

SEP sesam Overview

The modern enterprise has data requirements covering a broad range of use cases. From physical servers in the data center to virtual servers hosted in a private or public cloud, data needs are growing at an unprecedented rate. Enterprises that, a decade ago, had overall data needs in the terabyte range are now looking at storage requirements that may be hundreds or even thousands of times as large.

The laws of supply and demand apply directly to data growth in the enterprise. Storage is in ever-increasing supply, with larger and cheaper devices appearing on the market every day. Correspondingly, the enterprise demand for that storage is growing exponentially as well. With e-mail, corporate databases, shared documents, and regulatory compliance requirements, organizations now generate and track more data than ever before.

One of the biggest challenges in the modern information technology landscape is now providing accessibility and disaster recovery for enterprise data banks.

SEP sesam is an easy-to-use, high-performance business solution that provides flexible backup, restore, and disaster recovery options for businesses of any size. With broad platform support and a high performance data transfer technology, SEP sesam provides the best data recovery and migration solution in its class.

Installation Requirements

SEP sesam makes a strong first impression with its minimal system requirements and straight-forward and quick installation process. It requires a much smaller footprint for installation, both in terms of additional required software and the size of the installation, than any of its competitors. The SEP sesam server download is under 60 MB, with the management interface coming in at around 35 MB. Agent downloads are typically under 1 MB. CommVault Simpana, on the other hand, requires a minimum of 5 GB for a standard installation. CommVault's installation media alone consists of one required DVD image and 3-4 additional DVDs for all components.

SEP sesam scores additional points for its streamlined back-end database support. Administrators can install SEP sesam with either the free PostgreSQL database engine for 64 bit Linux installation or they can use an integrated, pre-configured local sqlite3 database for Windows installations, both of which have very little overhead in terms of system requirements and system administration. Another benefit is that the database administration is integrated in the SEP sesam administration console so you don't have to jump back and forth between different systems and administration consoles to manage the product. A unique feature to SEP sesam is that any query made against the database is logged in the "GUI Logging" tab of the administration tool, allowing for complete transparency in database operations. With SEP sesam, you are buying a product that is based on open standards and methods of operation.

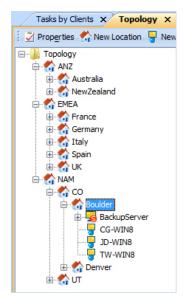


Competitive products in this class are much more heavy-handed. For example, CommVault Simpana requires a full installation of Microsoft SQL Server 2008 and the 64-bit server must be dedicated to CommVault's product. Furthermore, the database is maintained separately from the Simpana installation so you'll need a database administrator in addition to your system administrator. This type of database implementation stands in stark contrast to SEP sesam's lean, elegant database integration.

SEP's architecture reflects a focus on ease of use and high performance. The product is no more complex than it needs to be without compromising power and flexibility.

Ease of Use

SEP sesam continues to impress by being extremely easy to use and configure. Configuring a client for SEP sesam is effortless - simply ensure the server and client names are in your DNS system, install an agent if necessary, configure the client's access, add the client to the server's client list, and you are ready to schedule a backup job. Unlike Simpana 10, many targets for SEP sesam do not require a dedicated agent per client; many targets are supported through native interfaces, eliminating the need for a backup agent entirely.



SEP sesam provides an intuitive java-based graphical user interface that is consistent across Windows, Mac OSX, and Linux desktop environments. Regardless of the administrator's preferred desktop platform, the UI is the same, simplifying administrator training and collaboration. In addition to consistency across platforms, the SEP sesam admin console is intuitive and easy to use. The SEP sesam environment uses a topological structure for client and server organization in the management interface.

The backup server, remote device servers and clients are located in each location in the user interface, and the overall backup system - both physical and virtual clients, as well as the backup server and remote device servers - can be centrally managed from the SEP sesam administration console. CommVault's Simpana organizes resources by resource type, with an option to use client groups. The resources, available backup targets and agents are then represented in a relatively flat tree structure. If you have hundreds or thousands of devices, navigating the list can be time consuming and frustrating.

