

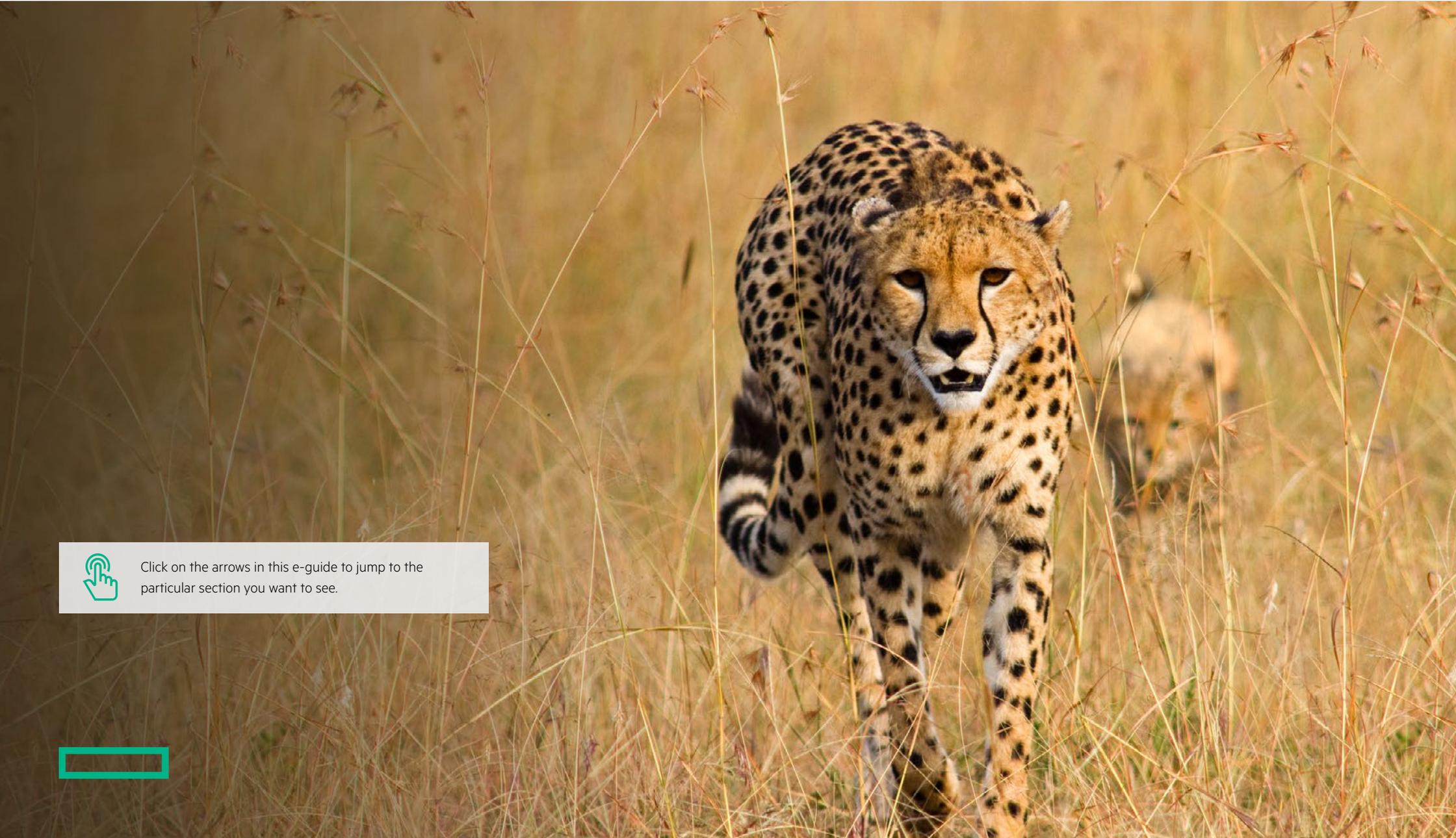


Hewlett Packard  
Enterprise

# HCI 2.0 FROM HPE POWERING THROUGH TO INNOVATION



# POWERING THROUGH TO INNOVATION



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# 1. 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? All we can know for sure is that successful enterprises must stay focused on evolving and innovating to keep up with and pass their competitors.

