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TEFCA Monthly eHealth Exchange Technical Webinar
TEFCA Hub Development Updates

Eric Heflin, Consultant
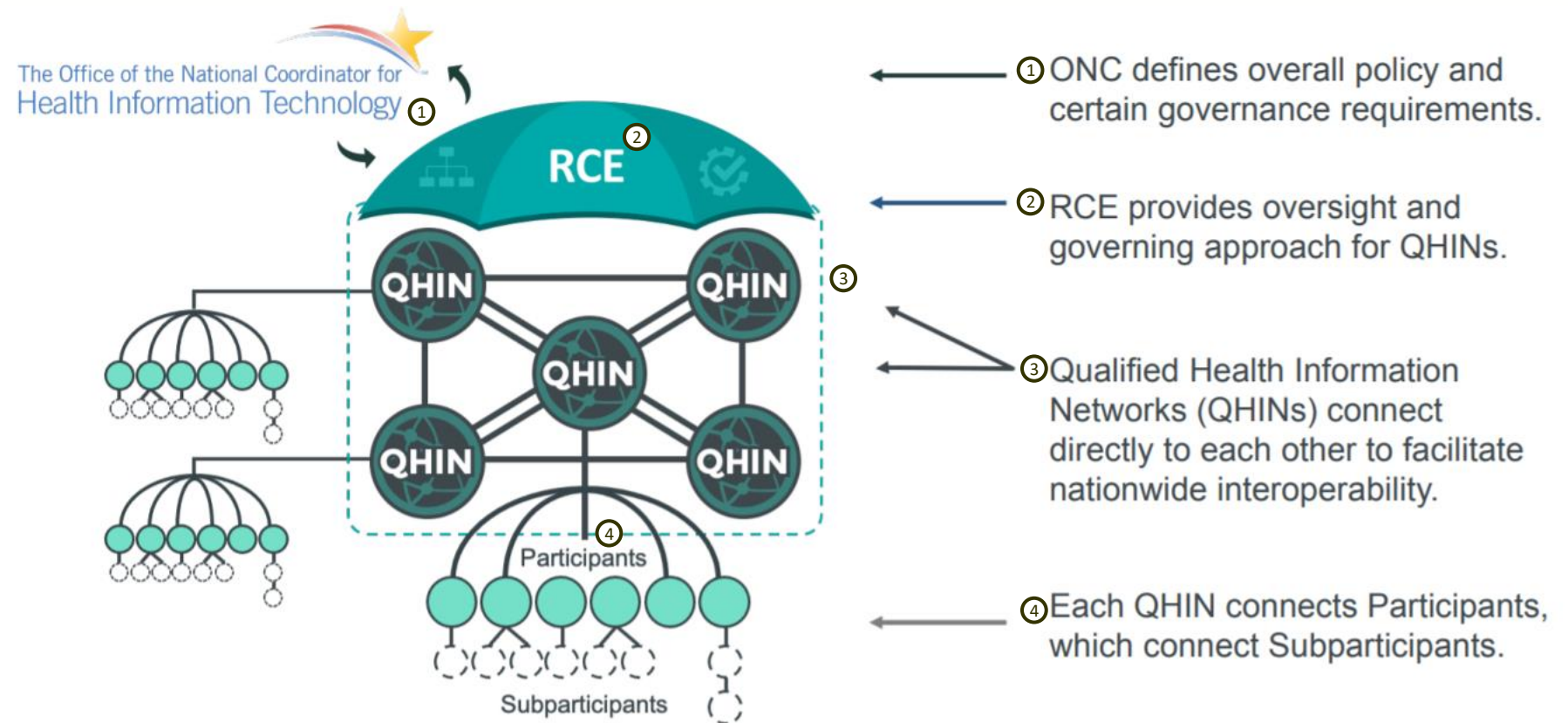
December 12, 2023

Agenda

- TEFCA Overview - Reference
- TEFCA Monthly Technical Webinar Series
- ONC/HHS/RCE Announcement
- Updated FHIR Roadmap for TEFCA Exchange
- TEFCA Hub Technical Readiness
- TEFCA Readiness Checklist Updates
- Open Discussion / Q&A
- For More Information (Including Office Hours)

Image credit: Licensed from iStockPhoto

TEFCA Overview - Reference

How will TEFCA Work?

Common Agreement

QHIN Technical Framework

Standard Operating Procedures

FHIR Roadmap

The Office of the National Coordinator for Health Information Technology

RCE

QHIN

QHIN

QHIN

QHIN

QHIN

Participants

Subparticipants

① ONC defines overall policy and certain governance requirements.

② RCE provides oversight and governing approach for QHINs.

③ Qualified Health Information Networks (QHINs) connect directly to each other to facilitate nationwide interoperability.

④ Each QHIN connects Participants, which connect Subparticipants.
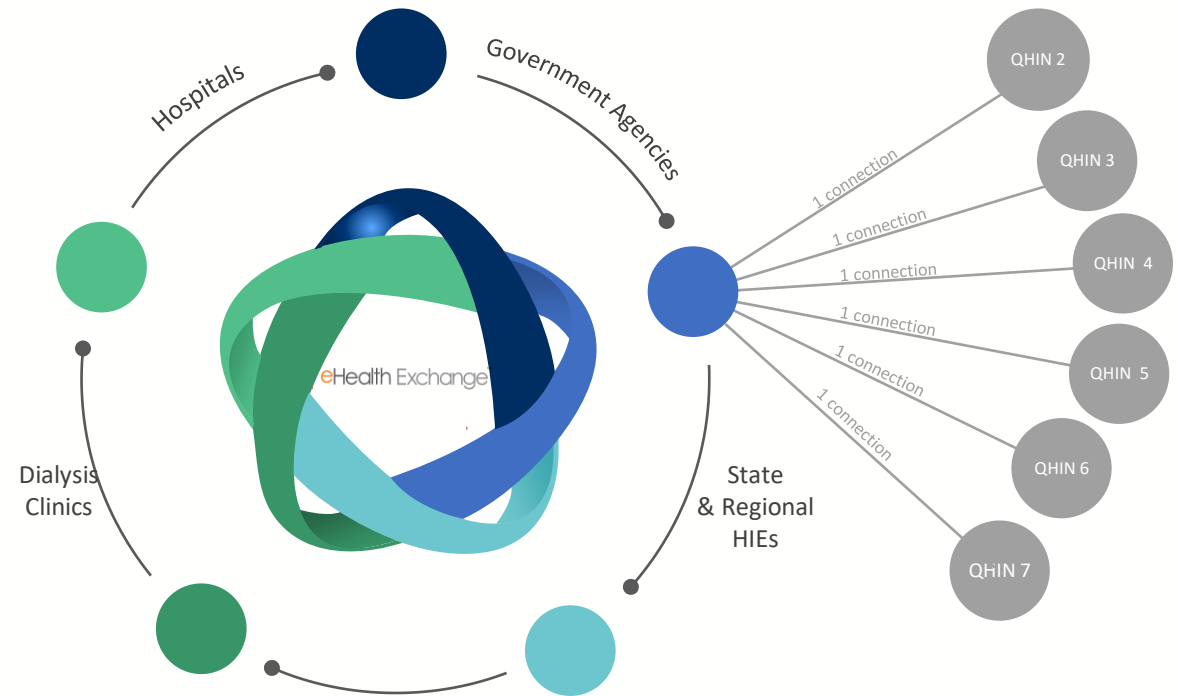
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What is the Trusted Exchange Framework (TEFCA)?

