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Bryan Garcia
Vice President of Technology

TALX

TALX Boosts Performance and Control Over the User Experience with BIG-IP LTM



Industry

Human resources and payroll services

Challenges

- Deliver an excellent user experience
- Scale across three high-volume applications as well as future applications
- Ensure session persistence
- Easily install and manage solution

Solution

F5 BIG-IP® Local Traffic Manager™

Benefits

- Session persistence for high performance access to applications
- Reduced page load times and bandwidth
- Scalable server capacity without additional capital investment
- Easy installation and maintenance

Overview

TALX (www.talx.com), a leading provider of employment verification as well as human resource and payroll services, needed to deliver high throughput across three disparate but high-volume applications to ensure an optimal user experience. Using F5 BIG-IP Local Traffic Manager, TALX has reduced download times for large graphic files as much as two-thirds and is delivering fast and unbroken application performance to its users. The company has avoided substantial capital investment in additional servers and prepared the company's current server capacity to scale to even greater traffic volumes and include additional applications.

Challenges

As the leading provider of employment verification as well as human resource and payroll services, TALX serves more than 9,000 customers in the U.S., including 75 percent of the Fortune 500 firms. Its name dates back to its start as a developer of interactive voice recognition (IVR) software for employment verification over the telephone. Today TALX's web-based Work Number® service, developed in 1995, now holds more than 147 million records.

Bryan Garcia, TALX Vice President of Technology, said he and his IT team faced the task of bringing up and load balancing three applications at the same time:

- An application designed to handle the input of up to 150,000 scanned or .pdf documents per day as well as up to 220,000 extractions a day. It requires a sustained pace of 11 document inputs per second as well as 16 document retrievals per second, the latter with a key benchmark of under two seconds per retrieval.
- An internal web forms application based on Microsoft SQL Server, with varying throughput volumes from hundreds to thousands of completed forms per day.
- A legacy terminal services application hosted on 50 servers and accessed by more than 1,000 TALX unemployment insurance consultants across the U.S. via the company's intranet.

Each application posed its own challenges, according to Garcia. For example, the document management application required speed and session persistence. “We first tried using the load balancing network tools of Microsoft Windows,” he says, “but its stateless routing requirements meant that user traffic would be directed to an external state server, then back to the web server with all the latency and overhead that involves.”



He adds that his team then tried the load balancing tools of one of TALX's network equipment vendors but those were lacking and "would always crash under a load of about 20 concurrent users." Finally, he called F5 to learn more about how BIG-IP Local Traffic Manager (LTM) could solve the problem.

Solution

Garcia's team's list of requirements for the BIG-IP LTM TALX solution was straightforward. Number one was his team's ability to deliver the best user experience possible. It also needed to scale across the three applications in deployment, then be capable of handling other additional, high-volume applications in the future.

Session persistence was also key, to allow high performance access to TALX applications—especially from behind the proxy servers and firewalls for the employees of its more than 9,000 U.S. corporate customers. Last, Garcia and his team wanted the solution to be easy to install and manage.

To meet these demands, Garcia chose three F5 BIG-IP LTM 3400 devices: one for development and two for redundant production deployment. Installation and setup was easy, he says, adding, "Once the BIG-IP LTMs are up and running, there's virtually no 'care and feeding' of them."

Benefits

With F5's patented technology enabling cookie-based persistence, TALX's customer users are assured fast and unbroken application

performance. BIG-IP LTM compression has also improved performance by significantly reducing page download times for users. TALX has avoided having to purchase additional servers to meet capacity needs and its current server capacity is now able to scale to address future requirements.

Intelligent load balancing

Garcia notes the BIG-IP LTM key benefit of providing a single throughput to the multiple applications and servers behind them, but without any bottlenecking. "Our biggest gain so far has been the intelligent load balancing," he explained. "Now I can look at data elements from a browser or web application server, or be looking at a session variable, and tune BIG-IP LTM to optimize those."

Top performance with no breaks

This capability also gives Garcia and his team maximum control over session persistence. "By making sure my users go back to the same application node each time during their sessions, I can be sure they're getting top performance and there are no breaks."

He emphasizes that session persistence is especially important to the 1,000 consultants who use the terminal services. "Effectively these people are using these services as their working desktops," he explains. "If they lose contact with their session node, they lose data and will have to start whatever they're doing all over again. Not only would that prove an obvious productivity drain, but it also would undercut customer satisfaction, if their work session involves a customer."

Faster page loads

BIG-IP LTM compression technology provides another boost to application performance, Garcia says. It reduces 50-60 kilobyte TIFF (Tag Image File Format) files to 20 kilobytes or less. While this saves bandwidth, he says that the savings are beside the point: "Bandwidth in our case is relatively cheap, but BIG-IP LTM speeds up page loads into user browsers, and that greatly enhances the customer experience." In fact, BIG-IP LTM can accelerate page loads by as much as 200-300 percent, according to independent lab studies.

Cost savings and scalability

With the intelligent traffic management capabilities of BIG-IP LTM in place, TALX's IT team has avoided substantial capital investment in additional servers. The team is also assured that the company's current server capacity can scale to accommodate even greater traffic volumes and include additional applications.

Overall, Garcia says he and his team have found that BIG-IP LTM has provided a much more stable production environment for the current applications they're running over the platform. "But the most important thing," he says, "is the performance gains and control over the end user experience we get from BIG-IP LTM."

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