



# How Hyperconvergence and VDI Help IT Grow Quickly and Affordably

The combination of big data, the cloud, mobility, social media, mobile apps, and rising security threats is setting the stage for the next generation of the Internet. Along with the increased complexity of tomorrow's Internet, we see more and more companies pioneering new business models that disrupt and even displace established industries.

With this digital transformation impacting all fields, the ability to quickly adapt and change course on a dime is a key factor of business success. To win at this game, companies must scale their IT infrastructures in time with the demands of their businesses. But they also need to stay lean enough to meet unexpected opportunities and challenges.

Managing the complexity of expanding infrastructure while continuing to provide ever-better access to applications and data without breaking the IT budget is a two-part challenge. Fortunately, the challenge can be met by recent advancements in hyperconverged architecture and virtualization technology.

## Meeting the Challenge with Hyperconverged Architecture

Hyperconverged architecture allows an organization to add or subtract processing power and data storage capacity as needed. Now, businesses can respond to real-time demands, rather than having to devote resources upfront to building out extra capacity in hopes of meeting demand that may or may not come in the future.

Cisco HyperFlex goes a step further, bringing Cisco's industry-leading network technologies to an all-in-one, hyperconverged solution.

- HyperFlex uses the same technology and service profile templates as Cisco Unified Computing System, a pillar of

the data center. This means managing HyperFlex doesn't require IT managers to learn new tools.

- Independent scaling enables managers to individually scale compute and storage—rather than having to scale both at the same time and potentially devote more resources than are needed for a given set of users and applications.
- Cisco's legacy of both industry-leading server and network solutions lets managers scale storage and compute easily and seamlessly across any network using a single product and interface. Competing products may scale compute and storage well but leave out the essential networking component.
- Quick setup time can get new users and applications online in minutes rather than hours or days.
- A cloud-like consumption model ensures that organizations pay only for what they need, when they need it.

Altogether, HyperFlex maximizes the efficiency of all available resources so well that it can reduce storage costs by up to 80 percent.

## Meeting the Challenge with VDI

Another key technology helping IT managers meet the challenge of exponentially expanding data and complexity is virtual desktop infrastructure, or VDI. This virtualization technology allows managers to provide any number of users with access to any application and data source on any device.

- The VDI Solutions from Citrix XenDesktop, XenApp, and NetScaler provide superior user experience and bring-your-own-device flexibility to users while delivering

centralized application and OS management and security to IT managers.

- Virtual GPU sharing capabilities bring high-end graphics and HD video processing to every device, giving even mobile devices and tablets the equivalent power of workstations costing thousands of dollars.
- Framehawk technology provides a superior user experience over any network. Even HD video appears sharp and uninterrupted despite high latency or spotty connections.
- Industry-leading single-disk management tools allow administrators to manage thousands of user desktops as well as multiple applications with a single disk image per OS or app, greatly simplifying installations and upgrades while enabling full customization capabilities for end users.
- Streaming provisioning services allow for instant OS provisioning and upgrades with minimal interruption for end users.
- Best-in-class security keeps applications and sensitive data safe with no intellectual property leaving the confines of the data center.

XenApp and XenDesktop can readily take on complex business requirements and customer environments at every scale from hundreds to thousands of users and beyond—all while keeping data secure and simplifying administration. Seamless integration with NetScaler securely delivers apps and data quickly with reliability. XenDesktop alone can reduce application management costs by up to 90 percent.

### Putting the Pieces Together

Putting these two technologies together is a winning combination for businesses. A combined, turnkey solution simplifies the work of IT managers and lowers costs as they quickly and easily scale both virtualization and architecture.

In the area of healthcare, for example, Meander Medical Centre in Amersfoort, Netherlands is using HyperFlex and XenApp/

XenDesktop to scale up quickly to meet the demands of a growing facility while increasing the quality of care.

"I see advantages in using Cisco HyperFlex because of its flexibility and building blocks," says Paul Bauwens, IT Architect for Meander. "You can mix and match the CPU power and storage power required for your application and scale." Bauwens is equally excited about XenApp and XenDesktop's ability to deliver data to any devices from the hyperconverged architecture faster than stand-alone desktops.

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Using HyperFlex and XenApp/XenDesktop together allows IT organizations to set up a hyperconverged architecture in less than an hour, and to provision new business apps and services in seconds.

### Taking the Next Step

Cisco HyperFlex VDI for Citrix solves the toughest workforce mobility problems. Together, the two simplify operations, reduce upfront costs with a pay-as-you-grow model, and provide linear VDI performance that scales quickly and easily. Managers report being able to better serve their users and business units more affordably and in less time than ever before.

Users, too, benefit from secure, flexible, and powerful desktop and application virtualization solutions while gaining the full potential of system resources through the intelligent utilization of network, compute, and storage. Many users report that their applications actually work faster and with less wait time over combined HyperFlex and XenDesktop/XenApp installations because they get access to the power of entire data centers rather than just individual machines.

To learn more about how Cisco HyperFlex VDI for Citrix can help your organization grow affordably and quickly while meeting tomorrow's IT challenges, visit [www.cisco.com/go/citrix](http://www.cisco.com/go/citrix) or [www.citrix.com/cisco](http://www.citrix.com/cisco).

