



Creating the **Next-Generation Data Center**

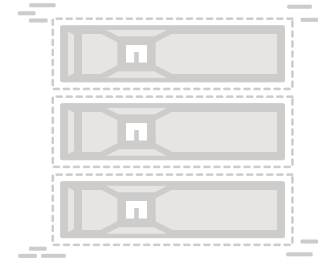
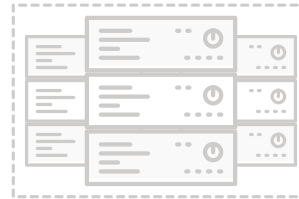
Going Beyond Hyper-Converged Infrastructure **Makes It Possible**

The data center has transformed dramatically over the past two decades — hardware has gotten smaller and more powerful, machines communicate with each other over great distances, and applications live in a nebulous space called “the cloud.” And the transformation is only just beginning.

Now we’re into the age of the next-generation data center. This model promises to deliver even greater simplicity, performance and scale while overhauling the shortcomings of previous data center paradigms. But how?

Before we can understand what the next-generation data center is, we have to understand where it came from.

The **Evolution** of the Data Center



Siloed, Hardware-Centric Data Centers

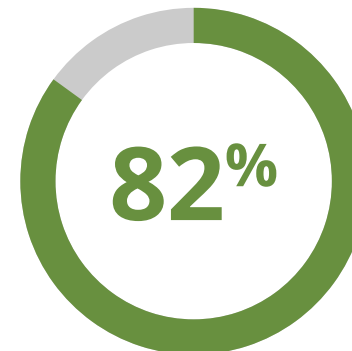
This legacy model didn't deliver the performance and agility organizations required, which explains the widespread migration away from siloed, hardware-centric data centers...

60% of IT server footprints are flat or shrinking.¹

Studies show 82% more companies have launched a multi-cloud IT strategy.²

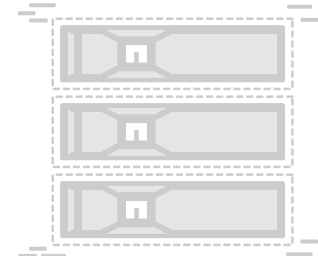
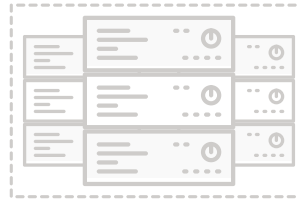


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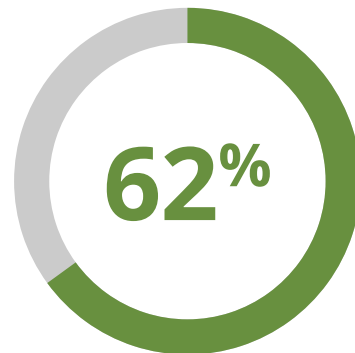
Virtualization

Research has shown virtualization platforms can deliver...

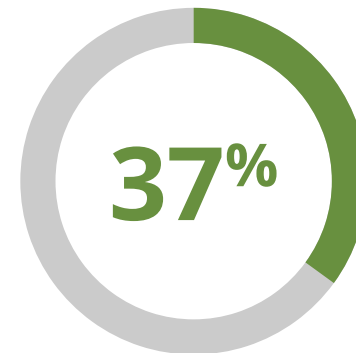
62% combined improvements in configuration, patch and change management time.³

37% reductions in downtime.³

33% decreases in troubleshooting time.³

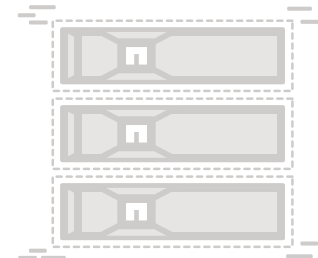
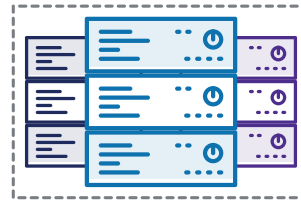


combined improvements
in configuration,
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reductions
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The **Evolution** of the Data Center



Converged Infrastructure

Then came the need to take virtualization to a new level in the form of hardware configurations designed with specific software for optimal performance — converged infrastructure (CI).

