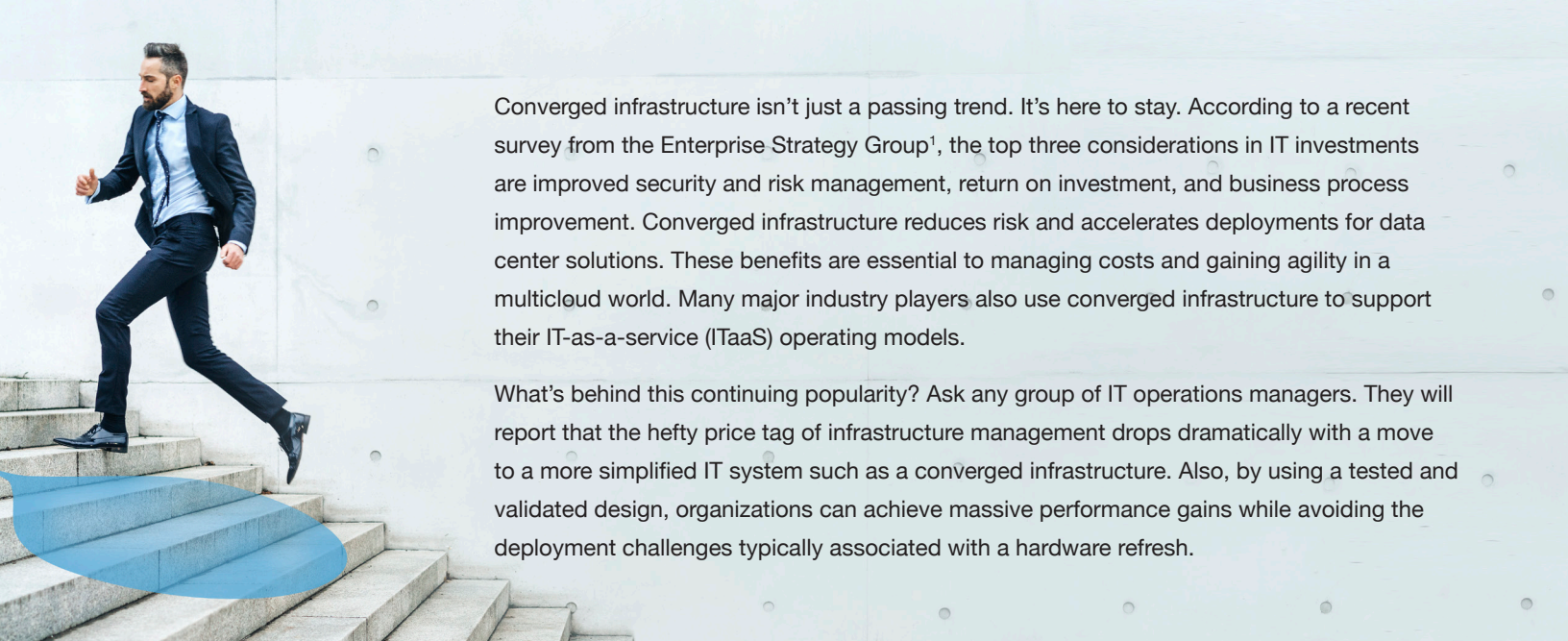


Why Converged Infrastructure?



Three reasons to consider converged infrastructure
for your organization



Converged infrastructure isn't just a passing trend. It's here to stay. According to a recent survey from the Enterprise Strategy Group¹, the top three considerations in IT investments are improved security and risk management, return on investment, and business process improvement. Converged infrastructure reduces risk and accelerates deployments for data center solutions. These benefits are essential to managing costs and gaining agility in a multicloud world. Many major industry players also use converged infrastructure to support their IT-as-a-service (ITaaS) operating models.

What's behind this continuing popularity? Ask any group of IT operations managers. They will report that the hefty price tag of infrastructure management drops dramatically with a move to a more simplified IT system such as a converged infrastructure. Also, by using a tested and validated design, organizations can achieve massive performance gains while avoiding the deployment challenges typically associated with a hardware refresh.

Defining Converged Infrastructure

Converged infrastructure combines servers, networking, and storage into a single optimized computing system that is centrally managed. It consolidates traditional storage components into a highly redundant, node-based storage platform that can be scaled out as needed.

Today's converged infrastructure solutions use all-flash storage nodes to increase performance, reduce physical capacity requirements, and cut maintenance costs.

Converged infrastructure also helps minimize the drudgery of hardware integration and system maintenance and frees IT to experiment with software innovation. Additional advantages include increased IT responsiveness to business demands and an overall reduced cost of computing.

