SEP Hybrid **Backup** & Disaster **Recovery**
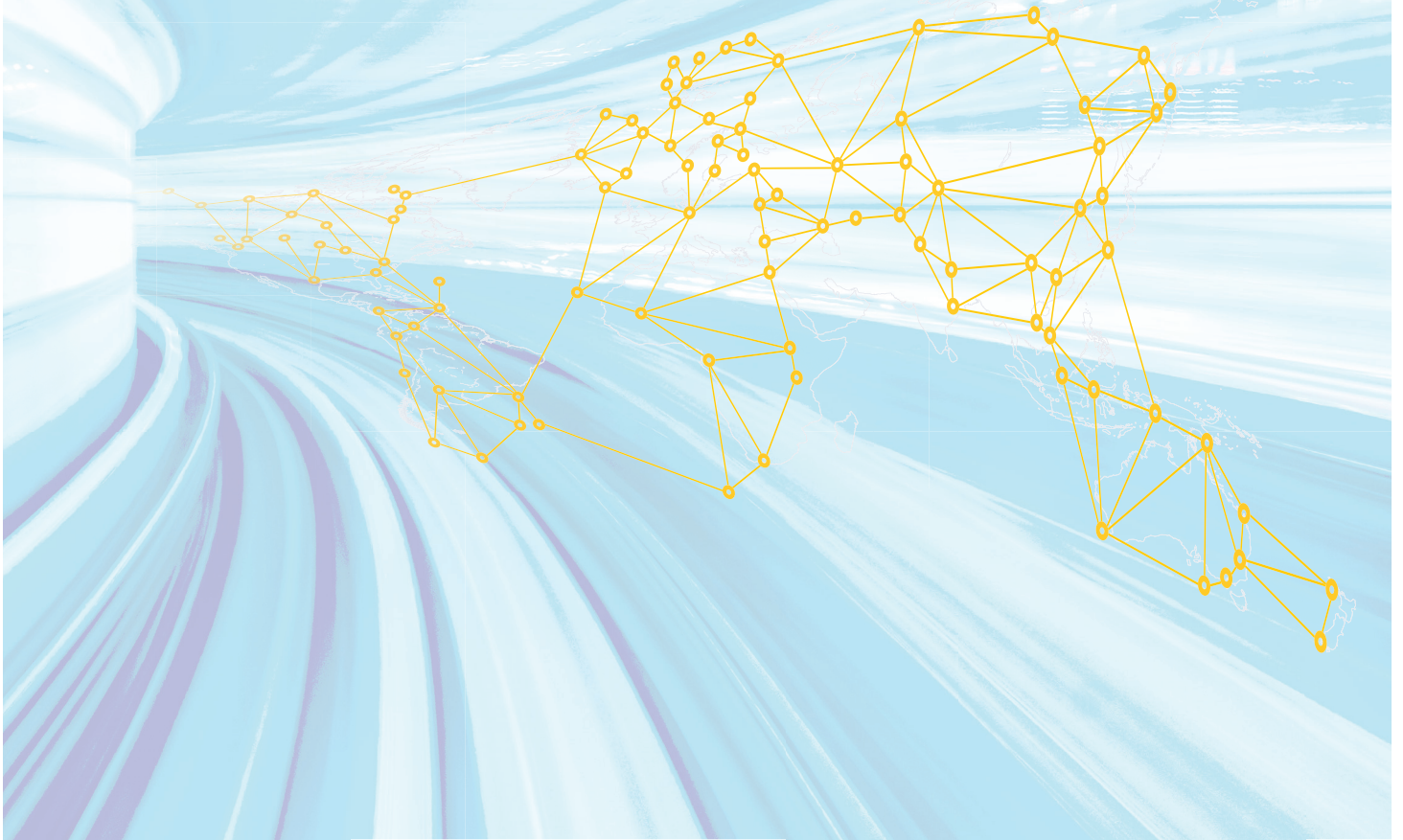
SEP sesam's Backup & Disaster Recovery Capabilities for the Red Hat Ecosystem

