FAL Remediation and Improved Performance for MEDITECH

Condusiv's MEDITECH-tailored software solution is chosen by more MEDITECH hospitals due to its proprietary technology that remediates the FAL growth issue, prevents file fragmentation from occurring, and boosts electronic health record performance by 50% or more without additional hardware.

Condusiv's fragmentation prevention and DRAM caching software contains an additional technology called "MediWrite™" that optimizes behavior specific to the MEDITECH platform. MediWrite monitors files for extreme cases of NTFS file fragmentation that could severely impact server and storage performance once the File Attribute List (FAL) reaches its maximum size limit and causes unnecessary downtime to resolve. MediWrite takes special action on these files to mitigate the problem. Traditional defragmentation processes will actually cause the FAL to grow in size, making the problem worse.

Condusiv's MediWrite feature is in DymaxIO® (for virtual and/or physical servers), V-locity® (for virtual servers), and Diskeeper® Server (for physical servers) product lines and is the only technology that should be used in these situations since it includes unique programming that can defragment the FAL without causing FAL size growth. This FAL safe file movement is an industry first. Additionally, a new engine was added to handle the extreme free space fragmentation found in these cases. Like the above, it also supports the FAL safe file movement technology.

Moreover, by resolving any existing fragmentation and preventing any new fragmentation from occurring in real-time, performance penalties and downtime risks are resolved. MediWrite also has the option to automatically alert users when a FAL size issue is detected, so it can be resolved immediately.

Plus, for those instances where the FAL size needs to be reduced, only DymaxIO, V-locity, and Diskeeper provide an offline FAL reduction utility for reducing the FAL-IN-USE size. This utility allows reduction in minutes rather than hours needed for traditional methods.

MEDITECH Speaks Out on Fragmentation and Condusiv Software

MEDITECH Service Bulletin:

A significant number of MEDITECH customers have faced extended, unscheduled downtime due to excessive NTFS fragmentation. In each case the presenting symptom was widespread job errors due to an inability to write to the database. In each of these cases the root cause was determined to be that an NTFS structure called the File Attribute List (FAL) had reached its size limit. Among other things, the FAL stores information about the disk fragments that constitute a file. If an NTFS file, folder, or $MFT (an internal NTFS structure known as the Master File Table) becomes critically fragmented, the FAL limit of 256KB may be reached and the structure can no longer be grown. This means that NO more data can be added to the file which results in the application (i.e. EHR systems) failing until resolved which can require a long period of system downtime. Not what users want!

MEDITECH Service Bulletin:

"MEDITECH endorses Condusiv's I/O reduction software, DymaxIO, V-locity and Diskeeper, for their ability to reduce disk fragmentation and eliminate File Attribute List (FAL) saturation. Because of their design and feature set, we have also observed they accelerate application performance in a measurable way. MEDITECH requires a defragmentation program for all 5x and 6x customers. We are pleased that Condusiv has continued to enhance their solution and their products are strongly recommended." (*V-locity and Diskeeper are now DymaxIO)

Mike Belkner
Associate VP, Technology

Condusiv's I/O reduction software for virtual and physical servers prevents NTFS fragmentation from occurring in real-time at the Windows file system layer which boosts MEDITECH application performance by eliminating excessively small writes and reads and protects against unscheduled downtime with the only industry engine that can remediate FAL growth issues that occur within the MEDITECH application due to severe file fragmentation. To boost performance even further, Condusiv's solutions include a DRAM caching engine to serve hot reads dynamically from idle, available DRAM to further reduce I/O to underlying storage.

MEDITECH Customers Speak Out on DymaxIO and V-locity Performance

Hundreds of MEDITECH hospitals have deployed Condusiv software to accelerate their electronic health records (EHR) performance while also resolving downtime risk related to the peculiarities of NTFS file fragmentation within the MEDITECH application. Below are summaries of two published case studies from MEDITECH users who deployed DymaxIO and V-locity.

CHRISTUS Health Deploys DymaxIO and Doubles Electronic Health Record Performance

CHRISTUS Health virtualized their MEDITECH servers and noticed significant performance loss related to the "I/O blender" effect from the mixing of I/O streams down through the hypervisor that brought about a massive increase in performance-penalizing random I/O traffic. CHRISTUS was looking at a $2-million storage purchase to improve application performance. After deploying DymaxIO acceleration software, I/O traffic was reduced so significantly that they doubled performance and cancelled the $2-million storage purchase.

"Condusiv's DymaxIO didn't just double the productivity of our patient care without adding new hardware, it enabled us to save on the bottom line and reclaim a storage budget that a ballooned since we virtualized." – Tom Swearingen, CHRISTUS Health

Hancock Regional Hospital Deploys V-locity to Solve Critical Performance Issues

Hancock Regional was getting complaints from hospital staff about the performance of their MEDITECH EHR application. Ryan Barker, Technology Specialist, was looking at a potential rip-and-replace of their entire EMC SAN architecture to boost performance. After hearing about excessive NTFS file fragmentation that leads to severe performance degradation, he turned to MEDITECH support which is where he first heard about V-locity. After conducting an evaluation, V-locity reduced I/O so significantly that it tripled performance.

"The time it took to compile a list of patient records wasn't fast enough for us. With V-locity, that time has been drastically reduced, which is a major improvement when you're talking about a busy day in the ER." – Ryan Barker, Hancock Regional Hospital.
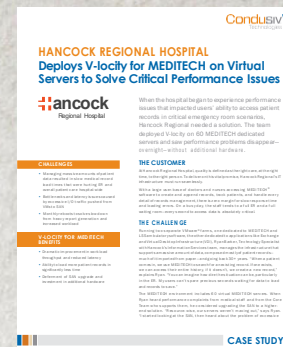
About Condusiv

Condusiv® Technologies is the world leader in software- only storage performance solutions for virtual and physical server environments, enabling systems to process more data in less time for faster application performance.

*V-locity and Diskeeper are now DymaxIO. Visit our Products page for more information.

More Information

www.condusiv.com
To speak with a product specialist:
Call toll-free 800-829-6468.
Please visit our Contact Us page.