It's a federally endorsed governance framework for **cross-network** exchange of healthcare records.

Similar to Carequality, it's a framework, and <u>not</u> a network:

- Technical & policy agreements

- Governing structure

- Federated architecture

Enables healthcare organizations connected to a TEFCA Qualified Health Information Network (QHIN) to exchange patient data with other healthcare organizations connected to other QHINs.

Which networks plan to exchange via TEFCA?

The HHS announced that the **eHealth Exchange** is one of six applicants that have had their applications to become a Qualified Health Information Network (QHIN) approved
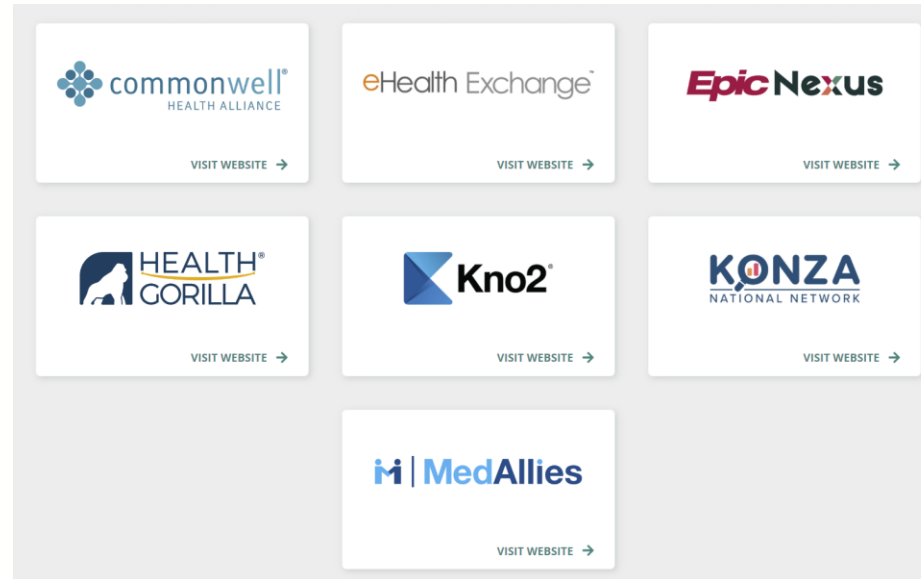
It's not yet clear which healthcare organizations will agree to exchange via TEFCA. Will yours?

Source: https://rce.sequoiaproject.org/candidate-qhins/

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Inaugural QHIN Candidate

Intent to Participate from 11 HIEs Operating in 15 States Serving up to 126 Million Patients

AL, AK, AZ, CA, CO, CT, DC, GA, IA, IN, MD, NE, TX, VA, and WV

Learn more: BeMyQHIN.org
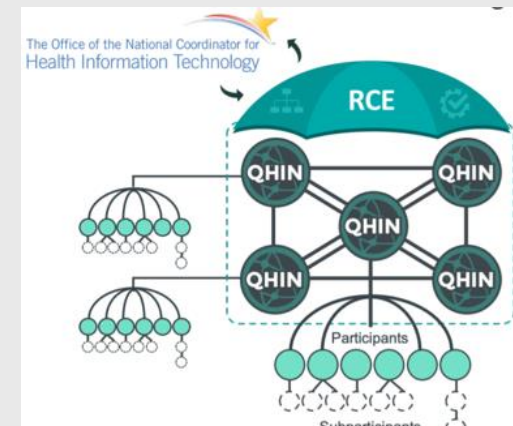
What's changing?

Prior to eHealth Exchange Connecting with TEFCA	Once eHealth Exchange Goes Live on TEFCA
Your organization can exchange with the eHealth Exchange's 320+ health systems, federal agencies, providers and provider collaboratives.	**Option** for your organization to **also** exchange with healthcare organizations participating in TEFCA QHINs.

How is the eHealth Exchange different?