redhat.
ADVANCED
BUSINESS PARTNER
ISV Partner

redhat.
READY
BUSINESS PARTNER

SEP sesam's Backup and Disaster Recovery Capabilities for the Red Hat Ecosystem

Table of Contents

SEP sesam's Backup and Disaster Recovery Capabilities for the Red Hat Ecosystem

About this Document

This document serves a Red Hat® and SEP value proposition for the joint solutions. Beside of general information we will highlight the support of Red Hat® Virtualization, Red Hat® Enterprise Linux®, Red Hat® Storage, SAP and Service Providers.

About SEP

SEP is a manufacturer of backup and disaster recovery solutions to protect cross-platform and heterogeneous IT environments. Reliable restores, a flexible licensing model, high product standards and an attractive price performance ratio are only four of countless arguments why organizations and enterprises in over 50 countries trust in the Hybrid Backup solution SEP sesam since 25 years.

About SEP sesam Hybrid Backup and Disaster Recovery

The SEP sesam Hybrid Backup and Disaster Recovery solution is called "hybrid" because it is designed for virtual and physical environments and also for on-premise plus private, hybrid and public cloud environments as well.

SEP sesam reliably backs up all common operating systems, including Linux, Windows, Unix, Mac and Novell NetWare on physical machines and in virtual environments. Overall SEP sesam supports 5 hypervisor platforms: Red Hat® Virtualization, KVM, OpenNebula, Citrix Xen, VMware and Hyper-V. The Hybrid Backup solution also protects a wide range of applications and databases up to SAP including SAP HANA 1&2 on Intel and Power architectures, SAP NetWeaver and SAP ASE.

The variable block-level data deduplication solution SEP sesam Si3 for Linux and Windows-based backup servers reduces the backup storage up to 90%. Furthermore, the bandwidth-saving SEP sesam Si3 replication for distributed IT environments is another great feature which saves both - time and money. The SEP sesam Disaster Recovery modules ensure a fast recovery of all company data and drastically minimizes the down times after a server crash. In the event of a disaster SEP ensures that all data and information can be completely recovered in a user environment.

Here is a short overview of SEP sesam's supported hypervisors, operating systems, databases and applications:

SEP's Mission

> We believe in what people make possible. Data is their foundation and future.
>
> Without Data, they are lost.
>
> Our mission is to protect what they have achieved.

Red Hat Statement

"As a long-time partner, we were very happy to attend the event. The combination of Red Hat as a basis for SAP installations that are perfectly backed up by SEP and the long-time experience in Linux and open source environments are decisive for steady growth and successful cooperation."

Hubert Schweinesbein, Manager EMEA Partner Enablement Team, Red Hat
[12/09/2017 at SEP SNAP Partner Days, Holzkirchen, Germany]

Video: SEP sesam | Red Hat Solution Portfolio:

https://www.youtube.com/watch?v=nkRdTO8Oyus

SEP's Collaboration with Red Hat

SEP has a long lasting, successful partnership with Red Hat. Classic file backups are supported as well as backup the protection of all VMs virtualized in Red Hat® Virtualization environments.

SEP at the Red Hat Customer Portal:
https://access.redhat.com/ecosystem/search/#/vendor/SEP%20AG

All tested operating systems can be found in the SEP sesam support matrix:
https://wiki.sep.de/wiki/index.php/SEP_sesam_OS_and_Database_Support_Matrix

ADVANCED

BUSINESS PARTNER
ISV Partner

Value Proposition for Red Hat Solutions

Red Hat solutions operate systems that are the centerpiece of IT environments for companies and organizations worldwide. These systems manage all types of information from sales and customer relationships to finance and business operations. The importance of these systems requires a comprehensive business continuity management strategy, focusing on Recovery Point Objectives (RPOs) and Recovery Time Objectives (RTOs), which are essential in a disaster scenario.

