

The Radiologische Allianz in Hamburg, Germany, efficiently works with a uniform Radiology Information System across the group's sites
Working as Part of a tight Network within Outpatient Radiology



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In order to stay competitive, it is increasingly important for healthcare providers to network with others on an organisational and technical level – this particularly applies to radiology. The Radiologische Allianz in Hamburg, Germany, has established itself as an outpatient radiology network and introduced a uniform RADIOLOGY INFORMATION SYSTEM to work efficiently and comfortably within the group. The joint RIS enables cross-site planning and evaluation, while keeping each site's individual profile. In short: RIS turned out to be a major benefit for the newly established network.

The Radiologische Allianz was established on April 1st 2009 by merging three large imaging centers in Hamburg. "After the merger it became clear that we could only benefit from its advantages if we also harmonised our IT infrastructure. A common RIS was number one on our wish list", emphasised Professor Dr. med. Jörn Sandstede, Managing Director, Radiologische Allianz.

The group selected medavis RIS, which was installed at all 13 sites by the service provider PSG (Praxis Service Gesellschaft) together with medavis. PSG currently has 19 employees and specialises on IT services for imaging centers. In addition to the Radiologische

Allianz, PSG clients include two other radiology networks in the Hamburg area.

"PSG is medavis' contracting partner and responsible for the technical infrastructure for both software and hardware", explained Stefan Kraus, Head of IT at PSG. This applies to all client, server and LAN components along with all peripheral devices and the complete telecommunication infrastructure, excluding large-scale medical modalities.

High Flexibility was crucial

medavis RIS was favoured for several reasons: "We needed a system that allows scheduling and evaluation across sites and considers site specifics nevertheless", said Stefan Kraus. Finally, two systems were shortlisted for selection. "One reason to favour medavis RIS was that it was already in use at two sites. But most importantly, we had the impression that the company could provide solutions to our specific requirements quickly and flexibly or develop such solutions together with us in a short time. This proved to be true."

The vendor's flexibility is crucial for such a large and

complex RIS installation. "For example, we required different letterheads and document templates for our sites. We also needed the possibility to assign material to examinations site-specifically", emphasised Sibylle Feyerabend, Head of Radiology Administration at Radiologische Allianz.

All requirements were implemented quickly so that the system rollout at 160 workstations in different locations went smoothly at the turn of the year 2012 and was completed within six months. The project was split into two parts. For each part, two to three medavis employees were on site for several weeks to jointly implement the system with PSG and to train approximately 180 users.

In technical terms, a centralised infrastructure was set up with a central server situated at one of the main sites. "All workstations access this server through a private MPLS network", explained Stefan Kraus. Not only RIS data is transferred across the network but also a great amount of DICOM images and speech data. "This requires high transfer rates, so we had to readjust. Our goal is to have a transfer rate of 100 Mbit/s throughout the network. But we are not quite there yet."

Multi-site Workflows facilitate daily Work

Due to the implementation of medavis RIS, physicians and technicians at the Radiologische Allianz can now work efficiently across all sites. A good example is the elaborate evaluation workflow that Radiologische Allianz and PSG developed together. Sibylle Feyerabend explained: "Depending on the physicians' requests, the technician can either send an examination directly to a particular physician's worklist or to the central worklist pool for evaluation." Thus, the capacity of the large number of radiologists who partly work on-site and

partly switch between sites is optimally used and the different locations' working hours are well balanced.

Another reason for increased efficiency in daily operations is the central appointment scheduling via medavis CALL CENTER. The system enables users to quickly search for free appointment slots across locations and provides an overview which physicians and modalities are available. This reduces the patients' waiting times to a minimum.

Speech recognition is a third area where the centralised infrastructure with a joint RIS can play at its strengths. The Nuance solution 360 | SpeechMagic SDK is deeply integrated into medavis RIS. Physicians can dictate directly in the RIS user interface and have direct access to previous reports without having to switch between applications. "The processing times until the released report are significantly shorter than for conventionally dictated reports. We currently have 46 speech recognition licenses. Apart from a few exceptions, almost all of our physicians use speech recognition for their reports", said Stefan Kraus.

The individual speech profiles are downloaded from a central server, independent of the workstation or site a radiologist is currently working from. All dictations can be centrally corrected by the typing pool if necessary. Once downloaded, the specific user profile is always available at that particular workstation and will only be updated as needed.

"Nowadays, our physicians frequently change locations. This is why the flexible use of speech recognition has become indispensable for us", said Sibylle Feyerabend.

Overall, the implementation of a uniform RIS across all sites laid the foundations on the IT side for a successful merger.

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