were scoped to inform the larger community on the *FAST* approaches to infrastructure challenges and progress and to collect feedback for consideration in the next iteration of the solutions. Attendees included representatives from health IT vendors, payers, providers, and public health. The first webinar was a high-level overview of *FAST*, intended to raise industry awareness of *FAST* goals and the current state. The subsequent webinars, held in a listening session format, dove deeper into *FAST*'s scope focusing on the Tiger Teams' proposed solutions to infrastructure barriers with the intention of gaining feedback from the TLC.

Transparency and iterative feedback strengthen proposed solutions and facilitate eventual adoption, which is important to *FAST*'s future success.

Engagement by the Numbers



WHO WE'VE ALREADY REACHED

[FAST Full-Day Workshop - ONC Interoperability Forum \(Invite-only\)](#)
 8.21.19 (~80 attendees)

[FAST 101 Webinar](#)
 10.12.19 (878 registrants, 798 attendees)

[Identity TLC Webinar](#)
 11.21.19 (415 registrants, 216 attendees)

[Directory, Versioning and Scale TLC Webinar](#)
 11.25.19 (295 registrants, 122 attendees)

[Certification & Testing TLC Webinar](#)
 12.12.19 (406 registrants, 198 attendees)

[Security TLC Webinar](#)
 12.16.19 (273 registrants, 134 attendees)

[Exchange TLC Webinar](#)
 12.19.19 (347 registrants, 141 attendees)

[WEDI Winter Meeting](#) 12.5.19

EXTERNAL ENGAGEMENTS:

AHIP Health IT and Interoperability Workgroup Webinar 12.13.19

North Carolina Epic User Group Webinar 1.10.20

EHRA Monthly General Membership Webinar 1.14.20

*Some attendees may have attended multiple sessions



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Ongoing Commitment to Collaboration and Industry Engagement

FAST's goals and progress were supported from the inception by the cross-pollination that occurs through the overlap in membership across various FHIR initiatives, in addition to planned collaborative sessions convened at various industry gatherings, to ensure coordination of efforts and alignment. From the beginning, *FAST* held one-on-one and small group meetings with other initiatives to determine additional areas of focus, ensure new knowledge, and encourage member participation based on Tiger Teams needs and availability.

Throughout 2019, *FAST* built and acted upon a strong communication strategy, aiming to inform the industry on the scope, goals and progress of *FAST*'s work, as well as to identify additional focus areas for consideration. The *FAST* team held targeted collaboration sessions, including a full day *FAST* Workshop at the 2019 ONC Interoperability Forum, in concert with other smaller targeted collaborative sessions focused on specific topics.

FAST also took advantage of several industry-wide events in 2019. At the 2019 Payer's Summit in San Antonio, the *FAST* team capitalized on the industry-wide summit attendance and announced the rebranding of *FAST* with broader, more inclusive goals and wider industry representation. Similarly, a meet-up with an open discussion forum between several key *FAST* members and other FHIR initiatives members attending HIMSS19 was coordinated with support from ONC, with the goal of further coordination and alignment.

FAST is working collaboratively with other initiatives to co-present panels at [HIMSS20](#) and [Health Datapalooza](#). Co-presenting with other FHIR initiatives fosters message coordination, continued alignment and collaboration between various groups, while presenting a united front externally.

Also, *FAST* engaged with several industry workgroups by securing speaking engagements to continue to inform on *FAST*'s work and progress, for additional visibility on the goals and proposed approaches, gathering feedback, and to potentially encourage additional participation in the TLC.



JOIN US AT THESE EVENTS

[ONC Annual Meeting](#)

1.27.20 - 1.28.20

[HIMSS Interoperability and HIE Community Roundtable Webinar](#)

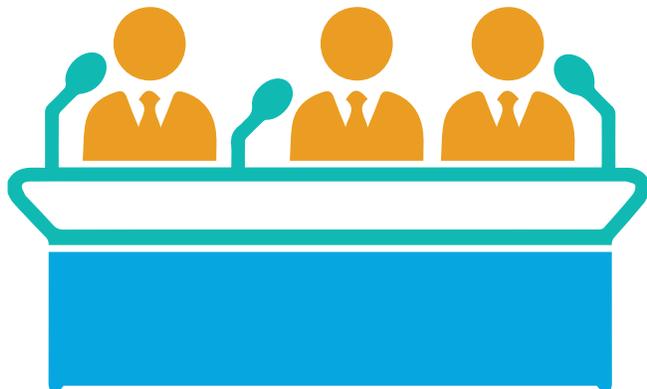
1.30.20

[Health Datapalooza](#)

