

HCI 2.0 campaign eBook

HCI 2.0 FROM HPE

Powering through to innovation



Hewlett Packard
Enterprise

FROM CRISIS TO INNOVATION

In a few short months, 2020 has shaken economies and organizations to their core. The future is more uncertain than ever: What will be the state of things next year, or the year after?

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The [IDC](#) believes we will go through five pandemic phases, each demanding a different focus. They conclude that **innovation is the only viable path** for business recovery.

The five stages of pandemic recovery¹

Phase	Business imperative
Crisis	Business continuity
Slowdown	ROI
Recession	Operational resilience
Investment	Acceleration
Recovery	Innovation

Acceleration and innovation mean embracing agility at scale. [Forrester](#) principal analyst Ted Schadler says:

“Digital transformation was never optional. But most firms treated it that way, applying digital technology in dribs and drabs—until COVID-19 shuttered economies and forever altered the patterns of life and work and commerce. Until uncertainty and volatility became the new normal.

Every company must respond by focusing on its core and smartly outsourcing and orchestrating the resources and innovation of cloud and service partners. With this transformation approach, CIOs can help their company scale its ability to adapt and grow into the post-pandemic era.”

¹ [IDC](#)

IT AGILITY DRIVES DIGITAL TRANSFORMATION

Digital transformation, IDC’s [Eric Burgener](#) explains, “is the evolution of enterprises of all sizes toward more **data-centric business models** that leverage Big Data and analytics to improve internal workflows, products, and services as well as drive disruptive improvements in the ability to compete and open up new markets.”

Business in the digital ecosphere is dynamic and fast, and leveraging new methods such as artificial intelligence and machine learning allows businesses to respond rapidly to changes in demand and in newly identified market opportunities. “IT has become more important than ever in providing the enabling infrastructure to support business innovation.”

“Provisioning, performance, availability, scalability, configurability, and functionality are all impacted, and enterprises require new storage architectures and technologies to meet these requirements. Agility has also impacted consumption models, and customers are looking for more flexible ways to acquire infrastructure that include subscription-based, pay-as-you-go approaches,” says Schadler.

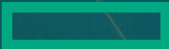
IT is more important than ever in providing the enabling infrastructure to **support business innovation.**



HOW TO EVOLVE AND THRIVE

HCI 2.0 from HPE—Address your challenges

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In short, traditional HCI isn't cheaper, isn't always powerful enough and doesn't address all performance needs.

HCI 2.0 from HPE was developed to solve exactly these problems.

Hyperconverged infrastructure (HCI) has been one-way businesses tried to take care of their digital transformation needs. It has enabled companies to get cloud-like power and speed, and to deliver new applications and services anywhere and at any time, all more quickly and securely than before.

HCI does this by combining server and storage resources with intelligent software in a single node, replacing legacy infrastructure consisting of separate servers, networks, and storage. Theoretically, this makes it easy to add new capacity—just slot in another node.

But, whilst traditional HCI has driven real value for organizations with predictable, clearly defined workloads, it has a poor track record when workloads, and their growth paths, are less predictable. This is a common issue. To get more compute performance, you must add an entire node with additional storage, memory, and network resources; to get more storage, you must also add compute resources. This lack of granular scaling means any cost savings are offset by the cost of overprovisioning and wasted resources.

“This lack of configuration agility is a concern,” says Schadler. “Maintaining consistent performance can also be a challenge when an application’s data set is too large to fit on a single HCI node.”

Because HCI 1.0 solutions are not always able to meet the intricate requirements of business-critical applications, organizations do not always get the seamless on-premises cloud experience they expected. Instead, there’s an unacceptable trade-off between simplicity and performance.

DO MORE WITH HCI 2.0 FROM HPE

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HCI HAS EVOLVED TO DO MORE

IT is increasingly looking to streamline operations, unlock agility, and do more with less. Hyperconverged infrastructure (HCI) brought an experience that makes it simple to deploy, manage, and upgrade infrastructure. As organizations look to bring this experience to business-critical apps and mixed workloads, HCI needs to do more to meet the resiliency, performance, and efficiency required.

HCI has evolved to HCI 2.0—with a new architecture that delivers the HCI experience of unified management and VM-centric operations with higher availability, faster performance, and flexible scaling. This enables organizations to simplify operations and unlock agility, while ensuring their applications are always-on and always-fast and at the best economics. HCI 2.0 achieves a lower total cost of ownership (TCO) by scaling compute and storage independently, along with a lower entry cost.

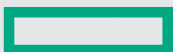
HCI 2.0 “combines the unified and simplified management paradigm of HCI with the capabilities of true enterprise-class disaggregated infrastructure. Unique integration points in this platform include built-in automation software for very simple cluster deployment and scaling and centralized management based on VMware vCenter®. These features, combined with enterprise-class performance, availability, and storage management functionality, also differentiate this platform from other HCI and converged offerings in the market.”²



There is no doubt that the platform will broaden the types of larger, more mission-critical workloads that HCI platforms can effectively support.

