



**carequality**



# Image Sharing: Making It Real Today

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# Why Aren't We Sharing Digitally Today?



- Lack of interoperable digital health systems
- Point-to-point interfacing cost prohibitive
- Technology and technology standards aren't ubiquitous or uniform
- Business incentives aren't aligned
- Trust frameworks and agreements don't accommodate imaging - **yet**
- New technologies are fundamentally changing the way people interact with health care

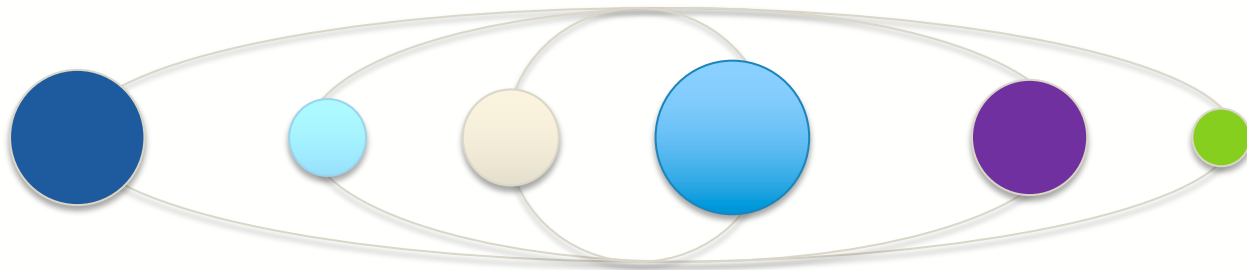
# How Do We Make Electronic Image Sharing Real?

- Documented standards-based implementation guide
- Validation testing process
- Trust framework and standardized data use agreements
- Promotion to medical imaging community and patients and leveraging work underway...
  - Support the ACR/RSNA #DitchtheDisk Effort

# Carequality Overview

## The Situation

Communities of data sharing partners have formed, brought together by specific needs.



**Some are geographically based, but other types of data sharing communities also exist.**

## The Solution

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



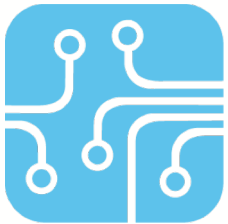
**Carequality** is creating a web of interconnected communities.

## 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.

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

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

# Carequality Framework

- The Carequality Framework includes a number of elements:
  - Carequality Connected Agreement
  - Carequality Connection Terms
  - Dispute Resolution Process
  - Technical Trust Policy
  - Query-Based Document Exchange Implementation Guide
- Documents are available for reference on the Carequality website:
  - <https://carequality.org/resources/>
  - <https://carequality.org/wiki/carequality-framework/>



## What Does This Mean For Imaging Participants?

- Health IT interoperability connections can be a lot of work
  - Legal teams sign off on contracts
  - Technical staff negotiate standards
  - Compliance and privacy officers weigh in on policy
  - Users complete acceptance testing
- Carequality has standardized these elements at a nationwide level, with buy-in from across the industry
- Organizations can sign one contract, complete one implementation of technical standards, and be in position to provide nationwide image exchange capabilities, with all other participants, for all customers

## Live Implementers & Their Clients



# Image Exchange via Carequality

## Query Based Image Exchange

- Work also is underway to enable exchange of DICOM images under Carequality governance, in collaboration with RSNA
- We received a number of public comments on the draft Implementation Guide supplement:  
<https://carequality.org/wp-content/uploads/2019/06/Imaging-Exchange-IG-20190620-DRAFT-v1.pdf>
- We are currently reviewing and dispositioning these comments, and will update the draft accordingly – to be published by RSNA19 Town Hall
- We are targeting adoption by the Steering Committee of a final version, in late Q1 2020

# Carequality Imaging Data Exchange Implementation Guide Overview

- Leverages Existing Architecture for Query Based Exchange
- Describes Use Case
- DICOM Image Exchange
- Defines Roles and Technical Requirements
  - Query Workflow
  - Directory Services
  - Security and Transport
  - Patient Discovery
  - Record Locator Services
  - XCA/XCA-I Gateway Requirements
- Systems Affected
  - PACS or RIS Systems
  - EMR's and other patient management systems
  - HIE's
  - Image Exchange Systems
  - VNA's

<https://carequality.org/wp-content/uploads/2019/06/Imaging-Exchange-IG-20190620-DRAFT-v1.pdf>

