SAINT LUKE’S HEALTH SYSTEM
Transforming IT into a service provider with EMC and VMware

OVERVIEW
Saint Luke’s Health System is a healthcare network of 11 hospitals and related health service providers that has served the Kansas City region since 1882. A recipient of the prestigious Malcolm Baldrige National Quality Award, Saint Luke’s relies on IT as one of its fundamental enablers of excellence.

BUSINESS CHALLENGE
In recent years, the health system accelerated adoption of electronic health records (EHR), resulting in exponential expansion of its IT infrastructure. This growth was accompanied by higher IT management costs and complex, time-consuming EHR log in procedures for employees.

Roger Zaremba, chief technology officer, Saint Luke’s Health System, explains, “IT had the typical structure of people building servers, storage, and networks as an end to itself. There wasn’t a clear understanding of how technology aligned to the requirements of clinicians and administrators. So we needed to fundamentally change the way IT services were delivered to continue achieving innovation and excellence at Saint Luke’s.”

SHARED PRIVATE CLOUD SERVES AS FOUNDATION FOR TRANSFORMATION
To enable IT transformation, Saint Luke’s built a shared private cloud, replacing its HP enterprise storage and EMC network-attached storage with EMC® VNX® unified storage. Using VMware® vSphere™, the health system has virtualized more than 50 percent of its server environment. Saint Luke’s also uses Citrix XenApp for application virtualization and Citrix XenDesktop for desktop virtualization.

Saint Luke’s private cloud supports Microsoft SQL Server, Microsoft Exchange, McKesson electronic health records (EHR), Geac’s SmartStream financials, Kronos human resources and payroll, among other applications. For secure employee remote access to company applications, Saint Luke’s relies on RSA® Adaptive Authentication. Saint Luke’s also uses EMC Centara® enterprise information archive and EMC SourceOne™ Email Management for Microsoft Exchange. EMC PowerPath® is implemented for automated data path management.

“While virtualization and consolidation are important enablers, we also looked at people and process to bring more focus on the needs of clinicians and hospital administrators,” Zaremba reflects. “With our new optimized core and ecosystem, we provision resources quickly and cost effectively while achieving very high availability and performance.”
He continues, "We essentially deliver services anytime, anywhere via a clinical thin terminal, iPad, or virtually any device. Simplifying access is critical to increasing adoption of EHR, making us more efficient, and providing the best experience for our caregivers and patients at the point of care."

ALIGNING SERVICE DELIVERY WITH BUSINESS NEEDS

By implementing private cloud and adopting an information technology infrastructure library (ITIL) framework for IT service management, Saint Luke’s has created a more service-oriented approach to delivering IT. In addition, IT regularly meets with internal business groups to better understand their requirements.

A key part of this is defining services in terms business groups understand and relating those definitions to specific units of infrastructure. Business services are now defined as EHR, Revenue Cycle, email/collaboration, and desktop, among others. Technical services, such as security, networking, backup, and storage as service, enable the business services.

“We’ve reorganized our organizational structure and how we categorize services so our customers can better understand the service’s function, value, costs, and service levels,” notes Zaremba. “Storage or server administrators also are no longer defined by stove-piped roles. Instead, they’re part of an integrated team that delivers business services, such as EHR. It’s a cultural shift of aligning services and job functions with the business.”

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Roger Zaremba
Chief Technology Officer at Saint Luke’s Health System

CUTTING STORAGE COSTS BY HALF

With the agility enabled by VNX storage and virtualization, IT is able to quickly build business services and better control resource allocation and costs.

“In our role as service provider, we must accommodate customer requests quickly and efficiently,” Zaremba says. “The question is no longer how many servers or how much storage, but rather how to meet business needs for performance, availability, and security. By leveraging EMC and VMware technologies and aligning IT with the business, we provision new systems in two days instead of 30 days. Our next step is to refine the process so that customer self-service is available.”

Saint Luke’s resource allocation model also provides visibility to users on service costs. “We now can show our customers that they’re consuming our services at a lower cost-per-unit,” reports Zaremba. “We’ve flatlined storage costs and spend half what we did five years ago.”
SIMPLIFIED ACCESS AND IT ADMINISTRATION
In its quest to simplify user access to IT resources and streamline IT administration, Saint Luke’s is leveraging EMC, VMware, and RSA technologies.

"Internal secure system log-in used to take up to 45 seconds," says Zaremba. "Virtualizing the environment from desktop to server has given us a significant competitive advantage. Users just tap their badges onto the barcode and three seconds later, they are in. Similarly, remote log-in also used to take 45 seconds until we implemented RSA adaptive authentication to enhance our users’ experience."

Saint Luke’s IT also is benefitting from easier, more efficient IT administration. For example, EMC’s common interfaces to block, file, and archive storage have enabled unified, simplified management across diverse disk tiers.

Zaremba adds, "All EMC products are VMware-ready, so they fit perfectly in the virtualized world. It’s simple to snap volumes on and off and manage the storage. The VNX is so easy to administer that it’s saved us a lot of money and time that’s now put toward improving our clinical information systems and other services for our customers."

DIFFERENTIATION OF IT AS A COMPETITIVE SERVICE PROVIDER
Demonstrating service differentiation is essential for Saint Luke’s IT organization to compete effectively against outside cloud providers, like Amazon, providing web-based and other services to internal users.

“By redefining our services, we have the ability to measure ourselves, which enables our customers to recognize the value that IT brings to the table over external cloud providers,” says Zaremba. “We show how our services are easy to access and consume, and fast, secure, and cost-effective. We distinguish ourselves by understanding our customers’ healthcare workflows and priorities so we can make tangible improvements.”

“These IT advantages are essential to Saint Luke’s delivering excellent patient care and gaining real competitive advantages over other healthcare providers.”

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