HPE Alletra

Power your data from edge to cloud

**Brochure**

HPE GreenLake

Maximize your agility
Get a cloud operational and consumption experience for every application across its entire lifecycle and from edge to cloud

Run any app
Meet every SLA with the right performance, resiliency, and efficiency to match the needs of any application

Free your data
Unleash hybrid cloud with unified management, consistent data services, and seamless data mobility across clouds

Free yourself from the complexity of hybrid cloud

Your data has never been more valuable. It has the potential to transform your business—by accelerating innovation, improving the customer experience, and driving operational efficiency. Achieving this kind of data innovation requires a generational shift in the application landscape, but it also entails the complexity of deploying and maintaining more infrastructure than ever before.

Cloud has set the standard for agility with on-demand access, resource elasticity, and charges for services based on actual usage. Organizations love that cloud experience—so much so that they want the cloud experience for all their applications data, wherever they live.

And, more to the point, without a cloud everywhere experience, your infrastructure can't keep up with the speed of business today. You're stuck maintaining, upgrading, and tuning on-premises, edge, and cloud storage in isolated, complex silos. That's why you keep asking yourself:

How can I run all my apps without any compromises?

How can I get the cloud experience everywhere?

How can I mobilize my data where it needs to be?

How can I best leverage the public cloud?

How can I maximize my capital?

Now, there's an answer. It's called **HPE Alletra.**
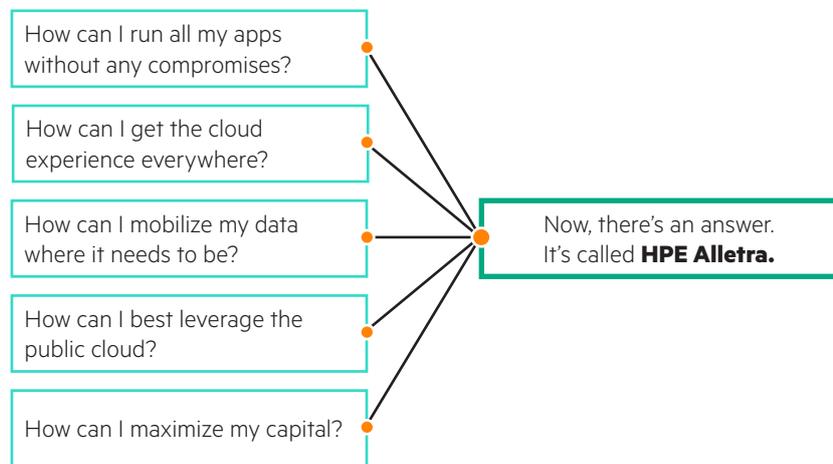
We're delivering a paradigm shift in data infrastructure

It's time to shed the complexity and silos inherent in conventional hybrid cloud environments. HPE Alletra is cloud-native data infrastructure powered by HPE GreenLake platform. Together, they give you a cloud operating and consumption experience wherever data lives. Built for every app, from traditional to modern, HPE Alletra spans workload-optimized systems to deliver architectural flexibility without the complexity of traditional storage management. By mobilizing data across clouds, HPE Alletra unleashes the true potential of your hybrid cloud.

Stop managing data infrastructure and start consuming it

Move from owning and maintaining data infrastructure to simply accessing and utilizing it—on demand and as a service. Power your data from edge to cloud so you can maximize your agility, run any application, and free your data everywhere.

