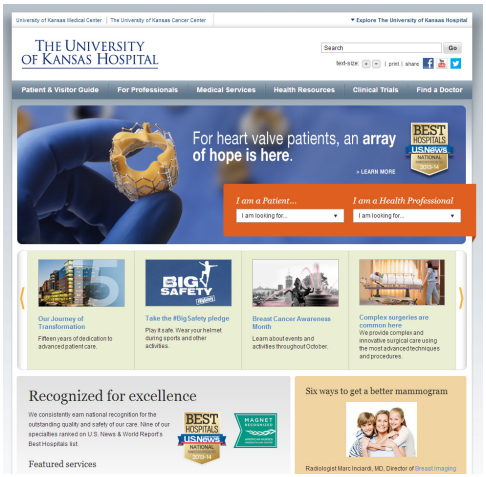
CASE STUDY

Premier Academic Medical Center Required Enterprise Level Server Load Balancing (SLB) Solution



Critical Issues:

- End of life for existing Server Load Balancing (SLB) equipment
- New Microsoft Exchange implementation

Results:

- Stellar performance and rock-solid enterprise SLB implementation
- Cost-effective solution for current and future needs
- Complete out-of-the-box solution
- Industry leading green networking for efficiency

THE UNIVERSITY OF KANSAS HOSPITAL

"The cost for 80 Gb of throughput was less than that of 24 Gb from another vendor, and we got 4 boxes instead of two, allowing us to provide a multi-site clustered solution that we frankly could not afford from the competing vendors. A10's port density alone allows us to remove DMZ switches, as we can provide load-balanced DMZ connectivity with some of the 1 Gb ports on A10 ADCs at each production site. This saves us an additional four switches."

Robert Rowland
Systems Engineer at The University of Kansas Hospital

Introduction

The University of Kansas Hospital is the region's premier academic medical center, dedicated to providing excellent service and compassionate, high-quality medical care. With approximately 5500 employees in 50 locations throughout Kansas, the hospital continues to bring a level of expertise to patient care that comes from leadership in medical research and education. The University of Kansas Hospital has ranked on U.S. News and World Report's Best Hospitals list for the past seven years with nine of its specialties, ranking among the nation's top 50. They are home to the largest Physician practice in Kansas, representing more than 200 specialties.

Enterprise Level Load Balancing Solution to Support Microsoft Exchange Implementation

With two data centers and two clusters of existing load balancing equipment coming to their end of life (EOL), the hospital required a proven solution to replace its existing Server Load Balancing (SLB) equipment and support the current corporate design to migrate away from GroupWise and implement Microsoft Exchange across its network. To maintain its current infrastructure and expand to MS Lync for video conferencing and voice services, as well as meet additional needs for virtualization and multi-tenancy in the future, an enterprise-level SLB solution was needed. After looking at a number of vendors, the hospital decided to test A10 Networks® Application Delivery Controllers (ADCs).

Application Delivery Controller for Advanced Server Load Balancing Offers Stellar Performance, Scalable Platform and All-inclusive Feature Set

The University of Kansas Hospital selected A10 ADCs to support its large-scale Microsoft Exchange deployment and to replace its EOL ADCs. In addition to performance tests providing stellar results, the hospital experienced absolutely no failures, no loss of connections, no end-user complaints and no performance problems after the implementation.

The University of Kansas Hospital's Application Delivery Landscape

Critical Issues:

Hospital coming to EOL for existing Server Load Balancing equipment and corporate initiative to migrate away from GroupWise and implement Microsoft Exchange instead.

Selection Criteria:

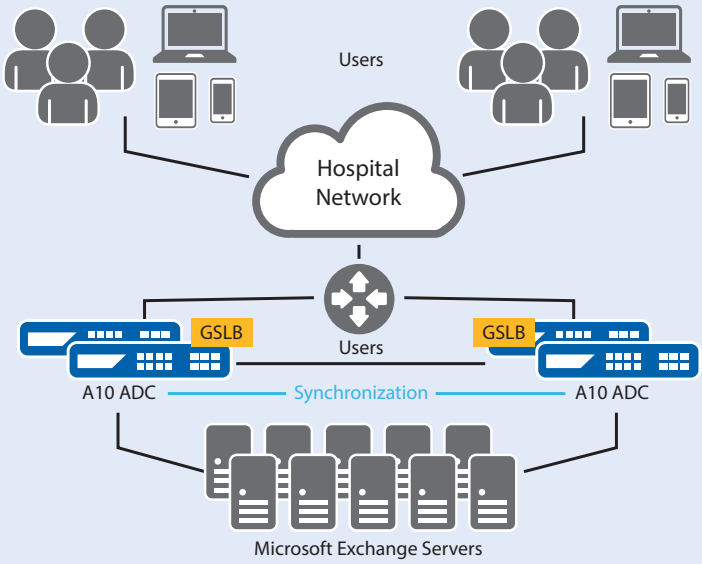
Complete out-of-the-box solution that met current needs and supports future growth. Increased application uptime and reliability along with ease of management adoption were significantly attractive.

Product Choice:

A10 Networks Application Delivery Controllers

Results:

Cost effective solution and increased product portfolio with differentiated options enable a scalable and reliable network environment.