eHealth Exchange	Other Networks

eHealth Exchange

- ✓ National non-profit focused on the Public Good
- ✓ Single technical connection instead of hundreds
- ✓ Vendor agnostic
- ✓ 24x7x365 monitoring
- ✓ Enforced content quality assurance
- ✓ Analytics dashboard
- ✓ Broad federal agency connectivity
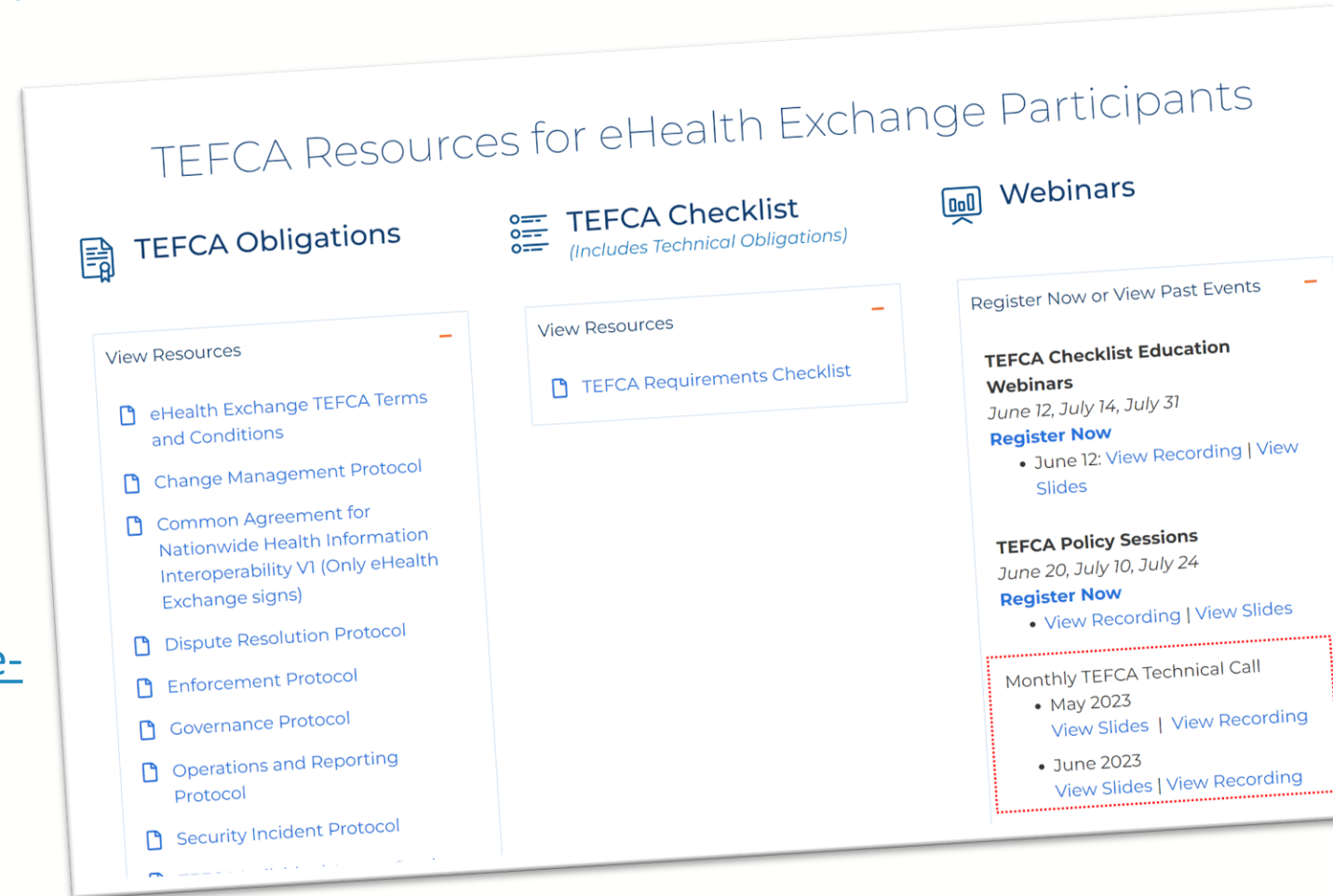- ✓ Trust (no patient tracking, no selling data)

Other Networks

- ⚠ Single technical connection instead of hundreds
- ⚠ Vendor agnostic
- ⚠ 24x7x365 monitoring
- ✋ Mandatory content testing
- ⚠ Analytics portal dashboard
- ✋ Broad federal agency connectivity

✓ Yes
⚠ Sometimes
✋ No

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TEFCA Monthly Technical Webinar Series

eHealth Exchange TEFCA Monthly Webinar Series

- Today's webinar is part of a series
- Prior webinars covered:
  - TEFCA Readiness Checklist
  - Individual Access Services Providers
  - Reporting Requirements
  - Error Handling
  - And more
- Prior webinars can be found at:
  - https://ehealthexchange.org/what-we-do/tefca-and-ehealth-exchange/

TEFCA Resources for eHealth Exchange Participants

TEFCA Obligations

View Resources

- eHealth Exchange TEFCA Terms and Conditions
- Change Management Protocol
- Common Agreement for Nationwide Health Information Interoperability V1 (Only eHealth Exchange signs)
- Dispute Resolution Protocol
- Enforcement Protocol
- Governance Protocol
- Operations and Reporting Protocol
- Security Incident Protocol

TEFCA Checklist (Includes Technical Obligations)

View Resources

- TEFCA Requirements Checklist

Webinars

Register Now or View Past Events

TEFCA Checklist Education Webinars
June 12, July 14, July 31
Register Now
- June 12: View Recording | View Slides

TEFCA Policy Sessions
June 20, July 10, July 24
Register Now
- View Recording | View Slides

Monthly TEFCA Technical Call
- May 2023
  View Slides | View Recording
- June 2023
  View Slides | View Recording

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ONC/HHS/RCE Announcement

the **sequoia**® project

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MEMBER LOGIN

PRESS RELEASES, RCE, THE SEQUOIA PROJECT NEWS   ●   DECEMBER 12, 2023

ONC and The Sequoia Project Designate First TEFCA QHINs

TEFCA Goes Live On Schedule

(Washington, DC – December 12, 2023) – The Sequoia Project, selected by the Office of the National Coordinator for Health Information Technology (ONC) as the Recognized Coordinating Entity® (RCE™) to support the implementation of the Trusted Exchange Framework and Common Agreement™ (TEFCA™), today, on behalf of ONC, **designated the country's first Qualified Health Information Networks™ (QHINs™)** in a Common Agreement signing event alongside HHS Secretary Xavier Beccera, HHS Deputy Secretary Andrea Palm, and National Coordinator for Health Information Technology Micky Tripathi, in Washington, DC.

The newly designated QHINs include eHealth Exchange, Epic Nexus, Health Gorilla, KONZA National Network, and MedAllies.

"The QHIN selection and onboarding process was necessarily arduous to ensure the pioneering

1

ONC
TEFCA
RECOGNIZED
COORDINATING
ENTITY

TEFCA ⌄   RCE ⌄   Community Engagement ⌄   Resources ⌄

☑ Subscribe to RCE news

🔍   SequoiaProject.org

Meet the Designated QHINs

Below are organizations that have successfully completed the Qualified Health Information Network™ (QHIN™) onboarding process and are recognized as Designated QHINs for TEFCA exchange. There are additional Candidate QHINs still in the onboarding phase listed here.

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VISIT WEBSITE →

Epic Nexus

VISIT WEBSITE →

HEALTH® GORILLA

VISIT WEBSITE →

KONZA NATIONAL NETWORK

VISIT WEBSITE →

M | MedAllies

VISIT WEBSITE →

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What We Do ⌄   Who's in Network ⌄   Resources ⌄   Events ⌄   Contact Us

🔍

JOIN US →

The largest healthcare information network in the country **and now a Designated QHIN under TEFCA**

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DESIGNATED QHIN

Active in all 50 states, eHealth Exchange is a Network of Networks connecting federal agencies and non-federal healthcare organizations so medical data can be exchanged nationwide to improve patient care and public health.

