



Customer Snapshot

About CompuTech City

Founded in 2002, CompuTech City (CTC) provides IT infrastructure management services with a primary focus on Healthcare Information Technology (HIT). Their services encompass the planning, optimization, integration and management of customer-premises infrastructures; healthcare-oriented cloud computing; and a wide range of medical services such as billing, transcription, and a software-as-a-service (SaaS) Electronic Medical Records (EMR) solution hosted in the company's own data center. Headquartered in Orlando, Florida, the company employs over 400 people in the U.S. and India.

For more, visit:
www.computechcity.com

A Virtualized Storage Infrastructure for Healthcare Customers

DataCore's SANsymphony™-V Storage Hypervisor Supports Virtualized Data Center

CompuTech City provides IT infrastructure management services with a primary focus on Healthcare Information Technology (HIT). When the company expanded its services to include a software-as-a-service (SaaS) Electronic Medical Records (EMR) solution, they found that their existing storage solution was not up to the challenge. Adopting DataCore's SANsymphony-V storage hypervisor to support their virtualized data center not only gave CompuTech City the availability, scalability, and performance that HIT demands, but helped launch them as a DataCore value-added solution provider to the healthcare industry.

Customer-Centric Health Information Technology

HIT makes extraordinary demands on a computing infrastructure. In addition to providing the reliability and availability doctors and patients demand, healthcare systems must comply with the stringent privacy requirements of the Health Insurance Portability and Accountability Act (HIPAA). Since its inception, CTC has focused on developing its own state-of-the-art infrastructure and facilities as well as providing the design, implementation and management of such facilities for customers, whether they comprise three or 300 workstations.



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- Dave Patel, chief operating officer at CTC

Getting Storage Virtualization Right, with Painless Migration

CompuTech City was an early adopter of storage virtualization technology, but after the company deployed its EMR solution two years ago, the shortcomings of their existing solution became more and more pressing. CTC's number-one requirement was high availability: it was essential that if there was a failure in one node, the I/O be re-directed to the other node seamlessly – something the previous solution could not do. "We had a lot of feature and support issues with our previous storage virtualization solution," notes Dave Patel, chief operating officer at CTC. "And it was not very scalable. We were eager to get rid of it."

Research led CTC to DataCore SANsymphony-V. The company had already built a robust server virtualization infrastructure around Citrix XenServer and Dell MD-Series direct attached

storage (DAS), so SANsymphony-V's ability to create a storage virtualization environment from existing equipment and storage devices made it a "no-brainer."

"There was nothing else out there on par with DataCore," says Patel. "It has every feature that we needed in a storage hypervisor, with seamless failover and failback. With all the sophistication you could ask for, it's still easy to deploy and use. As a software-based solution for storage virtualization, we consider DataCore to be unmatched – a fantastic product all around."

DataCore now serves as the cornerstone of CompuTech City's SaaS model for its healthcare users. The company's EMR solution, with DataCore at the heart of the virtualized environment, currently supports 800 users. At least 100 doctors connect to the system on a daily basis in order to schedule their patients, to review and update their medical records, as well as to bill them.

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Furthermore, DataCore's pass-through functionality made migration completely painless by sparing the CTC IT team from re-copying terabytes worth of data. "The non-disruptive migration that DataCore's pass-through feature gave us was a godsend," says Patel. "We were back up and running with a very, very limited amount of downtime."

Easy to Manage Availability, Performance, Scalability, and Flexibility

CompuTech City currently has five Citrix XenServer hosts supporting 35 virtual machines, backed by over six TB of virtualized storage presented as virtual disks or LUNs by two DataCore SANsymphony-V servers in a redundant "active-active" configuration. The system delivers high availability, improved performance, tremendous storage hardware flexibility, and effortless scalability.

Onsite synchronous mirroring between the two DataCore servers provides the high-availability and business continuity demanded by HIT customers. For additional data protection, CompuTech City also intends to deploy asynchronous mirroring (remote replication) for offsite back-up.

Since installing DataCore's software, CompuTech City has had a number of planned outages to support hardware refreshes and upgrades such as changing the Fibre Channel cards, and each time the system has failed over without incident or disruption to business. "The great thing is that with DataCore running we don't have to wait

for a weekend to make system changes. We simply shut one side down and the redundant system takes over seamlessly without any interruption to service – all during business hours."

DataCore's high-speed Level-1 caching has significantly improved the performance of CTC's virtualized environment. Patel is now seeing storage I/O speeds of 270-300 Mbps, double what the company got before, a difference he describes as "astronomical."

Patel also lauds the flexibility and scalability of SANsymphony-V. "DataCore has given us enormous flexibility in terms of hardware independence," he states. "Our DELL PowerVault MD 1000 and MD 3000 combination comprise sixty disks in total – thirty on one side and thirty on the other. Beyond that we have a real mix of SATA drives. For us the flexibility has been fantastic: I can throw any disks under the system without any degradation in performance or availability, so we can use all the disk drives we have and choose the best storage hardware deals for expansion."

Both a Customer and a Value-Added Provider of DataCore Solutions

All these capabilities are easily managed via the simple, intuitive SANsymphony-V management console, which any system administrator can log into through CompuTech City's VPN. Moreover, through remote desktop services (in this case, GoToMyPC) Patel has also been able to provision virtual disks (or LUNs) on the fly – he has even done so using his iPhone!

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This management simplicity is making it easy for CompuTech City to bring the benefits of storage virtualization to its infrastructure and cloud computing clients as well. "We were fascinated by what DataCore brought to us as a customer and quickly realized that its capabilities are vital to the vertical market we serve – even if the concept of a highly available SAN might be new to our customers," says Patel. "The benefits of software-based storage virtualization are just too numerous for us not to bring DataCore SANsymphony-V into our established client base and into new accounts as we move forward."

CompuTech City's experience is typical of an increasing number of service providers in a variety of industries, who adopt DataCore for their own operations and then offer it to their customers as part of a managed service or cloud computing solution. As Patel sums it up, "I reached out. I learned a lot about the product. We became certified as implementation engineers by DataCore. And now CompuTech City is not only a user, but we are a value-added reseller too."

For more information on storage virtualization, please visit:
www.datacore.com

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