THE SEQUOIA PROJECT

Trusted Convener of Industry & Government
to Address Health IT Interoperability

Agenda

- Who is The Sequoia Project?
  - How do we support independent iniatives

The Sequoia Project's Role

The Sequoia Project is a trusted, independent convener of industry and government

Works to address the challenges of secure, interoperable nationwide health information exchange (HIE).

| SECURE | INTEROPERABLE | NATIONWIDE |

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The Sequoia Project Initiatives

The Sequoia Project's independent initiatives each have their own:

- **Mission**
- **Governance**
- **Membership**
- **Structure**

The Sequoia Project is an ideal home for projects that require a collaborative environment where multiple parties with differing perspectives can work together.

Current Sequoia Project Initiatives

eHealth Exchange™

The **eHealth Exchange** is the largest public-private health data sharing network in America.

carequality

Carequality national-level interoperability framework to link all data sharing networks from across the entire healthcare ecosystem.

RSNA® Image Share VALIDATION

RSNA Image Share Validation Program is an interoperability testing program to enable seamless sharing of medical images.

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Sequoia Project Content Testing Objectives
Sequoia Sponsored Work Activities

Develop
Testing requirements to test and validate Health IT Modules

Create
review and approve testing documentation, checklists, and Use Cases

Determine
Interoperability testing requirements to enable robust testing of exchange

Improving Patient Identity Management
Sequoia Sponsored Work Activities

Patient Identity Management
Work Group

A Framework for Cross-Organizational Patient Identity Management

Work Group Forming Now

- 30+ Applications received

- 9 to 12 Members to be appointed for significant expertise and diverse stakeholder representation

- Only members may vote on final recommendations, but public calls for feedback

A Framework for Cross-Organizational Patient Identity Management

- Intermountain / CCC case study
- Patient matching maturity model
- Minimal acceptable patient matching practices

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The Sequoia Project® Healthcare Directory

Sequoia Sponsored Work Activities

A FHIR-Based Directory

- Deployed 2/2017

- Supports both eHealth Exchange and Carequality

- Implements the Argonaut Provider Directory specification

- Allows for additional fields to reduce connectivity costs and effort

- Based on 10 years of production directory lessons learned

- Significant community guidance

Additional FHIR Leadership

The Sequoia Project:
- Member of the Argonaut Project; focused on Provider Directory
- Co-author of IHE Care Services Discovery directory profile
- Member of Interoperability Standards Advisory ONC FACA
- Member of ONC Healthcare Directory Technology and Use Cases Learning Communities

eHealth Exchange
- Live with Pilot FHIR-based healthcare directory, seeking organizations to implement

Carequality
- Live with The Sequoia Project® Healthcare Directory

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eHealth Exchange™

The Nation's First & Largest Public-Private Health Data Sharing Network

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How the eHealth Exchange is Different

The longest-standing nationwide health data network supporting **diverse use cases**

The principle network enabling participants to connect directly with **federal agencies**

De-centralized data sharing model connects organizations directly to each other with **no central hub**

Started by the federal government, these network differentiators support the network's public mission for enabling nationwide data sharing.

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The Largest Health Data Network in U.S.

We connect:			
	All **50** States	**50,000** Medical Groups	
	Four Federal Agencies (DoD, VA, CMS, SSA)	**3,400+** Dialysis Centers	
	65% of U.S. Hospitals	**8,300** Pharmacies	

Supporting more than 109 million patients

47 Regional and State HIEs

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eHealth Exchange™

Participants implement a Broad Range of Patient-centric Use Cases

- **Treatment / Care Coordination**

- **Social Security Benefits Determination**

- **Immunization**

- **Authorized Release of Information – Consumer Access to Health Information**

- **Authorized Release of Information – Life Insurance**

- **Encounter Alerts**

- **Prescription Drug Monitoring Program (PDMP)**

- **Electronic Lab Reporting (in support of public health)**

- **Syndromic Surveillance**

- **Image Share**

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Transport Testing for the eHealth Exchange Participant and Product Testing Programs

eHealth Exchange Participant Gateway (Acting as an Initiator)

eHealth Exchange Participant Gateway (Acting as a Responder)

Patient Discovery → Found patient → Searches for patients

Query for Documents → Lists zero or more found documents → Searches for Document(s)

Retrieve Documents → Returns zero or more documents → Transmits Document(s)

