

Sportradar Uses Pythian to Perform a Database Health Check and Accelerate Improvements

sportradar

Industry
Sports

Location(s)
HQ in St. Gallen, Switzerland

Technologies
• Percona
• MySQL

Overview
At Sportradar, a relatively small team of in-house engineers and developers run hundreds of databases. An outage would not only impact the internal teams at Sportradar, but also millions of customers who rely on their data. Sportradar contacted Pythian to get a health check of their systems.

A relatively small team of in-house engineers and developers run in excess of one hundred databases for this international sports technology company. The team wanted to be truly proactive in order to improve systems for the company's clients and asked Pythian for help.

Sportradar is the leading global sports technology company creating immersive experiences for sports fans and bettors. The company is at the intersection of the sports, media and betting industries, and they provide easy-to-consume API feeds that set the standard for speed and accuracy. The company is on a mission to engage sports fans by leveraging data in new and exciting ways.

Sportradar has 2,900 employees in 20 offices worldwide and covers more than 890,000 events per year across 92 sports. The company defines the sports experience for fans and uses its technology to protect sporting integrity globally. With so much sensitive, proprietary information at stake, Sportradar is understandably protective of its data.

Business need

Sportradar wanted to get a sense of what their blind spots were and have a health check performed on their systems.

Hundreds of databases run by a small, strong team

Sportradar's systems hold sensitive information that's critical to the company's operations and the 890,000 events covered annually. To ensure system stability, Sportradar contacted Pythian to understand whether its systems were as healthy as they could be.

At Sportradar, a team of in-house engineers and developers run in excess of a hundred databases. These databases hold information that's critical to Sportradar's operations. An outage would impact not only the internal teams at Sportradar but also customers who rely on the data.

That's why Sportradar contacted Pythian—not due to any concerns about the way the operations were being run, but to get a sense of any blind spots and to perform a systems health check. Sportradar wanted to know:

- Is there anything the company isn't doing that it should be doing?
- Is there anything that could cause issues down the road?
- What could be improved to make systems run more efficiently?
- What best practices should be implemented?

In short, are the company's systems as healthy as they could be?

Matt Devaney, Director of Engineering at Sportradar, oversees the teams responsible for the backend services business unit. They're responsible for most of the fundamental technical infrastructure, including the databases and the internally facing products that empower Sportradar.

Although the databases have been stable for many years the Sportradar team wanted to focus on improvements and catch issues before they occurred. When Devaney looked at their workload it was clear that in order to accelerate their processes or investigate new opportunities the team would benefit from additional resources.

“We wanted to understand where we had potential issues. What's something that could go wrong and cause a problem with our product? We have a strong track record in this space, and nothing has gone wrong yet; but we want to make sure nothing goes wrong tomorrow.”

-Matt Devaney, Director of Engineering.

And that's exactly what they found with Pythian—an objective, external consultant who could accelerate the thought process. “Pythian has done this before. They already have the battle scars, so we don't need to get them, too,” said Devaney.

Solution/What We Did

The solution was a report that gave Sportradar recommendations on how to approach an upgrade from version 5.6 to 5.7 or 5.8. The report included guidance around configuration settings, as well as recommendations on how and when to upgrade.

A complete backlog, concrete timelines and a risk assessment for their estate

- **Benchmarked the risk profile of the system:** Upon completion of the health check, Sportradar had a better understanding of their estate, and areas that should be targeted for remediation in the future. Now, Sportradar has a complete backlog, knows the scope of their work and has concrete next steps.
- **Educated MySQL upgrade recommendation:** Pythian presented findings that gave Sportradar recommendations on how to approach an upgrade from MySQL version 5.6 to 5.7 or 8.0. The report included guidance around configuration settings and recommendations on how and when to upgrade.

Sportradar decided to start with a health check of its Percona server for MySQL. It's the in-house system and has been in place for the last 20 years. It felt like the right place to start to get a sense of how the Pythian engineers worked and what they could produce.

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As a result, Sportradar's engineers were ready to work through the recommendations from Pythian and were well-positioned to do so successfully.

“Pythian gave us the confidence, direction and ability to do things in an informed way. We have a complete backlog. We know the scope of the work, and we have concrete next steps. We can have productive conversations around risk management and potential timelines,” said Matt Devaney. “The focus on consultancy provided a less tangible outcome than some solutions, but it provided just as much value.”

Keeping proprietary info confidential

Because of the nature of Sportradar's business, its databases hold confidential information. Although the Pythian team could have worked on the databases confidentially, Sportradar was uncomfortable providing external parties access to the proprietary queries and data. That didn't stop the Pythian team from helping.

Sportradar gave Pythian sanitized queries to review. Then, Pythian provided info on how to perform the necessary query profiles. “We reviewed the scripts and the output. We were acting like the middleman for any info Pythian needed, so we could vet the info going in both directions. It worked great,” said Devaney.

Result/Key Outcomes

Pythian performed a database health check, which accelerated improvements for Sportradar. Outcomes of the health check include a complete backlog and realistic expectations for risk management, recommendations on how and when to upgrade to MySQL 5.8, and education about future solutions.

Efficiency built on experience

Pythian performed a database health check, which accelerated improvements for Sportradar. Results of the health check included:

- **A complete backlog and realistic expectations for risk management:** Sportradar has a complete backlog, knows the scope of the work and has concrete next steps.
- **Recommendations on how to upgrade to MySQL 8.0:** Pythian delivered a report that gave Sportradar recommendations on how to approach an upgrade from MySQL version 5.6 to 5.7 or 8.0.

One of the main things Sportradar appreciated about working with Pythian was the wealth of knowledge and experience the team brought. “Pythian never said, ‘We think it will work this way.’ They said, ‘We’ve seen this before, and we can tell you what will happen.’”

Because of that experience, the Pythian team was able to leverage their internal tools to complete the work faster than expected. The team proactively looked for other ways to deliver value, and as a result, they were able to review additional items for the Sportradar team.

Now, the Sportradar team has a backlog full of things to work on, realistic timelines for the upcoming work and an awareness of where potential challenges may arise.

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-Matt Devaney, Director of Engineering.

An opportunity to accelerate change with multiple minor fixes

When asked about the recommendations from Pythian, Devaney said, “There were no showstoppers, which is a fantastic outcome. But there were places where we could make improvements. Thanks to Pythian, we know that we can maintain operations at our current level without making these changes, but we’ll improve performance and make our lives easier if we do.”

As an example, there’s an interesting interaction in MySQL between the time zone of the database and the time zone of the operating system. For Sportradar, those two instances were misaligned. It wouldn’t be a business-critical problem, but it would have side effects. “Unless you’ve been there and been bitten by it, it’s something you wouldn’t even consider,” said Matt Devaney.


“It shows the deep knowledge that Pythian has. And it also shows that it doesn't matter how good your team is, there is always room for improvement.”

-Matt Devaney, Director of Engineering.

For strong teams, sometimes the best improvements come from making multiple small tweaks in numerous places. “There's value in talking to Pythian. They were able to accelerate change in ways that we couldn't. They have the skills, knowledge and people to help,” said Devaney.

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 twitter.com/Pythian

 Contact us at +1-866-798-4426 or info@pythian.com

ABOUT PYTHIAN

Founded in 1997, Pythian is a global IT services company that helps organizations transform how they compete and win by helping them turn data into valuable insights, predictions and products. From cloud automation to machine learning, Pythian designs, implements and supports customized solutions to the toughest data challenges.

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