



Surgical Parts Manufacturer Becomes more Agile with MTI



Overview

A 30 year old privately held corporation committed to just one thing: providing the finest quality products and educational services to meet the special needs of orthopaedic surgeons and their patients. New product innovation in arthroscopic surgery is the heart and soul of this company, which has resulted in the development of over 5,000 products for arthroscopic and minimally invasive orthopaedic surgical procedures. The German subsidiary of this company was looking to upgrade its IT infrastructure and deploy a Disaster Recovery (DR) solution to increase the availability of its data and ultimately maximise the performance of its storage infrastructure.

With 24/7 data access requirements, this company is heavily reliant on its ERP, CRM and email systems; performance and availability are therefore of paramount importance to the team.

The Challenge

Although the existing SAN storage environment was working fine, the IT team considered future business requirements. Lead by the Director of Information Services, the group set out to source an even more reliable and better performing storage environment that would free up some of their previous time and ultimately make them more productive.

Throughout the selection process a key criterion was ROI, even though – because of the nature of their business and the demands of its IT environment – the solution would need to be second to none and offer the performance, flexibility and scalability to easily implement new systems. To add to the brief, the company had also deployed a redesigned version of their ERP solution that required much more performance than was originally available; a revamp of its storage infrastructure was the key to meet future needs.

The Solution

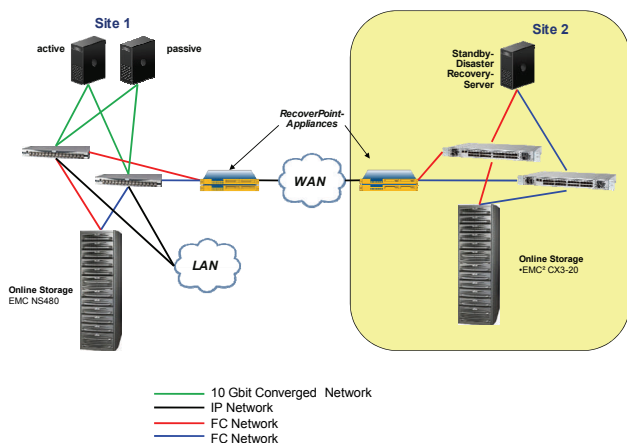
The IT team created a very thorough brief that including data availability and flexibility, a deep knowledge of EMC technology and extensive pre and post-sale support. The solution would also need to be innovative and feature state-of-the-art technology.

Long-term storage partner MTI was found to tick all the boxes and was enlisted to help the surgical parts manufacturer achieve its objectives. The integrator designed and implemented a high-spec solution that included:

- An EMC NS480 unified storage system with enterprise flash drives (EFDs) to deliver optimal performance to meet the demands of their ERP system (in high-performance environment EFDs are about 14 time faster and have better TCO and ROI as traditional 15,000 rpm hard disk drives). The ERP system administrator is now relieved from any tuning tasks and can concentrate on strategic improvements of the application.
- EMC RecoverPoint as the core of the new DR strategy. Within the IT infrastructure RecoverPoint replicates data from the new EMC Celerra NS480 unified storage system to the existing EMC CLARiiON CX3 UltraScale array and delivers not only replication but also continuous data protection (CDP) and bandwidth management. Any operation can now be rolled back between to physically separated datacenters in minutes.

Like many others this surgical parts manufacturer follows the trend to server virtualization. The majority of the organisation’s physical servers are already virtualised and have been moved to a frame within the VMware ESX server with only a small number of systems, for example the main ERP system, that still runs on native Windows 2008 servers. Server virtualization is based on the VMware vSphere 4.0 Cloud operating system. The ESX server providing the vSphere 4.0 Cloud requires good network and storage connectivity. Therefore between six and eight Gigabit Ethernet and two Fibre Channel connections are typically required to provide the I/O channels. This means that the cost of cabling and active components within the virtualized system is high.

