

between the sites. WAN optimization is supported for greater resiliency.

Conflict Avoidance, Not Conflict Resolution

With synchronous data replication and strong consistency, conflict detection and resolution is not required. In a failure scenario, Aerospike automatically transfers the management of write operations to another available data center, so application requests can still be processed. This is accomplished in such a manner that conflicting writes won't occur and committed writes won't be lost

Business Benefits

Meets the Transaction Requirements of the Always-on Global Business

Global digital businesses require an always-on, always current, and transactionally accurate view of their business that can be delivered at the scale of global workloads. Accuracy in payments, inventory, users, and financials is expected by customers, employees, and partners. Aerospike Multi-Site Clustering gives you all of this on commodity hardware deployed in private, public, hybrid, or intercloud environments.

Powering Real-time Businesses

Customer expectations and the rise of machine-to-machine business processes require the highest levels of database performance with the highest possible availability. Aerospike's Multi-Site Clustering can power low latency globally distributed transactional applications with strong consistency, speed, and scale. Utilizing these applications, users can access a global transactionally accurate and real-time view of the business, which allows them to provide better customer experiences, grow revenue, and increase profit. In the traditional global transactional system, it took hours to complete transactions like payments, correct views of

Use Cases

Economic globalization and ever-changing client demands have forced companies to compete and collaborate in ways that were once unthinkable. As a result, modern transactional applications are stressing existing IT infrastructures well beyond their design points.

Aerospike's Multi-Site Clustering supports strong, immediate data consistency across multiple data centers (or cloud regions). It does so in a manner that provides fast local reads and keeps write latencies within a few hundred milliseconds. Legacy solutions fall far short of these capabilities, especially when considering the needs of certain mission-critical applications, including:

- Global Instant Payment Systems
- Trade Settlements
- Global Supply Chain Management
- Currency Exchanges
- Parcel Tracking
- Smart Contracts

during site failures and when the cluster is subsequently restored to a fully healthy state.

Immediate Failover

Aerospike utilizes automated cluster failure detection based on its internal roster and heartbeat mechanism. On failure of a cluster node or the network, Aerospike quickly recovers and reforms the cluster. Clients automatically connect to the new formation. The entire process is automated without any human intervention or additional application code.

global inventory were often out of date but now transactions can be reflected in the moment of modern business. This provides clear differentiation and delivers a competitive advantage.

Low Total Cost of Ownership

Aerospike lowers TCO by leveraging its patented Hybrid Memory Architecture™ and dynamic cluster management, which delivers exceptional performance using a much smaller server footprint than competing solutions. This highly efficient architecture also benefits multi-site cluster configurations and allows a lower TCO than other Active-Active alternatives. Especially in comparison with traditional SQL-based global transactional systems, Aerospike's TCO advantages are even more obvious because the traditional systems require even more proprietary hardware to achieve the same level of performance. All of this means that the per-transaction cost for using Aerospike Multi-Site Clustering will be an order of magnitude lower than existing solutions. This in turn enables enterprises to deliver and expand their business to meet the increasing demands of scale and speed without sacrificing correctness, time to market, or increasing application-level complexity.

Global Instant Payment System Case Study

Currently, Aerospike Multi-Site Clustering is deployed by the European Central Bank to support the TARGET Instant Payment Settlement (TIPS) service. TIPS enables individuals and firms in various European locations to transfer money between each other within seconds, regardless of the time of day. The TIPS application requires a highly resilient, geographically distributed database platform with strong consistency and excellent runtime performance to fully meet their target service level agreements (SLAs).



About Aerospike

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, 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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