

Supercharge Performance and Increase Productivity

Formulus Black and Looker are the solution for improving query performance up to 70x without a dedicated DBA, database consultants, application modifications, or database migration.

The Business Problem

Data scientists and business analysts are in high demand in today's data-driven economy, and their time is precious. However, data analysis and ML/AI model development can be time-consuming processes often held back by database performance and skills. Business analysts may spend significant time building dashboards and management reports, learning SQL, and waiting on ad-hoc database queries to return results. Data scientists working on modeling and model iteration experience a bottleneck when data can't be quickly accessed, transformed, and queried.

The more time data teams spend waiting on data, the less time they have for high-value tasks that lead to making informed business decisions and developing ML/AI models.

The Joint Solution

The combination of Formulus Black's in-memory computing platform and Looker's platform for data allows users to analyze and visualize data up to 70x faster. Looker enables faster and more efficient SQL query design and visualization, while Forsa powers Looker queries to complete in a fraction of the time by running any application—including databases—in-memory (without any modification or code changes). This solution cuts down the time it takes business analysts and data scientists to get the data they need and helps users realize substantial productivity improvements.



Easy Implementation

Your team may have already realized that the migration of an on-premises database to a cloud-based database or other solution can be difficult. Deploying Forsa is quick and doesn't require a complicated database migration plan to enable dramatic improvements in database performance. Being able to easily enhance Looker's query performance—without the complications of migrating to a new database service—makes it easier to find real-time insights.



Cost Effectiveness

Running a database can be very costly, as many commercial databases are priced per-core and can require substantial CPU resources. By running all applications fully in-memory, Forsa can actually improve the per-core performance of a database by reducing the amount of time each core needs to wait for data to be read

from storage. Forsa customers have been able to run the same database application on up to 75% fewer cores while still improving database performance, yielding substantial savings in database software licensing costs and freeing up CPU resources to run other applications.

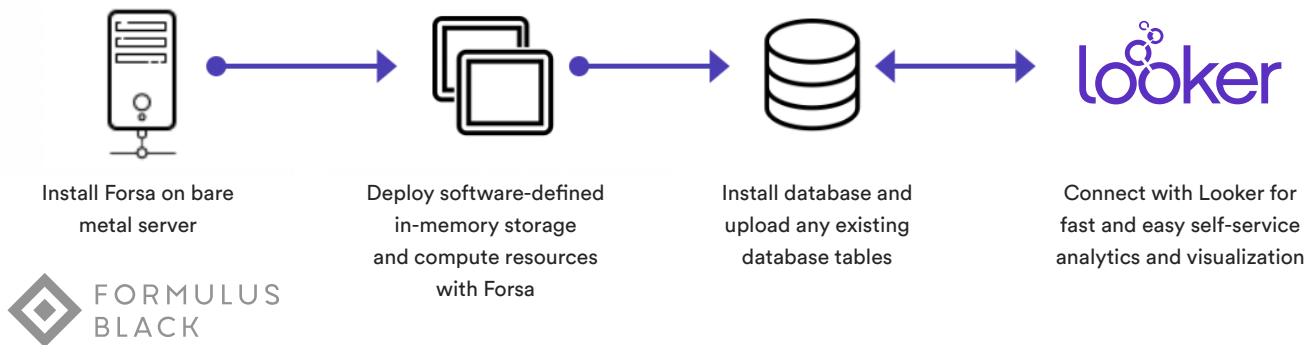


Increase the Productivity of your Data Science Team

Looker increases the productivity of your data science team by removing repetitive tasks, which allows more time for high-value work. Looker's modeling layer lets you reuse trusted business logic to prep data for machine learning and AI consumption, avoiding cumbersome query writing and manual data preparation. Also, Forsa dramatically accelerates database performance and query speed—for example, we found that Forsa enabled up to 70x faster PostgreSQL queries using only modest CPU resources (PostgreSQL running on a 16-core virtual machine).

How It Works

Install Forsa Once to Enable In-Memory Speed for All Looker Database Interactions



About Formulus Black

At Formulus Black, we believe exceptional performance doesn't need to come at the cost of code modifications or specialized hardware. We are unlocking the power of In-Memory Compute for ALL applications. By breaking the barriers between memory and storage, we free workloads from slow I/O and peripheral buses. With Forsa, all data resides in-memory at all times, for a level of performance unmatched by any SSD or other I/O-bound technology. For more information visit: www.formulusblack.com.

About Looker

Looker is a unified Platform for Data that delivers actionable business insights to every employee at the point of decision. Looker integrates data into the daily workflows of users to allow organizations to extract value from data at web scale. Over 1600 industry-leading and innovative companies such as Sony, Amazon, The Economist, IBM, Spotify, Etsy, Lyft and Kickstarter trust Looker to power their data-driven cultures. The company is headquartered in Santa Cruz, California, with offices in San Francisco, New York, Chicago, Boulder, London, Tokyo and Dublin, Ireland. Investors include CapitalG, Kleiner Perkins Caufield & Byers, Meritech Capital Partners, Redpoint Ventures and Goldman Sachs. For more information, connect with us on LinkedIn, Twitter, Facebook and YouTube or visit looker.com.

Follow [@lookerdata](https://twitter.com/lookerdata) or visit looker.com