



**SEP** Hybrid Backup & Disaster Recovery

# **SEP sesam Hybrid Backup - the Hero of your Data**

Successful companies and organizations  
trust in SEP Hybrid Backup

# Centro Medico Santagostino (CMSA)

Cloud backup from SAP HANA to AWS -  
With SEP sesam it's possible and certified with only one solution

The Centro Medico Santagostino (CMSA), with its headquarters in Milan, has made its mission to offer high quality private medicine at reasonable prices. In this form it is a novelty for the Italian health care system. Founded in 2009, the company has experienced rapid growth since its inception. The offers of the meanwhile 16 polyclinics in Milan, Brescia and Bologna are excellently accepted by the patients. For the third time in a row, the CMSA was listed by the Financial Times as one of the 1,000 fastest growing companies in Europe. The CMSA aligned its IT infrastructure completely to the cloud, which is based on Amazon Web Services (AWS). For the data backup of the SAP HANA solution, which also runs on AWS, SEP sesam was chosen because SEP is SAP-certified, saves the data in accordance with EU-GDPR and is optimally suited for heterogeneous IT environments.

Without contracts with the national Italian health system, the Centro Medico Santagostino offers the areas: multi-specialists, therapies, physiotherapy, speech therapy and psychotherapy at reasonable prices. Revenue grew from 8 million Euros in 2014 to 31 million Euros in 2018, with over 400,000 patients treated. Growth continues in 2019 with the opening of the first clinic in an Esselunga shopping centre in Monza. A clinic in Rho should follow at the end of the year. The Centro Medico Santagostino is thus one of the leading outpatient clinics in Italy.

Efficient IT is an important reason why the CMSA can provide patients with a great customer experience. Here, CIO Riccardo Altura and his colleagues rely on a powerful cloud environment. CMSA has been using AWS' data centres with locations in Ireland and Germany since 2011 as they had the most extensive offerings at the time. Several instances of SAP Business One for HANA have been running there since then. HANA is the core on which

*„With AWS the customer can restore his database in a few minutes, with SEP this is possible in seconds. For an almost completely cloud-based environment, this brings significant benefits.“*

*Roberto Marini, Consultant, SYS-DAT*

all other systems (EHR, CRM, ERP) are based. Before that, they used a proprietary Linux environment, which quickly reached its limits with the rapid growth of CSMA.

## Cloud and SAP HANA certified protected with SEP sesam

Before SEP sesam was introduced, the data was backed up with AWS on-board resources. "The backup functions of AWS are not SAP HANA certified. This was an important aspect for the use of SEP sesam," says CIO Riccardo Altura. The system house SYS-DAT from Milan, which specializes in the health sector, supported him in his selection. The SEP partner introduced the backup solution as part of an adaptation of the AWS/SAP infrastructure to reduce the RPO (Recovery Point Objective) to almost zero. "With AWS the customer can restore his database in a few minutes, with SEP this is possible in seconds. For an almost completely cloud-based environment, this brings considerable advantages," says Roberto Marini, consultant at SYS-DAT. SEP sesam now backs up all accounting data, i.e. invoices, bank and balance sheet data and HR data.



*Riccardo Altura, CIO, Centro Medico Santagostino*

### User

The Centro Medico Santagostino (CMSA), headquartered in Milan, is one of the leading outpatient clinics in Italy. It operates 16 polyclinics in Milan, Brescia and Bologna. Further clinics will be opened in Monza and Roh in 2019. For the third time in a row, the CMSA was listed by the Financial Times as one of the 1,000 fastest growing companies in Europe. Revenue grew from 8 million Euros in 2014 to 31 million Euros in 2018, with over 400,000 patients treated and almost 200 employees. [www.cmsantagostino.it](http://www.cmsantagostino.it)

### Initial situation

After the further conversion of the IT environment to SAP HANA in AWS, a backup solution was to be purchased that was superior to the on-board resources of AWS. In addition, the new solution should be SAP HANA-certified and EU-GDPR-compliant. It also had to be possible to reflect the continued strong growth.

### Solution

The data backup and data recovery solution SEP sesam was introduced together with the partner SYS-DAT in 2018. The SEP partner introduced the backup solution as part of an adaptation of the AWS/SAP infrastructure to reduce the RPO (Recovery Point Objective) to almost zero. SEP sesam now backs up all accounting data, i.e. invoices, bank and balance sheet data and HR data.

### Advantage

The SAP HANA-certified backup and recovery of data and all this in compliance with EU-GDPR, meet the core requirements of CSMA. Due to the central interface and the possibility to integrate heterogeneous systems, all needs can be met with only one solution.



EHR (Electronic Health Records) are not secured with SEP. These are stored separately encrypted at AWS and secured there.

The applications in the data center can be managed uniformly and centrally with SEP sesam and can be quickly restored if required. For the SAP HANA systems, this is done as Point-in-Time Recovery (PITR). There is no data loss between the last backup and the recovery of SAP Systems. The comprehensive user interface clearly displays the backup and recovery status of the backup storages.

## Expansion continues rapidly

The Centro Medico Santagostino is consistently continuing to implement the conversion to cloud-only. Work is currently underway to fully control the IT environment - from the physical assets (laptop) to the cloud system. "SEP sesam also supports us here. The EU-GDPR-compliant data backup enables us to benefit from the possibilities offered by the solution for our systems on the one hand, and on the other, we comply with data protection regulations," CIO Riccardo Altura is pleased to report. Through the scalable environment of SEP sesam, growth can also be supported on the side of securing the IT infrastructure and thus ensure smooth operation.

