

MAKING THE CASE FOR HYPER-CONVERGENCE



If it feels like business is moving at hyperspeed these days, it's no illusion. Increased competition and market disruption are driving the need for enterprises to move faster than ever before. In this new economy, enterprises can no longer wait weeks or months for IT to build the underlying infrastructure to support new initiatives. What once took 20 days can now happen in 20 minutes in the cloud. If CIOs want to beat the cloud as the preferred IT provider, they need to beat the clock.

IT departments are rising to the challenge with the help of hyper-converged infrastructure (HCI). HCI is the fastest-growing segment of the integrated systems market according to Gartner, with companies spending \$5 billion annually on HCI systems by 2019. In fact, HCI has grown so quickly that many enterprises are still trying to get their arms around it. Is it simply a hyped-up spin on converged infrastructure or something completely different?

CONVERGED VS. HYPER-CONVERGED: WHAT'S THE DIFFERENCE?

Converged infrastructure (CI) was the future of five years ago. It centered on the concept of creating IT infrastructure using pre-integrated "blocks" of compute, networking and storage instead of individual components. Converged infrastructure had several advantages over traditional best-of-breed systems: it was faster to deploy, easier to scale and simpler to manage. Converged systems are still popular today, but for some applications they will likely be superseded by HCI systems.

In many ways, hyper-converged infrastructure is to converged systems what CI was to best-of-breed systems before them. HCI is faster to deploy, easier to scale, simpler to manage and more cost-efficient than converged infrastructure—particularly for specific use cases such as virtualized desktop initiatives (VDI) and hybrid cloud environments. Whereas CI consisted of separate blocks of network, compute and storage that could scale independently, HCI features blocks of compute and storage that scale linearly for rapid expansion.

CI systems also required a broader set of skills because storage, networking and compute were often treated independently. If you want to re-configure the storage blocks in a VCE Vblock, for example, some level of EMC expertise is required. In the case of an HCI system such as Dell EMC's VxRail, however, both compute and storage are managed with a single toolset, so the same VMware skills manage everything.

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THE REAL-TIME, REAL-WORLD REQUIREMENTS OF IT

The emergence of HCI reflects a fundamental shift in the perception of IT infrastructure from complexity to commodity. Application developers and line-of-business managers have more choices than ever before in how they procure infrastructure from cloud providers such as Amazon, Google or Microsoft. The ability to purchase IT as a cloud service (and potentially circumvent the IT team entirely) has forced IT departments to become more agile. HCI systems enable enterprises to compete with the public cloud by offering systems that support:

- Rapid deployments—in some cases, under 20 minutes
- Flexibility to scale one node at a time, beginning with as few as three nodes
- The cloud ability to start in a private cloud but scale out to the public cloud
- Simplicity of management under one toolset, with out-of-the-box support for existing standards
- High availability through higher SLAs and seamless feature upgrades that eliminate downtime
- Real accountability because everything is delivered by one vendor

BUILDING A SOFTWARE-DEFINED DATA CENTER

If cloud computing is the next step in hardware virtualization, then the software-defined data center (SDDC) is its logical conclusion. An SDDC infrastructure allows IT departments to manage their infrastructure as software, making it transparent to both business users and business applications. This is almost completely different from the way that IT has traditionally managed its infrastructure, which is often defined and managed in very apparent siloes.

As the leader in the virtualization movement, it's not surprising that Dell EMC also leads the way in HCI solutions with its VxRail hyper-converged infrastructure systems. With VxRail, infrastructure is managed in the same way as virtual machines. Compute and storage blocks are managed as part of the VMware stack, which allows storage systems to adapt automatically and re-balance based on each virtual machine's service policies. This leads to better performance, greater flexibility, higher efficiency and lower costs.

VxRail supports both Flash and hybrid storage configurations. In addition, VxRail system nodes are available in unique configurations designed around specific use cases. Today, VxRail nodes can be ordered in a variety of configurations including:

- The G Series for general-purpose high-performance computing
- The E Series for entry-level HCI applications
- The V Series, optimized for virtual desktop initiatives
- The P Series, optimized for exceptionally high performance
- The S Series for storage-intensive applications

ROLTA ADVIZEX: REAL INTELLIGENCE + RAIL EXPERIENCE

Rolta AdvizeX helps enterprises move from traditional data centers to the software-defined future. With unparalleled experience in SDDC and virtual data center (VDC) transformations, our consultants and experts have the knowledge and the experience you need to move forward, maximize ROI and minimize risk. Call us today for a free consultation to learn how Rolta AdvizeX can help you assess your IT environment and see if VxRail is the right fit for your future.

Rolta AdvizeX is a leading partner to the world's leading IT providers including Dell EMC and VMware. Our commitment to our customers is to provide the best solution for your businesses, based on your needs and built from the best technology in the industry. To contact Rolta AdvizeX today, call us at 1-216-901-1818 or visit us online at advizex.com.

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To explore how we can help your organization, contact a Rolta AdvizeX sales executive at **800-220-8454** or visit Rolta AdvizeX online at www.advizex.com

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