

Making the connection to collaborate



**Radboud university
medical center**
Nijmegen,
the Netherlands



Key facts

- Achieves its mission “to have a significant impact on healthcare” through the core tasks of care, education and research
- Currently collaborates with a large number of other hospitals, five of which via IHE-XDS connections.
- Participates in many regional and national initiatives to help maintain high levels of quality for data exchange

Challenge

Strengthen Radboudumc’s ability to collaborate with Epic and non-Epic using healthcare facilities in the region by integrating Epic documents into its IT environment.

Way forward

Implements the Forcare interoperability platform to create a smart link between the two environments.

A patient in your network is diagnosed with a late-stage adenocarcinoma in the upper lobe of the right lung. The right treatment plan calls for specialized input from several clinical disciplines. But how will caregivers across the network be able to help the patient quickly and efficiently in the Electronic Health Record? Interoperability between systems isn’t as easy as you would expect.

Radboudumc opted for simplicity with the interoperability platform from Forcare. To support its mission of connecting care and driving care innovation, the medical center wanted to enhance the digital exchange of data between their Epic EHR and their own XDS infrastructure. The choice for Forcare creates a smart link between the two as it keeps patient consent central to the sharing process. With the Forcare solution in place, Radboudumc will be able to make this standardized information available to other healthcare providers in the network, allowing them to use the data without hassle – and even take charge of care delivery when it’s needed, without jeopardizing patient confidentiality.



Laying the groundwork for interoperability

A successful plan for facilitating true interoperability addresses how information systems “find” as well as “trust” one another. This helps healthcare providers access information across the Radboudumc and Epic environments when and where it’s needed.

Use case 1:

Publish Epic documents, images and radiology reports in the Radboudumc XDS environment to share this information with other healthcare facilities in the region.

Use case 2:

Use forView to view documents and images published by other healthcare facilities in the Radboudumc environment. forView is integrated into Epic through SSO and URL integration.

How the systems securely communicate:

- As an XDS Document Source, Epic publishes C-CDAs into forStore using ITI-41
- forStore then registers the XDS documents into the XDS Registry forIndex using ITI-42.
- forIndex checks the validity of the XDS metadata
- If the metadata is valid, the registration is accepted

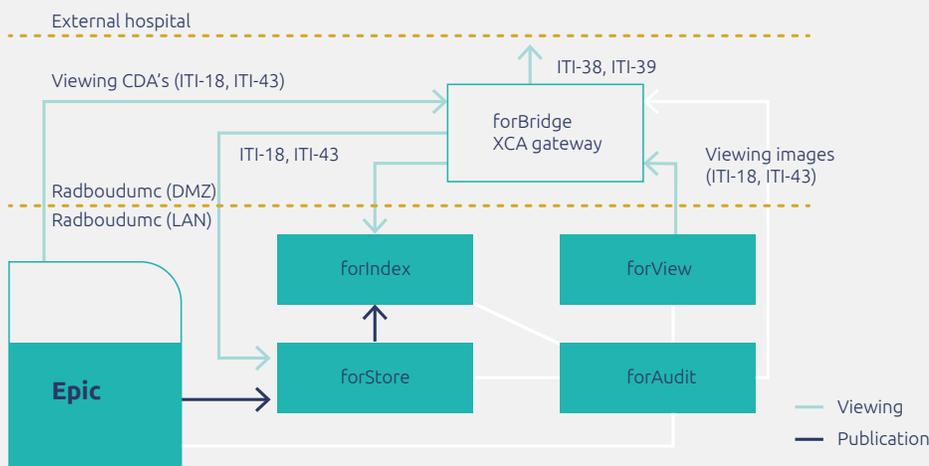
How the systems securely communicate:

- As an XDS Document Consumer, forView queries XCA Gateway forBridge (ITI-18) for XDS documents
- forBridge then queries the connected Registry forIndex (ITI-18) as well as the other connected XCA Gateways (ITI-38)
- To retrieve the documents, forBridge sends a request to forStore (ITI-43) /the connected XCA Gateways (ITI-39)

Epic documents shared within the region are reports that are exchanged as a CDA document throughout the XDS network.

One infrastructure to promote collaboration

The Forcare interoperability platform establishes safe and seamless flows of information between the Epic and Radboudumc environments.



This XDS infrastructure consists of:

- XDS Single Domain Registry (forIndex*)
- XDS Repository (forStore*)
- ATNA Repository (forAudit*)
- XDS Document Consumer (forView*)
- XCA Gateway (forBridge*)
- XDS Document Source (Epic)

* Visit forcare.com/ihe-product-suite to learn more about these individual IHE components.



Maintaining a simple, safe and secure exchange of data



Raising the standard of care through IT

Radboudumc believes that making the best use of the data in the Electronic Health Record helps its medical professionals deliver excellent care. A clinical document strategy based on open standards such as XDS unlocks that data with simplicity. Caregivers across the network can share and work with all types of documents – not just images. They’re empowered to collect input from multiple sources before deciding what’s right for the patient.

Preparing for the future now

Even when the IT infrastructure is modified, healthcare providers will be able to share information across the Radboudumc environments without disruption. Radboud’s long-term goal is to rely on “one source of truth” – the electronic patient dossier – which uses an On-Demand Document (ODD) placeholder instead of a copy of the data. We currently publish an HL7-v3 CDA message. As a result, data is stored twice. To eliminate this redundancy and move toward the “one source of truth,” we will need to act as an ODD Document Source to allow forView to act as an ODD Document Consumer, retrieving documents from the Epic ODD Document Source component.

Delivering privacy by design

Data sharing in healthcare must never lose sight of patient consent. That’s why the Forcare interoperability platform is designed around explicit and specific patient consent. This practice helps maintain control over the entire chain within which information can be shared.

IT managers can gain peace of mind with forAudit. This component ensures accountability by monitoring and storing all relevant activity within a Health Information Exchange, keeping a record of who accessed what information and when.

Both patient consent and forAudit work smoothly with Radboudumc’s internal patient identifier system to enhance data security.



“Why did we choose Forcare? Easy, the interoperability platform allows us to facilitate true collaborative healthcare within our strong partner-network. It does so by sticking to international standards as well as adapting to local and national guidelines. All this is happening while respecting patient privacy and consent.”



Laurens de Groot, MSc PDEng

Clinical Informatician
Program Manager for Health Information
Exchange in Radboudumc

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Forcare Holding B.V.

Laan van Vollenhove 2931
3706 AK ZEIST, the Netherlands

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