

STORAGE SWITZERLAND BRIEFING NOTE

BRIDGING THE VDI STORAGE ROI GAP - VIRSTO ANNOUNCES A VDI ADDITION



George Crump, Senior Analyst

Dealing with storage issues within the virtualized server and desktops is always a challenge. These virtual infrastructures often push the capabilities of most storage systems to their limits. [Virsto](#) is a developer of storage software that improves the performance and utilization rates of storage systems within virtual environments. As we noted in a [briefing note earlier this year](#) Virsto has been delivering advanced storage intelligence and improved hypervisor integration for HyperV environments for over a year now. Recently Virsto briefed Storage Switzerland on their latest edition which is focused on the virtual desktop environment; Virsto VDI. The first release of Virsto VDI works in XenDesktop and Microsoft VDI environments.

Virtual desktops create their own set of unique problems for the data center and the storage systems that support them. First, virtual desktop I/O patterns are potentially more random than virtual server I/O patterns and the I/O tends to be more write intensive. There is also a much bigger gap between peak and average IOPs in the virtual desktop environment compared to the virtual server environment. This means that to meet intermittent

performance spikes, morning boot storms for example, you have to buy a high end storage system or suffer through bad performance, and user complaints, for certain parts of the day.

These challenges often delay the move to or limit the scope of the virtual desktop project. High end storage that can address the I/O spike are not cost correct for the virtual desktop environment during the rest of the day. This creates a gap between cost and performance that requires a lot of faith in hope for operational efficiency gains for the VDI return on investment (ROI) to make sense. The gap is so bad that it has even led virtual desktop software providers to recommend using local storage instead of shared storage, something that is not popular with the IT staff. In the end the IT manager is faced with an odd circumstance of virtualizing users who were using the least expensive storage in the enterprise (desktop and laptop hard drives) and centralizing them on the most expensive storage (high performance enterprise SAN).

Virsto VDI seems ideally situated to bridge the VDI Storage ROI gap by bringing enterprise class performance and capabilities to more cost effective Mid-Range disk array systems. As we discussed in our recent article "[Solving the Mid-Range Storage Challenge](#)" these cost effective arrays available manufacturers like Promise Technology or Nexas provide much if not all the reliability and performance of enterprise class systems at a significantly more affordable price point. The one thing they are typically lacking is a complete set of bundled software services. Virsto in the virtual infrastructure provides that intelligence and even goes further than what even enterprise storage systems provide as functionality.

First Virsto improves the hypervisor's and in most cases the disk array's ability to provide thin provisioning. Many system administrators have to hard provision to achieve acceptable performance. Virsto's vDisks can deliver all the thin provisioning functionality without the typical performance hit. This allows VM capacity efficiency to increase as much as 90%. Their unique approach to snapshot technology provides the ability to support hundreds of thousands of images, limiting the number of unique desktop images that need to be created and managed. This reduces the amount of storage required significantly and will drive down the storage costs of almost any VDI implementation because the move from local storage to shared storage is no longer a 1:1 storage buy.

Virsto provides this functionality across multiple storage hardware platforms, which means that storage can be bought according to the value that the hardware brings, not by the software features it may or may not include. Heterogeneous support should also reduce the amount of time spent having to learn and implement storage policies through a maze of user interfaces. Virsto VDI's most compelling new feature though may be its ability to provide storage tiering and do so again across heterogeneous platforms. This means that commonly accessed data can automatically be promoted to faster storage tiers like SSD. Makers and users of solid state storage systems that are looking for ways to leverage these ultra high speed devices in the virtual environment should be knocking down Virsto's door. We look forward to seeing the tiering capability rolled into the Virsto Virtual Server Infrastructure product in the future.

Storage Swiss Take

Virsto VDI has the potential to reenergize VDI projects that were stopped cold when the proposals started rolling in and storage costs became known. Now with Virsto and a quality mid-range storage manufacturer VDI projects can be deployed and actually achieve a hard cost ROI in addition to an operational ROI.

About Storage Switzerland

Storage Switzerland is an analyst firm focused on the virtualization and storage marketplaces. For more information please visit our web site: <http://www.storage-switzerland.com>

Copyright © 2011 Storage Switzerland, Inc. - All rights reserved