

# St. Elisabeth Group – Catholic Hospitals Rhein-Ruhr (Germany)

Nexxis brings increased flexibility and improved patient care to the OR

St. Elisabeth Group's investment in Nexxis illustrates the most modern OR video routing solution available in Europe

Theo Freitag, CEO, St. Elisabeth Group, Catholic Hospitals Rhein-Ruhr, Germany



## Barco's solutions:

- Integration of Nexxis uncompressed video-over-IP platform
- MDSC-8232 31-inch 4K UHD displays

## Key benefits:

- Seamless video-over-IP integration
- Any signal source, any format, anywhere
- Signals without latency, high resolution in original quality and in real-time
- Image presentation rich in detail for safe surgical interventions

The St. Elisabeth Group – Catholic Hospitals Rhein-Ruhr consists of five acute care and specialized hospitals with a total of 1,575 patient beds. They serve approximately 92,000 inpatients and 124,000 outpatients annually. They carry out more than 40,000 operations and interventions each year. It makes them a major cornerstone for healthcare in the densely populated Ruhr area in central Western Germany.

CEO Theo Freitag underlines how relevant technological investments are for these hospitals: "Today, our surgical and interventional services already contribute about 45 percent to our revenue – and this rate is going up. In order to maximize our potential we need to use the most modern technology in our ORs and other income generating departments."

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Freitag explains: "In the OR, this implies 4K-over-IP, for the time being, but this may well mean 8K or 16K in the near future. Therefore, it was essential for us to create and build an infrastructure which is future-proof for our 35 ORs. Due to high bandwidths and increasing requirements for radiological imaging in the OR, we needed to move to video-over-IP. Nexxis was a key and vital component of the set-up." The Elisabeth Group of hospitals has been operating digital ORs since 2007, but these are already technically outdated today. "Existing cabling does not permit us to switch to 4K technology," explains Technical Lead Olaf Jahnke. "That is why we are now upgrading the infrastructure of the ORs". In the ORs, the most modern technology is required to ensure robust diagnostics and optimum patient care.

The pros of Nexxis are ease-of-use, ultra -low latency, a high degree of flexibility, and the ability to integrate every signal type

Olaf Jahnke, Technical Lead,  
St. Elisabeth, Catholic Hospitals  
Rhein-Ruhr, Germany



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### Flexible and diverse

The requirements for the new solution had been stated clearly: vendor neutral, ability to connect with all devices and modalities on the market, IP-based, integrated with the leading OR management solutions and existing platform in place. The decision was taken in favour of Nexxis. "Technology from Barco is an investment for the future," according to Jahnke. "The pros of Nexxis are ease-of-use, ultra -low latency, a high degree of flexibility, and the ability to integrate every signal type," Jahnke summarizes the reasons for the decision. The challenge of making the complete infrastructure future-oriented lay in the integration of the various components from a multitude of vendors installed in the OR. Two fully certified and experienced Barco partners proved up for the job. German-based technology company viz-a-con took charge of the complete project management and implementation, while medical technology expert Brainlab, for their part, ensured Nexxis was seamlessly integrated into their Buzz - Digital O.R. platform.

### Better processes for optimized OR capacity use

In each OR, there are four to five optical fibre sockets for various mobile devices, e.g. endoscopic cameras, microscopes, C-Arms, and OR lamp cameras. Nexxis receives the signals from all image and audio sources in the OR and routes them to the OR information platform. From there, images are presented individually on the three Barco monitors in the OR. "St. Elisabeth Group's investment in Nexxis illustrates the most modern OR video routing solution available in Europe," says Freitag. His future expectations include further process optimization and better overall use of OR capacity.

### One modality for many ORs – thanks to IP technology

In order to optimize OR times, preparation and changeover processes need speeding up. Nexxis supports this by providing a plug and play solution so modalities and other devices can be connected and disconnected. "A device is plugged into the system and it recognizes it automatically," explains Jahnke. "This gives us flexibility and allows us to utilize modalities and devices between various ORs." And there is another benefit: images can be transmitted live in any auditorium or any other hospital within the St. Elisabeth Group, facilitating peer-to-peer consultation for second opinion or on the fly-clinical decision, which results in better patient treatment and outcomes.

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