

Openforce Enhances Data-Driven Decision-Making with Improved Reporting

Pythian assists Openforce in bettering data management and reporting through a modern data warehouse solution.

Openforce, based in Scottsdale, Arizona, provides workforce management solutions. They focus on managing independent contractor engagement, payment processes, and compliance. With a large customer base, Openforce aims to improve their customers' operational efficiency and regulatory compliance while offering detailed reporting and analytics.

Challenge

Like many fast-growing companies, Openforce faced challenges with data management and reporting. Inconsistencies in data and delays in reporting stemmed from isolated systems that couldn't communicate effectively, making it difficult to provide the timely and accurate insights needed for customer retention and service delivery strategies.

"Delivering reports across our disparate data sources can sometimes result in data inconsistencies resulting in unacceptable turnaround times. We need a solution to provide consistent and timely business insights to our team members as well as our customers." - Jared Allen - CTO / CISO at Openforce

Openforce's data was distributed across separate SQL Server databases, making it hard to gather information and make sense of it. Without a centralized data warehouse, creating comprehensive reports required lots of manual work and expensive engineering resources. This manual process also led to mistakes, delays, and inconsistencies.

The lack of automated reporting caused delays that affected business operations. Openforce struggled to utilize past data to inform their system and service delivery strategies effectively, limiting their ability to accurately forecast system usage and service delivery requirements. Additionally, if Openforce couldn't provide timely and detailed reports to its customers, it risked damaging trust and relationships—potentially impacting their market position.

Industry

Software, Workforce Management

Location(s)

United States

Technologies

- AWS Cloud
- AWS Glue
- Snowflake
- PowerBI

Overview

Openforce, based in Scottsdale, Arizona, specializes in workforce management solutions for independent contractors, focusing on engagement, payment processes, and compliance. As the company experienced exponential growth, it presented opportunities to enhance reporting by addressing fragmented data.

The solution

Pythian was brought in to tackle these challenges by building a comprehensive data warehouse and reporting system. With Pythian's deep experience and expertise in cloud solutions and data management, they suggested a step-by-step plan tailored to Openforce's needs.

The project began with gathering requirements to understand Openforce's problems and goals. This involved detailed discussions with stakeholders to outline the project scope, data sources, and key performance indicators (KPIs).

Pythian then analyzed the existing data sources, systems, and reporting needs and then designed a new data warehouse setup. For the cloud infrastructure, they recommended continued use of AWS Cloud due to its scalability and performance, AWS Glue for all data transformation needs and Snowflake for the data warehouse platform because it's fast, flexible, and cost-effective.

The team designed a dimensional model (with fact and dimension) that ensured data is organized and accessible to customer reporting requirements. Pythian created ETL (extract, transform, load) pipelines using AWS Glue and Snowflake, allowing the organization to ingest, load and transform (ELT) data from multiple sources easily.

Next, they built PowerBI reports and dashboards to offer insights and advanced analytics. Finally, the team conducted rigorous testing and user training to ensure the system was dependable and users could transition smoothly.

"Just want to say a huge thank you to everyone who worked so hard on this project. The value of having access to this data is absolutely huge, not just for the time it saves but for the larger business level insights we can get from it. Thank you so much!"

– Amy Long, Vice President of Sales at Openforce

Business Need

Openforce needed a centralized and automated reporting system to improve accuracy, reduce delays, and provide better insights for client retention and pricing strategies.

What Pythian did:

1. Planning and requirements gathering: The first step was to evaluate the current data sources, systems, and reporting needs.
2. Architecture and design: Pythian then designed the data warehouse setup, opting for AWS Cloud due to its scalability and performance, and chose Snowflake as the data warehouse platform because of its speed, flexibility, and cost-effectiveness.
3. Dimensional modeling and data warehouse implementation: They created a star schema model with fact tables and dimension tables to organize and access data efficiently.
4. ELT development and data integration: Pythian built ELT pipelines using AWS Glue and Snowflake to enable the customer to easily ingest, transform, and load data from various sources.
5. Reporting and dashboard development: They created PowerBI reports and dashboards to provide insights and analytics.
6. User acceptance testing, training, and go-live: They carried out extensive testing to ensure the system's reliability, followed by user training to ensure a smooth transition.

Business outcome

The new data warehouse and reporting system have significantly changed how Openforce manages their data. The centralized data warehouse lets them access various data sources from one place, making their data management more efficient and reliable.

[We saved] A ton of time, it really depends on the task/request. For example, getting data for QBRs, creating the tickets, manipulating the data into slides etc. will save hours of time. In terms of how quickly we can get this data versus the past waiting on tickets, it will save weeks of time. In terms of client questions or weekly tasks, minutes or hours depending on the request."

– Amy Long, Vice President of Sales at Openforce

Automated data pipelines now make sure updates are timely and consistent. This reduces the dependency on engineering and lowers the chance of reporting errors. The new PowerBI reports provide useful insights, helping in making informed business decisions and planning strategically.

Solution/What Pythian Did

Pythian implemented a data warehouse and advanced reporting system using AWS infrastructure, Snowflake, and PowerBI, ensuring seamless data integration and enhanced reporting capabilities.

“You didn't seem like other vendors who care just about checking boxes. You seemed like you genuinely cared about us. You were like our best friend.”

– Sarah Baughman, Sr. Software Engineer & Engineering Mgr. at Openforce

With their enhanced reporting capabilities, Openforce can give clients more detailed and timely reports, which boosts client satisfaction and retention. Their new system also allows them to use past data to better inform their system usage and service delivery forecasting, giving Openforce a competitive advantage.

Elevate and automate your data with AWS

Pythian is [your trusted AWS partner](#). You'll have the industry's best talent working to help you develop and refine your cloud strategy, adopt innovative technologies, execute your roadmap, and optimize service quality.

Result/Key Outcome

The new system has helped Openforce streamline their data management processes, reduce reporting errors, and provide timely, actionable insights, leading to stronger data-driven decisions, better client satisfaction, and retention.

About Pythian

Founded in 1997, Pythian is a data and analytics 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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