

Business Impact Brief

Modernizing Your Data Center Is Your Ideal 'Next' Move

The 451 Take

Traditional enterprise infrastructure is under tremendous pressure to deliver far more than it was designed for. IT teams face a complex set of requirements to meet their needs and to ensure they'll have the the resource agility to support a successful future. The next-generation foundation for IT infrastructure is one that maximizes flexibility and speed while understanding that some of the capacity demands will have to be met with resources we won't own and that will be hybrid by design. That plan is going to favor technologies that facilitate incremental growth and technology choice, and hyper-converged systems will play a significant role in meeting that increased business demand.

Hyper-converged infrastructure sees fastest workload adoption

Q: What percentage of your organization's workloads are currently running in each of the following server environments? And what percentage will be running in each of these environments in two years?



Source: 451 Research, Voice of the Enterprise: Servers & Converged Infrastructure 2017

There is constant pressure on IT departments to deliver data center capabilities that not only meet today's needs, but also anticipate future requirements. In the past, managing capacity growth and technology progression could be done within a reasonably long and predictable planning cycle. Filling a data center with equipment that had a five-year horizon was plausible, if challenging – but still the norm. As the pace of technology evolution has accelerated, the nature of IT ecosystems has been transformed. Where we could once expect all of an application's elements to be bound by the data center's four walls, modern ecosystems blend new partners, a wide range of platforms and a multitude of services in ways that make accurate provisioning almost impossible. That means that plans for evolving existing infrastructure have to adapt in new ways, even if we're not sure what those might be.

The expectation historically was to grow capacity vertically by making individual systems larger, but advances in systems management and technology have made it possible to grow horizontally as well. Hyper-converged systems have changed the capacity calculus by making growth incremental. The more capable approaches have also unified infrastructure management, reducing effort while capacity grows. A recent 451 Research Voice of the Enterprise study found that enterprises expect hyper-converged systems will see the highest growth in workload deployments over the next two years, an impressive 133% shift. One of the largest impacts is that the risk of committing to a particular scale of infrastructure has been radically reduced. That means that today's planning challenge is choosing a path that keeps as

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The 451 Take (continued)

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many options open as possible – being open to new resources, like public cloud, and to new consumption models. Both of these factors have contributed to the early popularity of a hyper-converged infrastructure approach.

All too often, hyper-converged systems are used reactively – to meet urgent needs for capacity when acquisition times for traditional resources (and it's most often storage, according to our research) are too long. While this meets a short-term need, it misses out on the deeper value of hyper-convergence. Using hyper-convergence strategically can be a powerful planning mechanism. A hyper-converged strategy expects that resources can be blended and unified from multiple sources. It builds on simple software-defined ideas and takes them to a level where resources can be abstracted across on- and off-premises environments, but with a common management environment.

To be ready for whatever the future brings, the best plan for investment is one that offers the flexibility that technologies like hyper-convergence can deliver – the practical business benefits that software-defined infrastructure has always promised.

Business Impact

REDUCING RISK – Intelligent investments in a modernized IT infrastructure build a foundation that ensures the most flexible future while lowering risks of complexity, security and obsolescence.

MAXIMIZING OPERATIONAL EFFECTIVENESS – Hyper-converged systems can be a strategic platform for resource growth and maximized IT spending with a common management platform. Capacity can be built and deployed when and where it's needed.

INVESTING STRATEGICALLY – Effective infrastructure investment is strategic, not reactive, and focused on business need. Hyper-convergence allows customers to benefit from true software-defined architecture, which enables the flexibility to adopt any technology or pivot on any business/IT need that may arise.

PROVIDING FLEXIBILITY FOR INFRASTRUCTURE – Flexibility in infrastructure enables multiple options for businesses to succeed in an uncertain future. Hyper-converged systems not only have capacity flexibility, but also technology flexibility. More sophisticated management systems allow the seamless blending of full-stack technologies and the incremental expansion capabilities that can reduce the risk of transitions to new processor and memory technologies.

Looking Ahead

Simplifying capacity planning – To keep up with the rapid evolution of business technology and resource requirements, organizations have to simplify the process of capacity planning and embrace operational consistency. It's too risky to continue to expect that big bets in technology direction and the rigidity of a single approach will pay off over time. Infrastructure requirements for technology must support multiple consumption models, and this means flexibility will become the most valuable asset in meeting those needs. Organizations have to expect that they'll need to effectively blend public and onpremises resources in various manners and must plan to get their operational processes ready to support those new models.

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