

# Top Three Reasons to Deploy Cisco Converged Infrastructure

Solution Brief  
July 2016



## Highlights

### Broad Portfolio of Converged Infrastructure Solutions

- Cisco offers a choice of integrated and hyperconverged systems that are tested, validated, and documented so that you can get your deployments up and running quickly and with confidence.

### Simplified and Consistent IT Management

- Cisco breaks down IT infrastructure silos with a unified management approach that lets you operationally integrate your individual servers and converged systems and manage everything with a single, consistent management interface.

### Ready for Hybrid Cloud

- Cisco's portfolio of converged infrastructure solutions work with Cisco ONE™ Enterprise Cloud Suite and CliQr® software to automatically provision infrastructure resources and deploy application components and data across your private and public cloud environments.

No matter what you are trying to accomplish, Cisco's converged infrastructure portfolio offers an excellent match for your varying workloads, use cases, and operations.

Your business has a lot to do, from performing day-to-day tasks to taking good advantage of technology to bring together people, processes, data, and things to make resources and connections more valuable to your operation. Just as your users, workloads, priorities, and initiatives are all different, so too are the solutions that work best in each scenario. Whether you need to make IT decisions at the corporate, business unit, or data center level, or your applications, budget, or infrastructure strategy guides your decision-making process, Cisco® converged infrastructure offers a solution for every situation.

## Reason 1: Broad Portfolio of Converged Solutions

There's no perfect solution or one-size-fits-all approach that can support every nuance of every situation. Our spectrum of products—from individual servers to integrated and hyperconverged systems—lets you choose from a family of solutions that are designed to work together for your organization (Figure 1). You can deploy one type of solution for one set of needs, and a different solution for other workloads. You get to choose, and we make it easy to deploy and manage all your choices in a consistent way.

### Choice of Integrated and Hyperconverged Infrastructure

If your organization is invested in network-attached storage (NAS) or SAN strategies, Cisco's integrated infrastructure solutions can fit right in. These solutions combine Cisco Unified Computing System™ (Cisco UCS®) and Cisco Nexus® switches with leading and emerging solutions from storage partners to deliver preengineered, tested, and supported systems that are designed to operate as a single unit.

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Cisco Converged Infrastructure

With these integrated systems, you can simplify and accelerate your IT deployments and automate IT as a service (ITaaS) across physical and virtual environments to deliver business value (Figure 2). We offer solutions from an ecosystem of integrated infrastructure partners, including IBM (VersaStack), NetApp (FlexPod), Nimble Storage (SmartStack), Pure Storage (FlashStack), and VCE (Vblock).

Cisco HyperFlex™ solutions combine computing, networking, and storage resources into an easy-to-use system: software-defined computing in the form of Cisco UCS servers, software-defined storage with the powerful new Cisco HyperFlex HX Data Platform software, and software-defined networking with Cisco UCS fabric that integrates smoothly with Cisco Application Centric Infrastructure (Cisco ACI™). Together, these elements comprise a hyperconverged infrastructure that brings new levels of speed and

efficiency to your IT organization. The result is a preintegrated cluster that is up and running in an hour or less and that scales resources independently to closely match your application resource needs. You can pay as you grow, and you can grow in small increments that don't break your budget.

**Flexible Scalability**

Your business needs are constantly changing, and your IT infrastructure should adapt to support these demands and your workloads with ease. Cisco converged infrastructure solutions let you scale and repurpose systems without having to adjust your software or your networking capabilities or interrupt operations. You can purchase the systems you need today and scale up your integrated infrastructure for greater performance and capacity (adding or upgrading computing, network, or storage resources), or scale out if you need multiple consistent deployments (adding



