A Crawl-Walk-Run Path to Hyperconverged Infrastructure

Insight

HCI: A data platform that lets you do more

In a world of increasing IT silos and management complexity, data center managers are looking to unified solutions. Enter Hyperconverged Infrastructure (HCI) — a simplified model combining virtualized compute, storage, and networking with a single management plane.

HCI is easy to scale, easy to consume, and it gives you reliable performance — making it a strong fit for hybrid and multicloud environments. HCI has allowed IT to reprioritize strategic efforts over day-to-day tasks.

69% of those following a hybrid cloud-only approach have deployed or are in the process of deploying HCI.[1]

- High-availability shared storage
- Simple, quick support & upgrades
- Easy management

Because of its simplicity relative to value offered, it's becoming a fast-growing choice for organizations looking to modernize their data infrastructures. In fact, the global HCI market is forecast to grow at a CAGR of 27.86%, from $8.21 billion in 2021 to $21.94 billion in 2025.[2]

Look before you leap.

As with any other solution that promises simplicity, it's important to take a measured approach to ensure long-term success. Why? Here are some common pitfalls on the path to HCI:

- Misjudging the needs of your network
- Planning for today only — not for future modernization phases
- Keeping manual processes for lifecycle management (overlooking automation)
- Ripping and replacing with all-new tools without considering the skills needed to manage and deploy them
- Choosing solutions that don't integrate with the entire software stack

Here is our crawl-walk-run guide to adopting a thoughtful approach to HCI. Following this approach can help you avoid pitfalls and maximize your benefits.

Crawl: Understand the basics.

The first step is always to understand what you're undertaking: the basics of how HCI works, its benefits, and best-fit use cases.

How does HCI work?

HCI combines the elements of the traditional data center using virtualization to create a flexible, responsive, software-defined data platform. It can include software-defined storage, and virtualized networking and computing. HCI lays the groundwork for a more agile and energized IT architecture that can easily scale up or down to fit business needs.

Here are some core HCI characteristics:

Is software-defined

Offers a common management and monitoring interface

Scales from several nodes to large clusters

Deduplicates and compresses inline

The benefits of HCI

At its core, the value of HCI is that it delivers the agility of public cloud with the control of on-premises deployment, driving positive outcomes across several practical areas:

Reduced management costs

- Faster and simpler deployment
- Streamlined provisioning, management, and expansion
- Complete stack visibility
- Nondisruptive lifecycle
- Consolidation of technical silos

Greater flexibility, availability, and resiliency

- Runs most workloads — and can run the same workloads on less equipment
- Can start with a few nodes and grow to many (web scale)
- Includes fewer design requirements
- Optimizes CapEx by aligning investments with requirements

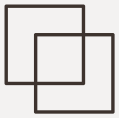
Lower TCO

- Allows you to build based on environment size and needs (from Remote Office/Branch Office (ROBO) to data center)
- Combines OpEx efficiencies with flexibility
- Reduces infrastructure costs (running industry standard components instead of costly bespoke tools)

Use cases for HCI

Because of its all-in-one ease of use and software-defined nature, HCI can reduce complexities commonly associated with a number of modernization use cases:

Virtual Desktop Infrastructure (VDI)