This is where SEP's unified data protection is vital. The SEP sesam Hybrid Backup and Bare Metal Recovery Solution prevents data loss and can recover the entire environment after a disaster scenario like:

- Force majeure
- Hardware failures
- Human errors
- Data corruption
- Logical and software errors

Even after the attack of encryption trojans SEP's backup data can still be recovered through the proven support of offline media.

With SEP sesam, data is protected 24/7 and is always available. SEP's reliable backup solution offers numerous certifications for Red Hat solutions and has partnered with Red Hat for over a decade.

SEP's versatile and economical data protection is ideal for both medium and large enterprises and integrates seamlessly into any IT environment.

SEP

SEP is a highly flexible and dynamic backup vendor that immediately reacts to the backup needs of Red Hat customers. Our motto is: We support the systems no one else can!

Here is a list of supported systems that are part of Red Hat's ecosystem:

Protected solutions and environments:

- Red Hat® Enterprise Linux®
- Red Hat® Virtualization (including SAP HANA on Red Hat Virtualization)
- Red Hat® Storage
- Red Hat Certified Cloud and Service Provider Program (CCSP)

Supported architectures:

- i386
- x86-64
- IBM Power Systems & OpenPOWER
- IBM zSystems & IBM LinuxONE

Protected databases running on Red Hat® Enterprise Linux® & Red Hat® Virtualization:

- PostgreSQL
- Enterprise DB
- MariaDB
- MySQL
- Oracle
- SAP ASE
- SAP HANA
- MaxDB
- Informix
- IBM DB 2

Protected applications running on Red Hat® Enterprise Linux® & Red Hat® Virtualization:

- SAP S/4 HANA
- SAP Netweaver
- IBM Domino Server
- Zarafa
- Kopano
- Scalix
- Atlassian Jira
- Dovecot IMAP
- Cyrus IMAP
- Courir IMAP
- openLDAP

With SEP sesam homogeneous Red Hat environments are supported too. Even the backup server can be operated on Red Hat® Enterprise Linux®!

Protected databases additionally running as Red Hat® Virtualization guest:

- Microsoft SQL

Protected applications additionally running as Red Hat® Virtualization guest:

- Microsoft Exchange
- Microsoft SharePoint
- Microfocus GroupWise

Furthermore SEP sesam supports all guest operating systems of the Red Hat® OpenStack® Platform and Red Hat® Virtualization for i386, x86-64 and Power architecture.

Red Hat® Enterprise Linux®

SEP reliably protects a wide range of Linux distributions. SEP sesam is certified for Red Hat® Enterprise Linux® and optimized for mission-critical solutions and applications:

SEP has been working in the Linux field for over 15 years. This leads SEP sesam to a reliable and full featured solution in both physical and virtualized Linux environments. High performance backups, snapshots, cluster readiness and the support of a wide range of file systems is mandatory. A large number of hot backup modules is available for a granular restore of a large number of databases and applications. SEP is part of the Open Source Community and is supporting them.

Supported operating system versions Red Hat related:

- Red Hat® Enterprise Linux® 7
- Red Hat® Enterprise Linux® 6
- Red Hat® Enterprise Linux® 5
- Red Hat® Enterprise Linux® 4
- CentOS 7
- CentOS 6
- CentOS 5
- CentOS 4

Bare Metal Recovery Capability for Linux

With SEP sesam Bare System Recovery (BSR) the recovery of systems after a server blackout is fast and easy. SEP sesam BSR enables users to restore a system to full operational availability within minutes, depending on the volume, hardware and network performance, after replacing a system disk or the complete computer hardware. The disaster recovery of Linux systems includes any settings with ACLs.

Each productive server needs a reliable backup and recovery concept. In physical environments a proven bare metal recovery solution for Linux is indispensable for an always-on business. Therefore SEP sesam is a key component of Red Hat environments. Additionally SEP sesam fits to Red Hat in terms of licensing and availability (subscription, price-sensitive market, world-wide availability, CCSP).

