



**Enhancing  
Industry  
Interoperability:  
CAQH CORE  
Connectivity  
Operating Rules**

July 22, 2020

2:00-3:00 pm EST

# Agenda

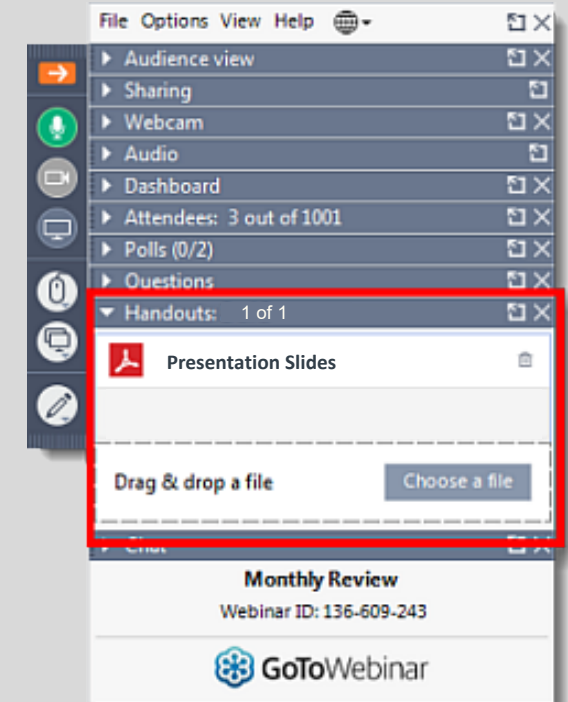
- CAQH CORE Overview and Industry Update
- Existing CAQH CORE Connectivity Rule Requirements
- CAQH CORE Connectivity Rule Update
- Q&A

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# Speakers

## **Patrick Murta**

Chief Interoperability  
Architect & Fellow,  
Enterprise Architecture,  
Humana

Co-Chair of the CAQH  
CORE Connectivity &  
Security Work Group

## **Robert Bowman**

CAQH CORE Director

## **Emily TenEyck**

CAQH CORE Manager

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# CAQH CORE Overview and Industry Update

**Robert Bowman**  
CAQH CORE Director

# CAQH CORE Mission/Vision & Industry Role

Industry-led, CAQH CORE Participants include healthcare providers, health plans, vendors, government entities, associations and standard-setting organizations. Health plans participating in CAQH CORE represent **75 percent of the insured US population**.

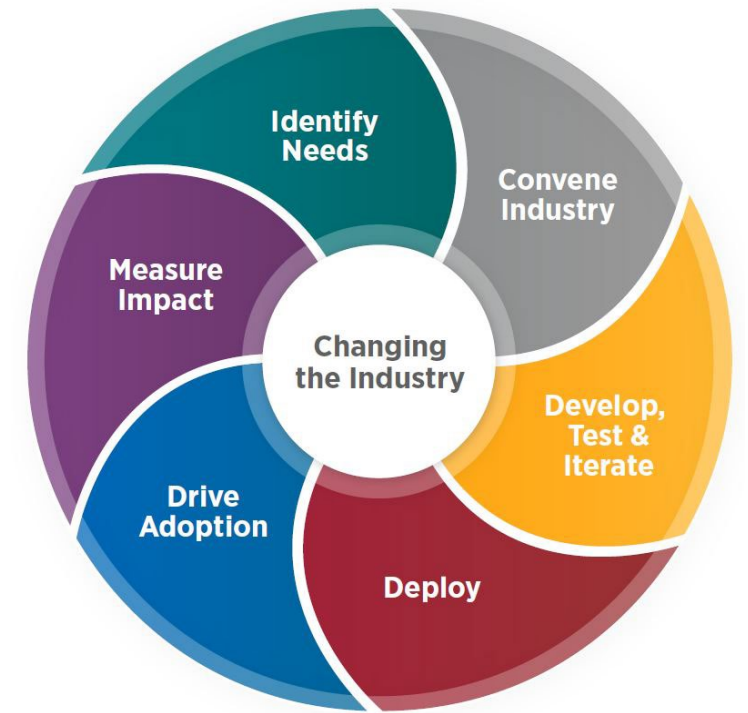
**MISSION** Drive the creation and adoption of healthcare operating rules that **support standards, accelerate interoperability and align administrative and clinical activities** among providers, payers and consumers.