Converged or Hyperconverged?

These two terms are often used interchangeably, but there are significant differences. Converged infrastructure refers to an optimized, tightly integrated collection of IT components offered by one or more technology vendors that includes compute, storage, and networking resources. Both approaches simplify management and speed deployment of data center infrastructure.

Hyperconverged infrastructure (HCI) is based on a hypervisor-centric architecture and includes compute, networking, virtualization, and storage in a single box from a single vendor. This architecture is typically built with software-defined compute, storage, and networking for a solution that's easy to deploy. This approach can be ideal for simplifying scale-out virtualized workloads or microservices.

For systems that need to scale while delivering high performance and high availability for your most demanding workloads, converged infrastructure is the answer. It offers the ability to more rapidly and flexibly provision infrastructure and services than with traditional systems. Best-in-class components ensure that a high-performance platform is delivered with an efficient footprint for business and mission-critical applications.

Here are the top three reasons you should consider making converged infrastructure the cornerstone of your infrastructure strategy.

Three Reasons to Consider Converged Infrastructure for Your Organization

REASON 1: Position IT to better meet the needs of the business

Converged infrastructure creates a more reliable, productive IT environment. With traditional systems, companies often struggle to make sure that all of the hardware elements are optimized to deliver the performance required by a diverse set of workloads. With converged infrastructure, the integration of components is complete from day one, guesswork is eliminated, and infrastructure management is simplified. Complexity is reduced through the use of preintegrated hardware, virtualization, and management automation tools.

Workflows are optimized so that application services can be delivered more quickly and easily than ever before.

There are other benefits to converged infrastructure that can make big changes in your organization in the long run. For example, an IT employee whose days are filled with tedious, repetitive maintenance tasks will enjoy a major change with converged infrastructure. With far less maintenance than traditional IT and legacy systems, IT professionals are able to refocus their efforts on more creative ways to use technology to help the business.

REASONS TO MAKE THE CHANGE

How do you know for sure that your business is ready for converged infrastructure? Here are some signs to watch for.



1. Your IT is unwieldy and unable to adjust to new requests from lines of business.



2. You are experiencing lengthy deployment times that cause projects to get stuck in limbo.



3. Too much staff is utilized and too much budget is spent on IT system maintenance.

Today's IT departments are expected to spend less, and they're also expected to make more. As one industry expert noted, "Companies are asking their IT departments to generate revenue; they aren't just there to keep the machinery humming."

Increased IT staff productivity, reduced costs, and fewer maintenance issues all make converged infrastructure a reliable choice for companies that want to improve how they meet business demands.

REASON 2: Gain agility to keep up with evolving business demands

How can companies attain the agility they seek in a fast-moving market? According to the ESG survey, additional important considerations are “business process improvement” and “reduction in operational expenditures.” The increasing scale and number of applications requires that IT professionals stay ahead of the curve with their organizational agility. Converged infrastructure simplifies deployments so that IT organizations can continue to invest in new business services.

The goal of convergence is to simplify the data center so that it's easier to meet the ever-changing demands of the business. As converged infrastructure technologies continue to evolve, IT can count on a reliable way to deliver the flexibility and agility that business users demand.

CONVERGED INFRASTRUCTURE OFFERS:

Faster provisioning.

Allows new solutions to be deployed more quickly and easily than ever before.

Scalability and elasticity.

Enables data center capacity to be adjusted quickly to meet the needs of growing businesses.

Faster IT response.

Makes it possible to respond rapidly to changes in the marketplace and within the business.



REASON 3: Build a foundation for a hybrid cloud future

Converged infrastructure enables enterprises to easily implement private cloud solutions and can serve as an enabling platform for private and public cloud computing services, including infrastructure-as-a-service (IaaS), platform-as-a-service (PaaS), and software-as-a-service (SaaS) offerings. Companies that deploy a hybrid cloud strategy also enjoy greater flexibility and scalability.

Hybrid cloud is taking off

Hybrid cloud has clearly established itself as a viable option for IT organizations that want to create new, flexible, and responsive IT resource environments and see the cloud as the most viable way to achieve this goal. The hybrid cloud approach calls for seamless data management across cloud resources. This approach enables IT organizations to complement a private cloud with a public cloud strategy that minimizes risk and helps avoid the potential for losing control of valuable data. With a hybrid cloud, enterprises can store their sensitive data in a secure environment while taking advantage of public cloud services for extra scale and agility. Because of its support for virtualized applications and advanced automation, converged infrastructure is the perfect runway for hybrid cloud deployments.

