



# Eight data app success stories with Firebolt

How companies engineer low-latency data-intensive applications at 10x higher efficiency

Bigabid

 IQVIA™

Agritask 

WINGX

 ezora






 similarweb

 Dealer Trade Network

LURK!T®

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# What is a data-intensive application?



A **data-intensive app** is a web or mobile application that delivers instant, millisecond responses over large datasets, typically through an intuitive, user-friendly interface. These apps are designed to enable data-driven decision-making by providing easy access to massive amounts of data, allowing users to analyze, slice, and act upon it.

While every application relies on data, data-intensive apps form an emerging category distinguished by their dependence on cloud data warehouses as backends. They handle large volumes of data with speed and efficiency. Data-intensive apps are either standalone or integrated components within other applications. They are frequently customer-facing, such as Google Analytics and Intuit Mint, but also in B2B contexts like fintech solutions.

## KEY CHARACTERISTICS OF DATA-INTENSIVE APPS:

- ⚡ **Data-driven Insights:** Data-intensive apps deliver actionable insights by processing massive datasets (GB, TB, or PB) in near real-time.
- ⚡ **High performance:** They provide sub-second response times, even as data complexity and volume increase. They help with executing thousands of queries concurrently without compromising speed.
- ⚡ **Scalability:** Handling growth in user volume, query complexity, and data size without sacrificing performance.
- ⚡ **Dynamic UI:** A simple, intuitive interface that enhances the user experience by enabling easy data interaction.
- ⚡ **Data freshness:** They ensure updates are reflected instantly in the target system, with no lag between source data changes and their visibility, enabling instant decision-making and responsive applications.

Data-intensive apps redefine analytics by delivering instant insights from large datasets, stretching the limits of infrastructure and budget, and are set to become a key trend in the modern data landscape.

**HEADQUARTERS** NYC

**INDUSTRY** Marketch

**WORKLOAD** Customer-facing app

### AT A GLANCE

Firebolt powers Similarweb's website analytics and keyword finder tools, which serve thousands of marketers worldwide. Users can interactively analyze up to two years of historical data with instant response times.

**1PB**

data in production

**5TB**

ingested daily

**100**

queries per second

### CHALLENGE

Similarweb's market intelligence platform serves web-related data to help companies understand how their audiences interact with websites. With their existing platform, they faced long-running queries and costly ETLs that took a lot of time to develop and maintain. Furthermore, pre-processing every possible combination of input from users was infeasible.

### SOLUTION

Similarweb implemented Firebolt after testing it alongside BigQuery and Athena, since it showed the best performance on raw data, with the lowest TCO. Terabytes of data are scanned and dynamically filtered, while delivering an interactive UI with millisecond response times for their users.



Firebolt enabled us to achieve sub-second query performance across more than one petabyte of data in production while ingesting five terabytes daily, all without the need for extensive pre-processing.



**Yoav Shmaria**

VP R&D Platform  
SimilarWeb

# Bigabid

**HEADQUARTERS** Tel Aviv

**INDUSTRY** Adtech

**WORKLOAD** Internal data app

## AT A GLANCE

Bigabid analyzes massive ad data to help clients optimize mobile advertising. Complex queries that initially took days to run now return in seconds with Firebolt, and there is no longer a limit when querying historical data.

**1M**

**auctions analyzed per sec**

**400X**

**better query performance**

**77%**

**reduced storage cost**

## CHALLENGE

Bigabid uses big data to help app developers increase their app usage and optimize ad spend. Initially using Redshift and MySQL, the company struggled to view data older than three months, making it impossible to compare results historically. They needed to be able to analyze a million ad auctions per second and power hundreds of live dashboards.

## SOLUTION

After implementing Firebolt, query performance improved 400X, returning results for a database of 30 billion records in under a second. Firebolt compressed a table from 31 TB to 7 TB, reducing storage costs. There is no longer a limit on query time windows, so Bigabid can easily analyze data for seasonal and year-on-year changes.



