The future of storage

By Bruce Busansky   20 Feb 2014

Choosing a storage solution is a big decision, not only because of the initial capital outlay it requires but because making a sound decision up front can mitigate problems down the line when it comes time to upscale or upgrade.

While storage used to be bought in isolation, it's now seldom sold without servers, software, and other network components.

Virtualisation

Storage arrays will always have their place in the market, but major original equipment manufacturers (OEMs) are looking at new ways to benefit their customers. One of the ways they're doing this is with virtualisation. Though hardware solutions still include a storage component, increasingly all-in-one appliances mean storage is accompanied by servers, switches and software.

The advantage of this approach is that hardware is becoming more general-purpose, with smart software ensuring it performs the tasks required of it. This means, in some instances, even free server capacity is being used for storage on networks.

This also means that there are no longer one-size-fits-all solutions for storage. That's not to say everyone should invest in a software-defined storage appliance, but it's certainly becoming more common, particularly where the convenience is felt to trump the potential cost savings of a dedicated device.

One thing is clear, today the intended application drives the storage and not the other way around. Companies no longer have to think about storage in isolation. From a skills point of view, this also means engineers have to evolve, no longer relying simply on experience gained to enable them to rack hardware, configure, and set up software.

Instead, greater skill is now needed in the planning phase. Rather than deployment and installation expertise, a storage solution provider now needs to understand their customer's needs and make sure the upfront planning is right. In other words, solution architects' and pre-sale responsibilities have increased.

More software functionality

How then is a company to choose a hardware vendor for their storage requirements? There's no easy answer. Different vendors offer different add-ons - additional software functionality - and are continually trying to outdo and leapfrog one another. It's safe to say, however, that each vendor has its own little bit of greatness.

Though software-defined storage is making it easier for hardware from different vendors to work together, one of the trends we have noticed is that environments with a single vendor's offerings are becoming almost organic systems. The virtualised environment, built on a single vendor's products, becomes organic because everything works well together, resulting in outstanding efficiency.

Some key considerations when choosing a storage solution from any vendor are as follows:

- Ease of use: How easily does this platform fit into my environment, and how easy is it to use?
- Application Integration: How simply does this platform integrate with my Hypervisors and "Storage-Aware" Applications? Eg. VMware, SQL, Oracle, etc
- Scalability: How far can this architecture take me, and how will it scale with my business?
- Performance: Will this platform meet, and even grow to exceed the performance requirements of my enterprise?

- Redundancy: Will this platform protect and recover my, and my customer's data? What do I need to know about data protection and recovery on this platform? How does this decision impact my upfront costs?

Whatever your storage needs, properly defining your architectural and business requirements at the outset and finding a suitably-skilled partner who can assist in designing an appropriate storage solution won't only save you time and money immediately, but over the life of the solution too.

ABOUT BRUCE BUSANSKY

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