Accelerate, simplify, and secure backup and recovery with Data Protector and HPE Storage

Micro Focus® Data Protector integrates with HPE Storage systems to accelerate, automate, and secure backup and recovery, saving administrators time and reducing costs.
The enterprise backup bottleneck

Hybrid cloud environments provide many advantages to organizations looking to increase efficiency and lower costs. However, they also bring new challenges backing up and restoring mission-critical data.

Meeting demanding backup service level agreements (SLAs) for highly distributed and dynamic workloads such as in-memory databases, Big Data, and cloud-based applications is challenging for companies, which continue to use legacy backup methods. The new digital economy demands an approach which can protect at scale an explosive growth of diverse data, and can provide a far greater level of business resiliency, making backup both smarter and more efficient. The rigid, siloed legacy approaches aren’t suitable for modern application protection.

Another problem is using backup software that is not integrated with the underlying storage infrastructure. A loosely coupled backup solution will require administrators to write custom scripts to automate backup and recovery tasks and spend more time recovering applications.

In some cases, administrators might use multiple backup applications, each one designed to work efficiently with a particular storage device. But this results in backups stored in multiple silos, with each using separate storage and proprietary formats. This impedes organizations from using their storage resources efficiently and requires extra time to manage each backup and recovery silo.

Combining Data Protector with HPE Storage to streamline backup

Data Protector at a glance:
- Centralizes management: Provides a single solution to administer backup, restore, and disaster recovery processes across hybrid cloud.
- Uses hardware-assisted snapshots: Offloads backup process from production servers to HPE 3PAR storage arrays, and instantly recovers snapshots.
- Enables federated deduplication: Allows efficient deduplication at client, server, or storage target.
- Provides advanced monitoring and analytics: Advanced analytics allow users to track and meet strict service level agreements in mission-critical environments.
- Enhances security: Encrypts data at rest and during transfer.

Data Protector addresses these problems by providing a single solution for backup and recovery across hybrid cloud environments, and best-in-class integrations with HPE Storage solutions.

Faster backup and recovery

Data Protector uses the same deduplication technology as HPE StoreOnce Systems. This enables federated deduplication, which allows administrators to configure deduplication to occur at the most efficient location in the backup stack—either on the application server, on the media server, or at the backup target. For example, client-side deduplication reduces the amount of data transferred from remote sites to a primary data center. This capability is especially useful in remote offices that have slow network connections to central data centers.

The Zero Downtime Backup (ZDB) feature orchestrates the creation and protection of snapshots on HPE 3PAR StoreServ, StoreVirtual, and XP Storage arrays. The snapshots can be stored on the storage array for quick recovery or moved to a backup target. The number of snapshots that can be kept on the storage array is easily configurable. The ZDB feature circumvents using the primary server’s resources—including the hypervisor in virtual environments—to back up data, dramatically minimizing the impact of backup on application performance.

Administrators can use the Instant VM Recovery (IVMR) feature to recover application snapshots created using ZDB and stored on storage array. This is much faster than recovering backups from a backup target. Data Protector manages the snapshots as if they were virtual backup media, making it possible to replay them or re-sync snapshot clones. This allows companies to make several changes to a parent disk in just minutes. The solution also automatically manages the rotation of snapshots.
Data Protector can also restore files or database logs granularly, allowing administrators to restore a database to a desired point in time. And ZDB works with VMware® to use the backup information in snapshots to power on virtual machines (VMs) for fast checking or to live migrate them for instant recovery.

The ZDB and IR features are available for several operating systems, including Windows®, Linux®, HP-UX, and Solaris.

Consolidation and centralization
By using the HPE StoreOnce Catalyst Copy capability, Data Protector can gain even greater control over backup data. This feature allows low bandwidth replication of backup data between StoreOnce Systems—both local and remote.

The solution also uses the HPE StoreOnce Federated Catalyst feature to consolidate deduplicated StoreOnce Catalyst stores. This capability groups individual StoreOnce Systems to improve resource usage. It also makes it easier to extend global backup capacity beyond a single StoreOnce appliance without increasing management time.