99%
operational time savings[1]

100%
availability guaranteed[2]

65%
IT resource savings[3]

[1] Comparison of infrastructure lifecycle management of HPE Alletra vs. ESG Market Research, April 2021

[2] "Uptime guarantees that deliver," May 2021

[3] A commissioned study conducted by Forrester Consulting, The Total Economic Impact of HPE GreenLake, May 2022

With HPE Alletra a new category of data infrastructure emerges
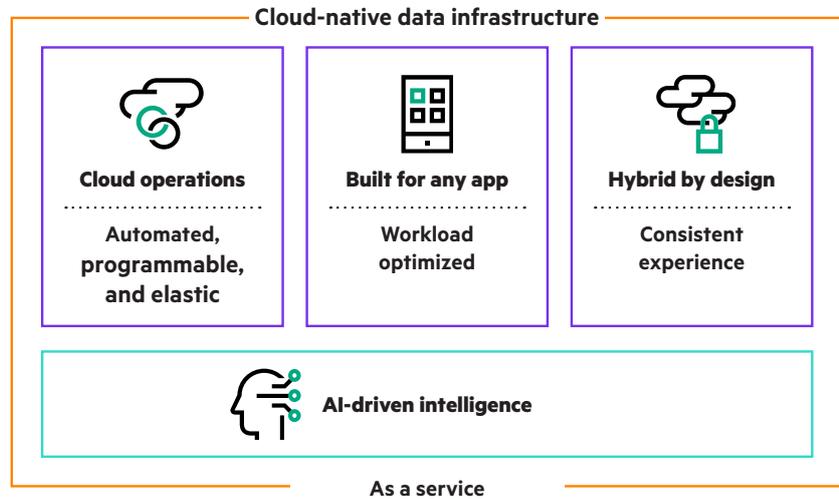

Figure 1. Core principles required for cloud-native data infrastructure

To bring the cloud experience to every workload, you need a new approach to data infrastructure—one that's cloud-native by design. Purpose-built for cloud operations and consumption from edge to cloud, cloud-native exploits the advantages of the cloud computing delivery model and ensures IT resources are always-on and instantly available. Cloud-native data infrastructure is underpinned by intelligence, effortless to manage, and available as a service to instantly respond to any demand.

With the power of cloud-native, you can run any application, from traditional to modern, without the complexity of traditional storage management. And you can break down silos between clouds via seamless access to data and a consistent experience that maximizes resources across on-premises infrastructure and public cloud.

HPE Alletra is designed for unique value

To deliver the cloud experience wherever data lives, HPE Alletra is architected with the following core innovations:

AI-driven
Powered by HPE InfoSight, the industry's most advanced AI for infrastructure, HPE Alletra delivers a unique experience. Through cloud-based machine learning, HPE Alletra provides a predictive model of support and management that predicts and prevents problems—from storage to virtual machines. The same technology enables HPE Alletra to transform the support experience via direct access to experts. Additionally, AI-driven recommendations improve performance, drive higher availability, and optimize resource utilization and planning.

Built for cloud
HPE Alletra is engineered to be tightly coupled with HPE GreenLake platform. This enables a common, cloud operational experience across workload-optimized systems on-premises and in the cloud. That means you'll experience the same agility and simplicity for every application across its entire lifecycle and from edge to cloud. Deploy, provision, manage, and scale your storage in 99% less time with a platform that sets up in minutes, automates provisioning, and upgrades transparently and without any hassle.

As a service
Avoid over-provisioning, reduce infrastructure costs, and ensure you can respond to any business need with storage as a service. With HPE GreenLake, you can consume HPE Alletra as a service for pay-per-use, scale-up-and-down freedom—or have it managed for you, for a complete turnkey solution. Free up your cash flow and increase financial agility with the right mix of subscription and usage-based services.