Firebolt enabled us to analyze one million ad auctions per second, delivering a 400X speed improvement over MySQL and cutting storage costs by 77%. This level of performance allows us to provide real-time insights that are critical for optimizing mobile advertising strategies.



**Yaron Cohen-Leo**

BI Team Lead  
Bigabid

# WINGX

**HEADQUARTERS** Hamburg

**INDUSTRY** SaaS - Aviation

**WORKLOAD** Customer-facing app

## AT A GLANCE

WINGX's market intelligence platform provides aviation companies with detailed industry insights. Firebolt powers interactive dashboards with 70% faster query processing compared to their initial solution, while simplifying data ingestion and keeping costs in check.

**168B**  
rows scanned daily

**8X**  
reduced storage costs

**70%**  
less data processing time

## CHALLENGE

WINGX serves market intelligence to the global business aviation industry through online dashboards, insight reports, market forecasts, and more. Their existing SQL Server warehouse struggled to keep up with the increasing volume and frequency of data ingestions, leading to performance degradation and extended processing times.

## SOLUTION

After ruling out Athena (too slow) and Snowflake (too costly) WingX chose Firebolt for meeting both performance and cost criteria. Onboarding was simple, and ingest is automated with SQL. Firebolt reduced processing time by 70%, querying millions of rows in milliseconds through its efficient data pruning. Based on engine uptime, Firebolt allows WingX to optimize costs.



Our journey with Firebolt has been transformative. From struggling with data volumes and performance issues to achieving scalable, efficient, and cost-effective data processing, Firebolt has proven to be the right solution for our needs.



**Aniruddha Bharadwaj**  
Data Science Manager  
WINGX

**HEADQUARTERS** Kentucky

**INDUSTRY** SaaS - Automotive

**WORKLOAD** Internal data app

### AT A GLANCE

DTN operates the USA's largest dealer-to-dealer car trading network. Firebolt powers the network's data features which track inventory and market trends, providing timely reports over a 12-month data retention period, compared to a 1-month window previously possible.

**60X**  
faster queries

**30X**  
faster aggregations

**12X**  
more data analyzed

### CHALLENGE

Dealer Trade Network provides over 4000 dealerships with analytics about vehicle inventory and market trends. However, as data volumes grew, analyzing historical trends became impossible with their Redshift-based architecture, which could retain only 30 days of data. They needed granular trend reports covering a 12-month data retention period.

### SOLUTION

Firebolt's indexing capabilities resulted in 60X faster query times. Leveraging Firebolt's aggregating indexes, DTN generated on-demand dealer-specific reports in two minutes, which previously required overnight aggregations.



Firebolt's indexing capabilities have transformed our data platform, delivering 60X faster query times and enabling us to create dealer-specific reports in just two minutes instead of over an hour. Firebolt's scalability allows us to handle tables of well over a billion records efficiently, providing timely trend reports that are critical to our trading network.



**Russell Guthrie**

VP of Application Engineering  
Dealer Trade Network



**HEADQUARTERS** North Carolina

**INDUSTRY** Healthcare

**WORKLOAD** Customer-facing app

#### AT A GLANCE

IQVIA uses Firebolt to power diverse workloads - from ELT to batch analytics to customer-facing applications - with consistently high performance. Live queries run at high concurrency without caching or cubing - all in SQL.

**1.2B**  
patient records analyzed

**60+PB**  
of unique data

**150K**  
data suppliers

#### CHALLENGE

IQVIA's E360® data platform enables Life Science organizations to get insights from over 1 billion global patient records. Initially, dashboard load times exceeded their customer SLA. Ingest was extremely slow, and analytics costs were through the roof. IQVIA needed a more efficient architecture.

#### SOLUTION

Firebolt's efficient pruning resulted in the reduction of query times from over a minute to sub-seconds. With diverse healthcare datasets, native support for semi-structured data proved critical to fast performance. Firebolt cut IQVIA's analytics costs through a combination of compute resource flexibility and storage compression.



