



GIGASPACES RETAIL & eCOMMERCE

PriceRunner Compares Prices
for 100 million Offers in Milliseconds

PRICERUNNER COMPARES PRICES FOR 100 MILLION OFFERS IN MILLISECONDS

USE CASE: eCommerce

eCommerce retailers must pamper their customers, especially during the holiday season. Online shoppers will abandon a site if a page takes too long to load. In today's "Now Economy," consumers demand highly relevant and hyper-personalized experiences as they interact with brands on a multitude of devices and channels, expecting a seamless shopping journey. They expect offers and services that are customized to their needs based on past purchases and seasonality. To be able to offer a highly personalized shopping experience online retailers must consolidate and analyze the customers' real-time and historical data from all engagement channels, in the moment.

40%

OF CONSUMERS



will leave a page that takes longer than three seconds to load

79%

OF SHOPPERS



are less likely to return.

Customer PriceRunner

PriceRunner, operating in Sweden, Denmark, UK, France, Germany and Austria, is a leading shopping comparison site with a mission to make shopping easier by finding the best deals for their users.

PriceRunner which receives prices from 18,000 different merchants and has 4.4 million unique visitors per month, selected GigaSpaces in-memory computing platform as the core technology to support their strategy to become the number one price comparison service in the Nordics. PriceRunner's success is based on ensuring real-time comparisons

for their customers especially at high peak periods such as the night before Black Friday. GigaSpaces In-Memory Computing Platform provides a load-balanced environment that can flexibly and quickly scale out when necessary without compromising performance and speed.

Business Challenge

PriceRunner needed to ensure real-time comparisons for their customers especially at high peak periods such as the night before Black Friday when traffic increases at up to 20% times the normal traffic.



18,000

DIFFERENT
MERCHANTS



4.4

MILLION UNIQUE
VISITORS



100

MILLION PRICES
UPDATED



5-8

MILLISECOND
PERFORMANCE

USE CASE: eCommerce

Technical Challenge

Support scalability requirements at Black Friday peaks without compromising performance

No downtime

Real-time analytics on transactional data

Event-driven applications powering integrated applications

Microservices architecture for rapid development and deployment

Solution

GigaSpaces In-Memory Computing Platform provides a load-balanced environment that can flexibly and quickly scale out when necessary without compromising performance and speed. When visitor traffic was 20 times higher at Black Friday peak, in parallel with 100 million price updates, response time for the 95th percentile of the product page endpoint rose from 5 milliseconds to 8 milliseconds.

“Based on our successful deployment with GigaSpaces, we are looking towards enhancing our services with advanced analytics”, said Roger Forsberg, CTO with PriceRunner. “Innovation is a key tenant of our strategy, and adoption of GigaSpaces InsightEdge real-time machine learning technology will highly differentiate our services by enabling us to run advanced analytics models on our hot data and instantly predict prices to improve the customer experience.”