Red Hat® Virtualization

Red Hat is proud to empower organizations with a virtualization solution that provides a scalable, more secure, and high performance infrastructure at a better value than proprietary solutions without the difficulties of vendor lock-in. Red Hat® Virtualization helps organizations to build a foundation for future technologies while integrating with existing technologies.

[Source: https://www.redhat.com/en/blog/fundamental-shifts-virtualization-market]

Red Hat® Virtualization is rated in Gartner's Magic Quadrant as visionary. To become a leader and gain market shares from the traditional virtualization vendors an agile data protection solution with a valid licensing model is mandatory. To fulfill Red Hat's vision of preventing a vendor lock-in SEP's unified data protection solution fits perfectly due to flexibility in future application changes. With SEP Red Hat prospects will value the possibility of meeting their SLA's.

SEP sesam was the first data protection solution that fully integrates with the Red Hat Virtualization backup API.

Full integration of Red Hat Virtualization's backup API into SEP sesam ensures consistent data protection as well as the fast and comprehensive recovery of virtual machines (VMs) in productive IT environments. SEP sesam offers consistent data protection of Red Hat® Virtualization VMs without the need to install backup clients inside each virtual machine. The integrated solution offers a platform for IT administrators utilizing the SEP sesam management interface to manage and monitor the data protection status of VMs.

SEP sesam Hybrid Backup is a certified, cost effective, scalable and reliable backup and recovery solution for Red Hat® Virtualization.

- API based Snapshot Backup for Red Hat® Virtualization 4.0 or later
- API based Snapshot Backup for RHEV 3.6 or later
- Easy and fast to install backup application
- Linux and Windows based backup server available
- Red Hat KVM hypervisor based on qemu 2.6 as part of Red Hat® Virtualization 4.0/4.1. with SAP HANA Platform 1.0 SPS12 (and later releases)

Red Hat® Virtualization Backup White Paper

A white paper that specifies how to protect a Red Hat® Virtualization environment can be found at: http://www.sep.de/fileadmin/user_upload/Datasheet/default/SEPsesam_Red Hat Virtualization_Whitepaper_EN_web.pdf

Red Hat Storage

Massive storage, data backup, disaster recovery, high availability and replication can be at one's fingertips with Red Had® Storage combined with SEP sesam Hybrid Backup.

RED HAT®
GLUSTER STORAGE

RED HAT®
CEPH STORAGE

Companies and organizations can use Red Hat® Storage to backup and redeploy data backups from anywhere to anywhere. Backups created from data centers, virtualized environments and private or public clouds can be moved anywhere the system manager desires.

Red Hat® Storage Server offers global replication capability with a single point of administration. Replication is latency aware, object based and works perfectly with SEP sesam Si3 inline deduplication. The included, Open Stack proven, Gluster FS offers the ability of easy and unlimited storage growth. This scalable and redundant backup-solution-stack allows tiering and backup-data-migration on any storage hardware or cloud storage.

SEP offers a central backup solution for the entire IT environment on one side while Red Hat offers a vendor independent backup storage with no limitations on the other side which gives maximum flexibility to IT administrators and radically reduces total cost of ownership (TCO).
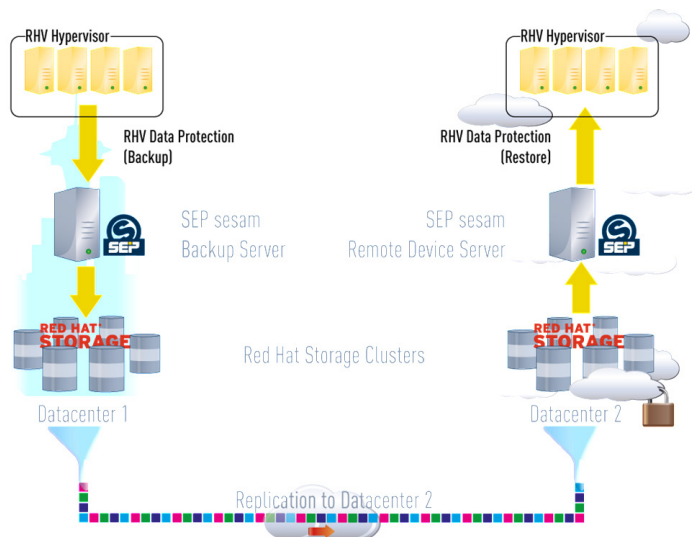
SEP's Collaboration with SAP

