CASE STUDY | FINANCE

Enhancing software development with SQL Monitor

"We were using another SQL monitoring tool, but it wasn't providing us with the flexibility and features we needed."

Founded in 2006, **Xero** is one of the world's fastest growing Software as a Service (SaaS) companies. The leading cloud accounting software provider in New Zealand, Australia and the United Kingdom, it employs over 1,400 people in 20 offices across the globe, providing accounting solutions for small to medium businesses as well as accountancy practices that manage multiple clients.

The company uses SQL Server to run its core accountancy product, and performance and reliability are essential to providing a quality service to customers.

John Bowker, Product Owner Data, is in charge of Xero's infrastructure. "With around 88 servers in our production environment, we need to know what's going on with them at any point in time, and receive alerts about problems that come up so we can resolve them as quickly as possible."

This desire to be both reactive and proactive was being held back by the limited features of the monitoring tool in place. There was also a cost issue that was preventing the team monitoring all of the production servers – something John Bowker wasn't happy with.

Jason Kassy, Cloud Data Engineer at Xero, suggested they explore a possible solution from Redgate. "I previously used Redgate's SQL Prompt, which I loved," he comments. "So when we were thinking about replacing our monitoring tool, Redgate was the first place I looked. I really liked the web interface with SQL Monitor, which is very clear and simple to use, and a real contrast to some of the other tools we considered. One was a desktop application, which I really wasn't keen on, and it was almost impossible to figure out what was going on with the second."

The decision was made to trial SQL Monitor.

"SQL Monitor was easy to set up and get configured, which was really important to us during the evaluation."

Jason was impressed with SQL Monitor from the moment the trial version was downloaded. Not just with the simple setup, but with the support that was provided. "The level of support we got from Redgate throughout the process was great, and the guys were really responsive to any questions we had."

In order to increase the flexibility of its SQL Server environment, Xero has recently migrated to Amazon AWS, and this is where SQL Monitor really excelled over the existing tool.

"We spin up a lot of servers very quickly so the ability to automate the process of getting monitoring set up is critical," says John. "The automation scripts mean we can instantly set up monitoring on a new server, and one of the good things about SQL Monitor is that it automatically discovers what we're running. We also use clustering and Availability Groups and now, when we add a new cluster to SQL Monitor, it registers all the servers in the cluster, whereas before we had to do it all manually."

Availability Groups are central to the systems at Xero, and the wide set of metrics within SQL Monitor help keep track of them and provide alerts when a problem is identified. The configuration within SQL Monitor also helps minimize those alerts, which is just as important. As John adds: "With so many servers we need to have useful alerts that we can action upon. Before, we used to get a lot of false positives; alerts that were telling us things we didn't want to know, but SQL Monitor helps us cut down on a lot of that noise."

"With SQL Monitor we now have better coverage, better features and a more cost-effective solution."

One aspect that stands out with Xero is how the alerts and diagnosis of SQL Server issues are handled. While there are six DBAs, there are around 100 developers and they are the ones who really know the code and the schemas inside out. They are also on call to fix issues when they arise.

With this in mind, Xero decided to give them direct access to SQL Monitor to help them resolve issues.

As John says: "By having developers on call, it lets them experience the impact their code really has on the system. We've split the alerts in SQL Monitor to cover Infrastructure Alerts and Dev Team Alerts. So if there is a high CPU alert, the Dev team can instantly see the query that is causing it, which leads to a much faster resolution time. We give developers ownership of their projects and allow them to deploy direct to the production environment. Having SQL Monitor in place lets them keep a much closer eye on what is going on and, if the issue is a result of a recent deployment, they can jump straight on it."

As a consequence of this innovative approach, Xero customers get a much better experience with few problems and faster resolution times.

Now that SQL Monitor is in place, there are also plans to expand the alert metrics it offers yet further. As Jason concludes: "The alerts are great but one thing I really like is the community metrics that are available from sqlmonitormetrics.com. There are loads of great T-SQL metrics written by other SQL Monitor users that we can use too. I'm sure we'll be adding to them soon."

SQL Monitor is a SQL Server monitoring tool that transforms the way you look at your database. With a web-based overview of all your SQL Servers, it cuts your daily checks from hours to minutes.

The result? You can do more of what you need to and spend less time monitoring, stop performance problems spoiling your day, and always have the answer to any question about your SQL Server estate.

The new reporting module also lets you create customized reports which combine the performance metrics available in SQL Monitor's analysis view with summary information on factors like server uptime, the numbers of alerts being raised, or the disks which are filling up fastest.

To find out more, visit www.red-gate.com/sql-monitor, where you can **download a 14-day, fully-functional trial**.