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# TURN YOUR IT INFRASTRUCTURE INTO A POWERFUL TEAM WITH A HYPER- CONVERGED INFRASTRUCTURE

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## Hyper-converged infrastructures are unifying core IT capabilities and helping leading organizations better leverage the Cloud and other emerging technologies.

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Most people recognize the power of teams. They understand how individuals with unique skills can work together to build something more powerful.

Yep, whether its superhero teams like the Avengers, the Justice League, or just your department at work, getting individuals to collaborate as a unified entity can solve a lot of problems and bring about efficiencies.

However, if one looks at the hardware and software that has been running business infrastructures for years, it's hard to find a lot of teamwork going on. Servers and applications do their thing, and storage has its whole own ecosystem. And while everyone runs on the network, it's managed and operated separately from everything else. This is just the way things have been done in data centers and in IT. But that doesn't mean it's the only way.

In recent years, a new technology trend has arisen that leverages the advances in virtualization and software-defined data centers. Called hyper-converged infrastructure, it uses these technologies to create a software-defined entity where servers, storage, and networking can work together seamlessly, as if they were one well-oiled machine.

With a hyper-converged infrastructure, organizations can more effectively utilize Cloud, gain deeper insight into activity in their environments, and become a more agile and flexible business that has a competitive edge.

In this report, we'll look at how organizations that are taking advantage of hyper-converged infrastructure are building a strong foundation that allows them to not only get the most out of their IT infrastructure today, but also prepares them to better take advantage of new technologies already on their way. We'll also look at how businesses are using hyper-converged infrastructures to boost ROI, reduce resource demands, and costs, and deliver the services they need to succeed.

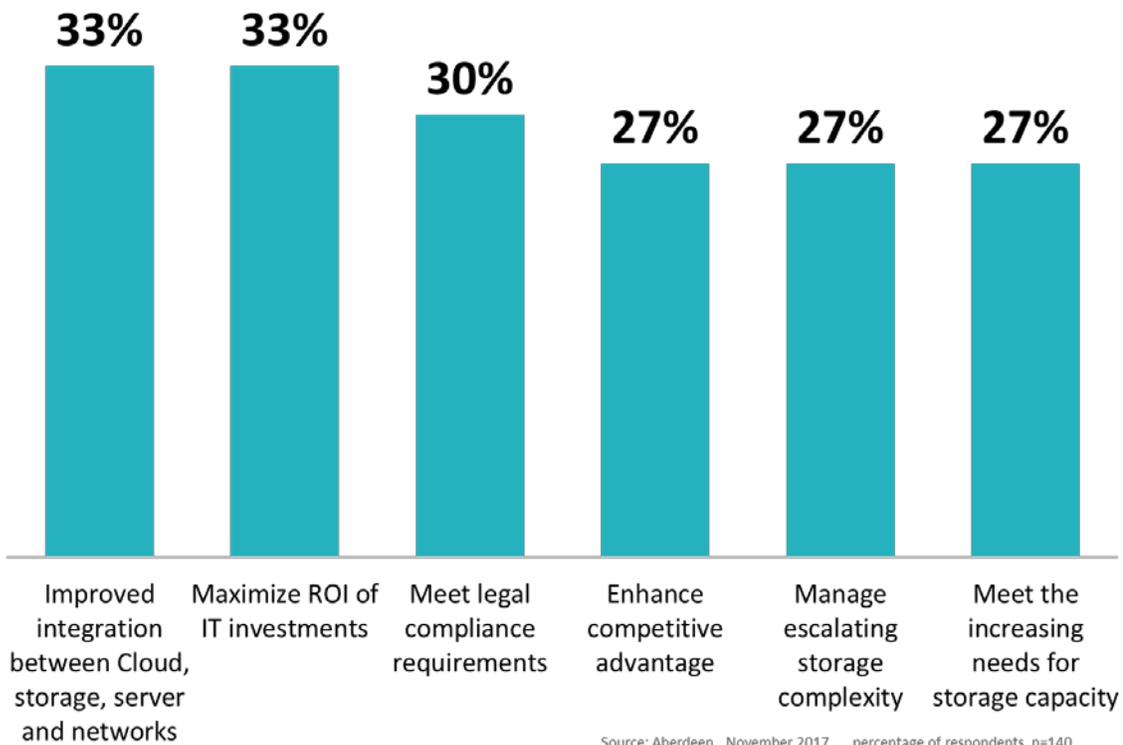
**Hyper-converged infrastructure:** A hyper-converged infrastructure is a software-defined IT infrastructure where servers, storage, and networking, along with other data center elements, are fully virtualized. By being implemented virtually in software (instead of physically), a hyper-converged infrastructure is more easily managed and deployed within organizations.

## Defeating the Challenges of Traditional IT Infrastructures

For businesses today, managing a data center (which can now be virtual or physical) is a tough task that involves dealing with lots of complexities and new technologies. Organizations need to be agile and flexible to stay competitive, as well as boost productivity and revenue. Unfortunately, they often lack the resources to deal with these pressures.

