White Paper

Dell EMC: Immediate Synergy for Hyperconverged Customers

Expanded portfolio now meets wider variety of customer use cases

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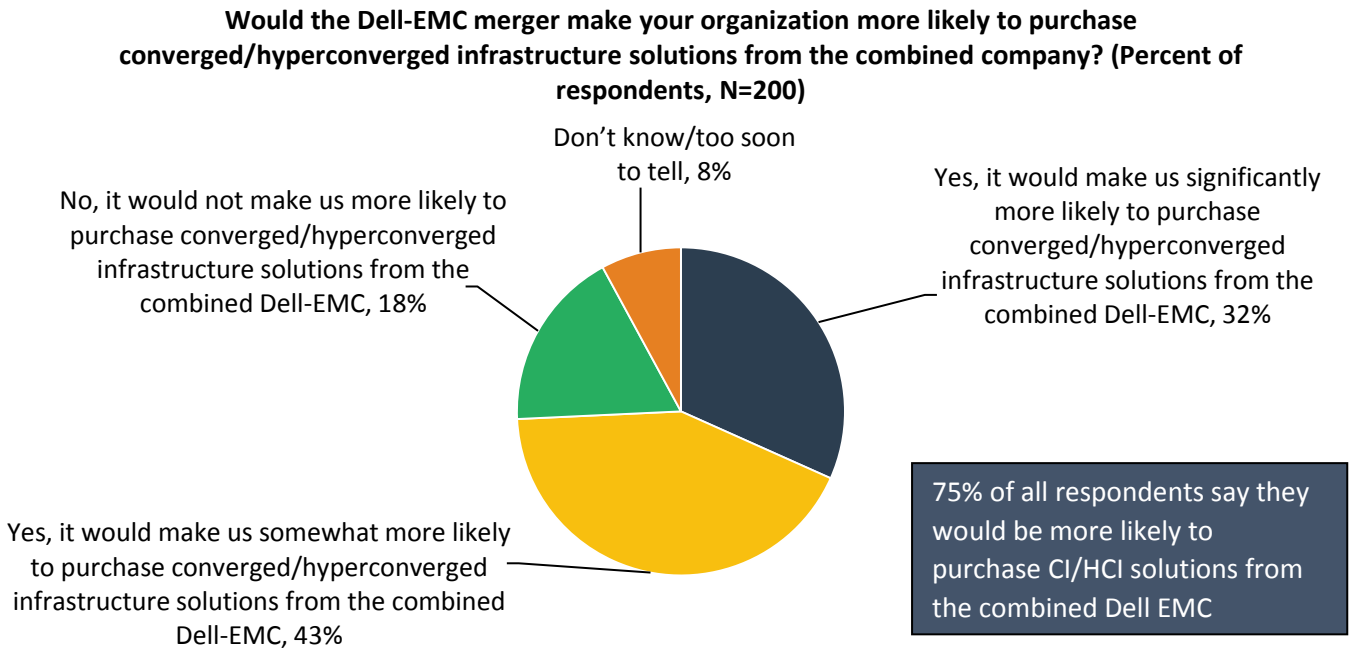
Merger Synergy on Day One

In ESG research conducted shortly after the announced acquisition of EMC by Dell, 65% of the respondents indicated that they expected to benefit from more complete and innovative solutions from the combined company.[1] That's not surprising, given the complementary strength of their respective portfolios. Perhaps the most potential synergy is in the Converged Platforms and Solutions division, where servers, networking, storage and software come together. And customers of both companies, as well as prospective customers, seem to understand that. When ESG asked 200 storage decision makers how likely they are to buy converged or hyperconverged solutions from the joint Dell-EMC entity, 75% said they would be more likely to buy from the combined company (see Figure 1).

Figure 1. Converged/Hyperconverged Opportunity for Dell-EMC



Source: Enterprise Strategy Group, 2016

And the company is wasting no time in meeting these customers' needs, announcing the hyperconverged portfolio expansion almost immediately after the merger closed. This is just the beginning of many steps we expect to see over time as Dell and EMC come together to deliver well-rounded solutions that provide real customer value.

At Dell EMC World 2016, the company is adding new VxRail Appliance and VxRack System configurations that are built on Dell PowerEdge servers. This allows Dell EMC to support a much wider variety of use cases. It's important to note that existing configurations don't go away—while there may be some overlap along the edges, this is truly a use-case-driven portfolio expansion intended to further extend customer choice.

