Making the journey from an on-premises SQL Server to Snowflake

Client
A clinical asset management company

Company Size
3,000+ employees

Featured Partners

snowflake

Microsoft

The IT leadership team at a clinical asset management company relied on an aging, on-premises SQL Server for their data environment, which limited agility, scalability, and real-time insights. With a need to modernize their data architecture to support future growth, they partnered with Marlabs to migrate their infrastructure to Snowflake, a cloud-based data platform built for scale, performance, and flexibility.

Marlabs executed a migration strategy to replace legacy processes with modern cloud-native tools. Through careful planning, development, and knowledge transfer, the distributor now benefits from enhanced analytics capabilities and improved scalability with a forward-compatible platform. The project laid the foundation for future automation and advanced analytics use cases.

Data Architecture & Engineering

Cloud Migration

Data Integration

Data Strategy & Assessment

The Challenge: Modernizing data infrastructure for future scalability

Objective: Establish a scalable, cloud-based platform that supports advanced analytics and automation.
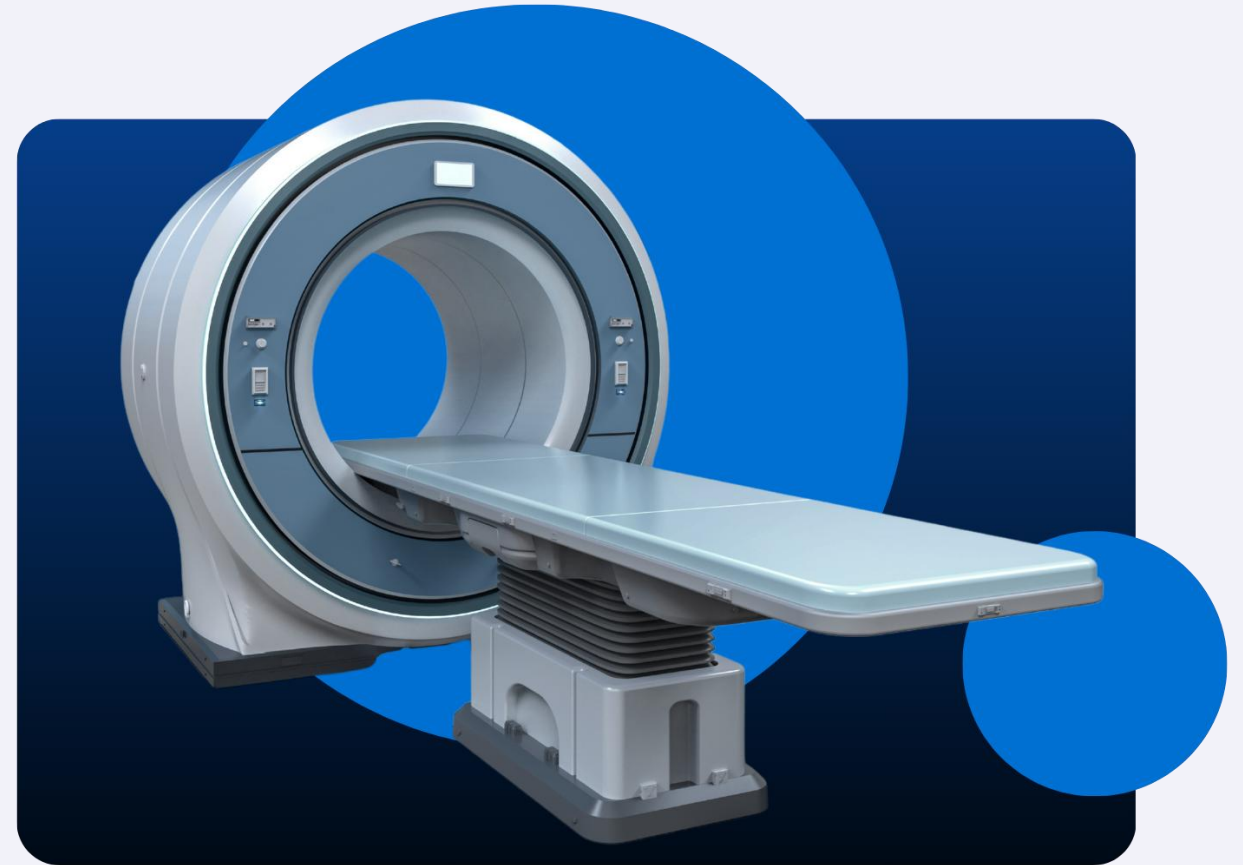
Existing Issues: The legacy SQL Server infrastructure was limited in scalability, performance, and adaptability.

Solution Needed: A modern, cloud-based data platform that allowed for cost-efficient, secure, and seamless migration.

Outcome: A successful migration to Snowflake with improved data performance and greater agility.

The client, a clinical asset management company, needed to move away from an outdated on-premises SQL Server environment. They needed a system that would support rapid business growth and evolving data needs.

The Solution: Strategic migration from a SQL Server to Snowflake

Marlabs designed and executed a multi-phase approach to migrating the client's legacy data infrastructure to Snowflake. The strategy prioritized minimal disruption, long-term sustainability, and empowerment of the internal teams. The solution enabled scalable data operations and simplified reporting, and it set the stage for advanced analytics and future automation.

Phase 1: Assessment & Planning

Our team collaborated with the client to define objectives, assess readiness, and align architecture with business goals.

Workstreams:

- Platform evaluation
- Technical roadmap development
- Risk assessment
- Timeline and resource planning

Phase 2: Foundation & Migration

Next, we established a Snowflake environment, migrated data sets and Power BI reports, and replaced legacy pipelines using Matillion.

Workstreams:

- Environment provisioning
- Pipeline redevelopment
- Schema mapping
- Data validation

Phase 3: Enablement & Optimization

In this phase, we built documentation, testing, and training to ensure smooth transition and ongoing optimization.

Workstreams:

- Knowledge transfer
- Performance tuning
- Governance documentation
- Change management

Services and Technologies Used:

Services:

- Data Architecture & Engineering
- Cloud Modernization
- Data Integration
- Data Strategy & Assessment

Technologies:

- Snowflake
- Matillion
- SQL Server
- Microsoft Power BI
- Azure

The Results: Impact on the client organization

The client successfully transitioned from a rigid, on-premises environment to a flexible, cloud-based data platform. The new architecture improved performance and scalability. Additionally, it enabled better data governance, faster decision-making, and easier integration with modern tools. The engagement demonstrated the value of proactive planning for cloud transformations.

Scalable Cloud Platform: This initiative enabled future data growth without additional hardware investment and positioned the client to adopt automation and AI initiatives.

Faster Reporting Cycles: We accelerated the time-to-insight for business users.

Improved Data Performance and Speed: We reduced processing times and improved query speed.

Empowered Internal Teams: Our team equipped stakeholders with the knowledge to manage and extend the new platform.

Enhanced Data Governance: This work increased visibility and control over data pipelines and access.