Adaptive Backup and Recovery
Protect, analyze, and optimize with HPE Data Protector
HPE Data Protector delivers comprehensive protection, real-time intelligence, and guided optimization to achieve simple, reliable, and cost-effective backup and recovery that is just as agile as your IT environment.

**Introduction**

In an ever-growing digitally-dependent world, where information rules above all else, effectively managing and safeguarding the data, locating it quickly, and determining how best to exploit it is the key to your business vitality. As the speed, variety and complexity of data continue to accelerate, so do risks of not being able to timely restore critical systems and applications in cases of disasters or data loss. The problem is that many organization are still using old technologies and approaches to protect today’s digital assets that are not just vital to the business, they are the business. The biggest challenge with traditional backup software solutions is that they are not architected for today’s dynamic and elastic IT environments; relying on them can only lower your confidence and stunt your ability to enable growth, increase IT agility, and manage risk.

Meeting constantly growing business demands with marginally growing budgets is a herculean task that most IT organizations are challenged with. To help close this gap, you need the ability to analyze and visualize the characteristics of your data, the capabilities of your infrastructure, and to continuously optimize how these assets are used while maintaining business continuity and resiliency. Achieving this is only possible when the backup software solution you put in place is reliable, predictable, and smart.

**Backup with brains**

Using real-time intelligence derived from operational analytics, HPE Data Protector can provide hindsight to resolve issues, insight to reflect the current process state and relationships, and foresight to enable the business to predict future needs. With a backup and recovery solution that is as agile as your current and future infrastructure, applications, and workloads you can confidently deliver business assurance to your organization.

**Gain better business insights and value through advanced analytics**

HPE Data Protector and HPE Backup Navigator deliver an innovative approach to backup and recovery that is based on real-time operational analytics, intelligence and optimization. Combining intuitive visualization and adaptive intelligence, HPE Data Protector and HPE Backup Navigator enable organizations to reduce the cost of backup operations, meet service level expectations, and improve productivity.

HPE Backup Navigator provides more than 90 reports and 75 KPIs that are accessed through a highly intuitive and interactive visualization layer enabling both administrators and business owners to gain deep insights into their backup and recovery ecosystem. With a built-in predictive analytics engine, HPE Backup Navigator provides guided intelligence and actionable suggestions enabling organizations to proactively see and remove potential resource contention and delays, gain maximum utilization of infrastructure resources in a backup environment, and enable better management and future planning of backup resources.

“HPE Data Protector protects our data across our physical and virtual environments, maximizing our storage efficiency and performance.”

- Egewarth Zsolt, IT Project Manager, Vodafone Group Plc
Key features

- **Real-time Operational Intelligence:** personalized/customizable dashboards and reports, intelligent scheduling, root-cause analysis, scenario-based modeling and predictive analytics for resource balancing, and identification and resolution of potential conflicts and contentions

- **Zero Downtime Backup/Instant Recovery:** array-based snapshot integrations provide rapid protection and recovery while removing the burden that traditional backup technologies have on the production environment

- **Storage optimization:** with compression, federated deduplication, storage management and analytics, organizations achieve increased scalability and cost efficiency, and better utilization of the IT infrastructure

- **Automated Disaster Recovery:** centralized bare metal recovery from physical to physical, physical to virtual, virtual to virtual, and virtual to physical from any backup set at no additional cost

- **Application consistent recovery:** leading business application integrations extend backup, automated point-in-time recovery, and granular restores to application owners enabling them to manage, drive and service their own backup and recovery requirements based on the backup infrastructure defined by IT

- **Advanced virtual server protection:** hypervisor integrations, and support; offer virtual machine protection inheritance, tiered recovery options, process automation, analytics and visualization for virtual environments

- **Standardized protection:** a unified and flexible architecture enables centralized protection across heterogeneous environments, disparate operating systems and critical applications from core datacenters to remote sites

- **Information Retention:** automated retention and replication management across different backup media, storage tiers and locations for compliance and efficient long-term data retention

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**Simplify your backup and recovery experience with a comprehensive support matrix**

HPE Data Protector is a single, unified data protection software solution that can centrally manage the backup and recovery process across your entire IT environment, whether it is small and standardized or large, diverse, and distributed. With a comprehensive support matrix eliminating the need for multiple point products, HPE Data Protector protects business data spread across a range of locations, applications, formats, storage platforms, operating systems, and hypervisors to a continuum of backup targets including disk, snapshots, tape, and cloud.

**Meet strict recovery and service level expectations with advanced recovery capabilities**

By natively integrating with core enterprise applications and databases including Microsoft® Exchange, Microsoft SharePoint, Microsoft SQL, Oracle®, SAP®, SAP HANA®, IBM DB2, MySQL, and Sybase, HPE Data Protector enables reliable, rapid, and consistent recovery of business critical applications down to the exact point in time whether the need is to recover a single file, an application environment, or the entire system.