*„EU-GDPR-compliant data protection enables us to take advantage of the possibilities offered by the solution for our systems on the one hand and to comply with data protection regulations on the other.“*

*Riccardo Altura, CIO, Centro Medico Santagostino*



## SEP-Partner SYS-DAT

SYS-DAT has been offering management solutions for all market segments in Italy and abroad since 1977. This includes specific solutions for private clinics, medical practices, diagnostic imaging centers and hospital service providers. The Healthcare Information System (HIS) developed by SYS-DAT consists of various solutions that can be customized and are fully integrated into SAP Business One. Besides SAP, SYS-DAT is also a partner of SEP.



*Roberto Marini, Consultant, SYS-DAT*

## SEP sesam: Security throughout the company

SAP Business One on HANA in AWS

- + SAP HANA as the core that interacts with all other systems. (EHR, CRM...)
- + Data centers in AWS (Ireland, Germany) with 4 dedicated persons
- + CMSA is working on complete control of the ICT environment - from physical assets (laptop) to the cloud system
- + SEP sesam installation for SAP HANA in AWS:
  - + Creation of 3 daily schedules (File Backup, Database Backup, Sesam Backup)
  - + Installed on SAP HANA1 Script, successful DB and log file backup
  - + Adjustments under /opt/sesam/bin/sesam/hana\_backup.sh (Drive, Pool) for the complete backup of the HANA DB
  - + 25 streams per Drive
- + Sep sesam installation for SAP HANA in CMSA Datacenter in Milan:
  - + Savesets of the Datastore moved to Dedup Store, Server + Client Update
  - + Customization in .utl File HANA Pool and Drive
  - + Migration of the savesets of the datastore in Dedupstore

# Backwelt Pilz

SEP is selected as the backup solution for consolidated protection of a hybrid virtualized KVM environment and the integration of a Kopano email system into the Enterprise backup solution.

Backwelt Pilz is a manufacturer of innovative, high-quality freezer baked goods. The company's high standards are certified by the guidelines of the International Food Standard and the Austria Bio Garantie. Many of their products have both the AMA seal of approval and the AMA Bio label. Backwelt Pilz strives for product diversity and offers a wide range of product categories with a variety of recipes, sizes and shapes. Their product diversity creates a large amount of data and, therefore, a reliable IT infrastructure to support the business is essential. Pilz's IT infrastructure, which included KVM Hypervisors and Bare Metal Server, was maturing and needed to be updated. A central email system was missing and users were using different versions of different Email applications. For data backup, two different solutions that ran independently of each other were in place, which was not optimal for resources and would be problematic in the event of a disaster.

The objective was to obtain business continuity across the entire infrastructure and keep business-critical information available. The IT network needed to be centrally re-structured with the goal of increased flexibility, security and availability. The existing KVM VMs and the bare metal ERP Server was migrated to a Proxmox cluster for failover.

The email system was changed so that classic groupware features like common calendar and new E-Augmenting Teamwork Features (web meetings and ownCloud integrations) are available. Another requirement was that all users have the same mail clients and version. Everything should be under a central, unified backup solution that protects data, provides centralized management and fast granular restore, including Single Item Restore for groupware.

## Successful implementation through SEP partner

Siedl Networks consolidated Backwelt Pilz's backup solutions to SEP sesam to increase simplicity of management and to improve data security. Siedl

*"The investment in the new hardware and software solution pays off every day and guarantees us security and flexibility for the future!"*

*explains Markus Sitz, head of the Information Technology at Backwelt Pilz.*

Siedl Networks GmbH is a long-standing and experienced SEP partner that focuses on development of heterogeneous IT solutions using Open Source technologies and IT services.

Pilz's new solution is based on central storage Fujitsu ETERNUS DX100 and a server cluster with automatic failover consisting of two Fujitsu RX2530 M2. An existing Fujitsu RX300 was upgraded and reallocated as the central backup server and cluster Management Server. In order to ensure that the desired failover is achieved, the open source virtualization platform Proxmox was installed so that if one server fails the system is still in production. The existing Univention Corporate Server (UCS) was migrated and brought up to date.

The Zarafa groupware system and all of its data was migrated to Kopano and the Kopano Desk app was rolled out company-wide as the standardized email solution.



*Markus Sitz, head of the Information Technology at Backwelt Pilz, together with Johannes Zöhrer from Siedl Networks.*

## About Backwelt Pilz

Backwelt Pilz GmbH produces innovative, high-quality frozen bakery products in large quantities at competitive prices and is a profit- and growth-oriented company. Their company motto is "Quality is a matter p(rye)de" and so are the actions of the Backwelt Pilz. The company stands for professionalism, innovation, performance and reliability. Backwelt Pilz offers its customers a wide range of products from a single source. Due to a well-thought-out production process, they are able to produce products of consistently high quality and preserve their craftsmanship. Backwelt Pilz also offers packaging solutions tailored to each customer's needs. [www.backwelt-pilz.com](http://www.backwelt-pilz.com)

## Situation

Backwelt Pilz had an IT infrastructure with KVM hypervisor and a bare metal server. This infrastructure was aging and needed to be renewed. The services used were outdated and also needed to be modernized. Various versions of different email applications were in use without a central email client. For data backup, two independent backup solutions were in place.

