Demystifying storage solutions: Hyper-converged vs. SAN solutions

By Mike Styer

7 Dec 2018

As technology continues to evolve to meet the demands of organisations everywhere, so the need for reliable storage solutions is likely to grow - especially during a time where data increasingly dictates how a business functions.



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Regardless of whether you're a big corporate company, or a start-up SME, you will eventually need a reliable storage solution that works and also meets your specific business requirements. Considering these vastly different needs, a SAN-based solution and hyper-converged storage infrastructure are contenders that offer IT departments just what they need to best store their data.

The right solution for your business

While many organisations have already invested in either one of these solutions, business owners are taking a gamble that they hope will serve their business requirements perfectly, and match the life cycle of their other equipment.

While a hyper-converged infrastructure provides a convenient, cookie-cutter solution that will suit most business models adequately, is simple to operate, and will save money over time, there's still something to be said for component-based SAN infrastructures that offer more options and are flexible to the changing needs of applications and customers alike.



To make the right decision for their specific circumstances, business owners first need to understand what each one entails, and why they're considered to be reliable infrastructure solutions.

Hyper-converged storage

Hyper-converged storage is a software-defined environment that combines storage, compute and virtualisation in one physical unit that's run on a single hardware. The solution completely removes the SAN and consists of nodes that can scale up vertically depending on the infrastructure requirements of a business. Besides scalability, the benefit of these storage nodes is that should one go down, the rest remain unaffected.

Its cost-efficiency is also something that adds to the appeal of this solution. First off, it cuts out the costs of running larger scale environments; and secondly, less equipment is required which eradicates spend on the purchasing, maintenance and support of such. Because the workloads of a business fall under one administrative umbrella, it also becomes far easier to migrate data from one location to another.

SAN solutions

Unlike with hyper-converged infrastructure, a SAN-based solution consists of separate components. Here, IT departments can choose from best of breed across a variety of brands, and can build their solutions according to their business's internal resource capacity. Having in-house resources is then beneficial for monitoring and restoring data in the event that something goes wrong.

Since infrastructure does not have to be physically moved to shift capacity from one server to another, this solution also simplifies storage administration and enables some much-needed flexibility. The solution allows for bigger corporate companies to better manage their storage requirements, adding an element of hierarchy where businesses can shift performance requirements up and down.



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Considering the advantages of both hyper-converged infrastructures and SAN-based solutions, it's clear that businesses, especially larger corporate companies, should ideally make use of both. Thanks to the digital transformation process in

which we find ourselves at the moment, applications are being moved closer to the network where they're accessed. It therefore doesn't make sense for businesses to have their closest point of presence sitting somewhere in a deep, dark data centre. Instead you want it plugged into your network where it's easily accessed.

Storage considerations

While it makes sense to adopt both solutions to best manage data storage and the running of applications, what comes next? For business owners to choose the best enterprise infrastructure solution it's advised that they consult a multidisciplined partner to analyse their environment. This partner will in turn asses a company's workload to determine what it is they need based on their total cost of ownership and internal investments, for example. By doing so, they're able to best align IT infrastructure and business requirements, ensuring flexibility and agility in a highly competitive market.

So, what do we know?

While hyper-converged storage is known for its simplicity, ease of management and cost-effective benefits, a SAN-based solution increases storage utilisation and effectiveness, and makes use of in-house resources dedicated to ensuring its success. Making use of both, while highly beneficial, may not suit a company's very specific requirements so it's imperative to bring on board an experienced partner, to advise on the best solution. Reliable access to information is, after all, an easy way to gain a competitive edge, giving businesses new ways to outperform their rivals.

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