DATACORE™

CompuTech City

A Virtualized Storage Infrastructure for Healthcare Customers

DataCore SANsymphony™ Software-Defined Storage Supports Virtualized Data Center

ABOUT THE CUSTOMER

Founded in 2002, CompuTech City (CTC) provides IT infrastructure management services with a primary focus on Healthcare Information Technology (HIT). Its 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 Health Records (EHR) 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.

CompuTech City (CTC) 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 Health Records (EHR) solution, its existing storage solution was not up to the challenge. Adopting DataCore SANsymphony software-defined storage solution to support its virtualized data center not only gave CompuTech City the availability, scalability, and performance that HIT demands, but helped launch the company 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 that healthcare providers and patients demand, healthcare systems must comply with the stringent privacy requirements of the Health

> "There was nothing else out there on par with DataCore. It has every feature that we needed in a software-defined storage solution, with seamless failover and failback.
>
> 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.
>
> – Dave Patel, Chief Operating Officer Computech City

computechcity.com

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.

GETTING STORAGE VIRTUALIZATION RIGHT, WITH PAINLESS MIGRATION

CompuTech City was an early adopter of storage virtualization technology, but after the company deployed its EHR solution two years ago, the shortcomings of the existing solution became 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 redirected 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 replace it."*

Research led CTC to DataCore SANsymphony software-defined storage. The company had already built a robust server virtualization infrastructure around Citrix XenServer and Dell MD-Series direct attached storage (DAS), so SANsymphony'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 software-defined storage solution, with seamless failover and failback. With all the sophistication you could ask for, it's still easy to deploy and use. In software-defined storage, 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 EHR 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 patients, to review and update medical records, as well as for billing .

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 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."*

IT ENVIRONMENT AT-A-GLANCE :

- **DataCore Managed Capacity:** 16 TBs

- **Number of Users:** 800 users

- **Number of Physical Servers:** 15 Physical Servers

- **Number of Virtual Servers (VMs):** 60 VMs

- **Primary Server Vendor:** Dell

- **Storage Vendor:** Dell

- **Server Virtualization Platform:** Citrix

- **Desktop Virtualization Platform:** Citrix

Patel also lauds the flexibility and scalability of SANsymphony. *"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 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!

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-defined storage are just too numerous for us not to bring DataCore SANsymphony into our established client base and 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."*

ABOUT DATACORE

DataCore is a leader in software-defined storage. The company's storage virtualization software empowers organizations to seamlessly manage and scale their data storage architectures, delivering massive performance gains at a fraction of the cost of solutions offered by legacy storage hardware vendors. Backed by 10,000 customer sites around the world, DataCore's adaptive and self-learning and healing technology takes the pain out of manual processes and helps deliver on the promise of the new software defined data center through its hardware agnostic architecture.

datacore.com

For additional information, please visit datacore.com or email info@datacore.com

DATACORE

0418