



Storage solution supporting treatment at UPK Basel.

The Psychiatric Hospital of the University of Basel (UPK Basel) came into existence as the result of merging an acute-care psychiatric clinic for adults with the university psychiatric polyclinic and the children's and adolescent psychiatric clinic. UPK Basel now offers a variety of inpatient, limited-inpatient and outpatient services, focusing on treating children and adolescents in an inpatient setting, for instance to facilitate early detection of autism.

Starting point. The Psychiatric Hospital of the University of Basel uses AV therapies to treat children with autism at a specialist day clinic in Muttenz, northern Switzerland. These therapies are used to analyse and evaluate the children's reactions for learning purposes. These kind of applications produce very large volumes of data and to store them, UPK Basel had been using two HPE EVA systems (EVA6000 and EVA6100), which had been up to the task for many years as a secure, stable and easy-to-manage platform. However, ever-increasing volumes of data demanded an increase in total storage capacities which was impossible to carry out with the existing systems. This lack of storage optimisation also affected performance of the Oracle-based databases which would have been insufficient for the planned expansion of the VMware View environment from 20 to 400 desktops.

”Our new systems have given us nearly three times the performance for half the price. Availability has increased dramatically and our systems are stable and entirely reliable.”

Michael Müller,

Project Manager

Psychiatric Hospital of the University of Basel

Project objectives. UPK Basel's new storage solution was to start out with 40 TB of capacity, with the ability to scale up to 80 TB over the next four years to accommodate the rapid data growth expected. The system would also have to be able to increase performance in the coming years from the initial 10,000 IOPS to 35,000 IOPS. However, UPK Basel wanted to continue using the 8 GB SAN between its servers and clients. To ensure that data would be adequately safeguarded, at least two systems would be required, located at different sites. This would enable transparent failover protection in the case of an emergency. Data would have to be synchronously replicated between the two sites. UPK Basel also wanted to implement automatic tiering by speed, performance or capacity to optimise operational performance. With respect to software, UPK Basel would continue using its existing VMware and Windows solutions.

Process. After consultation with Bechtle, the existing HP EVA systems were replaced by two excellently priced HP 3PAR StoreServ 7200 systems and data mirroring from Bechtle via the controller-based remote-copy feature was set up. The VMware Recovery Manager, installed in the system, was utilised to recover data in an emergency. Bechtle also updated the existing virtualisation environments from VMware vSphere 4.1 to Version 5.1.

Solution. The deciding factor for selecting the HP 3PAR StoreServ 7200 was the user-friendliness and simplicity of its GUI-based management console. Linking two of these servers together ensures that recorded data is always backed up. Moreover, this infrastructure guarantees transparent failover and disaster recovery of critical systems should an emergency occur—all without UPK Basel having to purchase any additional hardware. Automated storage tiering has increased system performance by automatically sending frequently accessed data to faster, more expensive SSD media while storing low-priority data on regular, less expensive hard disks. Using an appropriate migration tool, Bechtle migrated the entire virtualisation platform within a single week. The full transition, including an upgrade to VMware vSphere 5.0, was completed in six weeks without interfering with ongoing operations.

Business benefits. Because the system's performance and capacity can be easily upgraded, UPK Basel's IT team is now able to respond more quickly to new requirements. As a matter of fact, an expansion of the virtual desktop infrastructure is already planned for the foreseeable future. The storage tiering capability offered by the HP 3PAR StoreServ 7200 systems also increases overall availability while reducing costs. VMware virtualisation technology and the HP Management Console enable IT staff to quickly and easily deploy virtual servers for new applications. Even special tasks can be performed by UPK employees rather than external specialists thanks to the new GUI. This simple interface and the automated workflows help prevent usage errors and reduce the need for training.

CUSTOMER PROFILE.



The Psychiatric Hospital of the University of Basel (UPK) is part of the public health system in the Basel City Canton. They are responsible for the psychiatric treatment, university teaching and research, plus training in the fields of psychiatry and psychotherapy. The clinic offers wide-ranging diagnostic, treatment and care services based on the latest medical expertise. UPK Basel treats is responsible for the inpatient, semi-residential and outpatient psychiatric treatment of adults, children and young people, forensic patients and private patients from the region. UPK Basel also provides highly specialised forms of therapy and clinics for the wider area.

Further information: upkbs.ch

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