

# MODERN INFRASTRUCTURE FOR DIGITAL HEALTHCARE

Healthcare application and data management with HPE Alletra dHCI powered by AMD EPYC processors

**HPE Alletra dHCI** simplifies the healthcare IT environment by providing modern infrastructure to run critical-to-care and workplace apps that are simple, reliable, and secure.

- **Intelligently simple:** Automated and on-demand with full-stack intelligence and policy-based automation for VM-centric management.
- **Efficiently scalable:** Increase compute and storage independently with industry-leading data efficiency.
- **Fully resilient:** Designed for 99.9999% availability with all-flash speed and sub-ms latency for always-on apps.<sup>1</sup>
- **Cloud-like experience on-premises:** Healthcare organizations can pay monthly for only what they use, convert CAPEX to OPEX, and scale compute and storage on-demand with the [HPE GreenLake](#) edge-to-cloud platform; take advantage of VM as a service, which accelerates time to value and simplifies healthcare IT management.
- **Layers of security:** Built-in security features of AMD Infinity Guard and Silicon root of trust from HPE.

**Unlock agility and help lower TCO with dHCI—a solution from HPE and AMD that lets storage and compute scale separately to ease constrained healthcare resources while protecting patient data.**



## A NEW VISION FOR HCI

[Hyperconverged infrastructure \(HCI\)](#) avoids the common IT management issues associated with traditional three-tier architecture, where compute, storage, and networking resources are managed separately. [Hewlett Packard Enterprise and AMD](#) have teamed up to take HCI one step further with HPE Alletra disaggregated HCI (dHCI).

HPE and AMD are transforming healthcare with dHCI solutions built on [HPE servers](#) and storage and AMD EPYC processors. The dHCI solution from HPE and AMD offers high availability, flexibility, and independent scalability for compute and storage. HPE Alletra dHCI helps healthcare providers consolidate workloads, reduce server footprint, and lower TCO while supporting data integrity with built-in security features.

## INTELLIGENTLY SIMPLE

Healthcare IT departments often struggle with infrastructure management complexity and costs. The simplicity of HPE Alletra dHCI brings compute, storage, and network into a single management plane—there's no new management software to learn.

The dHCI automation software enables healthcare IT to bring up full-stack infrastructure, including compute, storage, and network, in minutes. Ongoing, unified management is easy and self-serviceable within VMware vCenter®. Planning is simple, as resources are forecast prescriptively across multiple tenants, powered by [HPE InfoSight](#), the industry's most advanced artificial intelligence for infrastructure.<sup>2</sup>

<sup>1</sup> [hpe.com/psnow/doc/a00026086enw?from=app&section=search&isFutureVersion=true](https://www.hpe.com/psnow/doc/a00026086enw?from=app&section=search&isFutureVersion=true)

<sup>2</sup> [hpe.com/psnow/doc/a00058506enw?from=app&section=search&isFutureVersion=true](https://www.hpe.com/psnow/doc/a00058506enw?from=app&section=search&isFutureVersion=true)

## Solution brief

The offering includes software-defined data services integrated with VMware vSphere® and VMware vSphere® Virtual Volumes™ for a native VM experience. It also includes what-if simulations that help eliminate guesswork when consolidating new applications, as well as VM recommendations for optimizing performance and resources. HPE Alletra dHCI simplifies lifecycle management with a single-click, non-disruptive software upgrades for VMware ESXi™ hosts, firmware,

HPE NimbleOS, and HPE Storage Connection Manager (HPE SCM) at full scale.

## FULLY RESILIENT

Healthcare providers and their patients cannot afford app downtime. Clinical applications must be always-on. Still, VM sprawl and unchecked data growth make it hard to see and resolve issues.

HPE Alletra dHCI keeps applications running with HPE InfoSight. Data-centric visibility extends across the infrastructure and every VM. This unique predictive analytics capability quickly diagnoses performance problems and identifies the root cause, driving an 85% auto-resolution across its installed base.<sup>6</sup> Sprawling VM farms are easily kept under control and app resources are optimized.

HPE Alletra dHCI solutions are designed for 99.9999% availability, with automated quality of service, advanced data integrity that tolerates three simultaneous drive failures, and native snapshot backup and replication that provides data protection.

## FAST AND EFFICIENT

When patients' lives are at stake, healthcare providers need immediate answers. HPE storage helps ensure a fast application platform by providing all-flash storage with high IOPS and sub-millisecond latency.

HPE storage and servers, combined with AMD EPYC processors, provide the application performance that healthcare organizations require. [AMD EPYC processors have set more than 250 world records.](#)

## HIGHLY SECURE

Healthcare data is one of the most valuable data in the world. It needs to be collected, protected, and communicated securely. HPE servers along with AMD EPYC processors offer innovative hardware-based security features that help ensure the integrity of data while in use:

- A Silicon root of trust from HPE is built into the hardware. The Silicon root of trust from HPE provides a series of trusted checkpoints, from lowest level firmware to BIOS and software, to help ensure a known good state.
- AMD Infinity Guard, available with 2nd and 3rd generation AMD EPYC processors,<sup>7</sup> provides a modern, multi-faceted approach to data center security with practically no impact on performance. It helps shield system memory from attacks without having to add costs or code.
- AMD Secure Encrypted Virtualization (SEV) is designed to isolate VMs from the hypervisor, thereby increasing privacy and integrity. It encrypts each VM with a unique encryption key known only to the processor.

## GET STARTED

HPE and AMD bring performance and high availability to the most critical healthcare workloads, helping secure data across the product lifecycle while helping ensure apps are available and fast. It's an effortless experience for anyone with VM-centric and AI-driven operations. It's ideal for critical-to-care apps and workplace apps with 99.9999% data availability guaranteed and sub-millisecond latency. It lowers cost—helping eliminate overprovisioning and delivering cost savings—with flexible, independent scaling of compute and storage and industry-leading data efficiency.<sup>8</sup>

Additional options include:

- [HPE Timeless Storage](#), which provides an uptime guarantee, data-in-place upgrades, all-inclusive software, and flat support pricing.<sup>9</sup>
- The HPE GreenLake edge-to-cloud platform helps maximize agility by unlocking a cloud experience in the on-premises data center.

The bottom line? HPE Alletra dHCI solutions powered by AMD EPYC processors provide a solid digital foundation that can future-proof healthcare IT for years to come.

## LEARN MORE AT

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[hpe.com/partners/amd](https://hpe.com/partners/amd)

Designed for

99.9999%

data availability

10x

faster application performance<sup>3</sup>

5x

more efficient<sup>4</sup>

4x

more resilient<sup>5</sup>

<sup>3,4,5,6</sup> [hpe.com/psnow/doc/a00058506enw?from=app&section=search&isFutureVersion=true](https://hpe.com/psnow/doc/a00058506enw?from=app&section=search&isFutureVersion=true)

<sup>7</sup> AMD Infinity Guard features vary by EPYC processor generations. Infinity Guard features must be enabled by server OEMs and/or cloud service providers to operate. Check with your OEM or provider to confirm support of these features. Learn more about Infinity Guard at [amd.com/en/technologies/infinity-guard-GD-183](https://amd.com/en/technologies/infinity-guard-GD-183)

<sup>8</sup> ESG Economic Analysis Report, February 2022

<sup>9</sup> [hpe.com/psnow/doc/a00021804enw?from=app&section=search&isFutureVersion=true](https://hpe.com/psnow/doc/a00021804enw?from=app&section=search&isFutureVersion=true)

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