



**USING THE FHIR PAYER ENDPOINTS DIRECTORY TO IMPROVE ACCESS
TO HEALTHCARE DATA
NOVEMBER 10, 2020**

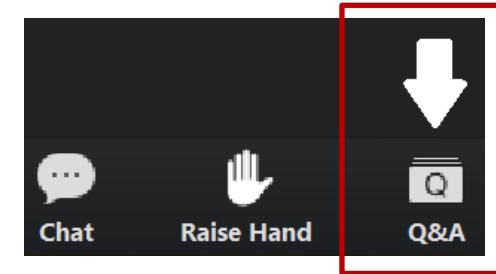
Agenda

- **Welcome & Introductions- 2:00 – 2:05 pm**
 - Jen Covich Bordenick, Chief Executive Officer, eHealth Initiative & Foundation
- **CAQH Overview- 2:05 – 2:15 pm**
 - Robin Thomashauer, President, CAQH
- **Endpoint Directories as a Solution to Interoperability- 2:15 – 2:30 pm**
 - April Todd, Senior Vice President, CORE and Explorations, CAQH
- **Payer Endpoint Registration Demo- 2:30 – 2:45 pm**
 - Ron Urwongse, Director, Strategy and Innovation, CAQH
- **Questions- 2:45 – 3:00 pm**



Housekeeping

- Use the **Q&A** box to ask a question related to the presentation



- Use the chat box is for *technical difficulties* and other questions / comments



- Presentation slides are in the eHI Resource Center
<https://www.ehidc.org/resources>



Our Work

eHI conducts education, thought leadership and advocacy around critical issues to support executives transforming healthcare.





eHealth Initiative Leadership



Booz | Allen | Hamilton



CRISP



EHNAC



EPSTEIN
BECKER
GREEN



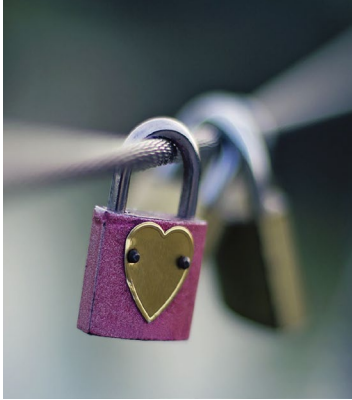
GUNDERSEN
HEALTH SYSTEM



Hogan Lovells



Current Focus Areas



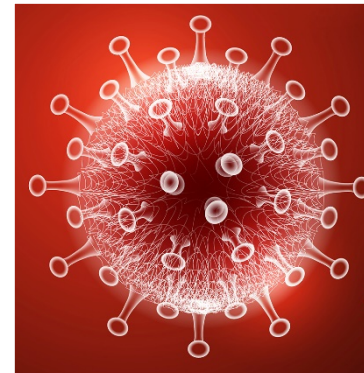
Consumer Privacy



Virtual Care



**Analytics, Social
Determinants of Health
(SDOH) & Artificial
Intelligence**



**Use of Data & Innovation
to Address COVID-19**



Recent Educational Programs

COVID-19

- Rapidly Deployed Remote Monitoring for COVID-19
- How the Pandemic Influences Consumer Health Behavior
- After the Curve Flattens: What's Next for Healthcare and COVID-19

Telehealth & Policy

- Addressing Capacity and Cashflow with Virtual Care
- How to Grow Your Practice with Reimbursement Considerations
- Telehealth during COVID-19: New strategies on how physicians are addressing the outbreak

Privacy

- HIPAA: What's Covered and What's Not Covered?
- Changes to Privacy Policies and Regulations in the Face of the Coronavirus Pandemic - eHI Privacy and Security Webinar Series
- Key Survey Findings from the State of Patient Matching in America

TOMORROW at 1:00 PM

- **Results from Recent Healthcare Executive Survey on Readiness to Meet the CMS Interoperability Rule**



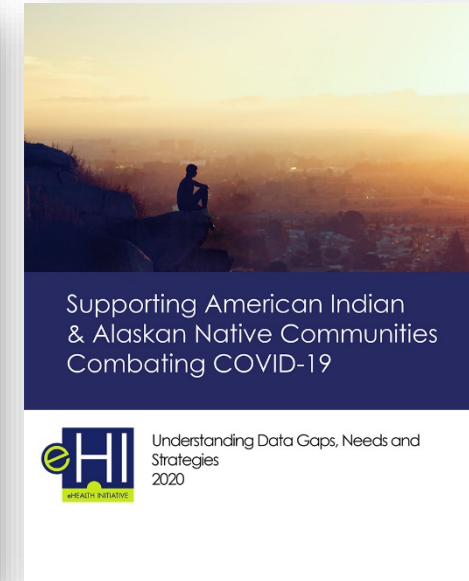
Download Our Latest Work

Recent Reports:

- Building a Modern Healthcare System: Recommendations from the COVID-19 Federal Policy Workgroup
- Supporting American Indian and Alaskan Native Communities During COVID-19

Upcoming Reports:

- Applying eHI's Guiding Principles for Ethical Use of SDOH Data During COVID-19: Examples from the Field
- Consumer Framework for Health Policy



