

SAS® Viya® with SingleStore

Delivering a next-generation AI and analytics solution for rapid insights with simplified data access, reduced costs and improved productivity



Simplify data architecture by unifying operational, analytics and AI workloads.



Accelerate data ingestion with high throughput on concurrent data workloads.



Minimize data movement by layering and co-locating analytics and AI in the database.



Reduce the technical debt of duplicate data stores and applications.

The Issue

Organizations need quick answers to critical questions to make informed decisions. How? The analytics life cycle is the tried-and-true way to deliver fast insights. It's a continuous process of managing data and developing and deploying models. Businesses can accelerate their analytics journey by simplifying the underlying data platform architecture and automating the end-to-end data pipeline. Unfortunately, many organizations fail to do this effectively.

Traditional data architectures emphasize building an enterprise data platform by creating data stores, such as data lakes, data lakehouses and data warehouses. But they don't consider an organization's actual data requirements to meet a variety of downstream analytics and AI use cases. Duplicate data stores (associated with multiple applications) increase technical debt, making data management more complex and costly.

With the focus on creating separate data and analytics stores, businesses risk increasing their total cost of ownership due to the associated storage costs and unwanted silos. Isolating analytical data repositories and moving data around slow decision making - and data isn't optimized to support different users, use cases and workloads.

The Challenge

Due to the architecture issues mentioned above, customers are challenged by these major constraints when iterating through the analytics life cycle:

Time. Disconnected, manual processes and repetitive data movement slow decisions. With SAS and SingleStore, consistent, low latency queries and the elimination of unnecessary data movement drastically reduce processing time.

The cost of storage, infrastructure and technology. The cost of analytical decisions has drastically increased - be it storage, computing or infrastructure expenses - due to increases in different types of data workloads (e.g., AI, analytics, ETL or machine learning). Through efficient data compression, SAS Viya with SingleStore lowers costs by reducing data storage and memory footprint.

Complexity. Managing multiple data sources, data integration challenges and hybrid cloud approaches adds complexity. By bringing together multiple data sources and workloads in a unified system, complexity is reduced.

Our Approach

With SingleStore's real-time distributed SQL database and SAS' analytics performance, this integration delivers four key advantages to support a modern cloud architecture.

Flexible, open data access

Store data in a secure, high-performance framework. Curated data is available to SAS, open-source and third-party tools in a govern manner to easily manage data across a complex footprint of systems and applications.

Cost optimization

Combine multiple data stores into an all-in-one database for analytics and AI workloads with built-in encryption, simplified data storage with compression and reduced data duplication.

Greater productivity

By unifying data across platforms, organizations improve productivity with ultra-fast data ingestion to drive analytics on operational data. This eliminates unnecessary data movement from ad hoc analytical workloads. High concurrency and super-low latency enable consistent performance for real-time queries, along with support for all major data types (structured, semistructured and unstructured).

Expanded analytical insights

ANSI SQL compliance supports easy access to a broad array of real-time, streaming and batch workloads with a bring-your-own-tools approach. Developers, data scientists and data analysts can use SAS, Python, R, etc., to build and run transactional and analytical data pipelines.

The SAS® Difference

By combining the performance of SingleStore and the integrated analytics life cycle approach of SAS, organizations can:

- Simplify data architecture by unifying operational and analytical workloads into a single modern data store.
- Enable fast data ingestion and high throughput on concurrent data and analytics workloads.
- Minimize data movement and improve productivity by layering and co-locating AI and analytics in the database.
- Lower the cost of analytics decisions by reducing storage and memory footprint using highly compressed data storage.
- Provide easy access to a broad ecosystem of real-time, streaming and batch workloads through ANSI SQL syntax.
- Use any type of structured data (relational data), semistructured data (JSON, XML, key-value store, graph DB) and unstructured data (sensor data, text files, audio, video).
- Create a much stronger enterprise data fabric with democratized data and modernized data architecture.



FLEXIBLE, OPEN DATA ACCESS

Easily manage the analytics life cycle and governance with our extensible, open data approach.



COST OPTIMIZATION

Simplify data management processes, reduce data duplication and improve operational costs.



GREATER PRODUCTIVITY

Get more value from data by improving productivity and the effectiveness of analytical processes.



EXPANDED ANALYTICAL INSIGHTS

Provide access to all analytical data across workloads, applications and users.

For more information, please visit sas.com/viya-singlestore.

