

# Tapping the Expertise Within

Instead of completely outsourcing the maintenance of its imaging systems, the radiology department of Nijmegen University Hospital St. Radboud has decided to become an active part in the whole service process. Under the right circumstances, life cycle costs can thereby be significantly reduced. Prerequisites are a disposition towards innovation and trust in the in-house resources.

By René Vautravers

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Berry van Haaren,  
head of technical team,  
Radiology Department,  
UMC St. Radboud, Nijmegen,  
The Netherlands

Some ten years ago, the managers and engineers at the University Hospital (UMC) St. Radboud in Nijmegen, The Netherlands, considered how to lower the maintenance costs for their radiology systems. The discussions focused on the financial expenses associated with service contracts, as well as on questions regarding workflow and, in particular, on how the availability of the systems could be optimized. Given the prerequisites of that time, it took up to four hours before any action could be started by a Siemens engineer to correct a system malfunction. The wait times were due to the fact that Siemens engineers were only at UMC on an as-needed basis, and the travel time was correspondingly long. The initiative to become an active part in the service process came from the management

at UMC. Siemens listened to the requests made by the highly enthusiastic team of engineers and their managers. A short time later, the first Shared Services Contracts on an expert level were negotiated and signed. An increasing number of full service contracts were being transformed, and the team, "educated and enabled by Siemens, took on more and more maintenance tasks and responsibilities," explains Berry van Haaren, head of the four-engineer team. "With the Shared Services Contracts, our work is more challenging and the satisfaction gained from it has increased by an order of magnitude." Today, the on-site response time is down to five minutes. Being on site, the engineers are able to react immediately, and, in most cases, find a solution within one hour, explains

Richard Kamman, PhD, Head of Medical Physics at UMC. It is crucial that the systems are available around the clock.

Above all, patients benefit. The engineers have a broad knowledge, the right information, and the right equipment. As a result, most patients can remain in the examination room while a solution is found. This is a great advantage, because there is no need for rescheduling patients.

### Only Possible With a Good Team

Any organization that decides in favor of Shared Services Contracts has to rely on an enthusiastic and well-trained team. It would not be possible without these prerequisites, Kamman is convinced. He is proud of his team, without a doubt. In terms of knowledge and expertise, the team headed by Berry van Haaren is probably among the best in The Netherlands.

Kamman is also considering the future and the demographic developments among the population. The demand for radiological examinations will increase significantly in the coming years. In his opinion, combining forces may offer a solution. The time has not yet come, but he can imagine expanding his team in the future, and working at various hospitals in the region around Nijmegen, provided the assurance can be given that the quality of service for UMC stays the same.

### Shared Services for Everyone?

Are Shared Services Contracts suitable for all hospitals? No, Kamman stresses. Many are too small. For example, van Haaren's team supports more than 20 Siemens systems, including magnetic resonance, computed tomography, angiography, and fluroscopy. Hospitals with only a few imaging systems or few technical resources perform better with comprehensive service contracts.

Siemens offers another alternative with Shared Services Contracts on a basic level. Compared to the expert level, where hospital in-house engineers handle the complete system maintenance with Siemens as a back-up, basic level customers only perform first-



ASIDE FROM MAINTENANCE, engineers at UMC St. Radboud also perform repairs. Siemens trains them in the same courses they train their own service staff. Here, Ruud Engelen works on a SOMATOM® Sensation 64.



**SHARED SERVICES PIONEERS:**

Almost ten years ago, Berry van Haaren, head of the technical team (top), and Richard Kamman, PhD, head of Medical Physics (bottom), took over responsibility for the maintenance and repair of the radiological systems.

level service tasks. In addition, departments and hospitals selecting Shared Services Contracts have to be aware that they are associated with a lot of liabilities. Since UMC played a pioneering role to a certain extent, van Haaren knows what is important. He has worked as an engineer at UMC for 27 years and experienced the developments over the previous decades. Accurate service planning is important to prevent any disruptions in patient flow. On the other hand, it is also important that Siemens offers suitable courses. Initially, he had to fight with “teething problems”; namely, courses were offered to customers only. Today, UMC engineers attend the same courses as Siemens service engineers.