## Benefits

With SEP sesam, a central backup solution with unified management was implemented to improve data security and simplify administration. The new Kopano solution introduced a uniform email system that is centrally secured with SEP's Kopano agent. With the SEP agent, it is now possible to back up and restore individual Kopano items such as single emails or contacts. By leveraging the combination of Proxmox, SEP sesam, Kopano and Univention Corporate server, high standards of failover and data security have been established with a modern and flexible solution that can be centrally controlled and monitored with one program.



To improve data backup, many software agents from SEP sesam were used so that a complete, central solution can reliably back up and restore data when necessary. The SEP agent for Kopano allows users to restore individual items such as emails or contacts from the backup. The backup of data and databases are performed using Backup2Disk and Disk2Tape. The data is first written to a NAS storage system and then backed up to tape. For monitoring, the backup server is connected to Siedl Networks' monitoring system. In the event of a failure, Siedl Networks' technician team will be informed immediately and can quickly intervene. The combination of SEP Sesam, Proxmox, Kopano and the Univention Corporate Server created a robust failover and data security system that is centrally managed and easily monitored with one program.

With the upgrade of their IT infrastructure and consolidated data protection solution, SEP sesam, Pilz's data security has enormously increased. "The investment in the new hardware and software solution pays off every day and guarantees us security and flexibility for the future," explains Markus Sitz, head of the Information Technology at Backwelt Pilz.

## Solution

The new solution consists of central storage and a server cluster with automatic failover. A Fujitsu ETERNUS DX100 and two Fujitsu RX2530 M2 are in use for hardware. The existing Fujitsu RX300 was reallocated as the central backup server and cluster management server. To achieve the customer's desired reliability, the open source virtualization platform, Proxmox, was installed. This will allow

*"Due to many years of experience with IT projects in heterogeneous environments, and the success of both the SEP and Univention technologies, we were able to optimally adapt and successfully implement the solution to customer-specific requirements,"*

*Johannes Zöhrer, Settlement, Siedl, Consulting/Sales, Siedl Networks GmbH, SEP-Partner*



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a server to stay online and remain productive in the event of a server failure. The existing servers based on the Univention Corporate Server (UCS) were migrated and brought up to date. The existing groupware, Zarafa, was migrated to Kopano and the Kopano Desk app was rolled out company-wide. All groupware data was migrated to the Kopano system, allowing users to use their data as they did before. The central SEP sesam Backup/Recovery solution includes various software agents for Kopano, Microsoft SQL Server, MySQL, and MariaDB. Data and databases are backed up with SEP Sesam utilizing Backup2Disk and Disk2Tape procedures. The data is first transferred to a NAS storage system and then saved to tape. The backup server is connected to the backup monitor of Siedl Networks. In the event of an error, Siedl Networks' technician team will be informed immediately and can take rapid and targeted action

## SEP sesam Products Implemented

- + SEP sesam Standard Server
- + SEP sesam Mail-/Groupware-Agent for Zarafa
- + SEP sesam Datenbankagent for Microsoft SQL Server
- + SEP sesam Remote Device Server (RDS)
- + 7 SEP sesam Backup Client
- + SEP sesam Datenbankagent for MySQL and MariaDB
- + SEP sesam Storagepool 5 TB

# Technische Werke Ludwigshafen AG (TWL)

SEP's ability to secure a wide range of system, including SAP HANA, VMware, Oracle and Windows environments and its scalability make SEP sesam the ideal backup tool

As a municipal utility company, Technische Werke Ludwigshafen AG (TWL) has supplied households, industry, commerce and agriculture with electricity, natural gas, heat, cooling and drinking water for more than 100 years. The utility company is strategically expanding its expertise and infrastructure through continuous investments in sustainable and ecologically valuable technologies. TWL relies on a strong foundation of IT-based systems. Their many high-performance IT systems, including the SAP HANA in-memory solution, SUSE Enterprise Linux, Oracle databases, various virtual environments and special applications for power generation, require a sophisticated security strategy. TWL needed a secure and certified solution to manage this heterogeneous environment. They chose SEP sesam not only because the solution's diverse unique backup interfaces, but also because SEP offers inline deduplication and SAP HANA in-memory database backup.

Any experienced and long-established organization like TWL will have relied on IT systems to control and

manage the complex systems that a utility company must provide. TWL has operated a data center since the 1970s. Data backup has always been an important component from the start and was originally tailored to the computer infrastructure, meaning several products had to be deployed and maintained in parallel. Today, data protection systems have become increasingly important and business-critical, with a large proportion of energy trading taking place on the stock exchange. TWL must meet appropriate SLAs (Service Level Agreements), and critical systems must be live again by the next business day. A security strategy had to be developed with these requirements in mind.

Over 200 servers in a heterogeneous infrastructure with almost 70 terabytes of frontside volume data and a variety of special applications have to be secured and quickly restored. That includes SAP HANA installations running on two instances, Microsoft Exchange, the ECM system from Optimal Systems over 50 Oracle databases representing productive data and test environments, and more than 150 VMware virtual environments running on different hardware nodes and operating redundantly.

*"SEP sesam secures our heterogeneous and complex IT environment optimally."*

*Thomas Scharfenberger, TWL IT Service Manager*

## Successful on-site introduction by SEP partner BW-Tech

Introducing new systems such as SAP HANA and expanding the VMware and Oracle virtual environments required a review of the data protection strategy. "We were looking for a solution partner that could cover our requirements from a single source," said Thomas Scharfenberger, TWL IT Manager. "We particularly wanted to secure the SAP HANA in-memory database with a solution certified by SAP. TWL is aiming for certification in accordance with the IT Security Act and the special requirements of a KRITIS organization. Our data availability concept therefore had to be brought up to date."