**VISION** An **industry-wide facilitator** of a trusted, simple and sustainable healthcare data exchange that evolves and aligns with market needs.

**DESIGNATION** CAQH CORE is the **national operating rule author to improve the efficiency, accuracy and effectiveness of industry-driven business transactions**. The Department of Health and Human Services (HHS) designated CAQH CORE as the author of national operating rules for the HIPAA-covered administrative transactions.

**INDUSTRY ROLE** **Develop business rules to help industry** effectively and efficiently use electronic standards while remaining technology- and standard-agnostic.

**CAQH CORE BOARD** **Multi-stakeholder.** Members include health plans, providers (some of which are appointed by associations such as the AHA, AMA, MGMA), vendors, and government entities. Advisors to the Board include SDOs (X12, HL7, NACHA, NCPDP) and WEDI.



# CAQH CORE Operating Rule Overview

	Infrastructure	Data Content	Other	Connectivity Rule Application
<b>Eligibility &amp; Benefits</b>	Eligibility (270/271) Infrastructure Rule*	Eligibility (270/271) Data Content Rule*		Connectivity Rule vC.1.1.0 (PI)* Connectivity Rule vC.2.2.0 (PII)*
<b>Claim Status</b>	Claim Status (276/277) Infrastructure Rule*			Connectivity Rule vC.2.2.0 (PII)*
<b>Payment &amp; Remittance</b>	Claim Payment/ Advice (835) Infrastructure Rule*	EFT/ERA 835/CCD+ Data Content Rule*	EFT/ERA Enrollment Data Rules*	
<b>Prior Authorization &amp; Referrals</b>	Prior Authorization (278) Infrastructure Rule**	Prior Authorization (278) Data Content Rule**	Prior Authorization Web Portal Rule	
<b>Health Care Claims</b>	Health Care Claim (837) Infrastructure Rule			Connectivity Rule vC.3.1.0 (PIV)**
<b>Benefit Enrollment</b>	Benefit Enrollment (834) Infrastructure Rule			
<b>Premium Payment</b>	Premium Payment (820) Infrastructure Rule			

Rule Set

CAQH CORE is proposing Connectivity Rule vC3.1.0 be adopted to replace existing federal mandates for vC1.1.0 and vC2.2.0 for eligibility, claim status, and ERA transactions.

**End Goal: Single Connectivity Rule across rule sets**

\*Indicates rule is federally mandated.

\*\*Indicates rule was proposed in 2020 to NCVHS for federal mandate.

