

Supercharge Your SaaS Applications

| Powering Modern Data Applications with SingleStore

Modern SaaS applications are ubiquitous, powering every segment from fintech, adtech, martech and gaming to enterprise applications for real-time portfolio analytics, supply chain analytics and wealth management. Today, these interactive SaaS applications power unique real-time digital moments, from the “can’t wait” business analytics to the “won’t wait” customer experiences. Modern SaaS applications are data intensive in that they need to offer fast, interactive digital experiences for thousands — or hundreds of thousands — of users on-demand everywhere, in real time. And when it comes to powering these data-intensive applications, your underlying data engine makes all the difference.

However, most organizations start with first-generation [open-source single-node databases](#) to power their SaaS applications, quickly running into performance bottlenecks as the analytical demands grow, or as the application needs to scale. MySQL and PostgreSQL are the most widely adopted and popular open-source databases on the planet —and developers love them for their reliability and ability to get started quickly and cost-effectively. However these technologies are not built to handle analytics and are based on legacy single-node architectures; as operations and data start to scale, their performance quickly deteriorates, leading to sluggish event-to-insight response times and rising costs. Moreover, they are not optimized to handle the high throughput streaming ingestion, low-latency analytics and concurrency needs that digital disruptors demand.

Key Challenges With Legacy Gen-1 Data Engines

Streaming Ingestion

Inability to ingest, process and analyze streaming data necessary to power modern interactive SaaS applications

Low-Latency Query Performance

Lagging query performance as data or concurrency demands grow. Not optimized for low-latency queries

Challenges With Scaling

Built on single-node architectures and struggles to scale as your business or users grow

Minimal Analytical Capabilities

Offers little to no analytical capabilities to drive fast, interactive user experiences

Modern SaaS applications need to be able to drive **fast, interactive analytics on operational data in real time**. SingleStore provides a modern, distributed database that unifies transactional and analytical workloads to power modern SaaS applications — empowering you to break through the performance bottlenecks of single-node databases with an infinitely scalable, distributed system.

Break performance bottlenecks with SingleStore

[SingleStore](#) surpasses the limits of traditional data engines to drive up to **20-100x better performance**, powering applications with analytics. SingleStoreDB offers a distributed, cloud-ready data platform with ANSI SQL compatibility that allows businesses to achieve fast ingest, ultra-fast query responses with high concurrency on real-time and historical data. SingleStoreDB supports analytics on streaming data by ingesting millions of rows per second on data-at-rest and data-in-motion. SingleStoreDB’s architecture is designed to power data-intensive applications because of its unique ability to support **both transactional and analytic workloads** — all while enabling real-time analytics.

Why SingleStoreDB

20-100x Faster Performance

High-throughput parallel streaming ingestion together with super low-latency queries to drive faster time-to-insights

Bring Real-Time Analytics to Apps

Bring real-time analytics to your data applications directly on SingleStore, powering modern cloud applications

30-50% Lower Costs

Better price-performance and overall lower TCO of up to 50% with SingleStore compared to legacy infrastructure

Actual Customer Review



10 out of 10



UPDATED OCTOBER 25, 2021

SingleStore is the fastest database ever tested by us

Verified User

Manager in Information Technology

Information Services Company, 10,001+ employees



Score 10 out of 10

Vetted Review

Verified User

Alternatives considered

- [MySQL](#), [Microsoft SQL Server](#), and [PostgreSQL](#)

We have tested various SQL Server, [PostgreSQL](#) and [MySQL](#) (in different flavors) and SingleStore is easily **20x** faster than any of them; depending on the query we have even seen **100x** improvements for analytics queries. An analytical query on Aurora [MySQL](#) that takes 40s to run runs in **<100ms** on SingleStore without changes to query.

