Aerospike Accelerates Real-time Distribution of Online Shopper Data and Analytics for eXelate

eXelate enables digital marketers to make the right marketing decisions by providing data and insight on shoppers’ online purchase intent, household demographics and likely behavior.

To do so, the company collects directly measured online data from hundreds of websites and distribution partnerships with information leaders such as Nielsen, Nielsen Catalina, MasterCard Advisors, and Bizo, among others. Then eXelate uses the data to make online, offline, and custom modeled data sets actionable across 400 million online consumers worldwide.

Today, eXelate uses the Aerospike real-time NoSQL database to process 2 TB of data per day and power over 60 billion transactions per month for 200+ publishers and marketers across multiple geographic regions.

Rapid Growth Requires High-Performance Database with Replication

Initially, eXelate relied on an in-house solution to manage the data pool and real-time delivery of the data and analytics that provide its customers with critical insights into understanding and leveraging consumer behavior. However, as the company’s business expanded, particularly in North America and Europe, eXelate required a more robust platform to ensure the speed, availability, and continuity on which its reputation is built. Several factors played into the decision.

eXelate reviewed a number of NoSQL databases to address the company’s rapidly growing big data challenge. After conducting a thorough evaluation, eXelate chose the Aerospike real-time NoSQL database, which features cross data center replication, to handle data management and replication across its data centers.

“First we considered SCALE. Second, we required REAL-TIME PERFORMANCE including write performance that is roughly equivalent to read performance. Third, we needed REAL-TIME REPLICATION at each of our four datacenters. Aerospike delivered on all of these requirements.”

Elad Efraim  
eXelate CTO
Aerospike with XDR Manages Data and Replication Across Four Data Centers

Today, the Aerospike database manages billions of objects, supports complex multi-master ring topologies and enables fast and reliable synchronization across eXelate’s data centers in the United States and Europe. Central to the success of this deployment have been the efforts of the Aerospike support team.

“Aerospike’s 24/7 support has been instrumental to the success of our deployment and replication efforts.

Deploying databases with replication in multiple data centers is a sophisticated process, but having the support of Aerospike’s team has made all the difference.”

Shlomi Aflalo eXelate VP, research and development

The Aerospike database currently runs on standard Intel-based hardware and is deployed at each of eXelate’s four global data centers: three across the US and one in Europe.

Objects are divided into name-spaces, and each namespace is configured with specific storage (DRAM or SSD), replication, and smart eviction policies. Each data center holds approximately 4 TB of data, consists of a single cluster with six to eight nodes, and is a fully redundant solution.

“Providing full redundancy allows us to failover in case one location goes down, so we provide an always-on solution. At the same time, having four geographically distributed data centers allows us to bring the data closer to our customers in each region. This ensures extremely fast response times.”

Elad Efraim eXelate CTO

Since implementation, the Aerospike database has proven to deliver high reliability, linear scalability and exceptional performance for the high-volume, data intensive transactions that define eXelate’s business. Equally important, the software facilitates the expansion of eXelate’s global footprint.