

07:00	REGISTRATION / BREAKFAST (C)	
08:30	Welcome and the Aerospike Journey to Today (E) John Dillon, CEO, Aerospike Srinu Srinivasan, Chief Development Officer and Founder, Aerospike	
09:00	Product Review and Roadmap (E) Brian Bulkowski, CTO and Founder, Aerospike In the past 12 months, Aerospike has continued to evolve and solidify the product. In this session, CTO and Founder Brian Bulkowski will review product updates, notably Strong Consistency, as well as give a preview for those updates yet to come.	
09:45	15 MIN BREAK (C)	
10:00	The Science Behind Delightful User Experience (E) Mikhail Kourjanski, PhD., Lead Data Architect, Risk and Compliance Management Platform, PayPal PayPal's Risk and Compliance management platform enables unparalleled safe and trusted Digital Payments. PayPal users can send payments instantaneously across 200 countries knowing their payments will be secure and safe. How does PayPal achieve this, especially, in today's environment of extremely sophisticated and capable fraudsters? PayPal has built in-house end-to-end platform out of necessity, which has now become a competitive advantage. This platform has blurred the boundaries between Big Data and Fast Data to accelerate real-time fraud detection to safely process \$282B payment volume annually. PayPal is innovating deep analytics to rapidly respond to emerging fraud patterns, then deploying into an event-driven, fast data, in-memory architecture to accelerate detection, reduce losses and achieve near-continuous availability.	
10:40	5 MIN BREAK	
10:45	Edge Compute Infrastructure for Experience Business (E) Sandeep Nawathe, Senior Director of Engineering, Adobe Cloud Platform, Adobe Large enterprises struggle to deliver real-time personalized experiences now more than ever before. Enterprises are still unable to deliver a truly personalized experience that uses all of the relevant information that is collected even though personalization has been a priority for years. Enterprises now need an easily accessible, current, fast, and complete data store that systems of activation can query. This data store and the ability to process this data in milliseconds needs distributed computing in close proximity to the consumer base; we term this as a Compute Edge. Adobe is modernizing its Edge Compute infrastructure to help enterprises deliver best experience to their consumers. In this presentation, we will discuss main use cases, Adobe's Edge Architecture and important learnings in building this infrastructure.	Real-time Workloads Demand Real Performance: Aerospike on IBM Cloud (W) JD Wells, Cloud Design Architect, IBM Cloud Flexibility, premium performance and consistency has made IBM Cloud IaaS (SoftLayer) a preferred platform for many Ad Tech and Aerospike deployments. In this session will explore best practices for optimizing IBM Cloud infrastructure performance while minimizing network latency, how our platform grants customers some unique cloud capabilities plus how Aerospike exploits IBM Cloud Bare Metal performance to maximize TCO and minimize compute sprawl complexity and cost.
11:25	5 MIN BREAK	
11:30	Exponential Growth Without Sacrificing Platform Speed (E) Gil Allouche, Founder and CEO, Metadata.io Prithvi Sathiya, Data Engineer, Metadata.io Metadata was using a traditional NoSQL database based on open-source technology. Our workflow "Audience lookalikes" involves using a search engine on top of Key/Value NoSQL database to search and retrieve large amounts of documents. Our major challenge was to support our exponentially growing database without sacrificing on our platform speed nor purchasing significant more infrastructure. Switching to Aerospike broadened our capabilities and has helped support our company growth. We managed to boost our profiling/audience lookalikes algorithms and run twice as fast, enabling us to serve more customers in a shorter amount of time with even leaner hardware resources.	When Five Nines Is Not Enough: What 100% Uptime Looks Like (W) Timothy Smith, SVP and GM, Global Technical Infrastructure & Operations, AppNexus AppNexus is Aerospike's first customer and substantial portion of the world's internet advertising flows through AppNexus. Come and hear about some of the lessons learned as AppNexus scaled its zero down time infrastructure over the past 10 years while the company ramped up from startup founded on a couch in an apartment in Manhattan to 1,000 people spread across 26 global offices. Aerospike is one of the key operational systems core component of the AppNexus infrastructure, namely, the cookie store. This cookie store now houses tens of billions of objects with millions of read/write operations per second spanning a half-dozen geographically distributed data centers. Hear how both the size and speed increased 40-fold over a six-year period.
12:15 12:30	LUNCH (C)	
		Techapalooza: Engineering Q&A Session (W) Andy Gooding, Vice President, Engineering, Aerospike Meher Tendjoukian, Vice President, Operations, Aerospike Jeff Boone, Director, Engineering, Ecosystems, Aerospike Sunil Sayyaparaju, Director, Product & Technology, Aerospike

Meet the engineers that built Aerospike! Ask any question that comes to mind to spark conversations in this interactive, open question and answer session. This is an open forum to ask any technical curiosity or challenge to those that built the product.