HPE Alletra maximizes your agility

Get the cloud operational and consumption experience for every application from edge to cloud. By abstracting the data infrastructure control plane from the data plane and moving it to the cloud, you get a single, consistent operational experience across HPE Alletra fleets. Operate at cloud speed and scale—and easily orchestrate data infrastructure across its lifecycle with simple deployment, AI-driven intent-based provisioning, and invisible upgrades.
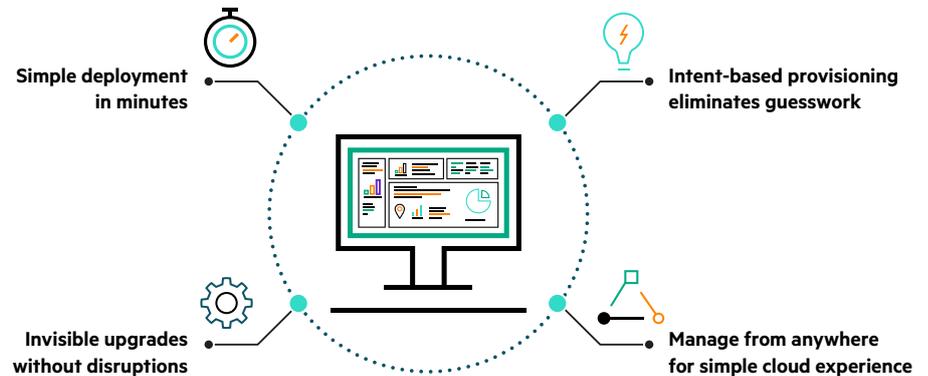

Figure 2. HPE Alletra powered with HPE GreenLake platform

Simple deployment: Deploy data infrastructure in minutes, with no IT specialist required. New systems are automatically discovered, onboarded, and configured. Simply cable up the system, power it on, and HPE GreenLake platform is designed to do the rest—giving you the reliability and security of on-premises infrastructure with the agility of cloud.

Intent-based provisioning: Make provisioning applications at scale effortless. Eliminate the guesswork and the spreadsheets by ensuring applications are deployed on the right resources across a global fleet. Shift from storage provisioning based on a LUN-centric, manual process to an intent-based, AI-driven approach, one in which real-time context into resource headroom and application-specific SLAs automatically select where data is stored and protected.

Invisible upgrades: Make use of new features and enhancements instantly through cloud-delivered upgrades. Everything is delivered as a service, ensuring you remain up to date without any disruptions.

Manage from anywhere: Have everything you need, at your fingertips. Manage data infrastructure across its lifecycle with an intuitive software-as-a-service (SaaS)-based user experience that's accessible from anywhere and on any device. Drive automation at cloud speed and scale so that managing thousands of systems across geographies is as simple as managing one.

Consume as a service: Free up your cash flow and increase financial agility. Choose flexible consumption options; or consume resources as a service via HPE GreenLake for pay-per-use, scale-up-and-down freedom; or opt for a complete turnkey solution that's managed for you.

HPE Alletra runs any app

Built for every application from traditional to modern, HPE Alletra spans workload-optimized systems to deliver architectural flexibility without the complexity of traditional data infrastructure. Meet any SLA with the right performance, resiliency, and efficiency to match the specific needs of each application. Leverage purpose-built data infrastructure to meet mission-critical and business-critical requirements at the core; to power remote application requirements at the edge; and to drive test/dev and analytics workloads in the cloud.

All-NVMe-accelerated performance

HPE Alletra systems support all-NVMe for accelerated applications and improved density. You can now consolidate traditional and modern mission-critical workloads at scale and without compromise. In just 4U, HPE Alletra 9000 delivers best-in-class storage performance density—with over 2M IOPS[4]—and is proven for 96 SAP HANA® nodes.
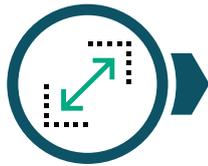
Absolute resiliency

The AI-driven intelligence and no single point of failure platform of HPE Alletra together deliver guaranteed 100% availability for your mission-critical workloads.[5] Powered by HPE InfoSight, AI and ML predict and prevent disruptions across storage, servers, and virtual machines. Over the past decade, HPE InfoSight has analyzed application patterns across 1,250 trillion data points, transforming the way storage is managed and supported. HPE InfoSight has prevented thousands of disruptions, saving customers over 1.5 million work hours.[6]

End-to-end security

Meet compliance requirements with built-in security. Deliver secure, FIPS 140-2 encrypted data infrastructure and help ensure compliance with robust authorization, access control, and logging capabilities across a reliable connection.

