



Dremio Supports Moonfare's High-Performance Culture with a High-Performance Lakehouse



Challenges	Solution	Results
A PostgreSQL-based cloud data warehouse on AWS was no longer able to handle Moonfare's growing data volume and user community.	Replacing the data warehouse with a Dremio cloud data lakehouse provides Moonfare with the scalability and speed they need.	Dremio empowers all data consumers with easy access to all the data they require – either directly or via a method or tool of their choice.
The cloud-native company wanted a modern, open and cost effective technology that would be able to support decision making and company growth today and in future.	Dremio Cloud, with its Sonar and Arctic services, combines performance with flexibility, offering a robust, cost-effective cloud environment that is ready for growth.	By eliminating cumbersome ETL processes, Dremio ensures a more efficient and faster time to data, increasing employee productivity.
Working in a high-performance environment, analysts need a reliable and fast data platform that is capable to support them 100%.	Dremio views can be easily re-used to build new queries to feed reports and dashboards for instant access to up-to-date information.	Data analysts have complete visibility into data lineage and can track every aspect of the data to understand trends and make informed decisions.

CUSTOMER

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www.moonfare.com

GEO

Germany, worldwide

INDUSTRY

Financial services

REVENUE

OBJECTIVES

Invest in a modern technology that is ready for growth and create a high performance, future-proof environment that offers fast results and ease-of-use to all users.

DATA ENVIRONMENT

- **Cloud:** Amazon Web Services (AWS)
- **Data ingestion:** AWS Database Migration Service (DMS), Python
- **Data sources:** MySQL, Twitter, Facebook, Segment
- **Storage:** AWS S3
- **Compute:** Dremio
- **Analytics:** Tableau, Jupyter

Summary

Moonfare replaced a PostgreSQL-based data warehouse on Amazon Web Services (AWS) with a Dremio data lakehouse to offer data engineers, analysts and business users a high performance platform for business intelligence and predictive analytics empowering them to make better data-driven decisions.

The Business – Opening the Private Equity Market to Individual Investors

In contrast to public equity, private equity is a stake in any company that is not publicly traded on a stock exchange. The focus is not on making quick gains. Instead, private equity gives companies access to alternative funding for a longer strategic horizon while offering investors particularly high returns that are less correlated to public markets and are therefore an attractive way to diversify and mitigate the risk of a portfolio.

Until recently, access to private equity has been limited to institutional investors as investment minimums are usually in the tens of millions. Now, with Moonfare, individual investors and their advisors can access the private equity market with as little as €50,000*. It works by aggregating individual demand into a feeder fund structure, which then invests directly into the underlying target funds.

Founded in 2016, Moonfare is headquartered in Berlin, Germany, and operates in 24 countries. The company has offices in New York, Hong Kong, London, Zurich, Singapore, Paris and Luxembourg. Over 3,500 clients have invested more than €2 billion on its digital platform.

The Challenge – High-Speed Access to Insight at a Reduced Cost

Moonfare's mission is to lead a new era for private equity investing and to open the door to higher returns for more people. To achieve this, the company has created a powerful platform offering a unique experience to their investor community. 99% of the technology and the complete infrastructure is cloud-based.

Moonfare launched their first fund in 2018. At that time, a PostgreSQL-based data warehouse on AWS was chosen as data platform. But with increasing data volumes and growing numbers of investors, it became a bottleneck, delaying access to vital information.

When looking for a replacement, Moonfare's decision makers had the advantage that they did not have to worry about any legacy systems. They could start from scratch and look at the most

"What's super important is that Dremio takes away ETL jobs. We had to create an ETL job for every transformation wasting a lot of time and effort in the process. Now we can keep our analysts happy with up-to-the-minute data they can query in no time."