– IDC

² [“HPE Introduces a New Disaggregated HCI Architecture with HPE Nimble Storage dHCI,”](#) IDC white paper by Eric Burgener, October 2019.



WHY HCI 2.0

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IT'S INTELLIGENTLY SIMPLE

HCI 2.0 from HPE reduces complexity by streamlining IT operations with AI-driven predictive analytics. It's simple to deploy, manage, scale, and support.



Simple to deploy

15 minutes 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

ABSOLUTELY RESILIENT AND SECURE

HCI 2.0 from HPE is absolutely resilient by design: Costly downtime and firefighting are virtually eliminated with 99.9999% availability.⁵

Always-on availability

Guaranteed 6-nines storage availability⁴



Fault tolerant

No single point of failure, hardware redundancies with the ability to tolerate three simultaneous drive failures



Sub-milliseconds latency

As low as 200 microseconds data response time with HPE Nimble Storage All-Flash⁶



Built-in data protection

Back up more frequently and recover faster with application-consistent snapshots and advances replication



Integrated encryption

Application-level encryption and secure data shredding



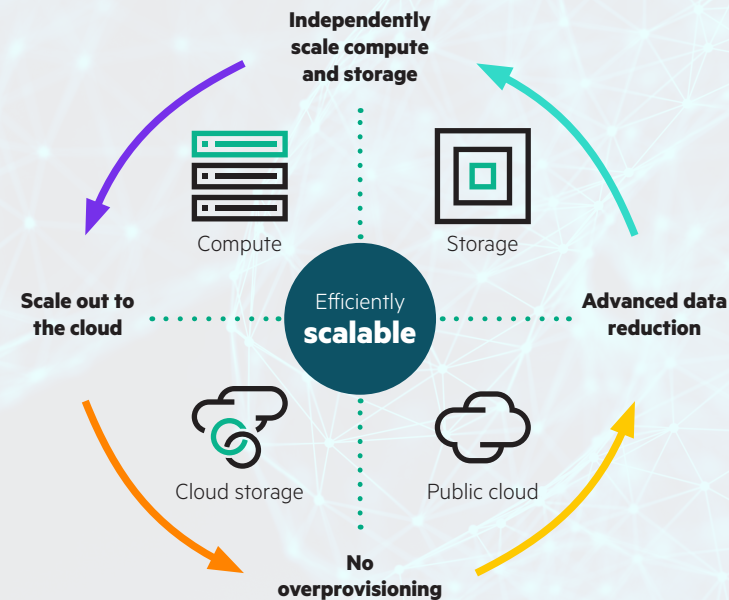
³ ESG Technical Validation: HPE Nimble Storage dHCI.

^{4, 5} "HPE Get 6-Nines Guarantee," HPE Nimble Storage, June 2020.

⁶ "Top 5 reasons to consider HPE Nimble Storage dHCI," February 2020.

EFFICIENT

Unlike traditional HCI, HCI 2.0 achieves a lower TCO by scaling compute and storage independently. HCI 2.0 also allows for a lower cost of entry—you don't need to add unnecessary hardware to achieve resilience, since it fully utilizes the resources you already have.



EXPERT SUPPORT

Businesses have better things to do than fighting IT fires. HCI 2.0 from HPE means time and skills can be used more efficiently because problem solving is left to predictive analytics and expert support services.

Predictive analytics
Automated Level 1 and 2 issues

Rapid root cause
One call support with full-stack expertise

We call you
Never worry about whom to call

>4.91 out of 5
in support satisfaction⁷

<1 minute
average hold time⁸

⁷ HPE internal testing, September 2019.

⁸ "HPE Storage Substantiation," June 2021.



EXPERT SPEAK

IDC

Probably the biggest concern with traditional HCI's ability to handle larger enterprise workloads, particularly those with unpredictable growth paths, is that compute and storage resources can be added only in fixed ratios with the addition of a new HCI node. There is little flexibility to add either resource independently, resulting in a situation where one of the resources is always overprovisioned relative to the other. This imbalance can begin to add significant cost as configurations scale in size (in terms of node count and overall capacity).