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 recovery

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

Source: [IDC](#)

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

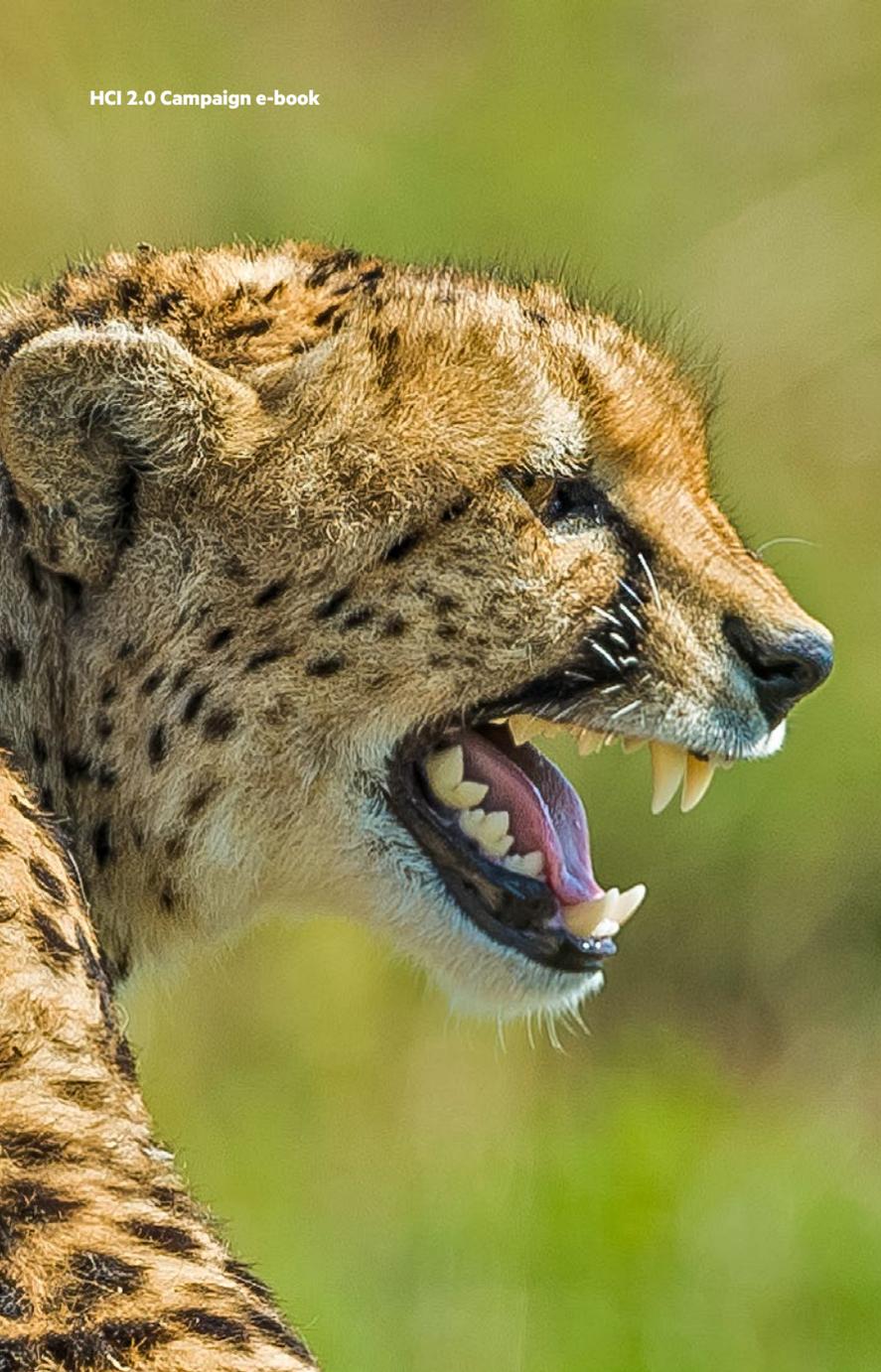
“Digital transformation was never optional. But most firms treated it that way, applying digital technology in dribs and drabs—until COVID-19 shuttered economies and forever altered the patterns of life and work and commerce. Until uncertainty and volatility became the new normal.

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.”



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## 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.”

**IT is 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.





## 2. HOW TO EVOLVE AND THRIVE

Hyper-converged 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.