Angelo Slawik
Data engineer, Moonfare

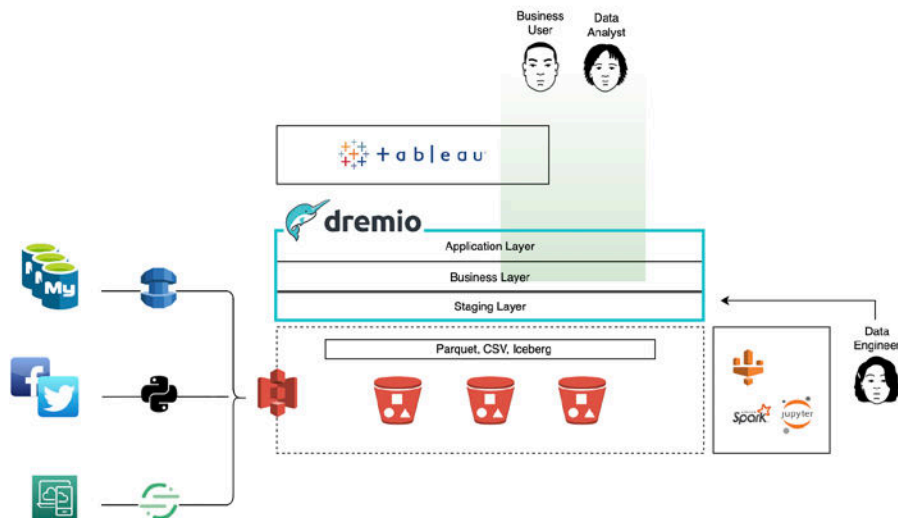
innovative technology on the market concentrating on best of breed solutions that could meet their exacting requirements regarding scalability, speed, functionality and costs.

The Solution – A Cloud Platform Ready for Growth

At first, Moonfare's decision makers looked at alternative data warehouses and examined Snowflake and Firebolt, but both systems did not offer what they had in mind. Firebolt was lacking a connector to Tableau that was vital for their use cases and Snowflakes proved to be too inflexible. Its proprietary data format meant that Moonfare would have no control over their own data, resulting in a potential vendor lock-in.

While the data warehouse idea was discarded, the benefits of the new, open data lakehouse architecture immediately appealed to the evaluation team. This approach offered them the best of both worlds: the data management features and structures of a data warehouse combined with the flexibility, scale and cost-efficiency of a data lake.

As a customer of AWS, Moonfare initially evaluated Amazon S3 together with Amazon Athena, an interactive query service that enables SQL queries on S3 data. But in a proof-of-concept runoff Dremio put Athena out of contention. Dremio convinced Moonfare with its user-friendly interface, a variety of documentation features including data lineage graphs and table wikis, and – most importantly – its speed.



HIGHLIGHT

Go-live of the first
use cases in only

3 months

With query engine Sonar and data management service Arctic, the Dremio Cloud data lakehouse platform ticked all the boxes, offering

- Scalability
- An open architecture
- Super fast performance
- Role-based security and governance
- A highly functional user interface

Once the data lakehouse platform was chosen, Moonfare management onboarded dedicated experts to support and maintain it. “This may seem rather unorthodox,” says data engineer Angelo Slawik. “But that way, no HR time and money was wasted and Moonfare enlisted the right talent at the right moment while I was offered the fascinating opportunity to work with a new technology right from the start. We all are rather proud of the swift implementation. After the first contact with Dremio it took us only 3 months to get the first use cases up and running. Considering that we started from scratch, this is pretty good timing.”

In the new, Dremio-centered architecture the data lake in S3 is populated with data from three main sources. Custom Python scripts store data from external sources like Twitter or Facebook while user tracking data is synced via Segment. Data from MySQL databases that represent the multiple back-end-services of the Moonfare platform itself is streamed to S3 using AWS Database Migration Service (DMS).

In the data lakehouse, data is stored in Iceberg, Parquet and CSV formats. Here data engineers use Python or PySpark via AWS Glue to manipulate and prepare the data before staging.