TWL first became aware of SEP's universal solution during a customer project. After evaluating multiple backup solution vendors, the IT team selected the SEP sesam hybrid backup solution. Introduction was made through the long-standing and multiple award-winning SEP partner, BW-Tech. "It was an interesting task for us to analyze TWL's various systems and integrate them into the overall concept for data backup with SEP sesam," said Thomas Wuckel, Managing Director of BW-Tech GmbH in Hockenheim. "Through our years of experience with SEP sesam projects and great collaboration with TWL and SEP support, we have been able to make customizations that have helped us successfully launch the new backup strategy."

### User

TWL has provided households, industry, commerce and agriculture with electricity, natural gas, heat, cooling and drinking water for more than 100 years. As an energy supplier with several subsidiaries and over 600 employees, TWL is aware of its special responsibility for Ludwigshafen and the region. With this in mind, TWL launched the initiative KlimaAktiv to contribute to a protected environment and a clean climate with its wide range of products, consulting and services. [www.twl.de](http://www.twl.de)

### Situation

The introduction of new systems like SAP HANA and the expansion of TWL's VMware and Oracle virtual environments required a review of their data protection strategy. More than 150 servers, nearly 70 terabytes of data, and a large number of special applications had to be backed up quickly and easily restored.

### Solution

TWL chose SEP sesam due to its comprehensive structure and number of IT systems. Together with SEP's partner, BW-Tech, the existing backup processes were converted to the new backup strategy in a dedicated roadmap within two years. Backups have run as planned since SEP's implementation. Regular adjustments to new framework conditions are made in coordination between TWL, BW-Tech, and SEP.

### Benefits

SEP can secure a heterogeneous and complex infrastructure. Reliable backup as well as systems and data recovery are made possible thanks to SEP sesam's native interfaces and SAP certifications. Future requirements can easily be integrated thanks to the continuous development of SEP sesam.



## Versatile configurations with SEP sesam

“The support for most of our deployed platform products was crucial. In many cases, the manufacturer’s original backup interface is in use. So we already had many skills on board and were able to start immediately without any further training,” explained Thomas Scharfenberger in reference to the selection criteria. Support for various hardware backup media, inline deduplication, high scalability and the ability to specify security parameters for very different backup requirements were other reasons that led TWL to SEP sesam. Another advantage is the customer-side customization options: in order to be able to map productive data in the TWL test environment, TWL has created scripts based on SEP sesam (SEP sesam pre/post interface) to back up Oracle DBs. These scripts work with the Oracle RMAN (Recovery Manager) and execute special Oracle backups, which are backed up with SEP sesam. Restore can then be

automated to another instance (such as productive data to a test instance). Procedures like this can be used to check recovery for completeness and functionality.

## Conversion of the complex system within two years

Due to TWL’s comprehensive structure and large amount of IT systems, TWL’s IT team, along with Thomas Wuckel developed a timetable that could be adapted at any time. The experience from an initial pilot project in 2014 was used to create a backup concept. A successive takeover of existing backup scenarios was initiated starting in 2015 and lasted until April 2016. The latest and final integration of backup into the security concept took place in October 2016. The comprehensive project was completed with proof of concept in January 2017. Data backup has run as planned since, with necessary adjustments to new framework conditions made in ongoing coordination between TWL, BW-Tech, and

*“Through our many years of experience with projects involving SEP sesam, strong cooperation with TWL and the support of SEP, we have been able to make individual adjustments that have contributed to the successful implementation of the new backup strategy.”*

*Thomas Wuckel, Managing Director of BW-Tech GmbH, SEP Partner*



Generating station Technische Werke Ludwigshafen AG



SEP. Disaster and crisis management have also been extended. "The solution is now used for business-critical backup, disaster recovery and as part of the overall security concept," explained Thomas Wuckel of BW-Tech.

## SEP sesam, the central building block of the security concept

With SEP a high level of efficiency has been achieved for the backup concept, all systems have been successfully backed up, and all data securely verified. The SAP solution can be easily expanded thanks to numerous native backup interfaces and is scalable to all future changes. "SEP is a central and important building block in our security concept and has successfully replaced multiple backup products that were in place before it," Scharfenberger summed up.

### Customer environment

- + multiple SAP HANA on SUSE SLES
- + over 150 VMWare virtual machines
- + approx. 50 Oracle DBs on Oracle Unix
- + HP MSA Storage 200 TB Backup to Disk
- + HP MSL Loader with 140 slots and 4 drives (LTO-6)
- + Backup to remote locations, separated from the data center
- + Backup server: Windows Server 2012 R2
- + 3 SEP sesam Remote Device Servers running on Windows Server 2012 R2 with 10 GB of network connectivity fill the HP MSA Backup Storage at 3 TB/hr
- + the SEP sesam Backup Server is based on a virtual VMware machine

# UNIORG Consulting GmbH

One of the largest and most prestigious SAP consultancy services protects its data centers with SEP sesam – as a managed service as well

Since its founding in 1974, the UNIORG Group has been a reliable expert partner for company-wide IT solutions, with a very special commitment to SAP. Its long-term mission is to help companies improve their performance and optimize business processes for small and medium-sized enterprises as well as global corporations. Different customer environments and a growing trend towards managed services inspired the company to evaluate a new backup solution. Through its long-term certification with SEP sesam for SAP and its new managed service licensing model, they choose the reliable backup and recovery solution from SEP. Since SEP sesam covers the complete data protection portfolio, only one solution is required for the entire data backup.