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Updated FHIR Roadmap for TEFCA Exchange

TEFCA FHIR Exchange Roadmap

Source: https://rce.sequoiaproject.org/three-year-fhir-roadmap-for-tefca/

TEFCA FHIR Exchange Roadmap

- Version 2.0
- Released yesterday (2023-12-11)

FHIR® Roadmap for TEFCA Exchange
Version 2.0

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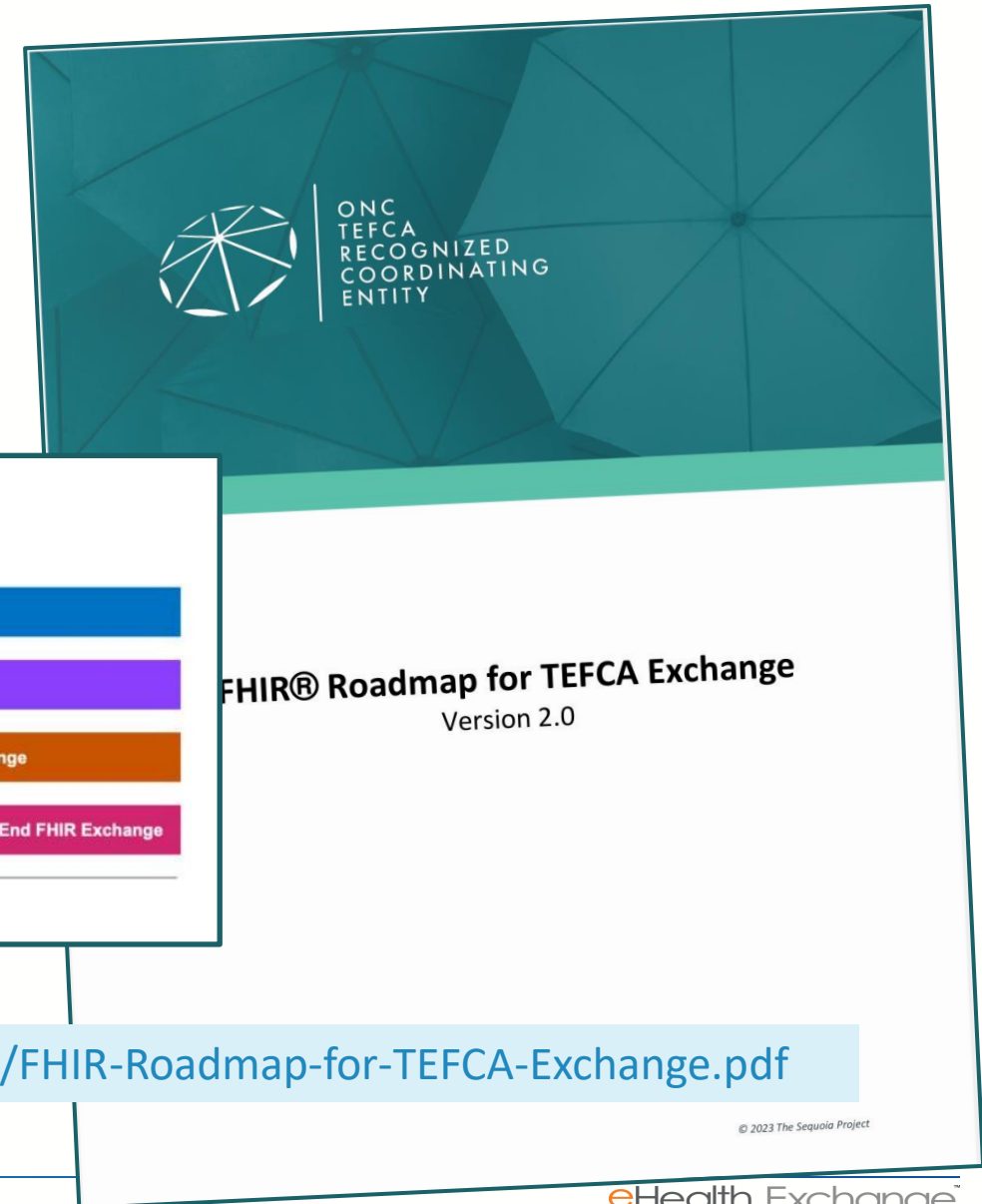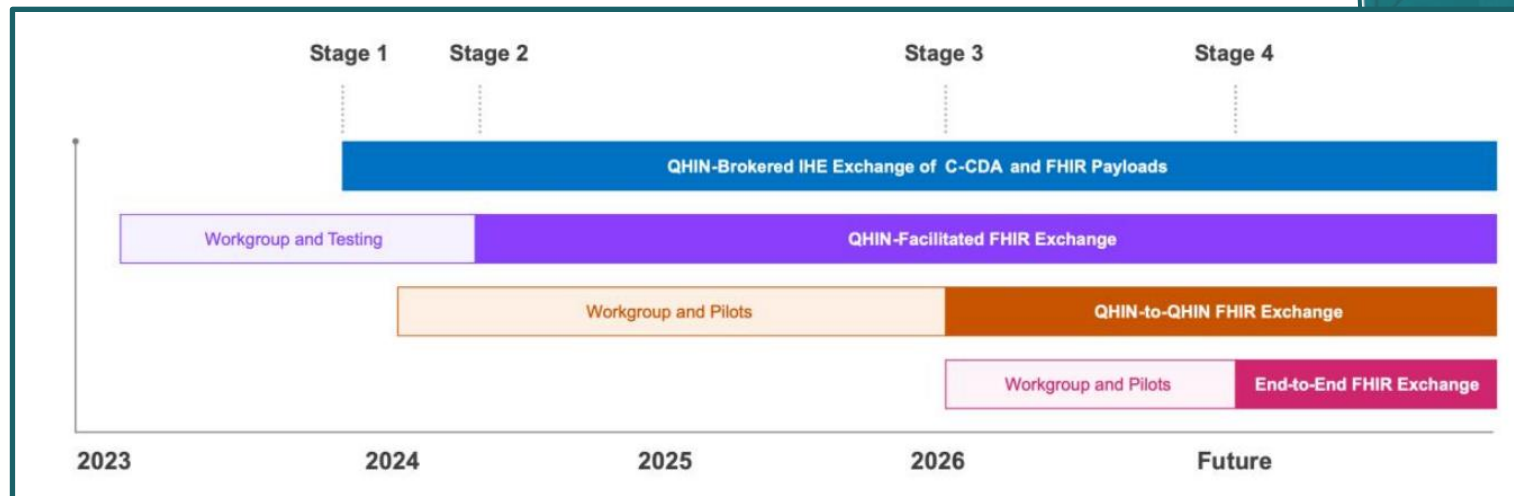
Summary of Updates