Angelo Slawik: “Dremio’s view-centered architecture enables us to execute SQL-based data transformations without the need to write ETL jobs for each and every table. Furthermore, we can store our data in our formats in our own S3 buckets. We have complete control and are not dependent on a vendor.”

With Dremio, data analysts and skilled business users are now able to explore data at speed using either a tool of their choice or querying it directly. Normal end users can tap into their knowledge in the form of reports and dashboards, that are available for them in Tableau.



Results

Moonfare's Dremio lakehouse platform went live in 2022 and supports a growing number of data consumers. Data engineers, analysts and business users benefit from the advantages, including:

Faster time to data – lightening the load of data engineers

In the past, transforming data was time-consuming and error-prone. Each table required its own, separate ETL job. If one job failed or got stuck, the whole process ground to a halt. Dremio eliminates the coding of cumbersome ETL processes. Data transformation has become a fast and dynamic process that happens at run-time. A new query does not require the coding of a new job any more. Any Data in S3 can be queried directly and is processed only when needed saving resources, time and costs.

Faster time to data – self-service for data analysts

Moonfare's data analysts prepare the data for easy consumption serving as intermediaries between data engineers and business users. Dremio provides analysts with a secure and consistent view of the data. They have complete visibility into the origin, evolution, and meaning of each dataset and they can see how it is related to other datasets. This facilitates analytics and speeds up time to insight and value. Dremio's fast performance and the highly functional self-service interface enables analysts to curate, explore, and share datasets at speed. They can spot trends, draw conclusions, and publish their finding for easy consumption in form of reports and dashboards.

Detailed analytics beyond reports

Some business users want to explore data in more detail. At Moonfare, e.g., the finance team uses virtual data sets (VDS) to ingest data into Excel for extensive investigation. These Dremio-specific views can be described as the results of a chain of transformations that are carried out on the table(s) of data sources. They offer an effective way to current data without copying it and enable SQL-savvy SMEs to work directly with datasets. As VDS can be re-used and based on each other, creating new VDS is easy, allowing product managers and business users even deeper insights into marketing campaigns, customer behavior, the most profitable sales reps or funds and more.

Security and governance

Working with highly sensitive personal information, data privacy and security are key at Moonfare. With Dremio users can only see the data they are allowed to see. Access rights are role-based and can be restricted to specific datasets. Dremio ensures adherence to internal governance guidelines as well as GDPR compliance.

"With Dremio you can intuitively query the data from the data lake. Users coming from a data warehouse environment shouldn't have to care where the data resides."

Angelo Slawik
Data engineer, Moonfare

Future-proofing a high-performance culture with best-of-breed technology

Private equity may be a long-term investment, but supporting all aspects of the business requires a high-performance culture that is very much in the here and now. As Moonfare was able to build their new platform from the bottom up, they chose only in the best and most innovative solutions. This best-of-breed approach has provided them with a robust, scalable, and open Dremio environment, that leaves them perfectly prepared for growth and long-run profitability.

Next Steps

So far, customers using the Moonfare site have to pick and chose their funds themselves. While experienced investors welcome this self-service, it presents an obstacle to those who are new or used to having their stocks and funds managed. Currently, Moonfare is looking into new service offerings to better assist these investors. Whatever the solution, the Dremio data lakehouse is ready to support it and future use cases, like providing the investment team with a faster, more transparent and structured process for fund analytics.

ABOUT DREMIO

Dremio is the lakehouse company. Hundreds of enterprises around the world, including brands like Allianz Global Investors, FactSet, Knauf Insulation, Nutanix and OTP Bank, use Dremio's SQL engine to deliver mission-critical BI on the lake. As the original creator of Apache Arrow, Dremio is on a mission to reinvent SQL for data lakes and meet customers where they are in their cloud journey. Dremio was founded in 2015 and is headquartered in Santa Clara. To learn more, follow the company on [GitHub](#), [LinkedIn](#), [Twitter](#), and [Facebook](#), or visit www.dremio.com.

*Subject to eligibility, Don't invest unless you're prepared to lose all the money you invest.

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