For example, the new Dell PowerEdge-based VxRail configurations allow Dell EMC to address use cases such as:

- Graphics-intensive VDI with integrated GPU-optimized nodes.
- Expanded remote office, branch office (ROBO) reach with lower entry price points and smaller form factors.

[1] Source: ESG Brief, *Implications of the Dell-EMC Integration for Their Storage Businesses*, July 2016.

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- Storage-heavy workloads like Exchange, big data, and analytics.

That's not all. The company is providing investment protection and a wide array of options for existing customers. Existing VxRail products can be clustered with new Dell PowerEdge-based nodes, allowing customers to keep existing platforms or upgrade over time, whichever path they choose. VxRail launched in February 2016 and EMC is reporting strong market reception and sales. In our estimation, these additions to the portfolio should help accelerate sales even more. The new VxRack and VxRail products are orderable today and will be shipping in Q4 2016.

Why This Is Important: The Data Center Modernization Movement

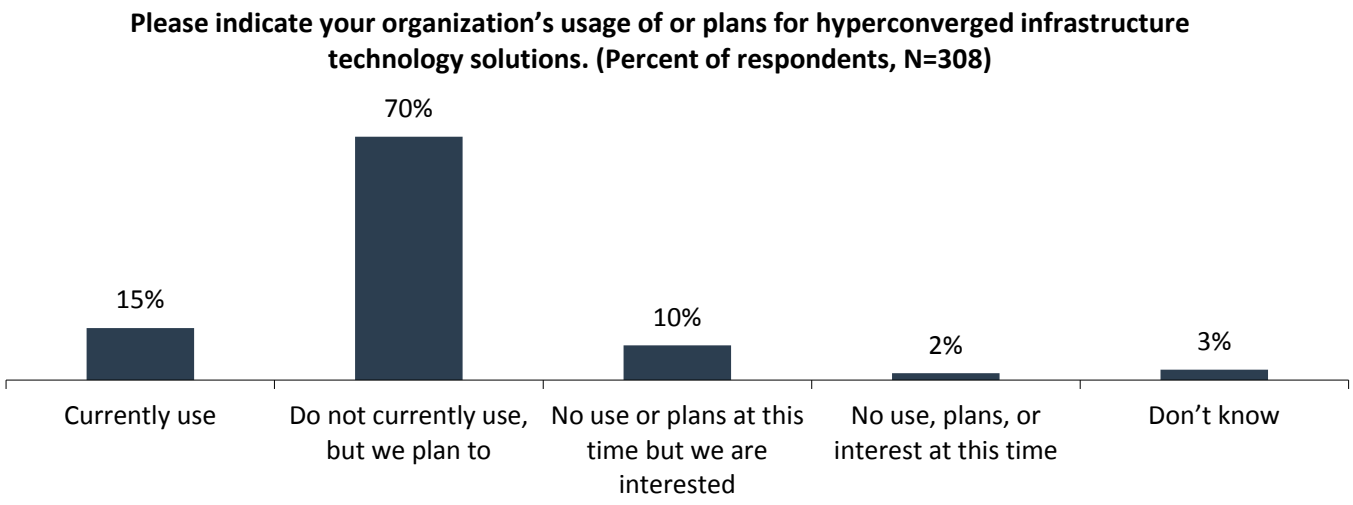
Enterprises of all sizes are undergoing massive data center modernization initiatives. They are looking to use technology to cut costs and drive competitive advantage. At the core of many of these transformations is an effort to reengineer IT delivery models to enable cloud-like flexibility of resources and reduce both capital expenditures and operational overhead. That is giving rise to the private cloud movement. Indeed, private cloud adoption is accelerating and maturing. IT organizations are looking to the private cloud for the elasticity it can provide to add or remove resources as required. ESG's research reveals that more than three-quarters of organizations would classify their private cloud deployment as either an advanced internal cloud or a basic internal cloud. Those organizations that have virtualized at least half of their production applications are more than twice as likely as their more physical infrastructure-dependent counterparts to categorize their environment as a complete IT-as-a-service operating model.[2]

IT managers surveyed about their private cloud deployments cite elasticity, providing a measured service, the ability to provide an on-demand/self-service environment, and the ability to pool resources as the most important capabilities of private clouds. This is exactly what hyperconverged systems enable.

Building a Private Cloud: Why Hyperconverged Makes Sense

The data in Figure 2 reveals that 85% of IT organizations have deployed or are planning to deploy a hyperconverged system, and for good reason.

