



# SaaS Company Rapidly Scales Transportation Platform with Google Cloud Spanner

Pythian helps software-as-a-service company process billions of data points a day, with high availability, disaster recovery, and horizontal scaling.

## Overview

This company provides a software-as-a-service platform that connects commercial vehicles to the cloud, with data-driven analytics to help fleet operators better manage their fleets. The company's open marketplace offers hundreds of third-party solutions, allowing fleet operators to automate their operations by integrating vehicle data with other data assets. Processing billions of data points a day, the company leverages data analytics and machine learning to help customers optimize fleets through the reduction of fuel consumption, enhance driver safety, and ensure compliance with regulatory changes.

## The challenge

As a rapidly growing business, the company required a data system that could rapidly scale to keep pace with business growth. Leadership had a target of growing the company by a factor of 10, which meant they needed to evaluate their data system to see whether it could handle the associated increase in data volume.

The company was using a mission-critical system which used Microsoft SQL Server as its backend database technology. However, the IT team determined that they needed a simpler way to scale their data system so it would grow linearly with their data volume.

The team began evaluating a migration from SQL Server to Google Cloud Spanner—a distributed SQL database management and storage service with high performance and availability at virtually unlimited scale—and turned to Pythian for their expertise with Google Cloud Spanner.

## The solution

More than 2 million devices regularly connect to the company's registration system in SQL Server, and the team wanted to migrate two of their Microsoft SQL Server databases—approximately 180GB and 200GB in size—over to Google Cloud.

## Industry

Telematics

## Location(s)

Canada

## Technologies

- Microsoft SQL Server
- Google Cloud Spanner
- Striim

## Overview

This company provides a software-as-a-service platform that connects commercial vehicles to the cloud. As a rapidly growing business, the company required a data system that could scale to keep pace with business growth.

## Business need:

As a rapidly growing business, the company required a data system that could rapidly scale to keep pace with business growth. The team began evaluating a migration from SQL Server to Google Cloud Spanner—a distributed SQL database management and storage service with high performance and availability at virtually unlimited scale—and turned to Pythian for their expertise.

Since there was a requirement for real-time replication between SQL Server and Spanner—and vice versa—Striim was chosen to accelerate the time to solution. Striim helps to unify data in Google Cloud with real-time data analytics.

The company also wanted a clean cutover between SQL Server and Spanner, rather than running them both side by side. Pythian worked with the IT team to assess Spanner, and identified that Spanner could unlock capabilities for the business such as providing:

- A fully managed service in Google Cloud
- The ability to scale up and down by adding or removing nodes
- High availability and disaster recovery capabilities, including multi-region Spanner databases
- Strong or bounded consistency across nodes and regions

Pythian also developed post-migration operational capabilities as part of the solution—a one-of-a-kind deployment for Spanner using Terraform for scheduled backups and monitoring.

## Business outcome

After Pythian provided the company with a technical assessment and migration plan, Pythian seamlessly deployed Google Cloud Spanner—achieving the company's quick timeline of eight weeks.

By migrating to Spanner, the company now has access to a fully managed cloud solution with built-in high availability, disaster recovery, and horizontal auto scaling, with support for distributed read workloads. This has eased management for the company's IT team; they've also decreased their dependency on SQL Server.

This translates into faster development times by minimizing the time and effort to maintain their infrastructure, allowing the company's developers to focus on creating the best experience possible for their users.

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## Want to see similar results for your company?

[Get in touch](#) with a Pythian Google Cloud expert to see how our team can help.

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### 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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### Solution/What Pythian did:

Pythian worked with the IT team to assess Spanner, and identified that Spanner could unlock capabilities the business needed. Pythian also developed post-migration operational capabilities as part of the solution—a one-of-a-kind deployment for Spanner using Terraform for scheduled backups and monitoring.

### Result/Key outcomes

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Pythian

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