Thank You to Our Sponsor



Email: marcom@caqh.org to follow up directly with CAQH



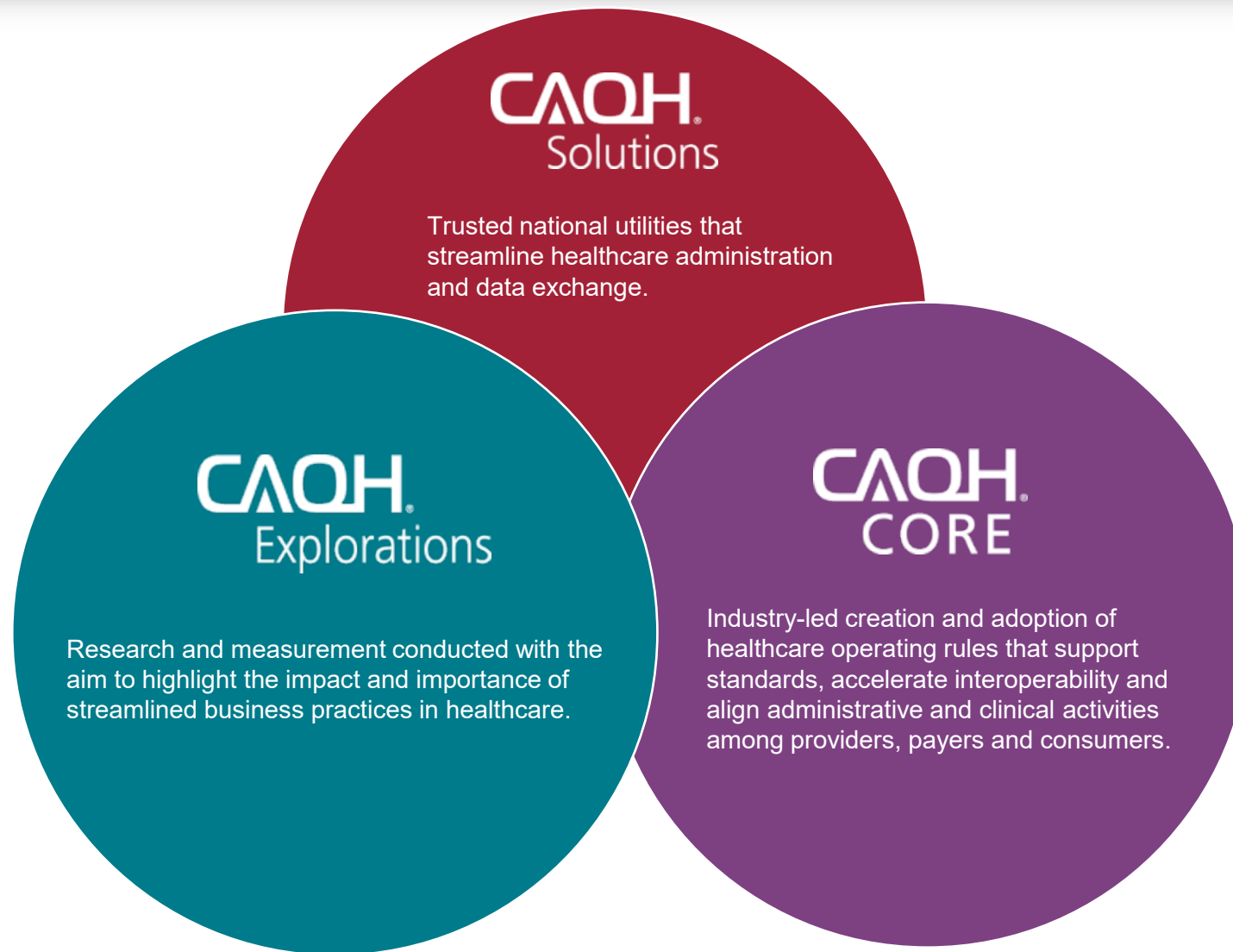


CAQH Endpoint Directory

*eHealth Initiative
Webinar*

November 10, 2020

CAQH initiatives are foundational to healthcare business processes



CAQH collaborates across the healthcare industry

Some of Our Partners At-a-Glance

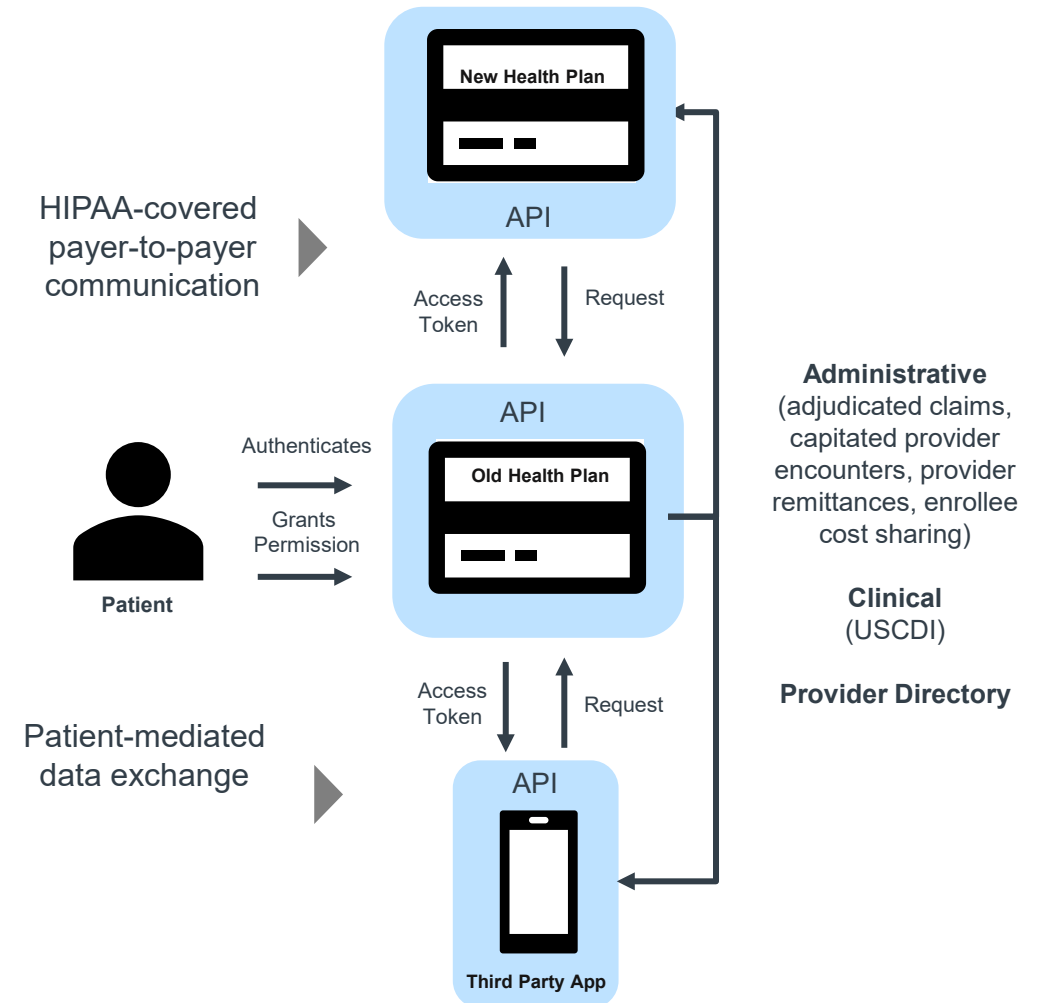


Background

Background

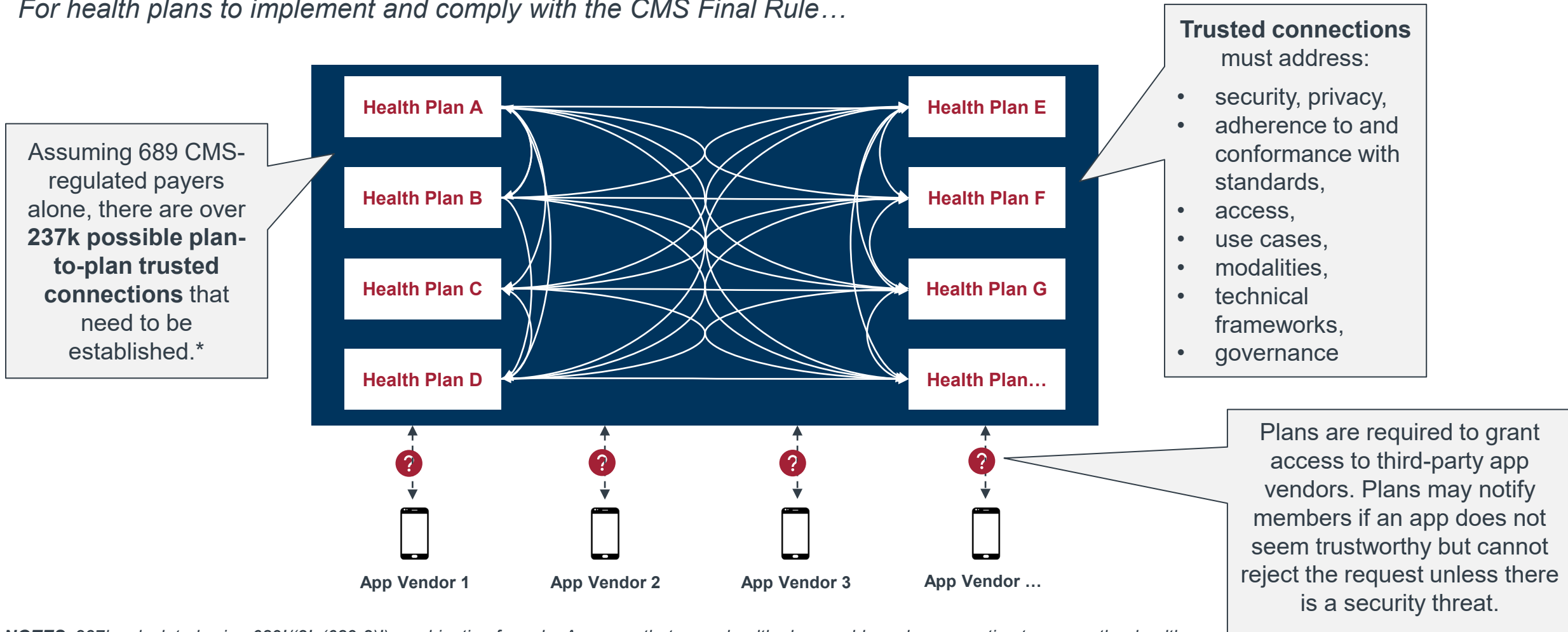
- Centers for Medicare and Medicaid Services released the Final Rule (“CMS Final Rule”) on Interoperability and Patient Access, requiring that CMS-regulated plans:
 - ✓ Implement and maintain openly-published **HL7® FHIR® -based APIs in order to provide patients access** to their health information.
 - ✓ **Permits access to data by third-party applications**, with approval from patient (effective Jan 1, 2021; enforceable Jul 1, 2021).
 - ✓ Support electronic **exchange of data for care coordination as patients move between plans** (effective and enforceable Jan 1, 2022).
 - ✓ **Provide information to their members to help them protect the privacy and security of their health information** including information on third party apps regarding privacy and security practices and secondary data use.
- ONC’s FHIR at Scale Task Force (FAST), Da Vinci, and other organizations have identified **endpoint directories as a critical solution to overcome scale barriers**.
- Drawing on solution concepts from the ONC FAST foundation, CAQH developed a prototype to capture feedback and understand roadmap priorities from health plans and experts from ONC FAST, Da Vinci, CARIN, and others.