An IDG Research Services survey revealed...

90% of respondents have a CI or were planning on implementing one.⁴

Nearly half were using CI as part of a larger cloud strategy.⁴

However, CI introduced its own disadvantages, including:

Lack of flexibility and scalability

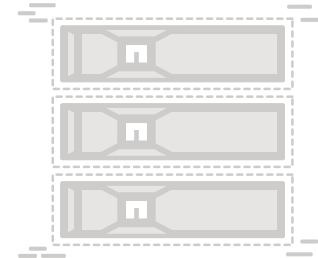
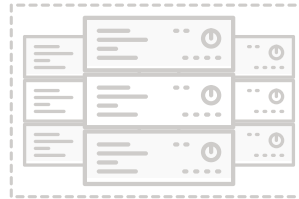
Need for specialized expertise in vendor configurations

No significant improvements in deployment effort/timeline



*of respondents **have a CI** or were planning on implementing one.⁴*

The **Evolution** of the Data Center



Hyper-Converged Infrastructure

Cost and management pressures have led IT leaders to seek a new solution, one that delivers:

Easier deployment

Simpler infrastructure management

A more cost-effective ramp up

HCI is in use at 40% of large organizations.⁵

Drawbacks of HCI:

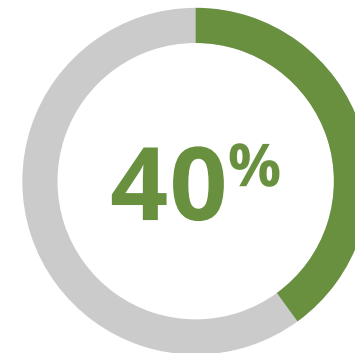
You're forced into a fixed ratio of resources.

HCI architecture can be overhead-intensive.

It can result in orphaned resources.

It typically delivers unpredictable performance.

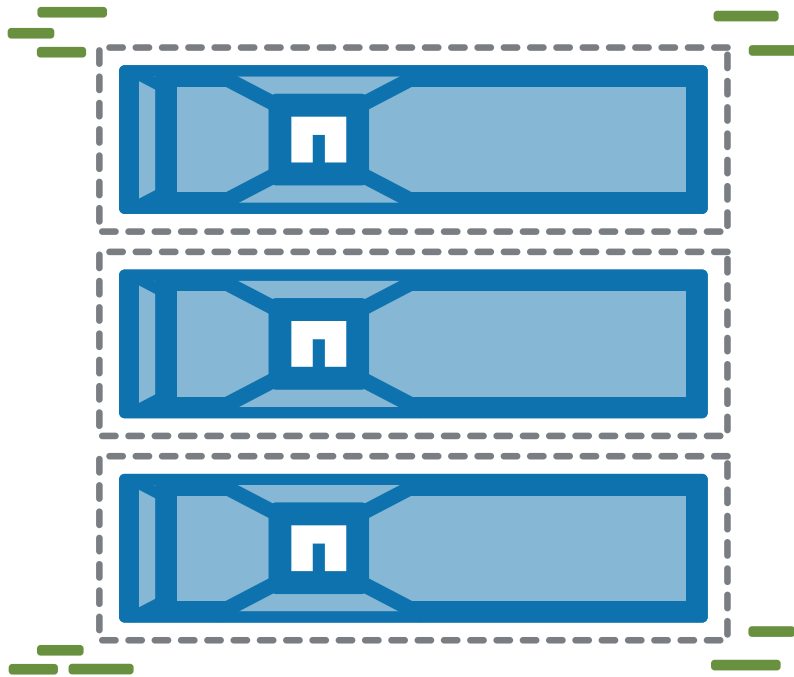
It can create application silos.



*HCI is in use at
**40% of large
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Introducing the Next-Generation, Hyper-Converged Data Center

The next-generation data center pushes the envelope of flexibility, simplicity and performance so you can break through the barriers of traditional HCI.