On top of these challenges, some firms have been trying to overcome these issues while relying on older IT infrastructures. These systems were not built to manage current software-defined, automated, and always-changing technologies. Because of this, these businesses are facing more hurdles when it comes to upgrading and improving their infrastructures. In our recent survey into data center transformations, we asked organizations about the top pressures that drove them to utilize hyper-converged infrastructures:

Figure 1: How Businesses are Driven to Adopt Hyper-Converged Infrastructures



Source: Aberdeen November 2017 percentage of respondents, n=140

The top choice of integration — between Cloud, storage and networks — shows the vital importance that organizations place on having effective infrastructure interoperability. This makes it possible for these organizations to work together, to make each other better. And given the costs and demands of modern IT investments, it's not a surprise that maximizing the ROI of these infrastructure investments is near the top of the list.

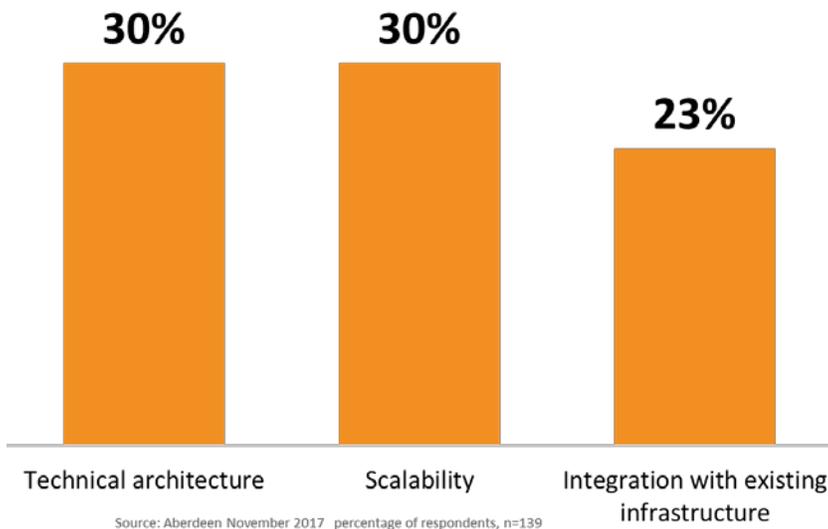
Rounding out the top pressures are the requirement for compliance and the need to gain a competitive edge. Businesses are also focused on how the rising flood of data today is increasing the need for more storage and boosting the complexity of dealing with this data.

With these challenges in mind, it increasingly becomes clear why organizations are turning to a hyper-converged approach. With hyper-converged infrastructures, businesses reduce complications and gain efficiencies — all while leveraging technologies that are specifically built to deal with modern complexities.

### Making the Right Choices when Building a Hyper-Converged Team

If a hyper-converged infrastructure is the solution to the challenges of a modern IT infrastructure, what are the identifying characteristics and criteria that businesses are keying on when they evaluate hyper-converged solutions? In Figure 2, we see how businesses are selecting these technologies:

Figure 2: Top Criteria when Choosing Hyper-Converged Infrastructures





As outlined above, we looked at the top criteria organizations focused on when evaluating hyper-converged infrastructures to improve their IT environments. One thing that jumps out about these selections is that how expensive these solutions are didn't even make the top three criteria. While many people would expect cost of solutions to be the main factor, we instead see that organizations are focusing on the criteria that show the quality of a solution, and how it will help a business grow.

The data from Figure 2 also shows that organizations place a high priority on making sure that the products they are deploying are well-designed to meet or exceed their IT requirements, with technical architecture tying for the top spot in selection criteria. This relates to questions such as:

- ▶ Can the solution scale to meet the increasing demands that IT infrastructures are now experiencing?
- ▶ Will this hyper-converged solution be able to easily integrate and work with existing systems?