SingleStoreDB for Powering Your SaaS applications

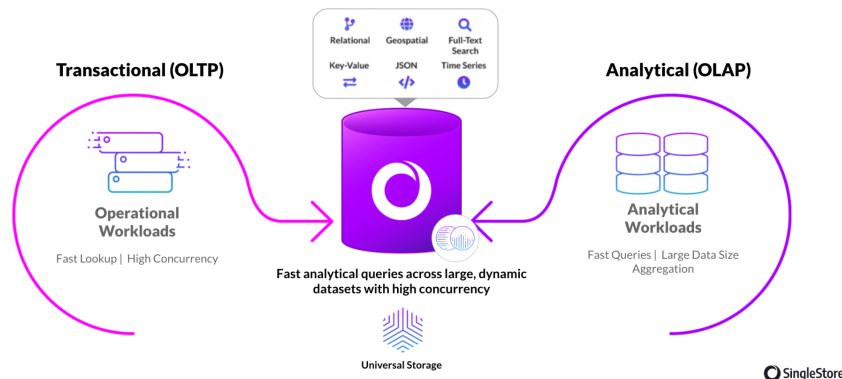
SingleStore powers fast modern applications for **over 100 leading SaaS players** and Tier-1 enterprises around the globe. SingleStoreDB can effectively replace the need for multiple data engines to power your SaaS applications by enabling ultra-fast ingestion, super low-latency queries and multi-model support with unlimited storage. Customers can deploy SingleStoreDB in any of the leading cloud environments including AWS, Azure, GCP, or in a hybrid mode.

Key Attributes for Modern SaaS Apps	SingleStore - Key Capabilities
Power Fast & Interactive Data Experiences	Distributed SQL platform bringing together fast transactions and analytics in the same engine in real time, with no data movement. See recent TPC Benchmarking results
Access to Real-Time Data	Parallel streaming ingestion up to millions of events/second using Pipelines , together with super-low latency queries
Scale Effortlessly	Infinite elasticity to scale your applications including scale-out HTAP, with separation of storage and compute (Unlimited Data Storage)
Handle Any Data, Run Anywhere	Multi-model ; support multiple data types (JSON, time-series, geo, full-text search, relational) and run in multi-cloud or hybrid-clouds
Resiliency & Recoverability	Best-in-class resiliency to power enterprise apps including High Availability, Disaster Recovery, Limitless PITR and Multi-AZ failover
Frictionless Developer Experience	Simplicity and programmability including MySQL wire protocol and connectors to Spark , Kafka and dbt to quickly launch new apps

Using SingleStoreDB to Turbocharge Your SaaS Apps

SingleStoreDB is built from the ground up as a distributed, highly scalable, unified database that delivers maximum performance for both **transactional and analytical workloads**. It unifies transactional and analytical processing on diverse data (semi-structured and structured) in a single engine, eliminating the need for unnecessary data movement —with the ability to use standard SQL to power modern SaaS applications.

SingleStore Unifies Workloads to Power Your Data-Intensive Applications



Key Outcomes with SingleStoreDB

- ✓ Distributed architecture to power fast, interactive SaaS applications with infinite scalability
- ✓ High-scale streaming ingest at millions of events/ sec
- ✓ Blazing fast queries with sub-second latencies
- ✓ Transactions + analytics in the same engine to power real-time applications and fast analytics
- ✓ Easily scale for thousands of real-time complex queries across millions of users

SingleStoreDB - Key Features

Patented Universal Storage: Both large-scale OLTP and OLAP are supported on this single, default table type. Universal Storage gives you the best qualities of row stores and column stores, while reducing data duplication, data movement and data latency.

SingleStoreDB Pipelines: Built-in parallel data ingestion technology natively ingests high-throughput, real-time data from external sources such as Apache Kafka, Amazon S3, Azure Blob, Filesystem, Google Cloud Storage and HDFS data source.

MySQL Compatibility: SingleStoreDB is wire-protocol compatible with MySQL/MariaDB which offers access to hundreds of languages, 100% compatibility on data types and 95% coverage of built-in functions to ease migrations.

Security & Compliance: Delivers enterprise-grade security with integrated user authentication, full encryption of data in transit and at rest, and SOC2, ISO27001, HIPAA, GDPR and CCPA compliance.

Separation of Storage and Compute for Transactions and Analytics: Allows users to effortlessly scale compute resources to meet the needs of any workload, while managing storage needs completely independently.

