Protect your critical data and applications

HP Data Protector software
How are you protecting distributed Big Data?

Distributed big data has become such a strong force that it is causing IT to transform how they operate. Unique to data protection is that in most environments it is the only solution that spans across all data types, applications, locations and organizational departments. Managing the rapidly growing data and applications across a range of deployments requires you to consider a number of challenges. For instance, how do you protect critical information on remote locations across the globe without deploying multiple point solutions? How do you ensure compliance with laws and regulations while keeping your cost under control? How do you meet stringent SLAs and eliminate backup windows while keeping backup and recovery process simple and straightforward? How do you protect mission critical applications in virtual environments while keeping your virtual servers operating at their full potential?

How you manage these challenges, could have a significant impact on the strategic and tactical performance of your organization. With HP Data Protector, you can seamlessly protect and harness data wherever it resides—from the edge of the network to the datacenter to the disaster recovery site, and across physical, virtual, and cloud environments.

HP Data Protector software

HP Data Protector is helping more than 45,000 customers worldwide, including nearly half the Global 500, safeguard the information driving their businesses. From a single pane of glass, HP Data Protector allows you to efficiently protect your distributed big data, instantly recover your mission-critical applications, and turn your backup data repository into an information advantage.

Designed to support the world’s largest and heterogeneous enterprise environments, a single Data Protector instance can protect thousands of clients, 100s of billions of files, and run 100 thousand sessions per day. Its high-performing backup capabilities can scale to deliver 140 TB/HR of throughput in a single session.¹

Solve enterprise and ROBO protection challenges with HP StoreOnce™

HP StoreOnce product family

HP StoreOnce, a patented technology developed at HP Labs, is the industry’s most advanced deduplication engine available today. HP StoreOnce implements smart techniques such as variable data chunking, sparse indexing, and container matching to deliver a highly efficient deduplication solution that requires 99% less bandwidth and significantly less memory and CPU than traditional solutions. Designed with a modular approach for flexibility, HP StoreOnce provides a common deduplication algorithm that can be deployed from software only to dedicated appliances. The HP StoreOnce product family offers a broad array of deduplication deployment options including Data Protector StoreOnce store, a pure software solution that can be deployed on industry standard hardware. The HP StoreOnce family also offers target system deduplication that is available as a virtual appliance (StoreOnce VSA) as well as a series of backup appliances that ranges from cost effective, single node appliances all the way to highly available, multi-node appliances.

HP Data Protector integrates HP StoreOnce Catalyst software, to optimize backup processes, eliminate wasted resources, reduce network bandwidth cost and improve backup throughput.

Centrally managed federated deduplication with HP Data Protector

HP Data Protector is designed to seamlessly work with HP StoreOnce appliances — both physical and virtual — and HP StoreEver (tape) to deliver the most efficient and highly optimized backup and recovery strategies for enterprise and ROBO environments. Together, this solution delivers industry’s first and only federated deduplication (Figure 1) solution with the flexibility of performing deduplication at the source, backup server or target system within the environment, depending on the performance requirements and business needs. This unique capability provides maximum flexibility in deployment and maximizes storage efficiency.

¹ Theoretical throughput with streaming to 100 LTO-6 drives to its maximum performance.
HP Data Protector can centrally manage data movement for backup, replication, and long-term data retention between multiple StoreOnce backup devices and tape targets across remote, data center, and disaster recovery sites. Additionally, Data Protector enables you to proactively manage the storage capacity of any StoreOnce target by configuring a quota threshold to avoid service interruption due to capacity issues.

**Active network bandwidth control**

For the most efficient ROBO protection, HP Data Protector features a bandwidth control capability that allows you to configure a maximum bandwidth limit that can be used by the backup process. This is a highly desirable feature in environments that don’t have different classes of network services. This feature reduces cost by eliminating the need for a dedicated network and virtually creating a class of services for your network.

**Ensure business continuity with mission-critical application protection**

**Zero-downtime backup and instant recovery**

Protect your business with automated protection and instant recovery of business critical data. HP Data Protector simplifies application protection in both physical and virtual environments through its integrated application extensions, Zero Downtime Backup and Instant Recovery capabilities. Through a single, highly-efficient application agent, HP Data Protector provides down-to-the-second recovery for all the mission critical applications, including Microsoft Exchange, Microsoft SQL server, Oracle, and SAP. The Zero Downtime Backup enables snapshot management for both physical and virtual servers on HP and non-HP arrays, including the HP MSA P2000, HP StoreVirtual, HP 3PAR StoreServ, HP EVA P6000, HP XP_P9000, EMC CLARiiON, and Network Appliance. HP Data Protector maintains snapshots on the disk array for use by HP Data Protector Instant Recovery. With HP Data Protector Instant Recovery, you can stage application consistent snapshots to recover data and applications in seconds—automating the entire process to meet even the most demanding recovery time objectives.
These advanced application-protection capabilities make HP Data Protector the only enterprise backup application that delivers fully automated, down-to-the-second recovery of mission-critical applications from a single console—without scripting (see Figure 2).