- A new version of the *FHIR® Roadmap for TEFCA Exchange* was released yesterday

- RCE states version 2.0 "Completely supplants" the prior version (1.0)

- Recognizes ongoing FHIR intermediary pilots are already occurring

- Explicitly intended to bridge with the RCP states are "parallel tracks" of FHIR interoperability
  - ONC Certified Electronic Health Records
  - Health Information Exchanges using FHIR

- The term "Brokered FHIR" has mostly been replaced with the term "QHIN-to-QHIN FHIR Exchange"

- Also introduces the term "End-to-end FHIR Exchange"

- The following is a summary of this RCE document

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RCE Focus on FHIR

- "We expect to accelerate adoption as FHIR APIs for general use are now required in all ONC-certified EHR systems as of the end of CY 2022 and in patient access APIs by CMS-regulated payers, and are proposed for provider access, payer-payer exchange, and prior authorization APIs by CMS-regulated payers." (emphasis mine)

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RCE Focus on FHIR

- "Network exchange is essential to business-to-business (B2B) clinical interoperability"
  - Simple
  - High-volume
  - High-reliability
  - High-trust exchange patterns
  - Scalable
  - Secure
  - Well-established
- "Many elements in TEFCA were built to support existing network exchange"
- "TEFCA components such as endpoint directories, record location services, and security certificate
- infrastructure can dramatically enhance the scalability of currently deployed FHIR APIs to meet
- the demands of the network exchange built on TEFCA."

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Technical Approach

- QHIN-to-QHIN FHIR Exchange
  - Allows for FHIR between QHINs
  - Does not mandate FHIR for internal networks
- End-to-End FHIR Exchange
  - FHIR exchange directly between TEFCA members
  - Includes use of the QHIN as an intermediary
  - Focus of future research
- FHIR is permitted on day one of TEFCA exchange
  - Not profiled or defined by the QTF
  - Private agreements are indicated
  - Would use FHIR payloads in IHE transactions

Planned Stages of FHIR Availability in TEFCA

- Each stage will be supported by a new version of the QTF and managed via the change management process in the Common Agreement.

The roadmap envisions four stages of FHIR exchange in TEFCA. Requirements for each stage build on the previous stage:

- Stage 1: FHIR Content Support
  – Included as part of the initial launch of TEFCA.
  – QHIN-brokered IHE exchange of FHIR payloads between QHINs available.

- Stage 2: QHIN-Facilitated FHIR Exchange
  – QHIN support for facilitated FHIR API exchange required.
  – Participant and Subparticipant exchange via FHIR APIs available.

- Stage 3: QHIN-to-QHIN FHIR Exchange
  – Support for exchange between QHINs via FHIR APIs required.

- Stage 4: End-to-End FHIR Exchange
  – Support for QHIN-brokered FHIR Exchange between Participants and Subparticipants.

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Stage 1: FHIR Content Support

- Available from "day one" of TEFCA Trusted Exchange

- Based in XCA IHE profiles

- HL7 C-CDA R2 Implementation Guide

- FHIR content is allowed, but not profiled

- Requires private agreements

- Thus not interoperable at scale
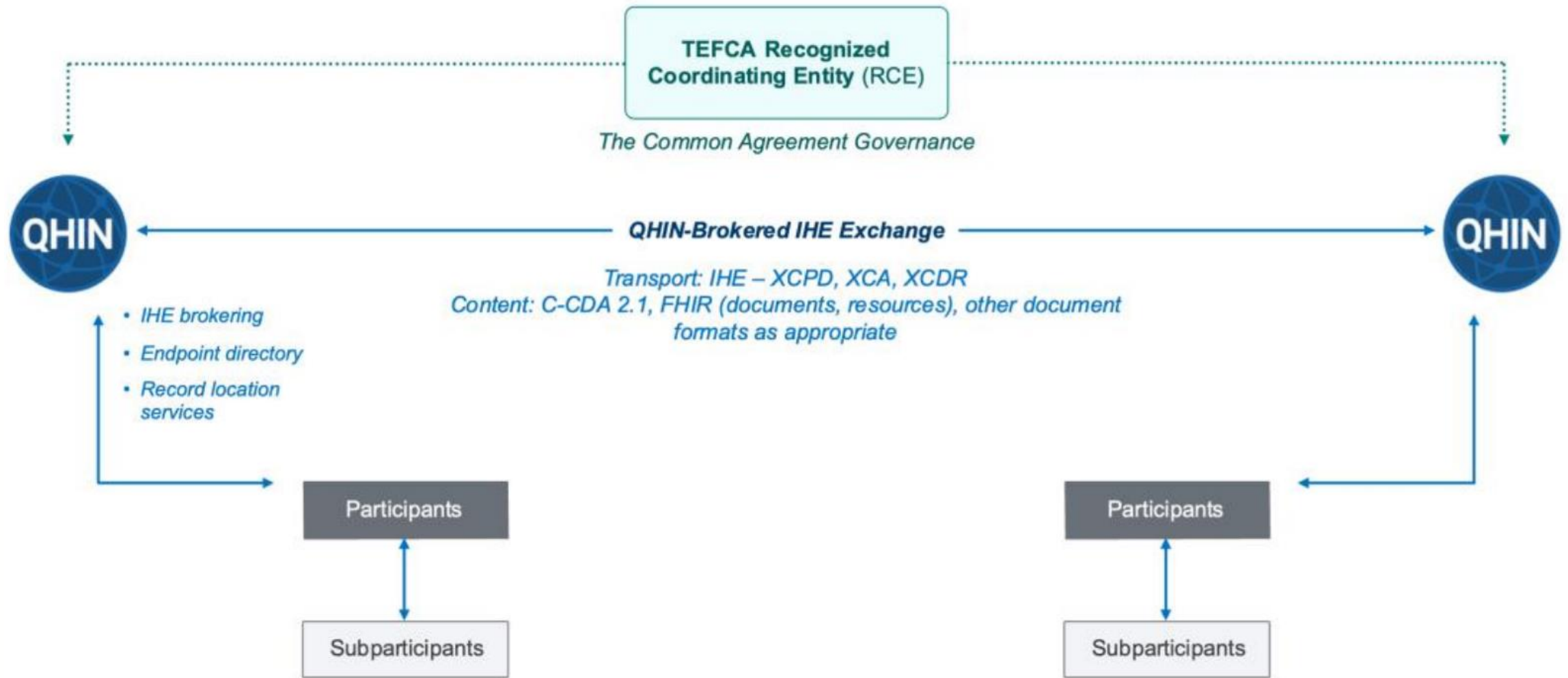
Stage 2: QHIN-Facilitated FHIR Exchange