Starting with the installation and implementation of a new imaging system, UMC enjoys a one-year guarantee. This means that Siemens is responsible for maintenance during this period. In general, this is enough time to gain solid knowledge about the system and then to take over the maintenance and repair tasks.

### Important Knowledge Database

Access to the Siemens service software and knowledge database, which contains a lot of information on troubleshooting, is also essential for van Haaren’s team. He describes the relationship with Siemens as excellent. He is also somewhat proud that the people at Siemens occasionally ask his team for advice. Not because there is a lack of competence at Siemens, but rather because van Haaren works with the various systems on a daily basis, whereas the Siemens engineers tend to specialize in specific systems. Today, the exchange of information functions smoothly and the corresponding agreements are incorporated into the contracts.

For the Shared Services concept to work to its full effect, the team of engineers has to be well integrated into the department. Successful cooperation with the physicians and other clinical staff is absolutely necessary. What causes van Haaren some concern is the recruiting of new, younger engineers. Gradu-

ates from technical universities are generally not suited for this job, as it is not about promoting new developments; this is done by Siemens. Based on his experience, and given that university graduates do not feel at home in the service area, he prefers graduates of vocational high schools.

Anyone who decides to join van Haaren’s team has to participate in training courses outside the country for several weeks each year. Since the systems are always being updated and are becoming increasingly complex, there is always something new to learn. Not every engineer would be enthusiastic about this challenge. The training courses are not cheap, but are generally taken into account in the Shared Services Contracts. Additional costs may arise, for example, if the X-ray tube in a CT system fails. In such cases, the hospital has to cover the expenses for the replacement.

### Significant Cost Reduction

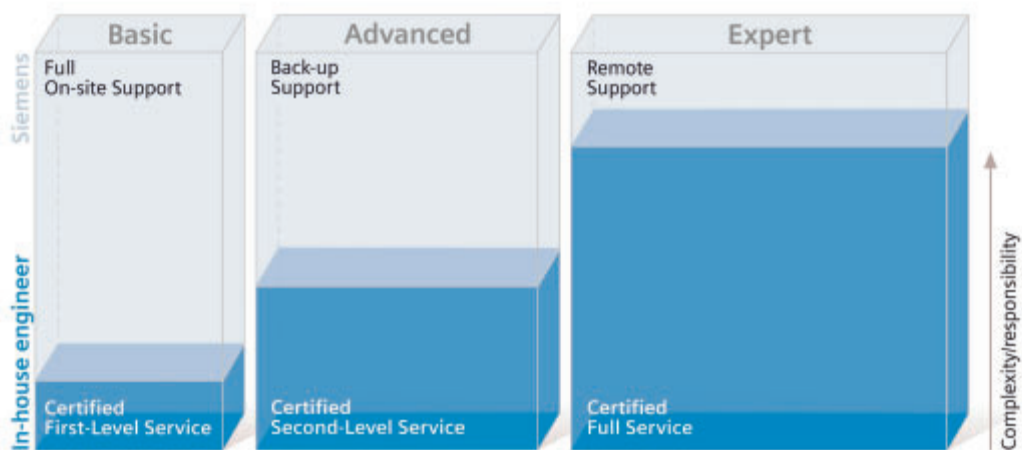
Regardless, the Shared Services Contracts pay for themselves at the Radiology Department of UMC. Every year, van Haaren presents a report to his supervisors, showing how much his team spent and how much the financial difference is against a full-contract. Taking into account the staff costs and continuing education, expenditures for maintaining the radiology systems has dropped by 30 percent. And should extra expenses occur, the hospital has established a special fund. Kamman and van Haaren note that the Shared Services Contracts improved the cost ratio and created greater transparency in terms of return on investment. The team of engineers is not only involved with repairs alone any more – 20 percent of their work time is already spent on preventive measures.

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THE MEDICAL CENTER of St. Radboud University Nijmegen is a leading science center in medicine and health care with 8,000 employees and 2,500 students.

## Siemens Shared Services



SIEMENS SHARED SERVICES are flexible, tailored service agreements where the hospital's in-house engineers are actively involved in the services process by working cooperatively with Siemens to attain maximum equipment uptime and performance, and to reduce service expenses. They are offered as graduated support models at basic, advanced, and expert level, determined by the current skill level of the institution's in-house engineers.