Västra Götaland Region (VGR) partners with GE to develop regional vendor-neutral image and document archive

GE Healthcare integrates 17 hospitals across western Sweden through a single information infrastructure - improving information transparency, harmonising patient history and increasing efficiency

Benefits

- Shared access to patient history, images and reports

- Harmonisation of information with one common source of truth

- Reduction in data storage needs

- Improved turnaround of teleradiology services and second opinion

About VGR

VGR covers Sweden's second largest region, serving 1.5 million residents and operating 17 different public and private hospitals, 121 healthcare centres and 170 public dental care centres. At the centre of the health network is Sahlgrenska University Hospital in Göteborg, the largest hospital in Northern Europe, providing specialist radiology services and second opinion for the region.

In 2005, VGR was looking to better integrate radiology services and provide standardised access of the patient history across their region. With a shortage of radiologists, it was imperative to find a solution that enabled increased mobility of its clinicians to report across facilities and provide immediate access to both images and the patient history at its centre of excellence at Sahlgrenska.

VGR partnered with GE to develop an infrastructure that linked its 17 hospitals through a shared clinical archive that provided common access to images and reports, while allowing each department to maintain their independent PACS/RIS systems and own unique workflows.

A strong partnership

VGR originally partnered with GE Healthcare to develop their innovative information infrastructure solution to integrate services across their region and facilitate collaboration amongst its radiologists.

> "How could we give clinicians standardised access to imaging and reports, while allowing them to maintain their local workflow? The solution is what we call the information infrastructure."

Lars Lindskold
CIO of VGR radiology Infrastructure

This partnership was further strengthened in 2011, when VGR extended and expanded its contract with GE. The information infrastructure utilises GE's Enterprise Archive technology and bi-directional eHealth Image Exchange platform to integrate industry standards into VGR's architecture. GE's Centricity Web viewer allows authorized care team members to access patient data stored in the repository using any vendor's system that supports the XDS standard, which increases the ease of access for clinicians and enhances clinical collaboration. The next step in development is integrating GE's data registry and repository (DRR) services including the XDS standard profile developed by the Integrating the Healthcare Enterprise initiative (IHE).

Seamless integration

One of the key requirements for VGR was allowing hospitals in its region to maintain their existing PACS and RIS technologies and related workflows. This meant integrating platforms from seven different vendors and creating a stable infrastructure that enables access virtually anywhere, anytime directly from each hospitals own PACS and RIS.

> "By supporting the local workflows, the result is information transparency. The workflow is seamless as images and reports from the entire patient history are immediately available and radiologists are able to use their standard workflow to generate reports."

Mikael Wintell
Chief Medical Information Officer of VGR

Enhanced collaboration and teleradiology

Another priority for VGR was increasing efficiency through improved collaboration amongst radiologists. The information infrastructure solution provides immediate access to the complete patient history, including images and reports. This reduces the number of duplicate exams, improves turnaround of second opinions by remote specialists and enables teleradiology across their region and the world.

> "GE was able to develop a customised workflow to meet our needs, where 2nd opinions and teleradiology can happen directly within the infrastructure. It's so much easier now. As a central university hospital, 2nd opinion is a huge part of our daily work."

Dr. Staffan Gustavsson
Consultant Thoracic radiologist
Sahlgrenska University Hospital

Benefit	Results
Systems integration	Created solution **integrating 17 different hospitals** across the region and technology from 7 different PACS/RIS vendors.
Clinical archive	Archive over **2 million exams** and **150 terabytes** of data per year.
Service Uptime	Achieved **99.97% uptime** since 2006 go-live, including major infrastructure upgrade in 2011.
Teleradiology	Enables approximately **40,000 teleradiology exams** per year from external providers.

GE imagination at work