Transform e-commerce and retail through real-time data and analytics

SOLUTION BRIEF

The real-time data imperative

The changes wrought by the pandemic on e-commerce have not only caused online sales to explode, but forced retailers to immediately accelerate efforts to battle aggressive online fraud, provide better customer experiences and ramp up mobile offerings.

How? The key is investing in technologies that will help retailers use real-time data and analytics to make better day-to-day decisions, ensure wiser strategic decisions, be able to scale quickly, provide real-time risk assessments and reduce payment friction.

Improve customer experience & prevent fraud with a modern, real-time data platform

The highly patented Aerospike real-time data platform is able to process data at the edge and combine it with system of record data to power recommendation engines, fraud prevention, pricing updates, payments, catalogs, and more.

Aerospike is able to efficiently power the AI/ML inference models at petabyte scale that underpin these e-commerce and retail systems of engagement applications for real-time decisions with a fraction of the servers of other technologies.

11%

The amount that product recommendations boost product sales. — University of Florida and University of Pennsylvania

63%

Percentage of consumers willing to pay up to 15% more for the same product or service if they'll have a better experience. — Podium

10 seconds

The amount of time consumers are willing to wait for a web page to load before leaving. — Retail Systems

73%

Percentage of consumers that abandon a purchase if they can't locate quickly what they want. — Tribe

Aerospike powers e-commerce applications through proven solutions

Fraud Prevention

Vet inbound business transactions to provide real-time risk assessment and decisioning.

Dynamic Pricing

Set flexible prices enabling real-time pricing and promotions for products or services based on current market demands, user profile, and inventory levels.

Recommendation Engine

Increase online engagement with a fast data layer to support multiple requests per recommendation.

Mobile Payments

Power your payment solutions and enable digital wallets, increasing customer loyalty while reducing payment friction.

Catalog Search

Create a fast data access layer with your system of record. Accurately update your inventory in real-time for your customers by replacing your cache database.

CASE STUDY

Wayfair sets its course for growth

wayfair

Wayfair, now a $14 billion e-commerce provider in the home furnishings space, was looking to upgrade its environment from a brittle, unscalable, inflexible data architecture to one that could support and foster its 30% CAGR.

They were looking to increase performance of response times of their e-commerce applications, reduce complexity of supporting their data environment, and lower their total cost of operations.

Results with Aerospike

✓ **Less discarded shopping baskets** and better product selection with response times below 1 millisecond

✓ **Lower TCO** with 1/8th the server footprint of the incumbent Redis and Memcached solution

✓ **Improved customer satisfaction** & wallet share

✓ 30TB now able to grow to **75TB**

✓ **Messaging and upsell and cross-sell** to online users while maintaining user session data

Their e-commerce applications in need of help were their in-the-moment:

• **Recommendation engine**

• **Customer behavioral analytics**

• **Catalogue**

• **Pricing**

CASE STUDY

Snapdeal, large Indian online marketplace, accelerates personalized web experience with Aerospike

Snapdeal, one of India's largest online marketplaces, needed to deliver real-time dynamic pricing while maintaining consistently high availability and responsiveness for millions of consumers purchasing products from over 20000 sellers. The current solution, a combination of MySQL and MongoDB, resulted in response times that slowed to more than a second, resulting in a compromised shopping experience and led to lost revenue opportunities. In addition, they had to artificially spread out their updates throughout the day, unable to update prices in real-time.

The specific needs as defined by Snapdeal were:

- Cost-effectiveness
- Concurrent reads and writes, which can easily scale up with added hardware
- Performance that was very good at the 95-99th percentile

Benefits with Aerospike

✓ **Improved customer experience** with predictable low latency with 95-99% of transactions completing within 10 milliseconds

✓ **Extremely high throughput** of transactions

✓ **Best price/performance** including hardware and ease of operation

✓ Create a better customer experience for your catalog search and account inquiries with an **improved data access layer, a robust messaging chat solution, and user profile store.**

✓ **Increase top-line revenue** with a database infrastructure that is faster and more powerful for your recommendation engines, dynamic pricing, fraud prevention and digital payment technologies.

◄EROSPIKE

Aerospike is the global leader in next-generation, real-time NoSQL data solutions for any scale. Aerospike enterprises overcome seemingly impossible data bottlenecks to compete and win with a fraction of the infrastructure complexity and cost of legacy NoSQL databases. Aerospike's patented Hybrid Memory Architecture™ delivers an unbreakable competitive advantage by unlocking the full potential of modern hardware, delivering previously unimaginable value from vast amounts of data at the edge, to the core and in the cloud. Aerospike empowers customers to instantly fight fraud; dramatically increase shopping cart size; deploy global digital payment networks; and deliver instant, one-to-one personalization for millions of customers. Aerospike customers include Airtel, European Central Bank, Experian, Nielsen, PayPal, Snap, Verizon Media and Wayfair. The company is headquartered in Mountain View, Calif., with additional locations in London; Bengaluru, India; and Tel Aviv, Israel.

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