

“We feel really comfortable with BIG-IP and that is the reason why we will continue growing and buying more.”

Rodrigo Benzaquen,
IT Manager

MercadoLibre.com, Exclusive Partner of eBay in Latin America, Relies On F5's BIG-IP v9 To Support Over 8 Million Registered Users



Industry:

E-commerce (Online Auctions)

Challenges:

- Massive amounts of traffic
- Lack of capacity
- Slow performance and long page-load times

Solution:

BIG-IP v9 Application Delivery Networking system

Benefits:

- Improved server performance without purchasing bigger, more expensive servers
- High availability and secure transactions for millions of customers
- Offloading SSL transactions frees up more server power

Overview

MercadoLibre.com is the leading Internet trading platform in Latin America. The company is the exclusive partner of eBay in the region, and works the same way as eBay: MercadoLibre is an enormous virtual market where hundreds of thousands of users meet to buy and sell items in an easy, entertaining, safe and efficient way.

More than 8 million registered users from Argentina, Brazil, Chile, Columbia, Ecuador, Mexico, Peru, Uruguay and Venezuela buy and sell computers, electronics, cars, video games, and more on MercadoLibre – making it by far the leading Internet trading platform in Latin America.

Challenge

It's all about service: millions of people buying and selling items online, and expecting the site to always be up and running, with quick page loads, fast performance, no lost shopping carts, and complete security until the final payment changes hands. These are just a few of the challenges faced by Latin America's biggest Internet trading platform.

And should any part of the buying, selling, and payment process fail – whether it be an image not appearing on a page or a bid that fails to get posted quickly – users will lose trust in the site, and the company. Not a good thing for a

business that achieved \$US 425 million in sales in 2004.

MercadoLibre needed a powerful ally for their web site – a device that could manage the enormous amount of traffic, direct it to the correct resource, maintain persistent connections for users, and provide security.

The first traffic management device they looked at, however, couldn't keep up with the size and amount of traffic coming into the site. It also couldn't control exactly where to direct that traffic once it had arrived – overloading some server resources while others sat idle, and providing poor service to some of the company's best customers.

“We knew our old traffic management device wouldn't have the capacity to handle our site,” said Rodrigo Benzaquen, IT Manager for MercadoLibre. “We needed gigabit processing speed to do that.”

The company sought out an infrastructure device that could help accommodate its huge growth rate and traffic numbers. And since each second could make or break a deal, the device had to deliver the highest availability.

Based upon the recommendation and in association with its parent company (eBay), MercadoLibre installed BIG-IP v9 from F5 Networks.





Solution

The BIG-IP v9 system, was designed to improve the performance and scalability of applications through intelligent traffic management, server offload, and application acceleration functionality. BIG-IP not only provides powerful load balancing capabilities, it also includes sophisticated Layer 4, Layer 7, SSL, and optimization features in a centralized network device with granular traffic control capabilities.

Benefits

Servers for MercadoLibre are housed in a data center in Virginia, where all transactions take place. A total of 10 BIG-IP systems load balance traffic, content, applications, and web caches. Most traffic is HTTP-based, with about 4% being HTTPS traffic for secure financial transactions.

BIG-IP also provides extensive connection management as well as TCP and content offloading capabilities to optimize server performance and speed page load times. For example, BIG-IP's OneConnect™ feature increases MercadoLibre's server capacity by aggregating millions of client requests into hundreds of server-side connections, ensuring that

requests are handled more efficiently by the backend system.

"The OneConnect feature works very well for us," said Benzaquen. "It removes a lot of connections from the backend, resulting in better site performance. Our community of users has told us that MercadoLibre is a very fast site."

And because all CPU-intensive SSL transactions are offloaded from the servers onto BIG-IP, performance is improved even more because servers are free to do what they do best: serve content.

Another reason MercadoLibre relies on BIG-IP is its ability to intelligently direct traffic based on rules (called iRules) to the right servers, at the right time, using information in the URL header.

"We made a rule (using BIG-IP) that if the URL includes 'FP' within a specific part of the URI path, then send the traffic to a specific pool of servers," said Benzaquen. "Alternatively, if the URI path includes 'JM' in a specific part of the URL header, send the traffic to a pool of Java servers. BIG-IP gives us this control."

And should Benzaquen require help in constructing new rules, he can

visit F5's on-line developer community, DevCentral (<http://devcentral.f5.com/>).

"We use DevCentral a lot," he said. "It's a very good tool. Whenever we post a comment to the site, somebody helps us very quickly."

While MercadoLibre continues to discover new capabilities with the BIG-IP product every day, the initial decision to buy was based solely on the trust and recommendation of eBay.

"BIG-IP is critical because it represents the first connection to the user and it needs to work perfect," Benzaquen said. "If it doesn't work properly and it sends traffic to the wrong server, we have a big problem. It's really important that it perform well, and it does."

BIG-IP is an integral part of MercadoLibre's goals of providing a fast, reliable, and secure site for millions of online buyers and sellers in Latin America – today and well into the future.

"We feel really comfortable with BIG-IP and that is the reason why we will continue growing and buying more," Benzaquen said.

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