The volume of data generated globally is **expected to double** by 2026.[1]

Simplify Your Enterprise's Approach to Data

Data is the Life Force of the Modern Enterprise

Data powers insights, innovation, and competitive advantage, but organizations are now facing unprecedented challenges with its management. Rapidly increasing data volume and complexity have resulted in businesses utilizing a costly combination of storage infrastructure silos, resulting in poor performance scaling. Disparate workload types and varied protocols require different types of management systems and support, leading to reduced productivity across edge to cloud. Subject matter experts (SMEs) are necessary to administer complex architecture, and data systems are difficult to maintain leading to suboptimal availability.

In addition, there are challenges in securing the ever-increasing amounts of data from edge to cloud, leaving enterprises struggling with inefficient backup, protection, and recovery protocols. The basic approach to security has remained the same over the years. Copy the data that changed in production environments during off-peak hours, and store that copy in a secondary location. This method impacts network performance, leads to inconsistent recovery, and is complicated and time consuming. Finally, budget constraints involved with both data storage and protection often force organizations to compromise between advanced capabilities and price.[2,3]

Accelerate Data-First Modernization

Organizations of all sizes seek to leverage data to achieve better outcomes through reducing management costs and complexity. Data management should support digital transformation by providing access at the speed of business, no matter where information resides. With a data-first modernization approach, data is left in place and storage and processing occur closer to where analysis and decision-making happen.

When data is accessible everywhere from edge to cloud organizations can centralize operations and revamp IT services, delivering capabilities to reduce costs and gain efficiencies. Upgrading legacy systems enables enterprises to scale-up and scale-out infrastructure according to business demand. A cloud operational experience simplifies management with on-demand access, as well as automated workload placement and data protection.
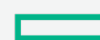
Hewlett Packard Enterprise

Simplified backup administration across distributed networks allows organizations to counter cyberattacks and keep pace with evolving threat landscapes.[4,5]

HPE Transforms Data Lifecycle Management

HPE offers file and block storage, as well as a unified approach to data protection. The new file and expanded block storage offerings are designed to help customers eliminate data silos, reduce cost and complexity, and improve performance.

These solutions leverage a flexible architecture through the **HPE Alletra Storage MP** enabling organizations to store, manage, and protect all data types from a unified platform across the hybrid cloud.

- **File storage** services deliver scale-out, enterprise-grade performance for data-intensive workloads, and block storage services provide mission-critical storage with midrange economics.

- **Backup and recovery** services protect on-premises and cloud native workloads effortlessly and efficiently with unified management and a single data catalog across the private and public cloud.

- **Disaster recovery** services reduce data loss and downtime through continuous protection and deliver fast, flexible recovery from any disruption using one simple, unified, automated, and orchestrated experience across multiple virtual machines (VMs).

These storage and protection offerings are managed though HPE GreenLake edge-to-cloud-platform, which is a self-service, HPE-managed platform that combines the simplicity, agility, and economics of the public cloud with the security and performance benefits of on-premises IT infrastructure.[6]

One Box to Rule Them All

The HPE Alletra Storage MP is a modular storage solution that supports a disaggregated infrastructure with multiple storage protocols on the same hardware that can scale independently for performance and capacity. Businesses are able to avoid over- and under-provisioning and address budget constraints by initially configuring storage to address current capacity and

performance requirements, and then scaling up and out as needed through non-disruptively upgrading resources on-demand.

This flexible, high-performance multi-protocol hardware architecture consists of standardized composable building blocks – compute (node), capacity (JBOF), and switches – that can be configured and repurposed for different software-defined storage personas and uses cases. This allows organizations to deploy HPE GreenLake for File or Block Storage on common hardware managed through the intuitive cloud experience of the HPE GreenLake platform, eliminating silos and complexity as well as reducing total cost of ownership (TCO) and improving return on investment (ROI).

The ability to orchestrate and manage file and block storage as well as data protection services from one unified cloud platform allows organizations to focus on leveraging the power of data to accelerate innovation and gain a competitive advantage. Let's take a more detailed look at HPE file, block, and data protection solutions.[7,8]

HPE GreenLake for File Storage: Supercharge Data-Intensive Applications

The exponential growth of file data has overwhelmed enterprises with the burden of processing and extracting value from that data. Legacy storage systems struggle to manage file-based, data-intensive applications and IT leaders cannot keep up with – much less scale – current infrastructures. HPE GreenLake for File Storage delivers a cloud experience everywhere, runs all workloads on a single infrastructure, maximizes performance at scale, and expedites setup and job completion.

This service is built on VAST Data software and the HPE Alletra Storage MP modular hardware platform, and features a disaggregated, shared-everything, highly resilient, flexible modular design that excels at exabyte scale. The unique architecture produces a highly differentiated file storage service that avoids tradeoffs, makes storage easy, scales performance and capacity independently, and helps eliminate hardware silos and islands of data.