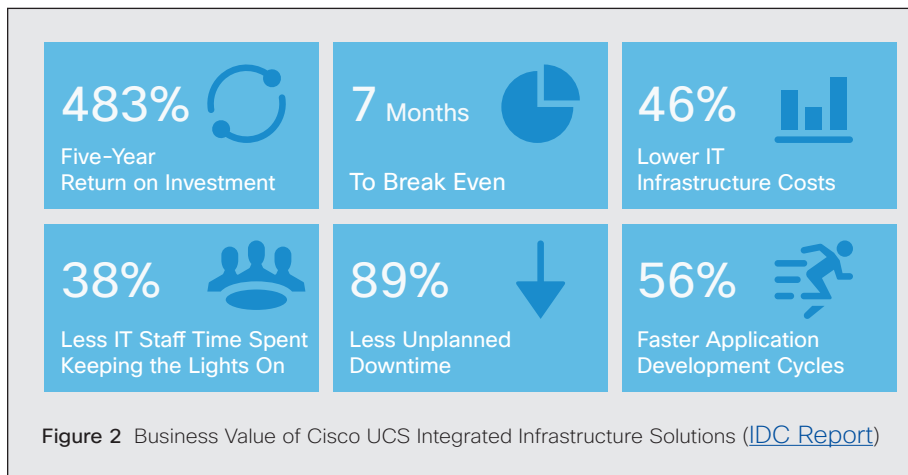
Figure 1 Cisco's Portfolio of Converged Infrastructure Solutions

integrated systems). And when the time comes to increase the size of your hyperconverged cluster, you can do so quickly and easily. Cisco HyperFlex solutions automatically discover and configure new hardware, and adding it to the cluster takes only a few clicks.

**Validated Designs for Popular Use Cases, Applications, and Technology Transition Points**

With Cisco converged infrastructure solutions, your IT staff doesn't have to spend time making everything work together and perform as expected. Best-in-class components and management software work together so that your IT staff can focus on strategic business priorities and get products and services to market in less time.

Cisco tests and documents solutions so that you can get deployments up and running quickly and with confidence. Validated designs are available for popular infrastructure use cases, applications, and technology transition points, such as virtualized infrastructure, private and hybrid clouds, desktop





virtualization, enterprise and vertical applications, in-memory databases, analytics, big data, and remote-office and branch-office deployments. No matter what you need or where you need it, a validated Cisco converged infrastructure solution is available to help you accomplish your goals.

## Reason 2: Simplified and Consistent IT Management

Traditional management approaches make your IT environment difficult to use and scale. That's because an approach in which management is an afterthought results in incomplete solutions that fail to deliver unified infrastructure management. Cisco breaks down these barriers so that you can simplify, deploy, and maintain your IT infrastructure with visibility and control (Figure 3).

Cisco's unified management approach lets you tie your infrastructure to your applications across virtual and physical elements. Automation, orchestration, and lifecycle management capabilities simplify deployment and make it easy for your IT staff to operationally integrate your bare-metal and virtual

infrastructure resources to address complex, time-consuming, manual, and compartmentalized processes. Because multivendor infrastructure is a deployment reality, a self-service web interface abstracts the complexity of devices, hypervisors, and virtual machines so that you can set up infrastructure in minutes and get the most from your IT deployments.

- **Cisco UCS Manager** performs lifecycle management of software and hardware components so that the system self-integrates and scales rapidly. Role- and policy-based management and service profiles help you configure your server identity, configuration, and connectivity to exact specifications. The right people can deploy the right solution with no risk of configuration drift that can cause downtime.