**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.**





## 3. THE INTELLIGENCE OF HCI 2.0 FROM HPE

### HCI HAS EVOLVED TO MEET REAL-WORLD NEEDS

The second generation of HCI brings together the best of HCI and converged architectures, allowing truly independent scaling of compute and storage. The result for users is less downtime because there are no bottlenecks in network traffic, and no lags in performance. In addition, more demanding apps and mixed workloads can be consolidated, delivering better outcomes.

Disaggregated scaling means efficiency with no more costly overprovisioning. HCI 2.0 achieves a lower total cost of ownership (TCO) by scaling compute and storage independently, along with a lower entry cost. You don't need to add unnecessary hardware to achieve resilience, since it fully utilizes the resources you already have.

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.”<sup>1</sup>

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

<sup>1</sup> “HPE Introduces a New Disaggregated HCI Architecture with HPE Nimble Storage dHCI”, IDC White Paper by Eric Burgener, October 2019.



## IT'S INTELLIGENTLY SIMPLE

HPE 2.0 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 automation



### 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

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

### Always-on availability

Guaranteed **99.9999%** storage availability<sup>2</sup>



### Fault tolerant

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



### Integrated encryption

Application-level encryption and secure data shredding



### Sub-milliseconds latency

As low as 200 microseconds data response time with HPE Nimble Storage All-Flash<sup>3</sup>



### Built-in data protection

Backup more frequently and recover faster with application-consistent snapshots and advanced replication



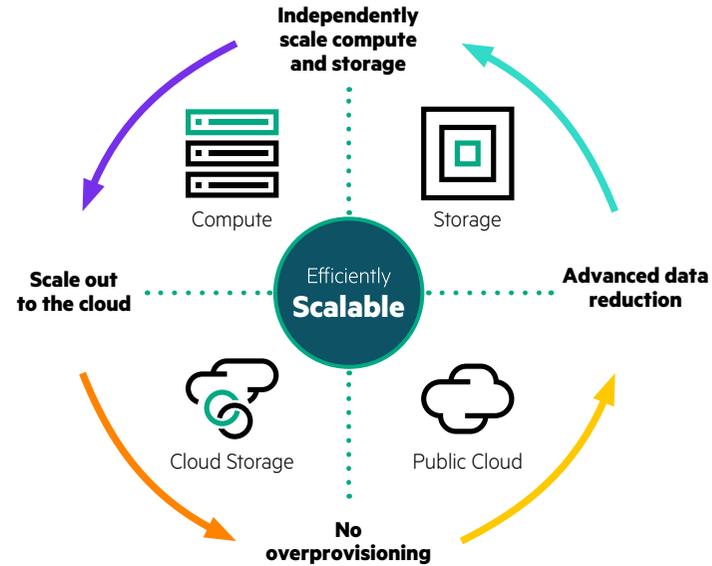
<sup>2</sup> "HPE Get 6-Nines Guarantee", HPE Nimble Storage, September 2017.

<sup>3</sup> "Top 5 reasons to consider HPE Nimble Storage dHCI", February 2020.



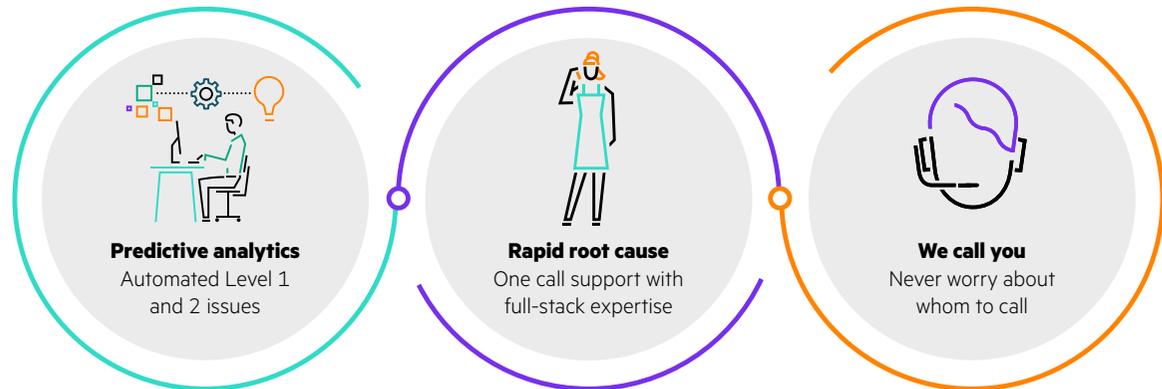
## AND EFFICIENT

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.