HPE GreenLake for File Storage simplifies file data management and propels data-intensive workloads. Let's examine the key benefits of the solution: [9,10]

- **Accelerate with Enterprise Performance at Scale:** Experience fast, sustained performance that spans the entire scale of your data and supported workloads. Enterprises can supercharge their most demanding applications with all-NVMe speed for fast, predictable performance and without front-end caching or data movement between media, resulting in a read performance that is significantly faster than legacy NAS. In addition, customers benefit from six 9s data availability with no rebuild time for controller failures, and the flexibility of multiprotocol NFS and SMB access to the same data.

- **Simplify with an Intuitive Cloud Experience:** Businesses benefit from radically simple file data management with automatic discovery, streamlined deployment, and easy file share creation. The service delivers centralized, unified storage management, monitoring, and protection of global storage environments across your hybrid cloud from a single cloud console. Upgrades are automated and non-disruptive, maintenance is easy, and HPE offers proactive support. The simple, self-service cloud experience enables IT staff to focus on strategic initiatives rather than day-to-day administration.

- **Enhance Productivity with Faster Time to Insights:** Organizations gain a competitive advantage through enhanced collaboration for faster time to insight, discovery, and innovation. Simple setup and rapid job execution both increase the productivity of line of business application owners and free SMEs from performing routine IT tasks. This offering provides rich data services including no-overhead snapshots and native replication, as well as superior flash efficiency with the similarity algorithm, which, unlike compression and deduplication, reduces data with both a global and fine-grained approach. The solution's superior infrastructure is designed to deliver high ROI on capital equipment investments by helping eliminate any performance imbalance between compute and storage resources.

HPE GreenLake for Block Storage: Mission-Critical Storage at Midrange Economics

Most storage-as-a-service (SaaS) offerings are not suitable for mission critical applications and don't bring self-service agility. Customized, managed solutions are suited for large-scale customer deployments, but come at a high cost. HPE GreenLake for Block Storage is the industry's first SaaS that offers self-service as well as a 100% availability guarantee for mission-critical environments and applications, and an industry leading 99.9999% for all other workloads. This enhanced service provides efficient scale as well as extreme resiliency and performance at a midrange price point. HPE GreenLake for Block Storage enables businesses to modernize by breaking away from managing legacy infrastructure. Consider how your organization could transform by accelerating the following outcomes: [11,12]

- **Simplified Management with an Intuitive Cloud Experience On-Premises:** Simplify operations through rapid deployments, automated provisioning, and invisible upgrades, bringing the speed and agility of the cloud experience to on-prem storage. Enterprises are able manage and monitor global block storage environments from a single cloud console. By leveraging an AI-driven cloud experience, underlying infrastructure is rendered invisible, eliminating silos, complexity, and the burden of day-to-day storage administration, which frees IT resources to focus on strategic, higher-value initiatives.

- **Improved Performance and Better Economics with Disaggregated, Scale-Out Storage:** The disaggregated, scale-out storage architecture scales capacity and performance independently, which increases efficiency and lower costs. Organizations gain the flexibility to fine-tune, adapt, and elastically scale storage environments in line with workload requirements and evolving business needs. ROI is maximized via non-disruptive, data-in-place upgrades without repurchasing existing storage.

- **Run Any App Without Compromise:** Guarantee 100% data availability for your mission critical apps with this always-on service, built on a no single point of failure platform. Meet any recovery-point objective (RPO) and recovery-time objective (RTO)

with transparent business continuity and automatic failover across multiple sites. The storage system is optimized for all-NVME and is ideally suited for demanding mixed workloads because of its all-active architecture and massively parallel design, where all physical components are active so that data can simultaneously access all ports and controllers. This ensures consistent, predictable performance and ultra-low latency at scale, which accelerates time to insight. The industry's most advanced AI for infrastructure allows admins to rely on AI-driven recommendations to predict and prevent disruptions before they occur. Time-consuming escalations are eliminated through predictive support automation and direct access to experts.

- **Mission-Critical Storage at Midrange Economics:** Eliminate trade-offs that previously forced compromise between advanced capabilities and price, which risked data availability and created management complexity.

HPE GreenLake for Data Protection: Protect, Recover, and Secure Your Data

Fifty-five percent of organizations will migrate their data protection to a cloud-centric model by 2025.[13] HPE offers a suite of cloud services that eliminate risk of loss, deliver rapid recovery, and protect your data for every service-level agreement (SLA).