- Work by the ONC commenced in 2023
- Leverages ONC requirements for FHIR APIs in certified EHRs by the end of CY 2022
- Acknowledges that direct end point to end point exchanges are occurring now
- Current exchange could be bolstered by:
  - FHIR endpoint directory
  - Record location services
  - Security certificate infrastructure
  - Uniform contracting
  - Transparent rules-of-the-road
- HL7 Connectathon tested
- QHINs must support both IHE XCA exchange and QHIN-Facilitated FHIR Exchange

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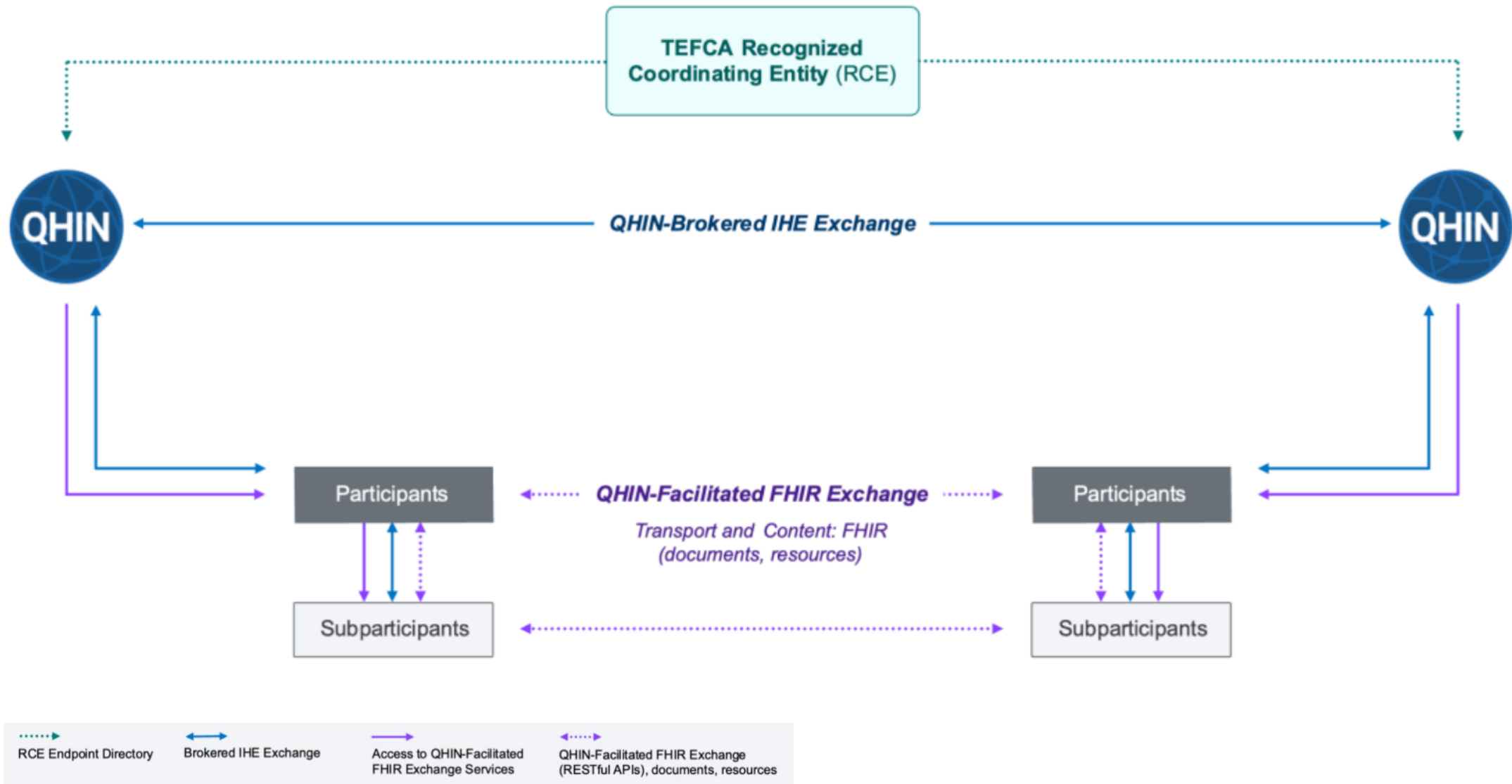
Stage 2: RCE Identified Work Items

- Adjustments needed to support FHIR exchange

- Any needed additional technical specifications

- QHIN FHIR API security infrastructure

- Overall trust model

- FHIR endpoint directory

- Patient matching

- Record locator services

- Identification verification services

- Issuing certificates

- Dynamic client registration

- Other potential services.

