



INDUSTRY

- Managed Service Provider

CHALLENGE

- To optimize service levels in dynamic, demanding cloud computing environments

SOLUTION

- Using Nimsoft monitoring and reporting solutions to deliver performance information to its customers

RESULTS

- Improved customer service, and better demonstration of quality of service delivered
- Improved application response times and availability
- Proactive monitoring ensures that customer SLA targets are met

NIMSOFT CASE STUDY

ENKI Monitors the Cloud with Nimsoft

Service Level Management Solutions

Provide Visibility and Control

Introduction: Staying on Top of the Managed Services Cloud

Buoyed by a sophisticated infrastructure, veteran leadership, and quality-focused processes, ENKI has established itself as one of the leading service providers in the massively expanding managed cloud computing market. By leveraging automation and efficiency, ENKI is able to deliver highly available, high performance hosted infrastructure services to its customers—while offering dramatic cost savings over traditional internal or external hosted IT approaches.

ENKI has been managing cloud computing environments for over two and a half years. Attesting to the increased acceptance and adoption of cloud computing, over time, they've seen their customer base change from one that mainly consists of small, early stage companies to one that is increasingly comprised of large, well-established enterprises.

Customers come to ENKI looking to outsource everything. No client equipment is ever installed in ENKI's data center, and everything is virtualized, which provides ENKI customers with far more agility and costs savings than if they were to house services on their own infrastructure. For example, a client with seasonal business spikes can automatically increase their resource capacity to accommodate those spikes. Further, after the spikes have passed, their capacity—and their expenses—can also be reduced, all without human intervention. In the past, these kinds of organizations would have had to invest in a large number of servers to meet peak demand, only to have many of those resources sit idle for much of the year.

The Challenges of Monitoring Service Levels in the Cloud

Like any other service provider, ENKI must constantly meet the service level agreements (SLAs) it has in place with its customers. Yet unlike many other providers, ENKI must ensure SLAs are met, while overseeing a virtual infrastructure that is not only highly complex, but extremely fluid.

For example, in cloud environments, servers can rotate in and out of active use, and IP addresses can change frequently. This can make it difficult to set up monitoring and keep it running. Ultimately, administrators can't react to unplanned downtime if they don't know their system is down. They can't avoid unplanned downtime if they don't know they're about to run out of disk space or memory, or that their application is running into data corruption issues. That's why employing sophisticated monitoring solutions was such a pressing need for ENKI and its customers.

ENKI Turns to Nimsoft for Robust Remote Monitoring

"In a cloud computing framework, a reasonably complex multi-tier application with significant load can consume dozens of virtual servers, all of which need to function successfully in a coordinated fashion," Dave Durkee, CEO of ENKI, explained. "To manage this kind of environment, we needed robust remote monitoring capabilities. Because of this, we've invested in Nimsoft's sophisticated solutions, which we use to provide monitoring services to our customers." Nimsoft helps tackle the challenge of managing a complex set of application deployments in cloud computing environments.



Nimsoft offers a range of critical features for this dynamic infrastructure:

- Comprehensive infrastructure coverage.
- Robust remote monitoring capabilities.
- A streamlined architecture that enables ease of deployment and use.
- Sophisticated dashboards that provide intuitive insights.

Comprehensive Infrastructure Coverage

Nimsoft offers comprehensive monitoring capabilities that enable organizations to centrally monitor and manage every key aspect of dynamic cloud computing environments, including both those that are virtualized, and those that aren't.

"Nimsoft allows measurement of pretty much any parameter inside a virtual server as well as the applications running inside of that server," said Durkee. "This can range from simple, but important, aspects such as CPU or memory utilization, to more complex metrics like database queries per second, slow query count, or pages served per unit time from a Web server."

Nimsoft offers remote monitoring of a range of critical aspects within ENKI's cloud computing infrastructure:

Physical machines. Nimsoft provides vital metrics on the host's system, CPU, memory, disk, and network interface.

- Virtual servers. With Nimsoft, ENKI administrators and customers can monitor all the vital metrics of the virtual machines in their environment, including virtual machine CPU, memory, network interface, disk, and system logs.
- Applications. Administrators at ENKI and customers can get comprehensive monitoring of a range of application environments, including JBoss and Oracle.
- End-to-end response. Nimsoft will perform user-experience validation by running synthetic transactions against an application, for example, quantifying how long it takes to buy a product through a business' e-commerce site. Nimsoft can then generate alerts if performance or functionality is not within thresholds.

"Ultimately, end-to-end response monitoring will be the most vital piece of the monitoring equation," Durkee explained. "Fundamentally, it doesn't matter that an Oracle database has enough disc space to operate; it matters that the service is up,

which means the user is getting the responsiveness and reliability required by associated SLAs."

