



kubus IT

CASE STUDY

Intuitive database monitoring for optimal performance and compliance



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Since 2008, kubus IT has ensured IT operations for AOK, one of Germany's largest public health insurance providers. It manages application management and support, operation of technical systems, and developme...

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Using Microsoft's SCOM monitoring system was a time-intensive, manual burden with a steep learning curve for new members of the team. With databases and estate complexity growing year on year, something had to...

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Redgate Monitor replaced SCOM as an intuitive cross-database monitoring solution. Thanks to the consolidated overview of the entire server inventory, problems can be quickly identified and proactively resolved.

The Results

Since implementing Redgate Monitor, kubus IT has seen significant time savings in database monitoring and a reduced risk of security vulnerabilities, performance issues and downtime.

“It would have taken us far too much time to train new employees on our existing solution in a way that would have allowed them to work with it effectively.”

Thilo Fleischer, DBA

The Customer

kubus IT is the IT service provider for the leading German health insurance companies, AOK Bayern and AOK PLUS.

With 17,000 users, kubus IT manages the IT infrastructure, co-designs developments and digitization projects, and ensures daily operations. The range of services extends from the complete operation of technical systems, application management and support to consulting and development services.

As a strong partner with specialist expertise, kubus IT supports AOK Bayern and AOK PLUS in designing and improving process efficiencies for optimum results. It also develops customized architectures for AOK application operations which are constantly developed, adapted, monitored and quality assured.



1,000+

DATABASES

300+

APPLICATIONS

17,000

USERS

“If you're a small team that needs to monitor a large dataset, you need an easy-to-understand view of resource usage, activity and issues across all your monitored servers”

Thilo Fleischer, DBA

The Challenge

At AOK Bayern and AOK PLUS there are more than 1,000 databases distributed across two local data centers, of which around 350 are test databases, with 300+ applications accessing the databases. While the number of databases and the complexity of the estate continues to increase year on year, the responsibility for performance and security remains the role for a team of just three people.

To monitor the complex SQL Server environment, kubus IT initially used Microsoft's infrastructure monitoring solution, System Center Operations Manager (SCOM), as well as scripts developed in-house.

The team leader, Thilo Fleischer, understands that ensuring the smooth functioning of the entire SQL Server estate is of critical importance, and remains the focus for his team. The concern was that with personnel changes over the years, there were varying levels of experience in the team, especially around knowledge of SCOM. Thilo had to ensure that even the least experienced database administrators in his team were able to manage, and guarantee, the smooth functioning of the entire estate. As a result, the existing process with SCOM was no longer a viable option and something needed to change.



SCOM was a useful solution, but the responsibility for this infrastructure monitoring tool lay with other departments, and as SQL Server databases only made up a small part of the infrastructure being monitored, the options for customizing the tool were limited. In addition, SCOM requires a deep level of understanding to correctly interpret the diagnostic data provided, which as Thilo outlines was not realistic for team: *“We would have needed far too much time to train new employees in our existing solution so that they could have worked effectively with it.”*

In addition, fault diagnosis with the SCOM solution required laborious and time-intensive manual effort, which was becoming an increasing burden as the database estate grew. Updating and ensuring the accuracy of documentation for the additional in-house solution was also a time-consuming process, creating further strain on the team.

“Redgate Monitor gives us a selection of diagrams and graphical representations, which allows us to quickly get to the root cause and find a solution before problems arise”

Thilo Fleischer, DBA

The Solution

In December 2020, Thilo and the team implemented Redgate Monitor. For Thilo, Redgate's database monitoring solution clearly prevailed over the competition with the ability to monitor kubus IT's entire server inventory in one location, along with the ease of use and onboarding support.

“We are a small team that has to monitor a large database estate. Therefore, we need an easy-to-understand overview of resource usage, activity, and any issues on all of our monitored servers. Redgate Monitor provides us with metrics and alerts to track issues for each server and database. We can monitor our entire server inventory in Redgate Monitor and get a clear picture of the overall health.”

Many features of the newly implemented database monitoring solution are now enabling Thilo and the team to pro-actively protect against future problems. Whether it be using the server inventory functions to identify outdated SQL Server versions, identifying how storage space requirements will develop in the future, or utilizing improved monitoring of backups.



With the complexity and steep learning curve required for the previous SCOM solution, ease of set-up and use were among the key decision criterion for Thilo. Redgate Monitor not only provided all the essential functions out-of-the-box, but it was also intuitive for the entire team to use. The free onboarding resources such as Redgate University and live training sessions enabled the team to get up to speed and hands-on with the solution quickly, without the requirement for time consuming and manual documentation updates.



The Results

With Redgate Monitor, kubus IT can now diagnose problems much quicker. *“Redgate Monitor gives us a selection of diagrams and graphical representations. We can also compare the current performance of the servers with baselines and get a good insight into current and past events. This allows us to quickly get to the root cause and find a solution before problems arise,”* says Thilo.

The team’s first task of the day is to check the Redgate Monitor dashboard and alert messages. From the central dashboard they can see all of the servers and databases, with color coding easily showing at a glance whether optimization measures are necessary. This saves a lot of time because it is immediately clear where the team’s attention is needed.

“When users get in touch because applications are performing poorly, the answers are usually right at hand,” says Thilo. *“If we have a deadlock, for example, we get all the critical details displayed graphically in Redgate Monitor so that we know immediately where the problem lies. We don’t have to analyze the dependencies in SQL Server Management Studio first and can therefore act much faster and, in some cases, delegate problem-solving to other teams.”* The team now has more time to identify non-compliant, improper, or otherwise unsafe configurations to avoid security risks.



Redgate Monitor quickly became a very popular tool for the entire team due to its intuitive user interface, *"Thanks to the tips contained in Redgate Monitor for solving problems, and a variety of online courses as part of Redgate University, no lengthy training courses were necessary. And if something is not clear, Redgate's Customer Success Team is always on hand with help and advice,"* praises Thilo.

The server inventory functionality is proving its value by helping the team to track their growing database inventory, including disk space usage, backups, and the latest application updates and patches. This results in three advantages for Thilo and his team: time savings, usability for the entire team, and a lower risk of overlooking early warning signs of problems.

In addition to the server inventory overview, the team are also utilizing the ability to develop custom metrics to ensure data security and maintain compliance to protect the reputation of AOK Bayern and AOK PLUS. Custom metrics execute T-SQL queries on SQL servers to collect specific data that can be analyzed just like any other information provided by Redgate Monitor. If certain thresholds are exceeded, an alert is generated. kubus IT uses these user-defined metrics to ensure, for example, that all databases are encrypted via Transparent Data Encryption (TDE). If this function is not activated, the team is notified accordingly by Redgate Monitor.



"In the test environment, sometimes certain security settings need to be changed. Redgate Monitor helps us to ensure that no one accidentally leaves a door open that could lead to a data breach," says Thilo. In the long term, he plans to use the time gained with Redgate Monitor to set up many more custom metrics to monitor increasing regulatory and data protection measures.

The investment in Redgate Monitor has absolutely paid off for kubus IT. The team appreciates the out-of-the-box functionality that provides all the basic options for monitoring server health. At the same time, they can make full use of the configuration options to meet the individual requirements of their specific server environment.