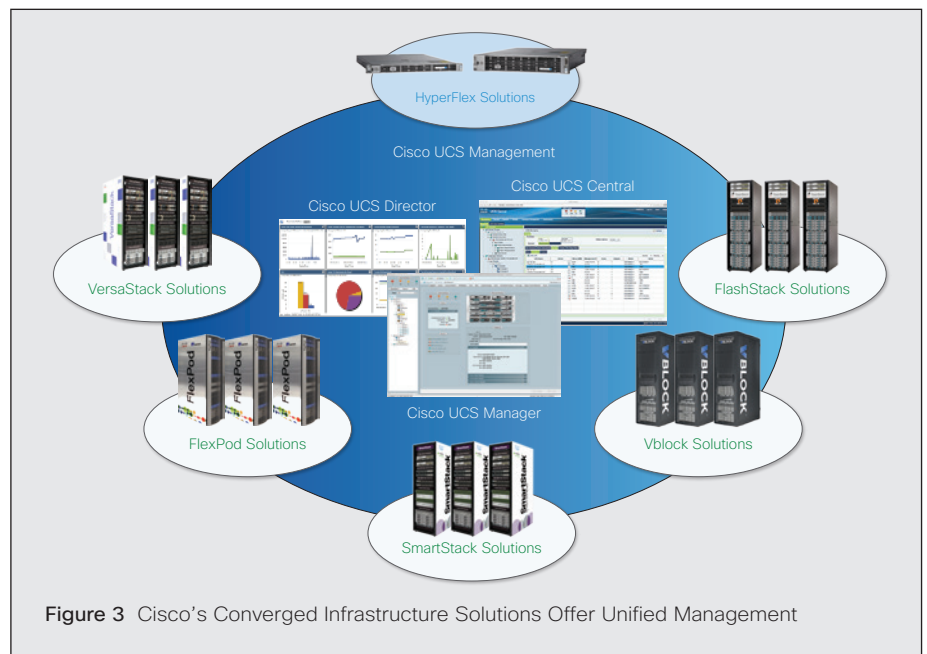


Figure 3 Cisco's Converged Infrastructure Solutions Offer Unified Management

- **Cisco UCS Central Software** lets you manage multiple, globally distributed Cisco UCS domains with thousands of servers from a single pane, allowing you to simplify your operations at scale.
- **Cisco UCS Director** unifies and automates end-to-end integrated infrastructure management processes by abstracting the complexity from individual devices, hypervisors, and virtual machines and automating integrated infrastructure management processes with a unified and easy-to-use set of tools and interfaces.

### Reason 3: Ready for Hybrid Cloud

Your IT infrastructure must handle the bimodal needs of applications, including traditional scalable enterprise applications (Mode 1) and those that need speed and agility (Mode 2). As these types of applications come together, it is difficult to provide support for line-of-business (LoB) and traditional enterprise users and development and test groups with a single IT architecture. Hybrid cloud infrastructure delivers the right resources where they are needed.

#### Hybrid Cloud-Ready Solutions

Cisco's portfolio of converged infrastructure solutions is ready for the hybrid cloud. With this easy-

to-manage, open, and flexible environment, you can consistently enforce your data center security, quality of service (QoS), and access control policies in both private and public clouds to safely extend your data center and cloud capacity—scaling your applications and adapting to changing priorities and shifting strategies.

#### The Right Cloud for the Right Workload

Different workloads need different types of infrastructure resources and QoS levels. Cisco ONE Enterprise Cloud Suite and CliQr work together to deliver end-to-end cloud orchestration and application-centric lifecycle management. You can choose the best cloud for a workload, and the software automatically provisions infrastructure resources and deploys application components and data across your private and public cloud environments.

With these tools, you can:

- Manage and automate the lifecycles of your infrastructure, clouds, and applications to accelerate delivery
- Automate the deployment of virtual machines and full application stacks on predefined infrastructure containers and software elements whether they are in your enterprise data center, in your private cloud, or in a public cloud
- Gain visibility and control by using rules and limits to control cloud use

- Create price-to-performance reports to understand the costs associated with different clouds and reduce the amount you spend on public cloud deployments

### Simplify with Cisco

The demands on your IT infrastructure vary, with your business using everything from individual servers to converged systems to clouds. Cisco can help you put the right infrastructure in the right place. Our converged infrastructure solutions are fast to deploy, easy to scale, and ready to provide a unified pool of resources to power applications as your business needs dictate. You can deploy our solutions wherever you need them, and manage them all with a single management model to tap into the full potential of your workloads and users.

### For More Information

For more information about Cisco's integrated infrastructure solutions, visit <http://www.cisco.com/go/ucsintegratedinfrastructure>.

For more information about Cisco's hyperconverged infrastructure solutions, visit <http://www.cisco.com/go/hyperflex>.

For more information about Cisco's solutions for hybrid clouds, visit <http://www.cisco.com/go/hybridcloud>.



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