

Healthspan Maintains Fast Speed on ERP and Artwork Repository and Eliminates User Complaints with V-locity Throughput Acceleration Software



Healthspan has relied on ConduSiv Technologies to help optimize their infrastructure performance since 2005. Despite being supported by Nimble hybrid storage arrays, at both their Head Office and nearby datacenter, their massive amounts of data still must reach storage, meaning that I/O can still be an issue. This is why V-locity® continues to play an essential role in accelerating throughput, extending hardware lifecycles, and keeping users happy and productive at Healthspan.

CHALLENGES

- Increase in workload and I/O demands causing performance degradation
- Large art repository being accessed by users
- Infrastructure performance needs to be optimized for business continuity

V-LOCITY BENEFITS

- 50% or greater application performance improvement, with no additional hardware
- Latency and throughput dramatically improved
- True “set and forget” management
- Compatible with all SAN/NAS systems
- Easily deploy to largest virtual, physical or cloud environments
- Before-and-after performance reporting to validate performance gains
- Enterprise-wide visibility into I/O performance, from VM to storage

THE CUSTOMER

Healthspan is the UK's leading home shopping supplier of vitamins, minerals and health supplements. Based on the Channel Island of Guernsey, Healthspan offers pure, pharmaceutical-grade vitamins and supplements, at permanently low prices, direct to customers' doors. From vitamins and supplements, to Elite nutrition for professional athletes, to skincare, supplements for pets and even delicious, nutritious food and drinks, Healthspan has a product for every health need. The company has ambitious plans to transform into a Multichannel International Digital Business. In addition to their own call center and website, they also sell via Boots, Holland and Barrett, Superdrug and other High Street stores, and online marketplaces including Amazon and eBay.

THE CHALLENGE

Healthspan heavily relies on their Microsoft Dynamics NAV ERP (enterprise resource planning) solution to efficiently run their business. The IT team recently brought their NAV servers back in-house after being hosted in the cloud and are now solely responsible for ensuring performance is top notch. That, in addition to peak performance of their 6-terabyte artwork repository server, is essential in keeping all departments at Healthspan running smoothly.

“We have a file server holding years and years of all the artwork created by our design studio. If a user wants to pull out a large artwork file, the less fragmented it is and the fewer I/Os that you can get the file in, the better,” said Chris McArdell, Director of IT Support of Healthspan, Ltd.

The rest of the business also has other critical applications and quite a large amount of file and print demands that, if running slow, will cause user complaints to arise. Because fragmentation can cause file access time and applications to slow over time, Chris needs to make sure his systems are continuously running with the fastest data transfer rates and throughput speeds possible for those users.

In addition to best optimizing performance for his users, Chris is tasked with ensuring I/O is as efficient as possible for replication purposes. “Because we’ve got our computer room here and we’re connected to a data center down the road, having less I/Os will be very beneficial during heavy replication and the moving of large files from site to site, in turn, helping with business continuity,” explained Chris.

“We don’t get any issues with the servers because of V-locity maintaining that high level of performance and stopping our hardware from degrading over time.”

CHRIS MCARDELL
DIRECTOR OF IT SUPPORT
HEALTHSPAN, LTD.

ENVIRONMENT

- Key applications: MS Dynamics NAV 2017 (ERP business solution)
- Servers: HPE DL360 Gen10
- Hypervisor: VMware vSphere 6.7
- Storage: HPE Nimble Hybrid SAN
- Network: iSCSI

V-LOCITY FEATURES

IntelliWrite[®] automatically prevents split I/Os from being generated when a file is typically broken into pieces before write and sequentializes otherwise random I/O generated by the “I/O blender” effect.

IntelliMemory[®] intelligent caching technology caches active data from read requests using only idle, available server memory.

“Time Saved” Benefits Dashboard shows ongoing benefit of the software by revealing the amount of I/O offloaded from storage and how much time that saves.

Benefit Analyzer[™] embedded benchmark provides before/after performance comparisons prior to installing V-locity and after.

[Download a 30-day evaluation >>](#)

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THE SOLUTION

ConduSiv is known for making Windows servers faster and more reliable with our “Set It and Forget It”[®] software-only solutions. Diskeeper, for physical servers and V-locity, for virtual servers, easily and automatically solve the storage I/O inefficiencies that penalize performance and cost peace of mind.

No matter the underlying storage, the Windows file system will tend to break up writes into separate storage I/Os and send each I/O packet down to the storage layer separately causing I/O characteristics that are much smaller, more fractured, and more random than they need to be. In a virtual environment, the I/O blender effect comes in to play, mixing and randomizing I/O streams coming from the different virtual machines on that hypervisor, causing I/O contention. This means systems process workloads about 50% slower than they should on the typical Windows server because far more I/O is needed to process any given workload. This has been found to be the cause of a multitude of Windows performance problems.

First, the software eliminates small, fractured, random I/Os, and replaces them with larger, fewer and more efficient sequential I/Os, so more payload is carried with every I/O operation. Second, the software establishes a tier-0 caching strategy by using idle, available DRAM you already have to serve hot reads. As a result, the software regularly provides 30 to 40 percent faster data transfer speeds, eliminating a host of Windows performance problems.

THE RESULTS

After years of running Diskeeper, and now V-locity, Healthspan has only seen great results with the software. Chris mentioned, “We don’t get any issues with the servers because of V-locity maintaining that high level of performance and stopping our hardware from degrading over time.”

In a 30-day test of running the software, Healthspan found that 34% additional storage I/O headroom (extra IOPS capacity) is being handed back to the environment for use with additional workloads and the combined storage I/O time saved on their 42 servers was over 78 days.

Even with the company’s Nimble hybrid storage arrays providing multiple layers of speed, the data still must reach storage and therefore, I/O is still an issue. V-locity ensures that the data is retrieved with the fewest I/O operations, ensuring maximum optimization and lightening performance when combined with Nimble storage. “We would certainly get complaints from users if file access time and applications are slow. Luckily, they’ve never really run slow thanks to Diskeeper and V-locity always running on our systems,” said Chris.

In addition to the clear performance benefits, Chris and his team also enjoy that V-locity is easy to administer and doesn’t require a reboot when installing or upgrading. Chris explained, “We have some machines that people get quite nervous about rebooting. Also, our business runs from 8am-8pm, so if we had to reboot servers, we would have to schedule it outside of business hours or do it during business hours, which would greatly interfere with the users.” Chris continued, “The ‘Set It and Forget It’ functionality is great. I simply dip into the Management Console every few weeks, just to satisfy myself that everything is ticking over nicely. And the extra reassurance from the ConduSiv Engineers during our free, periodic review sessions gives us the confidence that we’re getting the right info out of the Console.”

Chris concluded, “And you can’t argue with the dashboard report data, V-locity definitely does what it says on the tin!”