Figure 2. To recover applications and data with HP Data Protector Instant Recovery, a backup administrator simply enters the hour, minute, and second of their desired recovery point into the Data Protector console. HP Data Protector automatically synchronizes the last snapshot with application transaction logs and restarts the application.

Automate Microsoft protection

HP Data Protector automates protection of Microsoft Exchange, SharePoint, SQL Server, and Oracle environments through one time backup policy configuration. This offers added protection to offset the ability of Microsoft application administrators to easily add, create, or change databases to suit the needs of a highly dynamic enterprise environment—changes that, if not communicated to the backup administrator, can leave their application environment unprotected. HP Data Protector addresses this issue: one click allows you to select the entire application environment and automatically identify and apply your backup policies to new databases as they come online or failover.

In addition, HP Data Protector can be configured to automatically tune backup performance for highly available Microsoft Exchange 2010/2013 and Microsoft SQL 2012 setup by determining the most efficient way to back up data.

Distributed granular recovery

HP Data Protector Granular Recovery Extension empowers VMware, Microsoft SharePoint, and Microsoft Exchange (including the latest 2013) administrators to recover single items directly from the application administrator’s console, without requiring assistance from the backup administrator (see Figure 3). The single item recovery process is streamlined by allowing application administrators to recover single items from HP Data Protector disk or tape backups. The Granular Recovery Extension module is installed directly into the application administrator’s console.

Single-pass disaster recovery

HP Data Protector software delivers centralized system recovery (bare metal recovery) to virtual or physical servers (from p2v or v2p) from a single backup—at no additional cost—to streamline the disaster recovery process. Unique to HP Data Protector, customers can create a disaster recovery image from any existing full backup. IT staff simply check one box in the HP Data Protector console to ensure all necessary image information for a full system recovery is included in full backups. Once the backup administrator initiates the disaster recovery process, HP Data Protector automatically rebuilds the system and the partitioning.
Figure 3. Recover single items from HP Data Protector disk or tape backups directly via the application administrator’s console, without contacting the backup administrator.

Turn your backup asset into an information advantage with IDOL

Today’s organizations are required to follow more stringent regulations and guidelines regarding how to protect and manage their digital assets. Litigation requests demand instant access to all information repositories including backup. Powered by IDOL HP Data Protector helps you to search backup data based on its meaning and value, enabling you to leverage your data more efficiently.

Contextual search based on meaning
The foundation of HP Data Protector’s meaning-based search capability is the Autonomy Intelligent Data Operating Layer (IDOL). IDOL is the only platform that allows you to form a conceptual understanding of data. IDOL supports over 500 data processing functions, including hyperlinking, clustering, agents, summarization, taxonomy generation, education, profiling, alerting, and meaning-based search and retrieval. These functions connect you to over 1,000 file types from over 400 repositories. IDOL gives you the ability to fully leverage and orchestrate advanced data management capabilities enterprise wide. The integration of HP Data Protector and IDOL technology enables contextual search of backup data based on meaning for rapid recovery.

Powerful information governance tools including eDiscovery and legal hold
IDOL-powered meaning-based protection gives you the information governance tools you need to gain insight into backed-up data to simplify and automate your eDiscovery processes. With this unique ability to understand meaning, you can dramatically reduce the amount of data preserved and reviewed in a defensible manner. These capabilities allow you to cost effectively meet your legal discovery and regulatory compliance requirements.
### Key capabilities of HP Data Protector

- **Advanced backup to disk** – Simplify migration from tape and deploy deduplication
- **Data Protector Reporter** – Enable comprehensive enterprise reporting
- **Granular Recovery Extension** – Speed recovery of single items
- **Manager of managers** – Perform global operations from a single console
- **Zero-downtime backup** – Allow advanced snapshot functionality
- **Instant recovery** – Perform down-to-the-second application recovery

### Reduce data loss risk with comprehensive virtualization support

Simplify protection in physical, virtual, and cloud environments through advanced automation and flexible policy options. HP Data Protector simplifies virtual server protection by supporting and managing backup and recovery across hypervisors—including snapshots and replication support for VMware, Hyper-V and Citrix-Xen—from a single console. HP StoreOnce-powered federated deduplication maximizes storage efficiency and recovery performance in virtualized environments across premise-based and cloud infrastructure. Advanced snapshot functionality and deep integration with hypervisors gives you instant recovery of mission-critical applications to meet even the most demanding business SLAs.

