



DATA SHEET

HPE HCI 2.0, powered by artificial intelligence, gives businesses ultimate simplicity for their IT environments, with fast app performance, always-on data resilience, and efficient use of all resources.



HCI 1.0 LIMITATIONS

Compute and storage needs do not always scale at the same pace, particularly for unpredictable workloads. As a result, HCI's node-by-node expansion often leads to over-investment in storage capacity or compute resources. In addition, customers expect a seamless on-premises cloud experience—but HCI 1.0 solutions are not always able to meet the low latency and high availability needs of business-critical applications.

HCI's architecture is fundamentally flawed because it requires trade-offs between simplicity and performance which compromise its business value.

HPE HCI 2.0 solves these problems.

HPE InfoSight



Simple to deploy
15 minute rack-to-apps
with server and
storage automation³



Simple to manage
VM-centric data services
and resource management



Simple to scale
Auto discovers new
resources and
transparently upgrades



Simple to support
Predictive support
automation and
problem prevention

HPE HCI 2.0—KEY FEATURES AND BENEFITS¹

- By disaggregating IT infrastructure resources it is now possible to scale each independently, maximizing **resource efficiency**.
- Shared storage that eliminates network traffic across nodes means **low latency and an end to storage and network bottlenecks that traditional HCI creates by design**.
- Absolute resilience with **99.9999% availability²** and unique ability to tolerate multiple simultaneous drive failures.
- Always-on data reduction eliminates tuning and improves performance, while keeping storage dense—HPE's solution can **store more data** than any other platform.
- **Business continuity** is assured through advanced replication for multi-site disaster recovery.
- Built for **hybrid cloud**.
- AI-powered monitoring tools **predict and prevent disruptions** and provide cross-stack analytics that improve application performance and optimize resource use.
- The **simplicity** of HCI and the **flexibility** of a three-tier IT architecture are combined with **intelligence**. This means organizations can enjoy the benefits of cloud-like architectures without any compromise on performance, availability, or scale.

TECHNICAL ADVANTAGES

- Deploys 91% quicker than traditional infrastructure: rack-to-apps deployment in less than 15 minutes with automatic resource discovery, configuration and provisioning.⁴
- Offers the ability to scale compute and storage independently with no overprovisioning.
- 99.9999% availability, fault tolerance, built-in data protection and integrated encryption.
- Sub-millisecond latency and automatic QoS for consistent, fast performance at scale.
- Automated VM-centric provisioning and data services through virtual volumes.
- Single stack management of both physical and virtual infrastructure.
- HPE InfoSight AIOps and predictive analytics that over the past decade have saved 1.58m hours of productivity.⁵
- Compatible with existing HPE ProLiant server installations of Gen 9 and above so customers can build on their current investment.

EXTENDING HYPERCONVERGENCE

Today's IT organizations are challenged by system complexity requiring multidomain experience, the pressure to support both traditional and modern applications, and fighting VM sprawl—all while being asked to reduce cost. Hyperconverged infrastructure (HCI) addresses these challenges—enabling compute, storage, and networking functions to be decoupled from the underlying infrastructure. It is an ideal architecture for workloads with predictable growth, scaling compute and storage together.

HPE HCI 2.0 extends the hyperconverged experience for workloads with unpredictable growth, where future apps and consolidation require different amounts of compute or storage. HPE HCI 2.0 lets organizations accelerate their time to market on a platform that flexibly scales.

¹ "HPE Storage Substantiation", May 2020

² "HPE Get 6-Nines Guarantee", HPE Nimble Storage, September 2017.

³ "Top 5 reasons to consider HPE Nimble Storage HCI", February 2020.

⁴ "ESG Technical Validation—Extending the Hyperconverged Experience to Workloads with Unpredictable Growth", June 2019.





INTELLIGENTLY SIMPLE

Resource silos and information overload drain productivity. Complicated end-to-end infrastructure management takes precious time and puts organizations in unfamiliar territory. HPE HCI 2.0 enables:

- IT generalists to stand up full stack infrastructure including compute, storage, and network, in minutes, through automation software.
- Easy, self-service ongoing management, from within VMware vCenter®. Planning is simple, as resources are forecasted prescriptively across multiple tenants, powered by HPE InfoSight.
- Unified management with simple setup and auto-discovery via VMware vCenter®.
- Software-defined data services integrated with VMware vSphere® and VMware® Virtual Volumes for a native VM experience.
- What-if simulations that help eliminate guesswork when consolidating new applications, as well as app-aware recommendations for self-optimizing performance and resources.
- Simplified lifecycle management with single-click, non-disruptive software upgrades for VMware ESXi™ hosts, NimbleOS, and Nimble Connection Manager (NCM) at full scale.

