

Parlay

*KEMP Load Balancer Solves
Server Overload*

Background

The Parlay company services the healthcare industry with financial applications that enable financial screening of patients to determine ability to pay, batch screening of aged patient accounts and determination of which type of hospital financial program is appropriate for the patient. While the company is fairly new, its founders have a long history in the field, having founded a similar firm, which was acquired by TransUnion, a credit and information management company.

Fact: Today, over 50 percent of all emergency room care in the U.S. goes uncompensated, forcing hospitals to write off the loss. With Parlay's white-label software solution, hospitals use a locally installed toolbar on their computers to connect to a web-based application to secure payments for healthcare services.

Problem: Help, Our Servers Are Overloaded, and We Have Strange Errors!

When Larry Smith became CTO, he was responsible for assuring that the datacenter supported the necessary web-based financial applications. He discovered that the first server installed was overwhelmed by traffic and he set up a second server, which also quickly became overloaded. He continued adding servers, totaling 10, though Smith realized this was an ineffective solution because the traffic was not equally spread across the servers, and, if one server required maintenance, all traffic handled by that server was stopped causing delayed and interrupted service to the users. In addition, the management of the IP's, domains, and certificates in that schema was difficult.

Parlay had been running a blade-system server to support its financial web-based application without any problem, and as the web servers allowed reverse proxy techniques, the company was also using the web server for load balancing. However, the firm's continued growth in new customers created a tenfold increase in bandwidth usage. To top it off, the new traffic was all SSL based, which further overloaded the servers and Cisco concentrators. The company needed to quickly implement a solution to fix the overloaded equipment.

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Then another issue came to light when one day Smith received a phone call about a customer seeing a flaw with the web site and some data being incorrectly passed through the servers. Users were receiving ‘404 Page Not Found’ and ‘504 Server cannot be reached’ errors. As it turned out, the web server problem was more than just the error message bug. TCP requests were being cross-threaded between two physically disparate hospital locations, and therefore TCP packets were being returned to the wrong location. A serious situation.

This is when Smith realized that load balancers would be the most cost-effective way to maintain high performance and availability by managing and redirecting traffic. Upon researching his alternatives, Smith found cheap and low featured load balancers, and high-priced, too many bells and whistles load balancers. He then found KEMP Technologies and realized that KEMP offered the best alternative for value-priced load balancers with just the right features he needed to efficiently operate his data center.

Solution: KEMP Load Balancer to the Rescue

In February 2011, Parlay installed its first KEMP LoadMaster 2600 load balancer in its Florida server farm to maintain high availability. The LoadMaster 2600 is an advanced, multi-port application delivery controller/load balancer with Layer 7 content switching and integrated ASIC-based SSL acceleration. Now the Parlay team has learned that KEMP load balancing is definitely the solution when there are server load issues.

Added Benefit: SSL Offloading Reduces Burden of Performance-intensive applications

Parlay is also taking advantage of the SSL off-loading capability of the KEMP LoadMaster 2600, which Smith called “just as critical a need as load balancing.” This means the server can offload the SSL support to the KEMP LoadMaster and free-up valuable server resources to handle regular data traffic. Using SSL offloading doubles the number of transactions able to be handled by the server, which in turn increases productivity.

With SSL offload provided by redundant KEMP LoadMaster 2600 load balancers, server requirements are reduced for performance-intensive financial transactions and the load is able to handle increases. Rather than putting the burden of SSL transactions on the server, and hurting the server’s performance, a load balancer can take on that burden of security, freeing up the server to transfer data and processing application requests, instead of becoming an encryption processing bottleneck. The secured site loads more quickly for the user, and the experience is seamless.