01:30

Aerospike Technical Overview (E)

Brian Bulkowski, CTO and Founder, Aerospike
Srini Srinivasan, Chief Development Officer and Founder, Aerospike
Bharath Yadla, Vice President, Product Strategy, Ecosystems, Aerospike

In this session, Aerospike will delve deeper into the product, most notably how we achieved Strong Consistency, as well as our Ecosystem and Real-time Analysis Framework integrating Spark.

02:30

Aerospike + Intel® persistent memory (E)

Ginger Gilsdorf, Application Engineer, Intel

There has always been a trade-off to consider when deciding where to place data structures: DRAM (memory) is too expensive, but SSDs are too slow. Aerospike's in-memory index provides very fast lookup times but comes with a few pain points for users. In order to store more data, one must add costlier DRAM. In addition, every system reboot requires the index to be rebuilt; a process which can take hours. Believe it or not, these concerns can become a thing of the past, thanks to Aerospike's partnership with Intel's upcoming persistent memory technology. Come to this session to hear how Aerospike plans to take advantage of the large capacity, low cost, and persistence of Intel 3D XPoint™ technology to store the index, saving users both time and money.

02:50

Maximizing the Benefit of Flash Storage for Aerospike (E)

Hao Zhong, CEO and Co-Founder, ScaleFlux

Flash Storage is one of the most essential system components in achieving sustained high transaction rate for mission-critical Aerospike applications. ScaleFlux Computational Storage is market-proven to not only deliver the best transactions per second benchmarks, but also consistently low latency optimized for Aerospike workloads. This session will share how ScaleFlux is innovating to further improve both the responsiveness of Flash Storage and the overall affordability of mainstream, high transaction Aerospike deployments.

03:15

15 MIN BREAK (C)

03:30

Hybrid Memory Aerospike @ PayPal (E)

Saibabu Devabhaktuni, Sr. Director of Database, Systems, and Storage, PayPal
Athreya Gopalakrishna, Sr. MTS Engineer, Database Engineering, PayPal

With adoption of KV distributed databases and with maturity in hardware took the NoSQL products through transformation from being in-memory to memory-first and then to hybrid-memory architecture, by leveraging memory for speed/scale/availability.

Large Scale NoSQL DB Migration Under Fire (W)

Ido Barkan, Software Architect, AppsFlyer

NoSQL databases scale out until they don't. This is a story about how we migrated 1.8 billion records and 43 nodes NoSQL database into Aerospike in production. This was during live high throughput traffic with zero downtime.

04:10

5 MIN BREAK

04:15

Replacing Cassandra: A Digital Transformation for the World's Largest Digital Identity Network (E)

Matthias Baumhof, VP Worldwide Engineering, ThreatMetrix
Nick Blievers, Senior Director Engineering, ThreatMetrix

How the world's largest Digital Identity Network came to replace a 96 Node Cassandra deployment with just 28 nodes of Aerospike while improving SLAs and their business overall. Learn how Aerospike is deployed to handle over 130 million transactions a day to manage real-time customer trust decisions virtually eliminating false positives and greatly enhancing fraud detection.

Platform-Oriented Legacy Modernization (W)

Ananth Subramanya, Practice Head- Digital & Analytics, HCL Technologies

How does one leverage legacy assets for digital transformation? Only 25% of the enterprises that have a digital transformation strategy succeed in execution. This is mostly due to the complexities in Engineering that are often overlooked in modernization programs. Understand how to convert legacy debt into assets using a simple A-B-C approach to modernization.

04:55

5 MIN BREAK

05:00

How Microservices and a Key-Value Store Transformed India into a Cashless Society (E)

Burzin Engineer, Founder and Chief Reliability Officer, PhonePe

PhonePe's journey from a fintech startup to 10 Billion dollars total transaction value per year! As a billion people transform into a cashless economy, there are 800M mobile phones and 200M smart phones. India has a Unified Payment Interface (UPI) that enables cross business, cross people, cross bank transfers which are secure and reliable. PhonePe was an early adopter of UPI, now handling 20% of all UPI transactions in India. PhonePe enables frictionless digital payments in a cash driven economy. In this talk we will discuss how AS has been an integral part of our microservices architecture.

Innovation with Aerospike: How AppLovin handles billions of requests per day (W)

Rob Russo, Platform Architect, AppLovin

At AppLovin, we've used Aerospike to enable our platform to handle over 70 billion ad requests per day. Using the technology for real-time down-funnel analytics and as part of our Spark solution allows us to meet the demands of our platform. In this session, we will discuss the design decisions, successes, and failures that led us to embrace Aerospike as a cross-functional foundation for our engineering efforts. We'll also share how we continue to advance the platform, as well as some discoveries we've made along the way.

05:40

COCKTAIL RECEPTION (C)

08:30