Datasheet

NetApp SnapCenter Software

Simple, scalable, empowering enterprise data protection and clone management

Key Benefits

- Simplifies backup, restore, and clone management with application-integrated workflows
- Increases performance and availability and reduces testing and development time with storage-based data management
- Offers RBAC control to empower application administrators to self-service while providing centralized oversight
- Provides centralized management to simplify the user experience across all supported application environments
- Is designed for high availability while also offering load and performance balancing

The Challenge

Data protection at scale

Protecting data is one of the top concerns of any IT manager. As applications proliferate and the organization grows, managing a diverse IT environment can be a real challenge. This challenge is especially evident for organizations that have application, database, and virtualization specialists who are required to back up their data but might not be responsible for the storage infrastructure.

For organizations with IT specialists, it's critical to create an environment that allows each function to operate independently and according to its own application workflow. At the same time, they also must retain some level of infrastructure control and integrity. It's not easy to achieve this balance with traditional tools and technologies. Application, database, and virtual infrastructure administrators want to have "self-service" autonomy, but do not have in-depth knowledge of storage systems and backup software. And storage infrastructure administrators want to offload typical data protection tasks to application owners without sacrificing the ability to oversee and regulate activity on the storage systems.

Traditional backup and restore technologies based on streaming data protection devices, such as tape or streaming disk devices that emulate tape, don't use storage-based snapshot technology. As a result, these technologies can be very slow in response and are resource-intensive. Ingesting large amounts of data is one strength of these devices. But trying to restore or retrieve data is complicated and can take a significant amount of time. As the size of an application and number of applications increase, complexity goes up significantly because each application can have a different administrator, with different needs requiring different schedules and policies.

So, how do you easily manage backups across disparate applications and infrastructures with delegated management to application or database owners, without sacrificing control or oversight, and do it at scale?
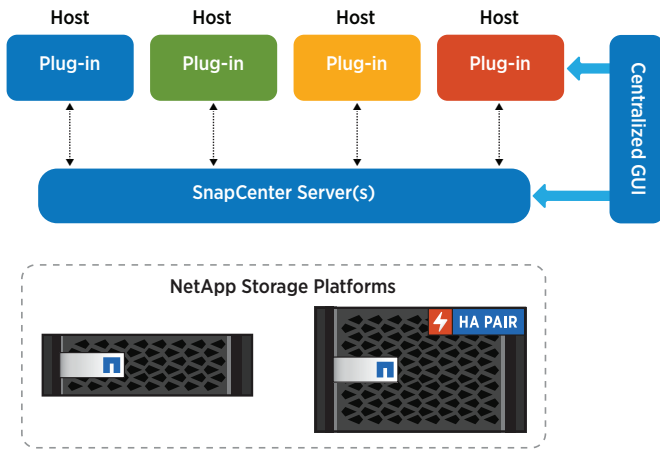
■ NetApp®

Figure 1) SnapCenter delivers simple management and a scalable architecture, with role-based access and workflows.

The Solution

Enterprise-ready, easy-to-use data protection

NetApp® SnapCenter® software is a unified, scalable platform for application-consistent data protection and clone management. It simplifies backup, restore, and clone lifecycle management with application-integrated workflows. With storage-based data management, SnapCenter enables increased performance and availability and reduced testing and development times.

Simple

NetApp SnapCenter includes both the SnapCenter Server and individual lightweight application, database, and operating system plug-ins that are all controlled from a central management console. The management console delivers a consistent user experience across all applications or databases. It incorporates a single GUI to support critical functions such as job monitoring, event notification, logging, dashboard, reporting, scheduling, and policy management for all application or database plug-ins.

SnapCenter Server also includes Snapshot® catalog management to facilitate easy rollback to point-in-time copies. SnapCenter Server checks application and database and OS interoperability and then nondisruptively installs and upgrades software plug-ins on application and database hosts. Those plug-ins can then be managed from the central management console.