Use Cases Described by CMS Final Rule



Situation: Unwieldy volume of one-off trusted connections required for plan-to-plan and app vendor-to-plan interaction

For health plans to implement and comply with the CMS Final Rule...

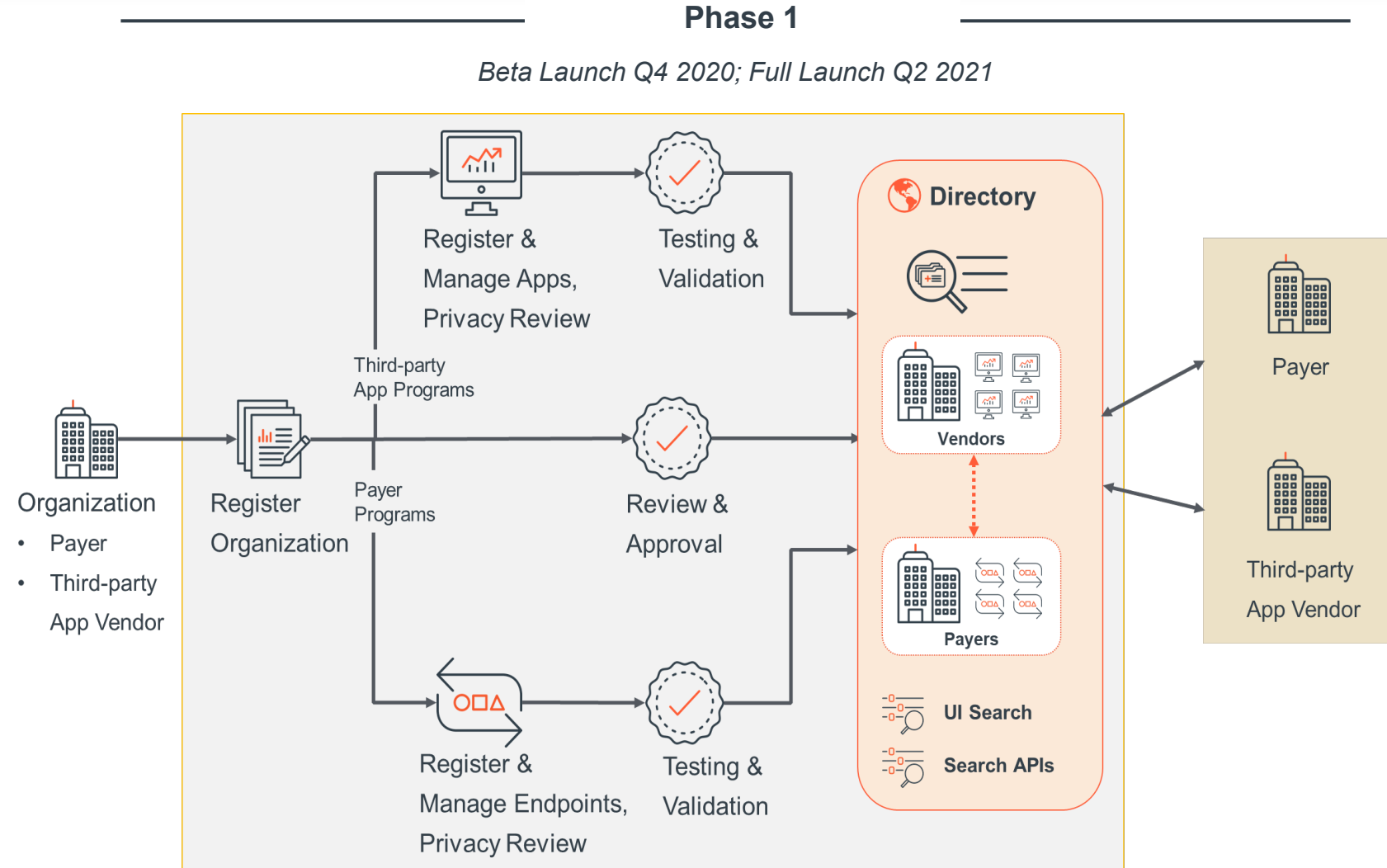


NOTES: 237k calculated using $689!/(2! \times (689-2)!)$ combination formula. Assumes that every health plan would need a connection to every other health plan. This connection count excludes endpoint discovery that may have to occur for payer-provider and payer-patient connections that may occur.

