



Highlights

- Perform hot backup of critical databases and e-mail (including single-mail/item restores)
 - Quickly restore to like or unlike hardware, including physical to virtual environments
 - Establish revision-proof archivals for storing data in a permanent, unchangeable manner
 - Migrate data on an automated schedule, regardless of storage technologies
 - Deduplicate and replicate across distributed locations
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SEP sesam on PowerLinux servers

One backup solution for all company applications, data and OSs, including virtual environments

Nobody argues that today's IT environments are more challenging than ever — especially considering that almost every application has to be available 24/7, must be web-enabled and needs to be distributed geographically as well as virtually. On top of those criteria, maintaining a rock-solid backup and recovery system that is cross-platform, distributed, deduped, encrypted, unhackable and that supports recovery down to the level of a single e-mail address and that can be managed from a single console can be a daunting task.

This is the arena in which SEP AG (headquartered in Germany¹) is a pioneer. With expertise in network-wide and cross-platform data-availability software since 1992, SEP has developed industry-leading, Linux® platform-driven technology for data security and has integrated one of the fastest and most reliable data-backup solutions available today. It is ideal for businesses of all sizes, and has proven its value for thousands of companies across the globe.

Success with more than 90 distributed locations

One recent SEP success story is Pneuhage Group, a modern German company with 1250 employees, over 90 retail tire-service centers across Europe and two production plants. Pneuhage also supports more than 220 independent resellers of its products. SAP R3 is the enterprise software that drives this diverse set of business sites and resellers, running on the IBM® DB2® database.

Pneuhage needed a highly secure, reliable and manageable means of backing up its data and applications in a manner that also supported flexible, incremental recovery. In a three-way effort, SEP AG, IBM and SAP AG worked with the Pneuhage IT team to ensure a best-practices installation of SEP sesam Advanced Server to support the backup and recovery needs of all Pneuhage locations.

¹ SEP AG has additional offices throughout Germany as well as in the U.S.



The resulting solution backs up all the data, all the applications and all the operating systems, even the virtualized ones.

SEP sesam is an enterprise backup, restore and disaster-recovery solution for today's discerning computer environments. The flexible backup and recovery of all common operating systems, virtual environments and hypervisors along with a multitude of applications and databases is absolutely reliable in thousands of companies.

Additionally, approximately 45 servers, many of which are virtual, are backed up centrally (at the Karlsruhe, Germany, headquarters) onto a PowerLinux solution, using an IBM System Storage TS3310 Tape Library with 121 Linear Tape-Open (LTO™) Ultrium tape drives² (an expansion module for the TS3310 was required to achieve the 121 tape slots.) These IBM Ultrium drives also make it possible for SEP Easy Archive to prevent unintentional loss or deletion of data, as well as unauthorized edits or changes.

Pneuhage IT manager Ralf Brauer was delighted with the help of SEP AG, IBM Software Group (located in Mainz, Germany) and SAP AG, saying, "Our backup and recovery system deployed in the expected timeline [six weeks] and with less cost than had been projected. The competence, pragmatism and cooperation were amazing." Now, from one central console, the backup administrator can access the SEP sesam user interface to easily manage many databases across the company's local area network (LAN) and wide area network (WAN) environments.

² Linear Tape-Open (or LTO) is a magnetic-tape data-storage standard that was developed in the late 1990s. It is an open-standards alternative that has essentially replaced the proprietary magnetic-tape formats that were available at that time. When introduced, LTO Ultrium quickly took over this market segment.

Block-level deduplication and replication

Brauer is also happy because the new SEP-driven backup process has shown a significant performance improvement over the previous solution. This is partly the result of a sophisticated new block-level data-compression and deduplication routine that reduced Pneuhage data volumes by about 50 percent. Called the SEP File-interface Deduplication System Virtual Appliance (SEP FDS VA) powered by FalconStor, this solution analyzes blocks of data and determines whether the data is unique or if it has already been copied to the SEP FDS VA repository. Unique-data instances are passed to the SEP FDS VA repository. Each deduplicated file is replaced with a stub file, whose function is to direct to the repository and is used to retrieve stored data. The benefit of block-level compared to file-level deduplication, is its superior effectiveness in cutting storage consumption, which reduces backup-management costs by dramatically lowering disk-storage needs, data-center power consumption, tape dependencies and offsite tape-storage costs.

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**– Ralf Brauer, IT manager
Pneuhage Group**

Standardizing the backup and recovery system on Linux

SEP AG has standardized all of its backup and recovery software on the Novell SUSE Linux® Enterprise Server platform. It is easy to see why – Linux has become a world-class operating system that provides flexibility, choice and an attractive total cost of ownership (TCO) that can benefit SEP customers.

Linux enjoys community innovation that constantly enhances and integrates leading-edge technologies and best practices into the operating system. As a result, Linux is a forward-looking long-term strategic platform that is supported by all major server and most major middleware vendors.

Why PowerLinux

Making the decision to run your Red Hat or Novell SUSE Linux applications on PowerLinux servers brings exceptional value to your Linux IT investments. The IBM Power Systems family of IBM POWER7® processor-based systems is designed to provide outstanding performance, availability, scalability and dynamic-resource allocation. Unique IBM virtualization features allow you to process more information on a single server, creating the potential to save on total cost of system ownership, as well as space and energy costs.

Equally important, Both Red Hat and Novell SUSE Linux run natively on Power Systems. IBM has worked to enable its entire server and storage product line to interoperate with Linux. This includes ensuring that Linux uses the unique advantages and enhanced functions provided by IBM Systems. IBM pioneered the use of Linux for mission-critical workloads on Power Systems servers, while also ensuring that key business application workloads (such as SAP) and the IBM software family (such as DB2) run with the stability and efficiency demanded of IBM Systems.

IBM delivers Linux focused technical expertise to customers and solution providers through the Linux Integration Center. This includes help with proof-of-concept implementations, best practices and initial deployment, as well as enablement of integrated software solutions on Linux. The IBM Linux Integration Center can also help define and build the right solution stack, including the hardware, operating system, middleware, applications and tools.

For more information

To learn more about this SEP solution and IBM Power Systems running Linux, contact your IBM marketing representative or SEP, or visit the following websites:

ibm.com/partnerworld/wps/pub/overview/SOH1001

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IBM Systems and Technology Group
3039 Cornwallis Road
RTP, NC 27709

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