SEP sesam Hybrid Backup - the Hero of your Data

Successful companies and organizations trust in SEP Hybrid Backup

Medical research in save hands

"Our data volume has become so large that we had to find a backup solution which protects more data much faster"

CENTER FOR HUMAN GENETICS AND LABORATORY DIAGNOSTICS (AHC)
Dr. Klein, Dr. Rost and Colleagues

The Center

For more than 15 years the Munich Center for Human Genetics and Laboratory Medicine provides doctors and institutions with a wide range of diagnostic methods and technologies. Analysis of bodily fluids and tissue samples using various methods, as well as in the field of modern analytical technologies of molecular diagnostics are core competencies of the Center. The samples are collected at the recording offices. There they get labeled exactly, titled and distributed for closer examination in respective areas.

The Center for Human Genetics also offers a genetic counselling center using the latest scientific evidence to inform and educate patients. The medium-sized private corporation employs 120 specialists, including doctors, scientists and biological and technical staff.

SEP sesam in Linux environment

SEP sesam protects and restores all operating and customer data absolutely reliable at any time. The software fits perfectly into the IT environment of the Center for Human Genetics and Laboratory Diagnostics, because of Linux operating systems its focus on. "The majority of backup vendors we've seen neglect Linux environments", says Marc Mühlfeld, IT director of the Center for Human Genetics and Laboratory Medicine.

In addition, the Center use different software solutions for the different diagnostic tests. "We have a whole bunch of databases and applications with special demands on backup software. A huge advantage of SEP sesam is their ability to back up any environment running on any platform. Our entire IT infrastructure is covered," explains Marc Mühlfeld. "We tool a look at the backup market and quickly found out, that most vendors are far less scalable."

Growing demands

The institute works with the latest laboratory diagnostic technologies in areas such as immune genetics, biochemistry, molecular genetics, pathology and microbiology. Next Generation Sequencing devices offer the latest measurement technologies to analyze the entire human genome. This creates huge amounts of data generated by high-resolution images. Their size varies from several hundred MB to a few GB per image. Each time the devices are used, they produce about 200 GB to 1 TB of raw material, depending on the device. Two years ago, the Center backed up 5 TB of data - today, they manage 20 TB.

The Backup Diagnostics

"Data is housed in our network for four to six weeks. We keep it until diagnosis and findings are finally written. During this time, our data volume continues to increase", says Mühlfeld. "Something had to change. We needed to absorb this amount of data so that we could keep the backups at least 30 to 35 days before they are overwritten," explains the IT director.

Since the amount of data increased exponentially, the IT Team had to choose between buying a new storage cluster, deduplication on the storage or deduplication with SEP sesam.

Deduplication is the magic Word

Unfortunately, the old storage cluster had reached its capacity limit and making a transition from classical data storage to deduplication impossible and that's where SEP sesam. Si3 target deduplication came in.

"An effective deduplication solution is critical for our business. Some data stay in our network. In this period nearly the same data is backed up six times, so I can significantly reduce the amount of data on the backup storage" recalls Mühlfeld.

The 24x7 support service provided by SEP specialists, independence from storage clustering, a high flexibility, backups with a minimum demand of storage volume, low space requirements in the server room and the saving of electricity costs are convincing arguments for this method.

SEP's Si3 deduplication method divides files in variable blocks. Then the backup storage compares the stored blocks indexes duplicate blocks.

The Center for Human Genetics and Laboratory Medicine trusts in the Hybrid Backup solution SEP sesam and can fully concentrate on their research and diagnostics business.

SEP sesam: Security Across the Enterprise

+ Several servers with many TB of data
+ Integrated Bare System Recovery for all Linux and Windows servers
+ Various Linux distributions
+ Storage Cluster with Replication
+ 100 TB Backup-Data
+ File, database and Bare System Recovery Backup
+ Automatic replication of backup data on GlusterFS
+ Migration of backup to tape

SEP sesam Modules

+ Backup Server: Linux
+ Client Operating Systems: Linux, Windows
+ Databases: MySQL, MS SQL; Oracle, PostgreSQL
+ Storage: 55 TB DataStore, 20 TB Si3 DeduplicationStore, all DataStores are replicated with GlusterFS

SEP AG

SEP has been developing and selling enterprise-wide data protection solutions since 1992 and is headquartered in Holzkirchen near Munich. A branch office with support and sales team is also located in the USA. SEP has a strong partner network and relies 100 percent on resellers for sales. Customers in more than 50 countries include top-tier enterprises, market leaders in the healthcare and financial sectors, and leading universities.

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