## WITH 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.



>4.91 out of 5

in support satisfaction<sup>4</sup>

<1 minute

average hold time<sup>4</sup>

<sup>4</sup> "HPE Storage Substantiation", May 2020.



## INDEPENDENT EXPERTS SAY...

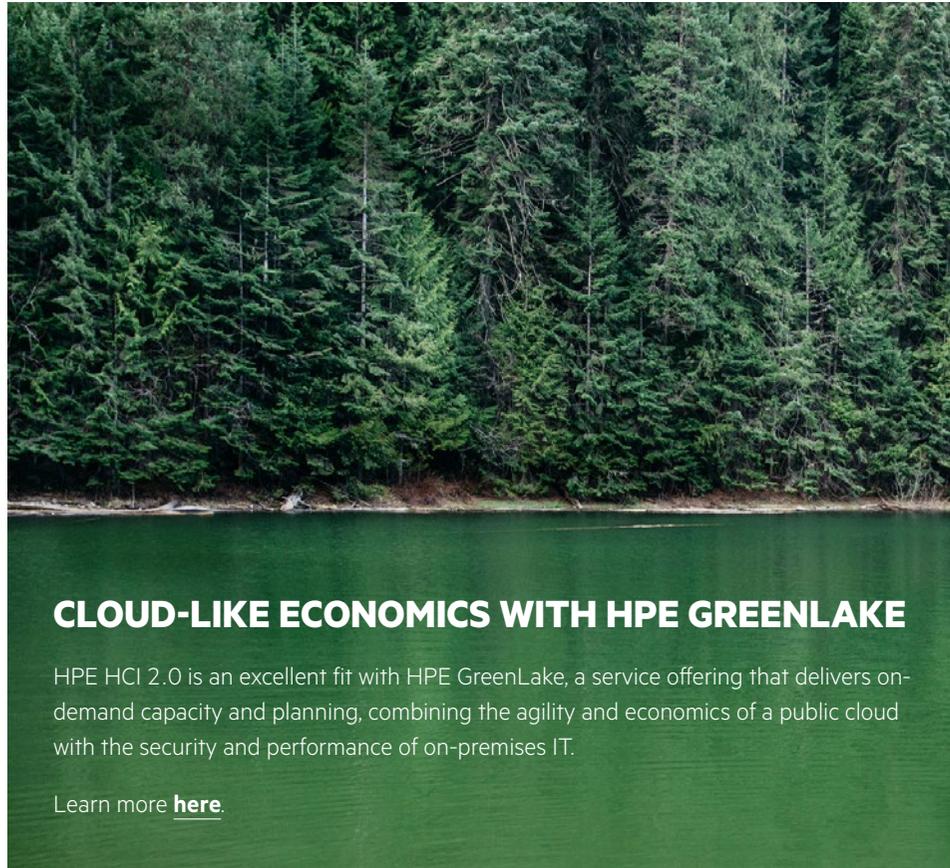
### Storage Switzerland

“HCI 2.0 is a combination of enhanced hardware and software designed specifically to meet the demands of tier 1 workloads. It can handle both tier 1 applications and multi-tenant, mixed workload environments, all within the same cluster. HCI 2.0 also delivers extreme cluster efficiencies which maximize the utilization of each node. HCI 2.0 not only reduces HCI sprawl, it also reduces node sprawl by supporting a mixture of workloads with a minimal amount of highly utilized nodes.”<sup>5</sup>

“This offers the best of both HCI and converged architectures.”—IDC

### IDC

This solution “offers the best of both HCI and converged architectures, it will likely compete with both type of competitive offerings. There is no doubt that platform will broaden the types of larger, more mission-critical workloads that HCI platforms can effectively support.”<sup>6</sup>



## 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](#).

Make the right purchase decision.  
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Get updates

<sup>5</sup> “HCI 2.0”, Storage Switzerland e-book by George Crump, 2019.

<sup>6</sup> “HPE Introduces a New Disaggregated HCI Architecture with HPE Nimble Storage dHCI”, IDC White Paper by Eric Burgener, October 2019.