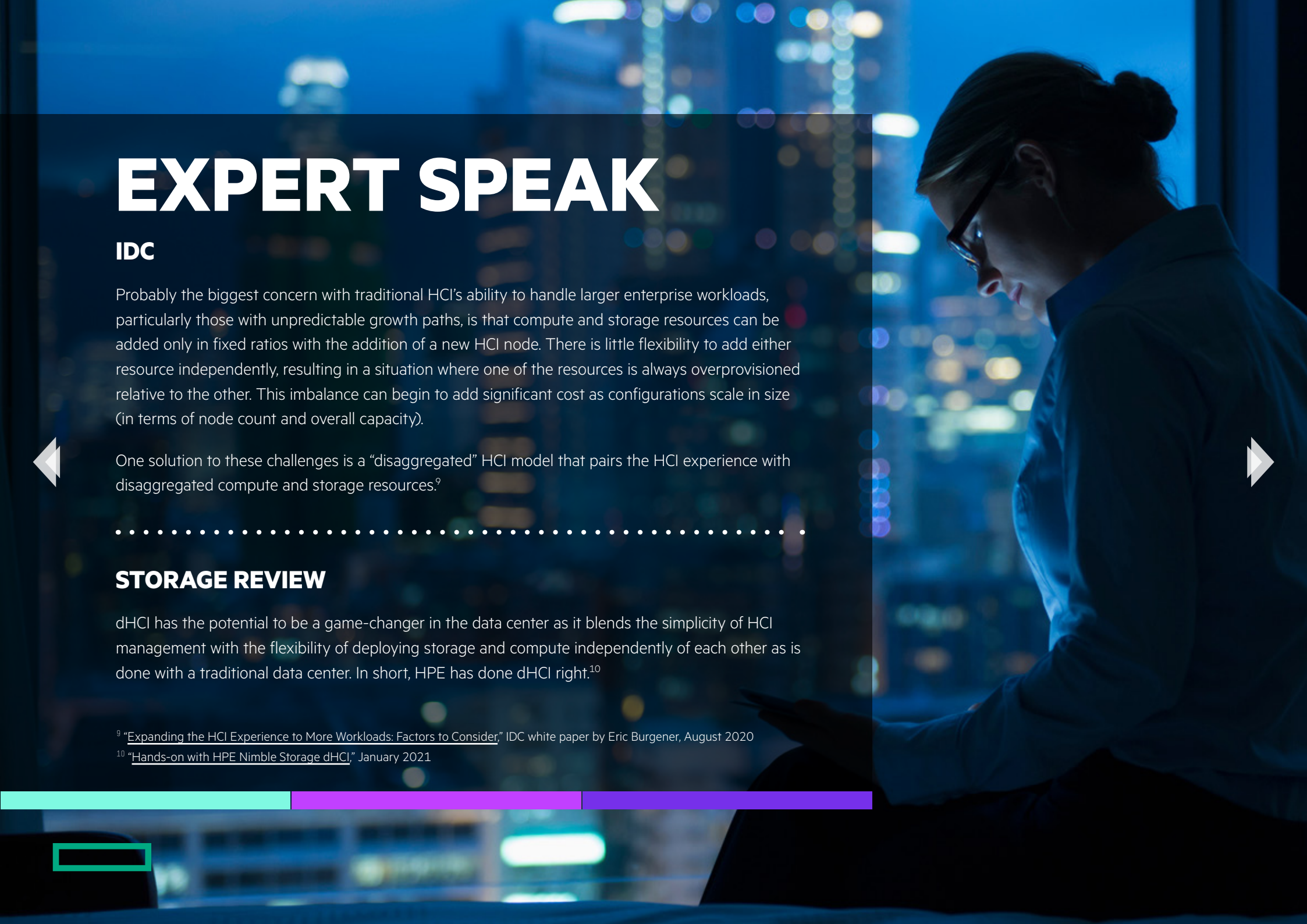
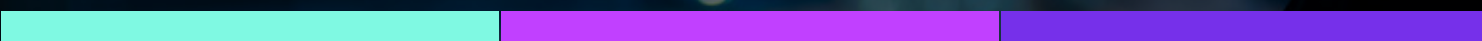
One solution to these challenges is a "disaggregated" HCI model that pairs the HCI experience with disaggregated compute and storage resources.⁹

STORAGE REVIEW

dHCI has the potential to be a game-changer in the data center as it blends the simplicity of HCI management with the flexibility of deploying storage and compute independently of each other as is done with a traditional data center. In short, HPE has done dHCI right.¹⁰

⁹ "Expanding the HCI Experience to More Workloads: Factors to Consider," IDC white paper by Eric Burgener, August 2020

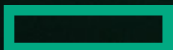
¹⁰ "Hands-on with HPE Nimble Storage dHCI," January 2021



CLOUD-LIKE ECONOMICS WITH HPE GREENLAKE

HPE HCI 2.0 is an excellent fit with HPE GreenLake, a service offering that delivers on-demand capacity and planning, combining the agility and economics of a public cloud with the security and performance of on-premises IT.

Learn more [here](#).



EXPERIENCE THE NEXT EVOLUTION OF HCI

◀ Evolve with the intelligently simple, absolutely resilient and secure, and efficient disaggregated HCI (dHCI) from HPE that delivers the agility you want without compromising on the resiliency, performance, and flexibility you need. It's built to power all your apps—at scale and without trade-offs.

Say
hello to
HCI 2.0