SQL Sentry Performance Baselining Reduces Optimization Time for Healthcare Provider Managing Post-Acquisition Database Server Migrations

PROBLEM: MAINTAINING HIGH PERFORMANCE STANDARDS IN AN ENVIRONMENT WITH A RAPID ACQUISITION CYCLE

For HealthcareSource, a technology and services company that provides talent management solutions to 3,500-plus hospitals and other healthcare facilities, a constantly changing data environment is the norm—as are high expectations for database performance.

"We do a lot of data center migrations during acquisition cycles—with a minimal effect on thousands of clients," says Vlad Ivanovich, principal SQL database administrator for HealthcareSource. To successfully manage this environment, Ivanovich knew he needed a solution that could help his team establish performance baselines, manage migrations, and quickly optimize performance with no disruption in service to customers.

"The problem that usually plagues companies when they're working to optimize performance is a lack of baselines," says Ivanovich. "And finger-pointing between the developers and the DBAs."

When performance testing lagged in a new data center, Ivanovich said often the DBAs would point to problems in the application code. The developers would target the new database server as a root cause. It was time-consuming to determine where the team should concentrate their troubleshooting efforts—for example, which query plans could yield the greatest impact on performance.

Analyzing and documenting performance metrics is tedious and time-consuming, especially without established performance baselines to guide DBAs to the areas where their efforts will have the most impact. Establishing baselines is where SQL Sentry came into the picture for HealthcareSource—cutting analysis time and fostering a collaborative environment among DBAs and developers.

SOLUTION: SQL SENTRY BASELINES CUT MAINTENANCE AND OPTIMIZATION TIME

To meet HealthcareSource's high level of performance standards, Ivanovich deployed SQL Sentry, which he has used in three previous roles as a DBA. The first order of business was examining long-running queries that were having an impact on the database system.

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Problem

Healthcare talent management provider HealthcareSource needed a reliable way to ensure peak performance while managing database server migrations during and after acquiring companies.

Solution

HealthcareSource used SQL Sentry to establish performance baselines, so the team could mitigate any impact on performance while migrating databases between data centers.

Results

The HealthcareSource team uses SQL Sentry to maintain continuous data delivery for 3,500-plus healthcare facilities with a lean database team managing more than 5,000 production SQL Server databases in a rapidly changing environment.

"We needed to identify our worst-performing queries," said Ivanovich. "And it's not always the longest-running query that is the worst troublemaker. It can be a process that only runs for a few seconds but runs thousands of times an hour. That's what we call 'Death by a thousand cuts.'"

By using SQL Sentry, the team was able to quickly discover the root cause of under-performing queries and then establish performance baselines. SQL Sentry includes two different types of baselines—predefined and custom. Baselines are overlaid on various charts in the SQL Sentry Performance Analysis Dashboard, providing a range of metrics to help DBAs quickly identify and manage changes in the monitored environment.

For Ivanovich, one of the unexpected but welcome outcomes of using SQL Sentry is the objective data it provides about the cause of performance variances, allowing teams to work collaboratively. The metrics in the dashboard present facts—rather than opinions—about performance, so the team can immediately resolve issues and improve performance rather than becoming mired in discussions about the cause.

"SQL Sentry helps us spread knowledge about performance tuning," says Ivanovich. "Now the database developers and the DBAs just look at SQL Sentry because they know that's how they'll understand what's going on with the SQL Server."

> *[SQL Sentry] made my team and me super-heroes. Without [SQL Sentry], my life would be much more stressful, where instead of doing proactive work and training, a much larger percentage of my time would be spent on reactive troubleshooting.*
>
> — Vlad Ivanovich
> Principal SQL Database Administrator,
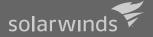> HealthcareSource

ABOUT HEALTHCARESOURCE

HealthcareSource provides a comprehensive suite of talent management software and services to hospitals and providers, senior living and post-acute operators, and healthcare staffing agencies. HealthcareSource provides solutions to help organizations hire quality talent to deliver quality care across the entire healthcare continuum.

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