# CAQH CORE Rule Package for NCVHS/HHS Consideration

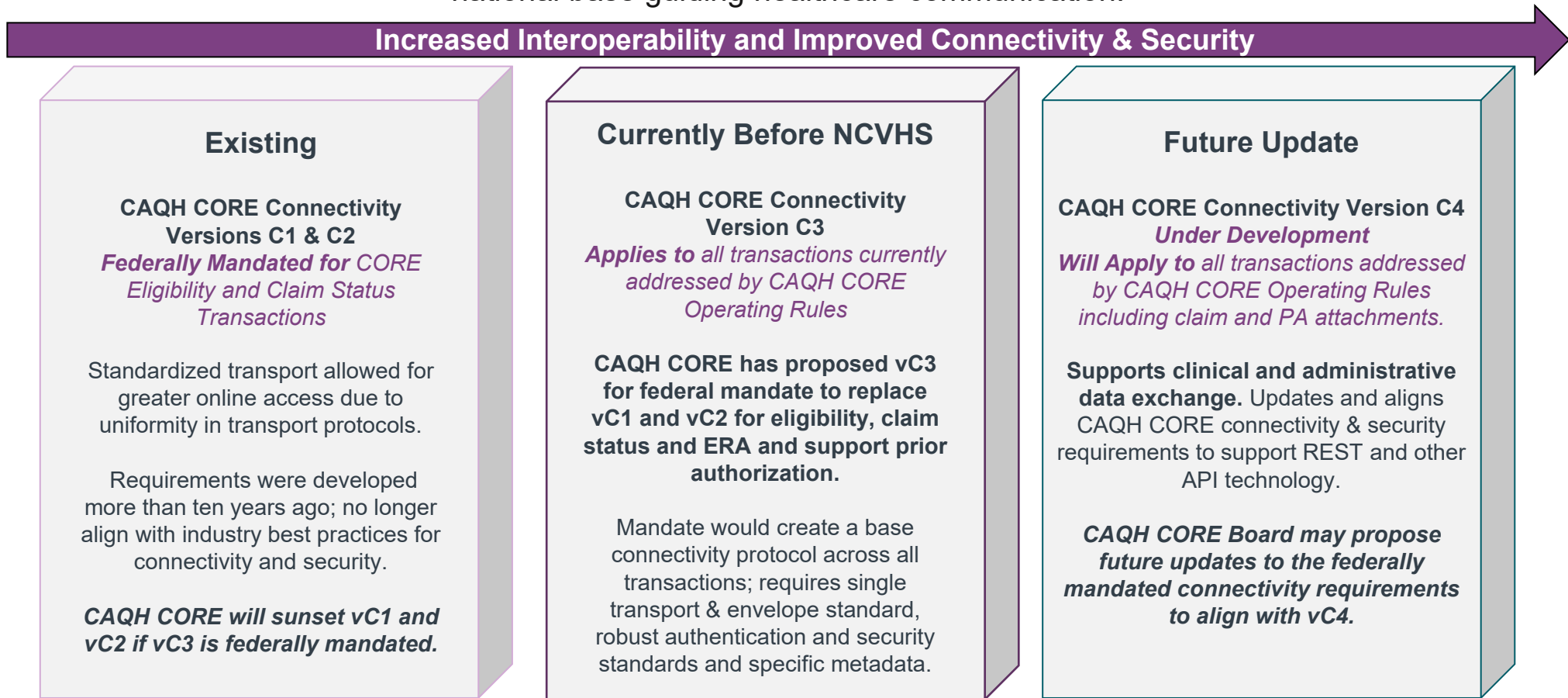
## *Prior Authorization & Connectivity Operating Rules Increase Value & Use of Electronic Transactions*

- In February 2020, the CAQH CORE Board sent a [letter](#) to NCVHS proposing a CAQH CORE Prior Authorization and Connectivity Operating Rules package for recommendation to the HHS Secretary for national adoption under HIPAA that includes:
  1. [CAQH CORE Prior Authorization & Referrals \(278\) Data Content Rule vPA.1.0](#)
  2. [CAQH CORE Prior Authorization & Referrals \(278\) Infrastructure Rule vPA.2.0](#)
  3. [CAQH CORE Connectivity Rule vC3.1.0](#)
  
- The Board proposed this rule package for federal mandate for three reasons:
  - The prior authorization operating rules address a pressing need to improve automation and timeliness of the prior authorization process.
  - The connectivity operating rule enhances security and promotes uniform interoperability requirements across administrative transactions.
  - These operating rules set the stage for future operating rules to further enable the critical convergence of administrative and clinical data and support the use of new technologies with existing standards.
  
- In June 2020, CAQH CORE sent a [letter](#) updating NCVHS on the re-structuring of the operating rules and the impact on the proposed rule set.
  
- An [NCVHS Hearing](#) on the proposed rule package is scheduled for August 25-26 in Washington, D.C. [Public comments](#) may be submitted to NCVHS by July 24.



# CAQH CORE Connectivity Roadmap

The CAQH CORE Connectivity Rules address connectivity and security of administrative and clinical data exchange and establish a national base guiding healthcare communication.



CAQH CORE Participants will continue to **update and maintain the Connectivity Rule at regular intervals** over time to align with current interoperability, privacy and security standards.

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# Existing CAQH CORE Connectivity Rule Requirements

Emily TenEyck  
CAQH CORE Manager

# CAQH CORE Connectivity

## Key Features & Definitions

### Connectivity

- Generic term for **connecting devices** such as computers, information systems or networks to **facilitate data access and exchange**.
- Addresses a variety of **protocols and standards**.
- The healthcare industry employs a **variety of communication modes**, each of which has its own protocols or standards.