SEP sesam protects SAP ASE (formerly Sybase) and is certified for SAP HANA 1 & 2 on Intel- and IBM Power platforms as well as SAP NetWeaver installations. Furthermore SAP installations based on SAP MaxDB, Oracle and IBM DB2 are protected. SEP sesam was the first backup solution for a Linux operated SAP installation with SAP DB in Europe. Thus all SAP databases and applications are protected. (List of supported SAP databases: https://help.sap.com/saphelp_nw73/helpdata/en/84/0cb892edfbc34290c1685132006662/frameset.htm)

Both Red Hat and SEP try to gain more market share of the SAP HANA market. A proven ecosystem with backup and recovery software is mandatory for SAP customers as typically all important data is stored in the SAP databases. SEP is certified by SAP for more than 15 years and in the last years for SAP HANA, too.

SAP HANA Certifications

Vendor	Backup Tool	Intel SAP HANA 1.0/2.0 HANA-BRINT 1.1	Power SAP HANA 1.0 HANA-BRINT-PW 1.1	Power SAP HANA 2.0 HANA-BRINT-PW 1.2
SEP	SEP Sesam	Yes	Yes	Yes

Source: https://wiki.scn.sap.com/wiki/pages/viewpage.action?pageId=451067853

SAP Ecosystem - Protection Overview
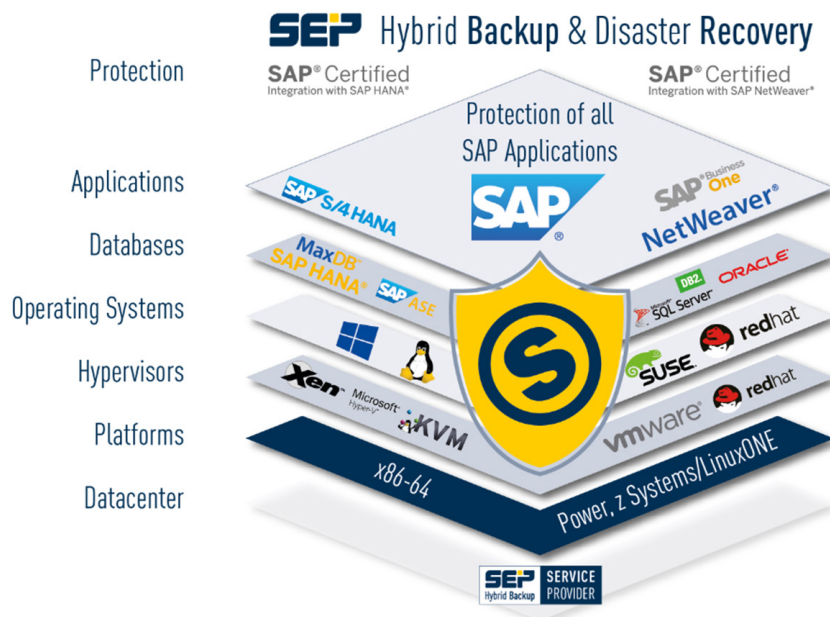
Datacenter

SEP sesam is suitible for on-premise and off-premise data protection. Its datacenter readiness including a flexible MSP licencing model is valued by SEP's Service Providers offering Backup as a Service.

