



# High-Throughput, Low-Latency Solution with Scylla and Apache Kafka®

A Confluent and ScyllaDB Solution Brief

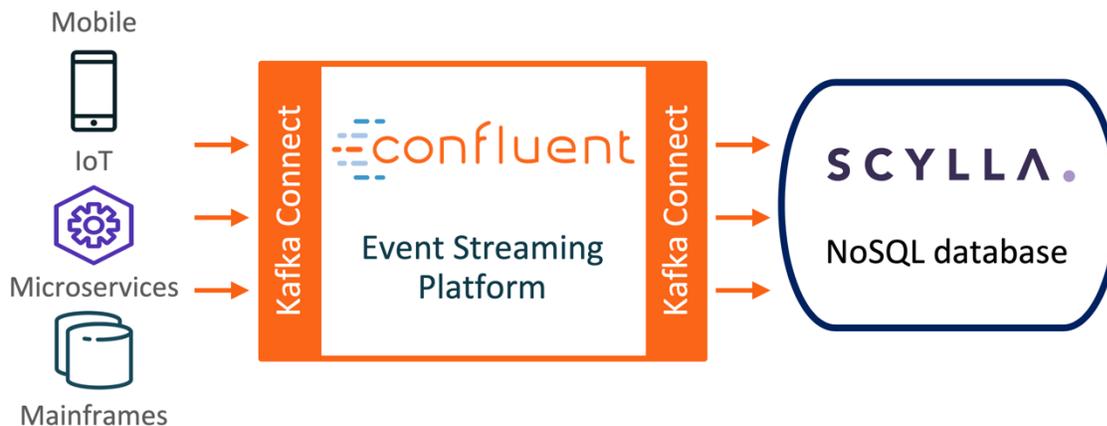
## ScyllaDB's NoSQL database, paired with Confluent Platform, keeps up with growing needs of real-time data streaming

Scylla is a highly available, highly-scalable NoSQL database that can match the volume and velocity of Kafka to meet the persistent storage requirements of modern web-scale applications. Confluent Platform and Kafka need a complementary and highly performant storage layer. Together, Confluent Platform and Scylla meet the low-latency and high-throughput requirements for users looking to obtain maximum utility from their real-time data. Scylla makes maximum utilization of high-density, modern, multi-core systems; Scylla scales out across additional nodes, automatically sharding-per-core and auto-tuning performance. Scylla also scales up, taking advantage of modern NUMA multi-CPU server architectures.

ScyllaDB and Confluent provide:

- *High performance: Low-latency and high throughput required for maximum utility from real-time data*
- *High scalability: Scaling up and out as customers grow their streaming data architectures*
- *Open source commitment: True open-source versions to foster developer communities and enable rapid adoption*
- *Enterprise-grade solutions: Robust, secure and always-on operations that customers require*

### Overview Diagram





## Scylla – Scale up performance and scale out to hundreds of nodes

Scylla has deep roots in low-level kernel programming, having devised and developed the KVM hypervisor that powers most public clouds. While trying to extract performance from an Apache Cassandra cluster, the ScyllaDB team discovered that no other database on the market was able to translate the full power of the underlying hardware into user-visible performance — in particular modern, multi-core CPUs and fast I/O devices. So ScyllaDB developed a drop-in replacement for Apache Cassandra — one with scale-up performance of millions of OPS per node, scale-out to hundreds of nodes and 99% latency of less than 1 millisecond—without sacrificing any of the rich functionality, tooling and ecosystem support of Cassandra.

## Confluent Platform and Scylla

Confluent Platform enables organizations to harness business value of event data. The Confluent Platform, based on Kafka, manages the barrage of event streams and makes it available throughout an organization. It is the only enterprise stream platform that makes implementing, managing and deploying an enterprise streaming platform with Kafka easy, reliable, secure and auditable. Scylla matches the volume and velocity of Kafka with a complementary persistent storage layer that is highly performant. With its high throughput and low latency characteristics, Scylla is the best NoSQL database to pair with Kafka and Confluent Platform in order to keep up with growing needs for real-time data streaming.

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### About Confluent

Confluent, founded by the original creators of Apache Kafka®, pioneered the enterprise-ready event streaming platform. With Confluent, organizations benefit from the first event streaming platform built for the enterprise with the ease-of-use, scalability, security and flexibility required by the most discerning global companies to run their business in real time. [www.confluent.io](https://www.confluent.io). Download at [www.confluent.io/download](https://www.confluent.io/download).

### About ScyllaDB

Scylla is the real-time big data database. Fully compatible with Apache Cassandra, Scylla embraces a shared-nothing approach that increases throughput and storage capacity as much as 10X that of Cassandra. Leading companies have adopted Scylla to realize order-of-magnitude performance improvements and reduce hardware costs. Scylla is available in Open Source, Enterprise and fully managed Cloud editions. For more information: [ScyllaDB.com](https://ScyllaDB.com)