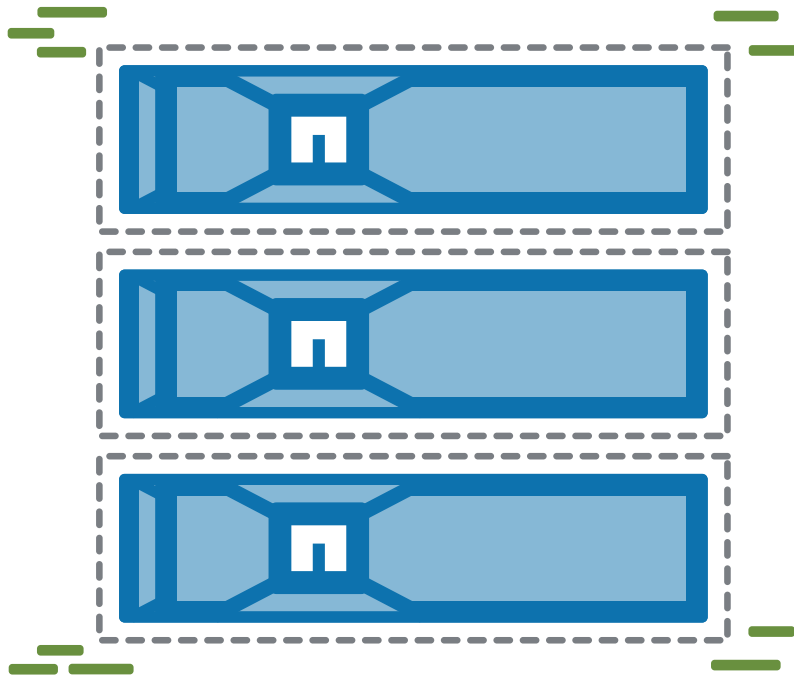
Scale Faster, Increase Control

Agility is key to the next-generation data center. You need to be able to scale your infrastructure on demand without running the risk of over-provisioning, orphaning resources and wasting valuable IT dollars. You also need seamless access to your data so you can innovate your systems in near-real time no matter where they live in your environment (on premises, public or private cloud).

In the next-generation data center, this heightened level of agility is achieved through a high-powered infrastructure driven by a combination of software and shared-nothing hyper-converged architecture. Combining these two elements in your data center creates a next-generation environment where compute, storage and networking resources can scale independently and allow mixed workloads and QoS within a hyper-converged model. It also ensures your data remains ultra-accessible, giving you the visibility and control to analyze and respond to mission-critical systems at the pace your business and users require.

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Reduce Costs and Complexities

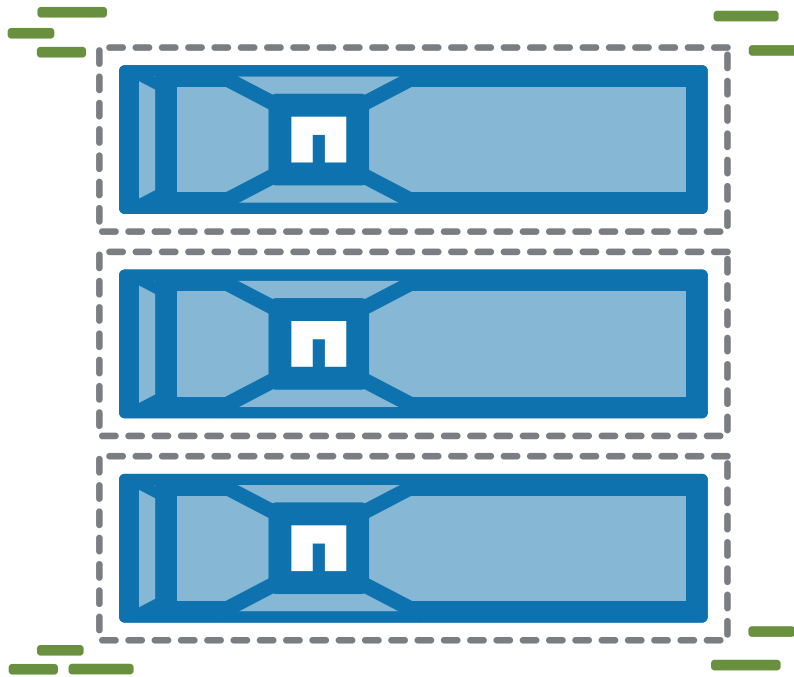
The next-generation data center is built to drive business — not be another cost of doing business. That means, in addition to being able to scale resources independently and granularly, your infrastructure should be simple to deploy and manage for your staff. This is where the wonder of automation comes into play.