Server virtualization

Testing and development initiatives

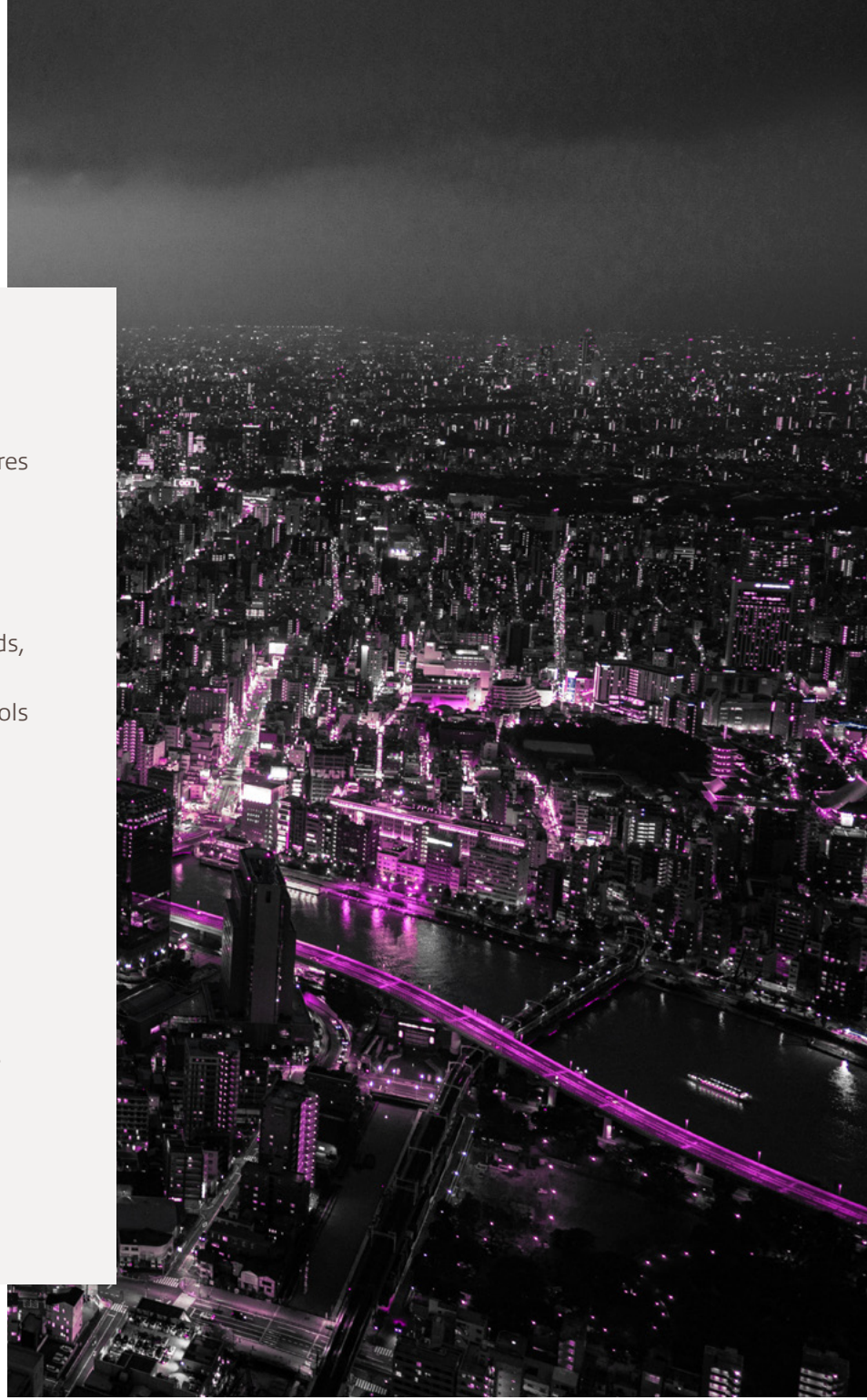
Database deployments

Remote/Distributed IT ecosystems

Hybrid cloud implementation

Walk: Jumpstart your momentum — thoughtfully.

When you're ready to move forward, there are three important steps to ensure a smooth implementation:



1 Choose a trusted provider.

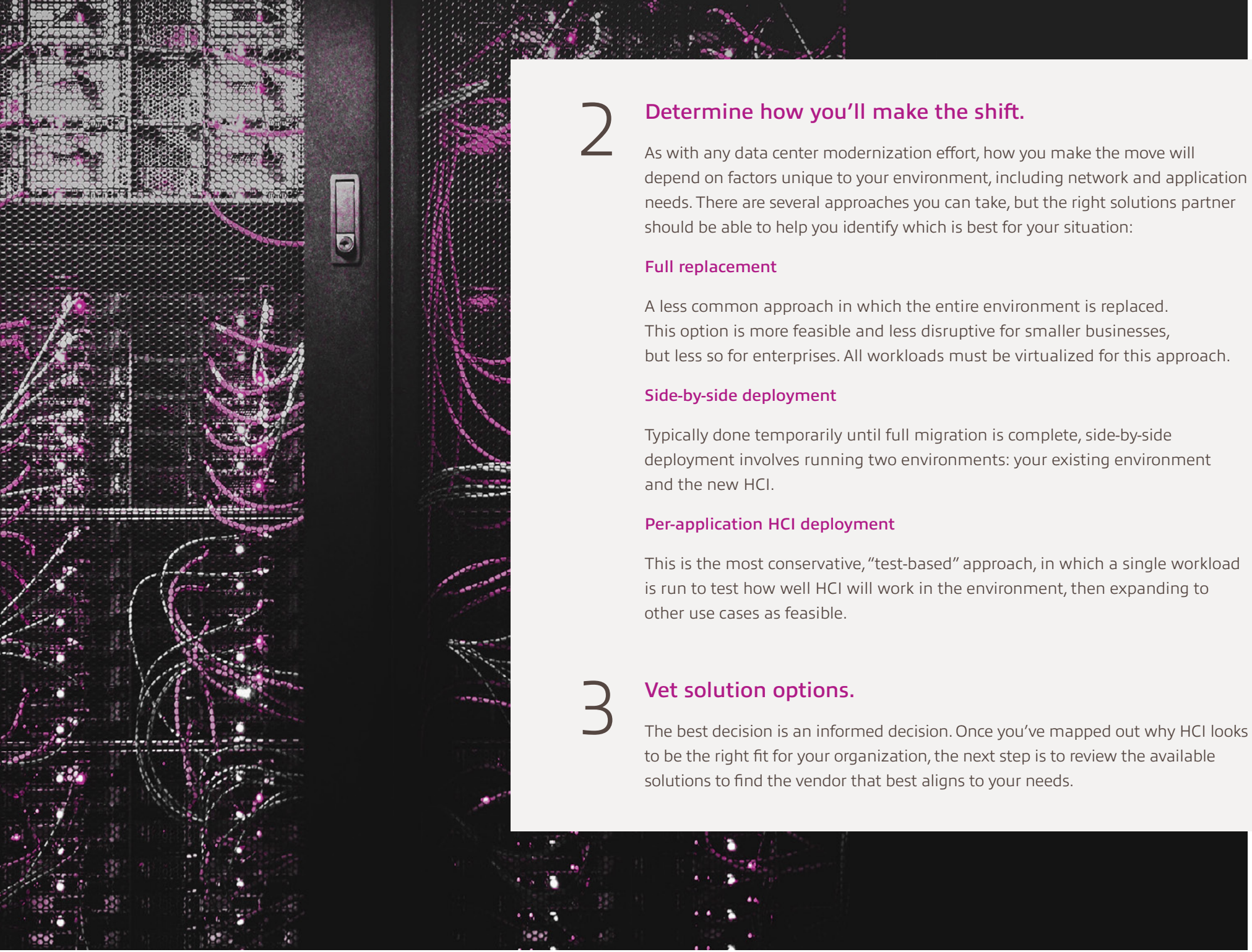
Pitfalls usually arise during HCI adoption due to a lack of a comprehensive strategy and lack of HCI deployment expertise. Finding the right partner ensures you'll be equipped with both the strategy and the technical skills to adopt an HCI solution with as few roadblocks as possible.