Distributed Ingest, Bulk or Streaming, with Lock-free/ Non-Blocking Reads and Concurrency: Offers a lock-free architecture that efficiently processes transactions and updates without locking or blocking concurrent reads — delivering the capability to perform bulk and/or streaming ingestion online, simultaneously with query workload.

Suspend & Resume Workloads Effortlessly: Clusters can be suspended and resumed nearly instantaneously, making all of your data available when you need it, minimizing costs when workloads are inactive.

Flexible Credit Pricing Model: Provides flexibility of on-demand, or with monthly credit bundles to handle dynamic and growing compute workloads at reduced TCO.

Latency-Free Analytics: SingleStoreDB lets you achieve ultra-fast query response with high concurrency across both live and historical data using familiar ANSI SQL.

Ultra-fast Event-to-insight Performance: Deliver against the toughest service-level agreements using parallel, distributed lock-free ingestion and real-time query processing.

Scale Limitlessly: Elastic scale-out architecture with distributed, massively parallel data processing delivers consistent, predictable responses under high ingest and user concurrency.

Ease of Use and Flexibility: SingleStoreDB brings simplicity and ease to your data processing by allowing transactional and analytical workloads to be processed using a single table type.

Tiered Storage: Three-tiered storage including in-memory, SSD Cache and the Cloud object store with separation of storage and compute (unlimited storage) and 80-90% data compression

Customer Case Studies

Uber

Uber: SingleStore is powering Uber's real-time marketing segmentation and targeting application used by thousands of employees across marketing, product and leadership teams. SingleStore helps Uber analyze detailed, real-time data on more than 300 different attributes across their rider and driver population. They can query things like behavior, cancellation rate, churn, days since last trip, etc., all with an average of 1 ms response time. If a driver has not taken a trip in the previous week, they have the ability to provide real-time incentives to those drivers to keep them on the road.

iex cloud

IEX Cloud: IEX Cloud aimed to build a financial data delivery platform to make financial data more accessible to developers, investors and other fintechs in real time. They also wanted developers to build and iterate financial applications quickly on their platform. IEX Cloud outgrew **MySQL**, which couldn't scale to meet performance and functionality needs. Also, **Clickhouse** couldn't support concurrent reads for IEX's 150k+user base. IEX Cloud migrated their platform to SingleStore to drive **10-15x improvement** in speed: ETL process execution time dropped from days to minutes, handling up to 800K events per second. Using SingleStore, IEX Cloud is now able to process over **2.5B API requests** daily with an **8ms average response time**.

fathom/

Fathom Analytics: Fathom built the world's fastest website analytics platform offering a simple, privacy-first alternative to Google Analytics. Fathom started out by using **MySQL** with **Amazon RDS** as the database to power its application, but quickly ran into performance, scalability and cost issues. SingleStore enabled fast ingestion, high-performance queries and real-time analytics for Fathom through a fully managed, unified database-as-a-service supporting millions of real-time queries across tens of thousands of users. With SingleStore, Fathom ditched **MySQL**, **Redis**, and **DynamoDB** — driving a **1,000x** improvement in query performance compared to AWS RDS for MySQL, and was able to reduce their database total cost of ownership (TCO) by up to **60%**

AntMoney

Ant Money: Ant Money's embedded finance platform helps people open investment accounts and enables users to generate micro-income that can either be saved or invested in the stock market. With 3x the user growth, and 5x increase in revenues, AntMoney's platform that was started on **PostgreSQL on Amazon RDS** quickly ran into issues. The system was slow, with queries taking seconds to minutes to process, and lacked coverage for emergent data sources. They moved to SingleStore and instantly saw a **60x improvement** in data freshness and performance, and were able to get data in real time (as opposed to on the hour or every 24 hours). They are also able to drive up to **11x higher engagement** and up to 4x Increase in CLV with an interactive and responsive platform.

Uber

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Learn More

For more details, download the [product datasheet](#) for SingleStoreDB

Get started with SingleStore for free today at SingleStore.com