Multi-site protection

Meet any recovery-point objective (RPO) and recovery-time objective (RTO) strategy with transparent business continuity across multiple sites—and then extend app-aware data protection to the cloud. Paired arrays are located at metropolitan distances; you can synchronously replicate data between them and present a highly available storage system to hosts connected to both.

[4] Based on HPE Internal testing

[5] "Uptime guarantees that deliver," May 2021

[6] Based on the volume of critical issues proactively resolved for customers. Analyst White Paper by ESG: Assessing the Financial Impact of HPE Nimble Storage Powered by HPE InfoSight, May 2019

HPE Storage Substantiation

Unified management
Easily protect your hybrid cloud backup and recovery operation via a single cloud native console

Comprehensive data management
Delivered through HPE GreenLake for an unified access and experience across compute, storage, networking and data protection

Security as a baseline
Built-in security features like encryption, immutability, dual authorization protects your data from threats including ransomware across hybrid cloud

HPE Backup and Recovery Service with 90-day free trial and experience the benefits for yourself.
connect.hpe.com/HPE_Backup_and_Recovery_Trial

HPE Backup and Recovery Service

Enhancing hybrid cloud data protection
As the value and business criticality of data increases, the challenges of backup, recovery, and management of data are tougher than ever. What's more, there's exploding data growth, demanding recovery SLA requirements, and an evolving threat and compliance landscape—all continuing to put pressure on costs and intensifying risk. At the same time, as you transform your IT infrastructure to take advantage of the hybrid cloud, protecting and managing apps and data across your data center, private cloud and public cloud infrastructure can prove increasingly complex.

Simplifying how you protect your VMware® VMs
HPE Backup and Recovery Service is backup as a service designed for the hybrid cloud. This service simplifies how your VMware virtual machines (VMs) is protected across hybrid cloud, bringing with it the cloud experience and flexibility of software delivered as a service. HPE Alletra customers have the flexibility to retain local snapshots for instant data restores, local on-premises backups for rapid data recovery, and utilize cloud backups for cost-effective, long-term data retention.

This BaaS provides
1. Simple and efficient backup and recovery

   – Global policy and automation to easily protect VMs in a few simple steps within minutes

   – Unified management to eliminate data silos and consolidate backup and recovery operations through a single cloud console.

   – Delivers superior storage space efficiency reducing backup storage consumption, network bandwidth utilization with source side deduplication and compression technologies

   – Pay as you consume with no additional licensing cost, or data egress charges

2. Comprehensive and consistent data protection

   – One service to protect data on-premises or in the cloud with global protection policy

   – Delivered through HPE GreenLake edge-to-cloud platform for a comprehensive data management approach across compute, storage, networking and data protection eliminating silos with agility and cloud operational experience

3. Secure by design

   – Safeguard your data with encrypted backups to make them inaccessible to cyberattacks including ransomware

   – Data immutability to prevent backup data from being modified or deleted by hackers or bad actors

   – Dual authorization to prevent user from deleting any recovery points unilaterally without a second approver

   – Backup copies are stored outside the customer's production environment in an air-gap approach ensuring that they are not compromised.

HPE Alletra and HPE Backup and Recovery Service gives you the peace of mind that your data is rapidly recoverable, always secure, and provides value to your business without compromise. We help you protect VMs effortlessly, neutralizing ransomware and malware threats in a cost-efficient approach across the hybrid cloud.

