FLaNK and FLiP Stacks

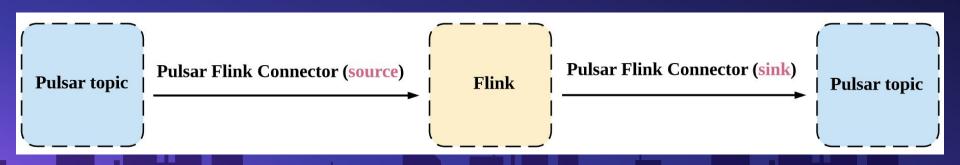- Apache **Fl**ink
- Apache **N**iFi
- Apache **K**afka

- Apache **Fl**ink
- Apache **P**ulsar
- StreamNative's Flink Connector for Pulsar
- Apache +++

Apache projects are the way for all streaming use cases.
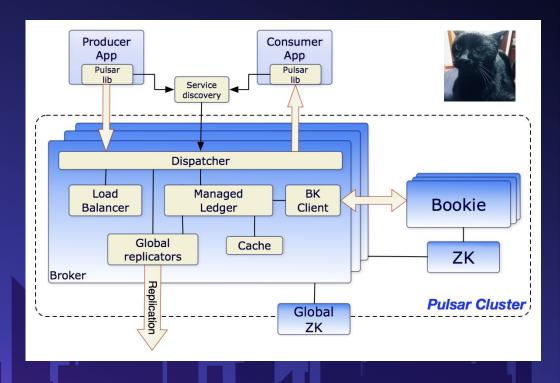
APACHE PULSAR

Enable Geo-Replicated Messaging

- Pub-Sub
- Geo-Replication
- Pulsar Functions
- Horizontal Scalability
- Multi-tenancy
- Tiered Persistent Storage
- Pulsar Connectors
- REST API
- CLI
- Many clients available
- Four Different Subscription Types
- Multi-Protocol Support
  - MQTT
  - AMQP
  - JMS
  - Kafka
  - ...

https://hub.streamnative.io/

WHAT IS APACHE FLINK?

APACHECON
ASIA 2021

3B+ data points daily streaming in from 25 million customers running real time machine learning prediction

Flink

USE CASE

Streaming real-time data pipelines that need to handle complex stream or batch data event processing, analytics, and/or support event-driven applications
event time window job with state and connectors for basic writes to HDFS, Pulsar, Kafka.

Need Event-at-a-time/microbatch, stateful/stateless operations, and exactly once or at least once Processing

TECHNOLOGY

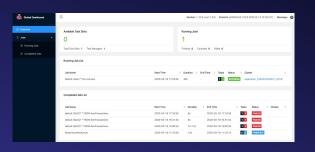Flink performs compute at in-memory speed at any scale

Flink parses SQL using Apache Calcite, which supports standard ANSI SQL

Flink runs standalone, on YARN and Kubernetes

Flink SQL

- Streaming Analytics
- Continuous SQL
- Continuous ETL
- Kafka, Pulsar and More...
- Complex Event Processing
- Standard SQL Powered by Apache Calcite
- Deployed Apache Flink Apps on YARN
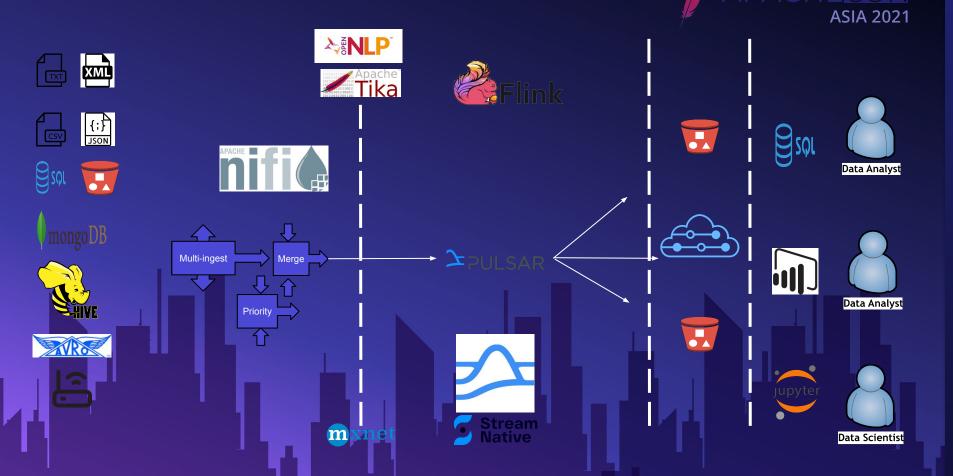- Scalable Stream Processing

https://www.datainmotion.dev/2021/04/cloudera-sql-stream-builder-ssb-updated.html

ALL DATA - ANYTIME - ANYWHERE - MULTI-CLOUD - MULTI-PROTOCOL

DEEPER CONTENT

- https://www.datainmotion.dev/2020/10/running-flink-sql-against-kafka-using.html
- https://www.datainmotion.dev/2020/10/top-25-use-cases-of-cloudera-flow.html
- https://github.com/tspannhw/EverythingApacheNiFi
- https://github.com/tspannhw/CloudDemo2021
- https://github.com/tspannhw/StreamingSQLExamples
- https://github.com/tspannhw/SpeakerProfile/blob/main/2021/talks/UsingFLaNKStackEdgetspann2021.pdf
- https://www.linkedin.com/pulse/2021-schedule-tim-spann/

THANK YOU

QUESTIONS?

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https://www.pulsardeveloper.com/