Solution: A National Utility for Payer Endpoints & Third-party App Registry

A national source of truth for validated payer endpoints and third-party apps that:

- Allows payers to **share information about endpoints**, including capability statement imports. Simplifies, automates manual processes.
- Allows **third-party apps to upload information about themselves** to make available to payers.
- Allows payers and third-party apps to **query payer endpoints** for multiple use cases.
- **Validates identity** of payer and third-party app participants.
- **Confirms privacy and security attestations** and/or privacy policy, data use agreements.
- **Ensures conformance testing and validation** of FHIR endpoints and ability to work with endpoints.
- **Facilitates connection request** between parties.



CAQH takes a consensus-based approach to industry engagement

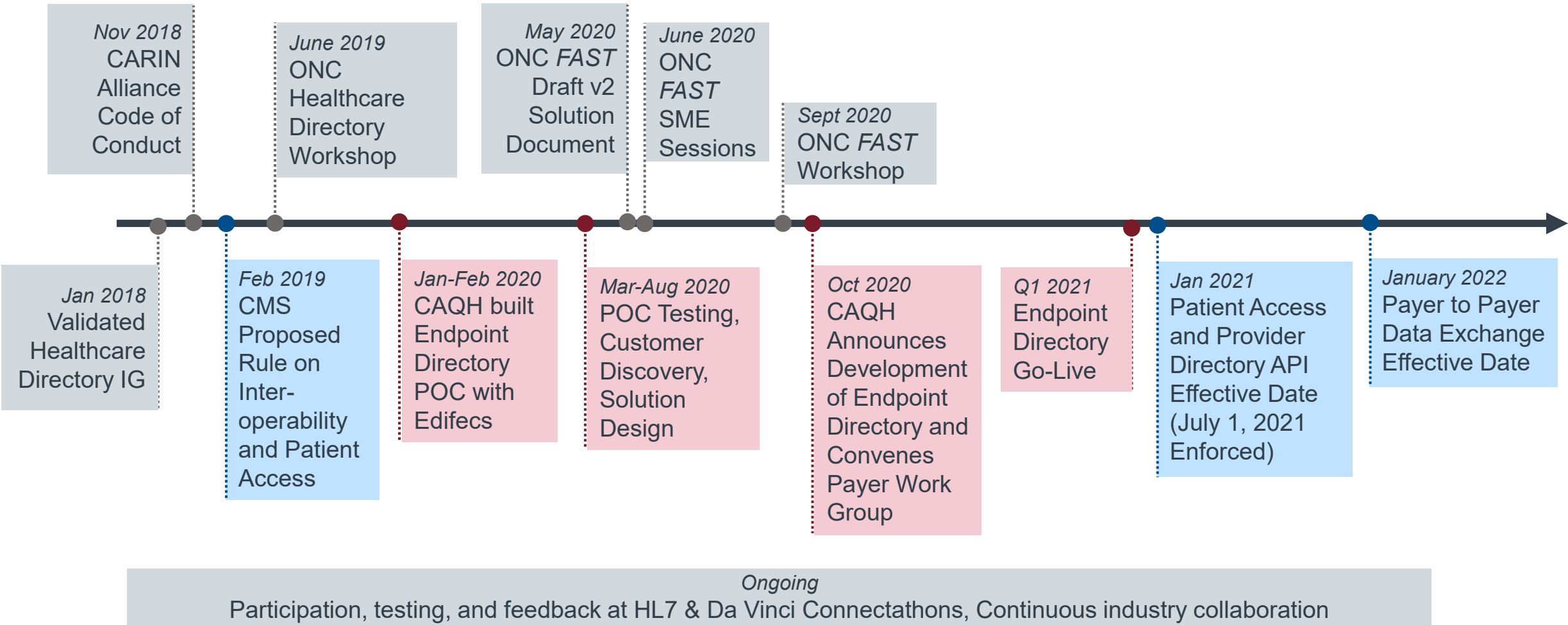
A national payer endpoint directory will require more than just a directory.

It will require governance, consensus building, trusted validation, adoption and a track record of scaling solutions for the vast majority of the healthcare industry.

CAQH is a **non-profit** and one of the few **neutral trusted multi-stakeholder intermediaries** between payers, providers, vendors, and government entities.

CAQH Focus	Details
Governance	<ul style="list-style-type: none">▪ Multi-stakeholder boards and councils representing significant share of industry▪ Consensus-driven initiatives
Working Groups	<ul style="list-style-type: none">▪ Industry work groups convene to align on initiative scope and approach
Solution Development	<ul style="list-style-type: none">▪ Cost sharing across multiple organizations▪ One-to-many transaction model▪ Best of breed technology vendors▪ Solutions built on trusted validation
Rules and Standards Alignment & Validation	<ul style="list-style-type: none">▪ Collaborative development of business operating rules that support standards▪ Test, iterate, educate, certify and drive adoption: facilitate trusted connections

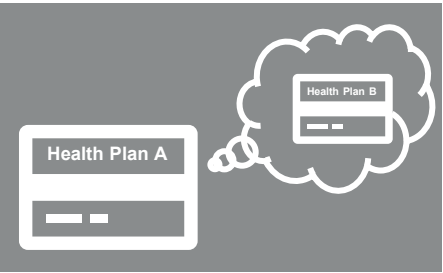
Milestones



Challenge #1: Inquiring on an organization-by-organization basis on the location of payers' FHIR endpoints

If health plans had to comply with the Final Rule today, the endpoint discovery and connection process would be inefficient, uncertain, and present a barrier to endpoint usage and interoperability...