Enterprises can neutralize threats like ransomware and malware, and rapidly and completely recover from natural disasters, hardware failures, human errors, and outages through industry-leading RPOs of seconds and RTOs of minutes for all data and applications. All workloads, regardless of location, are instantly protected, and backup infrastructure is managed and operated by the service enabling IT resources to focus on business priorities.

Data protection solutions are delivered through HPE GreenLake edge-to-cloud platform, providing a comprehensive management approach and a cloud operational experience. HPE GreenLake for Data Protection consists of the following two offerings:[14]

HPE GreenLake for Backup and Recovery: Backup-as-as-Service Built for the Hybrid Cloud

HPE GreenLake for Backup and Recovery is a solution designed for protecting on-premises VMware VMs as well as Amazon EBS volumes and EC2 instances. This solution protects on-prem and cloud native workloads with a consistent global protection policy, and eliminates the complexities of managing backup recovery operations. There are no additional cloud gateways, backup servers, or appliances to administer, and cloud storage is fully managed and scaled automatically by the service. Organizations lower the cost of protecting their on-prem and cloud data with consumption-based pricing and ultra-efficient data reduction technologies. HPE GreenLake for Backup and Recovery features:[15]

- **Simplicity and Efficiency to Meet Stringent SLAs:**
  - Policy based orchestration and automation easily protects all workloads within minutes and in a few simple steps
  - Unified management eliminates storage silos and easily consolidates backup and recovery operations through a single cloud console
  - Superior storage efficiency reduces backup storage consumption and network utilization with efficient source side deduplication and compression technologies
  - 100% SaaS solution featuring pay-as-you-consume billing

- **Comprehensive, Consistent, and Efficient Data Protection:**
  - Single interface for protecting VMs and cloud native workloads driven by automatic or custom protection groups with flexible protection policies that define backup schedule and data retention
  - Granular HPE StoreOnce Catalyst deduplication built into the solution provides space-efficient backups that deliver unmatched storage efficiency, faster backup completion, and reduced costs

- **Security By Design:**
  - Backup data immutability protects against deletion or modification by cybercriminals
  - Safeguard data with encrypted backups that are inaccessible during cyberattacks including ransomware

- Backups stored outside of production environment, creating an air gap that prevents hackers or bad actors from compromising backup copies

- Dual authorization ensures that a user will not be able to unilaterally delete any recovery points

- Multi-level security for access, authentication, authorization, and communications

HPE GreenLake for Disaster Recovery: Fast, Flexible Recovery from Any Disruption

HPE GreenLake for Disaster Recovery radically reduces data loss, downtime, and disruption through continuous data protection with proven technology from Zerto, an HPE company. Recover from ransomware attacks and other outages in minutes to a state seconds before any disruption, and seamlessly resume operations with industry leading RPOs and RTOs.

Achieve operational efficiency with built-in orchestration and automation as well as scale-out architecture that expands as business needs evolve. This SaaS solution with flexible billing requires no hardware and enables easy operations management. Key advantages of the service include:[16,17,18]

- **Continuous Data Protection:** Always-on, near synchronous replication without production impact, scheduling, snapshots, or agents

- **Journal-Based Recovery and Always-On Replication:** Every change made is automatically written into a journal, so you can rewind to a point in time seconds before an incident; changes to VMs are captured and sent to secondary sites with near-synchronous replication

- **Application-Centric Recovery:** Maintain write-order fidelity across an entire multi-VM app stack, even if workloads are on different hosts/ nodes or storage – no staggered backup windows allows rapid and simple recovery

- **Nondisruptive Testing:** Carry out orchestrated and automated testing time with just a few clicks and not impacting production environments

- **Simplicity at Scale Through a Global Management Platform:** Easily configure sites, groups, and VM protection with simple point-and-click provisioning; updates and patches are pushed out automatically

Talk to WEI today

To accelerate data-driven transformation, businesses must focus on eliminating infrastructure management complexity that continues to slow them down. Data protection should be modernized with a solution that eliminates risk of loss, mitigates threats from ransomware, and delivers rapid recovery.

The future of data storage is here with the HPE Alletra Storage platform supporting both block and file stores, along with the HPE GreenLake edge-to-cloud platform that enables workload administration and data protection from a single-pane-of-glass. HPE provides solutions that enable your organization to transform data lifecycle management and thrive in the age of insight.

The experts at WEI can assist you with upgrading and consolidating your data storage and protection with HPE service offerings that will radically simplify your organization's approach to data.[19]

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About WEI

WEI is an innovative, full service, customer centric IT solutions provider.

Why WEI? Because we care. We go further.

WEI is an expert in business technology improvement, helping clients optimize their technology environments and work efficiently. WEI works with clients to understand goals, integrate strategy with technology solutions, and leverage their current IT environment into one company-wide model to increase utilization and efficiencies around their unique business processes.