What to look for in an ideal HCI provider:

- A vendor-agnostic approach that aligns solutions to your organization's needs, ensuring best possible outcomes and avoiding vendor lock-in
- Full-stack expertise across the IT lifecycle, and an arsenal of purpose-built tools to support the full lifecycle of your solution
- Modern methodologies and best practices built through years of experience guiding successful IT transformation initiatives

The right provider will assess your infrastructure in-depth, deliver access to resources that can simplify the journey, and ensure you're adopting HCI strategically. In tandem, you should be defining your overall business goals and how they relate to infrastructure modernization. A partner can use an infrastructure assessment to help you:

- Decide what type of HCI you want to support (cloud, on-premises, or hybrid).
- Determine how many nodes you need.
- Evaluate network bandwidth.
- Define processes for managing or transforming legacy systems.
- Identify security requirements.



2 Determine how you'll make the shift.

As with any data center modernization effort, how you make the move will depend on factors unique to your environment, including network and application needs. There are several approaches you can take, but the right solutions partner should be able to help you identify which is best for your situation:

Full replacement

A less common approach in which the entire environment is replaced. This option is more feasible and less disruptive for smaller businesses, but less so for enterprises. All workloads must be virtualized for this approach.

Side-by-side deployment

Typically done temporarily until full migration is complete, side-by-side deployment involves running two environments: your existing environment and the new HCI.

Per-application HCI deployment

This is the most conservative, "test-based" approach, in which a single workload is run to test how well HCI will work in the environment, then expanding to other use cases as feasible.

3 Vet solution options.

The best decision is an informed decision. Once you've mapped out why HCI looks to be the right fit for your organization, the next step is to review the available solutions to find the vendor that best aligns to your needs.

What to look for in an HCI solution

Scalability/workload flexibility

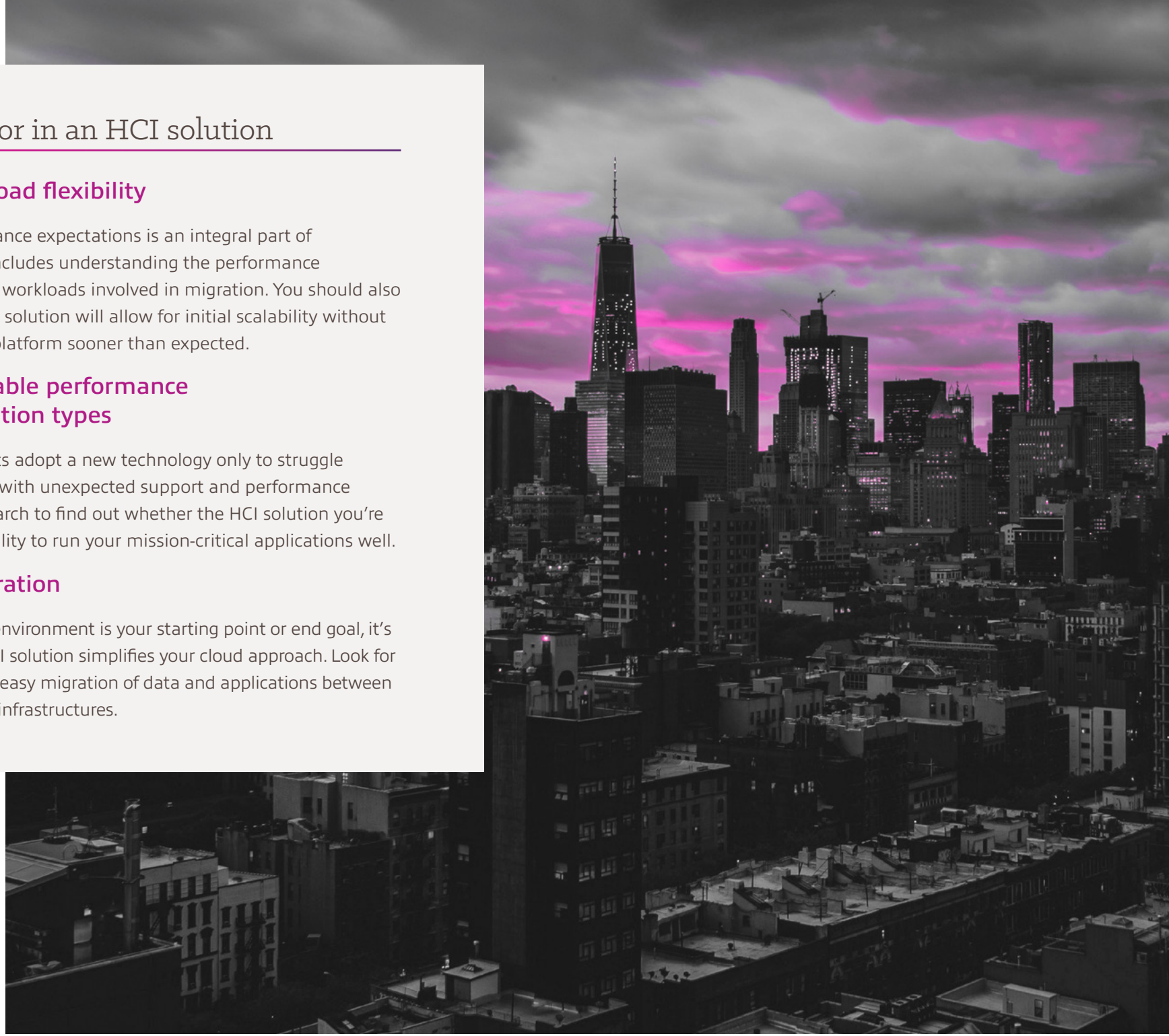
Defining your performance expectations is an integral part of the process — which includes understanding the performance requirements of all the workloads involved in migration. You should also make sure your chosen solution will allow for initial scalability without having to add to your platform sooner than expected.