Cost savings, greater flexibility

Ongoing data security concerns and sovereignty requirements are causing IT departments to look more closely at their cloud plans. Administrators need to know where their data lives and who is managing it at all times.

By combining a converged infrastructure platform with public cloud services, you can create a single seamless solution that delivers trusted data protection plus the elasticity to meet unpredictable demands for IT resources. For example, new cloud services can be added in seconds without sacrificing data security, enabling IT teams to scale workloads on demand. Another plus: By allowing workloads to move between private and public clouds as computing needs change, a hybrid cloud offers new opportunities for reducing capex and opex when compared with traditional IT models.

Make The Move to Converged Infrastructure With Flexpod

FlexPod is best in class

Now that you know some of the benefits of converged infrastructure, what's the next step? Consider FlexPod®, the Cisco® and NetApp® converged infrastructure platform that is flexible, massively scalable, and easy to deploy and consolidates all your application and data requirements.

FlexPod streamlines your servers, networking, and storage in a cost-effective IT infrastructure that accelerates deployment, centralizes management, and automates operations. FlexPod brings the performance, agility, and economics required by today's business.

The FlexPod Platform for Innovation

Platform for innovation

A core platform for your cloud strategy can fuel and enable innovation. This innovative solution, which includes the latest Cisco UCS® servers, Cisco Nexus® switches, and NetApp all-flash storage, consistently offers high-performance delivery of fast and secure business-critical applications. Other benefits include:

- Transform the data center with next-generation technology enabled by cloud- and multicloud-based services
- Unlock the value of your data to uncover critical insights
- Fast track support for data and application pipelines
- Automate and simplify infrastructure and policy management
- Gain insights up to 20x faster³

Unmatched versatility

FlexPod can easily be tailored to meet your business needs. An increasingly fluid business environment and profit pressures demand an infrastructure that can keep up. FlexPod supports both private and hybrid cloud designs, increasing efficiency and agility, and it scales seamlessly to meet the enterprise's emerging needs.

- Decrease time to market with validated designs for many deployment scenarios and delivery models
- Reduce risk and accelerate time to value with enterprise vertical-specific applications
- Dramatically reduce workload migration times
- Grow seamlessly to meet increasing application demands
- Migrate data easily with unique flexibility from the edge to core to cloud and back
- 47% improvement in the staff time needed to deploy new servers and new virtual machines²

Trusted worldwide

Rely on a field-proven platform with continued market momentum and growth. FlexPod offers a resilient platform with a broad base of partners to help you reach your IT infrastructure goals. FlexPod has no single point of failure at any level, from the server through the network to the storage. Fully redundant and scalable fabric provides seamless traffic failover if any individual component fails at the physical or virtual layer. And a robust, expansive ecosystem means that partners can help outsource, install, deploy, and maintain the converged and cloud infrastructure.

- Gain efficiencies with predictable and assured performance of the platform
- Minimize the risk of adopting new technology
- Partner with a strong ecosystem of skilled application and integration vendors
- FlexPod is deployed in more than 8,700 enterprises worldwide

GAIN INSIGHTS UP TO

20x

FASTER³

83%

**FASTER
PROVISIONING
WITH CISCO ACI³**

2.3x

**LOWER
INFRASTRUCTURE
TCO¹**

THE NUMBERS ADD UP

11.4M

Up to 11.4 million IOPS with
1ms latencies on All Flash FAS³

20x

Up to 20x faster enterprise
application performance on AFF³

2.3x

2.3x lower infrastructure
TCO compared to previous-
generation FlexPod with HDD¹

4x

4x improvement in storage
IOPS and 4x improvement in
SQL Server CPU utilization³

150+

World-record benchmarks
for Cisco UCS

Converge with FlexPod Today

With FlexPod you can:

- Position IT to better meet the needs of the business
- Gain agility to keep up with evolving business demands
- Build a foundation for a hybrid cloud future

FlexPod.com | NetApp.com/flexpod

1. Enterprise Strategy Group, "ESG Economic Value Validation: Quantifying the Value of FlexPod Infrastructure with Cisco M4 Servers and NetApp All-Flash FAS (AFF) Storage Arrays," 2017.

2. IDC, "The Business Value of Cisco UCS Integrated Infrastructure Solutions," 2016.

3. NetApp Spotlight on Technologies, "FlexPod Advantage: Performance, Agility, Economics," 2016.

Refer to the Interoperability Matrix Tool (IMT) on the NetApp Support site to validate that the exact product and feature versions described in this document are supported for your specific environment. The NetApp IMT defines the product components and versions that can be used to construct configurations that are supported by NetApp. Specific results depend on each customer's installation in accordance with published specifications.

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