Redeveloped 9Spokes' BI Application in Golang & Enabled Newer Integrations

SUMMARY

9Spokes is a web application that helps businesses and financial institutions to harness business data and gain valuable insights. Gophers Lab helped 9Spokes to redevelop its legacy platform using the Go language to allow more platform integrations to access more data. The solution helped 9Spokes to cater to more customers and provided them with a wider and richer data set.

- ✓ **Redeveloped the back-end in Golang for faster communication & loading**
- ✓ **Integrated database with the application**
- ✓ **Implemented 20 new ETL domains**

Business Intelligence
DOMAIN

New Zealand
COUNTRY

Back-end, Database
SERVICES

SaaS Platform   Finance   Data

Banking   Business Analytics

ABOUT THE CUSTOMER

Founded in 2012 in New Zealand, 9Spokes is a solution that helps businesses aggregate meaningful business data and deliver powerful insights. It makes seamless integrations to provide access to rich data sets through a single API.

9Spokes empowers businesses of all sizes and financial institutions to manage their performance and enables developers to harness data, information, and knowledge sets to build apps that support their growth.
Its dashboard helps them create data-driven solutions for their digital future to stay competitive.

9Spokes is listed on the Australian Stock Exchange (ASX: 9SP).

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CUSTOMER CHALLENGES

9Spokes aimed to become a one-stop source for business intelligence for businesses and financial institutions. However, the company faced the following challenges:

- 9Spokes' had an existing **application** with legacy architecture, which was not optimized for fast communication and data extraction
- **Newer integrations** needed to be made to be able to pull data from additional applications, which was not possible with the legacy app
- New fields could not be applied to the original data since the application was **not storing data** at the back-end

SOLUTION IMPLEMENTED

Gophers Lab leveraged its expertise in Go language to rebuild the 9Spokes back-end and help them overcome their challenges with the existing application.

- Migrated the code to **Golang**
- **Integrated database** to store original data
- Implemented ETL (Extract/Transform/Load) for various domains, including Pandle, Shopify, Zoho, Stripe, and WooCommerce
- Added **authentication model** for every integration to be able to pull customer data securely
- Implemented a **metric service**, which is used to read data from the database to show the analytics

TECHNOLOGY STACK

BACK-END	GO REST API GraphQL SoapUI
DATABASES	mongoDB redis RabbitMQ
CLOUD	Azure
TESTING	testify
TOOLS & FRAMEWORKS	OAuth 2 JWT

BUSINESS RESULTS

Businesses need data to make better decisions to survive and thrive in a competitive market. Gophers Lab's solution helped 9Spokes to achieve its objectives in the following ways:

- The upgraded application **communicated and loaded faster** as it was built on the Go language
- Integrating **20 new ETL domains** helped 9Spokes extract a wider set of data, process it, and provide valuable insights
- It helped 9Spokes **gain more customers** as it allowed them to integrate their supported software into the dashboard, along with choosing from a selection of apps to suit their needs
- Integrating the database allowed the customers to add new fields and **analyze their original data** in greater depth

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