In addition, SnapCenter Server allows custom scripts to be executed either before or after common operations such as backup, cloning, and restore by using Perl, Python, and PowerShell.

Customers who use NetApp SnapManager® products have an intuitive migration mechanism to move to NetApp SnapCenter.

Scalable

SnapCenter is designed with ease of use in mind, with the added ability to scale capacity and performance to meet the needs of large enterprises. You can transparently add SnapCenter Servers to address requirements for high availability and load balancing, with support for thousands of applications and databases. By simply adding another SnapCenter Server or multiple servers, you can protect against any one server failing. So, you can add multiple servers to increase resiliency, and they are all managed as a single server. The added servers also increase the level of performance for your backup infrastructure as performance is transparently balanced across servers.

Backup and restore performance is also increased by leveraging the onboard capabilities of NetApp storage-based Snapshot copies. Offloading this functionality not only simplifies operation, but also offloads Snapshot functions from the host.

By leveraging the embedded functionality of the NetApp Data ONTAP® platform to perform space-efficient FlexClone® management, NetApp SnapCenter also improves the performance of testing and development. Application, database, and virtual infrastructure administrators can initiate FlexClone volumes independent of storage administrators through the same GUI console. The self-service feature of space-efficient cloning reduces testing and development time and puts more capability into the hands of application owners.

Empowering

IT organizations face the challenge of providing self-service capabilities for individual administrators while also retaining oversight and control of the storage infrastructure by the storage administrator. SnapCenter uses role-based access control (RBAC) to delegate functionality to application and database owners while retaining oversight and control by a central storage infrastructure administrator. This level of control and security frees storage administrators from tedious tasks that application and database owners can do for themselves. At the same time, it protects the overall infrastructure from bullying applications or from infrastructure abuse from even the best-intended colleagues.

As IT organizations continue to grow with the size of the overall business, IT specialists play an important role in the data center. SnapCenter provides application- or database-specific workflows tailored to meet the needs of application, database, and virtualization infrastructure administrators. Because each application or database has a unique workflow, application and database owners will find their delegated workflows familiar and well suited to their use models.

Supported Platforms

Application/database support*	Microsoft SQL Server (physical or virtual) Oracle Database on Linux (physical or virtual) SAP on SQL Server and Oracle Database
NetApp storage	FAS systems with clustered Data ONTAP 8.2.2 and later OS
SnapCenter Server OS support*	Microsoft Windows Server 2012, 2012 R2 (physical or virtual)
Protocols	FC, FCoE, iSCSI, NFS, dNFS

* Consult interoperability matrix tool (IMT) for supported software versions

Table 1) Feature support: NetApp SnapCenter software 1.1.

SnapCenter is also built to be open by offering REST APIs for the integration of third-party orchestration and cloud management software.

Administrators can use the SnapCenter plug-ins for applications and databases so that the application or database is consistent at all levels, which promotes maximum recoverability. Plug-ins for SnapCenter allow a variety of restore capabilities. They can roll forward logs and enable application or database administrators to clone or recover to the latest information available or to a specific point in time.

SnapCenter also leverages NetApp storage-based backup and replication functions, such as with NetApp SnapVault® and SnapMirror® technology. All SnapCenter plug-ins can perform cloning and restore operations from both primary and secondary locations.

Conclusion

NetApp SnapCenter software is an easy-to-use enterprise platform to securely coordinate and manage data protection across applications and databases. It tightly integrates with your enterprise applications, providing application- and database-specific workflows. SnapCenter delivers the control and choice to enable application and database owners to manage their own environment through RBAC while preserving the integrity of the storage environment. Designed with simplicity in mind for both enterprise and midsize businesses, SnapCenter can accelerate application and database development, preserve data integrity, and simplify management of traditional complex backup and restore processes.

About NetApp

Leading organizations worldwide count on NetApp for software, systems and services to manage and store their data. Customers value our teamwork, expertise and passion for helping them succeed now and into the future.
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