LOADBALANCER

Leading US virtual phone service provider expands capacity, underpins high-quality service with Loadbalancer.org

Rapid customer growth had forced Grasshopper - a leading US virtual phone service provider - to overhaul its phone application, but this put pressure on the company's ability to ensure service performance and 24/7 availability. Grasshopper turned to Enterprise VA MAX from Loadbalancer.org and in three years it has delivered faultless performance, reduced computing resources despite an increase in customers and has become mission critical to Grasshopper's business operations.

Grasshopper®

> *Loadbalancer.org and its Enterprise VA MAX load balancing solution have become critical to Grasshopper because both perform an essential role in ensuring we deliver a top-class service to our customers."*
>
> **Bill Lincoln**
> **Director of Systems Integrity, Grasshopper**

Challenges

- Large and rapid increase in customers demanded a more powerful, resilient system
- Huge data volumes generated from a virtual phone application handling tens of millions of calls a month

Solution

- Enterprise VA MAX

Benefits

- Ensures customers get high-quality, high-availability telephone services
- Delivers a highly responsive, knowledgeable and first-class level of support anywhere in the world
- Helps reduce computing resources despite a 40 percent increase in customers
- Virtualization capability helps to cut investment in hardware and associated power and support resources

Challenges

Grasshopper is a 50-person US company with offices in Massachusetts, Texas and remote workers in the US and around the world. The company's virtual phone system is designed to provide small businesses with a low-cost, but corporate-like telephone system. With over 100,000 businesses served and a high-class, 24/7 support service, Grasshopper ranks as one of the top providers of virtual telephony systems.

In response to a huge jump in demand for its service – up to 100 percent growth year-on-year - Grasshopper re-wrote its phone system. This transformed it from a small system running on a few servers to a powerful, business-class, SOA (service oriented architecture) application. It enabled Grasshopper to support many more customers, but it also placed much greater emphasis on 24/7 availability and application resilience.

For example, functions such as message management, reading/writing voicemails and generating billing records had been ring fenced. The new architecture, however, separated these out and shared them across different servers making it essential to load balance data effectively between the different application elements.

Solution

Grasshopper evaluated a range of leading load balancing solutions until it came across Enterprise VA MAX (Enterprise Virtual Appliance Load Balancer) from Loadbalancer.org. Grasshopper was impressed with the product, especially because it is a virtual appliance and it is VMware certified.

Bill Lincoln, Director of Systems Integrity, Grasshopper, says, "Support for VMware and a virtual environment makes the whole process of load balancing much simpler, faster and it reduces the amount of network bandwidth you need. Also, Enterprise VA MAX is significantly less expensive than some of the physical solutions on the market."

> *Loadbalancer.org because they are quick, know their stuff and are very responsive. Even if an issue turns out to be our problem, they still take the time to help out.* **"**

But equally important is Loadbalancer.org itself. Lincoln says, "We look for companies that want to be business partners rather than just vendors. Anyone can be a vendor and anyone can deliver the technology, but what's the company like to work with? My staff have a low tolerance for poor vendor support and I get complaints from them all the time. But very, very rarely do I hear any complaints about the folks over at Loadbalancer.org because they are quick, know their stuff and are very responsive. Even if an issue turns out to be our problem, they still take the time to help out."

Grasshopper is using four Enterprise VA MAXs - one at the company's production site in Massachusetts, one at the disaster recovery site in Texas and the others in test environments also in Massachusetts. Enterprise VA MAX load balances huge volumes of call-related data. During a month the Grasshopper phone system will handle around five million calls and data for every one of those calls passes through Enterprise VA MAX four or five times.

Enterprise VA MAX has been used at Grasshopper for over three years and has never had problem.

Results

"If we had major issues with Enterprise VA MAX it would be catastrophic to our ability to serve customers. It is mission critical and absolutely essential to our business because it ensures our flagship service – the Grasshopper virtual phone system - is available and delivers optimum performance 24/7," says Lincoln. "The three critical parts of our architecture are Oracle, VMware and Enterprise VA MAX. But Enterprise VA MAX is so easy to use and highly resilient that most of the time we don't even think of it."

One of the other key benefits of Enterprise VA MAX is the way it has enabled Grasshopper to accommodate a rapid growth in customer numbers. Because Enterprise VA MAX can manage data more efficiently without needing to add hardware, Grasshopper took on more customers without having to invest in more hardware to support the increase in demand. In fact, this has actu-ally helped the company reduce its footprint in terms of reducing hardware and other computing resources, despite a 30 percent to 40 percent increase in customer numbers.

Lincoln says, "Enterprise VA MAX is one of the centre pins of our virtualization technology and is key to making virtualization successful." As a virtual appliance, Enterprise VA MAX does not need hardware so it takes up less space, less power and less management or support. Also, because Enterprise VA MAX is based on well-known and mature open source products, it gives Grasshopper access to a vast coding community which increases the scope for future development and enhancements.