Data Protector also works with HPE Recovery Manager Central (RMC) software to simplify management and reporting. RMC provides a converged snapshot, replication, and backup capability by integrating HPE 3PAR StoreServ all flash arrays with HPE StoreOnce Systems. Data Protector centralizes the management and reporting of that backup data and makes it possible to send those backups to disk, object storage, or tape.

Efficient backup to cloud
Data Protector provides out-of-the-box compatibility with the HPE StoreOnce Cloud Bank Storage feature. Cloud Bank seamlessly transfers data between on-premises StoreOnce stores and cloud targets such as Amazon S3 and Microsoft® Azure, without the need for a separate gateway appliance. Because the solution supports the Catalyst Copy feature, it doesn’t need plug-ins to perform this task.

Security features and encrypted backups
Data Protector uses additional security certificates and technologies to increase the protection of data. The communication between backup components and backup clients is centralized and secured through secure peering of its installation servers, cell managers, and backup clients. Centralized code execution also protects companies from malicious code compromising their backup environment.

Data Protector takes advantage of the HPE StoreOnce Security Pack to encrypt backups. It can use the 256-bit Advanced Encryption Standard (AES) and the U.S. Government’s Federal Information Processing Standard 140-1 to encrypt backups while they are at rest. It can also use Internet Protocol Security to secure backups while they are being transferred.

Streamlined replication and disaster recovery
The Automated Replication Synchronization feature speeds up disaster recovery when an organization loses its primary data site. This feature automatically shares metadata from the remote secondary Data Protector Cell Manager to a standby Cell Manager, so that data can be replicated from the remote StoreOnce device to another backup target.

Disaster recovery is faster when using Data Protector with HPE StoreOnce Systems. Automated Replication Synchronization speeds up the recovery process by removing manual steps to set up a standby Data Protector Cell Manager when a primary site has stopped working.
How Data Protector and HPE Storage benefit joint customers

Minimize outages
By speeding up the time it takes to back up and recover data, organizations reduce the likelihood of these processes interrupting their critical business activities. For example, they can use the ZBD and IR features to back up and recover mission-critical data rapidly, without slowing down business application users. Automation of disaster recovery processes can also minimize financial damage after a natural disaster or complete system failure.

Use storage infrastructure more efficiently, reduce cost of storage
Using Data Protector with HPE Storage systems allows companies to minimize spending on backup and recovery, especially in large, complicated IT environments. This is because it reduces the load on company’s networks, minimizes storage requirements, and optimizes the way data is managed. For example, the HPE StoreOnce Cloud Bank Storage feature makes it possible to back up to the cloud without changing the backup application environment.

The solution allows companies to use their existing storage systems more efficiently. For example, they can use the IR feature to restore a database directly from a HPE 3PAR array instead of from a much slower tape library.

Save time
By using Data Protector with HPE Storage systems, IT administrators can reduce the time they spend managing backups, even as data volumes increase. That is because they can use a single solution to manage backup and recovery operations as well as security and deduplication. Optimizing the management of snapshots and consolidating StoreOnce Catalyst stores also streamlines management.

Monitoring, analyzing, and reporting on backups is also much easier in an integrated backup environment. Data Protector provides a real-time view of the entire backup and recovery environment, meaning administrators don’t require separate software to generate reports about capacity and performance. This not only saves time, but makes it possible to use predictive analytics to forecast capacity needs and quickly alert administrators to problems.

Reduce the risk of breaches
By using Data Protector with HPE StoreOnce Systems, companies can reduce the risk of financial and reputational damage resulting from an unauthorized person accessing backups. Even if an attacker bypasses an organization’s primary cybersecurity defenses and accesses backups, encryption will prevent them from viewing the data.

Data Protector can mitigate against security attacks such as ransomware by enabling enterprises to recover clean data when unable to prevent an attack. The solution’s ability to manage and protect data on different backup targets including tape allows organizations to rewind their systems to its original state. In addition, the built-in no-cost bare-metal recovery feature enables centralized recovery from or to a physical or virtual system from any backup set on a different hardware in case the data is held hostage by a ransomware.

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