



EMC Announces the Big “V” — *Invista* Storage Virtualization Platform

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EMC made a big splash with the announcement of *Invista*, its new block storage virtualization platform. It will be generally available in the third quarter of this year. The press gave it a lot of attention, and it provoked various reactions from competitors. It also raised questions for enterprises: *What is Invista - really? Where would it fit in the evolving world of enterprise storage?*

The V-Word

You may remember the 1980s TV series “V”, in which aliens posing as humans came to take over the earth. Well, *block storage virtualization* (the other V-word) has a similar though benevolent premise. *Invista*’s virtualization layer “poses” as a simpler version of the underlying physical storage, which can consist of multiple, diverse arrays and storage tiers. Virtualization hides the complexity and loosens the rigidity. Host servers running business applications see a single, dynamic, easy-to-work-with storage pool. Changes and additions are non-disruptive. Administrators have a central point of provisioning and management. *Invista* also offers universal point-in-time copy and non-disruptive migration services. That is, they encompass qualified storage arrays and host servers.

In “taking over” the storage environment, so to speak, virtualization simplifies and adds value to it. It squeezes out capacity and management costs and, most importantly, creates a tighter link between storage and business. That is why the industry in general is so focused on storage virtualization. While the TV series “V” was apocalyptic science fiction, the storage “V” offered in *Invista* is a real technology that helps take storage into the future.

Where *Invista* Fits

The question of where *Invista* fits can be answered from three perspectives.

Technical – How Does It Work?

Invista fits in the SAN between servers and storage. It employs an “out-of-band” architecture, which separates control and data path processing. The data-path software component runs on intelligent switches from Cisco, Brocade, and eventually McData. The management (or control-path) software component runs on a clustered server connected to the switches. *Invista* is designed to be inserted into existing environments, as opposed to a major upgrade and reconfiguration. It is also built for scale,

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and EMC is targeting large-scale enterprise environments with it. List pricing starts at \$225,000, which includes software, switch hardware, and management server.

Tactical – What Can It Do For Me Now?

Invista fits as a solution for simplifying volume management, migrating data non-disruptively, and providing heterogeneous copy services. The purview of Invista's volume management, copy, and migration services includes all connected (and supported) storage arrays and servers. A central point is easier to administer, as opposed to doing it for each server and/or array. Storage capacity - in multiple arrays - is also more readily allocated and used. Migrating data without disrupting application access is useful for equipment upgrades, load balancing, and moving data between storage tiers as its value changes with time. The latter activity is part of information lifecycle management (ILM). These are all valid tactical reasons to consider Invista.

Strategic – Where Will It Take Me?

Virtualization is one of a few technologies that will play a particularly important role in the future of enterprise storage. Think of it as part of the foundation of a building under construction. The big concepts of ILM and utility computing will dominate the final structure, and storage virtualization is a key enabler of both. ILM is a strategy for dynamically managing data over its lifecycle, from creation to deletion, as its value changes over time. It seeks to optimize service levels and cost along the way. Virtualization makes it easier to implement storage tiers with different service-level characteristics and allows more flexibility (i.e., heterogeneity) in building them.

Utility computing is a shared, adaptable, service-oriented infrastructure. Think of a water or electricity utility where consumers turn it on, use what they need, and pay accordingly. It is so hassle-free and ubiquitous that people take it for granted. Similarly, utility computing envisions IT, including storage, as a real-time service

instead of a rigid box.¹ Virtualization is a necessary technology for embedding utility characteristics into a storage infrastructure, especially in a large-scale environment.² So, if ILM³ and utility computing⁴ are on your agenda, consider Invista to support them.

Conclusion

Invista, like any technology on the early side of the adoption curve, takes some imagination to appreciate fully. So, look at it from all angles.⁵ Technically, it is a network-resident, heterogeneous storage virtualization platform for large-scale environments. Tactically, it brings simpler, broader management, migration, and copy services. Strategically, it can facilitate and speed steps toward ILM and utility computing. If these three line up with your enterprise's requirements – all the wood behind the arrow, so to speak – then it is good reason to consider Invista.



¹ For a broader discussion of virtualization, see **The Clipper Group Explorer** dated September 8, 2004, entitled *Understanding the Role of IT Virtualization – It's a Matter of Architecture*, available at <http://www.clipper.com/TCG2004074.pdf>.

² See **The Clipper Group Explorer** dated June 20, 2004, entitled *Stepwise to Utility Computing – A Pragmatist's Approach*, available at <http://www.clipper.com/TCG2004053.pdf>.

³ See **The Clipper Group Explorer** dated May 11, 2004, entitled *Top 10 Things You Should Know About Information Lifecycle Management* and available at <http://www.clipper.com/research/TCG2004041R.pdf>.

⁴ See **The Clipper Group Explorer** dated October 31, 2003, entitled *Shining the Light on Utility Computing – A Business Perspective* and available at <http://www.clipper.com/research/TCG2003057.pdf>.

⁵ See **The Clipper Group Explorer** dated May 13, 2005, entitled *Top 10 Buying Considerations for Disk Storage Virtualization* and available at <http://www.clipper.com/research/TCG2005028.pdf>.

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