



“The improvement in functionality, performance, security, and support with F5 has been outstanding. It’s difficult to compare the improvement because it’s just done so much for us.”

Brad Trankina, Director of Network and Information Systems, Human Kinetics

Human Kinetics Boosts Website Performance, Security, and Innovation with F5 Solution

Illinois-based **Human Kinetics** (HK) publishes print, online, and multimedia materials related to kinesiology. It hosts its own e-commerce website and nearly 40 other educational and storefront sites, which together get about half a million unique visits per month.

A year after its deployment, HK’s third-party network solution had become unstable, was inflexible and difficult to support, and impaired performance, which led to significant downtime. HK replaced the solution with F5 BIG-IP Local Traffic Manager (LTM) and BIG-IP Application Security Manager (ASM). Since then, system performance has improved two to three times, downtime is virtually eliminated, and the system provides far better security and access control.

Business Challenges

After several years of custom-building and individually supporting the websites it hosts, HK decided it needed a change. “Two years ago, we deployed a content management system so we could build and support sites much more efficiently,” says Brad Trankina, Director of Network and Information Systems at Human Kinetics. The new CMS also allowed users to upload content, so HK needed to protect its systems and users from potentially harmful content. “We wanted to provide better security and high availability to our sites, so we chose a combined application firewall and load

balancing device from a third-party vendor,” says Trankina. “We hoped the solution would also enable us to update and patch servers behind the devices so we could limit downtime.”

One of the first issues HK had with its previous solution was that it could not track users’ IP addresses. “Without the ability to customize code based on IP addresses, we couldn’t apply the correct currency to a user’s order,” says Trankina. “Eventually, the hosted sites were inundated with customer complaints because orders couldn’t

Overview

Industry

Publishing

Challenges

- Increase system performance and reliability
- Minimize downtime
- Improve application and data security

Solution

- BIG-IP® Local Traffic Manager®
- BIG-IP® Application Security Manager™

Benefits

- Improved performance by 2–3 times
- Cut downtime from about four hours per week to zero
- Eliminated eight hours per week in customer support calls
- Limited filtering of valid traffic

Partner



be processed without the correct currency information.”

While the third-party vendor promised that product updates would include new and better functionality, Stuart Lyons, Security Engineer at HK, says matters only got worse. “The updates caused unacceptably high latency, and the system became so unstable that it crashed a couple of times a week, causing up to four hours of downtime,” he explains.

Because the vendor’s offshore support wasn’t available 24/7, Lyons often had to come in during off hours for technical support. “The final straw for us was when they asked us to leave our system in a failed state for up to four hours so they could troubleshoot problems. Meanwhile, many of our sites were down and we were losing revenue,” says Lyons. The fastest resolution was to reboot both devices, but that cleared the logs and made it impossible to determine the cause of the failure.

Trankina adds, “The solution had become unworkable for us. The failures we had caused too many outages, affected customers in a negative way, and ultimately cost us business.”

Solution

HK has had a long-standing relationship with F5 partner **CDW**. It relied on CDW’s expertise to present comparable products and help evaluate all possible solutions. In March 2010, HK replaced its existing system with two F5 BIG-IP Local Traffic Manager Application Delivery Controllers and the F5 BIG-IP Application Security Manager web application firewall module.

The decision to go with F5 was not a difficult one. “In 2009, we evaluated F5 along with several other vendors. F5 was clearly the industry standard and our first choice, but at the time, our decision was driven by our limited budget,” says Trankina. Given the issues HK had with the previous solution, support was a primary factor in its decision. He continues, “We were extremely

“... F5 is pure enterprise-class. They really ‘get’ networking like no other vendor does.”

Stuart Lyons, Security Engineer,
Human Kinetics

impressed not only with the importance F5 places on support but with the excellent quality of service it provides, 24/7/365.”

Benefits

The F5 solution has exceeded HK’s expectations, providing better security, flexibility, and ease of management, and perhaps most importantly, improving reliability and performance for customers.

Improved flexibility and management

From an administrative perspective, the F5 solution provides a whole new level of system flexibility. “With our previous solution, we constantly ran into limitations. We often had to reengineer our network to adapt to those limitations, making it far more complex,” says Lyons. “With the F5 devices, we dropped them right in and they adapted to our network topology rather than us having to adapt to them. It was great.” He adds that the F5 devices provide far more granular information, so they’re much more flexible and configurable.

Improved reliability

Since deploying the F5 solution, HK hasn’t had any outages related to the F5 devices. “We are thrilled with the reliability of the F5 devices. Essentially we’ve had zero downtime with F5,” says Trankina, noting that with the previous solution, there were two to three outages per week, which amounted to about four hours of downtime.

HK didn’t realize until after deploying F5 that the previous solution had been blocking more traffic than it should have. “Users would get

an error message and the page wouldn’t load at all,” says Trankina. “We don’t have that problem anymore with the F5 solution; the system is completely reliable.”

Improved security

Lyons says HK’s entire approach to security has changed from that of keeping people out of the network to inviting them in. “With the F5 solution, we’re getting far fewer false positives, so we’re allowing more legitimate traffic,” says Lyons. “Because F5 enables deep packet inspection, we can tell exactly what is causing an error and know how to fix it.”

The previous solution provided only high-level, non-specific error reports, which made it difficult to pinpoint and correct problems. “F5 has really helped us become more aggressive in tuning our devices for our security needs and as a result, does a much better job of blocking bad traffic while allowing valid traffic,” says Lyons.

The F5 solution also enables HK to assign role-based access control. “Before, our programmers essentially had the same security profile as our customers, so it made it difficult for them to change code,” says Trankina. Now with F5, HK can assign roles to different groups—a vital feature that enables partners to make changes to their sites instead of having HK do it for them.

Enhanced user experience

Perhaps the most dramatic improvements are felt by customers. “Before, when legitimate traffic was being blocked, customers would get an error message and not be able to reach the site at all,” says Trankina. “Some customers would leave the site in frustration rather than wait 10 to 15 seconds for a page to download.”

Today, more customers reach the website and stay longer, and response time is two to three times faster—especially when users download rich-media streamed content, which accounts for about 60 percent of all downloads. “That dramatic improvement in performance and reduction in latency has

been especially important for international customers," adds Trankina.

HK also has the ability to track IP addresses now, eliminating the previous problems that prevented online purchasing. "Because our subsidiaries are now able to assign customers the correct currency, they can sell content on their sites, customer complaints have dropped, and revenue has increased," says Trankina.

Exemplary support

The F5 solution has helped restore HK's peace of mind. The IT staff no longer has to get up in the middle of the night two or three times a week to deal with system failures, and it has recovered at least eight hours a week it previously spent troubleshooting the blocked page complaints.

HK has high praise for the level and quality of F5's technical support. "F5 engineers' knowledge of their own as well as other vendors' products exceeds any consultants we've ever had on site," says Trankina. "Overall, the improvement in functionality, performance, security, and support with F5 has been outstanding. It's difficult to compare the improvement because it's just done so much for us."

Lyons sums up by saying, "Our previous solution would be good for a startup company in someone's garage whereas F5 is pure enterprise-class. They really 'get' networking like no other vendor does."

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