

Algebraix Executive Summary

Algebraix blends the best capabilities of human reasoning with machine learning to accelerate database queries by 1,000X at 1/10th the infrastructure cost

Algebraix functions as an intelligent agent for database administration. Its only requirement is that it can observe the queries issued by the user as they enter the target system. Algebraix then detects patterns in queries, predicts future user behavior, and automatically deploys optimizations.

Optimize Infrastructure

Cost effective business decisions are ultimately dependent upon the effectiveness of database administrators and the efficiency of the technology they deploy for database queries. However, human bottlenecks and expensive computing resources limit understanding and implementing the ever-changing optimization requirements of databases and queries.

Algebraix leverages patented data algebra algorithms to optimize your infrastructure in a cost effective manner. It supplements the performance of database administrators and the efficiency of database query technology while eliminating the human bottlenecks and expensive computing resources that make it difficult to understand and implement constantly changing database and query optimization requirements.

About Algebraix

Algebraix sets a new standard for data query performance enabling faster insights, improved multi-user concurrency, lower infrastructure costs and reduced database administration through a solution that learns and adapts without human intervention. Founded in 2012 and headquartered in Encinitas, CA, Algebraix literally wrote the book on “The Algebra of Data” to identify a new foundation for the data economy.



Algebraix Allows You to:

- ▶ Improve Multi-User Concurrency: More users can query the system with fewer disruptive bottlenecks
- ▶ Speed Up SQL Query Performance: Select queries will run 1000X faster. Complex queries are turned into simple “lookups” to reduce analyst idle time.
- ▶ Reduce Big Data Operational Costs: Remove the need for adjacent data stores, added memory and additional nodes in AWS and Azure

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Smarter decisions begin
with a smarter infrastructure



Algebraix Delta Value:

- ▶ Eliminate the need for human DBAs and augment data scientists, enabling the scale and complexity of analytics operations to grow to unprecedented levels
- ▶ Act as a central hub for all query processing in large, distributed, heterogeneous data in data warehouses, data marts, data lakes, both on-premises and in the cloud optimizing workloads across all analysis activities
- ▶ Eliminate the need for users to worry about how and where their data is stored and which compute models and engines should be used to process it – ask a question and Algebraix Delta takes care of the rest

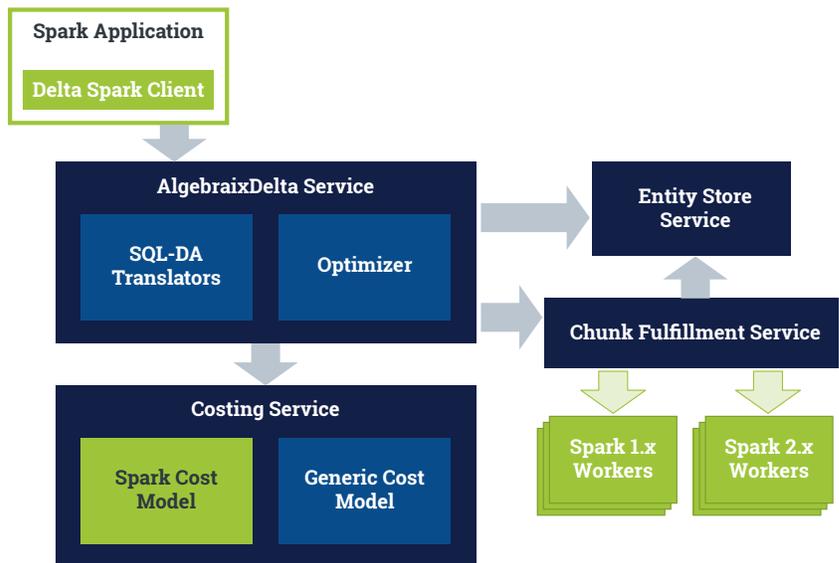


Artificially Intelligent DBA: Algebraix Delta has seamless integration, zero hardware configuration and is distinct from other optimizers in that it provisions the same kind of optimizations as a DBA automatically.

Algebraix Delta

Algebraix Delta is an intelligent multi-query optimizer that intercepts user SQL queries and DataFrame programs, analyzes them and looks for patterns, then automatically provisions optimizations with the intent of speeding up future queries that have commonalities with the observed pattern.

Algebraix Delta makes user queries return answers faster. Algebraix Computational Reuse trades compute for storage, therefore leading to opportunities to reduce the amount of and duration needed for computational resources. Both characteristics can result in reduced cost and increased capacity for your infrastructure. Faster queries, irrespective of resource usage, can lead to faster insights, and thus faster actionable business decisions.



What is equally important is the effects of the autonomous nature by which Algebraix Delta functions. It's simple to install and works in conjunction with Amazon Web Services' Elastic Map Reduce and Microsoft Azure's HD Insight while requiring no changes to your current Spark scripts and queries. Offloading the optimization and maintenance of how data is organized and retrieved to software enables a data-driven organization to scale faster, easier, and bigger.