Of course, data backup is only half the equation. The most important factor in backing up data is easily accessing it when you need it and SEP sesam does not disappoint with its intuitive restore wizard. Using the restore wizard, administrators can easily access entire data sets or individual files. Individual data elements can be selected by task name, filename/path, or using UNIX shell-style wildcards. Data can also be filtered based on a date range. When an administrator restores a file or data set, the information can be restored to either the original location or another specified destination.



The intuitive simplicity of the SEP seam restore wizard is a welcome shift from the complex, cumbersome UI's administrators must typically navigate in other backup systems. To perform a similar restore using CommVault Simpana, instead of selecting the "Restore" option, one must use a separate "Find" option to locate and select the data, and then restore the selected files. Unlike SEP sesam, Simpana's solution only supports a minimal subset of UNIX shell-style regular expressions, so administrators need to learn another wildcard standard in order to effectively search their backup database for files to restore.

To ensure the backup data can be restored from any system, SEP sesam uses standard data formats and algorithms, and the user interface provides a "GUI Logging" capability that shows every SQL query made against its database and every external command executed. Furthermore, SEP also has released several core components of SEP sesam under the GNU GPLv2, contributing technologies like the Sesam Multiplex Stream server to the open source community. This technological transparency gives administrators a tremendous amount of flexibility and ensures their ability to restore backup data. No other solution on the market is as open about how it operates and ensures your future ability to restore your data as SEP sesam.

Compared to CommVault's Simpana, SEP sesam provides a much more streamlined management experience and easier installation. The reduced complexity means less time is needed for training staff, configuring the system, or administering data management jobs.

Device Support

SEP sesam supports any device that is supported by the hosting device's operating system. Tape drives, hard drives, SAN storage devices, autoloaders, optical drives--all are supported by SEP sesam if the operating system supports them. Furthermore, autoloader support is available provided the autoloader in use supports a "Tape symbolic name".

While Simpana 10 has an extensive list of supported devices, any future devices need to first be certified by CommVault before they are supported. In many instances, Simpana 10 requires driver configuration beyond installation of the native operating system driver. By comparison, SEP sesam supports all devices supported by the host operating system without any additional driver requirements, providing a much more robust "future proof" solution than the competition.



Backup/Restore Targets

Most enterprises utilize a variety of operating systems, database engines, and applications to meet the diverse needs of the enterprise. From a data management perspective, supporting multiple platforms, applications, and databases typically complicates the backup solution. Fortunately, SEP sesam is the exception. With broad-based platform and device support and a consistent UI across all platforms, SEP sesam provides an elegant, simple solution for complex enterprise environments.

SEP sesam supports data backup across the following platforms, database engines, and applications from a single administrative console:

Platforms

- BSD, FreeBSD, and Variants
- **Linux:** Any distribution with a kernel post-2.4
- Mac OSX
- Microsoft: Windows NT, Windows XP, Windows Vista, Windows 7, Windows 8, Windows Server 2000, Windows Server 2003, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012
- Novell: NetWare and Open Enterprise Server
- Unix: AIX, HPUX, SCO-UX, Solaris
- VMS

Database Engines

- DB2
- Informix
- Ingres
- MaxDB
- MS SOI
- MvSQL
- Oracle
- PostgreSQL

Applications

- ABAS
- Courier IMAP
- Cyrus IMAP
- Dovecot IMAP
- Lotus Notes
- Microsoft Exchange Server
- Microsoft SharePoint Server (including SharePoint Sites)
- Microsoft SQL Server
- NetApp

Applications (cont'd.)

- Novell eDirectory
- Novell Filr
- Novell GroupWise
- Novell iFolder 3
- Open Exchange Server
- OpenLDAP
- SAP/R3
- SUSE Linux Open Exchange Server
- 7arafa



The database engines and applications listed above are managed using built in modules to SEP sesam. Implemented as agentless interfaces into these targets, these modules use native APIs and methods to access the data stored by the applications and database engines. This means that no additional software is needed on the targets, keeping the environments pristine and in compliance with vendor support requirements.

No other backup system in the industry even comes close to providing support across this many systems. Moreover, unlike CommVault's Simpana, SEP sesam's backup targets are all supported in the current release; that is, SEP sesam does not require you to install an agent from an earlier release in the hope that it will work. Each release of SEP sesam is verified against all targets, so there's no question whether a target is supported or not.