Historically the surgical parts manufacturer had implemented a “classic” SAN solution consisting of two separate networks, one for data traffic and the other for storage. Construction of a new datacenter for improving disaster recovery led this surgical parts manufacturer to look at new technologies for datacenter connectivity. MTI recommended converged networking (FCoE) i.e. one 10Gb Ethernet connection for both data and storage connectivity. This solution would be built around the improved ability of the Cisco Nexus 5010 switches combined with the QLogic QLA815x CNA adapter to offer better ROI and TCO than a conventional networking solution. By implementing the FCoE-technology the surgical parts manufacturer no longer requires a dedicated NIC or HBA per server to connect to the LAN and SAN and so it now has fewer ports to support. As a result less physical cabling leads to significant savings as well as lower management efforts.



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The Solution continued...

Server virtualisation with VMware vSphere 4.0, Cisco converged networking Nexus and EMC Unified Storage NS480 are the key components of the Virtual Computing Environment (VCE). Based on the industrywide initiative VCE by the leading suppliers VMware, Cisco and EMC this new datacenter infrastructure gives customers proven state-of-the-art technology. With these elements in place the surgical manufacturer is now poised to host its own private cloud computing infrastructure. The VCE implementation offers the surgical manufacturer a better ROI than its previous conventional and independent infrastructure.

Thanks to its knowledge and expertise MTI delivered on all points, to the point that the surgical parts manufacturer now has virtually eliminated the need for day-to-day management. The MTI Professional Services team also supported the customer during data migration from the existing EMC CX3 storage to the new NS480

As a separate project MTI also implemented WAN optimisation for remote offices to access centralized data based around technology by Riverbed. The surgical parts manufacturer relies on a WAN to connect its headquarters in the USA to its European office in Germany and various branch offices worldwide. Historically all the surgical parts manufacturers branch offices were equipped with small file- and mail servers. The operating costs for these remote offices were therefore high as the main costs associated with the remote offices are those associated with service and management of those small servers

By implementing the Riverbed technology it is possible for some offices to remove the local server and have the user data migrate to the HQ, the Riverbed technology allows the users to work with the same data and the data access performance is similar to that which was accomplished with the previous local server. The benefit of the migration of the data to the HQ is a much lower operating cost – ROI for implementing the Riverbed solution was mere months, but more importantly the IT department is able to deliver an improved QOS.

In its Munich office, the surgical parts manufacturer has about 200 notebook users. The Riverbed mobile client technology is ideal as it increases dramatically the quality of IT services and access for mobile users and by doing so the surgical parts manufacturer has optimized WAN connectivity out to the remote laptop users.



The Benefits

Thanks to the innovative design by MTI, the new environment supports all core business IT systems and has allowed the surgical parts manufacturer to optimise the performance of its ERP system without any tuning changes. It has also simplified the cabling, thanks to the use of converged networking (FCoE) So although the customer's existing storage environment was performing well, new business needs had evolved and MTI has allowed the surgical parts manufacturer to step up the performance and agility of the new infrastructure.

"The nature of our business demands that our IT environment is second to none and offers the performance, flexibility and scalability that allow us to easily implement new systems. Although our legacy storage environment was not failing, our needs had evolved and MTI has given us a more reliable and better performing storage environment that has ultimately made my team more productive."

"MTI impressed us with its experience and skills, and the overall quality of its field engineers. The team also delivered on all points as since installing the new system we have virtually eliminated the need for day-to-day management."

Director of Information Services at the surgical parts manufacturer

About MTI

MTI is a leading international provider of consulting services and comprehensive information infrastructure solutions for mid to large-size organisations. With more than 20 years of expertise as a storage technology innovator, MTI is uniquely qualified to assess, design, implement and support whole-office data storage and backup initiatives. MTI enjoys strategic partnerships with industry leaders. MTI offers the best data storage, protection and management solutions available today. By employing a strategic, consultative approach, MTI provides customers with a single point of contact that eliminates complexities while delivering operational efficiencies and competitive advantages. More information is available at www.mti.com.

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