Robust Remote Monitoring

To work effectively, cloud monitoring needs to be done remotely from the cloud on which business applications are hosted. If not, if the cloud experiences an outage, so too will the monitoring system. That's why Nimsoft's remote monitoring capabilities are so vital.

"At ENKI, we solve the challenge of monitoring cloud computing by having our Nimsoft-based monitoring service hosted in a separate data center and under a different software environment than our primary cloud hosting service," Durkee stated.

ENKI uses Nimsoft to remotely scan servers in the cloud on a regular basis for faults and application problems. With Nimsoft, ENKI gains the scalability they require, with fast, reliable, and efficient monitoring of hundreds of clients and tens of thousands of devices. In addition, Nimsoft offers multi-tenant segmentation capabilities that enable secure, efficient partitioning of data for multiple clients—all within a single, unified database and infrastructure.

Streamlined Architecture

Nimsoft features a streamlined product architecture that offers unprecedented ease and flexibility of deployment. In the past, ENKI executives had worked with legacy monitoring products, hiring an army of consultants to aid with the implementation. After a big investment in time and resources, they were unable to get the products to work as advertised.

With Nimsoft, ENKI has a product that was much easier to use, that was much less expensive, and that could be implemented without having to hire a team of consultants

or invest in a lot of staff training. In addition, Nimsoft offers the specific features needed to efficiently monitor dynamic cloud environments. For example, Nimsoft offers agent-based monitoring that can gracefully register and de-register agents as needed as resources are moved in and out of use to accommodate changing performance demands.

Intuitive Insights through Dashboards

All of the extensive data Nimsoft captures is featured in Nimsoft's customizable dashboards, which offer fast, intuitive insights for ENKI's IT and business team, ENKI's customers, and their stakeholders.

"Armed with this information, we and our customers can tune and adjust applications for appropriate cost/performance tradeoffs and diagnose performance or efficiency issues. This has produced great results for our customers, improving their application response time and uptime, as well as reducing costs."

— Dave Durkee, CEO of ENKI



“We gather a lot of quality of service metrics, and feed many of these into our SLM reports and dashboards,” Durkee revealed. “We publish this information internally and also provide our customers with access, so they can monitor performance and demonstrate to other stakeholders whether SLAs are being met. Armed with this information, we and our customers can tune and adjust applications for appropriate cost/performance tradeoffs and diagnose performance or efficiency issues. This has produced great results for our customers, improving their application response time and uptime, as well as reducing costs.”

Building on Success for Future Growth

ENKI's technical leadership team is looking to further leverage Nimsoft solutions in helping support future strategic initiatives:

- Scaling operations. Currently, ENKI has two data centers based in the Silicon Valley in California. With plans to open a new data center in New York, then another one in London, Nimsoft's features for scalability and ease of implementation will serve ENKI well in the long term.
- Availability. ENKI is continuing to invest in infrastructure, further building redundancy into systems, so they can continue to enhance system availability. Nimsoft offers a range of capabilities that can help further these objectives, providing spooling capabilities that ensure network outages don't compromise data availability, support for failover in multi-tier environments, and more.
- Automation. ENKI is exploring how to integrate the Nimsoft product with their automated management framework in order to help automate some components of data center administration. Leveraging its end-to-end monitoring capabilities, Nimsoft can identify when an end user request is not being turned around within SLA thresholds. Rather than just submitting an alert to an administrator, Nimsoft could send a message to the management framework. The management framework can then employ a range of responses, for example adding more servers, RAM, or processors needed to improve application performance.

About ENKI

ENKI is a managed cloud computing services provider that offers fast and reliable virtual private data centers and full IT operations services. By supplying enterprise-grade computing and services on an on-demand, pay-as-you-go basis, ENKI helps its customers manage and grow their Internet- or information-based businesses. For more information, visit www.enkiconsulting.net or call 650 279 2115.

About Nimsoft

Nimsoft is the fastest growing provider of next generation performance and availability monitoring solutions for the complete physical, virtual and cloud based IT infrastructure. The Nimsoft solutions redefine the standards for ease of use and speed of deployment - providing outstanding return on investment and unparalleled customer satisfaction. Over 800+ customers in 36 countries rely on Nimsoft solutions to monitor their IT based business applications and services including cloud environments. These customers include mid-market and global organizations, such as Barclays Capital and Amway Corporation, Bay Area Rapid Transit, Ladbrokes, MTU Aero Engines, TriNet, TRW Automotive, and hundreds of leading managed service providers such as CDW Hosting Services, ENKI, Thomas Duryea, Easynet and Rackspace Managed Hosting. For more information, visit www.nimsoft.com

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