Platforms

SEP's platform support is outstanding. Especially in performance-demanding SAP HANA environments the possibility to use any computing platform fitting the performance needs is essential.

Hypervisors

With the SEP sesam Multi-Hypervisor Support, users are free to choose their virtualization platform and virtual machines can be run directly from the backup (Instant Recovery). In addition to the restore of Microsoft solutions in hypervisors, SEP sesam also protects the full range of Linux-based systems. Overall SEP sesam supports 5 hypervisor platforms: Red Hat Virtualization, VMware, Hyper-V, Citrix XenServer, OpenNebula and KVM. SEP sesam is also prepared to support SAP on Red Hat® Virtualization when this becomes available.

Operating Systems

SEP sesam reliably backs up all common operating systems, including Windows, Linux, UNIX and Mac on physical machines and in virtual environments. Especially in physical environments the SEP sesam BSR bare metal recovery solutions for Windows and Linux systems including dissimilar hardware restore functionality are essential for always-on computing environments.

Databases

SAP applications without a backup interface need to be protected with a database and file system backup. SEP's backup portfolio includes all databases supported by SAP.

Applications

Backing up an application according to vendor's specifications is a must in case of a disaster. If there are any issues regarding the access of SAP applications after a restore SAP will not help an administrator if the backups and restores were not performed using the certified backup API. SEP sesam uses the SAP certified backup API and has multiple SAP certifications. With SEP sesam SAP customers are reaching the highest level of security.

SAP Statement

> "SEP's SNAP Partner Days is a great event for us because they allow us to meet competent companies in the areas of infrastructure and compliance. SEP has excellent SAP-certified backup solutions for various SAP environments that we can highly recommend to our customers."
>
> Dr. Ralf Rieger, Platform Solution Group, SAP
> [12/09/2017 at SEP SNAP Partner Days, Holzkirchen, Germany]

SEP sesam Customer References in SAP Environments

Uniorg

SEP has proven experience in the service provider market, also with SAP service providers like Uniorg.

Customer Environment:

- 4 MaxDBs
- 14 SAP HANA
- backup-to-disk/backup-to-tape

> "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

Read the full reference case at https://www.sep.de/resources/references/details/uniorg-consulting-gmbh/

Kwizda

- Protected SAP Applications
- SAP Business Warehouse
- SAP ERP
- SAP Extended Warehouse Management
- SAP Fiori
- SAP HANA
- SAP S/4HANA

[...] In addition to synchronous in-memory replication, the company relies on SEP sesam for SAP HANA for backups. This certified backup solution for SAP HANA is natively integrated into the SAP HANA studio management tool and ensures that Kwizda always has consistent backups of mission-critical business data. By using the parallel backup and restore capabilities of the SAP HANA platform, the company has been able to further reduce recovery time. [...]

Read the full reference case at https://www.sep.de/fileadmin/user_upload/References/default/kwizda_group_cs_sep.pdf

Linck

- Country: Germany
- Industry: Timber processing
- Employees: 300

[...]Its central software system is a SAP solution which, along with all of its subsystems, runs on Linux. "We try to do everything that can be done with Linux, on Linux, as it leaves us less at risk of viruses," explains Haas. "There are also three physical servers, which we'll keep," he adds. The backups take place directly on the ETERNUS CS800 using SEP sesam backup software, a solution created by Munich-based software house, SEP AG. The backup and disaster recovery solution was tested successfully with Fujitsu hardware in the Fujitsu Labs, and now ensures that all of Linck Holzverarbeitung's business-critical data remains backed up and available at all times.[...]

Read the full reference case at https://www.sep.de/fileadmin/user_upload/References/de/CS_2016May_Linck_Holzverarbeitungstechnik_GmbH_Ger_v.1-sep.pdf

Inecom Business Solutions

- SAP Gold Partner
- SEP MSP located in Singapore

Inecom takes special care of customer data and data availability. In their data center they offer 2 physical SAP HANA servers for each customer. One productive Server and one stand-by server. SEP sesam is used to set up the stand-by server from bare matel – including all files. The backups of the productive SAP HANA systems is performed every 15 minutes – as well as the restores on the stand-by servers.

