

# CAR-SHARING COMPANY MOBILITY IS CHANGING SWISS MOBILITY WITH SNOWFLAKE

TRANSPORTATION

**mobility**

COMPANY Mobility

LOCATION Risch-Rotkreuz, Switzerland

## SNOWFLAKE WORKLOADS USED



Mobility offers its 245,000 customers across Switzerland access to 2,950 vehicles at 1,540 stations. The cooperative provides return car sharing across Switzerland, One-Way cars for one-way trips between cities and airports, and Mobility Go for spontaneous driving in Basel. Mobility's car-sharing system is simple, affordable, fully automatic, available around the clock, self-service, and highly sustainable thanks to state-of-the-art technology.

## STORY HIGHLIGHTS:

### Predictive analytics that boost the user experience

Snowflake now provides Mobility with the performance to predict user behavior and improve its user experience.

### Improve insights on locations and individual cars

With Snowflake, Mobility can set up alerts to inform fleet managers if a vehicle or location is particularly above or below average, and take action based on that.

### Leveraging the telemetric data of its fleet of vehicles

Each car sends a set of semi-structured data every few seconds. With Snowflake, Mobility can finally store and analyze this anonymized data.

“The biggest impact of moving to the Snowflake Data Cloud was its simplicity—the reduction of complexity. And in turn, we get to focus on innovation.”

—MARCEL AMSTUTZ, Chief Innovation Officer, Mobility

## CHALLENGE:

### Reduce complexity

At Mobility, a team of analysts is tasked with optimizing the analytical architecture used by the leading Swiss car-sharing company for its operation.

The team wanted to give Mobility's business users (such as marketers) better self-service analytics tools to democratize data analytics. The analysts concluded that there were two options to approach this challenge: either invest heavily in training staff or implement a new analytics solution. The team decided to invest in the easy-to-use analytics software ThoughtSpot, but to support this new tool, they needed to update Mobility's data foundation.

According to Marcel Amstutz, Chief Innovation Officer at Mobility, “Even after moving from an on-premises SQL server to a cloud solution in 2018, performance was still a challenge. It was still not possible to analyze the previous day's data because the process to update the data took 24 hours.”

While Mobility's operations data was well suited to a SQL architecture, all the semi-structured behavioral data from the app, website, and its car fleet could not be stored in SQL. It was also necessary to manually combine data from different sources before it was possible to conduct a comprehensive analysis. The requirement to have all data in one single platform was ultimately the trigger to look for a new solution.

## SOLUTION:

### From PoC to migration to go-live in just six weeks

Given Snowflake's existing partnership with ThoughtSpot, and the near-unlimited scale and its native support of semi-structured data, the Snowflake Data Cloud was ticking all the boxes for Mobility.

## 2 weeks

To migrate 100% of the operational data

## 8x

Faster in refreshing the database compared with the former cloud solution

The company originally planned only to build a proof of concept in the platform. Two weeks in, after seeing the initial results, the team decided to go ahead and migrate to Snowflake. Another two weeks later, the migration was complete. And after two more weeks, the team even stopped updating the old system.

“The whole process worked very fluently,” Amstutz said. Even better, the data refresh was reduced from 24 hours to just three hours—before that, the team had to invest a vast amount of time to constantly optimize the database; with Snowflake, it ran that fast right away with near-zero maintenance.

#### Snowflake Community

A valuable attribute for Amstutz both during and after setup is the active community of Snowflake users who are approachable and help each other by sharing advice.

## RESULTS:

### Vehicle utilization improvement

Mobility Go’s free-floating concept allows customers to park their vehicle within the defined zone of operation, but it also leads to a core problem: Consumers often drive from the inner city to the outskirts. Now, data scientists can create machine learning models that identify unfavorably parked cars and areas in the city that have too few vehicles for expected demand. By combining the results of the current situation with the predicted demand, Mobility can offer incentives such as discounts to customers to motivate them to book cars outside of the city and to park them in areas where demand is higher. As a result, customers can save money, the availability of cars improves, and Mobility’s vehicles are better utilized.

### Highlight the best and worst vehicles and locations

If a vehicle or a location is doing particularly well or poorly, then the system sends an alert to the responsible fleet manager. This sounds like an easy task, but the data model quickly becomes complex. For example, if a car is in more demand than others, then the system needs to check if there have been more identical car models available in the same location or only some of the same category but from other manufacturers. All those data sets need to be included and considered to the right extent. Before migrating to Snowflake, Mobility’s system was too slow to calculate utilization rates fast enough and to derive measures from them. Now, the calculation can be done with the latest data in just 30 minutes.

### Insights from connected IoT devices

In each car in its fleet, Mobility has installed a small onboard unit that communicates between the vehicle and the booking system. While this unit allows users to unlock and start the car, it also receives anonymized information directly from the car.

This semi-structured telemetric information allows the company to improve the customer experience as well as its fleet management.

“Thanks to Snowflake, we are able to run a much more intelligent system. Before, everything was only descriptive; now, we can add intelligence to it.”

—MARCEL AMSTUTZ, Chief Innovation Officer, Mobility

## FUTURE:

### Calculate complex data models with Snowpark

At the moment, Mobility is relying on a third-party tool to run its machine learning scripts. But with the new Python support for Snowpark, the company will consider exploring the feature’s use cases to reduce the number of applications and to make their processes more efficient.

“It really is all about the customer experience at Mobility, and that’s fueled by data. We’re excited by the long roadmap of what Snowflake will empower us to do.”

—MARCEL AMSTUTZ, Chief Innovation Officer, Mobility

## ABOUT SNOWFLAKE

Snowflake delivers the Data Cloud—a global network where thousands of organizations mobilize data with near-unlimited scale, concurrency, and performance. Inside the Data Cloud, organizations unite their siloed data, easily discover and securely share governed data, and execute diverse analytic workloads. Wherever data or users live, Snowflake delivers a single and seamless experience across multiple public clouds. Join Snowflake customers, partners, and data providers already taking their businesses to new frontiers in the Data Cloud. [snowflake.com](https://snowflake.com)