

Midwest Pain Institute

PROFILE



Industry
Healthcare

Corporate Headquarters
Carmel, Indiana

Employees
20

Web Site
<http://www.midwestpain.net>

THE NUMBERS

- Five offices
- 20 concurrent users
- Zero in-house IT staff
- 41% reduction in support requests

IN BRIEF

Objective

- Free staff from IT burden
- Improve backup and disaster recovery
- Deploy on-demand expansion capabilities
- Improve information security
- Enhance office productivity, application performance

Solution

- Outsource IT function to Solutions Healthcare Management and its virtualized datacenter
- Migrate Allscripts EMR and other business-critical applications to virtual infrastructure
- Next step: desktop virtualization

Business Impact

- Doctors and staff focus on patient care, not IT problems
- Reduced datacenter infrastructure costs 40 percent
- Reduced system incidents by 84 percent
- Desktop virtualization projected to cut desktop costs up to 35 percent
- Improved security of patient data
- Improved ability to expand, integrate remote offices

Multi-office Medical Practice Frees Physicians with Hosted Virtual Environment from Solutions Healthcare Management

"In medicine, you try to cure headaches. Having our systems hosted in Solutions Healthcare's virtualized environment is easy on our office staff, saves us hardware dollars and minimizes our own IT headaches."

— Dr. William L. Hall, Midwest Pain Institute

Midwest Pain Institute (MPI) specializes in minimally invasive diagnosis and treatment of back-and spine-related pain. The practice has grown since 2002 from two Indiana offices to five, including corporate headquarters in Carmel. MPI's staff of 20 includes physicians, medical assistants and administrative staff. With insurance reimbursements decreasing and operational costs rising, the practice always seeks to streamline workflows and increase efficiency.

The Challenge: Costly, Failure-Prone In-House IT Systems

One troubling source of inefficiency was MPI's IT infrastructure. Running its systems in-house on physical servers, MPI constantly had to deal with power outages, drive failures and capacity shortfalls. On one occasion, loss of scheduling data left office staff in the dark about who was coming in that day, and why – information they had to reconstruct from paper charts. Backups were a challenge; MPI backed up to tapes, which instead of being stored offsite often sat vulnerable next to the servers whose data they copied. IT functions were handled either by MPI staff – diverting them from their core jobs – or by costly onsite consultants. In addition, every desired system upgrade brought new capital costs and more headaches. Mission-critical applications such as Allscripts Practice Management (PM), Allscripts Electronic Medical Records (EMR) and Sage Peachtree accounting remained vulnerable to service interruption.

Concurrent with a move to a new office, MPI considered how to improve its technology infrastructure.

"We wanted to reduce our IT costs and use the resources to better our practice," recalls MPI physician William L. Hall. "We need resilient, high performance systems but I don't want to have to worry about building and managing them. I'd rather spend my time doctoring."

For assistance, MPI turned to its trusted vendor Solutions Healthcare Management, which for seven years had provided MPI with billing and practice management services. A VMware partner based in Indianapolis, Solutions Healthcare runs a division devoted exclusively to the information technology needs of medical practices – Cloud Proven Networks.

Jeff Bills, vice president of IT at Cloud Proven Networks, identifies four key technology goals MPI presented: improved backup and recovery; on-demand expansion capabilities; robust information security; and improved application uptime and performance.

"They'd struggled throughout the years trying to bring down servers, replace hard drives, re-image systems, and upgrade capacity," Bills recalls. "They wanted to set themselves up so they wouldn't have to reinvest funds every three years trying to

"In medicine, there's a misconception that virtualization is about cramming a bunch of stuff onto a single server to save money. Virtualization does save money, but it can also be used to improve the resilience and performance of mission-critical applications."

Jeff Bills
Vice President of Information Technology
Cloud Proven Networks

rebuild and upgrade their systems as the practice grows. They also wanted to protect their data across multiple offices."

The Answer: Cloud Proven Virtualized Datacenter

It was clear to Bills that to accomplish its goals, MPI needed to virtualize. "They were not going to achieve disaster recovery and high availability cost-effectively any other way," he says. In response, Solutions Healthcare provided hosting at its Indianapolis datacenter, migrating MPI systems to a secure, multi-tenant cloud environment virtualized on the VMware platform.

