



SEP Hybrid Backup & Disaster Recovery

SEP sesam Hybrid Backup - the Hero of your Data

Successful companies and organizations
trust in SEP Hybrid Backup

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.

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

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.

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

Thomas Scharfenberger, TWL IT Service Manager



Generating station Technische Werke Ludwigshafen AG



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

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

“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

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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