Optimal Care –
for Patients and IT

University Medical Center relies on unified endpoint management from baramundi

Since 1907, this University Medical Center (UKD) and the Medical Faculty of the Heinrich-Heine-University have been leaders in research, teaching and patient care. The 1,150-bed the Heinrich-Heine-University Hospital is one of the country's top hospitals and the largest employer in the area with more than 5,500 employees treating over 50,000 inpatients and about 300,000 outpatients annually. To manage costs and operational efficiencies the University spun off a 100% owned service organization with 450 employees handling project management, mechanical services, electrical and communication technology, medical technology, central sterilization services, laundry, patient archives, security, transportation, and the IT systems that keep everything running.

Extensive and demanding IT environment

The 39-member IT team headed by Phillip Mueller has multiple responsibilities including first and second level support, client, mobile device and printer management, hardware purchasing, project management, special SAP projects, more than 150 virtual servers, and the maintenance of the electronic patient record system. Mueller and his team look after approximately 7,000 endpoints devices deployed across 32 institutes, 28 clinics and various branch offices throughout the city and a large research facility which is located about 35 miles away from the main campus.

The Hospital operates a diverse IT environment using standardized configurations that offer the best compromise of cost, performance, future reliability and energy consumption. "While we rely primarily on Intel-NUC clients and notebooks from Lenovo it is still a challenge to support the requirements of different users in research, teaching and patient care while ensuring that they all have the latest updates and upgrades. We also need to support macOS and iOS users, numerous specialty medical systems, and large number of related processes. Virtually all operations depend on IT support, and our computing landscape gets more complex each year," says Mueller.

Biggest challenge: Hospital technology and Windows 10 migration

"The biggest challenges at the terminal device level include meeting the operating and certification requirements of the BBK or BSI KRITIS (critical infrastructure requirements defined by federal civil defense, disaster recovery and cybersecurity authorities). The planned end of support for Windows 7, the associated Windows 10 migration, and continuing upgrades to existing Windows 10 installations are additional challenges. We also operate a large

number of special systems for clean rooms, operating theatres, building control systems, MRT and CT machines, patient rooms, and key management. Until 2015, all end devices had been installed manually using a standard image. Rules and updates were distributed via domain guidelines or WSUS," recalls Mueller.

New solution for overstrained concept

A new solution of a strained management approach

"At the beginning of 2014, we conducted an intensive evaluation of the top IT management system vendors. The key factor in our choice of baramundi was the open, honest and comprehensive way they understood and approached the job without vague assurances or overstated capabilities. All people involved in the selection process had years of IT experience and very quickly sensed when promise and reality would not match up. It was clear that baramundi Management Suite (bMS) could meet our requirements. The company also demonstrated its experience and commitment through excellent support, clear communication and attractive pricing with fast, uncomplicated contracting. That's why we have been using the baramundi Management Suite since 2015," explains Mueller.

"We use its modules extensively for software distribution (Deploy), OS-Install, and Inventory, as well as the Automation Studio to create custom scripts for managing of our terminals and connected peripherals.

"Two full-time employees operate the bMS system. Due to the high degree of automation and the use of PXE-Boot, WoL and the associated OS-Deploy, it is very easy to get 100 end user devices operational in the nick of time. Thanks to the consistent use of bMS, our first and second level support team has been able to take on 1,500 additional users without having to increase our staff since 2015," continues Mueller.

Overcoming challenges

Implementation needed to take place in phases over six months due to more than 300 network subnets, different network hardware, and static and dynamic IP address ranges that prevented continuous access to endpoints.

"OS installations are now automated virtually everywhere. The planned end of support for Windows 7 made us pioneers in Windows 10 migrations in 2016. Even with the early start the phased rollout meant that we still had more than 4,000 out of 7,000 clients still equipped with Windows 7. At the beginning of 2019, we decided to get the remaining endpoints upgraded. Thanks to the sophisticated scripting, OS-Install and OS-Deploy functions in the baramundi Management Suite, we were able to migrate more than 2,500 Windows 7 devices to Windows 10 quickly and smoothly - without the first and second level support team facing unplanned efforts or requesting overtime."

Conclusion - Increase in productivity

University clinics necessarily have large workforces and correspondingly high demands for user support. First and second-level support, which includes a central hotline, is staffed by only twelve full-time staff and is responsible for supporting 7,000 end user devices and 5,500 employees. We realized that without the use of the baramundi Management Suite, our IT would need at least double the current full-time staff.

Mueller's overall impression of the bMS and baramundi as an IT partner goes beyond product and vendor capabilities: "We would be delighted if more companies in the IT sector had similar ideas about customer service, training and support. baramundi is the standard par excellence for us in that respect. We congratulate baramundi software on an extremely versatile product and look forward to a lasting and productive business relationship. At the same time, we encourage all companies to adopt unified endpoint management with vigor and experience the advantages of bMS for themselves."