Whether we have 100, 200, or 250 users accessing a BI tool, we need consistent sub-second query performance. Firebolt is a key partner for us.



**Jeremy Stroud**

Director IT Architecture  
IQVIA



**HEADQUARTERS** Linköping

**INDUSTRY** Gametech/Marketch

**WORKLOAD** Customer-facing app

## AT A GLANCE

Lurkit serves data from millions of gaming channels to 50K customers. Firebolt accelerates queries, supports high concurrency, and enables previously impossible analytics - all while cutting monthly costs.

**200K**  
games analyzed

**40%**  
cost savings

**10x**  
larger historical queries

## CHALLENGE

Lurkit's marketing platform serves insights from millions of gaming channels on Twitch, YouTube, and other platforms to 50K game developers. With their initial stack, some complex queries wouldn't run, while some query response times were too slow for a customer-facing platform, especially during peak usage times.

## SOLUTION

Firebolt immediately sped up dashboard performance, even as data volumes grew. Users can now run more advanced analytics and gain insights into their player base that were previously impossible. With the ability to tune compute resources based on demand, Lurkit can better support high concurrency, while controlling costs.



With Firebolt there's a lower monthly cost and some very dramatic performance improvements. We've gone from minutes to seconds on particular sets of very tricky queries.



**Tom Niskanen**  
CTO  
Lurkit



**HEADQUARTERS** Dublin

**INDUSTRY** SaaS - F&B

**WORKLOAD** Customer-facing app

## AT A GLANCE

Ezora's platform serves financial data to F&B operators. Firebolt accelerated analytics 30X compared to Aurora Postgres while eliminating the need for lengthy aggregations. Users can drill down to get deeper business insights.

**10X**

auctions analyzed per sec

**30X**

faster compared to Aurora  
Postgres

**40%**

faster time-to-market

## CHALLENGE

Ezora consolidates financial data from many different sources to help F&B operators drive growth. Limitations of Ezora's Aurora Postgres database hindered their ability to store and process large amounts of raw data while providing sub-second analytics and drill-down capabilities for customers.

## SOLUTION

Firebolt significantly reduced the time required to ingest and process new data, enabling Ezora to deliver up-to-date analytics. Firebolt's ability to quickly process vast raw data without the need for aggregations enables Ezora's customers to explore data at various levels of detail and gain deep insights into their business.



Firebolt has enabled us to apply our solution to new market opportunities where the data volumes are much higher. We can now provide sub-second analytics to retail clients with 10K+ SKUs, proving to be a real growth market for our business.



**Alan O'Neill**

CEO  
Ezora

**HEADQUARTERS** Tel Aviv  
**INDUSTRY** SaaS - Agronomy  
**WORKLOAD** Customer-facing app

## AT A GLANCE

After hitting the wall with Snowflake and PostgreSQL, Agritask tested nine cloud data warehouses and chose Firebolt for running complex queries over billions of records with high concurrency and low latency at the best price for performance.

**1M**

records ingested per second

**1B**

records analyzed

**29X**

faster queries than  
PostgreSQL

## CHALLENGE

Agritask, a precision agriculture platform, provides insights to farmers based on vast semi-structured sensor data. Complex queries run over billions of records with high concurrency. Agritask's Snowflake and PostgreSQL-based solution couldn't handle their huge data volumes with low latency, and scaling was a major challenge.

## SOLUTION

After an extensive PoC comparing nine data warehouses, Agritask implemented Firebolt for its speed and scalability. Firebolt's architecture allows for elastic engine resizing without service interruption, thus optimizing costs and efficiently handling load peaks. Agritask can now deliver deeper, more timely insights to farmers.



Firebolt is the only solution that allows us to run complex SQL queries over billions of records with high concurrency and low latency at the best price for performance. Its unique features are its low latency on complex SQL queries and great scalability — both in concurrency and in data volumes.



**Andrew Schetinin**

CTO  
Agritask



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**\$200 in free credits**

[go.firebolt.io/signup](https://go.firebolt.io/signup)