# IHE Radiology Technical Framework (IHE XCA-I)

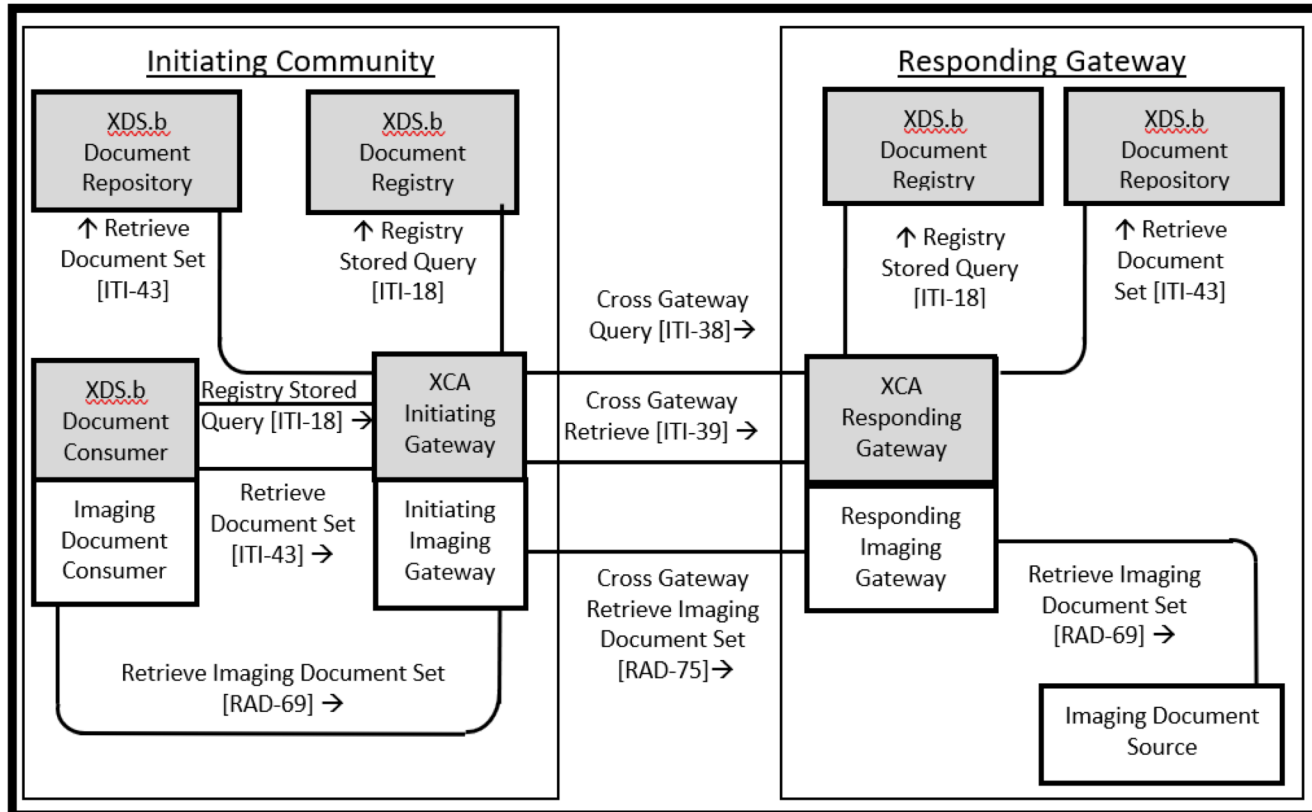


Figure 29.1-1: Cross-Community Access for Imaging Actor Diagram

# Carequality Image Sharing IG Supplement

- Foundation is IHE XCA-I profile that defines network to network connections
  - Networks can be based on IHE XDS-I or some facsimile
  - Some flexibility for variations in local patient ID management and exchange protocols
  - Looks like XDS-I from the outside

*Low bar of entry to participate*

We are hopeful that this will offer a way to empower DICOM exchange under the Carequality Framework with **National Impact**

# Marketing Opportunity Requirements

## Commitment required by November 15, 2019

- Sign the Carequality Connected Agreement (CCA)
  - Send to [admin@carequality.org](mailto:admin@carequality.org)
- Initial fee of \$8,350\* for participation in pilot activities
  - Participants will be part of the Carequality community and promoted as CCA signatories
  - Participants will have additional testing and feedback opportunities to shape the final Implementation Guide supplement
  - Payment of the pro-rated remaining implementer fee, based on implementer revenue tier, due once IG supplement is adopted for production use
- Begin/Complete Testing XCA-I before Production Live

\* Unless the total fee for the organization's revenue tier is lower



# Roadmap to Make Image Sharing a Reality

1. Stakeholders (YOU!)  
Develop Roadmap for  
Implementation
2. Carequality Adopt Final IG
3. Imaging networks Onboard  
to Carequality
4. Begin work on next phase:  
implementing emerging  
standards (DICOMweb and  
HL7 FHIR)

## What's Next? - Marketing Opportunities

- **RSNA 2019 Town Hall - Room S105C - South Building**
  - December 2, 2019 12:30 – 1:30pm CT
- **The Sequoia Project Annual Member Meeting**
  - December 5, 2019
- **Carequality Annual Member Meeting**
  - December 5 & 6, 2019
- **HIMSS 2020**
  - March 9 – 13, 2020

# Your Questions

Carequality Implementor Questions:

Imaging IG Questions:

RSNA Image Share Validation Testing Questions:



Thank You!