



» Friedrich-Ebert-Krankenhaus Neumünster GmbH

The Friedrich-Ebert Hospital Neumünster GmbH (FEH) is an acute specialist care hospital. The catchment area includes Neumünster, an administrative district in its own right, and also bordering districts. The hospital has about 620 beds. The FEH is the academic learning hospital of Christian-Albrechts University Kiel, and offers its patients comprehensive medical and residential care, which can be complemented by consultations from general practitioners working in the hospital on medical co-operation contracts.

In November 2002 an outpatient operation centre also opened in FEH, which accommodates the increasing patient demand for a short hospital stay.

The care offer is completed by an outpatient care / social service which has also been in operation since November 2002.

Around 20,000 patients are treated as inpatients and day patients plus an additional 20,000 outpatients.

The Task. The internet is of ever increasing importance in the communication between the hospital, suppliers and other external partners. For the hospital however the security of sensitive information is paramount and hospital employees (doctors, nurses, management) should only exchange information with outside parties via a secure connection.

At the same time the security must complement the demands of increasing numbers of mobile employees (e.g. doctors, hospital directors and others) who wish to access the hospital network from outside the hospital. Here access must not only be authenticated by PIN (Personal Identification Number) but also via a Token. Cooperation between selected privately practicing doctors (surgery and accident surgery, internal medicine, urology, gynaecology, general medicine, pathology, child and youth medicine, x-ray) has also been increased recently and brought within the scope of "Medical Practice Network Neumünster". These partners should also be provided with an easy to use and secure communication system to exchange doctors' notes and diagnosis both with the FEH, and their colleagues. In order to develop common, cost effective treatments for patients in the Schleswig-Holstein region, FEH Neumünster has been cooperating for some time with the west region hospitals Heide and Brunsbüttel, Itzehoe Hospital, Bad Bramstedt rheumatism Hospital, Rendsburg area Hospital and Hahnknuell specialist hospital.

"It was clear from the start that we didn't want to configure our own resources for this solution, but to turn to a company that offered and operated these services with transparent costs", explains Jürgen Spanier, Head of IT at FEH Neumünster. The requirement was that the system be designed initially for 100 users and have Firewall, Virus Scanner, Proxy, Mail Relay and VPN (Virtual Private Networks) functionalities. "We wanted complete supervision of the security solution and in particular the Firewall, regular reports and attack tests due to the fact that the data within doctors' letters for example must be securely transmitted", continues Spanier.

Referenceprojects with HiPath

Secure Internet with low resource requirements and transparent costs

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The solution. In FEH Neumuenster an E-Sienet System was installed for secure communication over the internet, the running of which was taken over by the Siemens AG Management Centre in Hamburg (over 150 customers are currently affiliated here). In addition to this a 19 inch Primergy Server with corresponding software for Firewall, Virus Scanner and Mail Relay was installed in the FEH: the Virtual Private Network (VPN) function took over an access router, which is connected to a segment of the E-Sienet System. This enables the group of people needing to dial in over the internet (e.g. maintenance firms, mobile doctors, directors) centrally controlled access to the network. To ensure that the user is authorized to access certain systems, functions or data, a further user authentication takes place – based on a Token procedure with targeted access control via a radius server. In order to safeguard the remote monitoring and administration of the E-Sienet System functions from the Management Centre, a virtual tunnel was built between the E-Sienet System and the Centre in which the data is transmitted, encoded with IPSec 3DES. The range of benefits of the solution include; weekly system configuration backups, importing of software updates, statistics regarding the system workload, Proxy statistics, dynamic Firewall which automatically reacts to attacks, Intrusion Detection, supervision and securing of mail functionalities (Monitoring, escalation, spam filter). The user maintenance takes place via the FEH by means of a web interface.

The Benfit. With the realization of secure communication over the internet the FEH as well as its users can offer mobile staff and practice doctors an extra service, which is today pivotal in increasing information flow between highly qualified medical staff, briefed doctors and the hospital.

”With this solution we want to make a contribution to an optimization in healthcare, in which we intensify further the information exchange between doctors in our hospital and those in other hospitals, and also with practice doctors in our region in order to provide faster and better workflows”, says Alfred von Dollen, Director at FEH Neumünster.

“This will make us more attractive to patients and further practice doctors as well as more interesting employers for medical staff. Additionally, this solution, which is being operated for us by a service provider, creates free room for urgently required investment, which would have been blocked by buying this necessary solution”, continues Dollen. Regular identification and updating of service requirements, increased availability and reliability, increased cost transparency and flexibility as well as a more favourable cost structure are further advantages of this solution.

Heide west coast hospital is also set up on the E-Sienet System from Siemens for secure communication over the internet.

Our Offer

- Development of integrated IT concepts for the optimization of workflows
- Installation and maintenance of high performance IT infrastructure components
- HiPath: VoIP communication for management and their patients
- HiPath Wireless LAN: An infrastructure for mobile communication
- HiPath DAKS: Security in case of an alarm
- HiMed: Multimedia and process improvements at the patient bed
- RFID / Barcode: Traceability of the treatment process and medication
- Solution for the “electronic healthcard” project. (High availability networks, security, card management, connector, services)

See above the Management Center of Siemens in Hamburg



“The constant improvement of our organization is set out in our guidelines as an automatic obligation. Therefore we want to concentrate primarily on medical processes and where it makes sense, look for support from external expertise. The secure internet connection is a cost effective example of this.”

Alfred von Dollen
Friedrich-Ebert Hospital, Director



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