As an international full-service provider in the SAP environment, UNIORG develops individual SAP-based solutions because every company is different and needs tailor-made concepts. Its 170 employees in Berlin, Chemnitz and Walldorf, Germany, and in Pittsburgh, USA, are in close contact with customers in order to

gain precise insights into the company's needs. The enthusiasm and creativity of the UNIORG team create the custom solutions that improve work processes for customers every day – and that is the company's goal. It has been achieved for more than 40 years thanks to flexible structures and a flat hierarchy.

Backup and recovery have been central pillars of UNIORG's entire IT management since the beginning. But growing



Dirk Kotthoff, Business Unit Manager for IT, UNIORG Consulting GmbH

*"We can now give our customers an even better argument to work with us, especially because of the SAP certifications of SEP sesam."*

*Dirk Kotthoff, Business Unit Manager for IT, UNIORG Consulting GmbH*

demands on SAP platforms have brought previous data protection solutions to their limits, whether with SAP Business One, SAP NetWeaver platform or virtualized infrastructures with database servers like SAP HANA, MaxDB, SQL and corresponding client access options with VMware Horizon VDIs.

The availability of customer applications that always handle business-critical processes in the SAP environment, are responsible for functioning order and delivery processes, for instance, need to be consistently and quickly backed up and restored in the event of a disaster without data loss and with the agreed RTOs and RPOs. The certifications for various SAP environments were also decisive factors in the new solution. "Certified backup solutions for all products in use were vital criteria for us," says Dirk Kotthoff, Business Unit Manager for IT at UNIORG. "Until now, we had been using various solutions. However, they haven't delivered the performance we need for our cloud applications and our customers, to whom we offer full service."

UNIORG carried out the selection process on the basis of flexibility with regard to mapping backup strategies and the cost/benefit factor of (SAP-)certified backup solutions. "Only SEP sesam includes all these factors," Dirk Kotthoff summarizes. "SEP optimally fulfills the important criteria, such as fast recovery during system failure and outsourced data backup."

## Protected Managed Services in Data Centers

Besides its own IT infrastructure, data backup is also used for the customer hosting infrastructure. Nearly all hosting infrastructure is comprised of new releases. However, older test and demo systems must also be provided for their own environment if they are used by maintenance customers. This is one of the prerequisites for certification by SAP, which UNIORG's Partner Center of Expertise (PCOE) has again received. In addition to classic systems, customers' highly-sensitive in-memory databases are also protected. System failures always have direct effects on customers' productive operation. Backup as a managed service is becoming an increasingly important part of UNIORG's services. Customers appreciate a worry-free model that offers full service. Customer applications

in the data center are backed up with SEP sesam and can be quickly backed up with the central management interface. For SAP HANA systems, this is done as a point-in-time recovery (PITR). There is no data loss between the last backup and the restoration of SAP systems. The comprehensive user interface provides a clear overview of all backup and recovery statuses of the customer systems and the backup storages.

### User

With around 170 employees, the companies of the UNIORG Group offer businesses of all industries and sizes a comprehensive range of products and services for the conception, construction, modernization and operation of enterprise IT systems. This includes all facets of classic SAP consulting, data center services, managed services, integrated e-business solutions and the cross-company integration of business information systems. For over 40 years, the certified SAP partner has enjoyed an excellent reputation among its customers. These include well-known corporations such as Atlas Copco, Eaton, Philips and Yazaki as well as numerous medium-sized companies. [www.uniorg.de](http://www.uniorg.de)

### Initial situation

The requirements for the concept of data protection have steadily increased through new applications. Veeam's previous solution, with which only the hosting environment was secured, could no longer meet these requirements. Managed services for customers needed to be secured without any complication. UNIORG therefore looked for a powerful and universally applicable backup solution that was certified especially for the SAP environment.

### Solution

The long-time SAP-certified data backup and recovery solution SEP sesam was introduced for the internal IT environment as well as for the MSP systems in the data center. After only two months from the placement of the order, all systems were completely secured with SEP sesam. All future customer environments are directly integrated into this data protection concept.

### Benefits

By consolidating existing solutions, considerable time and cost savings could be achieved. The SAP certifications of SEP sesam also offer a sales argument for customers of the UNIORG SAP system house.



## The Best License Model for UNIORG

SEP provides managed service provider licensing models by servers/components and by volume. With clear counting and billing procedures, UNIORG can guarantee continuous transparency. The full service provider retains control over the licenses used and can calculate planned expenses. For these license models, billing is made on a monthly basis according to actual usage. The MSP license allows UNIORG to roll out up to 25 SEP sesam backup servers per basic license to physically separate customer environments. Backups can be performed on any supported media. UNIORG first performs a backup-to-disk and then preserves these backups, by performing a offline copy on separate tapes (backup-to-tape). All features for the site-to-site replication of backup data are already included in the SEP sesam basic license. This provides the foundation for all mappable concepts with SEP sesam, like backup to a remote data center or into

the cloud, and provides maximum flexibility for an easy introduction to Backup-as-a-Service (BaaS).

## Deciding on SEP sesam

UNIORG opted for SEP sesam because of its variously supported environments, its certifications for SAP HANA and its flexible MSP license model. Dell PowerEdge Server is used as platform. The Veeam solution that had previously been in use, as well as script-based solutions, were completely replaced. Only two months passed between the commissioning of the license training and the operational start in April 2016. "SEP sesam convinced us from the outset," says IT Manager Kotthoff. "The simple adoption of our backup concept and the consolidation of the various solutions to date have exceeded our expectations. We can now easily assure our Service Level Agreements (SLA) for retention and recovery times."