Performance

A key feature of SEP sesam is its Sesam Multiplex Streaming (SMS) technology that allows up to 64 simultaneous backup streams to be written to a single tape device and unlimited streams to disk. By handling multiple clients concurrently, SEP sesam is able to dramatically reduce backup times across multiple systems. In fact, no other backup system in the industry can compare with SMS backup performance. Case in point: when comparing SEP sesam against CommVault's Simpana 9 in multiple lab environments, SEP sesam consistently outperformed CommVault by 30%-90%. Simpana 10 boasts a 2x speed improvement over Simpana 9, which means SEP sesam still outperforms CommVault's latest product offering by at least 15%-45% without breaking a sweat.

In addition to using multiple streams to improve performance, SEP sesam is able to initiate backups between devices on the same SAN. This technology allows a SAN-connected storage device and tape library to utilize the high-speed capabilities of a shared fiber-channel connection for maximum throughput. Other solutions can access SAN devices directly as backup targets and media pools, but only SEP sesam incorporates a multiplexed threading technology that allows multiple targets to be backed up to the same media pool simultaneously while maximizing throughput.

SEP sesam offers built in block level deduplication as well as replication or migration options. CommVault Simpana also has block-level and object-level deduplication services, however the implementation applies compression to the data prior to calculating checksums and signatures, which can negate or significantly reduce the performance benefit gained by using deduplication. On average, SEP sesam offers 50% better performance than Simpana, with benchmark performance increases measuring as high as 97%.

Through a combination of Sesam Multiplex Streaming, Disk-to-Disk-to-Tape, and SAN-connected backup devices, organizations can implement an overall backup strategy that maximizes backup performance from LAN and WAN connected servers to multiple devices on a SAN. The data backed up to the SAN devices can then be migrated to tape for archival and off-site storage purposes. SEP sesam provides functional parity for backup methodologies with CommVault Simpana, while providing significantly higher performance with a smaller footprint.



Bare Metal Disaster Recovery

For Windows and Linux (including Novell Open Enterprise Server and Red Hat Enterprise Linux), SEP sesam supports bare metal disaster recovery. The target system is backed up using the BSR Backup Module for the system partition, a path backup for all files in the file system, and an online backup of any databases, e-mail systems, or other targets that require special handling. Recovery can be done to the original hardware, similar hardware, or dissimilar hardware.

For Windows systems, Windows Activation is preserved if the original hardware is used; if dissimilar or different hardware is used, Windows must be activated again.

For Linux systems, recovery is handled in a similar fashion. The system backup is restored, followed by any restores that require additional backup modules.

In addition to backing up client and server data. The SEP sesam server has its own self-recovery capability that allows the full SEP sesam configuration to be recovered should it suffer a hardware failure. Immediately following the initial installation, SEP sesam automatically creates a task to back up the system database. The administrator simply has to add that task to a schedule and ensure the backup is saved to a reliable location. From that point on, the system will continue to back itself up. You can rest assured that your backup system has a backup, and if the system fails, your backup protection can be running again in minutes. Recovery of the SEP sesam environment is incorporated in the software installation procedure, with an option to perform recovery right from the installer.

In comparison, the complex setup and configuration requirements for CommVault Simpana means that the loss of the backup server, index servers, media servers, or other components of the system require a more detailed analysis of the failure and a selective reinstallation of those components in the environment. Recovery of your disaster recovery system should be much easier than that.

Virtualization Support

With modern enterprises looking more to virtualization, private clouds, and public clouds, data management challenges increase. Enterprises move from physical servers and drives to fully virtualized systems running 24x7 on a cluster of physical hardware. Managing backup and recovery for these systems typically requires a dedicated solution that's aware of how to handle virtualization.

SEP sesam supports many popular virtualization solutions, including:

- VMware ESX
- VMware vSphere
- Microsoft Hyper-V
- Citrix XenServer
- Citrix XenDesktop
- Citrix XenApp



In addition to supporting these hypervisors, SEP sesam also handles P2V, V2P, V2V, and P2P migrations seamlessly, allowing enterprises to make the transition to and from virtualized platforms as their needs evolve.

