Case Study:

With V-locity™ virtual platform disk optimizer the cost difference is phenomenal.

The Chief Technology Officer of a large travel agency is in charge of the specialty and emerging markets which are running close to 350 servers both physical and virtual in their 4 data centers. He told us they use a pretty complex environment with 6 high-end Dell blade servers that host approximately 230 virtual servers in a 4-node active failover configuration using 2 EMC Clariion SAN's as the storage base.

He has been happy to give an endorsement for V-locity™ virtual platform disk optimizer and Diskeeper® performance software, and will be adding more licenses. As they process a million and a half dollars of business a day in credit cards, the computer systems have to be reliable. They have one full-time Data Center employee whose responsibility is to manage I/O response time. "V-locity is fabulous. We have seen a significant performance increase after installing Diskeeper working its magic on the 6 physical servers which each has 40 virtualized Windows 2008 R2 servers. It has been great!" reported the CTO.

The Challenge:

The agency has at least 200 virtual Hyper-V servers deployed at any given time. They have 2 EMC SAN's, a Clariion CX340b and a Clariion CX700, the CX700, which is fairly old technology, uses low-end 5400 RPM SATA drives, not the fastest drives around but very inexpensive – a 300 gig drive costs fifty dollars. They run 240 of these drives.

A mini-experiment was run and they discovered that the V-locity product allowed them to put the majority of the virtual servers on low-cost, low-end drives while continuing to get the same performance out of them that they had been getting out of a high-end fiber channel 15,000 K drive. This was due to the disks at both the host & guest level being so optimized by V-locity. This change reduced storage costs by literally hundreds of thousands of dollars.

The IT staff had to do some specialized configuration on the EMC so that the throughput could be maximized at the hardware level, but that was reasonably easy to do. They were concerned with the fact that during the virtualization of the VHD files, a lot of those servers use

dynamically expanding files for disk space reasons and conservation primarily. With V-locity, instead of putting virtual machines on $550 disks they were able to put them on $50 disks. The cost difference was phenomenal.

The Solution:

A large fiscal budget was allocated for procurement of the higher performance drives because of the slow systems and as the virtual servers were not performing up to expectations. The CTO figured a unique way to leverage the licensing costs to alleviate the $300,000 worth of new hardware needed. The cost difference between SATA drives and fiber channel drives is very big. A SATA drive is 50 to 75 dollars. For a 300-gig fiber channel drive they were paying $900 - a huge difference

A re-configuration was done on the SAN with V-locity deployed on both the host and guest level. The average response time went from 50-60 milliseconds down to less than 5 milliseconds. The V-locity solution was more than satisfactory and everything was performing much, much better.

Diskeeper corporation

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