*"The simple implementation of our backup concept and the consolidation of the various previous solutions have exceeded our expectations. Cooperation with SEP was very reliable and transparent. We can now easily assure our Service Level Agreements (SLA) for retention and recovery times."*

Dirk Kotthoff, Business Unit Manager for IT, UNIORG Consulting GmbH



Company headquarters of UNIORG Consulting GmbH

# UNIORG

In the future, all extensions and new customer applications will be integrated directly into the backup concept and centrally controlled and monitored by the central management interface. "We can now give our customers an even better argument to work with us, especially because of the SAP certifications of SEP sesam. After a short adaptation phase, a Service Level 1 administrator is also able to monitor and control processes in SEP sesam," says a pleased Dirk Kotthoff.

## Customer Environment

- + 100 virtualized VMware servers
- + 10 physical servers
- + 4 MaxDBs
- + 14 SAP HANA on SUSE SLES for SAP Applications
- + 23 TB backup-to-disk/backup-to-tape
- + 24 slot library with 2 tape drives
- + Backup server: Windows Server

# Human Nutrition on the safe side

**“We needed a reliable backup solution supporting our heterogeneous IT landscape, in particular our Novell environment.”**

## Any Corporate Data

The mission of the German Institute of Human Nutrition (DIFE) is to conduct experimental and clinical research in the field of nutrition and health. The goal is to understand the source of nutrition-dependent diseases on a molecular basis and to develop new strategies for prevention, treatment and dietary guidelines.

DIFE conducts research in many areas, for example in pharmacology, clinical nutrition, fat cell development and much more.

“SEP sesam is one of the few products suitable for our entire server environment which contains Novell Groupware and Novell file servers.” states Wolfgang Lux, IT director of DIFE.

## The spirit of research needs SEP sesam

“As part of our research complex studies are often performed. The inquiry of the research data is often expensive and time consuming”, knows Wolfgang Lux.

A reliable backup is consequently essential for the Nutrition Institute. “Various incidents could endanger the availability of data on our servers, for example if a storage media fails due to a blackout of the power supply. Protection against cybercrime, computer viruses, theft and trojan horses also plays an important role for us.

User failures of the institutes’ staff like an accidentally deleted file or the saving of a wrong version can also not be excluded.

## The Challenge

The Institute needed a reliable solution for high speed data backup and recovery with automatic migration capability to perform regular backups in a small time frame.

The DIFE only has a small window of time to perform regular backups and sought a solution that could perform under these constraints.

“We produce a huge amount of data and therefore we needed an extremely reliable backup solution for our valuable research data,” explains Wolfgang Lux.

## The Solution

After SEP sesam prevailed against the competition and was recommended by araneaNET, an external service provider for DIFE’s Novell infrastructure with GroupWise, Filr, Vibe, ZENworks and NetIQ Identity Manager, they began with the selection and planning of the software and hardware installation.

The entire installation and configuration process was managed by araneaNET and the Institute’s IT team was actively involved in all phases.

“SEP sesam meets all requirements. All backup and recovery jobs are performed successfully. Since the implementation of SEP sesam, there hasn’t been a single failure of a backup job. We are very satisfied”, sais DIFE IT-Director Wolfgang Lux.



German Institute  
of Human Nutrition  
Potsdam Rehbruecke

## Made For Emergencies

The German Institute of Human Nutrition relies on SEP sesam for all data recovery jobs.

In the past, data had been accidentally deleted from time to time. Since the implementation of SEP sesam, this is no longer a concern. All data have been successfully recovered.

“The biggest nightmare for me would be a lightning strike or a damage by fire or water in the server room. That could destroy many or all critical server data. If the backups respectively the recovering would fail in this situation, we would have a real disaster. In this case years of research would be lost forever,” explains Wolfgang Lux.

“Due to our backup strategy and the outstanding implementation with including an outsourcing of the backup tapes to a different location eliminates the risk of data loss.”

In the future the German Institute of Human Nutrition plans a long-term archiving of raw research data with SEP sesam.

## SEP sesam: Security Across the Enterprise

- + Physical servers
- + NetIQ eDirectory
- + NetIQ Identity Manager
- + Novell GroupWise & Novell Vibe as E-Mail/collaboration platform for 450 User
- + Windows servers
- + Linux file-server-cluster
- + Accounting / finance and settlement systems
- + Outsourced tape backups

## SEP sesam Modules

- + Mail/Groupware: Novell GroupWise
- + Backup server: Linux
- + Client operating systems: Linux, Windows
- + 50 Slot Autoloader Support
- + Backup to DISK
- + Bare System Recovery for Windows servers

# Backup whenever and wherever!

„SEP sesam ensures data protection not only for Linux operating systems, but also for Windows, Solaris and a whole bunch of databases - with only one backup tool!

## Protected data always & anywhere

The IT service specialist ennit AG started with the development of software 13 years ago. Meanwhile the german company is focused in hosting or rather outsourcing of complex systems as well the connectivity of almost 400 locations. ennit offers its customers for business an appropriate infrastructure. "With SEP sesam our customers' data is always well protected," reports Uwe Kastens, Director of Cloud Technologies & Services at ennit AG.

A special subject of ennit is the travel industry. The company develops hotel websites and its own hotel reservation systems.

"It happens very often that we have to restore our customers' data due to operator error or deletion by mistake. With the integrated Recovery wizard restores are performed very easily", said Uwe Kastens.

## The Challenge

ennit runs two data centers, including data from several hundred business customers. Every day, two SEP sesam backup systems provide reliable backup and restore operations with this enormous amount of data.