Features	Definitions	Examples
Network	A group of two or more computer systems linked together	Public Internet
Transport Layer	OSI model responsible for end-to-end communication over a network	HTTP over TCP
Transport Security	Protocol used to secure web (HTTPS) connections	Secure Sockets Layer (SSL) Transport Layer Security (TLS)
Message Envelope(s)	Specification for enclosing transmitted data	MIME Multipart SOAP + WSDL
Message Envelope Metadata	Information about the sender, receiver, and destination of a message	CORE Specified Message Envelope Metadata
Message Interactions	Methods computers use to communicate with each other	Real Time, Batch, Generic Push and Pull Interactions
Submitter (Client) Authentication	Verification that submitting system credentials match the credentials for the receiving system	X.509 Digital Certificate Tokens/OAuth Username + Password
Payloads	Transmitted data that is the actual intended message	ASC X12 Administrative Transactions NCPDP, HL7 v2.x or v3 Messages Other

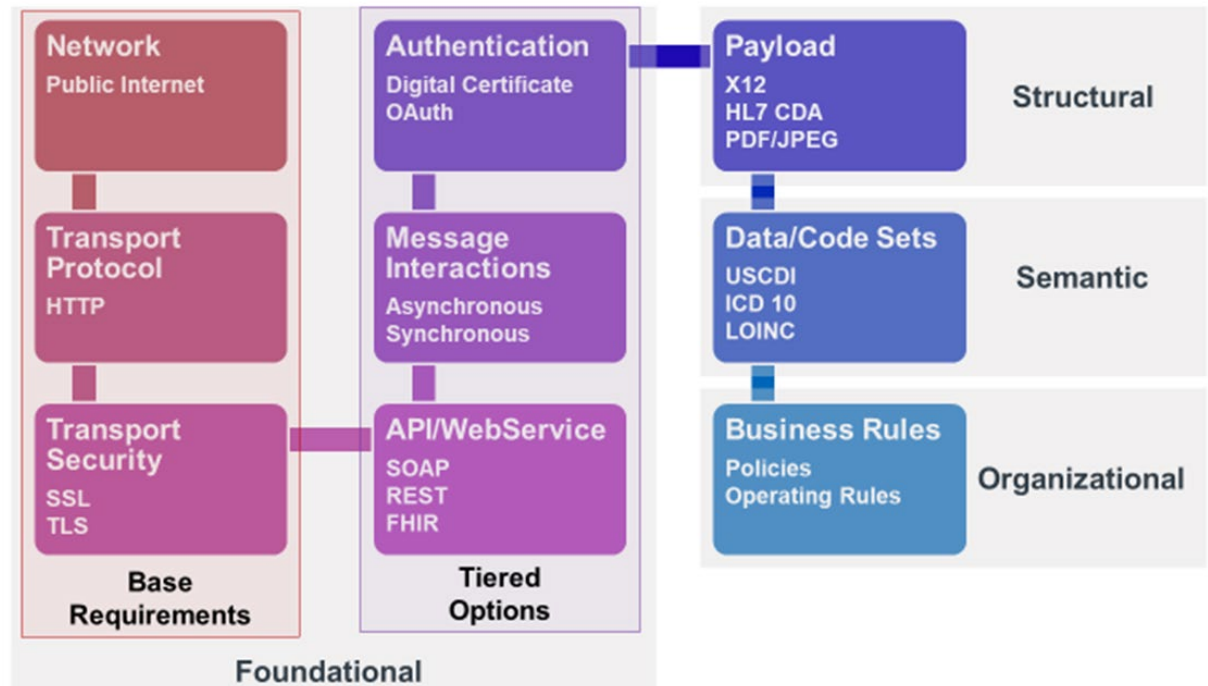
# CAQH CORE Connectivity to Advance Interoperability

*Connectivity enables the transport of information to support data exchange.*

Health information technology interoperability is characterized by the needs and opportunities of a particular segment of the data exchange:

- **Foundational interoperability** is the capability of a system to transfer data to and from another system.
- **Structural interoperability** refers to the capacity to preserve the original composition or syntax of healthcare data as it moves between systems.
- **Semantic interoperability** is the ability of two or more systems to enter a data exchange and use the information transferred -- leverages data structure against a common vocabulary.
- **Organizational interoperability** refers to the policies and governance needed to support the smooth exchange of data.

## CAQH CORE Connectivity – Potential Interoperability Approach



# Evolution of CAQH CORE Connectivity Requirements

## Rule Evolved to Align with Industry Best Practices for Security and Connectivity

Given large install base of vC2.2.0 due to current federal mandates, implementation costs for vC.3.1.0 will be limited due to commonalities in transport, envelope, authentication standards, and metadata. Implementation costs may be further reduced given the single submitter authentication standard.