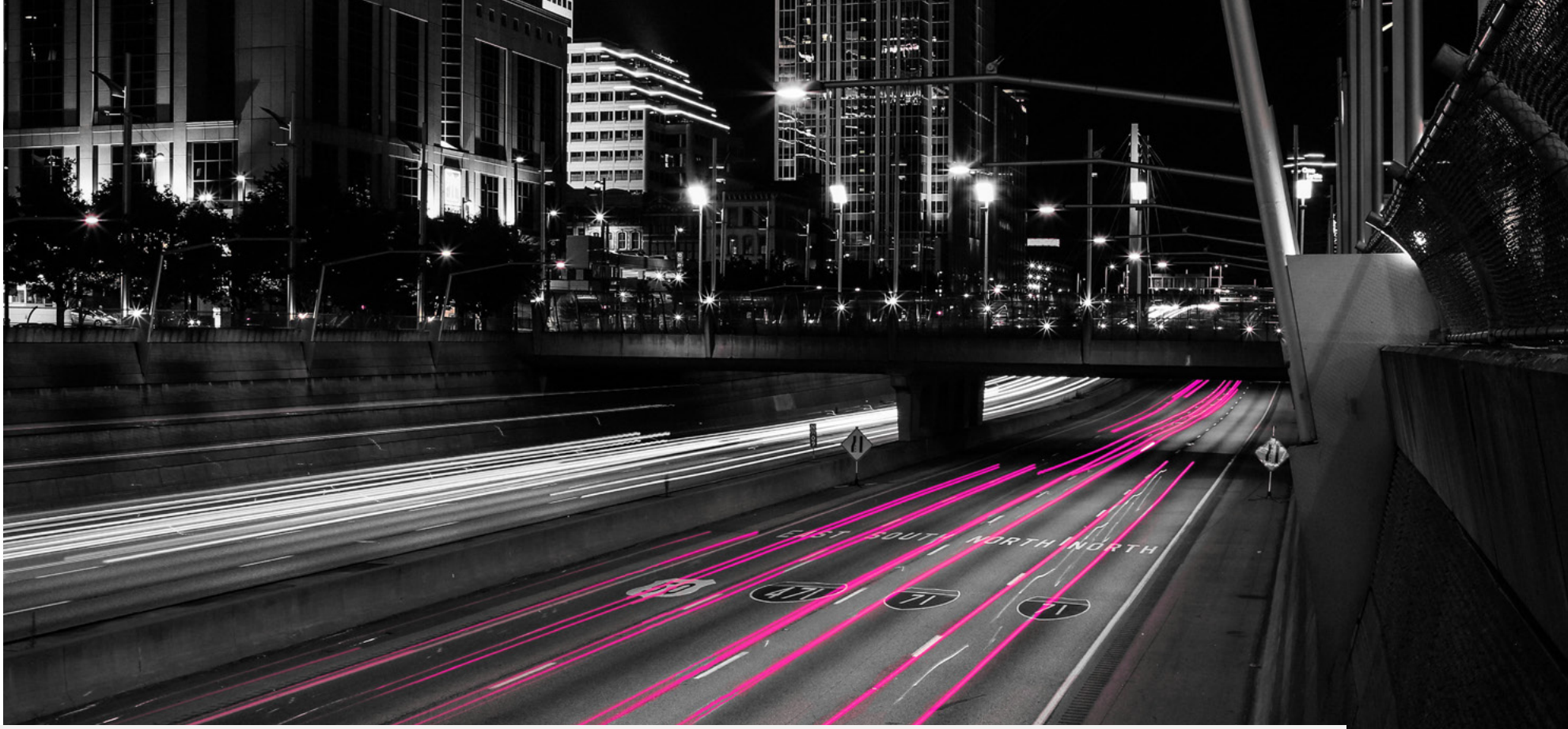
Support and reliable performance across all application types