"We've tested Xen, we've worked with Microsoft Hyper-V, but we use VMware as our platform because of its enterprise feature set," Bills says. "VMware brings it all together for us to build secure, robust environments for mission-critical systems. We have a variety of medical customers – pain management, internal medicine, dermatologists – using our platform to reclaim their own time and space for seeing patients."

VMware solutions at work in the datacenter revolve around VMware vSphere™, whose High Availability (HA), vMotion, Fault Tolerance (FT), Distributed Resource Scheduler (DRS) and Distributed Power Management (DPM) features deliver reliable uptime and optimized power consumption. VMware vCenter Server centrally manages the virtual environment, while VMware vCenter™ AppSpeed provides system monitoring. VMware vNetwork® Distributed Switch simplifies virtual machine networking. VMware Capacity Planner supports capacity planning. VMware Storage vMotion and VMware vStorage Thin Provisioning simplify storage management. Solutions Healthcare also uses VMware VShield™ and VMware VMsafe® APIs to protect MPI data security. VMware Data Recovery provides disk-based backup and recovery – putting an end to MPI's days of lost data.

"When you're looking at Tier 1 applications like Allscripts, the challenge is in providing enough day to day resource elasticity to the application along with a dynamic path for future expansion," Bills says. "In a physical environment, it's very difficult to do this while addressing needs for disaster recovery, backups and high availability. A VMware-based virtual environment makes it easier. Being hardware-agnostic, you can restore systems in other locations on dissimilar hardware; the environment takes that layer of the operating system and makes it functional to move and restore offsite. Virtualizing the storage makes it easier to copy and replicate data, because you don't have to deal with physical devices. It's overall a more robust and lower cost solution."

The Results: Lower Cost, Better Performance, Future Growth

By moving to the Cloud Proven hosted solution, MPI cut its datacenter expenses 40 percent. Costs are predictable and the practice no longer has to buy, refresh or manage its own hardware. Faster, more reliable application performance keeps the office humming efficiently. Doctors access data quickly, patients don't have to wait for service and the practice can maximize the number of patients it serves. Incorporating new offices as the business grows will be a simple matter of bringing them into the virtual environment.

For further gains, MPI is looking into desktop virtualization with VMware View and thin clients. This promises to reduce bandwidth costs, which can be particularly high at the practice's remote locations; speed up access to desktops; and cut overall desktop costs up to 35 percent, including hardware, power consumption and management. Desktop virtualization also opens doors to streamlined workflows and greater staff mobility through the use of iPads and other portable devices.

"The virtualized environment brings us expandability, data-loss protection, high performance and the ability to focus our own attention on caring for patients."

Dr. William L. Hall
Midwest Pain Institute

"In medicine, you try to cure headaches," says Dr. Hall. "Migrating our systems to Solutions Healthcare's virtual environment cured our own IT headaches. I'm not worried anymore about system failures or how we'll accomplish our next upgrade. I'm free to be a doctor."

IMPLEMENTATION OVERVIEW

VMware Products:

VMware vSphere™ 4
 -High Availability (HA)
 -Fault Tolerance (FT)
 -vMotion
 -Distributed Resource Scheduler (DRS)
 -Distributed Power Manager (DPM)
 VMware vCenter™ Server
 -AppSpeed
 VMware VShield™
 VMware VMsafe® APIs
 VMware Data Recovery
 VMware Capacity Planner
 VMware Storage vMotion®
 VMware vStorage Thin Provisioning
 VMware vNetwork® Distributed Switch

Applications:

Allscripts Practice Management (PM)
 Allscripts EMR
 Sage Peachtree Accounting
 IMail
 Microsoft SQL

Platform:

Solutions Healthcare Management datacenter:
 SuperMicro servers
 Dell Compellent storage
 Xsigo virtual I/O
 Arista Networks switches with Arista vEOS Distributed Virtual Switch
 Palo Alto Networks firewall