Heylink Boosts Performance 200X and Reduces Cost 30% with SingleStore — tackling Black Friday traffic with ease

200x

Performance increase

30%

Cost Savings

> " We initially set up SingleStore to offload some pressure from our current databases during the Black Friday period. This proof of concept went so well we kept it running for six months before deciding to go all in and use SingleStore Managed Service. We were able to provide faster results for our users and scale out better than our old solution. "

Martin Hansen,
Co-Founder and CTO
Heylink

Who is Heylink?

Heylink is a content monetization platform launched in 2018 that provides performance marketing automation for publishers and advertisers. The platform helps publishers generate revenue and gain insights from their content while enabling them to reduce dependence on traditional advertising channels. It automatically converts product and brand links into monetized tracking links for more than 15,000 affiliate programs and offers reporting, metrics, and dashboards.

Business Goals

Heylink's platform was initially built on MySQL and Elasticsearch, but Heylink ran into performance issues and started searching for another database solution. Its challenges and goals included:

- Faster results for users: Publishers and advertisers needed quick, interactive access to their reports and dashboards so they could make adjustments to improve revenue generation. MySQL struggled with this demand and took too long to generate these reports.
- Better scaling: As Heylink started accelerating user adoption, it quickly hit a wall with the limitations of MySQL's vertical scaling capabilties.
- Lower costs and complexity: Heylink used MySQL and Elasticsearch together to try to resolve performance issues, but this increased the platform's complexity and overhead.

Technology Requirements

Publishers and advertisers needed their data in real time without processing delays. A mix of simple and complex ad hoc queries needed to be executed 24x7, with more complex queries involving multiple time series tables, multiple sub-queries, and joins using reference tables.

Heylink's new database needed to have the performance required to deliver live data with no pre-aggregations or roll-ups, the capability to continuously update hundreds to thousands of data rows daily, and support for ad hoc queries. The team also preferred a managed services solution (or database-as-service model) with low system management overhead so it could focus on what it does best.

SingleStore

heylink.

Why SingleStore?

Heylink wanted a fast, modern, and performant hybrid transactional/analytical processing (HTAP) database to power its platform. The team found SingleStore through a Google search in the summer of 2019.

"At Heylink, we prefer a managed services solution. Low system management overhead frees up time for our core activities, and we have fewer worries," explained Martin Hansen, Co-Founder and CTO, Heylink.

SingleStore offers a modern relational cloud database built for speed, scale, and agility. It is designed to deliver maximum performance for both transactional (OLTP) and analytical (OLAP) workloads in a single unified engine to power modern data-intensive applications. It can ingest millions of events per second with immediate availability, deliver millisecond query latencies, and can handle concurrencies across tens of thousands of users. With 10-100X the performance at one-third the cost of legacy databases, SingleStore offers limitless scalability and fast analytics on dynamic data for complex analytical queries.

Business Outcomes

Handling a 100X traffic increase with ease — while increasing performance 200X

Black Friday is the most profitable day of the year for publishers and advertisers and normally generates 100X more traffic for Heylink. "With SingleStore, average query response time dropped from an average of four seconds to less than 300 milliseconds, generating reports instantly for real-time insights," said Hansen. "Some queries are running 200X faster even with the increased traffic loads."

Had a cluster running within the hour; total migration time to SingleStore: two business days

Thanks to SingleStore's MySQL Wire compatibility, Heylink had to change only one query in the entire codebase when migrating to SingleStore.. It deployed the POC to Kubernetes using the SingleStore Operator and had a cluster running within one hour. The complete production migration to SIngleStore Managed Service took only two days.

Achieving 30% cost savings with SingleStore Managed Service

Heylink's costs dropped dramatically compared to what it was spending using MySQL and ElasticSearch to power its platform. With SingleStore, it was able to consolidate the functionality of both MySQL and Elasticsearch into SingleStore's unified platform. This dramatically simplified its architecture, delivered blazing-fast performance, and lowered costs 30%. Cost savings were the result of the simplified infrastructure and decrease in database management overhead that SingleStore delivered, along with a 95% compression rate on Heylink's largest tables with billions of data rows.

Achieved future-proof scale

As its customer base and data continue to grow, Heylink predicted it will be doubling its cluster size every 12-18 months for the next few years. The petabyte scale of SingleStore Managed Service is more than capable of supporting Heylink's growth, and provides the high concurrency needed to handle thousands of concurrent users.

SingleStore