Too often, we see clients adopt a new technology only to struggle over the contract term with unexpected support and performance concerns. Do your research to find out whether the HCI solution you're considering has the ability to run your mission-critical applications well.

Multicloud integration

Whether a multicloud environment is your starting point or end goal, it's important that your HCI solution simplifies your cloud approach. Look for a solution that enables easy migration of data and applications between on-premises and cloud infrastructures.

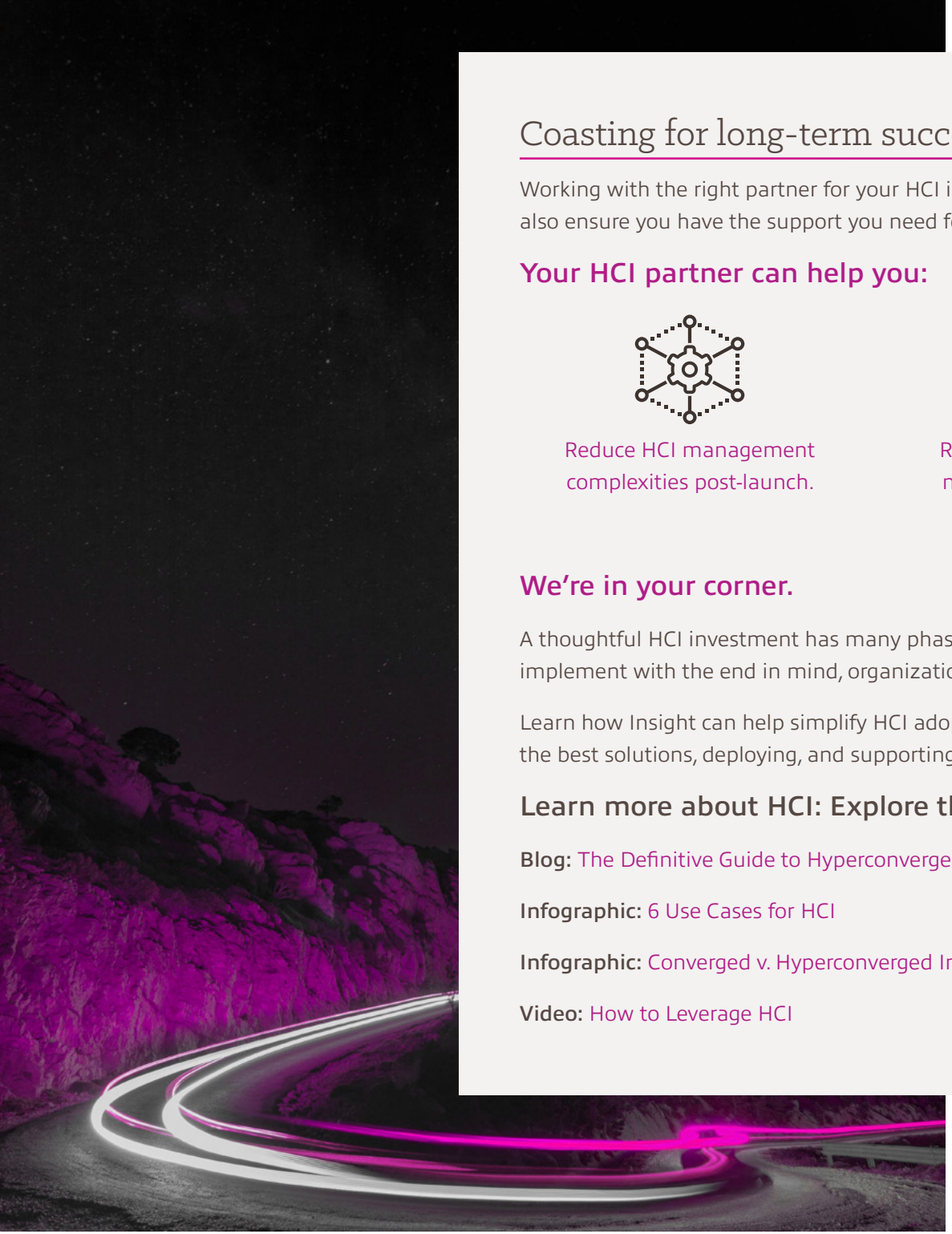




Run: Time to deploy — and start reaping the benefits.

One of the main appeals of HCI is its simplicity, from its core design all the way down to deployment. Launching HCI is much easier on IT teams than other types of data center modernization initiatives. Since it's an all-in-one solution meant to be administered by virtualization or cloud administrators, your team doesn't have to possess any specialized skills for implementation — but remember that doing the strategic legwork beforehand will increase the chances of successful long-term adoption.

HCI's software-based approach also means it delivers high capacity in a smaller physical footprint, doing away with many of the cabling, power, and cooling requirements of other on-premises platforms. And when you're ready to scale, the process of adding nodes to your platform is even simpler.



Coasting for long-term success

Working with the right partner for your HCI initiative can ensure you not only start off on the right foot but also ensure you have the support you need for the life of your data platform.

