



# NEXT-GEN HYPER-CONVERGENCE MEETS NEXT-GEN DATA PROTECTION

Creating Modern Data Centers and Data Infrastructures that work for you

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*Based on a Fireside Chat webcast featuring Andrew Lickly, Veeam Global Alliance Product Marketing Manager, Chris Twigg, Cisco Consulting Systems Engineer, and moderated by Greg Schulz, Server StorageIO™.*

**T**he concept of what a data center is and what IT professionals do is changing quickly and radically. Next-gen hyper-convergence is making it possible to put up new applications at the speed of business. While adopting and making best use of the new technology is a challenge, it also presents an opportunity for IT to transform itself from a cost center to a business driver.

Starting with a brief software evolutionary perspective, Greg Schulz, author of *Software-Defined Data Infrastructure Essentials*, explains the evolution of next-gen hyper-convergence and why data protection is integral to it.



“First generation hyper-convergence brought together compute, servers, storage, IO, networking, hardware, software and associated data infrastructure, management tools and practices,” he says.

Bundled all together as data infrastructure resources streamlines support for application development and deployment. The first gen hyper-convergence were considered “hyper small” implementations done within the limits of the more traditional data center.

### **NEXT-GEN CHANGES EVERYTHING**

“Next-gen hyper-convergence is about being able to support bigger, broader environments, not just hyper small, but scaled out,” Schulz explains.

The emphasis of next-gen is on enabling IT to focus on developing and deploying business applications. This frees IT professionals from many chores involved in maintaining the operations environment. In the past, IT had to focus on development and operations of the infrastructure that supported the business applications.

Next-gen hyper-convergence offers a solution for the dual-headed IT dilemma of needing to focus on infrastructure along with the need to innovate in order to meet the demands of the business they serve, says Andrew Lickly, Veeam Global Alliance Product Marketing Manager.

“Now, more than ever,” he explains, “IT is expected to innovate and add value to the business. Everybody’s business is

suddenly changing. Businesses are moving to delivering their products and services in a different way with as-a-Service or a cloud-based application.”

Some real-world examples include Airbnb, a hotel company that doesn't own hotels, and Facebook, a content company that doesn't own content.

“Everybody is rethinking their business models for products, goods and services,” Lickly says. “Just as importantly, they are looking at how they interact with their customers and partners. We're see-

on developing business applications as opposed to the infrastructure.

Chris Twigg, Cisco Consulting Systems Engineer, says it is all about making the data center work for your business. “The days are over when IT built network systems and went to the business with it and said: We hope this works for you.

Hyper-convergence is a phrase that means get it done faster. Convergence means simplification, which means less work, shorter time to market. Get the app up and running quicker.”

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**—ANDREW LICKLY, VEEAM GLOBAL ALLIANCE PRODUCT MARKETING MANAGER**

ing people doing that. Expectations are changing dramatically. Everybody is modernizing their data center for innovation and evolving their business. There's a consensus that if you're not evolving, somebody is going to evolve and cut into your core business.”

With next-gen hyper-convergence, IT doesn't have to spend time running around keeping the servers and the networks operational. The hyper-converged infrastructure doesn't require that level of maintenance.

It refocuses the concept of DevOps from operations i.e. developing to support infrastructure, and gets it focused more on developing and optimizing applications for the business. IT can now focus

Schulz agrees that it's all about enablement. “The key is making the technology work for you as opposed to you working for the technology.”

Lickly adds: “It comes down to availability and performance. You have to have data available and the apps need to perform well. Everything should work to those two things. Until you have access to data quickly and at the speed of business, you're just doing IT stuff. And there's a decreasing tolerance for that in business.”

### **HYPER-CONVERGED IN THE HYBRID CLOUD**

Putting next-gen hyper-convergence into a hybrid cloud environment is the

“homerun,” Schulz says. It can be hybrid converged or hybrid cloud. The first generation of hyper-convergence was small with everything self-contained. Next-gen hyper-convergence on the other hand, is now interoperating with public clouds and cross-clouds. “It’s not just going to Amazon or Microsoft Azure or Google or IBM. It is operating across Amazon, Azure, Google, IBM as well as your own onsite environment,” he says.

new apps online, it won’t really work unless those apps are available and secure so customers and partners can rely on them in the 24/7 world.

“If all your emphasis is on hyper-converged around the server, storage, IO, software platform, you’re missing out on something,” Schulz explains. “Part of it is also converging data infrastructure practices such as data protection including availability, resiliency, failover, snapshots,

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### **TRANSFORMING THE MEANING OF DEVOPS**

With customers and partners demanding a wide variety of new online products and services, businesses need IT to quickly develop and launch the apps they need to stay relevant in their markets. Next-gen hyper-convergence is an ideal solution for revolutionizing what IT does.

“The emphasis is moving DevOps from a focus on operations and infrastructure, to more emphasis on the Dev and less emphasis on the Ops,” Schulz explains. IT pros that previously spent the bulk of their time just keeping the wheels turning can now bring their talents to meeting the needs of the business.

