

Aerospike Connect for JMS

SOLUTION BRIEF

Integrating Aerospike enterprise systems

Overview

Both modern applications and legacy systems within enterprises require real-time connectivity to the underlying databases to support sub-millisecond decisioning, machine learning (ML) and artificial intelligence (AI). Companies with legacy data infrastructures need a solution that integrates with and across their existing and more modern systems to utilize their complete set of data assets. These enterprises typically depend on messaging systems including IBM MQ, Solace, Rabbit MQ, and others. Most of these messaging frameworks utilize JMS (Java Message Service).

Connecting Aerospike in real-time with enterprise systems through JMS

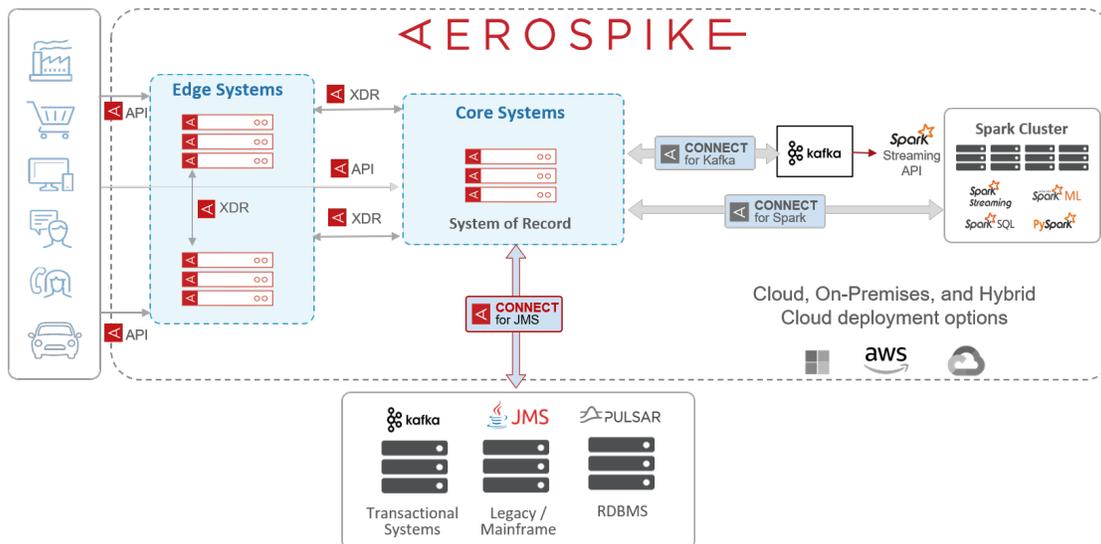
JMS is an API that facilitates the sending and reading of messages and provides loosely coupled, reliable and asynchronous communication between software components of an application.

Aerospike is a hyperscale, real-time distributed NoSQL database that forms a core building block of any Enterprise Data Architecture. In addition, to avoid data siloing, it is imperative to support free data movement between Aerospike and other enterprise systems, such as those relying upon JMS.

Aerospike Connect for JMS, (Figure 1) provides a simple and easy way to move data in and out of Aerospike to other enterprise systems via the JMS enterprise system.

Highlights

- Provides Real-time bi-directional connectivity to JMS
- Seamless integration between Aerospike and other enterprise systems through JMS connectivity
- Enable event-driven architecture and microservices architecture
- Ability to integrate with any endpoint which supports JMS, regardless whether it has a direct integration with Aerospike or not
- Enables connecting Aerospike 5.0 with its multi-site clustering and several other features to a low latency and high throughput JMS based streaming system



Aerospike connect for JMS functionality

- Aerospike Connect for JMS supports bi-directional movement of data through messaging. Organizations relying on JMS can now deploy and integrate Aerospike seamlessly with their existing systems.
- Support for inbound data from JMS message brokers.
- Support for outbound data by streaming changes in Aerospike to JMS queues using the Change Notification system.
- The following JMS message brokers are supported by default:
 - IBM MQ
 - Solace
 - ActiveMQ Artemis
 - RabbitMQ
- Support for JMS message headers and properties.
- Support for receiving different types of data on the JMS bus: TextMessage, BytesMessage, ObjectMessage, and MapMessage
- Support new XDR protocol to connect Aerospike 5.0 to JMS based streaming system

Benefits

- Enterprise-wide connectivity of Aerospike utilizing the JMS messaging system in real-time.
- Easier integration with modern and legacy systems such as Mainframes, etc.

- Enables event-driven architecture and microservices architectures.
- Ability to integrate with any endpoint which supports JMS, regardless if it has a direct integration with Aerospike or not.
- Ability to connect Aerospike 5.0 to a low latency and high throughput JMS based streaming pipeline

Typical use cases for Aerospike connect for Pulsar

Financial Services and FinTech: Integration with legacy data sources for real-time fraud prevention.

eCommerce and Retail / CPG: Behavioral data integration and clickstream integration with product data.

Telco: Customer 360, Customer data integration with real-time billing.

Internet of Things (IoT): Edge and device data synchronization with back-end and other core systems.

DataLake / EDW Integration for real-time Analytics: Integrating operational data with data lakes and data warehouses for analytics.

AdTech: Real-time clickstream data synchronization and integration for Real-time Bidding (RTB), Data Management Platforms (DMP), and Supply-Side Platforms (SSP).

The Aerospike Real-time Data Platform enables organizations to act instantly across billions of transactions while reducing server footprint by up to 80 percent. The Aerospike multi-cloud platform powers real-time applications with predictable sub-millisecond performance from terabytes to petabytes of data with five nines uptime with globally distributed, strongly consistent data. Applications built on the Aerospike Real-time Data Platform fight fraud, provide recommendations that dramatically increase shopping cart size, enable global digital payments, and deliver hyper-personalized user experiences to tens of millions of customers. Customers such as Airtel, Experian, Nielsen, PayPal, Snap, Wayfair and Yahoo rely on Aerospike as their data foundation for the future. Headquartered in Mountain View, California, the company also has offices in London, Bangalore and Tel Aviv.

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