AutoTrader.com Achieves Comprehensive Visibility into Real-Time Performance

With limited visibility into key performance metrics across a complex system, capacity planning was a bit of a guessing game for the IT staff at AutoTrader.com. VMware vRealize™ Operations Insight™ software enables them to proactively manage system performance, troubleshoot issues before they affect the business, and achieve a whole new level of business insight. These capabilities enable the IT team at AutoTrader.com to minimize system downtime, drive up consolidation ratios, and spend far less time on tedious manual tasks.

AutoTrader.com is an online automotive marketplace with nearly 4 million vehicle listings from 40,000 dealers and 250,000 private owners in the U.S. The company’s Web and mobile properties attract more than 16 million qualified buyers every month, adding further value with extensive automotive reviews, shopping advice, and tools for comparing insurance and financing packages. Founded in 1997 and based in Atlanta, Georgia, AutoTrader.com employs approximately 1,800 people worldwide.

The Challenge

As technology plays an increasingly central role in everyday business operations, IT teams in every industry are under pressure to centralize and optimize operations so they can do more with less. That’s certainly the case at AutoTrader.com, where the Atlanta-based IT team manages a number of data centers across the United States.

Although centralized management offers obvious advantages in efficiency and cost, IT team members often found themselves with limited visibility into far-flung systems. “We didn’t have a clear, comprehensive view into key performance metrics,” says Chris Nakagaki, virtualization architect at AutoTrader.com. “That made it difficult to determine true capacity, so allocation was often a bit of a guessing game.”

The IT team also lacked a solid solution for handling log management and analysis. As a result, troubleshooting performance issues often required a laborious search through log files, with precious IT resources redirected in an effort to locate the proverbial needle in the haystack. “These issues affected us on multiple fronts,” says Nakagaki. “Not only did we have difficulty getting deep insights into historical trends, but we often lacked sufficient data to plan for the future. We knew we needed to take a different approach.”

The Solution

After considering a number of cloud management platforms on the market, the IT team decided that the VMware solution was clearly the way to go. “I’ve worked with a lot of VMware technology over the years,” says Nakagaki. “I trust their solutions. And each time we add a new VMware product to our environment, we benefit from the resulting economies of scale.”
Today, the AutoTrader.com environment is approximately 75 percent virtualized, with more than 5,000 employees supported on approximately 3,000 virtual machines. Nakagaki and his team can monitor and manage that environment with help from the vRealize Operations Insight solution, which enables them to proactively manage system performance, troubleshoot issues before they affect the business, and achieve a whole new level of business insight to help ensure optimal workloads.

The solution includes two main components: VMware vRealize Operations™ software, which provides intelligent operations management across physical and virtual infrastructures, and VMware vRealize Log Insight™ software, which delivers real-time log management. “We don’t need to manually track performance metrics in spreadsheets anymore,” Nakagaki says. “vRealize Operations Insight shows us what’s happening in our environment, precisely as it’s happening. This technology is able to marshal huge amounts of data to inform real-time metrics, all presented in a single pane of glass.”

Together, these components provide sharper visibility into all levels of the AutoTrader.com environment. “vRealize Operations gives us a high-level view of current performance,” says Nakagaki. “If we see a problem emerging, we can immediately jump into Log Insight to correlate what we’re seeing at the log level. We don’t have to deal with command lines—it’s just an easy click of the button.”

vRealize Log Insight technology doesn’t just simplify troubleshooting. The solution can also help IT staff recognize emerging performance issues on a proactive basis, linking log events with data captured by vRealize Operations software. “With Log Insight, we can correlate performance spikes to specific log data,” says Nakagaki. “We can see when a log has the potential to impact CPU or RAM. And every time we intervene, the system learns and adjusts a little bit more.”

**Business Benefits**

With the vRealize Operations Insight solution, the IT team at AutoTrader.com finally has comprehensive visibility into real-time performance across a complex environment. That level of understanding has enabled the staff to identify many of the factors contributing to a sudden increase in demand. For example, the activity of so-called scrapers—automated search bots that hit the Web site to take images and information—can be correlated with CPU spikes, enabling the team to determine the capacity necessary to absorb the next wave of scraping activity. That, in turn, keeps system downtime to a bare minimum, significantly reduces operating costs, and helps ensure a strong return on the company’s investment in VMware vRealize technology.

With faster access to deeper insights delivered by vRealize Operations Insight software, the IT staff is now able to allocate resources without overburdening the system. “We’re definitely driving up our consolidation ratios,” says Nakagaki. “Before VMware, we tended to hover around 8:1, but now it’s fairly normal for one of our development clusters to be at 60:1, and sometimes even higher than that.”

With the deployment of vRealize Operations Insight technology, AutoTrader.com has taken a big step on its journey to the cloud—a journey that uncovers new efficiencies at every turn. “These days, when a developer requires a huge amount of additional capacity in a short amount of time, we have more options to work with,” says Nakagaki. “We can deliver more of what they want. And we can often do it more quickly and cost-effectively than we ever could on-premise.”

As VMware technology plays an increasingly major role in the AutoTrader.com environment, Nakagaki and his colleagues can breathe a little easier—and spend a lot less time on tedious tasks. “I do far less manual work these days,” he says. “I spend more time engineering solutions and more time acting as a service provider rather than an IT roadblock. And VMware is enabling me to do that.”
Looking Ahead

For Nakagaki, the next milestone is a big one: The number of users supported by VMware technology will soon jump from 5,000 to 24,000. “Our audience just keeps getting bigger,” he says. “We’re collaborating more closely with some of our subsidiaries, showing them how to optimize and monitor their environments. The ultimate goal is to consolidate data centers and start delivering shared services. And I have every confidence that VMware will be playing a key role every step of the way.”