HP Data Protector provides advanced integration with VMware technology to deliver fast, efficient, and reliable protection for mission-critical applications in vSphere and vCloud Director environments. With Data Protector, virtual machine restores are greatly simplified. For example Data Protector allows you to selectively restore a virtual machine as a “new virtual machine” in any vCenter without touching the original virtual machine instance. This extremely flexible restore option reduces the risk of data loss and corruption of production environment by allowing you to test the restored virtual machine in a sandbox environment before restoring the application and data in the live environment.

HP Data Protector delivers fully automated, policy-based protection for an array of configurations within VMware vCloud Director environments, enabling service providers to offer flexible protection options within a single multi-tenant cloud environment.

With one-touch protection you can eliminate existing protection gaps often found in virtual and cloud-based deployments. Additionally, the risk of data loss is reduced as business critical backup policies are automatically applied to new virtual machines, VMs, vApps, and application within a highly dynamic virtual data center. This capability simplifies IT management responsibilities by eliminating the need for continuous monitoring and tracking.

HP Data Protector’s Granular Recovery Extension (GRE) for VMware enables VMware administrators to rapidly recover single items directly from the vSphere console without burdening IT staff.

HP Data Protector provides advanced integration for Microsoft Hyper-V 2012 environments through one-time backup policy configuration. With one click, HP Data Protector automatically identifies and applies backup policies to new virtual machines as they come online. Flexible restore options and incremental as well as policy-based protection for replicated environments, improves backup performance and maximizes storage efficiency in Microsoft Hyper-V environments.

Integration with HP StoreOnce offers significant cost savings by providing increased storage efficiency. With HP StoreOnce Catalyst enabled in Data Protector, you can achieve back up at speeds of up to 100 terabytes per hour, which is three times faster than the closest competitive offering. With HP StoreOnce you can eliminate the redundant operating system information across backup images and guest profiles to provide fast recovery to any data within the backup image.
Eliminate the cost and complexity of offsite backup with integrated Cloud Backup

Reduce CAPEX and OPEX with on-demand data protection driven by business needs. More organizations are seeking to leverage the reliability, performance, and security of premise-based backup with the scalability, cost efficiency, and access of cloud-based data protection. HP Data Protector extends backup to the cloud, bringing on-premise and secure hosted backup into a single flexible offering.

HP Data Protector’s Cloud Backup capability leverages global cloud data centers operated by Autonomy, an HP Company, which currently manages over 50 petabytes of customer information worldwide. Autonomy operates the most secure private cloud in existence, and its global data and eDiscovery processing centers are Safe Harbor-certified, and audited to Statement of Accounting Standard number 70 (SAS-70 Type II). All protected data is mirrored across multiple data center locations and resides in a secure multi-tenant scalable data protection cloud service.

With Cloud Backup, you get freedom and flexibility through one-click protection managed directly within the HP Data Protector Console (see Figure 4), removing the challenges of a traditional tape-based approach for offsite backup. In addition, administrators can manage restores from anywhere, leveraging a simple to use web management interface that allows self-service restores to be initiated for both physical and virtual system data.

Additionally, customers or service providers that intend to deploy cloud to provide Infrastructure as a service (IaaS) using HP’s Cloud Matrix System can take full advantage of a Data Protector Cloud Map. This capability automates the deployment and initial configuration of the product enabling faster deployment and preventing protection gaps.

Figure 4. Seamless integration of the Cloud Backup capability allows you to easily configure Cloud Backup directly through the HP Data Protector console.
About HP Autonomy

HP Autonomy is a global leader in software that processes human information, or unstructured data, including social media, email, video, audio, text and web pages, etc. Autonomy’s powerful management and analytic tools for structured information together with its ability to extract meaning in real time from all forms of information, regardless of format, is a powerful tool for companies seeking to get the most out of their data. Autonomy’s product portfolio helps power companies through enterprise search analytics, business process management and OEM operations. Autonomy also offers information governance solutions in areas such as eDiscovery, content management and compliance, as well as marketing solutions that help companies grow revenue, such as web content management, online marketing optimization and rich media management.

Please visit autonomy.com to find out more.