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Central Multimedia Archive for Central Denmark Region

Improved regional and national sharing of patient data

Challenge

- Inadequate communication between RIS/PACS networks of healthcare providers in the Central Denmark Region
- Different archives for storing treatment data
- Publication of data in Denmark's national image index

Goal

- In the first phase, Central multimedia archive for the region-wide sharing of radiological findings and image data
- Connection to the national image index

Region-wide access to patient data

The Central Denmark Region (Danish: Midtjylland) is one of five administrative regions in Denmark. It is responsible to provide healthcare services for more than 1.2 million inhabitants.

One of the biggest challenges in regional healthcare was that patient data was stored in different archives, and the RIS/PACS networks of the healthcare providers could not communicate adequately with one another. As a result, attending physicians had no or only limited access to existing patient data. For this reason, it was decided that a central multimedia archive would be created at the regional level, which would allow healthcare providers to access to orders, findings, examination data as well as multimedia data. At the same time, the connection to the national image index would be implemented.

Connection to the national image index

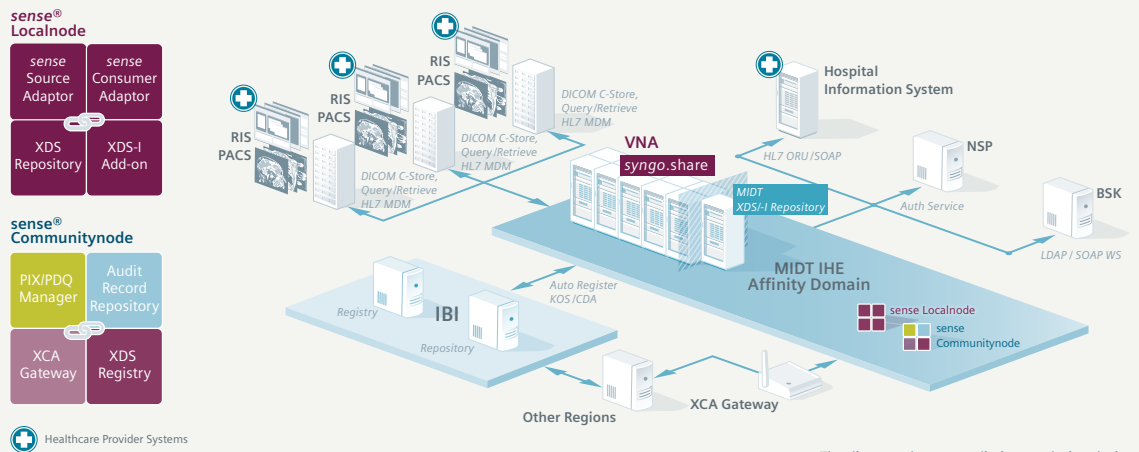
Following consolidation in the Danish public sector, regional and national eHealth objectives were defined. One important project that emerged was the creation of the national image index. This index should allow radiological images, orders, findings and other image data to be shared easily across Denmark's five regions.

In practice this means that if, for instance, a patient is admitted to a hospital in the south of the country, the attending physician can immediately retrieve and view electronically any images and findings that were produced in a hospital in the north. That saves time and money – and increases the quality of care. This prevents unnecessary duplication of examinations, helps reduce patient radiation exposure, and expedites decisions about the treatment of the patient. With these healthcare structures, Denmark is set to play a pioneering role in healthcare IT in Europe.

The solution portfolio in use:

The vendor-neutral multimedia archive *syngo.share*, and the IHE-compliant networking solution *sense*.

IBI: Interregional Billedsindeks (national radiology image and findings data platform)
 NSP: National Service Platform (authentication services)
 BSK: Bruger Stamdata Katalog (regional user administration system in the Central Denmark Region)
 VNA: Vendor Neutral Archive
 MIDT: Central Region (Midtjylland)



The diagram shows a preliminary solution design.

Two products – one solution

The Central Denmark Region has opted for a Siemens Healthcare eHealth solution consisting of the IHE infrastructure platform *sense*® and the vendor-neutral multimedia archive *syngo*®.share. It permits the region-wide exchange of patient data, without requiring users to leave the system they are familiar with. In addition, with this solution, Central Denmark could prove that it has an IHE-compliant connection to the national image index.

sense and *syngo*.share are modular systems which can be expanded at any time. Thanks to standardized interfaces and adapters, other systems can easily be integrated at a later date; and, with this open solution, Central Denmark is fully prepared to meet future requirements in the rapidly-developing healthcare sector.

From the image archive to the hub for patient data and workflows

In the future, the solution can also serve as a hub for all treatment-related data.

Central Denmark is already planning the gradual development of a new networking solution that will connect to other national databases, such as the drug or organ donor registers.

Other applications that support workflows and integrate patients can be added later, e.g. teleradiology, patient portal, notifications, online consultations, etc.

Advantages

- **Access to treatment-related patient data** – easy data sharing between institutions across the whole country
- **Better treatment** – thanks to the rapid availability of patient data
- **Fulfillment of national requirements** – connection to the national image index
- **Future-proof** – a scalable, expandable and open solution that is vendor and system independent

Due to local restrictions to sales rights service availability and potential certification requirements we are unable to guarantee that all products listed in this brochure can actually be sold by Siemens throughout the world.

The information contained within this document provides general technical descriptions of services and configuration options, which are not prerequisites in every individual case. Availability, configuration packages and potential certification requirements can vary from country to country. For this reason the desired services and configuration should be determined in individual cases upon conclusion of contract.

sense and *syngo*.share are software solutions of ITH icoserve technology for healthcare GmbH, Innsbruck. Please note, that both products are currently only available in selected European countries.

Local Contact Information

Please contact your local main office of Siemens or Siemens Partner for Healthcare IT in your country.

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