Carequality

Website: [www.sequoiaproject.org](http://www.sequoiaproject.org)
Leadership: Dave Cassel, VP of Carequality
Date Formed: 2014

Ownership

Non-profit, public-private collaborative that is independently governed but supported by The Sequoia Project, a 501c3.

Governance

Governed by Carequality Steering Committee, with Carequality Connected Agreement as legal framework

Mission

Carequality has brought together the entire healthcare industry to facilitate consensus and develop a national-level, trust framework and common agreement to enable interoperable exchange between and among health data sharing networks and services. Carequality brings together a diverse group of representatives from the private sector and government to establish the policies, practices, and technical requirements many different data sharing use cases, regardless of technology platform or geography, much like the telecommunications industry did for linking cell phone networks. Carequality also supports operational exchange activities under this Framework.

How does this approach facilitate exchange?

Carequality provides a trust framework that can be leveraged by existing networks (HIE, Vendor, Payer, PHR, etc.) and service providers (e.g. record locator services) to enable the sharing of data across these diverse networks, services and their participants.

Carequality enables different health data sharing networks to interconnect. This enables providers to share data from their home network with providers who participate in other health data sharing networks, without having to join multiple data sharing networks.

Access Method (use cases)

Initial use case: Peer-to-peer query-based document exchange

Other use cases: Data element access via HL7 FHIR, and a general approach to patient-related notifications (including but not limited to event notifications) are in early stages of development.

Primary Goals/Objectives
Allow diverse data types to move freely to where and when it is needed, regardless of technology or geography, by connecting disparate data networks and their clients/members.

To achieve this mission, the Framework needs: Common rules of the road, well-defined technical specifications, and a few operational components including a participant directory and digital certificates. Carequality has implemented each of these pieces, as the core of a practical, operational framework that connects the country through existing networks.

**Number of live connections and/or participants**

More than 260,000 physicians are enabled to share across 23,000+ clinics and ~900 hospitals.

(As of July 2017) [http://sequoiaproject.org/carequality/active-sites-search/](http://sequoiaproject.org/carequality/active-sites-search/)

**Members**

Carequality is an open, transparent and inclusive framework that does not require membership to participate in its governance process. Stakeholders engaged in developing the framework include provider organizations, physicians, regional and state HIEs, health systems, associations, consumer/patient-interest groups, pharmacies, networks, governmental agencies, payers, and health IT vendors, including PHRs, EHRs, RLSs and telehealth.  
(See specifically the Carequality Interoperability Framework Adopters section of the page.) [http://sequoiaproject.org/carequality/members-and-supporters/](http://sequoiaproject.org/carequality/members-and-supporters/)

The web site page linked above also shows the organizations who are members of the Carequality initiative, which is a concept distinct from participation in exchange activities.

**Primary Participants**

Implementers are health data-sharing networks and service providers. Healthcare providers and physicians generally wouldn’t participate directly as Implementers, but would instead participate through a network or service to which they subscribe. This approach allows healthcare providers, patients, payers, and other stakeholders to continue to receive value from their “home” networks, while still gaining access into information from participants in other networks. Expected Implementers include health information exchange organizations (HIEs), health IT vendors, interoperability service providers, consumer application providers, and payers.

**Costs (Amount and/or Party Incurring Cost)**

Implementer fees are dependent on an organization's annual revenue.

Organizations participating in exchange through an Implementer, including provider organizations, are not charged anything by Carequality. The Implementers themselves may charge their customers for interoperability services, including Carequality connectivity.

**Directory/MPI Details**

Centralized healthcare directory that currently provides organization-level information on technical
Standards Leveraged

Carequality’s governance framework, at a general level, is independent of any particular architecture, technology, or standard. For any individual Use Case, however, it is essential that participants speak the same technical language, and Carequality identifies the technical specifications to be used in Use Case Implementation Guides. Adherence to the requirements of these Guides is enforced by the governing Carequality Connected Agreement.

As a terminology note, by “Use Case” Carequality means a type of healthcare content, married to a technical architecture for exchanging that content. “Query-Based Document Exchange” is Carequality’s initial “Use Case”, and incorporates many different use cases in the more common meaning of the term. For example, the Query-Based Document Exchange Use Case encompasses provider-to-provider queries for treatment purposes, queries by patients for access into their own records, and queries by payers for payment purposes, among many other possible uses of document exchange capabilities.

For Query-Based Document Exchange, Carequality relies primarily on the IHE XCPD and XCA profiles, as further specified by the NHIN specifications. The Carequality healthcare directory uses HL7 FHIR®. Future “Use Cases” will rely on other standards and architectures, as appropriate to that Use Case. Data element-level queries, for example, are expected to rely on HL7 FHIR®.

Onboarding Process (Requirements to connect)

Health data sharing networks (e.g. national networks, vendor networks, HIEs, PHRs, payers) and service providers (e.g. record locator service providers) may become Carequality Implementers by signing the Carequality Connected Agreement (CCA), which contains the standard legal terms agreed by all Implementers of the Carequality Framework.

Implementers complete an application process that includes reference calls and confirmation, where possible, of the implementer’s approach to key obligations under the CCA.

Implementers select the particular Use Case(s) in which they would like to participate and are expected to comply with the requirements for those Use Cases. (See “Standards Leveraged” above for additional background.) Each Use Case may specify technical testing process requirements.

Implementers are required to ensure that standard terms (the Carequality Connection or CC Terms) are legally binding on the Implementer’s members/customers who engage in exchange under the Carequality Framework.

Data Persistence

Federated Model: The Carequality Framework supports exchange between unaffiliated data sharing networks and services. No data passes through Carequality and the storage of any data exchanged is dependent on the specific data-sharing network.
Certification Requirements for Participation

See “Onboarding Process (requirements to connect)” above, and “Testing” below.

Testing

For the Query-Based Document Exchange Use Case, candidate Implementers are expected to conduct peer-to-peer testing with several other Implementers to demonstrate the ability to interoperate among networks, and to confirm actual production connectivity with a majority of the other Implementers then in production. Full details of the requirements are outlined in Carequality’s Query-Based Document Exchange Implementation Guide.

Future Use Case Implementation Guides will define testing and onboarding processes appropriate to that Use Case. (See “Standards Leveraged” above for an explanation of Carequality’s use of the term “Use Case”).

Future Plans

Carequality has stated a goal of enabling health data exchange among 80% of the nation's hospitals and more than 70% of the nation's physicians within 3 to 5 years.

Aims to operationalize support for multiple new “Use Cases” (see “Standards Leveraged” above for an explanation of Carequality's use of the term “Use Cases”).

Current Collaboration across Efforts

Ongoing pilot program will give eHealth Exchange participants access to Carequality. CommonWell Health Alliance has passed requirements to become a Carequality implementer with initial CommonWell providers live with the connection to engage in directed queries with any Carequality participant. (source)
NATE has expressed support for the Carequality vision and mission (source)
Surescripts is a founding member of Carequality and their NRLS operates under the Carequality framework. (source)

Type

Network-to-network trust framework to support use cases

Geographic Reach (within US)

Nationwide