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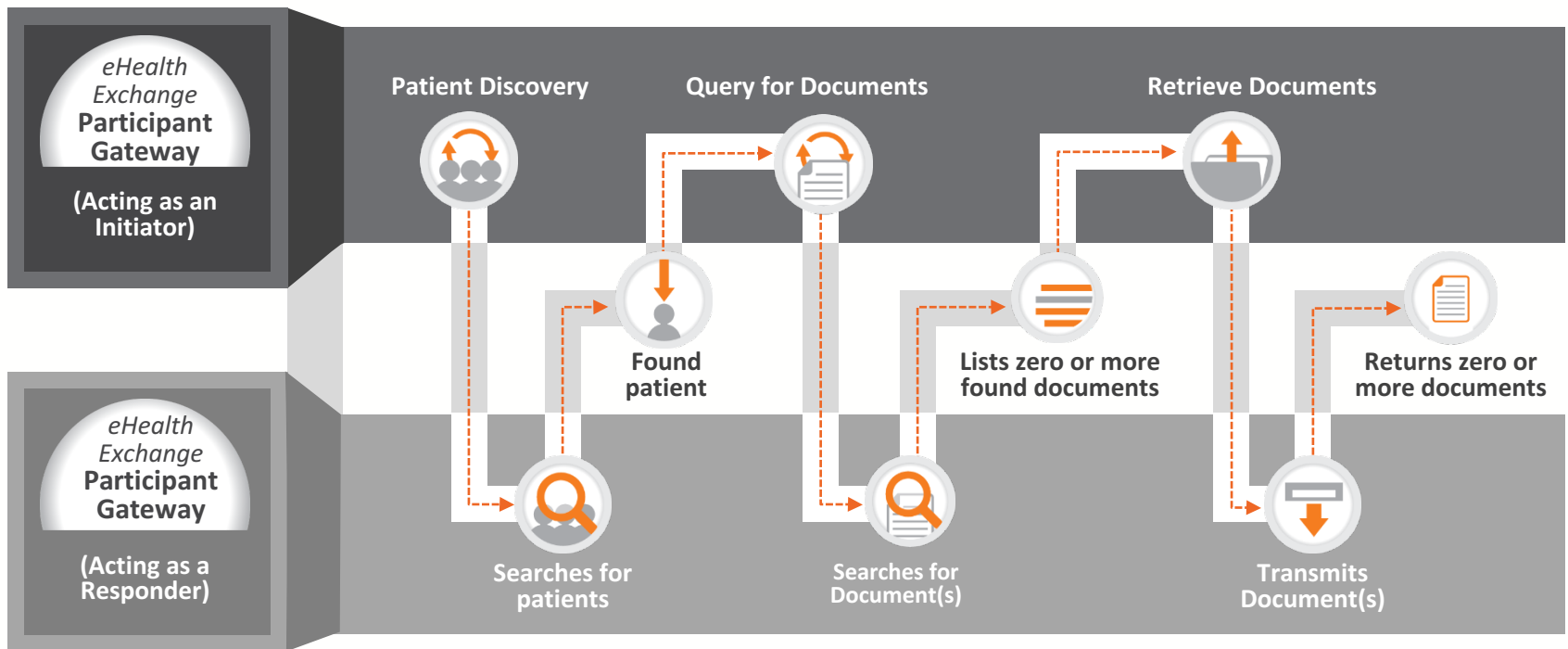
Enhanced Content Testing Program Beginning Soon

What is Content Testing?

- Designed to enable interoperability and assure specification compliance

- Focused on HITSP C32/CCD, HL7 Consolidated CDA (C-CDA) R1.1 and R2.1

- Enhanced Testable Assertions

- Meaningful Use (MU) Requirements/Transitions of Care

What Can Participants Expect?

- Production Content Testing to begin Q3/2017

  – New participants required to test Content to on-board

  – Existing Participants have 12 months to test content

  – Errors Encountered with testing will have to be corrected within 18 months

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Validated Products
Vendors Enabling Reduced Fees for their Clients

Browsersoft Connected Health	**Cerner**	**Cerner**	**FHA** Federal Health Architecture
OpenHRE	Clinical Exchange Platform	Cerner Resonance	Connect
Epic	**Greenway** Health	**ICA** The Interoperability Experts	**CIOX** HEALTH
Care Everywhere	Greenway Exchange	CareAlign	Prism
InterSystems	**LTS** Health Exchange	**Medicity** A Healthagen Business	**OPTUM™**
InterSystems Healthcare	LTS HEX	Network	Optum HIE
ORION HEALTH™	**VERINOVUM** Purpose Driven Platforms	**zeomega**	
Exchange Gateway	Exchange Gateway	Jiva HIE Connect	

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Carequality for a Common HIE Framework

Accelerating seamless, interoperable health information exchange among networks

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Creating a Web of Interconnected Networks

Carequality creates a standardized, national-level interoperability framework to link all data sharing networks

- Physicians

- Consumers

- Government Agencies

- Data Sharing Networks

- Payers

- Behavioral Health

- Acute Care

- Long Term and Post-Acute Care

- Hospice and Home Care

- Research

- Public Health

- Vendors

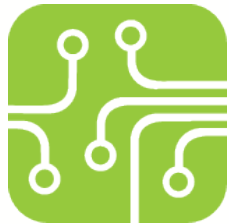- Standards Development Orgs.

- Pharmacies

- EMS Services

Essential Elements

Common rules of the road: In order for the varied participants to trust each other with health information, everyone needs to have a legal obligation to abide by the same rules.

