DISCOUNT DANCE SUPPLY

Industry:

Retail

Location:

Anaheim, California

Company Size:

201-500 employees

" With these tools, I can say 'hey look, we've reduced our response time and user response time by 500 milliseconds over the last six months, and this has resulted in an increase in conversion rate. "

John Miller
CTO, Discount Dance Supply

Discount Dance Replaces Gut Feelings and Intuition with Hard Performance Data

Discount Dance Supply (DDS) is the world's largest dancewear retailer. With 150 brands, DDS provides the broadest selection of name brand products, including dance shoes, bodywear, and accessories. The company started with a single store more than 40 years ago, and now has transformed into a leading multi-channel retailer with six retail stores, a mail order catalog, and a rapidly expanding online presence. As DDS business grows, their environment and infrastructure grow, and it's critical they equip their databases to scale dynamically.

Meeting Site Performance Goals

DDS attributes their success to active participation in the dance community, and their long-standing commitment to providing outstanding customer service. This attentive customer focus started with their very first store and continues today through their catalog business and online presence. Chief Technology Officer, John Miller, is charged with carrying that legacy forward, ensuring customers' online experience meets DDS's high standards. Consistent site performance is critical, and John understands that in order to build an application that handles heavy activity, "You need to be able to see how unexpected impacts on traffic can cause issues."

For John and his team, high-performance starts with metrics and analytics, used to establish goals for site performance. According

to John, DDS set a goal last year that included a 500 millisecond increase in speed. To accomplish this, he knew that he needed better visibility into what was impacting site performance and, specifically, deeper insights into query activity: how they interacted, the number that executed, and the way they impacted latency and site performance.

"We really wanted to get more detailed in our monitoring and analysis of our applications," said John. "We always used internal tools but were more seat-of-the-pants in our approach. We wanted to formalize our solution." By implementing a combination of application performance monitoring (APM) and database monitoring tools, with VividCortex at the center, DDS established that more formal process, accommodating both ad hoc analysis — used for performance testing during code pushes — and daily monitoring practices, to spot any anomalous system behavior.

APM and VividCortex Side-by-Side

DDS discovered that using a combination of APM tools and VividCortex's proved to be the ideal combination, as it provided an aggregate view of system performance and deep drill down into the database layer. The high-level view displayed any spikey application behavior, while VividCortex provided the granular analysis necessary to uncover the root cause of the problem — often at the database layer. "VividCortex allowed our team to peel-the-onion," John said, "to isolate poorly performing queries and systematically uncover the source of a problem, replacing gut feelings and intuition with hard performance data, down to the individual query."

> " We started using New Relic for APM, SOASTA for front-end, and then we got started with VividCortex. Of those three, VividCortex probably gave us the biggest bang for the buck. "

John Miller
CTO, Discount Dance Supply

Better Process, Better Results

The DDS team supports a standard LAMP stack of MySQL, PHP, and Linux, which requires many members of the team to wear multiple hats: they must develop application code as well as maintain the database.The team discovered that when everyone adopts VividCortex and performance monitoring into their daily routines (code pushes, upgrades, and maintenance), new insights naturally emerge. In one instance, the team had been watching a particular query that was experiencing some erratic behavior — not a show-stopper by any means, but according to John it was more of an ongoing, "nagging thing." While a developer was working on another part of the application, through VividCortex he noticed changes he made impacting the very same, suspect query. Given this unexpected insight, they were able to determine what was causing the problem and resolve it. "It was a revelation for the team, seeing in graphic detail the interdependencies between applications, queries, and database performance," said John. "Without the visibility that VividCortex provided, the issue may have continued to grow, and perhaps transform into something much worse over time.

Now the team can have that aha moment and say, 'wait a minute, this is the reason that issue keeps popping up,' and 'okay, we can eliminate that.'"

Maintaining App Stability and Performance

The DDS team uses VividCortex's Profiler for daily monitoring of their databases and to evaluate the performance of new code pushes. For daily system performance reviews, they access the Profiler to sort queries by average latency and look for high latency queries, typically over a two-day period to see if any new issues have emerged. Developers use the tool to determine the impact of changes they have made, before pushing to production. They may filter by a specific query to see if it is operating as expected or triggering other performance issues. This filtering process helps them pinpoint inefficient areas of code or queries that could cause issues in the future. This continual process of monitoring helps DDS ensure the stability and performance of the application.

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Hitting Their Goal

Using a combination of APM tools and VividCortex—as well as ad hoc and daily monitoring processes—DDS improved application performance and decreased latency on the server side. They reached their goal of 500 millisecond improvement in site performance and have improved the overall stability of their application. Discount Dance continues to provide a great customer experience through its online and offline channels, keeping their customers so happy they could, well, dance.

VividCortex

VividCortex is the best way to improve your database performance, efficiency, and uptime. It is a secure, cloud-hosted platform that eliminates your most critical visibility gap, providing deep insights into production database workload and query performance. It measures the performance and resource consumption of every statement and transaction, then uses patented algorithms to analyze and surface relevant insights, so you can proactively fix future performance problems before they impact customers.