Hewlett Packard Enterprise

HPE Data Protector

Enterprise-class backup and recovery software for heterogeneous environments

A core data protection engine which provides centrally managed, comprehensive, and scalable backup and replication across physical and virtualized environments, HPE Data Protector addresses the challenges of complexity, costs, and recoverability of protecting the dynamic and diverse nature of today's information.

Introduction

HPE Data Protector is a core-to-edge data protection solution that standardizes and consolidates backup processes, allowing enterprises to reduce cost and complexity of their backup operations while delivering improved reliability and business resiliency. By standardizing the protection of data spread across locations, applications, formats, storage platforms, operating systems, and hypervisors, Data Protector backup software provides business assurance needed by today's data-driven enterprise. When combined with its companion products in the HPE Adaptive Backup and Recovery Suite, Data Protector becomes a solution that allows to adapt and optimize your environment at all phases of the data protection cycle in order to meet your operational and business goals.

Key features and benefits

- **Standardized protection**—a unified and scalable architecture enables centralized data protection across physical and virtualized environments, disparate operating systems, and critical applications from core data centers to remote sites.

  – With an understanding that many IT organizations have data and applications spread across different platforms, each with unique characteristics and APIs, HPE Data Protector's comprehensive support matrix covers data protection 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.

- **Application consistent recovery**—leading business application integrations extend server 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.

  – Online extensions for business applications including Microsoft® Exchange, Microsoft SharePoint, Microsoft SQL, Oracle, SAP®, SAP HANA®, IBM DB2, Sybase, and MySQL provide application-aware backup and recovery.

  – Automated transaction log backup and truncation enables application recovery down to a specific point in time.

  – HPE Data Protector Granular Recovery Extensions (GRE) enhances application management GUI with backup and recovery capabilities, and provides application owners with a self-service option to search and recover single items.

- **Advanced virtual server protection**—hypervisor integrations and support offer virtual machine protection inheritance, instant recovery options, process automation, analytics, and visualization for virtual environments.

  – Native integrations with hypervisors including VMware vSphere®, Microsoft Hyper-V, and Citrix® Xen deliver agentless backup and protection policy inheritance.

  – 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 virtual machine and hypervisor performance and availability.

  – Advanced restore options include:

    ▫ Cached Granular Recovery, which allows the recovery of select files from a VMware® virtual machine backup image directly from a supported backup target

    ▫ Virtual Machine Power On, which allows VMs to be powered on instantly from Data Protector backup images that reside on the supported devices

    ▫ Live Migrate, which can power a VM on from the backup image that resides on a supported device, and simultaneously start the data restoration to the destination datastore

- **Storage integrations**—array-based snapshot integrations provide zero-impact protection and rapid recovery; compression, federated deduplication, storage management, and analytics deliver cost efficiencies and better utilization of the IT infrastructure.

  – Zero Downtime Backup software integration enables HPE Data Protector to create, backup, and catalog space-efficient, application-aware snapshots. The Instant Recovery feature meets the strictest levels of service and recovery expectations by staging the desired number of snapshots on the storage array itself. With a storage array being the first point of recovery, applications can be restored instantly.

  – Integration with HPE StoreOnce Catalyst APIs and EMC Data Domain Boost (DD boost) APIs provides deduplication options that can be deployed at the application source (client side), the backup server (media server), and at the backup target (target side).

  – Besides standard disk-based backup appliances, tape, and cloud as backup targets, HPE Data Protector offers an intermediary backup-to-disk target called HPE SmartCache. It is a backup target option with the benefits of snapshots stored on the backup server cataloged and ready to be moved to the backup target, or kept ready for rapid-recovery operations.

- **Cloud integrations**—a choice of cloud solutions, both native with Microsoft Azure and HPE Helion and via a gateway with Amazon S3.

  – Scalable, cost-efficient (pay-as-you-grow) storage tier provides a capacity expansion for enhanced IT agility with reduced administration overhead.

  – Native integration with the Azure storage cloud allows you to seamlessly use it as a backup target. Integration via the Microsoft StorSimple on-premise hybrid storage array delivers enhanced performance and data optimization for larger cloud backups.

- **Automated disaster recovery (bare-metal recovery)**—centralized bare-metal recovery from or to physical and virtual systems from any backup set at no additional cost.

  – Integrated at the core of HPE Data Protector, Enhanced Automated Disaster Recovery (EADR) provides backup of application data as well as system data including operating system files, drivers, and files required for the initial boot process. Enabled with a simple check box in the HPE Data Protector GUI, EADR includes the necessary image information in full backups for a full system recovery.