Your HCI partner can help you:

Reduce HCI management complexities post-launch.

Resolve issues quickly as needed so you can keep business running.

Regularly evaluate progress, ensuring your HCI investment is delivering on your desired business outcomes.

We're in your corner.

A thoughtful HCI investment has many phases. Armed with foundational knowledge and a strategy to implement with the end in mind, organizations can maximize the many benefits of a modern infrastructure.

Learn how Insight can help simplify HCI adoption at every phase — from assessments and mapping to vetting the best solutions, deploying, and supporting. Reach out to our team to learn more.

Learn more about HCI: Explore these resources.

Blog: The Definitive Guide to Hyperconverged Infrastructure

Infographic: 6 Use Cases for HCI

Infographic: Converged v. Hyperconverged Infrastructure: What's the difference?

Video: How to Leverage HCI

About Insight

At Insight, we help clients modernize and secure critical platforms to transform IT. We believe data is a key driver, hybrid models are accelerators, and secure networks are well integrated. Our end-to-end services help organizations strategically leverage technology solutions to overcome challenges, support growth and innovation, reduce risk, and transform the business.

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Sources:

[1] Statista. (2021, May 11). State of Adoption of Hyperconverged Infrastructure in Organizations Worldwide in 2020, by Model.

[2] ResearchandMarkets.com. (April 2021). Global Hyper Converged Infrastructure (HCI): Size, Trends & Forecasts (2021-2025 Edition).