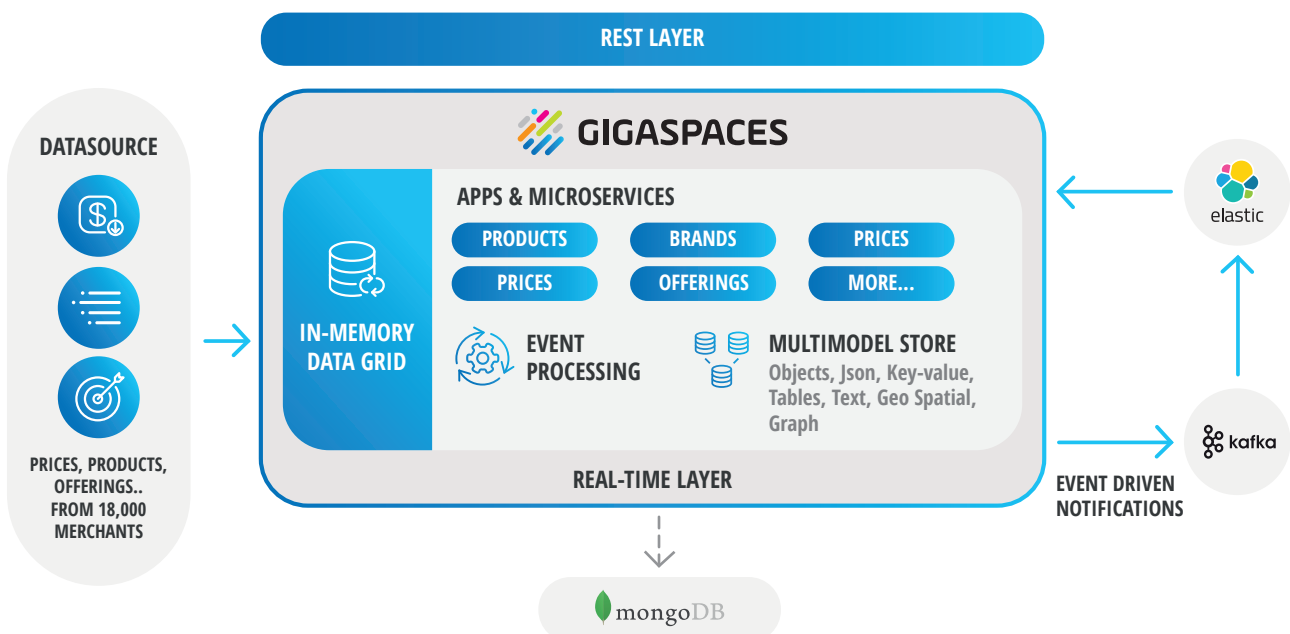


Figure 1: PriceRunner Architecture

USE CASE: eCommerce

Results:

Scalability while retaining performance using the elasticity of GigaSpaces' In-Memory Computing (IMC) approach:

At peak traffic spikes of 20 times normal traffic, and updating 100 million prices in parallel, response time rose from 5ms to 8ms for the 95th percentile of the product page endpoint.

The service is never down ensuring high levels of customer experience powering PriceRunners leadership in Scandinavia.

A microservices architecture, allows for rapid development and deployment of multiple services.

Integration with Big Data ecosystem supporting persistence to MongoDB, and ElasticSearch.