Connectivity Rule Area	CAQH CORE Connectivity vC.1.1.0	CAQH CORE Connectivity vC.2.2.0	CAQH CORE Connectivity vC.3.1.0
<b>Network</b>	Internet	Internet	Internet
<b>Transport</b>	HTTP	HTTP	HTTP
<b>Transport Security</b>	SSL	SSL 3.0 with optional use of TLS 1.x	SSL 3.0, or optionally TLS 1.1 or higher Entities that must also be FIPS 140-2 compliant or that require stronger transport security may implement TLS 1.1 or higher in lieu of SSL 3.0
<b>Submitter (Originating System or Client) Authentication</b>	Name/Password	UserName + Password OR X.509 Digital Certificate	X.509 Digital Certificate based authentication over SSL/TLS <i>Removed Username + Password</i>
<b>Envelope and Attachment Standards</b>	Unspecified	SOAP 1.2 + WSDL 1.1 and MTOM (for Batch) OR HTTP+MIME	SOAP 1.2 + WSDL 1.1 and MTOM (for both Real Time and Batch) <i>Removed HTTP+MIME</i>
<b>Envelope Metadata</b>	Unspecified	Metadata defined (Field names, values) (e.g., <i>PayloadType, Processing Mode, Sender ID, Receiver ID</i> )	Metadata defined (Field names, values) (e.g., <i>PayloadType, Processing Mode, Sender ID, Receiver ID</i> ) SHA-1 for Checksum FIPS 140-2 compliant implementations can use SHA-2 for checksum.
<b>Message Interactions/ Routing</b>	Real-time Batch (Optional if used)	Real-time Batch (Optional if used)	Batch and Real-Time processing requirements defined for each transaction Generic push and pull interactions
<b>Acknowledgements, Errors</b>	Specified	Enhanced vC1.1.0, with additional specificity on error codes	Errors Codes updated
<b>Basic Conformance Requirements for Client/Server Roles</b>	Minimally specified	Well specified	Well specified
<b>Response Time</b>	Specified	Maintained vC1.1.0 time requirements	Maintained vC1.1.0 time requirements
<b>Connectivity Companion Guide</b>	Specified	Enhanced vC1.1.0, with additional recommendations	Enhanced vC1.1.0, with additional recommendations

# Benefits of CAQH CORE Connectivity vC.3.1.0 over vC.2.2.0



**Single standard:** Reduces complexity and simplifies interoperability by requiring the SOAP + WSDL envelope standard and establishes more robust and uniform support for handling transaction payload by requiring MTOM for SOAP for both real time and batch processing modes.



**Improved Security:** By requiring use of X.509 Client Certificate-based authentication and removing the security vulnerable username + password, implementors benefit from a more robust and industry standard security. Additionally, provides support for FIPS 140-2 compliance for entities requiring such compliance, in terms of transport security and message envelope security.



**Additional transaction standard support:** Provides support for additional transactions relative to the previous rules, including prior authorization in addition to eligibility, claim status, and electronic remittance advice.



**Safe Harbor:** The CAQH CORE Connectivity safe harbor specifies that application vendors, clearinghouses, providers, and health plans can be assured CAQH CORE Connectivity will be supported by any HIPAA covered entity and/or a CORE-certified entity, meaning the entity is capable and ready at the time of the request by a trading partner to exchange data using the CAQH CORE Connectivity Rule. The rule does not require entities to remove existing connections. For example, while the X.509 digital certificate must be used if requested by a trading partner, the rule clearly state there is no requirement to use a CAQH CORE-compliant method if trading partners agree to use different security requirements, e.g., a virtual private network (VPN) or secure file transfer protocol (SFTP).



