Does a proprietary solution automatically mean vendor lock-in?

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Fear of lock-in

The dread of any IT manager is in making a significant purchase of hardware or software to then find that they are stuck with it due to the way that the vendor has created it. The use of proprietary systems has always seemed to lead to this vendor lock-in – and it has always been advised against.

However, is this still the case?

Much has been said about the commoditisation of IT – servers are just processors in a box; network equipment is just ports; storage is just a collection of drives. Virtualisation and cloud computing have done away with all the need for complexity at the hardware level – hence the argument that the physical platform can be cheap and cheerful.

Nothing could be further from the truth, unfortunately. Although abstraction through virtualisation does provide far greater flexibility to an IT platform, there will still remain solid dependencies between the abstracted virtual and the physical layers.

The problem of the finite

For example, the pool of resource provided by the server processors cannot be infinite – there will still be a physical ceiling in the amount of work the virtual platform can carry out. The same with networks – abstracting a 12-port, 1GB switch can only provide a maximum throughput of 12GB; and that is only at a theoretical level.

However, storage has remained the main bottleneck for many organisations. The need to be able to deal with ever growing volumes of different types of data has led to the understanding that the world of spinning magnetic disks is coming to an end, and that flash storage technology provides a much better approach to dealing with mixed, real-time storage workloads.

But far from commoditising, the world of storage is moving towards a raft of different approaches – and it is here where the need for intelligent approaches is required to relieve the storage bottleneck.

Intellectual property v. Proprietary

This is where 'proprietary' comes in – but not in a way that should scare anyone. Whereas old-style proprietary meant having to go back to the same vendor for everything to do not only with the main system itself, but other peripheral areas, the new proprietary is all about intellectual property and value-add. Vendors are creating their own patent portfolios that cover how they are creating differentiation at the storage level – and in some cases, this is really key. Storage will never again be able to coalesce around a 'just a bunch of disks' (JBOD) platform – there are too many workloads that require a far more intelligent and flexible platform. How that intellectual property and patent portfolio is implemented is what will define the storage winners and losers, though.

The highest level objective is an optimal system design. In order to deal with the storage bottleneck, a converged storage subsystem can make the difference in how a storage system supports workloads, yet still plug into existing storage estates. That the internal elements of the storage system that deliver that optimal system design are 'proprietary' does not matter – the system is providing highly optimised performance

as a peer member of an overall storage architecture.

Proprietary within a standard environment

Within a virtualised or cloud-based system, such a solution can still be abstracted and managed as a single resource set – it is just that as workloads are handed to the systems, the intelligent software comes to the forefront and ensures that the servicing of the workload is managed efficiently and effectively.

As a result, vendors can deliver proprietary technologies and implementations that bring different approaches in to play that provide solid value to their customers without the customer becoming locked-in. The vendor can focus on the creation of a single, holistic system that includes all the required hardware and software, tuned to carry out the specific tasks that are needed to store and manage data more efficiently and cost effectively than a solution based upon disparately sourced off-the-shelf components.

Using new approaches

Within this space, Quocirca is seeing different flash storage approaches that move away from the concept of a disk drive completely; the use of different internal storage interconnects; and the use of specialised software that acts to manage different workloads across single and multiple systems.

Yet, the storage system itself still appears as completely standard to the world around it. Plug the system into the existing IT platform and it appears as a standards-based or 'commodity' storage device: it still acts as a LUN (logical unit number) as far as applications are concerned; it can still be backed up and managed via familiar processes. However, the system is quietly getting on with its job – outperform other, more 'commodity' storage systems that appear similar at face value.

Therefore, Quocirca's advice is to forget about the intricacies of what is hidden inside the box. It is the real-world performance and management that matters – look at real performance figures (not just raw IOPS, as this is meaningless in itself – if those IOPS can't be transferred to the server due to poor system interconnects and badly written software, then what's the point?). Carry out a proof of concept (PoC) – take some of your own workloads and run them against your shortlisted systems. See how well or badly they run; look at the ease or complexity of workload and storage management; ensure that at an abstracted level, the shortlisted systems will be manageable in a way that does not lose any of the performance gains you are getting at the physical level.

Do things differently – embrace proprietary

Ensure that the intelligence and capabilities that have been introduced into the system at the intellectual property level do not mean that specific and specialised external approaches are required – this is vendor lock-in, and still needs to be avoided. However, do not confuse this with solutions whose internal implementation is simply delivering 'a better mousetrap' through unique intellectual property.

True innovation can only be achieved through doing things differently – being afraid of innovation will ensure that your organisation will remain an also-ran. Embrace innovation and the performance and competitive advantage that will really help your organisation perform in its markets.

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Violin's All-Flash optimized solutions accelerate breakthrough CAPEX and OPEX savings for building the next generation data centre. Violin's Flash Fabric Architecture (FFA) speeds data delivery with chip-to-chassis performance optimization that achieves lower consistent latency and cost per transaction for Cloud, Enterprise and Virtualized mission-critical applications. Violin's All-Flash Arrays empowered by our enterprise data management software solutions enhance agility and mobility while revolutionizing data centre economics.

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Quocirca is a primary research and analysis company specialising in the business impact of information technology and communications (ITC). With world-wide, native language reach, Quocirca provides in-depth insights into the views of buyers and influencers in large, mid-sized and small organisations. Its analyst team is made up of real-world practitioners with first-hand experience of ITC delivery who continuously research and track the industry and its real usage in the markets.

Through researching perceptions, Quocirca uncovers the real hurdles to technology adoption – the personal and political aspects of an organisation's environment and the pressures of the need for demonstrable business value in any implementation. This capability to uncover and report back on the end-user perceptions in the market enables Quocirca to advise on the realities of technology adoption, not the promises.

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