30-day Satisfaction Guarantee

Try for 30 days with no risk

HPE Store More Guarantee

Best-in-class data efficiency

Data availability guarantees

99.9999%+ and standard benefit

Flat Support Pricing

For the life of HPE Alletra

No forklift upgrades

Avoid costly rip-and-replace cycles
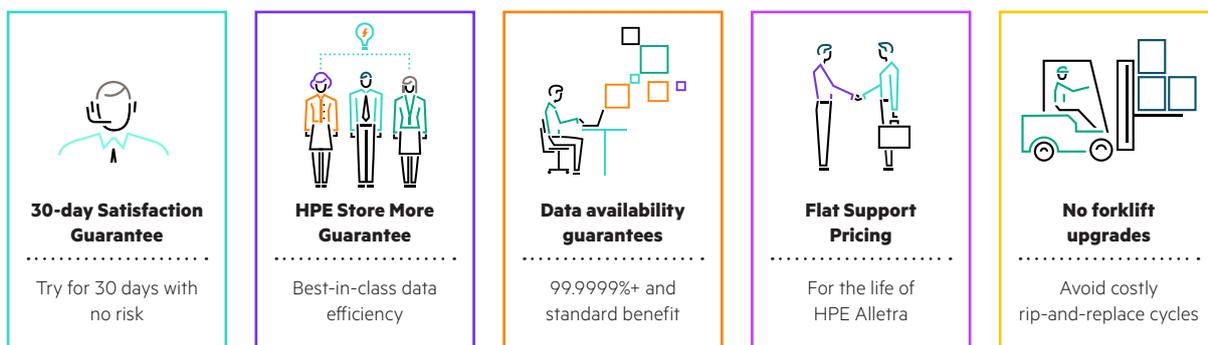
Figure 3. HPE Alletra, a radically simple storage experience

HPE Alletra is timeless

We know you're tired of dealing with the unpleasant surprises that come with data infrastructure—unplanned downtime, forklift upgrades, and ever-increasing support costs. So, we've made it easy for you to switch to a radically simpler storage experience without the headaches—an experience that stays simple even as your business grows and your needs evolve.

HPE Store More Guarantee: Store more data per raw terabyte than the competition— and get more for less with better overall efficiency. We back this up with guaranteed data efficiency for your workloads.

99.9999%+ availability, guaranteed: Application uptime is more important today than ever. Loss of access to data means lost time and money. That's why HPE Alletra 9000 comes standard with a 100% availability guarantee and HPE Alletra 6000 comes standard with a 6-nines availability guarantee.[7]

Transformed support: Predictive support automation enables HPE Alletra to eliminate level 1 and level 2 support, providing you with direct access to experts and removing time-consuming and frustrating escalations.

Predictable support pricing: Get flat support pricing for the life of your HPE Alletra. Because you lock down this pricing up front, you're able to get the most out of your data infrastructure—worry free.

No forklifts: Break free from disruptive platform rip-and-replace cycles. Your HPE Alletra systems easily grow with your business. The value of your data infrastructure is protected by eliminating complex, lengthy, and disruptive data migrations.

[7] "Uptime guarantees that deliver," May 2021

Power your data from edge to cloud

HPE Alletra comes in three product lines—delivering agility and simplicity for every application from edge to cloud.


All-active & multinode	100% availability
Massive parallelization	Guaranteed as standard benefit

Best performance density	Active/active cluster
Certified for 96 SAP HANA nodes in 4U	Most advanced DR/BC

HPE Alletra 9000

Ideal for:

Large-scale databases	Large-scale containers	Large-scale consolidation
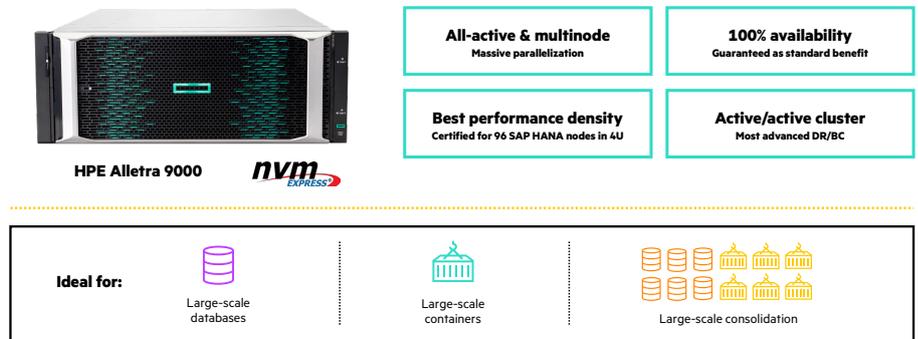
Figure 4. HPE Alletra 9000 for mission-critical workloads