2.10.20 - 2.11.20

[HIMSS Pre-Conference Symposia](#)

3.9.20



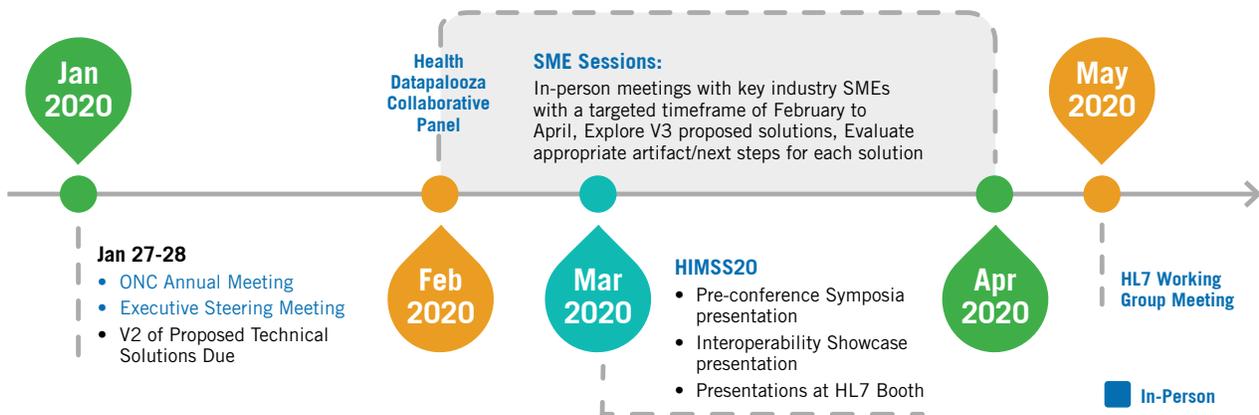


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Work Continues in 2020!

In 2020, Tiger Teams will continue to refine the taskforce-proposed solutions, incorporating feedback from the TLC and other industry engagement opportunities. Once this additional work has been completed, Tiger Teams plan to engage industry SMEs to further validate, align, and refine the solutions within each focus area and determine the best forum and form for the FAST artifacts. Artifacts may vary depending on the solution, ranging from scalability guides to publishing best practices guidance for industry consideration and adoption. FAST aims to develop a proposed methodology to conduct FAST pilots.



SME Working Sessions

In-person SME Working Sessions are being considered for 2020 to provide Tiger Teams with additional feedback to further refine these solutions. In preparation for successful SME sessions, Tiger Teams are currently reviewing TLC feedback received through the TLC listening sessions and incorporating relevant comments into their initial solutions drafts. These small groups will potentially include 8-10 selected leaders in each topic area (Directory, Identity, Certification, etc.) selected and vetted by FAST leadership based on pre-established criteria.

The target of each session will get feedback on certain aspects of solutions, the validity and strength of FAST's approach, and identify the next steps for solutions development. Each Tiger Team will have the opportunity to facilitate sharing content and discussion based on key questions identified through prior work. The goal of these discussions is to validate feasibility and input on the path forward and more refined solution approaches from the SME's experience. The output of the meeting is intended to be a summary of the discussion, documentation of course corrections, and more refined solution approaches.





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Volunteer-Driven Progress

FAST's accomplishments are the result of volunteer work and dedication with support of ONC and project staff. Each *FAST* Tiger Team member has spent countless hours attending weekly meetings, completing action items resulting from working sessions, and reviewing content outputs, as well as preparing for TLC webinars to share their work and get feedback from the TLC. All of these hours dedicated to *FAST* are in addition to their normal daily workload. Many *FAST* members also work on other FHIR initiatives and bring their passion to solve industry problems to the *FAST* mission.

While the work of the individual volunteers is invaluable, we also want to acknowledge the organizations our volunteers belong to, which have given the green light for their employees to do this additional work. It takes real foresight and strategic sophistication to see *FAST's* work and the work of the other FHIR initiatives as a way to solve the shared issues that have affected health information exchange and data integration for years. Our volunteers bring their first-hand experience with these pain-points and are able to shape the solutions that are most viable based on real-world limitations and bandwidth.

As *FAST's* work matures and solutions are vetted, we hope the industry will take up the mantle into implementation and to complete work that may be outside of *FAST's* scope.

Acknowledgements

Thank you to all the volunteers and taskforce staff for your hard work and dedication! We look forward to a productive 2020!