Example: Plan-to-Plan



Health Plan B wants to connect with Health Plan A to enable and streamline data requests for members moving from Health Plan A to Health Plan B.
May be triggered by request from member to retrieve data from Health Plan A.



Health Plan B wishes to get information via APIs, but needs Health Plan A's endpoint to do so.
Health Plan B searches web sites to find endpoint, unsure if it even has an endpoint.



Health Plan B must make a request to Health Plan A for API access. Both plans must prove identity to each other.
Health Plan B is not confident in Health Plan A's endpoint (or is conformant to IGs) to obtain patients' treatment information.



Health Plan A wishes to establish "rules of the road" with Health Plan B around security, data access, privacy, technical standards, use cases supported, and other data exchange issues.
These must go through each Plans' legal department.



Once a trust agreement is established, Health Plan B troubleshoots technical issues as it attempts to implement.
Implementation is successful, but only after weeks of technical, legal, and operational hurdles being overcome.
Repeat 100 times.

Similar challenges apply to third-party app developers that need to find payer endpoint information on behalf of members.

Challenge #2: Giving access to payer APIs to third party apps will be burdensome



Authenticating Vendors

- Checking business credentials of hundreds of applications
- Verification of privacy and data protection policies



Education and Training

- Ensuring that vendor understands and is proficient with FHIR standards and security
- Training and educating vendor on Certification and Testing needs and process



Testing and Certification

- Ensuring that application follows the laid down security protocols
- Test and Certify applications for various FHIR use-cases
- Ensuring that applications do not mislead members



Operational Hurdles

- Testing and Certification of applications at scale
- Keeping administrative costs low, while meeting members' expectations in terms of applications of their choice

Items that are out of scope; items that could be potential for Phase 2

Out of Scope

- Obtaining patient authorization/ consent
- Issuing of client IDs and secret keys
- Routing capabilities
- Conduit of patient data between payers or between payers and third-party apps

Potential Phase 2 Scope

- Phase 2, which would beta launch Q4 2021 and fully launch Q2 2022, could include the following:
 - A more formalized trust framework
 - Automated client-server request/ credential check
 - Provider endpoints
 - Add-on optional services to support accurate patient matching and identification of prior coverage

Live Demo of Payer Endpoint Registration (CAQH)

Wireframe (1 of 3)
Registering a Third-Party App

Overview

Application Profile

Test Validations

Application Information

Questionnaire

Attestation Information

Edit

This is how your application will be shown in Directory after publishing.



DocFind

Smart Apps Inc.

v1.0

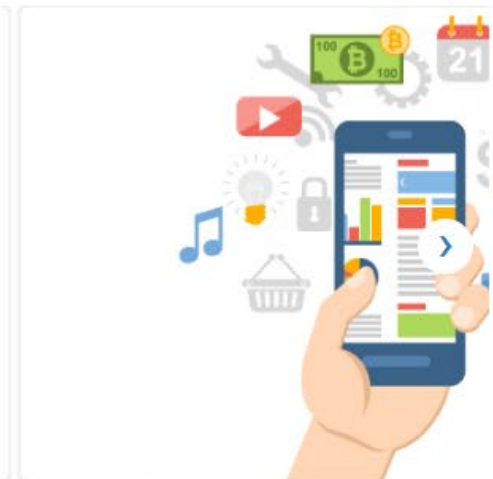
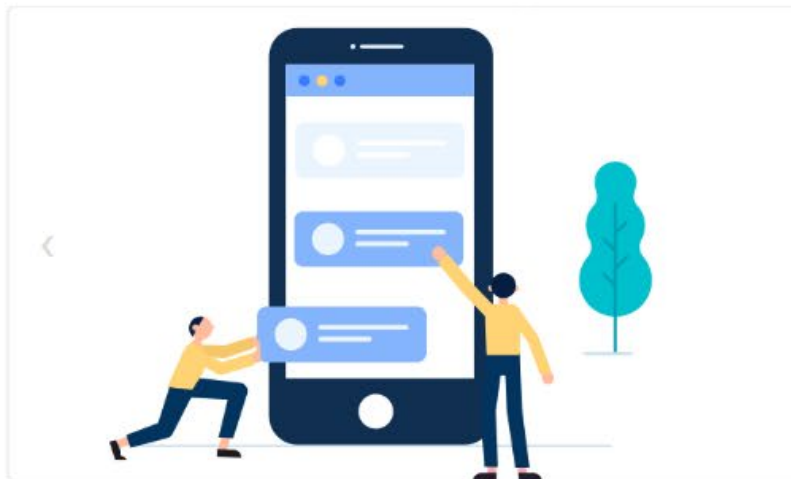


View Application

About

Find doctor in your network, check their availability, specialty and experience. Find the opening on their calendar and book an appointment

Preview



Learn More

Find doctor in your network, check their availability, specialty and experience. Find the opening on their calendar and book an appointment. You can perform search using various criteria like location, specialty, working hours, network coverage etc

Overview

Application Profile

Test Validations

Application Information

Questionnaire

Attestation Information

Edit

The questionnaire will be shown in Directory after publishing.