The next-generation data center takes the traditional, single-vendor HCI deployment to the next level with an out-of-the-box infrastructure solution that centralizes management, automates routine tasks and integrates fully with your management, orchestration and backup tools. What's more, this next-generation model eliminates the need for any "rip-and-replace" installations — the open and flexible architecture is compatible with any existing infrastructure, licenses or compute you have in place. In fact, companies that have adopted next-generation, hyper-converged infrastructure have seen total-cost-of-ownership (TCO) reductions as high as 59%.⁶

- **Streamlined** operations
- **Lower** setup and installation costs
- **Decreased** TCO

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Optimize Performance

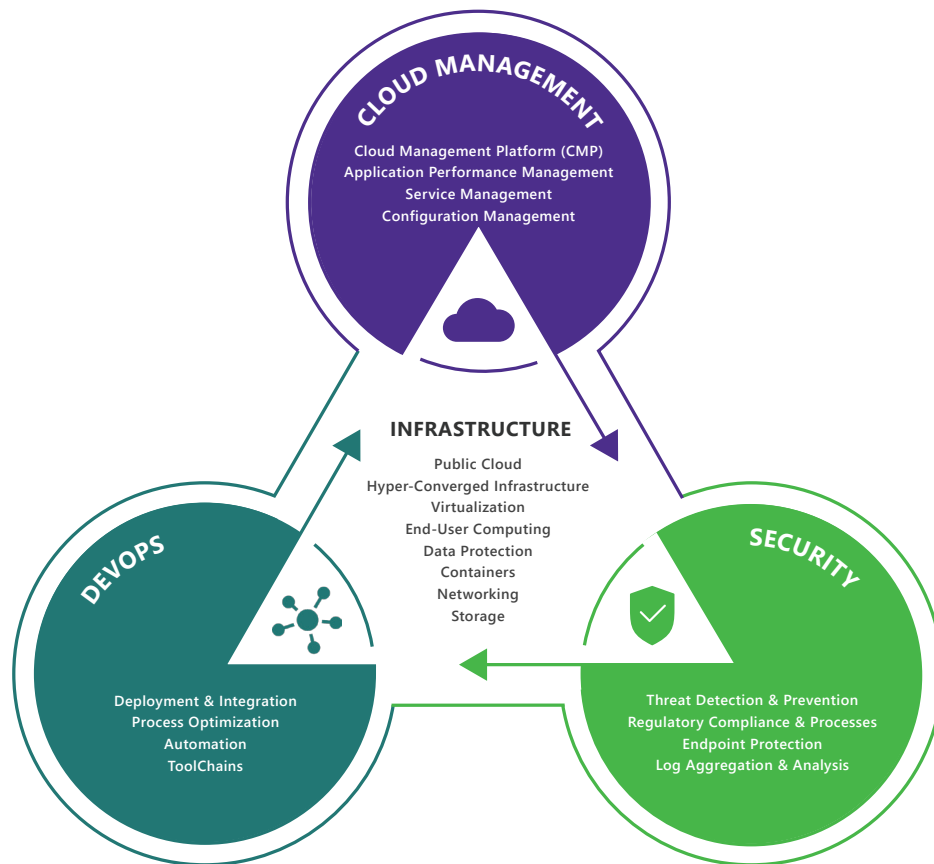
The demands of your business require predictable, high-quality performance, and in today's application-centric IT landscape, traditional HCI solutions come up short.

Studies have shown the average enterprise uses a colossal 730 cloud applications.⁷ When these applications share the same infrastructure (as is the case in HCI environments), one application's performance runs the risk of interfering with another's, which can have a drastic impact on the apps' availability and performance.

Next-generation, hyper-converged data centers mitigate the performance risks of traditional HCI through unique performance guarantees that provide granular control of your every application. They also equip you to consolidate workloads and configure them according to minimum, maximum and burst input/output-operations-per-second (IOPS) values so performance remains consistent across all workloads.

How to Get Started with the Next-Generation Data Center

Creating the next-generation data center urges you to take a holistic approach to your IT infrastructure. It also pays to have the right partner and technologies.