Leveraging advanced policy-based recovery options including Instant Recovery, Granular Recovery Extensions (GRE), and Enhanced Automated Disaster Recovery (EADR), HPE Data Protector enables organizations to meet the strictest levels of service and recovery objectives in both physical and virtual environments ensuring business resiliency, and compliance.

- **Instant Recovery**—For staging a number of (easily configurable) rotating application-consistent snapshots on the storage array and making it a primary source of recovery helps meet the strictest levels of service objectives.

- **Granular Recovery Extensions (GRE) for single item recovery**—For VMware® vSphere, Microsoft Exchange, and Microsoft SharePoint environments that enable application administrators of these environments to recover the required version of single items directly from the appropriate backup set without burdening backup administrators. The GRE feature improves end-user productivity by allowing application administrators to recover single items directly from the application’s administrative console.

- **Enhanced Automated Disaster Recovery (EADR)**—For 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 HPE Data Protector, you can create a disaster recovery image from any existing file system or image backup, including object copies, without creating a separate backup specifically for system recovery. With a single click, you can initiate the disaster recovery process and automatically rebuild your entire system and the partitioning.

**Optimize backup storage and reduce cost with federated deduplication**

HPE Data Protector is powered by HPE StoreOnce, a patented and award winning deduplication technology. Using smart technologies such as adaptive micro-chunking, sparse indexing, and container matching, HPE StoreOnce is designed to utilize less system resources and efficiently store data which drives a lower cost of data backup and recovery. The combination of HPE Data Protector and HPE StoreOnce appliances, which use the same deduplication engine, helps organizations simplify the management of backup and recovery operations across data centers and remote sites and reduce storage cost and footprint.

Organizations that have standardized on EMC storage infrastructure can achieve similar benefits from Data Protector’s native integration with EMC Data Domain (DD) Boost APIs. Whether a customer has deployed HPE or non-HPE storage infrastructure, Data Protector provides the flexibility to run deduplication at any location in the backup stack helping customers achieve cost efficiency and better utilization of IT infrastructure resources.
Reduce exposure to data loss and improve IT resiliency with automated policy-based data protection for virtual environments

HPE Data Protector allows organizations to make the most out of their virtual infrastructure investment by delivering a data protection strategy that is as dynamic and agile as the virtual datacenter itself. With OneTouch Protection, it helps minimize the exposure to data loss by automating the otherwise insurmountable task of managing and applying protection policies for newly provisioned virtual machines.

HPE Data Protector provides three levels of data protection options—agent-based, agentless, and hardware-assisted application-consistent protection—and advanced recovery options to restore single items, a virtual machine, or the entire application environment for major virtual environments. The hardware-assisted agentless backup augments the standard hypervisor integrated agentless backup capabilities and leverages storage snapshot integration to complete the backup operation. By offloading the processing and movement of backup data from the hypervisor layer, HPE Data Protector improves VM and hypervisor performance and availability.

Integrated graphical user interface (GUI) extensions, empower virtual administrators to manage and service their own data backup and recovery requirements directly from the virtual server administrative console while reducing burden on backup administrators.

Analytics and visualization tools provide real-time topographical details of virtualized environments enabling administrators to generate customized reports, identify and fix root-cause, and get actionable suggestions to optimize the backup environment.

With these advanced data backup and recovery options combined with VM Power-On and Live Migrate restore options, HPE Data Protector enables service level expectations in virtualized environments to be met—successfully and cost-effectively.

Easily meet shrinking backup window demands with Zero Downtime Backup snapshot protection

The HPE Data Protector Zero Downtime Backup (ZDB) capability automates the orchestration, management, and backup of space-efficient snapshots for both Hewlett Packard Enterprise and 3rd party storage arrays enabling organizations to reliably protect and recover large volumes of information without impacting application performance and availability.

Enabling an adaptive backup and recovery environment, HPE Data Protector provides a modular snapshot framework that dynamically adds the snapshot support for new storage arrays to the existing deployment. With our modular snapshot feature, organizations can take advantage of the advanced protection capabilities on their new storage investments without replacing or altering their data protection strategies.

Reduce the overall cost of backup with a tiered recovery architecture

HPE Data Protector delivers a highly efficient tiered recovery architecture by centrally protecting, managing, and retaining backup sets on a wide range of recovery targets including primary storage devices, disk-to-disk based backup solutions, tapes, and cloud. By delivering the right level of protection to different workloads, HPE Data Protector enables organizations to manage data growth and reduce the overall cost of the backup and recovery process.

Learn more at hpe.com/software/dataprotector