Application Information

Privacy Policy

Data Security

User Consent

Vendor and Contractors

Miscellaneous

1. Is your privacy policy based on industry best practices?

Yes

2. Is your privacy document prominently and publicly accessible?

Yes

3. Is your privacy document easy to read, especially from the perspective of end-user?

Yes

4. How did you determine that your Privacy Policy and Terms of Service documents are easy to read from end-user perspective? Please share the study conducted with relevant documentations

Professional evaluations

5. Does your privacy policy specify your company data collection practice, including any use and sharing of de-identified, anonymized and psuedonymized data?

Yes

6. Some data, even if it has been anonymized, can still be used to identify people with specific medical conditions, etc. Are you doing enough to explain these risks in your privacy policy?

Yes

7. Does your privacy policy specify your company's user consent practice, including any use and sharing of de-identified, anonymized or pseudonymized data?

Yes

8. Does your privacy policy specify your company's data disclosure practice, including any use and sharing of de-identified, anonymized or pseudonymized data?

Yes

9. Does your privacy policy specify your company's data access practice, including any use and sharing of de-identified, anonymized or pseudonymized data?

Yes

10. Does your privacy policy specify your company's security practice, including any use and sharing of de-identified, anonymized or pseudonymized data?

Yes

11. Does your privacy policy specify your company's retention/deletion practice, including any use and sharing of de-identified, anonymized or pseudonymized data?

Yes

12. Does your privacy policy address when data sharing might have an impact on others (such as the impact of sharing genetic or family history information on relatives)?

Yes

Wireframe (2 of 3)

Testing a Third-Party App (to demonstrate ability to integrate with Payer APIs)

Overview

Application Profile

Test Validations

22

Total

8

Not Started

10

In Progress

1

Under Review

3

Passed

0

Failed

Test Scenarios

+ Add

18 Scenario(s) Found!

Find



Connectivity Tests (6)

FHIR R4

Connect with ClientID & Secret Key

Executions : 4

OAuth with Scope

Executions : 1

OAuth without Scope

Executions : 1

OAuth with invalid Scope

Executions : 0

Request Refresh Token

Executions : 3

Invalid Endpoint URL

Executions : 1

> Patient Access API Tests (8)

FHIR R4

> Provider Directory Tests (5)

FHIR R2

> Drug Formulary Tests (3)

FHIR R3

Connect with Client ID & Secret Key

Remove Scenario

Passed 10 Jan 2020 11:059PM Jessica

Test the connectivity using the Client ID and Secret Key assigned for your application

Steps (2)

Executions (4)

* Create Submit Delete

<input type="checkbox"/>	Execution Name	Status	Modified On	Modified By
<input type="checkbox"/>	01Jan20_434PM	Pending Submission	09 Jan 2020 4:08 PM	Kathleen Johnsson
<input type="checkbox"/>	BetaTest_1	Fail	09 Jan 2020 5:09 PM	Kathleen Johnsson
<input type="checkbox"/>	03Jan20_509PM	Pass	10 Jan 2020 10:32 AM	Kathleen Johnsson
<input type="checkbox"/>	BetaTest_2	Pass	09 Jan 2020 4:08 PM	Kathleen Johnsson

Find



6 Endpoints Found!

Patient Access Endpoint

✓ Coverage

✓ Coverage - II



○ Explanation of Benefits

✗ Appointment

ⓘ Enrollment Request

Patient Access Endpoint

● In Progress ⌚ 9 Jan 2019 4:34 PM 👤 Jessica

Submit for Review



Endpoint Profile

Test Validations

Name	Patient Access Endpoint	Sample Test Data	TestData.txt
Description	Endpoint to retrieve patient information	Sample Request	Request.xml
URL	https://fhir.healthplan.com/patient	Sample Response	Response.xml
Compatibility statement	https://fhir.healthplan.com/patient/metadata	Methods	<input checked="" type="checkbox"/> Get <input checked="" type="checkbox"/> Post
Status	✓ Active	Security	<input checked="" type="checkbox"/> OAuth <input checked="" type="checkbox"/> Basic
FHIR Version	4.0.1		

Supported Resources (5)

> Allergy Intolerance

> Care Plan

> Condition

> Observation

▼ Patient

Supported Interactions ☒ Read ☒ Update ☒ Create ☒ Read History ☒ Update as Create

Supported Parameters :

Name	Optional	Description
FirstName	No	Patient's first name
LastName	No	Patient's last name
gender	No	Patient's gender, may be 'M/F/U/O'

6 Endpoints Found!

Patient Access Endpoint

Coverage

Coverage - II

Explanation of Benefits

Appointment

Enrollment Request

Patient Access Endpoint

In Progress 9 Jan 2019 4:34 PM Jessica

Submit for Review

Endpoint Profile

Test Validations

22 Total 8 Not Started 10 In Progress 1 Under Review 3 Passed 0 Failed

Test Scenarios

+ Add

18 Scenario(s) Found!

Connectivity Tests (6)

