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Arthur Braune, Manager of Information Technology, Sysmex America

Healthcare Company Achieves 99.999 Percent Availability for Microsoft Exchange Server 2010 with F5

Sysmex America develops clinical testing devices for the healthcare industry. To ensure business continuity and seamless communication among customers, partners, and employees, Sysmex must keep email systems highly available. The company employed the Application Ready Solution for Microsoft Exchange Server 2010 from F5 Networks® and as a result, has surpassed 99.999 percent email uptime. To ensure that the implementation followed best practices, Sysmex’s IT department used F5 deployment guidance, jointly developed with Microsoft, and has enjoyed superior support from F5 engineers. The solution provides Sysmex with cost-effective, centralized management and a flexible platform that it will expand to support other key systems.

Business Challenges

Sysmex America, based in Mundelein, Illinois, is the United States headquarters of Sysmex Corporation, a Japanese manufacturer of clinical testing devices and solutions for the healthcare industry. Sysmex relies on email to communicate with its customers (hospitals, clinics, test centers, and blood centers), suppliers, and key business partners. Employees rely on email to communicate information among research and development, production, marketing, and sales teams. Sysmex simply cannot afford downtime—email is the critical communications link that keeps business moving forward.

Sysmex relied on Microsoft Exchange Server 2003 for email until the IT department determined that it could benefit from an upgrade. Microsoft Exchange Server 2010 held great promise for improving employee access to unified email, calendars, and voice mail—from virtually any platform, browser, or device. Additionally, the newer version takes a unified approach to high availability and disaster recovery, helping IT departments achieve higher reliability.

High availability was the key driver behind the project, but Sysmex also wanted to ensure that its Microsoft Exchange Server

Overview

Industry

Healthcare

Challenges

- Ensure high email availability
- Simplify IT management

Solution

- F5 Application Ready Solution for Microsoft Exchange Server 2010
- BIG-IP Local Traffic Manager (LTM)

Benefits

- Zero downtime for email
- Ability to perform maintenance without disruption to users
- High confidence in best practices implementation
- Cost-effective platform for growth

2010 deployment would be easy to manage, monitor, and protect, so IT staff could spend less time troubleshooting and more time on strategic efforts.

Solution

Sysmex engaged Chicago-based Project Leadership Associates, a technology consulting firm, to review its design and implementation plan for Microsoft Exchange Server 2010. "Project Leadership said, 'the plan looks great, but Microsoft recommends Application Delivery Controllers for load balancing,'" recalls Arthur Braune, Manager of Information Technology at Sysmex.

Sysmex evaluated a range of application delivery and load balancing technologies, including F5® BIG-IP® Local Traffic Manager™ (LTM) from F5 Networks. "F5 beat the competition because it delivers more functionality for a comparable price. We saw it as a strategic investment that would support our growth." BIG-IP LTM is an intelligent, flexible solution that helps companies improve application performance, ensure availability, enhance security, and simplify management.

To ensure a smooth rollout, Sysmex took advantage of F5's Application Ready Solution for Microsoft Exchange Server 2010. The solution provides step-by-step guidance on deploying F5 devices with Microsoft Exchange Server 2010, including detailed configuration tips for optimized performance. With Exchange Server 2010, user access to email is managed by the Client Access servers, so the IT department can intelligently manage all of the company's Exchange Server traffic on its BIG-IP devices. Sysmex is using the Database Availability Group feature of Exchange Server 2010, which uses continuous replication to keep database copies up to date and to automate recovery from failures at the disk, server, or data center level. Sysmex takes

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advantage of the F5 solution to offload CPU-intensive Secure Sockets Layer (SSL) traffic from its Exchange Client Access servers to BIG-IP LTM. This frees up server resources, resulting in increased responsiveness and higher availability for users.

Benefits

Sysmex America uses F5 technology to enhance the availability of Microsoft Exchange Server 2010. Sysmex is very pleased with its F5 investment because of the performance it delivers, and because the company can extend the solution to support other areas of its infrastructure.

Zero Downtime for Email

Since deploying Exchange Server 2010 with BIG-IP LTM, Sysmex has experienced no unplanned email downtime. "We have achieved five nines [99.999 percent] of availability," says Braune. "The F5 solution helps us make the Exchange Server Client Access servers highly available. Users aren't frustrated with outages, and we can keep business on track with our customers."

The F5 solution also helps the IT department perform server maintenance without disrupting users. "The last time we did maintenance on the Exchange Server, no one even knew we had taken a server down," adds Braune.

Superior Support

F5's Application Ready Solutions, which include deployment guides, provide best practices for smooth implementations and optimized performance of applications, platforms, and enterprise service-oriented architectures from some of the world's largest software vendors. "We followed the F5 deployment guide exactly," says Braune. "The quality of F5 documentation, combined with the expertise of its support staff, made this deployment a very good experience. With F5, I get what I look for in a vendor—the ability to respond quickly and make things work."

The F5 deployment guide for Exchange Server 2010 was developed by F5 engineers working closely with Microsoft, and it delivers the best possible guidance to support a highly available and scalable deployment. "Thanks to F5, we have complete confidence that we are following Microsoft best practices in implementing a critical business system. To an IT department, that in itself is an immeasurable benefit," explains Braune.

Cost-Effective Platform for Growth

The F5 solution for Exchange Server 2010 is feature-rich and highly expandable. It provides IT departments with flexible options for systems management, tools for simplified troubleshooting, and step-by-step configuration guidance. "Everything we need is on one BIG-IP device," says Braune. "We considered a competitor's solution, but to get all that we have with F5, we would have had to invest in twice as many appliances, incurring unnecessary cost and adding complexity. The F5 solution provides a strategic point of control and better visibility into our systems. This simplifies security and troubleshooting. We would not have been able to create such a reliable Exchange Server environment without F5."

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