When used with Citrix XenServer, SEP sesam can back up live virtual machines. With the hot backup functionality, a running Windows virtual machine can be cloned to a secondary pool without the need to re-activate Windows or re-enter license keys. SEP sesam is certified as Citrix Ready.

For VMware hosts, the VMware VADP API is used to back up snapshots of running VMs. With a properly configured SAN on the backend of the ESX or vSphere hosts, these snapshots can be backed up directly from the SAN device without any impact to the performance of the VM hosts.

For Microsoft Hyper-V hosts, Microsoft's VSS technology is used to take a snapshot of running VMs, and the snapshot then can be backed up.

The snapshots from each hypervisor can be restored to the same host or to a different host running the original hypervisor. This allows easy migration of virtual machines from one host or host pool to another--all without the need for an agent on the hypervisor host systems.

In comparison, CommVault's Simpana 10 supports your virtualization environment if it's VMware vCenter, VMware vCloud, or Microsoft Hyper-V. If your enterprise includes Citrix XenServer solutions, you will need to use an additional product to support your chosen hypervisor.

Conclusion

For customers contemplating a costly upgrade from CommVault Simpana 9 to Simpana 10, the additional cost of the upgrade makes this an opportune time to consider alternative solutions. SEP sesam provides a complete backup and disaster recovery solution that is easy to install and manage. Moreover, it outperforms all other solutions in the market today at a cost of ownership that is significantly lower than the competition.

With support for a large number of platforms, databases, and applications, both in physical and virtual environments, SEP sesam offers the broadest range of support on the market today. Tuned for performance, SEP sesam achieves the highest throughput of any backup solution with the broadest device support, including the option of migrating backup sets from high-speed storage devices to media better suited for off-site storage and long-term archival. In the event of a site outage, SEP sesam facilitates easy recovery of mission-critical data and systems in both physical and virtual environments to provide continuity of business services. With SEP sesam as your disaster recovery solution, you can rest assured that your data is protected, viable, and accessible. For more information and a free 30-day trial, visit https://www.sepusa.com today.



Operating System (Server)	CommVault Simpana 9/10	SEP sesam 4.2
BSD	No	FreeBSD
Linux	No	CentOS, Debian, Red Hat, SUSE, Ubuntu, UCS
Mac OS X	No	No
Unix Variants	No	Solaris
Windows	2003, 2008, XP, Vista, 7 (for CommServe Express only)	2003, 2003 R2, 2008, 2008 R2
Other	No	OES Linux

Operating System (Client)	CommVault Simpana 9/10	SEP sesam 4.2
BSD	FreeBSD	OpenBSD
Linux	Red Flag, SUSE, Ubuntu, Red Hat, Debian, CentOS	Any Linux after kernel 2.4.x
Mac OS X	Yes	Yes
Novell	OES, NetWare	SLES (AII), OES (AII), NetWare (4.0+)
Unix Variants	Solaris, HP-UX, AIX, TRU64	Solaris, HP-UX, AIX, Tru64, SCO Unix
Windows	2000, 2003, 2005, 2008, XP, Vista/7	NT, 2000, 2003, XP, 2008 R2, Vista, 7, 8, 2012

Interfaces and Support	CommVault Simpana 9/10	SEP sesam 4.2
GUI	Yes	Yes, Java
CLI	Yes	Yes
License	Capacity-based license model	Commercial, multiplex stream server under GPLv2
24/7 Support	Yes, 24/7 phone support with premium support package	Yes

System Architecture	CommVault Simpana 9/10	SEP sesam 4.2
Client-Server Architechure	Yes	Yes
Optional Media Server	Yes	Yes



Backup Media	CommVault Simpana 9/10	SEP sesam 4.2
Disks	Yes	Yes, via DataStore and/or VTLs
Tapes	Yes	Yes
USB Devices	Yes	Yes
Firewall Devices	Yes	Yes
Removable Disk Drives	Yes	Yes
Hard Disk Drives	Yes	Yes
SCSI Tape Drives	Yes	Yes
MO Tape Drives	Yes	Yes
FC Tape Drives	Yes	Yes
IDE Tape Drives	Yes	Yes
Tape Formats	Any	Any
NetApp	Yes	Yes, NAS/CIFS LAN-based