FHIR R4

Connect with ClientID & Secret Key

Executions : 4

OAuth with Scope

Executions : 1

OAuth without Scope

Executions : 1

OAuth with invalid Scope

Executions : 0

Request Refresh Token

Executions : 3

Invalid Endpoint URL

Executions : 1

Patient Access API Tests (8)

FHIR R4

Provider Directory Tests (5)

FHIR R2

Connect with Client ID & Secret Key

Remove Scenario

Passed 10 Jan 2020 11:59PM Jessica

Test the connectivity using the Client ID and Secret Key assigned for your application

Steps (2)

Executions (4)

* Create Submit Delete

<input type="checkbox"/>	Execution Run Name	Status	Modified On	Modif..
<input type="checkbox"/>	01Jan20_434PM	Pending Submission	09 Jan 2020 4:08 PM	Kathl...
<input type="checkbox"/>	BetaTest_1	Fail	09 Jan 2020 5:09 PM	Kathl...
<input type="checkbox"/>	03Jan20_509PM	Pass	10 Jan 2020 10:32 AM	Kathl...
<input type="checkbox"/>	BetaTest_2	Pass	09 Jan 2020 4:08 PM	Kathl...

Wireframes (Part 3 of 3):

Payer Endpoint and Third-Party App Discovery

Supported Platforms

All

Application Name/Description



Publishing Organization Name



40 Applications Found!

Sort By Latest Published



DocFind

Smart Apps Inc

Version 1.1.0



Find doctor in your network, check their availability, specialty and experience. Find the opening on their calendar and book an appointment



MyHealth

Health IT

Version 4.2.3



Application for member to access their medical history from various healthplans and keep a record of their provider encounters



DrugCheck

Smart Apps Inc

Version 1.1.0



Check the composition of Drug and find the alternate drug with same composition. Check the appropriate dosage and side effects



RecordKeeper

ARTech

Version 10.2.0



Store your medical records in a digital locker and access them on the go. Analyze your medical history using intuitive dashboards



Achievement Logs

Health IT

Version 2.2.2



Store your medical records in a digital locker and access them on the go. Analyze your medical history using intuitive dashboards



Monitor

Smart Apps Inc

Version 2.3.0



Application for member to access their medical history from various healthplans and keep a record of their provider encounters



App Name

Org Name

Version 1.1.0



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App Name

Org Name

Version 1.1.0



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App Name

Org Name

Version 1.1.0



Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. Ut enim ad minim veniam, quis nostrud ...



App Name



App Name



App Name



Organization Type

All

Organization Name/Description



27 Organizations Found!

Sort By Latest Published ▾



Humana

Large healthplan
America with 50 m
Offers plans for M

0

Apps

6

Endpoints



Superior Healthplan

Large healthplan
America with 50 m
Offers plans for M

2

Apps

18

Endpoints



Organization

Large healthplan
America with 50 m
Offers plans for Medicare, Medicaid an...

0

Apps

10

Endpoints



Healthplan Inc



The Healthplan

Endpoints

Endpoint Name/Description

Endpoint Provider

FHIR Version

Supported Resources



All

All

All

894 Endpoints Found!

Sort By Latest Published ▾

Name	Description	Publishing Organization	Last Modified On
Patient Access API	Endpoint to access patient details	Humana	25-Jun-2020 08:00:00 GMT
Coverage	Endpoint to access patient details		
Enrollment Request	Endpoint to access coverage details		
Enrollment Request	Endpoint to access coverage requests		
Enrollment Request	Endpoint to access coverage requests		
Coverage	Endpoint to access coverage details		
Patient Access API	Endpoint to access patient details		
Patient Access API	Endpoint to access patient details		

Patient Access API

[Send Connection Request](#)

Humana Active Last Updated on 25-Jun-2020 08:00:00 GMT

Name	Patient Access Endpoint	Sample Test Data	TestData.txt
Description	Endpoint to retrieve patient information	Sample Request	Request.xml
URL	https://fhir.healthplan.com/patient	Sample Response	Response.xml
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FHIR Version	4.0.1	Security	<input checked="" type="checkbox"/> OAuth <input checked="" type="checkbox"/> Basic

Supported Resources (5)

- > Allergy Intolerance
- > Care Plan
- > Condition
- > Observation
- ▼ Patient

Supported Interactions ☒ Read ☒ Update ☒ Create ☒ Read History ☒ Update as Create

Supported Parameters

Name	Optional	Description
FirstName	No	Patient's first name

Ongoing engagement

CAQH is gathering feedback from app vendors and facilitating a targeted work group of health plan early adopters/ beta testers to agree on common requirements that could benefit from discussion and consensus.



- **Solution Design and Consensus**
 - Endpoint and use case taxonomies
 - Payer organizational hierarchy and ID
 - Evaluation criteria (identity, privacy, testing)



- **Beta Testing**
 - Payer publishing and querying workflows
 - App publishing and connection workflows
 - End-to-end multi-party workflows

To learn more and stay up to date on our progress, please visit caqh.org/endpoint-directory

Thank you

Questions?

