

Infinite Campus Gets an Education in Server Load Balancing and Scalability

LoadMaster provides the scalability necessary to service all schools, regardless of size.



Overview

Infinite Campus is a provider of comprehensive education software management systems for K-12 educators in state departments of education, regional consortia and assisting over 1,600 local school districts. They support any-sized district ranging from those with fewer than 100 students to more than 100,000. Based on a vision of educational transformation through the use of technology, Infinite Campus was created to help educators increase productivity and shift the focus back to students.

The Infinite Campus software management system provides a comprehensive approach to education from curriculum and instruction to reporting and analysis functionality. With features such as mapped curriculum support, an online grade book, lesson planning and even seating charts, teachers are able to simplify multiple tasks, which were previously time-consuming. Attendance, behavior and health records are centrally managed in one database with web-based access – providing educators and parents alike with easily accessible information. Communication tools including emails, surveys and parent/student portals allow an open flow of information among all involved parties and encourage parent involvement. To date, the company's web-based, integrated applications streamline administrative tasks and centrally update and archive data from more than 4 million students across 42 states.

The Challenge

Although Infinite Campus is primarily a software provider, the company also offers a hosting service to support its student data management system. “We realized that leaving customers to provide the infrastructure supporting the system would be a logistical nightmare in terms of technical training and support,” said Robert Kilian, director of infrastructure at Infinite Campus. “With every customer on a unique infrastructure, our technical support team would have to start from scratch with each glitch – which would drain our resources.”

Recognizing the importance of providing a unified hosted solution, Infinite Campus chose an expensive, load balancer system for its datacenter. The idea was that through implementing a more expensive, brand name product, Infinite Campus would receive the highest quality solution and customer support for its management needs. However, not long after installing the high-cost load balancing solution (priced up to \$20,000), technical problems erupted.

Infinite Campus began to experience inconsistent routing of web traffic, resulting in unexpected crashes for its users. Determined to solve the problem, Infinite Campus decided to seek technical support from their load balancer vendor. To their dismay, they discovered that technical support wasn't available; the product had been discontinued. Without technical support to solve their mounting problems, Infinite Campus realized it needed to quickly replace its load balancing solution.

Going back to the drawing board, the IT department again needed to find a reliable solution that would meet the needs of the Infinite Campus customers.

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The company began searching for a scalable solution to meet the demands of its diverse customer base – large and small – within a price point that still allowed for cost savings, and which included SSL acceleration and offloading to ensure encryption and full security of confidential student data.

“It was a challenge for our IT department to select a product that fit our needs,” said Kilian. “After the first load balancer solution failed, we hit a brick wall. We needed to find the right solution and knew that the success of maintaining our hosted operations depended upon it.”

The Solution

After realizing that a more expensive solution was not the better solution, Infinite Campus implemented KEMP Technologies’ LoadMaster 1500 load balancer on a trial basis. To their delight, the product worked as it claimed and solved load balancing problems. Offering high-availability, SSL acceleration and offloading, the KEMP LoadMaster had the strong feature set Infinite Campus required. At less than \$2,500 including 1-year of technical support, Infinite Campus was up and running.

Infinite Campus selected KEMP’s solution, and with the 20-minute set-up, quickly pushed the load balancers into production. “With a solid product from KEMP in place, our technical support team is ensured a working product and a positive experience for our customers, while saving on support costs. The combination of our high-quality software with KEMP’s reliable hardware solution has led to consistent availability,” adds Kilian.

The most appealing feature of KEMP’s LoadMaster is its ability to provide the scalability necessary to service all schools, regardless of size. Over the past five years in particular, Infinite Campus has experienced exponential growth – 58% in the last year, and over 100% the year before. The KEMP LoadMaster provides Infinite Campus with cost-effective scalability necessary to service all schools with guaranteed uninterrupted service, regardless of size.

According to Kilian, “Scalability has been critical for our success over the past few years. With a solid line of load balancers behind us, we can focus on growing the business without worrying about whether or not our infrastructure could handle the increased users and applications. KEMP has helped us to keep this competitive advantage.”

With KEMP’s load balancing product family, there is a product to fit any school size – large or small. For the larger schools, Infinite Campus offers the KEMP higher-end LoadMaster 2500 with multi-port support, and the ability to handle a higher number of transactions per second. For small-to-medium sized school districts, the LoadMaster 1500 is the right choice. All of KEMP’s products also provide Layer 7 content switching, SSL acceleration and offloading, as well as high-availability, fault tolerance and session persistence. With multiple, reliable products to choose from, Infinite Campus can select the appropriate KEMP load balancer based on customer size and bandwidth traffic requirements – providing the critical component of scalability to its customers.

Summary

The KEMP LoadMaster has provided Infinite Campus with the reliability and scalability the company needs to deliver a positive user experience to its customers, as well as opportunity for growth without technical bottlenecks. Currently, Infinite Campus has successfully deployed over 70 KEMP LoadMasters to customers with multiple application servers to meet their application delivery needs.

“We have been using the KEMP appliances for over five years and I’ve never had a reason to shop for a different solution,” states Kilian. He adds, “I view these load balancer devices falling into two categories: there are the high-end, high-priced products similar to a high-tech remote control with 1,000 buttons and you can’t find the “on” button, nor any clue what any of the buttons are supposed to do. Then there is the second category, where the KEMP LoadMaster’s reign, and you have a product with a few buttons that do what they are supposed to do, including the “on” button which is accessible, and the product is up and working within 20 minutes. This is what the KEMP product provides, and why we’re a very satisfied customer with a solid solution that operates as it should.”