A10 ADCs presented The University of Kansas Hospital the following significant differentiators:

Superior Performance and Carrier Class Hardware: The A10 ADC is a 1 Rack Unit (RU) mid-range ADC that delivers impressive performance with 19.5 Gbps throughput and 1.1 million connections per second, and includes flexible traffic ASICs (FTAs) to deliver high performance security features such as DDoS mitigation. Moreover, A10 ADCs' server-grade processor, reliable Error Correcting Code (ECC) memory and solid-state drive (SSD) delivers data center robustness that KU Hospital required.

Flexible and Scalable Architecture: All A10 ADCs run on A10 Networks Advanced Core Operating System (ACOS®), a 64-bit, shared memory architecture OS that provides maximum efficiency and scalability to enable multiple features simultaneously without performance degradation. All A10 ADCs include a wide range of virtualization technologies for flexible deployment, such as the ACOS Virtual Chassis System (aVCS®) for multiple device scaling, multi-tenancy with Application Delivery Partitions (ADPs) and software appliances running atop hypervisors for rapid deployment.

Ease of Deployment: A10's intuitive web-based GUI and industry–standard CLI provide flexible management options and easy deployment. In the future, when KU Hospital needs to roll out additional applications (for example, new medical applications), the staff can quickly roll out new deployments without additional training or unnecessary expenses.

No Licensing Model: All A10 ADC hardware appliances include all features and performance without licenses, ensuring no budget surprises and no need to purchase licenses during unforeseen peak loads. All innovative and advanced features are included, such as: Application Acceleration, Global Server Load Balancing (GSLB), Web Application Firewall (WAF), and aFleX® scripting; also included is aXAPI®, a REST-based Application Programming Interface (API) for management, which is unique within the SLB/ADC market. In addition, annual support costs are significantly lower than those of industry competitors.

Green Networking: A10 ADCs include four 10 Gbps ports to accommodate large throughput environments in a compact 1 RU appliance, ensuring no additional switches or ports are needed for Layer 2-3 connectivity needs. With A10 ADCs' out-of-the-box functionality, organizations such as KU Hospital eliminate additional costs associated with additional rack space or power usage.

Robert Rowland, Systems Engineer for The University of Kansas Hospital explained, "The cost for 80 Gb of throughput was less than that of 24 Gb from another vendor, and we got four boxes instead of two, allowing us to provide a multi-site clustered solution that we frankly could not afford from the competing vendors. A10's port density alone allows us to remove DMZ switches, as we can provide load-balanced DMZ connectivity with some of the 1 Gb ports on A10 ADCs at each production site. This has saved us an additional four switches."

Proven Performance and Reliability for Customer Satisfaction

KU Hospital's successful deployment of the A10 ADC was seamless and the performance proved to be reliable. A10 ADCs met the hospital's current requirements of an advanced server load balancing solution and far exceeded expectations for providing scalability, flexibility and cost effectiveness today and in the future. Robert Rowland continued, "With the results we have experienced, if there is a service in our network that can run on one or two physical IPs and if there is a benefit to virtualizing or running in multiple data centers, we are absolutely going to throw it at the A10s."

About A10 Application Delivery Controllers

A10 ADC is a scalable, high-performance Application Networking platform that delivers enterprises, Web properties and ISPs superior reliability and an energy efficient footprint for lower total cost of ownership (TCO). With A10 ADCs, customers of all sizes benefit from application availability, scalability and performance; increased infrastructure efficiency and a faster end-user experience. A10 ADCs have a comprehensive Layer 4-7 feature set and flexible virtualization technologies such as Virtual Chassis System (aVCS®), multi-tenancy and more for public, private and hybrid cloud environments. In addition, A10 ADCs lead in IPv6 migration technologies with many large scale deployments worldwide. A10 ADCs deliver industry-leading return on investment (ROI) by leveraging A10's 64-bit Advanced Core Operating System (ACOS), with a scalable shared-memory parallelism architecture that leaps the competition in scalability and flexibility.

For more information, visit: www.a10networks.com/products/application_delivery_controllers.php

About A10 Networks

A10 Networks is a leader in application networking, providing a range of high-performance application networking solutions that help organizations ensure that their data center applications and networks remain highly available, accelerated and secure. Founded in 2004, A10 Networks is based in San Jose, California, and serves customers globally with offices worldwide. For more information, visit: **www.a10networks.com**

Corporate Headquarters

A10 Networks, Inc
3 West Plumeria Ave.
San Jose, CA 95134 USA
Tel: +1 408 325-8668
Fax: +1 408 325-8666
www.a10networks.com

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Worldwide Offices

North America
sales@a10networks.com
Europe
emea_sales@a10networks.com
South America
latam_sales@a10networks.com
Japan
jinfo@a10networks.com
China
china_sales@a10networks.com
Taiwan
taiwan@a10networks.com
Korea
korea@a10networks.com
Hong Kong
HongKong@a10networks.com
South Asia
SouthAsia@a10networks.com
Australia/New Zealand
anz_sales@a10networks.com

To learn more about the A10 Thunder Application Service Gateways and how it can enhance your business, contact A10 Networks at: **www.a10networks.com/contact** or call to talk to an A10 sales representative.