Well-defined technical specs: Shared rules are not enough; clear standards must be laid out in an implementation guide that all implementers can follow.

A participant directory: To connect using the common standards, systems must know the addresses and roles of each participant.

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Current Carequality Connected Agreement Signees

HIEs

- COORDINATED CARE OKLAHOMA
- HIETexas — Connecting Texans. Enhancing Care.
- MiHIN Shared Services
- Santa Cruz Health Information Exchange
- SunCoast RHIO — EDUCATE · EMPOWER · ENGAGE

Technology Vendors

- athenahealth — we connect care
- eClinicalWorks
- Epic
- GE Healthcare
- Glenwood Systems
- Medicity — A Healthagen Business
- Netsmart
- NEXTGEN HEALTHCARE

Service Providers

- commonwell HEALTH ALLIANCE
- Kno2
- inovalon — healthcare empowered
- mana HEALTH
- surescripts

PHRs

- AZUBA — Your Health Records - Anytime, Anywhere
- cartushealth
- Integrated Data Services
- onerecord

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Carequality by the Numbers

23,000+ Clinics

850+ Hospitals

260K+ Providers

1M+ CCD Records Exchanged
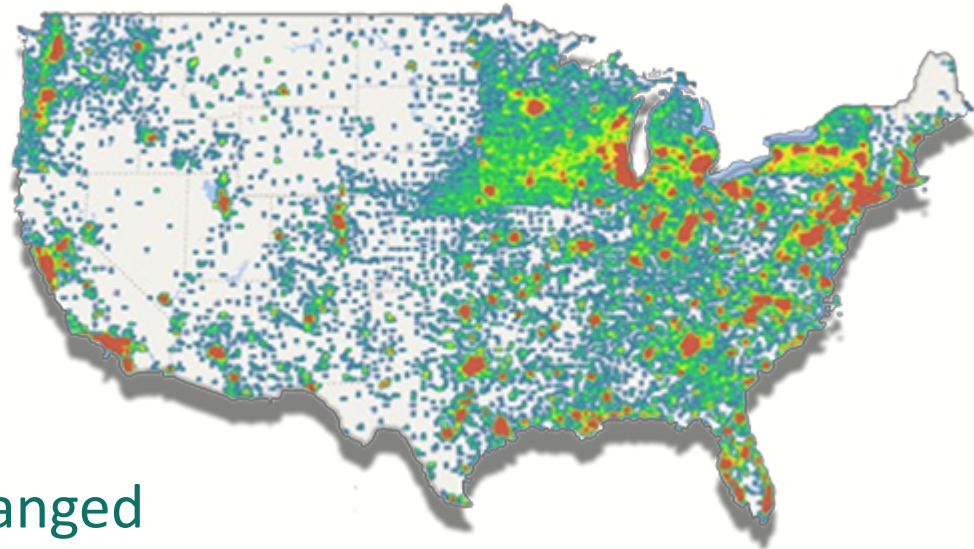
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RSNA Image Share Validation Program

- **Fills a national Standards Gap**
  - Product conformity assessment testing
- **IHE profiles provide specifications for testing**
- **Modular Standards/Specifications**
  - Cross-Enterprise Document Sharing for Imaging (XDS-I) – standard for HIE network
    - Document Source and Document Consumer
    - Registry and Repository
  - Cross-Community Access for Imaging (XCA-I) – standard to connect HIE networks
  - RSNA Image Share PHR

RSNA Image Share Validation Achieved
System Which Enable Interoperable Image Exchange

Now Accepting Applications for Class of 2017

Conformance and Certification Discussion

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Conformance & Certification Criteria

Conformance Criteria Development

- Carequality and eHealth Exchange are independent initiative leveraging separate and joint workgroups to determine requirements and criteria for testing
- RSNA leverages IHE profiles and additional PHR specific profiles.

Conformance Determination

- Testing tools for self-testing
- Subject matter expert support to interpret outcomes from the testing
- Elbow support given to customers to help them be successful

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Conformance & Certification Operations

Expected Costs

- This is determined based on the projected total cost of ownership for overall program costs (staff/admin, and associated tooling development costs, etc)

Business & Workflow Process Considerations

- Agreements
- Testing tools
- Support maintenance
- Staffing requirements
- Coverage

Sequoia Project Collaboration Opportunities

The Sequoia Project collaborates with:

- Government Organizations: VA, SSA, DoD, CMS, State HIEs

- Industry Groups: AMA, C4MI, CCC, Commonwell, DirectTrust, HIMSS, HL7, IHE, RSNA, SHIEC, Trillium Bridge, SHIEC, and numerous others

The Sequoia Project Provides:

- Expertise in developing and running **testing programs**

- A **national-level trusted exchange framework** to support many types of communications across different platforms and networks

- Building Support for sharing data via **APIs** and apps starting with Sequoia FHIR Directory

Thank You!

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