



Plenty of Room to Grow: A Virtualized Health Record System Built to Scale

A Multistate Healthcare Provider Increases Availability for a High-performance End-user Experience

THE CHALLENGE:

A large healthcare system providing care in multiple states lacked appropriate levels of resiliency and an ability to effectively manage its physical hardware during a phase of routine acquisitions that entailed the absorption of other healthcare systems into its IT environment. It faced constant challenges running 17,000 concurrent connections on its Epic electronic health record (EHR) system.

The healthcare system's Epic® Hyperspace client was virtualized on Citrix® to allow doctors and administrators to access patient data from various devices, and the entire system ran on multiple servers in a bare-metal farm. This arrangement forced the IT department to spend an enormous amount of time and resources managing the system, with limited ability to realize the full physical utilization of its servers.

What's more, the low density of the network consumed an inordinate amount of rack space, adding costs amid budget constraints. The environment could not quickly expand and/or be refreshed, which was impacting the end-user experience. As a result, IT leaders at the healthcare system were struggling to meet demands with the existing infrastructure.

“The solution allows the client to rapidly add capacity and perform technology refreshes with less effort—providing an outcome that allows clinical and business staff a high-performance experience while increasing availability.”

—Josh Peacock
Sirius Healthcare Solutions Advisor

THE SOLUTION:

Consultants from the Sirius Healthcare Solutions practice assessed the client's existing environment, future needs, and budget constraints. They took into consideration such things as EHR requirements, as well as HIPAA and security regulations, and recommended a new platform with virtualized network functions (VNFs) for the organization's EHR system.

The solution allowed the healthcare system to trade complexity for simplicity and gain resilience points built into the virtualized environment. VNFs enable simpler maintenance and deployment, as well as easier redeployment of technology. To take advantage of the multi-core environment from Intel® processors, VMware® was used to optimize the Citrix virtual environment while also conserving server space. The new system allows greater end user density while also supporting new users across the network.

THE BENEFITS:

With its new virtualized system built on powerful Intel® Xeon® Scalable processors, the hospital system is now able to drive up density when adding new connections to Epic while also limiting physical consumption of space and gaining greater efficiencies in IT operation and costs. Other benefits include:

- Simplified deployment and maintenance
- Better end-user experience
- Better performance from Intel® Xeon® processors
- Ability to add more capacity as needed with standard, general-purpose infrastructure
- Support for organizational growth through acquisitions

Intel® Processors Drive Healthcare Infrastructure Solutions of the Future

The solution integrates the latest Intel® Xeon® Platinum processors for maximum density per blade. With 24 cores and 48 threads, these powerful processors are workload optimized to support data center and hybrid cloud infrastructures for high-demand applications. Advanced features are already built into the silicon, including Intel® Advanced Vector Extensions 512 for optimal performance, hardware-enhanced security to protect data and system operations, and Intel® QuickAssist Technology for speedy data compression and cryptography.



Sirius is a national integrator of technology-based business solutions that span the enterprise, including the data center and lines of business. Sirius' dedicated Healthcare Solutions practice provides an agnostic approach to addressing the unique challenges facing healthcare clients. Specifically, we support you through every step of the healthcare continuum and throughout the technology life cycle to improve quality of care, control costs, enhance security, comply with regulations, and extend reach to communities.

For more information on Sirius, visit www.siriuscom.com.



Copyright ©2018 Sirius Computer Solutions, Inc. All rights reserved.

Intel, the Intel logo, and Xeon are trademarks of Intel Corporation or its subsidiaries in the U.S. and/or other countries.

*Other names and brands may be claimed as the property of others.

© Intel Corporation