Figure 2. Hyperconverged Infrastructure Adoption



Source: Enterprise Strategy Group, 2016

[2] Source: ESG Research Report, *The Cloud Computing Spectrum, from Private to Hybrid,* March 2016. All ESG research references and charts in this white paper have been taken from this research report, unless otherwise noted.

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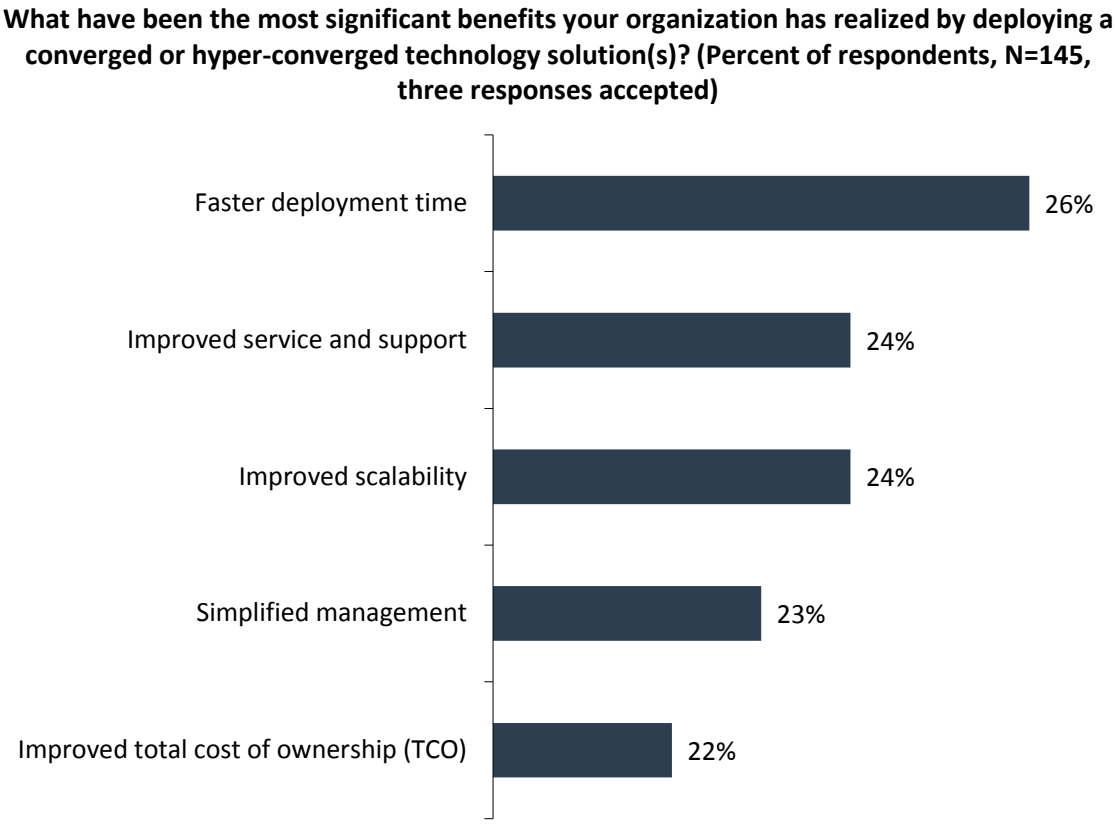
When it comes down to it, IT organizations can derive numerous benefits from the convergence movement. When planning to deploy solutions, the most often-cited benefit IT organizations are seeking from convergence is improved service and support. But there are more reasons IT organizations cite for going down the hyperconverged path. IT organizations say they are looking for greater scalability, agility, and the ability to deploy resources faster—a modern data center can't have infrastructure provisioning take weeks or months and expect to stay competitive.

And convergence pays off. While users primarily adopt convergence for improved service and support, when it comes to the *benefits that organizations realized post deployment*, more than one-quarter (26%) cited faster deployment times (see Figure 3). Other commonly identified benefits included both service and support and scalability improvements, as well as reduced management overhead. So whether it's for elasticity through faster deployment, or capital and operational expenditure reduction, hyperconverged systems just make sense at the core of data center modernization efforts.

Figure 3. Top Five Benefits Realized by Deploying a Converged or Hyperconverged Technology Solution



Source: Enterprise Strategy Group, 2016

This is why Dell EMC is going after the market so aggressively and has prioritized hyperconverged platform portfolio expansion as an immediate deliverable on day one. Owning the infrastructure stack, from software through servers to storage, is a big advantage, as are EMC's storage expertise and Dell's server, supply chain, and channel leadership. This combination really highlights the synergies the two companies can achieve.