**Improves Messaging and Error Reporting:** Enhances the communication of errors with updated error codes.

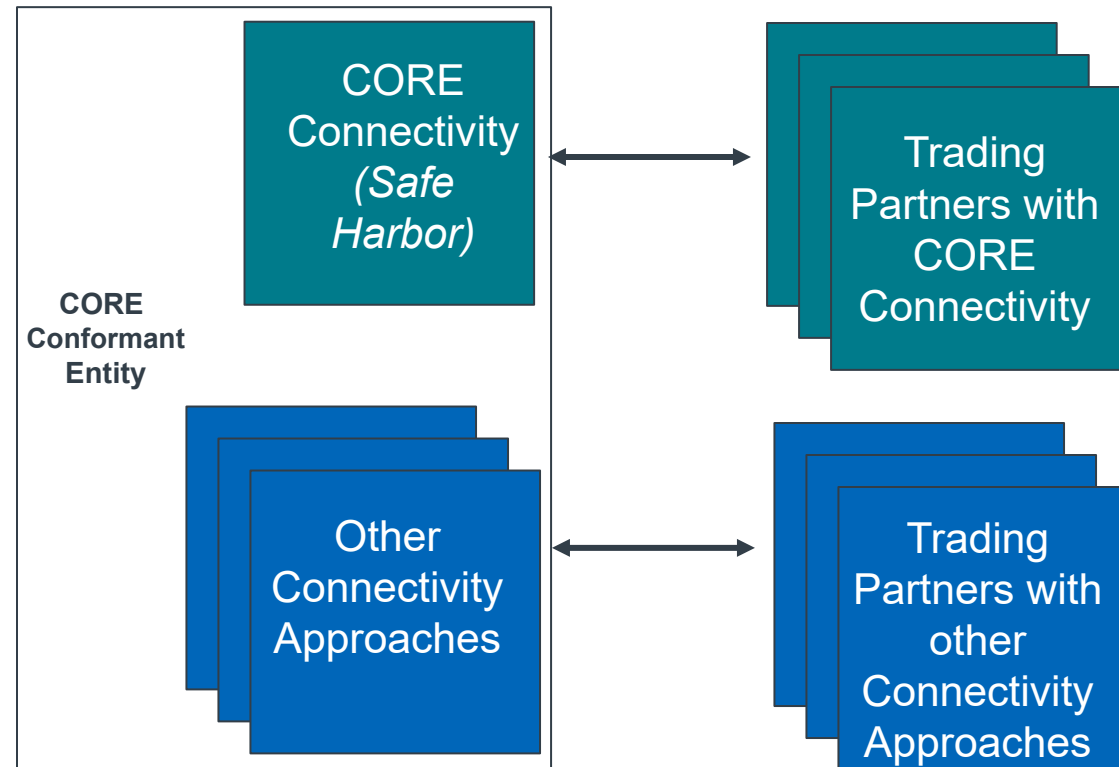
# CAQH CORE Connectivity

## Safe Harbor Principle

Using the Internet as a delivery option establishes a **Safe Harbor connectivity method** that application vendors, providers, and health plans can be assured will be supported by any HIPAA covered entity, meaning that the entity is capable and ready to exchange data at the time of a request by a trading partner using the CAQH CORE Connectivity Rule.

The Safe Harbor connectivity method enables trading partners to:

- Use **different communications & security methods** than what is specified in rule
- **Does not require discontinuation of any existing connectivity methods** that do not conform with CAQH CORE Operating Rules.



# Polling Question #1

**Which CAQH CORE Connectivity benefits are most important to your organization? (Select all that apply)**

- Reduces Complexity (Single Standard)
- Improved Security
- Additional Transaction Standard Support
- Safe Harbor
- Improved Messaging and Error Reporting



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# CAQH CORE Connectivity Rule Update

**Patrick Murta**

Chief Interoperability Architect & Fellow, Enterprise Architecture, Humana  
Co-Chair of the CAQH CORE Connectivity & Security Work Group