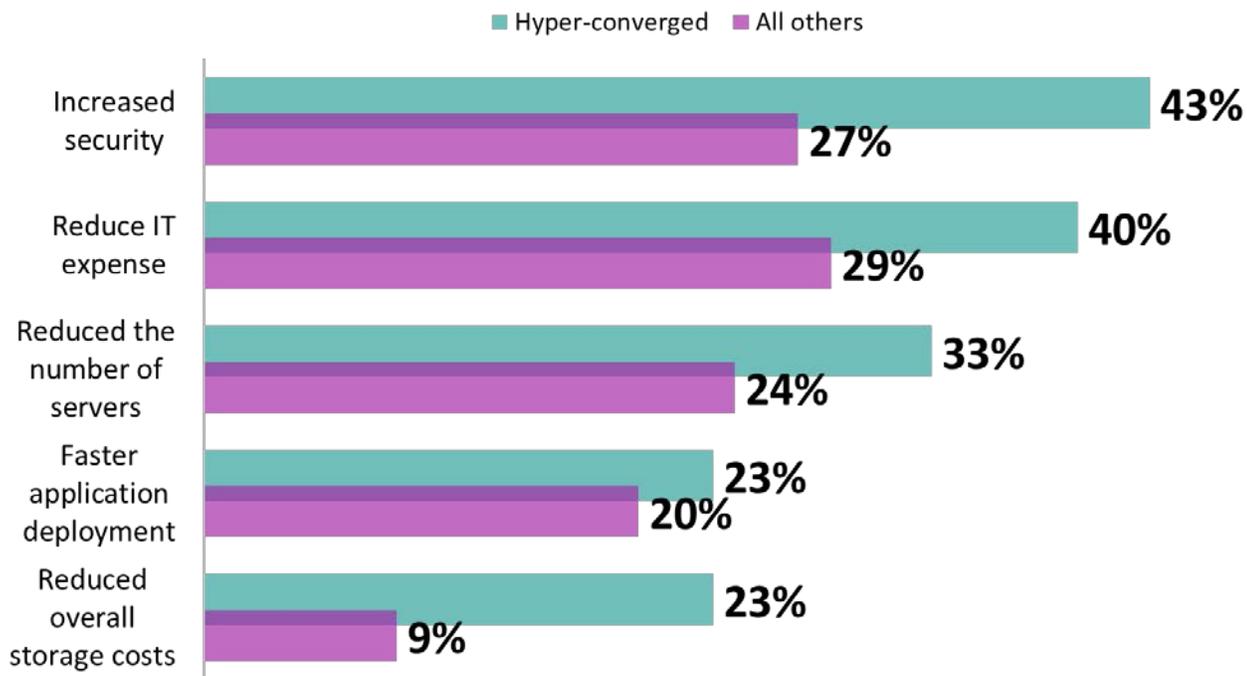
### **How Hyper-Converged Infrastructures are a Winning Team for IT**

You know a technology is still on the cutting edge when people are constantly trying to figure out just what it is. This is true with hyper-converged infrastructures (just do a quick search and you'll see).

When a technology is this new, it can have its share of doubters. And while these skeptics may show some interest in the new technology, they may not believe that it can deliver true benefits.

However, when it comes to hyper-converged infrastructures, Aberdeen research has shown that these concerns are clearly misplaced. Our research data shows that businesses that are deploying hyper-converged infrastructures are seeing many key benefits, as shown in Figure 3, on the next page.

Figure 3: Hyper-converged IT Beats Out the Competition



Source: Aberdeen, November 2017 percentage of respondents, n=140

As illustrated above, organizations deploying a hyper-converged infrastructure are 60% more likely than their competitors to see improved security. With its tight integration — and by leveraging software-defined technologies for increased agility, visibility, and agility — hyper-converged infrastructures have much fewer attack points than a loosely cobbled together data center.

We also find that hyper-converged businesses are 33% more likely to see a reduction in IT costs. This makes a lot of sense, as they can remove many IT siloes and other cost areas that can easily eat up IT resources. Tied to these cost savings is the ability of these businesses to reduce their hardware needs and cut down on costs associated with their traditional storage environments.

We can also see that these hyper-converged organizations are able to deploy applications and services more quickly than their competitors. With an infrastructure deployed from the ground up for today's virtualized, cloud-based and microservice environments, a hyper-converged infrastructure gives these businesses the agility to meet today's rapid demands.



## Takeaways

As we've seen, businesses that are leveraging a hyper-converged infrastructure are gaining several important benefits. But to get the most out of this cutting-edge infrastructure, they need to follow some key recommendations.

We've shown that this new technology is paying off in a very real way for those who have adopted it today. But to get the most out of a hyper-converged infrastructure, organizations must ensure that they have a well-designed environment that will work with the high performance, reliability, and scalability that comes with the hyper-converged infrastructure of tomorrow.

To build a hyper-converged infrastructure, businesses should:

- ▶ **Do the research to understand your IT infrastructure requirements.** Implementing a hyper-converged infrastructure isn't simply a matter of dropping one into your environment and hitting "start." Leaders in IT infrastructure know that doing the initial legwork — understanding the process — will pay off in a more effective hyper-converged infrastructure.
- ▶ **Build for you current technology needs.** You can't grow and improve an infrastructure whose current operations are beyond your visibility. For organizations to get the most out of a hyper-converged infrastructure, they need to have full visibility into their needs and what is currently happening in their environments.
- ▶ **Get ready for tomorrow's technologies and trends.** Organizations need to be ready for the continual emergence of new technologies on the scene, bringing new opportunities and increased IT complexities. With an agile and flexible hyper-converged infrastructure, businesses can reduce the intricacies of these technologies and increase their ability to use them to gain competitive advantages.

It may sound complicated, but a hyper-converged infrastructure is pretty simple in its focus. By providing a software-defined, virtualized, and resilient infrastructure, it gives businesses a technology base that is ready made for the demands of today. Not only that, a hyper-converged infrastructure provides all the benefits of traditional data center with none of the legacy weaknesses.

The bottom line: a hyper-converged infrastructure is (or should be) your IT infrastructure. For today and tomorrow.



## Related Research

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*Get a Higher Education in Enterprise Networks; November 2017*

*How Internet Performance Impacts Hybrid IT; November 2017*

*Software Defined Networking is Probably Already in Your Business; November 2017*

*Moving Past Backup to True Disaster Recovery; August 2017*

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