### **SECURITY CONVERGENCE**

While it’s wonderful to free IT pros to support the business by quickly bringing

point-in-time copies, which are all part of data protection along with security. Next-gen hyper-converged should mean that you’re integrating protection into the hyper-converged infrastructure. Data protection is no longer an afterthought or bolt-on but must also be converged.”

That is where Veeam ties into a comprehensive next-gen hyper-converged strategy. The beauty in Veeam and Cisco’s partnership is the ability to leverage each other’s strengths and capabilities.

“Veeam integrates with Cisco to add capabilities to extend functionality and converge as a part of the data infrastructure to enable the desired outcome, which is to protect, preserve, secure and serve the applications and data,” Schulz explains. “That is the fundamental role of the data infrastructure deployment in a hyper-convergence solution.”

Beyond data protection, there is the yet unresolved issue of availability in a world where customers expect products and services to be at their fingertips any-time and anywhere.

Veeam conducts an annual data availability study that sheds light on availability issues, Lickly points out. “We hired an independent analyst to interview over a 1,000 IT pros to check the pulse of what they think they can deliver in terms of what they’re using today and what people need. A couple of interesting data points came out of that. More than 80 percent admit that they have what Veeam has dubbed the availability gap.”

“That can be viewed several different ways,” he says. “One, they are spending all their time and resources just keeping systems running. They don’t have the resources and dollars to spend on modernization projects. Or, they’ve got to figure out data protection before they can look at bringing in new technology. It’s a vicious circle where they know they have a problem but they can’t figure out how to attack the problem until they fix the problem. So how do they get there? This tells me there is a real opportunity for people to look at how they are doing things and change it because what they are doing now just isn’t working. So there

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The study results show that 80 percent of IT pros are saying their current infrastructure cannot meet the demands of their business, customers, and partners in terms of availability. In these cases, the beleaguered IT pros cannot assure their business users that systems are up and providing the information to satisfy the instant gratification users expect.

The study also found that more than 60 percent of IT pros believe lack of faith in their availability or their current data protection systems are actually getting in the way of innovation projects, Lickly explains.

is recognition that we need to evolve because traditional IT infrastructure doesn’t support the modern needs of the business.”

What is needed is what Lickly terms a digital transformation. IT departments need to change their infrastructure, modernize their architecture and adopt hyper-converged technology to give them more agile and simple infrastructures.

“There’s a sense of angst out there because IT can’t deliver what the business needs,” Lickly says. “The answer is that IT needs to modernize infrastructure.”

### VEEAM AND HYPERFLEX

Converging Veeam Availability solutions with Cisco HyperFlex offers relief for the angst IT pros are feeling over their inability to move beyond infrastructure maintenance to provide the business with apps that are secure and available.

“The reason Veeam and HyperFlex are in the same conversation is because HyperFlex will address performance solutions and Veeam will address availability,” explains Twigg. “The goal is to do more with less.”

solution, on the business side there is a return on investment and cost savings discussion, Schulz notes. “How can you achieve return on innovation to enable the outcome to be more agile and faster?”

Twigg offers an answer: “Part of ROI and part of cost of ownership is adaptability. You cannot just pull out racks of servers and shoehorn in a new solution over the weekend. Neither the Cisco or Veeam solutions work that way. HyperFlex operates as a VMware vSphere cluster. Everything you are doing in VMware

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“When you put HyperFlex and Veeam together you have a data availability solution,” explains Lickly. “Veeam allows you to meet all your SLAs. It provides individual line item recoveries. Cluster to cluster. Cluster to offsite. Cluster to cloud replication and backup. Verified backup and replication. The end game isn’t just to make sure it’s backed up. The end game is you need it in case something happens. You have confidence that should you have a situation where you need to recover or failover, you can recover from whatever has happened.”

### THE ROI QUESTION

However, regardless of the benefits of a secure next-gen hyper-converged

vSphere is the same. Data storage is the same. Backup and recovery are simplified by Veeam. You click on what you need to backup or what you need to recover and it immediately backs up or restores it. There is no need to figure out what a storage system is doing, where the tape is. When you talk about modernizing a legacy data center and a legacy protection plan, the key is achieving greater availability and performance.”

Rather than looking at costs in terms of racks, storage, and network components, Twigg suggests looking at it from the business perspective. Where do the lines of business depend on IT? If market demands require 24/7 reliable and fast access to apps and data then a system

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that assures that level of availability is a good investment from a real world business perspective.

Lickly says one of the tenants for any modernization project should start with simplicity and agility to provide the business with the ability to adapt and move to different workloads and bring new workloads up as the business needs it.

“The goal is to make your resources more efficient,” Lickly adds. “If you’re spending all your time tweaking and tuning your current infrastructure just to keep it up and running, you’re taking those resources away from doing something of higher value such as modernization projects. One of the great things about Cisco is the UCS manager, which is easy to use and works across platforms. It allows you to rollout new servers. It’s simplicity and it works. If you can reduce the number of people tweaking the gears and moving the levers to keep things rolling, now you could employ them in other work that will bring higher value to the business.”

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