Service Provider and Cloud engagement

Red Hat and SEP are committed to meet customer needs providing all the functionality, performance and interoperability required to meet today's demanding customer environments. Together, Red Hat and SEP offer world-class solutions/programs at an optimal price to implement, protect, and improve customers' investments in their IT infrastructure.

Red hat offers cloud access in different ways: https://www.redhat.com/en/technologies/cloud-computing/cloud-access

SEP is also offering service provider licensing models and can support the Red hat cloud engagement. SEP supports S3 replication and is also working on public cloud connectors for AWS and Azure to support these platforms in the future which will also strengthen the cloud engagement.

SEP was named one of the 2018 Gartner Peer Insights Customers' Choice for Data Center Backup and Recovery Software

SEP was named one of the 2018 Gartner Peer Insights Customers' Choice for Data Center Backup and Recovery Software.

The Gartner Peer Insights Customers' Choice is a recognition of vendors in this market by verified end-user professionals, taking into account both the number of end-user reviews and the overall user ratings. The customers rated independent and confidential the backup software they use. SEP is 1 of only 7 vendors worldwide of the 2018 Gartner Peer Insights Customers' Choice for Data Center Backup and Recovery Software. The result is shown in Gartner Peer Insights Customers' Choice with a 4.7 out of 5 stars based on 135 reviews as March 02, 2018.

More information on the 2018 Gartner Peer Insights Customers' Choice for Data Center Backup and Recovery Software is available at https://www.gartner.com/reviews/customerschoice/data-center-backup-and-recovery-software.

Detailed information about SEP sesam's customer's ratings are available at https://www.gartner.com/reviews/market/data-centerbackup-and-recovery-software/vendor/sep-ag

Gartner Peer Insights reviews constitute the subjective opinions of individual end-users based on their own experiences, and do not represent the views of Gartner or its affiliates. Gartner Peer Insights Customers' Choice distinctions are determined by the subjective opinions of individual enduser customers based on their own experiences, the number of published reviews on Gartner Peer Insights and overall ratings for a given vendor in the market, as further described here and are not intended in any way to represent the views of Gartner or its affiliates.

Summary

The combination of the Red Hat and SEP solution leaves a sustainable footprint at customer site, gives the customer a higher level of safety and security because of covering a majority of the relevant IT processes and operations.

Growing markets like SAP offer additional chances to maximize the customer value.

SEP is able to complete Red Hat's solution stack with an essential, proven and certified ecosystem component in the SAP environment since 2002.

Together we reach a completeness of the solution stack which is also certified and hard for competitors to reach.

Authors

Sebastian Moosreiner (sm@sep.de)
Andreas Mayer (ama@sep.de)
Holger Gottwald (hgo@sep.de)

Date: 07/13/2018

The OpenStack® Word Mark and OpenStack Logo are either registered trademarks / service marks or trademarks / service marks of the OpenStack Foundation, in the United States and other countries and are used with the OpenStack Foundation's permission. We are not affiliated with, endorsed or sponsored by the OpenStack Foundation or the OpenStack community.

SEP

Headquarters (EMEA):
SEP AG
Konrad-Zuse-Strasse 5
83607 Holzkirchen, Germany
Tel: +49 8024 46331 0
Fax: +49 8024 46331 666
Email: info@sep.de

SEP USA:
470 Atlantic Avenue, 4th Floor
Boston, MA 02210, USA
Tel: (+1) 617-273-8200
Fax: (+1) 617-273-8001
Email: usa@sepsoftware.com

SEP APAC:
3 Spring Street
Sydney NSW 2000 n, Australia
Tel: +61 2 9659 9590
Fax: +61 430 196 446
Email: apac@sepsoftware.com