

Barbri

EXECUTIVE SUMMARY

Pulse Secure transforms data center networking with open, virtual, and automated solutions that empower organizations to maximize their investments for the New IP

Challenges

- Set up a new IT infrastructure from scratch in only two to three months
- Ensure availability of web sites with big traffic swings
- Update web sites for a more modern look

Solution

- Pulse Secure Virtual Traffic Manager virtual appliances for load balancing
- Tools for monitoring web server performance
- Time-saving routines created using TrafficScript customization language
- Great support
- Pulse Secure runs on common off the shelf servers based on Intel's x86 architectures

Benefits

- Ease of setting up Pulse Secure Virtual Traffic Manager virtual appliances helped meet transition deadlines
- Performance monitoring tools speed problem resolution; troubleshooting web server performance happens in minutes
- TrafficScript rules automate tasks that take hours to perform manually
- New web site rollout done with minimal site downtime

For Architecting a New IT Infrastructure and Web Presence in Less than Three Months, Pulse Secure Virtual Traffic Manager is the One Software-Based ADC That Can Do the Job

BARBRI Inc. is best known for its live and on-line bar exam review courses, which feature lectures by law professors on all of the major areas covered on the exam. To date, more than 1.2 million law school graduates have passed the exam with help from BARBRI. The company also offers other educational services, such as the Law Preview course that prepares students for law school, and courses leading to certification in areas such as financial crime investigation and e-discovery (the discovery of electronically stored information).

Challenge: Set Up Own Infrastructure; Ensure Reliable Web Site Performance

BARBRI was part of Thomson Reuters until April 2011 when it was sold to Leeds Equity Partners. BARBRI's IT infrastructure had been provided by Thomson, so after the sale the company's IT team had to quickly architect and deploy a new infrastructure. "We had a two- to three-month timeframe to get everything moved and working in our own data center," explains Greg Birdwell, infrastructure architect at BARBRI.

The infrastructure needed to support a number of public web sites, such as barbri.com (the bar review site), lawpreview.com (the law school prep site), aceds.org (the e-discovery site), and afcs.org (the financial crimes site). The bar review site gets the most traffic, with between 40,000 and 50,000 people logged in concurrently during peak periods.

The site's traffic fluctuates according to the twice yearly bar exam schedule. (All states administer their own bar exams, but on the same days across the country: the last Wednesday in July



Why Pulse Secure

“The Pulse Secure Virtual Traffic Manager does exactly what it’s supposed to do, and everything that we need it to do.”

— Greg Birdwell, infrastructure architect at BARBRI

and the last Wednesday in February.) “Usually our traffic peaks between April and July in preparation for the July test and then again between the end of November through February for the February test,” says Birdwell. “After the exam, traffic tails off and then gradually rises again.”

To handle this fluctuation cost-effectively, and to ensure an excellent user experience with the on-line review courses, Birdwell included load balancing in the infrastructure plan.

Solution: Pulse Secure Virtual Traffic Manager—a Virtual Appliance That Does More Than Load Balance

In the previous infrastructure, Thomson used F5 for load balancing. BARBRI chose the Pulse Secure Virtual Traffic Manager virtual application delivery controller (ADC) as a better alternative. “Cost was obviously one of the key reasons,” notes Birdwell. “Also, we liked the fact that the traffic manager is virtual, which meant it wouldn’t require having to go in and drop a bunch of different network lines and worry about network configuration and all that.”

The simplicity of the Pulse Secure Virtual Traffic Manager installation was important, given the tight time frame they were working under following the change of ownership. “There was no shipping time, as there would have been with a physical appliance,” Birdwell says. “Installing the software took about five minutes, and once it came up we were able to load balance something within an hour.”

In addition to load balancing, the Pulse Secure Virtual Traffic Manager includes other advanced functionality for application delivery control, such as content caching, tools for monitoring web server performance, and the TrafficScript customization language. These help the IT keep BARBRI’s web sites performing optimally.

Excellent Application Performance, Great Support, Faster Problem Resolutions

From Birdwell’s perspective, the reliability of the Pulse Secure Virtual Traffic Manager appliance means one less facet of the IT infrastructure to worry about. “The Pulse Secure Virtual Traffic Manager does exactly what it’s supposed to do, and everything that we need it to do,” he says. “The appliances haven’t had any performance-related issues at all. They just run. I don’t even have to reboot them to patch them.”

He is equally satisfied with the support. Early on, one of the company’s sites was causing some kind of overload on the pooling mechanism. “The company had a patch just for us within a couple of hours,” Birdwell says. “And I’ve had the same support person the whole time. He knows our system. So any time I shoot a ticket in or an e-mail over to him, he’ll answer right away.”

Birdwell saves time by using TrafficScript to create rules for managing application traffic, effectively automating tasks that used to be done manually. “Writing a rule eliminates a bunch of different steps that would normally have to be done,” he explains. Tasks that took hours to do manually, such as adding a new site, are now done in minutes, he adds.

He also values the performance monitoring and reporting functionality of Pulse Secure Virtual Traffic Manager, which saves time in troubleshooting. "If someone tells me a site is having a problem or doing something weird, I can use it to run some basic reporting and see what's going on, such as how many connections are coming in to the site or what the bandwidth is for that site. We can see exactly where a server might be having a problem." He says he troubleshoots problems in minutes that would take hours without this functionality.

Part of BARBRI's transition to new ownership has been to give its web sites a more modern look. (See barbri.com for an example of the new look.) Pulse Secure Virtual Traffic Manager was used here to minimize downtime during the transition. "We used it to do a quick server swap in the pool, so within two minutes, we had a brand new site," Birdwell says. "And we could reassure people that if they didn't like it, no problem. We could switch back to the old site just as quickly."

Summary

When BARBRI was sold to a new owner in 2011, the IT team had two to three months to architect and deploy a new infrastructure. To cost-effectively handle the company's fluctuating web traffic, and to ensure an excellent user experience with the on-line review courses, they included load balancing in the infrastructure plan and chose Pulse Secure Virtual Traffic Manager virtual application delivery controller (ADC) over the previously used F5.

The ease of the Pulse Secure Virtual Traffic Manager installation helped the IT team meet its deadline for transitioning to the new infrastructure. They have since used the appliance's scripting functionality to automate tasks that would take hours to perform manually. And they use Pulse Secure Virtual Traffic Manager performance monitoring tools on an on-going basis to troubleshoot web server performance in minutes. Pulse Secure Virtual Traffic Manager also minimized downtime during the transition to a more modern looking web site.

For more information, visit www.pulsesecure.net.

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