# CAQH CORE Connectivity Update

## *Aligning Connectivity Requirements to Support Industry Advancement*

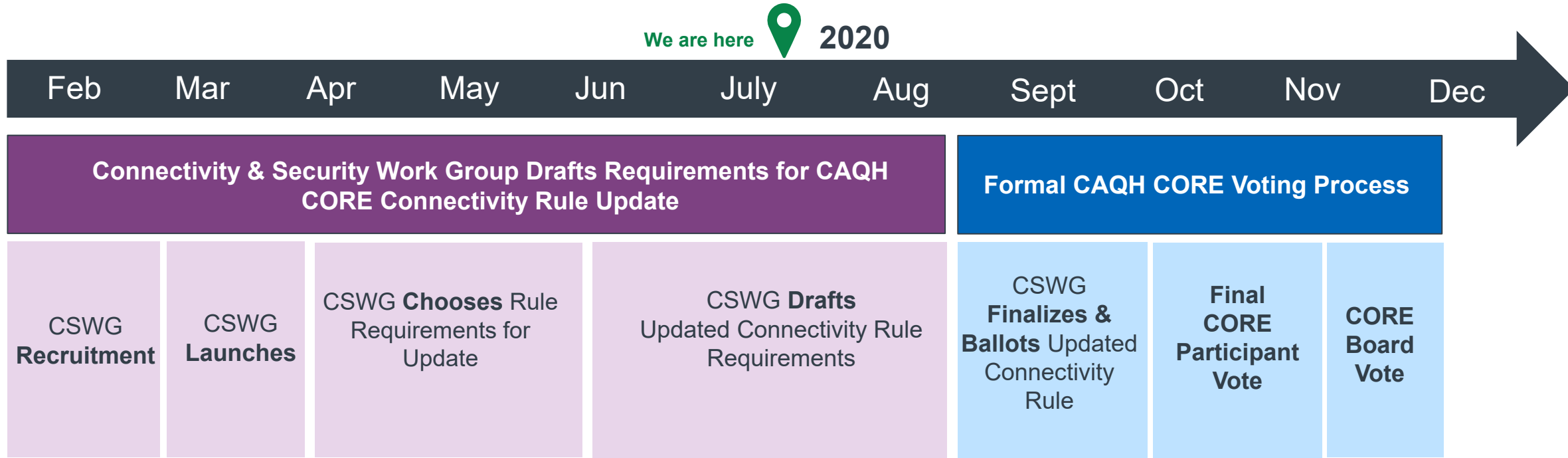
### CAQH CORE Connectivity Rule Update Goals:

- Align the CAQH CORE Connectivity Rule to support frameworks proposed in the **CMS and ONC interoperability rules and modernize the CORE Connectivity Requirements.**
  - Establish a **Safe Harbor** that aligns with existing IT implementations and supports emerging approaches for exchanging data.
  - Develop a **CAQH CORE Connectivity Rule** that support the intersection of administrative and clinical data exchange.
- 

### Specific Draft Connectivity & Security Requirement Updates:

- Require the use of **public internet** and **web services for connectivity** and **TLS v1.2 or higher for security.**
- Define **submitter authentication and authorization methods** to establish trust within an attachment exchange such as **X.509 Digital Certificates** and **OAuth 2.0.**
- Add support for **REST APIs** and the exchange of **Attachments transactions.**

# CAQH CORE Connectivity & Security Work Group Roadmap



**NOTE:** Timeline may be subject to adjustments based on Work Group needs. New connectivity rule will support/align with other new operating rules developed in 2020/2021, (e.g. attachments, value-based payments) per the CAQH CORE Roadmap.

# Provide for Updated, Consistent Connectivity Modes for Data Exchange

CAQH CORE proposed to NCVHS that the **CAQH CORE Connectivity Rule vC.3.1.0** replace current regulations mandating support for **CAQH CORE Connectivity Rules vC.1.1.0 and vC.2.2.0** for the eligibility and benefits, claim status, and electronic remittance advice transactions in addition to prior authorization, to promote uniform interoperability requirements across administrative transactions.

## Proposed to NCVHS: CAQH CORE Connectivity Rule vC.3.1.0

*Establishes a Safe Harbor Connectivity Method that drives industry alignment by converging on common Connectivity standards and requirements.*

### Key Existing Connectivity Requirements:

- Support for **Simple Object Access Protocol (SOAP)\*** based web services with specific metadata, message structure, and error handling
- Use of **HTTPS\* (SSL 3.0, or optionally TLS 1.1 or higher** for compliance with FIPS 140-2 TLS 1.1 or higher in lieu of SSL 3.0) over the **Public Internet TCP/IP\***
- Establishes a **Safe Harbor** Connectivity Method\*
- **X.509 Digital Certificate** Submitter Authentication (mutual authentication)\*

\* Continue to be supported in the Draft CAQH CORE Connectivity Rule vC4.0.0

## Under Development: Draft CAQH CORE Connectivity Rule vC.4.0.0

*The updates to CORE Connectivity will serve as a bridge between the existing and emerging standards and protocols to ensure industry interoperability needs are met.*

### Updates to Existing CORE Connectivity Requirements Under Consideration:

- Add support for the exchange of **Attachments** transactions
- Specify **TLS 1.2 or higher** for security
- Add **OAuth 2.0** as an authorization standard

### New REST Requirements Under Consideration:

- Support for **Representational State Transfer (REST)** style web resources for X12 and non-X12 exchanges.
- Use of **JSON** to exchange REST messages
- Support for specific **HTTP Methods (e.g. POST and GET)**
- Support for **REST API and CORE Connectivity Rule Versioning**
- Specify **API Endpoint Naming Conventions**

**Future Connectivity Opportunities:** Once a single Connectivity Rule is established across all CAQH CORE operating rule sets, CAQH CORE Participants will continue to update the rule to align with current interoperability, privacy and security standards.

