



# OPTIMIZED CORE PROCESS AND COMPLIANCE WITH LEGAL REQUIREMENTS.

i.s.h.med OP module and NetApp archiving solution for KRAGES.

Burgenländische Krankenanstalten Ges.m.b.H. A top priority at hospital operator KRAGES is the efficient, service-friendly care of its patients. Innovative ICT plays a major role in fulfilling this objective. T-Systems not only operates the data center infrastructure for KRAGES and supports the application management of mission-critical administration applications, but also facilitates the work of staff with innovative workflow solutions. To master the challenges of modern, always up-to-date information technology, innovative solutions resulting from a cooperation established in the year 2000 are implemented on a regular basis. The latest examples are the OP module of the i.s.h.med hospital information system and the scalable, high-availability archiving system from NetApp.

## BOTH SOLUTIONS AT A GLANCE.

Automated OP workflow through implementation of the i.s.h.med OP module

- Workflows tested for plausibility
- Standardized, defined care schedules minimize data entry effort
- Central staging of all OP-relevant data
- Maximum availability

Replacement of the magnetic tape-based archiving system through the NetApp platform

- Audit-compliant, extensible archiving system
- Permanent, write/deletion-protected storage of invoice data, e-mail data, staff data and patient data
- Compliance with audit and governance guidelines
- Compliance with criteria was achieved in coordination with the Austrian Ministry of Finance
- Maximum availability

# THE REFERENCE IN DETAIL.

## THE CUSTOMER.

A large proportion of public hospital beds in the Austrian state of Burgenland fall under the responsibility of Burgenländische Krankenanstalten-Gesellschaft m.b.H. (KRAGES). KRAGES, headquartered in Austrian Eisenstadt, the state capital of Burgenland, operates four hospitals in Güssing, Kittsee, Oberpullendorf and Oberwart. The hospitals serve some 53,000 people with inpatient treatment 151,000 with outpatient treatment each year, in addition to carrying out over 16,000 operations. The management of core competencies not only improves patient care, but also enables more efficient operations. The task faced by KRAGES and its some 2,000 employees is to ensure sufficient, modern, optimized, patient-oriented treatment and medical care for the population, within the framework of an integrated healthcare system.

## THE SITUATION.

For more than 10 years now, KRAGES hospitals have used the i.s.h.med hospital information system (HIS) and the IS-H personnel management system, both of which were implemented by T-Systems. Thanks to the Citrix virtual environment, employees can log on to any device in the system, independently of their current work location. Client exchange takes a maximum of four hours. An innovative printing concept with pay-per-page rounds out the infrastructure service spectrum. T-Systems also operates the centralized, redundantly designed KRAGES data centers in Eisenstadt and Oberwart, including server, storage and backup, as well as active network components, the server farm and 600 IT workplaces. T-Systems also supports application management of the applications for administration and the archive. As part of the targeted standardization and operational security, a virtualization level of 90% has been achieved, while a disaster recovery concept has made it possible to achieve availability of 99.5% for the central systems, such as the Exchange servers. A central service desk and four permanently assigned T-Systems employees guarantee seamless operations. Recently, the two contracting parties gave both the HIS and the previously magnetic tape-based archiving solution an innovation update.

## THE SOLUTION.

In the i.s.h.med area, an additional OP module with automated workflow was implemented seamlessly in the user-friendly SAP landscape. As soon as it becomes clear that a patient requires an operation, planning for the operation begins immediately, with the pre-operative examination derived from it. From the OP request and approval to the operation itself, all relevant data for the operation is recorded, documented and made available centrally in the electronic patient file. The intraoperative documentation is also carried out in the OP room online in i.s.h.med. Operating room care staff enters all timestamps, changeover times, consumed materials, devices used and other parameters directly in the OP care report, on PCs in the operating theaters. Standardized OP care schedules that are defined in the HIS save a great deal of entry work. T-Systems has replaced the previous magnetic tape-based archiving solution with an audit-compliant, flexibly extensible NetApp archiving system based on optical disks. Invoice data, e-mail data, staff data and patient data, for example, is stored there compliant with all audit and legal requirements, logically separated and write/deletion protected, for a retention period of up to 30 years. In contrast to the previous solution, this system, with a current scope of 2 terabytes, is mirrored in the two data center sites, providing for even higher availability. Compliance with legal criteria was achieved in coordination with the Austrian Ministry of Finance.

## THE CUSTOMER BENEFITS.

Doctors, care staff and patients all benefit from the integration of the new OP module with the existing i.s.h.med HIS. All entries are checked for plausibility. The OP-relevant data is available to all authorized parties at all times during the workflows. All patients receive their definitive OP schedules immediately, with planning security. The same also applies to KRAGES, which is able to utilize the capacity of its cost-intensive resources much more effectively. Since the new OP module uses the same user interface as i.s.h.med and SAP, hospital staff can start using it immediately, without any lengthy training. The switch to the NetApp archiving system gives KRAGES more flexibility, faster access to historical data and maximum future security with regard to its extensibility in new projects. Compliance with all internal and legal guidelines is also guaranteed.

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