

# Licensed Trade Charity Saves Valuable Time and Reduces Costs with Diskeeper and V-locity Throughput Acceleration Software



When the Licensed Trade Charity had a problem with fragmentation on their physical servers, causing IT headaches and user complaints, they looked to ConduSiv Technologies. The quick installation of Diskeeper® resolved all of their performance-robbing fragmentation issues overnight. Then when the evolution of virtual servers came about, it only made sense for the organization to continue its partnership with ConduSiv and deploy V-locity.

## CHALLENGES

- I/O-intensive applications and performance-robbing fragmentation on SQL and Exchange servers
- User complaints about slow delivery
- Non-profit with limited resources

## 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

Established in 1793, the Licensed Trade Charity helps pubs, bar and brewery workers when they are in need of practical, emotional and financial support. They have established several commercial operations and investments that generate the income needed to fund their charitable work, including three independent schools.

## THE CHALLENGE

The Licensed Trade Charity’s most I/O-intensive servers were causing performance-robbing fragmentation. The performance degradation, specifically on their Exchange and SQL servers that run MIS, CRM, and other critical applications, was proving to be a massive load to handle for the network and tech support teams.

The organization, running a charity and three schools, has over 1500 end users that are operating those systems. “We’d get continual complaints from users relating to slow email access, poor performance when switching between other Exchange functions like calendars or group mailboxes, slow client access to front-end interfaces of high-performance database systems, and more,” said Adrian McGarry, Chief Information Officer previously of Licensed Trade Charity (Now Managing Director of Ascot London Consulting Limited). Not only would the team have to spend time making sure to keep users happy and efficient, but they would also have to battle with the vendors of the systems that sit on those servers about poor performance.

Adrian and his team found out about Diskeeper and put it to the test on their Exchange servers. After the immediate improvement that they saw on those servers, they were made aware of the inclusion of Diskeeper working on SQL-based applications and applied that to a couple of their underperforming SQL servers. They saw yet another immediate and massive impact on those servers. Diskeeper was optimizing the organization’s storage I/O traffic and increasing the efficiency of their servers so much that during their virtual migration period, they started the discussion with ConduSiv about V-locity® for virtual servers.

“Simply put, V-locity saves us and our users time. In a non-profit, this resource is very valuable.”

**ADRIAN MCGARRY**  
CHIEF INFORMATION OFFICER  
LICENSED TRADE CHARITY

## ENVIRONMENT

- Key applications: MIS, CRM
- Servers: SQL, Exchange
- Hypervisor: Hyper-V
- Storage: HPE Nimble (SSD/Flash/SAS)
- Network: Fiber Channel

## 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 that 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 success with Diskeeper on their physical servers, it made sense for the Licensed Trade Charity to consider V-locity for its virtual servers. “When the evolution of virtual servers came about, we were told about V-locity. We decided to try it, which proved to make a considerable performance difference on our virtual servers,” said Adrian.

In a recent 30-day data collection period, the Licensed Trade Charity discovered that the presence of V-locity on 58 of their servers is providing a significant storage I/O time savings of 12 days per server, on average. This represents the amount of time that the storage didn’t have to spend processing the excess, unnecessary I/O traffic. V-locity is able to eliminate this traffic from having to go to storage and back due to the way it increases storage I/O density, requiring fewer I/Os and allowing for faster data transfer rates. “We have found that ConduSiv’s help in analyzing our systems and advising us of further optimizations that we can make to the RAM caching, especially, has been invaluable.” Adrian continued, “And each updated release of the software has continued to improve over the years, with new features and technologies that keep up with and complement the evolution of our servers.”

As the organization is currently migrating over to their new Nimble storage, Adrian reflected on the money saved, thanks to V-locity eliminating 25% of that storage traffic from having to go to the storage layer. “When we were looking at our options, we didn’t have to overprovision our investment in hardware, reducing our costs even further.” He continued, “We look forward to our ongoing relationship with ConduSiv and seeing how well our new Nimble storage solution performs with our entire load moved over to it.” The 25% reduction in energy used across our whole fleet of servers, virtual systems and desktops is exceptional. Adrian concluded that “V-locity has certainly added so much benefit to every technology that we’ve brought in and has saved us and our users loads of time. I have already recommended the software to many others in the industry and will continue to do so.”

**We Make Windows Servers Faster and More Reliable**