Stage 3: QHIN-to-QHIN FHIR Exchange

- Will build on TEFCA FHIR Stage 2
- Introduces brokered FHIR-based exchange between QHINs
- Enables QHINs to leverage FHIR-based exchange between QHINs
- Allows non-FHIR approaches within the QHINs' internal networks
- QHINs must support QHIN-Facilitated FHIR Exchange too
- Expected to require an update to the QTF
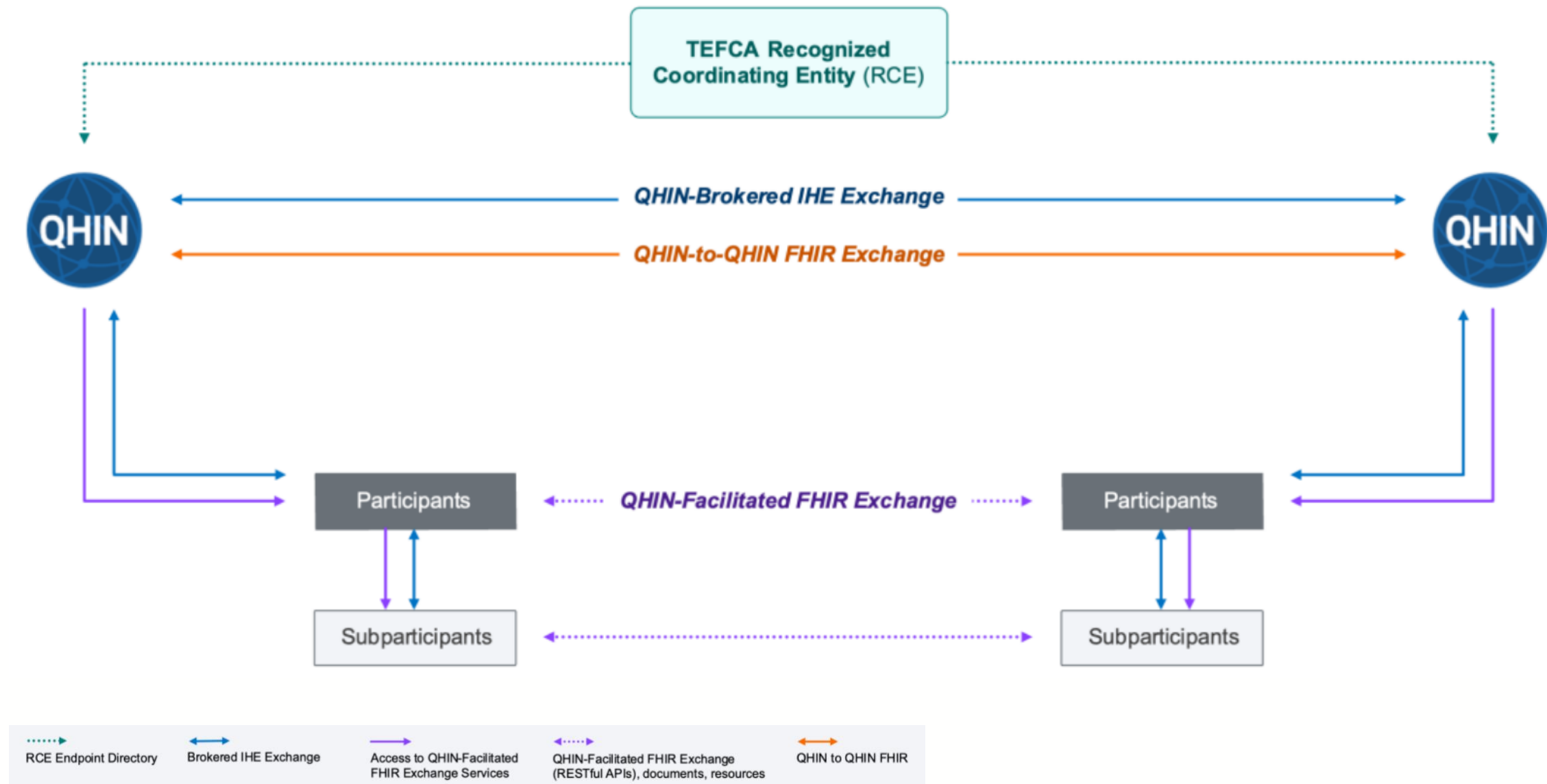
Stage 3 RCE Identified Work Items

- Pilots expected in CY 2025

- IGs will be developed soon after the pilots are completed

- Updated QTF

- Updated infrastructure by QHINs and the RCE during CY 2026

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Stage 4: End-to-End FHIR Exchange

- "Intended to permit a Participant/Subparticipant to seamlessly exchange FHIR data between themselves and other network members through the QHINs and multiple other intermediaries both within a QHINs' network and through the TEFCA-governed network"

- RCE states this requires significant development

- Security

- Privacy

- Data preservation

- Multiple intermediaries creates new challenges:
  - Privacy
  - Security
  - Performance

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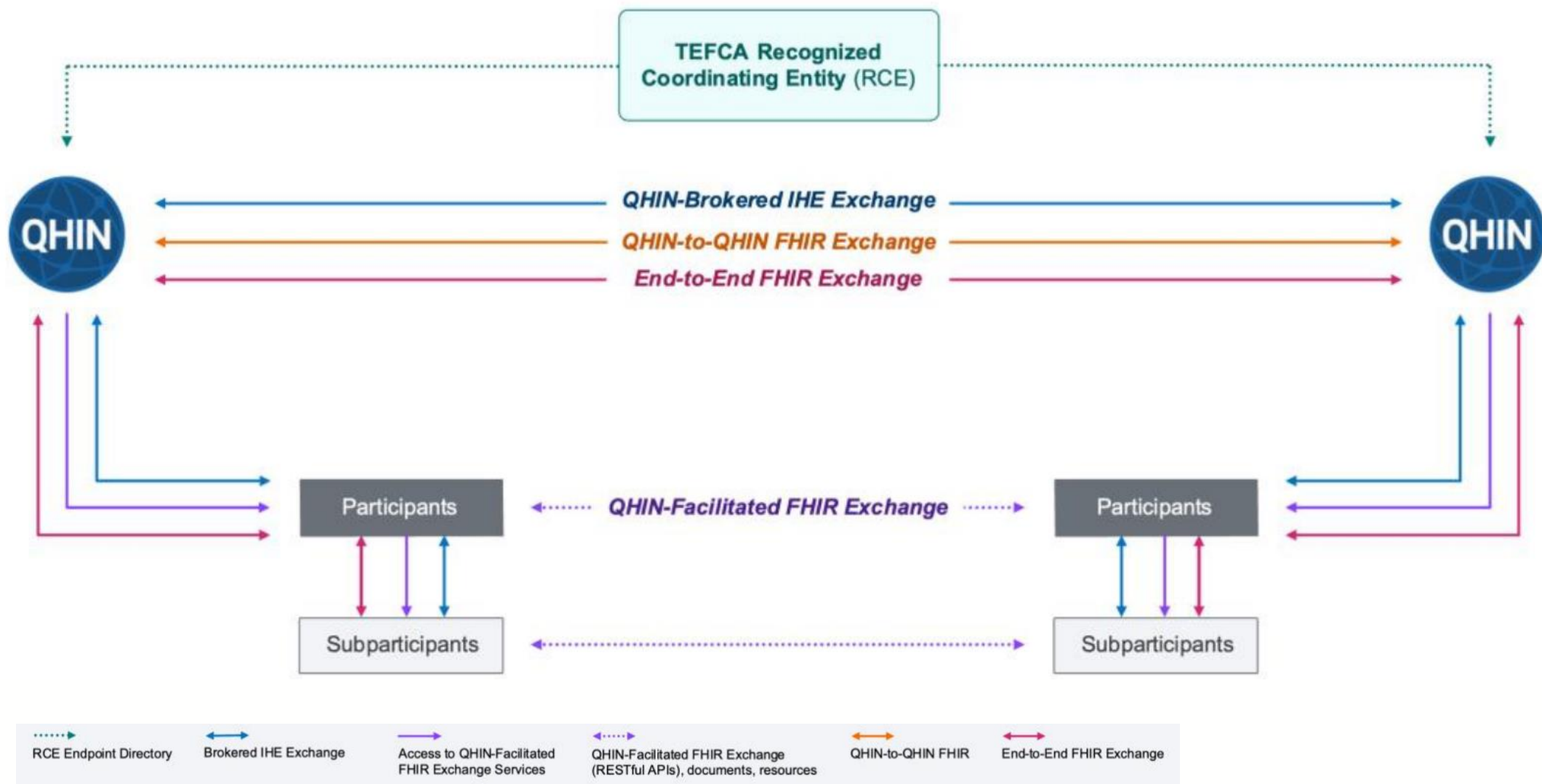
Stage 4 RCE Identified Work Items

