

Innovation at the Edge: Powering Real-time, Large Scale Mission Critical Federal Agency Applications

Federal Government Overview

A Better Solution for Powering Critical, Data-Intensive Workloads in Government

Data is continuously growing, creating new opportunities for improved decision-making, smarter operations, and better services. But its rapid growth is also overwhelming many of our systems. Global data volumes will explode even faster with time: The amount of data created over the next three years is projected to be more than the data created over the past 30 years, and the world is projected to create more than three times the data over the next five years than it did in the previous five.¹

This trend presents an epic challenge for federal agencies, which are scrambling to ingest and make sense of accelerating streams of videos, images, sensor data, log files, meta-data, IoT, social media, and other varieties of data in real time.

¹David Reinsel, John Rydning, John F. Gantz, Worldwide Global DataSphere Forecast, 2020–2024: The COVID-19 Data Bump and the Future of Data Growth, IDC, April 2020: <https://www.idc.com/getdoc.jsp?containerId=prUS46286020>

Benefits to Your Agency

Extreme Scale

Petabytes of data, millions of transactions per second

Sub-Millisecond Latency

Five 9's Availability

Robust Enterprise Security

Data encryption in-motion/at rest, authentication, access control, more

Easy Portability

Multi-cloud, Hybrid Cloud, On-premises, Containerization, Managed Service

Ubiquitous Data Layer Across Applications

For cross-enterprise, joint service, or interagency collaboration

Low TCO

40% to 60% reduction

Enterprise Integrations

Spark, Kafka, JMS, Pulsar, PrestoSQL/Trino

Many of today's federal IT infrastructures struggle to effectively manage today's and tomorrow's digital resources. Often, they are fractured by disparate technologies and architectures, proprietary systems and solutions, organizational silos, and geographical locations.

These and other factors undermine their ability to:

-  Ingest and analyze streaming big data from multiple sources in real time
-  Centralize and connect their data in real time
-  Integrate modern applications with legacy systems
-  Analyze and visualize large data volumes
-  Deliver distributed consumer-quality services to citizens and employees

The solution to these problems is not just larger databases. Federal agencies require extreme-scale data foundations that also can ingest, store, process, and perform in real time, all the time, across the entire enterprise, and within a minimal hardware footprint.

Extreme-scale, real-time data connectivity for federal agencies

Aerospike offers federal agencies an advanced, distributed, real-time data architecture — built upon our patented Hybrid Memory Architecture™ — to connect data instantly across the enterprise, regardless of where it resides. Today, our products are trusted by some of the biggest names in banking and financial services, telecommunications, retail, advertising, and — more recently — the federal government to power their most data-intensive, real-time operations.

Our difference is simple: We deliver a highly secure, next-generation, edge-to-core data foundation that offers unrivaled uptime and reliability, predictable high performance at any scale, and dramatically reduced complexity and total cost of ownership (TCO).

With Aerospike, federal agencies have a reliable, secure, high-performing data foundation that can accelerate IT modernization goals and bring enterprise data strategies to reality. This unique ability to pair extreme-scale data applications (including AI and machine learning-enabled applications) with consistently high performance and availability, robust security, and exceptionally low TCO enables us to support the most demanding, data-intensive government workloads, including:

- >> AI and Machine Learning
- >> Personalized Citizen Services
- >> Edge Computing At Scale
- >> Operational and Financial
- >> Compliance
- >> High-Performance Computing
- >> 5G Architectures



Why Aerospike

We believe it is not sufficient simply to run extreme-scale workloads — it must be done securely, on the smallest possible hardware footprint, and deliver reliably high performance and unrivaled availability. We have invested heavily in our multi-patented, next-generation technologies that make this possible. Many of the world's most data-intensive, extreme-scale enterprises have noticed and trust us to support their most challenging and critical workloads. We are a firm backed by world-class investors, including Gilman Louie, the founder of In-Q-Tel and a member of the U.S. National Security Commission for Artificial Intelligence, the Technical Advisory Group of the U.S. Senate Select Committee on Intelligence, and the National Commission for

Review of Research and Development Programs of the U.S. Intelligence Community. Aerospike has strategic partnerships with Dell, HPE, and Intel and is available through our valued federal partners.

To learn more about how Aerospike can help your agency, contact: federal@aerospike.com.

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Designated Small Business

◀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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