  – Disaster recovery images can be created from any existing file system or image backup including object copies, without needing to create a separate special backup for system recovery.

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

  – HPE Data Protector creates a tiered recovery architecture by managing data protection (backup, recovery, and replication) on primary storage devices, HPE SmartCache (an intermediary backup target), disk-based backup appliances (both physical and virtual), tape, and cloud.

  – Automatic Replication Synchronization automatically shares metadata information between Data Protector Cell Managers that are managing two replicating backup devices (HPE StoreOnce or EMC Data Domain appliances) providing multiple options for restoring data and applications.

- **REST API access**—Authentication and authorization layer enables to plug-in data protection tasks into customers' service portals or applications.

  – Self service restore of File Systems, SQL, SAP, Oracle, VEPA (VMware, Hyper-V), IDB Files, Disk image and NDMP backups.

  – Phased approach to allow customers to script all interactions with Data Protector.
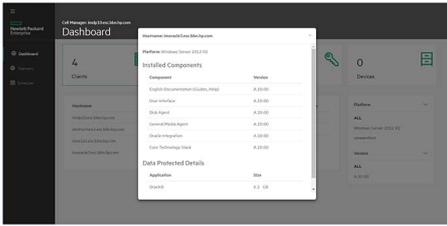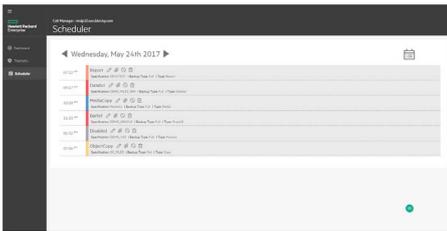
A Client overview on the Data Protector dashboard shows all installed components such as agents, integrations, UI, etc.
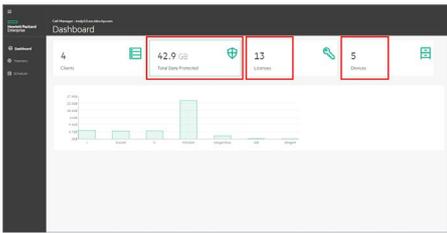
Quickly check your capacity consumption, licenses consumed and device connection, type, pools and usage.

Backup schedules are color-coded for easy identification. Conflict warnings are issued if overlaps occur.

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- **Security model**—a secure and simplified communication between Data Protector components creates a highly reliable and secure backup environment with lower overhead.

  – Replaced less-secure protocols with protocols which encrypt traffic over the wire.

  – "Secure peering" sends all communication between Installation Server and Data Protector Cell Manager including commands via a secure Transport Layer Security 1.2 channel.

  – "Trust" verification for Cell Manager/ Installation Server relationships.

  – Centralized Command Execution.

HPE Adaptive Backup and Recovery Suite

HPE Data Protector is the foundation of the HPE Adaptive Backup and Recovery (ABR) Suite, which manages and protects data at each phase of the data protection cycle, any data format—structured and unstructured, applications, and databases, and environments—physical or virtualized. Utilizing data classification, visualization, and operational analytics, it enables IT to take action in real time in order to adapt and enhance the backup environment throughout the data protection cycle. In addition to Data Protector, the suite includes:

- **HPE Storage Optimizer**—for analysis, classification, and management of unstructured data based on its value to your business. Storage Optimizer combines file analytics with policy-based storage tiering to identify and appropriately tier redundant, obsolete, and trivial (ROT) data so that only the data that is of value to the business is backed up. The result is a reduced volume of data, lower Tier 1 storage footprint, and decreased cost and complexity of protecting unstructured information.

- **HPE Backup Navigator**—for analytics, reporting, and monitoring of data that aids in identifying protection gaps, running rapid root-cause analysis for issues, and planning for future backup resources. With over 100 out-of-the-box reports and customizable dashboards, administrators gain insights into key performance indicators. They can proactively identify issues before they cascade into outages and data loss, and run rapid root-cause analysis that provides trends and scenario-based modeling to discover potential scheduling conflicts, enabling better management and future planning of backup resources.

Another advanced feature, automatic recommendations, displays to administrators recommendations based on the information gathered and analyzed by Backup Navigator. Detailed problem descriptions and suggested actions are provided for a large number of Data Protector errors, allowing for a faster and easier resolution of backup problems.

Technical specifications

The HPE Data Protector Cell Manager software can be installed on Windows®, Linux®, and HP-UX systems. For additional specifications, go to QuickSpecs on **hpe.com/software/dataprotector**.

Languages supported:
English, French, Japanese, and Simplified Chinese

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