- Research into optimal methods for secure exchange
- Pilot with TEFCA users
- Driven by market needs in
  - QHIN-Facilitated
  - QHIN-to-QHIN FHIR Exchange methods
- Adapted future FHIR Roadmap
- Developed under TEFCA's collaborative participation and governance process

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Next Steps

- RCE has launched working groups
  - Update the QTF
  - Further develop the use of FHIR
  - QHIN-Facilitated
  - QHIN-to-QHIN
  - End-to-End FHIR
- "Experience gained regarding standards, workflows, implementation/operations, and market needs will inform any necessary future adjustments to the timeline detailed later in this document."
- "TEFCA approach to governance, oversight, and QHIN-based architecture will remain"
- eHealth Exchange analysis

Source: https://rce.sequoiaproject.org/wp-content/uploads/2023/12/FHIR-Roadmap-for-TEFCA-Exchange.pdf

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TEFCA QHIN Technical Readiness Roadmap

Technical Readiness for TEFCA

1. Review QTF Requirements — Jan 22

2. Hub Gap Analysis — Jun 22

3. Contracting — Aug 22

4. Planning & Initiation — Sep 22

Nov 22

We are here

7. Refine/ Retest

8. Pre-Prod Testing — Nov 2023

9. Designation/ Go Live — TBD

Phase	Accomplishments	
1. Thru 4.	QTF review and gap ana...	...planning and initiation
5.	MVP Customizations Co... (required to mitigate ga...	...might not be able to accommodate)
6.	Conformance Testing	
7.	Operationalize director...	
8.	• Obtained access to RCE Stage directory, and populated and consumed to eHx QHIN Stage directory • Completed bi-directional PD/QD/RD/XCDR non-prod testing with Health Gorilla and MedAllies Candidate QHINs • In process of non-prod testing with Epic and KONZA Candidate QHINs • Testing with initial eHx QHIN Participants • Developed Pre- and Post- Live technical checklist	

UPDATED

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Technical Readiness for TEFCA

Completed | **In Progress** | Planned

1. Review QTF Requirements — Jan 22

2. Hub Gap Analysis — Jun 22

3. Contracting — Aug 22

4. Planning & Initiation — Sep 22

5. Build — Nov 22

6. Conformance Testing

7. Refine/Retest

8. Pre-Prod Testing

9. Designation

10. Go Live

Phase	Accomplishments
1. Thru 8.	All Phases up to and including non-prod partner testing with other Candidate QHINs completed. Attestation of completion of all requirements for designation submitted to the RCE.
9.	**The eHealth Exchange was promoted to Designated QHIN status at the December 12th TEFCA QHIN Designation event !!!**
10.	eHealth Exchange has decided to have a January 2024 go-live. Target date is *National Show & Tell Day* [1]. Jay's related message to ONC and RCE: "Since there are only 8 business days between the QHIN Designation event and Federal holiday closures, if designated on 12/12/2023, eHealth Exchange plans to install TEFCA production certificates and have our system begin consuming RCE directory entries in December, but we wouldn't populate the RCE directory with a designated QHIN entry, which can trigger TEFCA PHI exchange, until January when other designated QHINs, our participants, vendors, the RCE, and ONC are fully staffed and regenerated to address potential Production issues."

[1] January 8th - https://www.daysoftheyear.com/days/show-tell-at-work-day/

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DESIGNATED QHIN

TEFCA Readiness Checklist Updates

For More TEFCA eHealth Exchange Information

- **https://ehealthexchange.org/what-we-do/tefca-and-ehealth-exchange/**

Q&A/Open Discussion

For More Information

Major Technical Differences eHealth Exchange QHIN Participants Must Support

1. Adopt USDCI v1 data classes and elements

2. Adhere to the Concise Consolidated CDA 1.1 Specification

3. Adhere to Project US@ patient addressing

4. Adopt IHE ITI Technical Framework Revisions 17.0 (versus Revision 8.0)

5. Accept aggregated XCPD responses

6. Various requirements such Purpose Of Use values, different consent attribute structure, sub-participant directory entries and detailed reporting, onboarding log submissions, specific test patients, and quarterly reporting.

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Next Steps

1. Review the published policy documents (not discussed today)
2. Review the TEFCA Readiness Checklist
3. Let the eHealth Exchange staff know of your organization's intentions (if you haven't already)

email: administrator@ehealthexchange.org

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How might I obtain additional information?

How	When	Where
1. Visit eHealth Exchange Web Site	Any time	https://ehealthexchange.org/what-we-do/tefca-and-ehealth-exchange
2. Monthly Participant Web Meetings	Typically, the 3rd Thursday of Each Month at 1 pm ET	https://ehealthexchange.org/events
3. Monthly TEFCA Technical Call	~~Dec 12, 2023~~, more dates coming soon!	https://ehealthexchange.org/events
4. Email	Any time if you have a specific question	administrator@ehealthexchange.org
5. TEFCA Office Hours (Q&A)	~~10/25, 11/29, 12/11~~, 1/8, 1/24	administrator@ehealthexchange.org

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