Backup Strategies	CommVault Simpana 9/10	SEP sesam 4.2
Full Backup	Yes	Yes
Differential	Yes	Yes
Incremental	Yes	Yes
Infinite Incrementals	No	No
Synthetic Backups from Incremental Backups	No	No
Сору	Yes	Yes

Exclude Filter	CommVault Simpana 9/10	SEP sesam 4.2
Directories	Yes	Yes
File Extensions	Yes	Yes

Scheduling	CommVault Simpana 9/10	SEP sesam 4.2
Frequency: Cyclical, Fixed Cycle	Yes	Yes
Calendar: Fixed or Relative Date	Yes	Yes
Alarm Alert Functions	Limited	Yes
Pre-Backup Scripts	Yes	Yes
Post-Backup Scripts	Yes	Yes



Extra Options	CommVault Simpana 9/10	SEP sesam 4.2
Media Pools	Yes	Yes
Retention Policies	Yes	By media pool in days and by savesets
Restore to Other Location	Yes	Yes
Monitoring Active Processes	Yes	Yes
Integrated Log Viewer	Yes	Yes

Snapshots	CommVault Simpana 9/10	SEP sesam 4.2
Based on Backup Software	No	Yes, LVM Support
Based on Windows VSS	Yes	Yes

Data Handling	CommVault Simpana 9/10	SEP sesam 4.2
Inline Deduplication	Yes, source and target-side	Yes, source and target-side
CDP	Yes	No
Backup Clones	Yes	Yes, implicit on migration
Staging (e.g., D2D2T)	Yes	By migration between media pools
Compression	Yes	Yes
Encyption	Yes, Triple DES, AES, Blowfish	Yes (256-bit AES), Blowfish 64-bit
Multiplex Streaming	Yes	Yes, up to 64 parallel streams per tape. Unlimited to disk.
Load Balancing / Failover Between Drives	Yes	Yes, within drive groups
Backup Verification	Yes	Yes
Backup to Disk and Arrays	Yes	Yes
Disaster Recovery (Microsoft)	Yes	Yes, Bare Metal Restore
Disaster Recovery (Linux)	No	Yes, Bare Metal Restore
Disaster Recovery (Virtual Machines)	No	Yes, to different hypervisors with same version
Encryption (At Rest)	Yes, extra charge	Yes, included



Mail Servers and Groupware	CommVault Simpana 9/10	SEP sesam 4.2
Lotus Domino	Yes	Yes
Microsoft Exchange	Yes	Yes
Microsoft SharePoint	Yes	Yes
Novell GroupWise	Yes, requires Simpana 8 or later	Yes
Novell Filr	No	Yes
Novell iFolder	No	Yes
Novell Vibe OnPrem	No	Yes
Open Xchange	No	Yes
Zarafa	No	Yes

Virtualization Solutions	CommVault Simpana 9/10	SEP sesam 4.2
Citrix XenApp	Yes	Yes
Citrix XenDesktop	Yes	Yes
Citrix XenServer	Yes	Yes
Citrix XenServer with Activation Loss Protection	No	Yes
Hyper-V	Yes	Yes
HU-UX Integrity	Yes	Yes
Lotus Notes	Yes	Yes
Lotus Notes with Single Mail Restore	No	No
VMware ESX	Yes	Yes
VMware ESXi	Yes	Yes
VMware vSphere	Yes	Yes
VMware VADP	Yes	Yes

Other	CommVault Simpana 9/10	SEP sesam 4.2
LDAP	Yes	Yes
Novell eDirectory	Yes	Yes
Microsoft Active Directory	Yes	Yes
NSS	Yes	Yes



Databases	CommVault Simpana 9/10	SEP sesam 4.2
DB2	Yes	Yes
Informix IDS	Yes	Yes
MaxDB	Yes	Yes
Microsoft SQL	Yes	Yes
MySQL	Yes	Yes
Oracle	Yes	Yes
PostgreSQL	Yes	Yes
Sybase ASE	Yes	Yes, Q4 2013

Business Intelligence Software	CommVault Simpana 9/10	SEP sesam 4.2
SAP R/3	Yes	Yes