SEP sesam protects more than 14 TB of customers' data from nearly 750 systems in two data centers. "Whenever we are faced with new requirements in our infrastructure, the SEP team always delivers the perfect backup solution. Our company-wide environment runs SEP sesam since 2005 without any problems", Kastens added.

## Flexibility with only one tool

"The backup software not only protects Linux operating systems but also Windows and Solaris as well as a large variety of databases such as Oracle and MS SQL, Exchange and VMware", reports Kastens. "And all this with just one tool. Other solutions only solved part of our problems or were economically unattractive due to their unflexible license model", explains Kastens.

In addition ennit creates enterprise cloud desktops and realizes cloud services. This enables employees to easily and securely access company data always and everywhere. Therefore cloud desktops are provided on thin-clients where ennit customers can easily access Microsoft Exchange, Outlook, Office and special applications like CRM systems.

## SEP sesam - the straightforward solution

"In some hostings we have a small amount of data. Together with the SEP team we found a matching license model in the shortest time possible. At first the licensing opened up many possibilities and the solution is very straightforward", states Kastens.

SEP also convinced with personal qualities thanks to SEP Sales Director Johann Krahfuss. "I've never met someone like Johann again, who is at such high level regarding technical and sales issues", says Uwe Kastens



# ENNIT

## Highly Professional and Fast

"SEP sesam has enormous advantages for the operation of our customers' systems. The variety of expansion options offered by this software solves all of our problems. Therefore, we have trained and certified our technicians for SEP sesam," says Kastens.

The installation of SEP sesam was quick and easy - without having the need to understand the philosophy or concept behind the backup solution.

"I remember installing an update at a customer's system and it was completed in only two minutes. This deeply impressed me and the customer," says Kastens.

SEP sesam backs up absolutely reliable the customer' corporate data in the ennit IT-environment. ennit is evaluating in SEP's Si3 data deduplication solution to significantly reduce the backup volume.

## SEP sesam: Security Across the Enterprise

- + Server in two separate data centers
- + Disaster- recovery system
- + Physical and virtual servers
- + Novell GroupWise & Novell Vibe as e-mail / collaboration platforms
- + Energy data management
- + Financial and accounting systems
- + CRM- and MIS
- + time recording system with access control
- + video control
- + Storage: NetApp, HP MSA & tape library

## SEP sesam Modules

- + Backup server: Linux
- + Client operating systems: Linux, Windows, Novell OES
- + Virtualization: VMware vSphere
- + Databases: Oracle & MS SQL
- + Groupware: GroupWise & Vibe
- + 25TB DataStore

# Medical research in safe hands

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

## 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 took 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 sesam Saves your Spare Time

**“The best part about SEP sesam is that I can back everything up with one product. All areas and volumes of data are covered with a single backup solution.”**

## Situation

IT Manager for Davos Klosters Bergbahnen AG (DKB), Thomas Grebner, is responsible for a wide range of mission critical data, including the data availability of the cash and credit card systems, electronic access and control systems of cable cars and hotel rooms, the video cameras that provide live feeds of and information about the Panorama, the weather and opening times of cable cars, the control of snowmaking equipment, which alone runs on two servers, the accounting, archival and email systems and the time records of employees. DKB's IT infrastructure has multiple locations, with both virtual and physical servers, connected via fiber optic cables and their environment is constantly expanding and evolving.

In winter, there is quite a hustle and bustle in the two tourist towns. The data backups have to run like clockwork, because data loss leads to problems with a guest's accommodations, activities and overall experience, which could mean significant financial loss for the company. “The biggest nightmare would be if our guests could not check in because suddenly the reservation system of the hotels failed and reception had no access to the resort's booking data,” explained Grebner. Unfortunately, Grebner could not rely on their existing backup product, Symantec's Backup Exec, and needed to find a new solution.

## One Central Solution

The Swiss distributor, SKyPRO AG, suggested SEP sesam as a new backup solution. A SEP specialist then analyzed DKB's environment and requirements. Soon after, DKB made the switch from Symantec's Backup Exec to SEP sesam.

“The installation of SEP sesam only took one day and is currently working better than originally planned. We started completely fresh with SEP sesam and the switch has been completely worth it”, said Grebner.

After attending a SEP training, where data crashes were simulated, Grebner is now prepared for emergencies and disaster situations. He was able to familiarize himself with the SEP sesam system, its capabilities and meet people that have to cope with similar work situations and tasks.

## Results

Grebner and his company chose SEP sesam for many reasons, one being the outstanding personal support provided by the manufacturer. For Grebner, getting professional help quickly and easily was extremely important. The international support team helped him with any questions or problems that arose, day or night. “I rely on SEP sesam's functionality every day. In the event of a disaster I cannot solve, I can always call SEP and connect with someone directly,” says Grebner.

“The best part about SEP sesam is that I can back everything up with one product. All areas and volumes of data are covered with a single backup solution,” said Grebner. He has been working with SEP sesam since summer 2011 and, for his company, it was very important to find a central backup solution that would protect every piece of their intricate system with one product. Prior to installing SEP sesam, each mountain cable car had its own different backup system.



Another reason DKB decided to use SEP sesam, was its extensive support of various operating systems. The ski lifts' operations have run on Novell and Linux for about eleven years and the hotel booking system runs on Windows. The former provider, Symantec's Backup Exec, could not sufficiently support the Linux and Novell environments. Symantec's support was difficult to reach and demanded the acceptance of expensive service contracts. Therefore, the mountain railway team searched for a system that would maintain Novell, Linux and Windows environments.