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Dell EMC Converged Portfolio Expansion Details

The Need for Appliances *and* Rackscale Systems

It is not, and it won't likely be in the near (or far) future, a one-size-fits-all world. That's why this portfolio includes two product families targeting distinct environments. It is a matter of cost, scale, and performance. The hyperconverged portfolio includes:

- VxRail Appliances, optimized for traditional and cloud-native workloads running on VMware, integrated servers, and storage.
- VxRack System 1000 Systems, optimized for traditional and cloud-native workloads running in mixed environments whereby customers need hyperconvergence at extreme scale (greater than six to eight appliances, thousands of VMs), with rack-scale networking built in.

The Expanded HCI Portfolio with Dell PowerEdge

On the VxRail front, the existing 2U, four-node configurations remain. But there are three new configurations being added, all based on Dell PowerEdge servers. These include:

- Storage-optimized (2U/1N based on PowerEdge R730xd): This is just as it sounds: dense nodes configured for storage-heavy environments like Microsoft Exchange or big data environments.
- GPU-optimized (2U/1N based on PowerEdge R730): This is optimized for graphics-heavy environments that benefit from faster rendering time, like VDI.
- ROBO (1U/1N based on PowerEdge R630): A cost-optimized option that gives Dell EMC a lower entry point for smaller remote and branch offices.

It is important to note that the existing configurations (Quanta-based) remain in the lineup for general-purpose use cases and are being refreshed with the latest Intel CPUs. Dell EMC is offering investment protection for its customers—they can buy existing appliances or new Dell PowerEdge-based appliances, and can mix and match appliances in a cluster as required or upgrade to newer architectures over time.

In addition, the VxRack System with FLEX now offers new PowerEdge-based configurations. These come in two configurations (1U/1N based on PowerEdge R630; 2U/1N based on PowerEdge R730xd) both offering options for all-flash, storage only, or hybrid.

The clear highlight here is the new all-flash nodes, which promise to dramatically improve economics and performance for I/O-intensive workloads:

- Better flash economics: Dell PowerEdge servers offer 2.5X more useable all-flash capacity for a similar price.
- Application acceleration: Full integration with SanDisk DAS Cache accelerates the speed of storage input-output (I/O) operations and reduces latency, resulting in improved performance of I/O-intensive applications such as Microsoft SQL.

On the compute side, PowerEdge servers enable users to:

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- **Maximize operational effectiveness** by delivering optimal performance per resource unit through streamlined management, power savings, and density advantages.
- **Optimize flexibility at any scale**. PowerEdge server platforms and management architectures are designed for consistency across the product line, extensive scalability, and maximum versatility to enable IT departments to be able to adapt on the fly to deliver new applications without interruption due to platform or infrastructure changes.
- **Ensure availability**. The evolution of applications, expectations, and BYOD delivery means that 8 am-5 pm availability is no longer good enough, so PowerEdge server platforms are designed to enable 24x7x365 operations.

Now, VxRack System customers of all shapes and sizes—from midmarket to enterprise to service providers—can take advantage of the expanded Dell EMC portfolio delivering rack-scale hyperconverged solutions for traditional and modern applications.

The Bigger Truth

Dell EMC owning both the compute and storage portions of the stack is a game-changer for the hyperconverged portfolio. It allows the company to deliver more value choices for customers via investment protection, faster innovation, supply chain advantages, and, ultimately, the cost advantages and savings it can pass on.

Dell EMC has an incredibly broad portfolio—from low-end to high-end—of storage, servers, networking, and now converged and hyperconverged systems, which is why 53% of those surveyed about the Dell acquisition of EMC indicated having a one stop shop for end-to-end technology solutions would be a benefit, 50% reported looking forward to simplified vendor management, and 65% of the respondents indicated that they expected to benefit from more complete and innovative solutions from the combined company.

It is important to note that it is still the early days of hyperconverged solutions overall. However, Dell EMC's newly expanded hyperconverged portfolio—thanks to the fast integration of Dell technologies with VxRail and VxRack—is a major example of the synergy of the acquisition, and the benefits of the companies coming together—more value, more choice, and maintained investment protection for customers. We view Dell EMC's strong innovation and product push immediately on the heels of the merger closing to be just the beginning; we expect much more goodness for customers and partners still to come.

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