## Polling Question #2

**Does your organization use RESTful APIs for data exchange?**

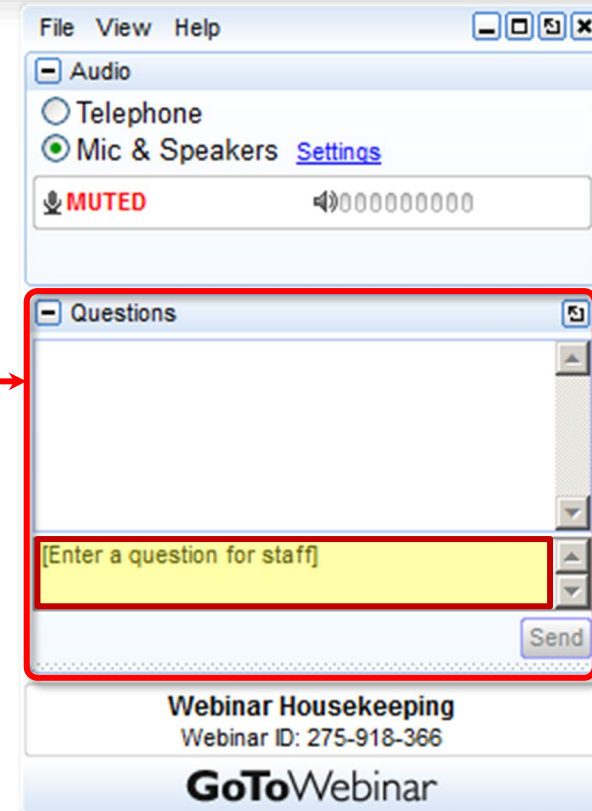
- Yes
- No
- No, but plan to implement

# Audience Q&A

**Please submit your questions**

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# Healthcare administration is rapidly changing.



## Join Us



Collaborate across stakeholder types to develop operating rules.



Present on CAQH CORE education sessions.



Engage with the decision makers that comprise 75% of the industry.



Represent your organization in work groups.

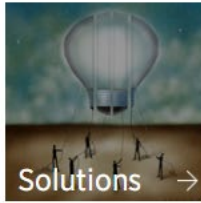
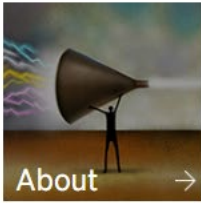


Influence the direction of health IT policy



Drive the creation of operating rules to accelerate interoperability

Click [here](#) for more information on joining CAQH CORE as well as a complete list of Participating Organizations.



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Welcome to the CAQH CORE e-Learning Resources page.



Value-based Payments Opportunity Areas  
October 8, 2019

Use this learning module to learn about the opportunity areas to streamline implementation of Value-based Payment.



CAQH CORE Integrated Model  
October 7, 2019

Click on this Integrated Model to explore how CAQH CORE is changing the industry.

Utilize our [interactive online tools](#) to learn more about the CORE Certification process and the CAQH CORE model.

Explore our [YouTube](#) page to access over 75 CAQH CORE tutorials and webinar recordings.

Listen to a tutorial on the [Phase V Operating Rules](#).

Go to our [FAQs](#) page for answers to questions on topics such as operating rule implementation and CORE Participation.

Read our latest white paper "[The Connectivity Conundrum: How a Fragmented System is Impeding Interoperability and How Operating Rules Can Improve It.](#)"



# Upcoming CAQH CORE Education Sessions and Events



WEDI Forum  
August 4-6, 2020



**Prior Authorization Case Study Webinar**  
August 17 | 2:00-3:00 pm EST

# Thank you for joining us!



Website: [www.CAQH.org/CORE](http://www.CAQH.org/CORE)

Email: [CORE@CAQH.org](mailto:CORE@CAQH.org)

## **The CAQH CORE Mission**

Drive the creation and adoption of healthcare operating rules that support standards, accelerate interoperability and align administrative and clinical activities among providers, payers and consumers.