SEP sesam now backs up enterprise-wide data for DKB. Despite the growing diversity and complexity of DKB's environment, the SEP sesam backup system remains manageable and easier to set up than other backup solutions.

## About Davos Klosters Mountains

Incorporated in 1954 and based in Davos Platz, Switzerland, Davos Klosters Bergbahnen AG operates as a mountain railway company that manages ski and mountain resort facilities, including cable cars, ski lifts and mountain trains for the two giant tourist resorts, Davos and Klosters. The company maintains an area of 187 miles of ski slopes in the winter and 435 miles for mountain biking and hiking in the summer. The Mountain Hotels department of the company allows visitors to choose between 19 different kinds of accommodations, which include hotels, group homes and mobile homes, in order to take advantage of the ski and hiking activities.

## SEP sesam: Security Across the Enterprise

- + Servers at multiple locations
- + Virtualized and physical servers
- + Email and groupware system
- + Cash and credit card systems
- + Electronic access and control systems of cable cars and hotel rooms
- + Control of snowmaking equipment
- + Accounting
- + Archiving
- + Timekeeping
- + Panorama-Livecams

## SEP sesam Modules

- + Backup Server: Linux
- + Client operating systems: Windows, Linux, Netware
- + Hypervisor: VMware ESX/vSphere
- + Databases: Microsoft SQL
- + Groupware: Novell GroupWise
- + Storage: Hard drives & Autoloader

# High Above

**“SEP sesam’s easy installation, blazing fast solutions and reliability along with first-class technical support place it head and shoulders above the competition.”**

## Situation

The Lavendon Group, a worldwide market leader in the rental of powered aerial work platforms, had administered backups on a server-by-server basis using Symantec’s Backup Exec, eating up a lot of time for daily management and administration. Before implementing SEP sesam, the company had to deal with many challenges. When Backup Exec discontinued support for NSS volumes on the Novell Netware platform, it left Lavendon in a quandary.

“Suddenly we were left in a situation without the ability to perform backups of our critical data,” related Nitin Patel, Group IT Operations Manager for UK’s Lavendon Group.

## Solution

“We set out immediately to find another solution. An ex-colleague of mine had heard about SEP sesam from an attendee whilst on a training course and once more at an Open Horizons’ event. We decided to evaluate the product and, on initial review, found it met our requirements”, stated Patel.

## Results

Using SEP sesam, Lavendon can now centrally administer and manage the company’s local backups, as well as backups in remote areas and in other countries around the world. IT personnel can now set up backup tasks to run at any time, or all at once. Using SEP sesam’s patented multi-streaming technology, they no longer have to babysit their backup environment.

Nitin Patel went on to say, “The technical support provided by SEP is first class. They are very responsive, very knowledgeable and go the extra mile to ensure our issues are dealt with and resolved in the shortest possible time.” Patel and his colleagues have developed a good working relationship with the SEP technical team and have always been pleased with the support.

In addition, it is the day-to-day performance that stands out. “The minimal amount of maintenance required for SEP sesam is noteworthy. We set it once and it just runs. Adding hardware, applications and applying updates are amazingly quick and easy,” Patel added.

The initial installation of SEP sesam was accomplished at the company’s UK headquarters staged over a few days as not to interrupt Lavendon’s workflow.

“SEP sesam’s easy installation, blazing fast solutions and reliability along with first-class technical support place it head and shoulders above the competition,” says Nitin Patel.



The SEP support was able to assist with the installation to overcome any issues Lavendon encountered. Once the administrators became familiar with SEP sesam, Lavendon's staff remotely implemented the solution at operations in the other countries without further assistance and without the need to travel to install on-site. "This was very simple and easy to implement," recalls Patel.

Any type of data loss would heavily impact Lavendon's operations and prevent them from performing their jobs. "If the company's IT managers were in a situation where they lost data and we were not able to recover it quickly, it would be a significant problem. Our Finance and Operations Department would be impacted the most," says Patel.

"SEP sesam now enables us to successfully backup all our data on any operating system platform that we use", reports Patel. He and his team are confident that SEP sesam is one of the most reliable products they've seen. To date, no one at Lavendon can recall an instance when a backup or a restore has failed.

## Future Plans

SEP sesam is now a core component of Lavendon's backup strategy. "We are currently looking at and scoping our DR strategy and SEP sesam will be an integral part of the solution we implement," Patel continued.

## SEP sesam: Security Across the Enterprise

- + Server at different locations worldwide
- + One central backup IT administration for unlimited offices located around the world
- + Both physical servers and virtual servers
- + Email and Groupware-System (12 Groupware Servers)
- + Multiple database systems (17 database servers)
- + Server Hardware: Dell
- + Storage: HP LeftHand SANs

## SEP sesam Modules

- + Backup Server: Linux
- + Client operational systems: Windows, Linux, Netware, Open Enterprise Server
- + Virtualization: VMware ESX/vSphere
- + Databases: Microsoft SQL, MySQL
- + Groupware: Novell GroupWise, MS Exchange, Lotus Domino

## SEP AG

SEP sesam is an enterprise backup, restore and disaster recovery solution for today's discerning computer environments. Deduplication and replication capabilities across distributed locations - as well as archiving - are key features of SEP sesam. Migration of data is scheduled automatically, regardless of storage technologies. The flexible backup and recovery of all common operating systems, virtual environments and hypervisors along with a multitude of applications and databases is realized absolutely reliable in over 50 countries.

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