Mission-critical applications

HPE Alletra 9000 is ideal for your mission-critical workloads with extreme latency sensitivity and availability requirements. A unique, multinode, all-active platform delivers massive parallelization for consistent and predictable performance at scale. Consolidate traditional and next-generation mission-critical applications with ultra-low latency and a 100% availability guarantee.[8] With all-NVMe, HPE Alletra 9000 delivers best-in-class performance density with over 2 million IOPS[9] and certified for up to 96 SAP HANA nodes in just 4U.

HPE Alletra facilitates business continuity with automatic site failover across active sites and modernizes and extends data protection to the cloud.


Ultra-efficient	6-nines availability[10]
For data efficiency And performance	Guaranteed as standard benefit

Always-on data services	Flexible scaling
No tuning, knobs, or trade-offs	Nondisruptive, multidimensional Extends to the cloud

HPE Alletra 6000

Ideal for:

Databases	Test/dev	VM farms	Container farms
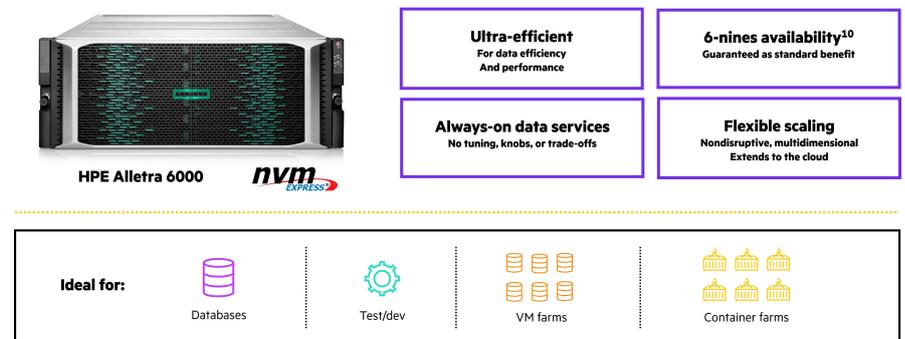
Figure 5. HPE Alletra 6000 for business-critical workloads

Business-critical applications

HPE Alletra 6000 is ideal for your business-critical workloads with strict SLAs for availability and performance. It's built on an ultra-efficient architecture designed to deliver fast, consistent performance with industry-leading data efficiency. There are no knobs or configurations to adjust, and always-on data services and app-aware intelligence help eliminate performance and efficiency trade-offs. Get resilient storage for your organization with 6-nines availability guaranteed.[11] Deliver on your recovery SLAs with fast, simple, app-aware backup and recovery—on-premises and in the cloud.

HPE Alletra 5000

| Ultra-efficient | 6-nines availability |
| Optimized for data efficiency | Guaranteed as standard benefit |

| AI-driven | Simple to use |
| Built with industry's leading AIOPS | No domain expertise required |

Ideal for:	VM Farms	General Purpose Workloads	Test/Dev	Backup and DR

Figure 6. HPE Alletra 5000 for general-purpose workloads

General-purpose applications

HPE Alletra 5000 is built from the DNA of the HPE Nimble Storage Adaptive Flash Array and delivers simple, reliable, and cost-efficient cloud native data infrastructure adaptively designed for both mixed primary and secondary workloads. Ensure absolute resiliency with guaranteed 6-nines data availability, Triple+ Parity RAID and hybrid data protection. Harness the flash performance and disk economics enabled by HPE Alletra 5000's ultra-efficient architecture delivering fast, consistent performance and industry-leading data efficiency for your workloads.

Learn more at

hpe.com/storage/alletra

**Make the right purchase decision.
Contact our presales specialists.**

Chat now (sales)

Call now

Explore **HPE GreenLake**

Get updates

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