Monsoon Commerce

How to handle 25 million database changes a day

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Aaron Kolysko, Database Manager, Monsoon Commerce

Monitoring a marketplace

Aaron Kolysko is the database manager at Monsoon Commerce, an e-commerce solutions company whose products help media sellers, marketplace merchants, and multi-channel merchants to power their businesses online.

Monsoon Commerce is used by thousands of merchants to reach customers across more than 30 marketplaces, including Amazon, eBay, and Buy.com. Monsoon Commerce products help merchants to manage inventory, create and automate pricing strategies, manage customer communication, and simplify order fulfillment.

Monsoon Commerce also runs Alibris.com, a huge marketplace for new and used books, movies, and music with over 150 million items in the inventory at all times.

How to handle 25 million database changes a day

Managing Alibris.com's data is no small matter – 10 to 15 percent of its 150 million item inventory changes each day which results in millions of updates to the inventory systems. Monsoon Commerce is dealing with a gigantic volume of data stored in multi-terabyte databases.

With so many users, system performance is critical. Aaron leads a team of two other DBAs who are responsible for keeping Alibris.com up and running, ensuring the content is current despite the huge volume of changes pushed to and from the service.

As lead SQL Server DBA, Aaron wanted to proactively manage his servers. When he joined Monsoon Commerce, the company was running a highly customized Nagios installation, looking at thousands of different counters including job status, index health, and disk size; however, these alerts only enabled the team to react to issues rather than taking steps to prevent such problems occurring.

In previous roles, Aaron has gone so far as to build his own dashboards and reports using SQL Server Reporting. None of these monitoring solutions produced the results he was looking for to predict and prevent SQL Server issues.

Easiest installation of a third-party tool, ever

Redgate's SQL Monitor appealed primarily because it was the most easy to install and maintain solution. Aaron describes it as the easiest installation of a third party tool he has ever implemented.

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When Aaron tried Redgate's SQL Monitor, he found it effortless to get an overall picture of server health, identify poorly performing queries, and conduct research in order to better manage his environment.

SQL Monitor solves Monsoon's four big problems

"SQL Monitor also allows me to easily present information to the database operations team, as well as the engineering group. This means we can use the tool to help with capacity planning and to work across the whole organization to make proactive changes to the system," says Kolysko.

SQL Monitor's 'Back-in-Time' feature makes it easy to solve the team's biggest challenge, the eternal "Hey, at 10am, the database went dead slow" problem. 'Back-in-Time' makes it quick and easy to rewind the clock and look at the situation leading up to and during a past event, removing a lot of DBA pain.

Long-running and expensive queries that cause problems on the system used to take a long time to check. With SQL Monitor Aaron can now expose these issues very quickly and no longer has to spend his time looking for the source of these problems.

SQL Monitor has been invaluable for accurate capacity planning, allowing Aaron to look at SAN performance, disk performance, and I/O to see how best to grow Monsoon Commerce's infrastructure as the company grows and the current servers come under more pressure.

The data is presented in a clear format, allowing Aaron to easily share information about queries with the development team and show them where code improvements can be made.

Implemented on 20 SQL Servers

Currently Aaron uses SQL Monitor on 20 SQL Servers in the production environment. This includes active-passive clusters that are in place to ensure high availability.

The company has an equal number of test and development servers, and plans to roll out SQL Monitor across the development and staging environments in the future. The engineering team is eager to do this as they have seen the value gained by the production environment monitoring.

To try a live demo of SQL Monitor as it monitors the servers of SQLServerCentral. com, visit monitor.red-gate.com.