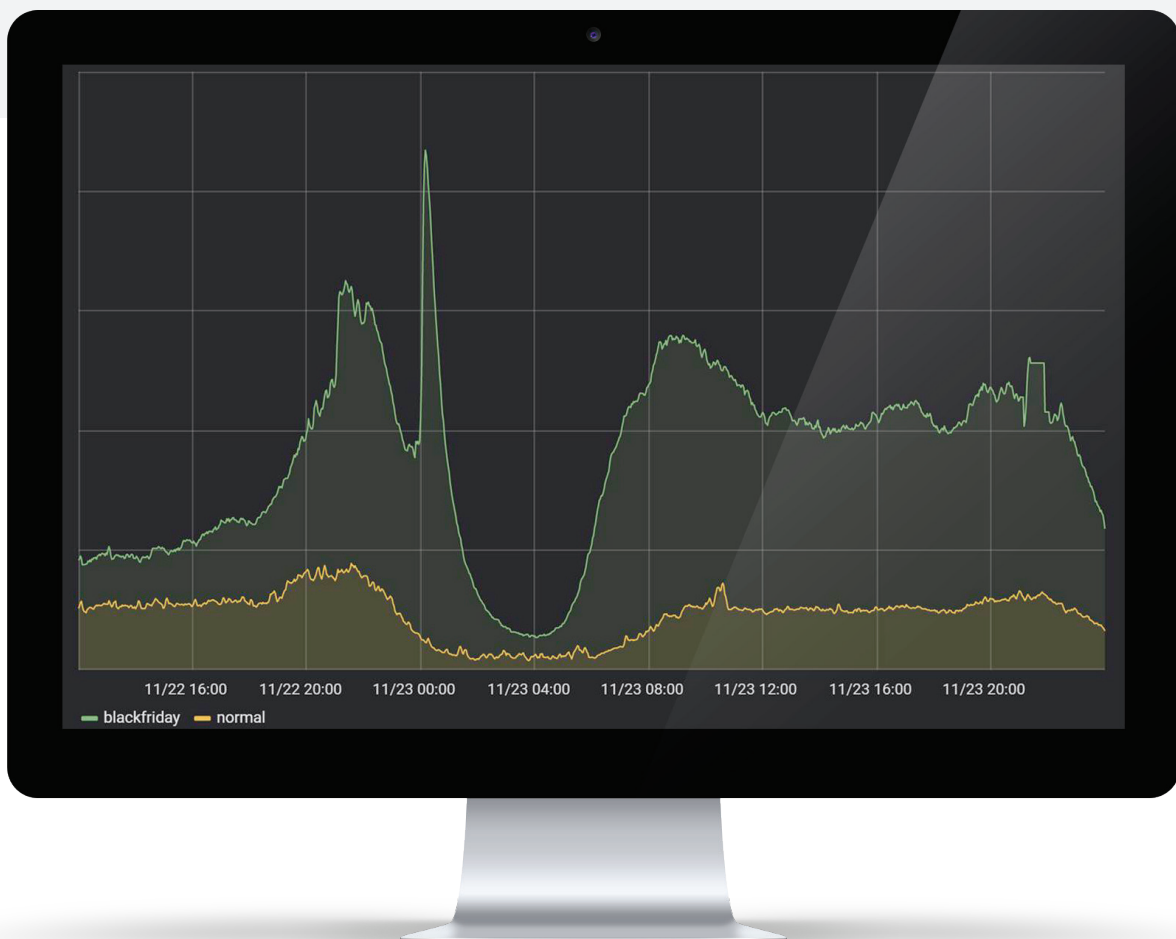


Figure 2: Peak load of 20X normal traffic shown for this year's Black Friday

ABOUT GIGASPACE

GigaSpaces provides leading in-memory computing platforms for real-time insight to action and extreme transactional processing. With GigaSpaces, enterprises can operationalize machine learning and transactional processing to gain real-time insights on their data and act upon them in the moment. The always-on platforms for mission-critical applications across cloud, on-premise or hybrid, are leveraged by hundreds of Tier-1 and Fortune-listed organizations worldwide across financial services, retail, transportation, telecom, healthcare, and more.

"InsightEdge helps users unlock immediate insights right as data is born, empowering time-to-analytics at subsecond scale. Unifying transactional and analytical data in a single strong, consistent transactional layer enables closed-loop analytics where immediate insights instantly impact associated applications for improved business value."

**Everyone Wants 'Real-Time Analytic Insights'
But Which Architecture Will Get You There?**

Frost & Sullivan

300+

Direct Customers

50+/500+

Fortune/Organizations

5,000+

Large installations
in production (OEM)

25+

ISVs

BENEFITS



INSTANT INSIGHTS TO ACTION

Unlock immediate insights right as data is born, enriched with historical data, empowering time-to-analytics-to-action at sub-second scale. Event-driven analytics and business logic trigger analysis and action at the right instant. Predictive analytics from SQL, streaming, machine learning through Apache Spark and deep learning with Tensor Flow and other frameworks.



EXTREME PERFORMANCE

Ultra-low latency, high-throughput transaction and stream processing. Co-location of applications and analytics to act on time-sensitive data at millisecond performance.



TCO OPTIMIZATION

Simplified architecture eliminating cluster and component sprawl complexity; radically minimizing the amount of moving parts. Cloud-native, infrastructure-agnostic deployment, for cloud, on-premise and hybrid. Intelligent multi-tiered data storage across RAM, SSD Storage-Class Memory (3DXPoint), Persistent memory reducing storage costs by 10X while retaining in-memory speed.



MISSION CRITICAL AVAILABILITY

Always-on battle-tested platform for mission critical business continuity. Highly available with at least 5 nines reliability, auto-healing and zero single points of failure. Geo-redundancy, fast data replication and native persistence for rapid disaster recovery.