ABSOLUTELY RESILIENT

Applications must be always-on and always-performing. Yet VM sprawl and unchecked application and data growth make it hard to see and resolve issues, leading to an endless cycle of firefighting. HPE HCI 2.0 keeps applications running nonstop and fast with AI-driven predictive analytics capability that quickly diagnoses performance problems and identifies the root cause, driving an 86% auto-resolution⁵. Sprawling VM farms are easily kept under control and app resources are optimized. Data-centric visibility extends across the infrastructure and across every VM.

EFFICIENTLY SCALABLE

Rigid, inflexible infrastructure leads to waste and anchors applications to either on-premises or public cloud, stalling hybrid cloud strategies.

HPE HCI 2.0 brings efficiency across hybrid clouds. Independent scaling of performance and capacity provides flexibility for varying workloads, from transactional databases needing more performance to data warehouses needing more capacity, avoiding costly overprovisioning. Non-disruptive scaling is enabled through flexible storage options, including all-flash, hybrid flash, and HPE Cloud Volumes.

Organizations can extend efficient scaling out to the cloud with native data mobility across on-premises and cloud storage with support for Google™ Anthos and HPE Cloud Volumes. In addition, the HPE Store More Guarantee provides more data per raw terabyte compared to competitive arrays, with average customers achieving flash storage data reduction savings of up to 5X.

HCI 2.0 also includes Timeless Storage. This program encompasses an uptime guarantee, data-in-place upgrades, all-inclusive software, and flat support pricing.

^{5,6} HPE Storage Substantiation™, May 2020





HCI 2.0 from HPE

Flexibility of converged. Simplicity of HCI

Intelligently Simple

Absolutely Resilient

Efficiently Scalable

Benefits of HPE GreenLake consumption services⁷

75%

less time to deploy global IT projects

60%

reduction in professional services and contractor fees

40%

increased IT team productivity by reducing the support load on IT

THE NEXT EVOLUTION OF HCI

HPE HCI 2.0 with [HPE Nimble Storage dHCI](#), [HPE InfoSight](#) and [HPE ProLiant](#) is the industry's first disaggregated HCI platform powered with artificial intelligence, overcoming the limitations and drawbacks of first-generation HCI. It brings together the best of HCI and converged architectures and:

- Enables truly independent scaling of compute and storage
- Makes it easier to manage virtualized environments
- Delivers fast, reliable app performance
- Ensures maximum resource efficiency

FINANCIAL SERVICES OFFERING

Leverage HPE resources and expertise and enable your team to focus on innovation. Reduce time to value by quickly deploying additional capacity, upgrades and add-ons.

HPE GREENLAKE FOR HPE HCI 2.0

HPE GreenLake is now available to help your organization build your consumption-as-a-service model. Track your usage in the [HPE Consumption Analytics Portal](#) to help optimize your performance, while helping ensure there's capacity ahead of demand. Achieve faster time to value for your application deployments, fuelling the innovation your business needs for digital transformation. Avoid up-front investment and overprovisioning, as well as easily align cash flow to usage while maintaining visibility and control of your data. [Learn more here.](#)

⁷ "The Total Economic Impact of GreenLake Flex Capacity". Forrester Total Economic Impact™, Study commissioned by HPE, June 2020



Transformed support experience

- 1 Predictive analytics:**
Automated resolution of tier 1 and 2 issues
- 2 Rapid root cause:**
One call support with full-stack expertise
- 3 We call you:**
Never worry about whom to call

Resources

Solution Brief

[Flexibility of converged. Simplicity of HCI](#)

Customer Technical Training

Gain the skills you need with ExpertOne training and certification from HPE. With HPE Converged Storage training, you can accelerate your technology transition, improve operational performance, and get peak return on your HPE investment. Our training is available when and where you need it, through flexible delivery options and a global training capability.

mylearninghpe.com

Financial Services

Customize your IT lifecycle management, from acquisition of new IT, management of existing assets, and removal of unneeded equipment.

hpe.com/hpefinancialservices

Make the right purchase decision.
Contact our presales specialists.



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