As with most things in business, there is no one-size-fits-all solution. Using the ConRes Software-Defined Data Center (SDDC) Framework, we work closely with you to create a holistic solution that ensures every element of your infrastructure and services contributes to meeting the demands of your business. This includes:

- **Completing a virtual network assessment** to understand all traffic across your network.
- **Defining a plan** to roll out a next-generation HCI solution to meet your performance requirements.
- **Offering best-in-class services and support** that makes your staff self sufficient.

As experts in IT and networking for more than 50 years, we offer leading next-generation data center solutions like **NetApp HCI** to help clients optimize performance and reduce costs and complexities across their IT infrastructure.

Our team has earned more than 500 technology certifications and our configuration, testing and validation facility enables unparalleled validation of customer solutions in a live environment. Simply put, we offer the most advanced IT solutions delivered by the most experienced team while providing you with industry-leading personal service and support.

Business and user demands don't slow down just because the data center can't keep up. Let ConRes help you create a next-generation data center that delivers the performance you need with services you can trust.

Why NetApp HCI for Your Next-Generation Data Center?

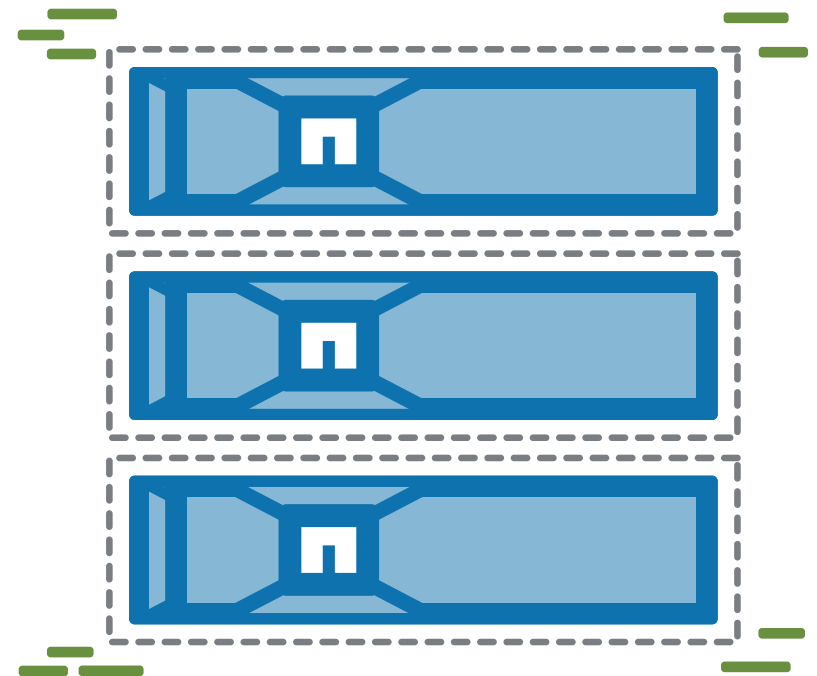
NetApp HCI is launching a new era of hyper-converged infrastructure. Backed by NetApp's full range of hybrid cloud data services, HCI transforms IT by enabling teams with:

Guaranteed application performance

Unparalleled flexibility and scale

A fully automated infrastructure

***Access to data across every cloud —
private, public or hybrid***



ConRes

CONTINENTAL RESOURCES

ConRes provides high technology IT solutions and support to business, government and educational organizations. Combining 50 years of high tech know-how and financial stability, ConRes is a low-risk option for organizations seeking to strengthen the ROI on their technology investments.

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¹Uptime Institute, 2017. *The Data Center Industry Survey*.

²RightScale, 2017. *State of the Cloud Report*.

³VMware, 2012. *The Benefits of VMware's vCenter Operations Management Suite*.

⁴IDG Research Services, 2015. *Converged Infrastructure: Reaching Maturity, Meeting Business Demands*.

⁵TechData, 2017. *The Changing Landscape of Hyperconvergence*.

⁶Evaluator Group, 2017. *NetApp HCI Economic Comparison*.

⁷Netskope, 2015. *Netskope Cloud Report — Worldwide*.