



“We require technology solutions that provide value—without going over budget. Since implementing BIG-IP solutions, we’ve seen that the benefits justify our investment.”

Walid Ayoub, Global Information Technology Director, Human Rights Watch

Human Rights Watch Ensures High Availability for Exchange 2010 with F5

Human Rights Watch is a nonprofit, nongovernmental organization with a global staff of professionals who investigate and promote human rights issues. The organization is known worldwide for accurate fact-finding, impartial reporting, effective use of media, and targeted advocacy, often in partnership with local human rights groups.

When upgrading to Microsoft Exchange 2010, the organization needed to ensure availability, security, and bandwidth efficiency. To support the upgrade and allow for future growth, the organization chose F5 BIG-IP Local Traffic Manager (LTM) and BIG-IP Global Traffic Manager (GTM) for application delivery, plus BIG-IP WAN Optimization Manager (WOM) for Database Availability Group (DAG) replication.

Business Challenges

One of the most critical applications for Human Rights Watch is email. For the 280-plus staff members working globally, email is the vital communication link that keeps the organization connected. “We cannot risk having email go down,” explains Amin Khair, Sr. Systems Engineer at the New York headquarters. “We have to keep in constant contact to stay on top of issues—which is why email is a top priority.”

Human Rights Watch built its email infrastructure around Microsoft Exchange 2003, with data centers in New York and Washington, D.C. Since 2005, the value of messaging and collaboration on the

platform has increased. “We reached the point where email being down for two or three minutes was unacceptable. We decided on the Microsoft Exchange 2010 platform to support clustering, and provide a more stable and redundant infrastructure,” says Khair. Although Human Rights Watch is a relatively small organization, their globally diverse users required technology that could bind all of their offices together, deliver high availability, and address bandwidth and disaster recovery issues.

During Exchange 2010 training, Khair was introduced to load balancing technology

Overview

Industry

Nonprofit, nongovernmental organization (NGO)

Challenges

- Avoid email downtime
- Secure sensitive data
- Improve bandwidth efficiency
- Ensure compatibility with Exchange 2010 technology

Solution

- BIG-IP® Local Traffic Manager™ (LTM)
- BIG-IP® Global Traffic Manager™ (GTM)
- BIG-IP® WAN Optimization Manager™ (WOM)
- F5 Support Services

Benefits

- Achieves higher email availability across data centers
- Improves data security
- Uses existing bandwidth efficiently through WAN optimization
- Provides for future integration and virtualization initiatives
- Leverages Microsoft business and technology partnership

and tools from F5 that could compress all of the bandwidth after locations are clustered. He also discovered they couldn't do Exchange Database Availability Group replication without having an additional network between the offices for which they'd be replicating—which is costly. "I learned the F5 solution allows the DAG replication if you've segmented or sub-netted your network—which is exactly what we did," says Khair.

Solution

With multiple data centers spanning the globe, Human Rights Watch needed a solution that could help ensure high availability for Exchange 2010. F5 had an Application Delivery Networking (ADN) architecture, as well as extensive experience integrating with Microsoft solutions. Khair realized that with this ADN architecture, F5 solutions could also be scaled out to support future application initiatives, such as deploying Microsoft SharePoint 2010.

Human Rights Watch purchased four BIG-IP LTM devices, two BIG-IP GTM devices for the data centers, and BIG-IP WOM.

BIG-IP LTM is an ADN system that provided intelligent load balancing and high availability for the multiple servers that host the Human Rights Watch Exchange environment. It enabled Human Rights Watch to monitor and control its distributed architecture for seamless application delivery.

BIG-IP GTM provided seamless disaster recovery and routing for its data centers based on quality of service or business criteria. It connected users to one of the two U.S. data centers, ensuring users are directed to the closest and best performing site.

For Exchange 2010 DAG replication and to overcome network and application issues on the WAN, Human Rights Watch used BIG-IP WOM. This ensures that application

availability, data replication, and disaster recovery requirements are met.

Human Rights Watch found F5 solutions to be the most sound, strategic deployment options—and they included detailed Microsoft application deployment guides. BIG-IP WOM also had an extra level of functionality that was not apparent in other vendor solutions they considered. It provided Symmetric Adaptive Compression and Symmetric Data Deduplication technologies that reduce traffic over the WAN, enabling faster mailbox replication. According to Khair, "F5 demonstrated their strategic relationship with Microsoft by providing comprehensive support for Microsoft applications, showing a clear background with Exchange and specifically DAG replication."

Benefits

With the BIG-IP system, Human Rights Watch saw immediate improvements in messaging and high availability. "In the past, if we needed to apply a patch, we would schedule downtime—and fear that something might go wrong," Khair says. "After testing BIG-IP, we felt comfortable. No one was affected by it—everyone is happy."

As a nonprofit, Human Rights Watch is budget-conscious, but a secure system is a necessity. "Usually organizations have a dedicated security person, but we can't afford that," explains Khair. "So we tend to go with an appliance or craft a solution ourselves. BIG-IP was what we needed—something dependable, secure, and well-tested—doing exactly what it's supposed to do."

According to Khair, BIG-IP WOM works perfectly for DAG replication by providing Symmetric Adaptive Compression. It also eliminates redundant duplication so Human Rights Watch can more efficiently use its existing WAN bandwidth. "BIG-IP WOM also

saves us time on DAG replication between remote offices; now everything happens in less than an hour," Khair adds. "Another vendor solution took up to 24 hours. Now we just let BIG-IP WOM do its magic."

Human Rights Watch leveraged the F5 Professional Services team to perform the BIG-IP LTM, GTM, and WOM installations, so Khair and his colleagues in IT didn't have to be trained on the technology. "The F5 engineer worked with us to ensure that the implementation supported our Exchange 2010 solution. We deployed in five days without disruption to our business operations. For me, that was impressive," says Khair.

"With any deployment, I judge its success by how many calls I get after it is done. And my phone didn't ring!" says Khair. Now Human Rights Watch just calls the F5 Customer Support team for fast and knowledgeable responses to their questions.

Adds Khair, "I have been in the IT business for 20 years, and can't recall any comparable project that went this smoothly. So far, everyone is happy—and we look forward to utilizing more of the functionality of F5 solutions in the future."

Human Rights Watch strives to devote the majority of its funding to the causes it supports. "We run a lean organization and require technology solutions that provide value," says Walid Ayoub, Global Information Technology Director. "The technology has to improve our efficiency. Since implementing BIG-IP solutions, we've seen that the benefits justify our investment."

With F5 BIG-IP solutions in place, Human Rights Watch has secured and optimized Microsoft Exchange 2010, while also positioning themselves for future needs.

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