

# Ingestion and Hadoop Case Studies

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#### **Case studies**

- Big Data Platform for monitoring in Slack
- Uber and Hadoop
- Goal: See how technologies we learn are used in real big platforms
  - Key technologies: Kafka, Hadoop, Spark, ElasticSearch, Cloud storage
  - Techniques for data ingestion pipelines and integration
  - Real-world requirements



#### Slack

Read the paper and analyze the case

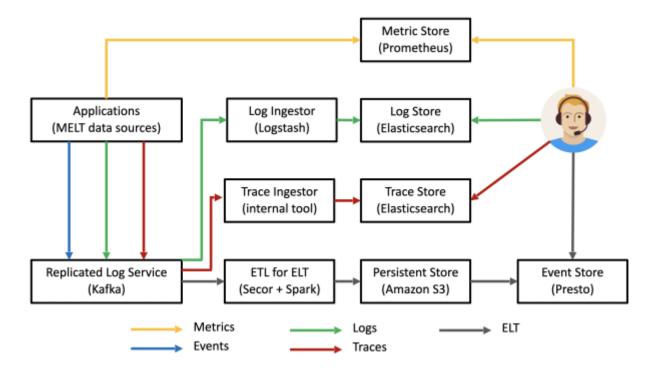


Figure source: https://sigmodrecord.org/publications/sigmodRecord/2012/pdfs/05\_Vision\_Karumuri.pdf/



# Uber case: study the role of Hadoop and Kafka

In this case study you are going to read: <a href="https://eng.uber.com/uber-big-data-platform/">https://eng.uber.com/uber-big-data-platform/</a>

and examine the role of the Hadoop ecosystem and how Hadoop services work with other components.



### **Uber case: no Hadoop**

#### Generation 1 (2014-2015) - The beginning of Big Data at Uber

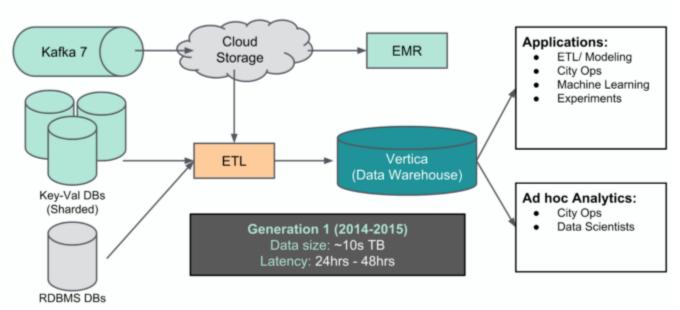


Figure source: https://eng.uber.com/uber-big-data-platform/



## **Uber case: with Hadoop**

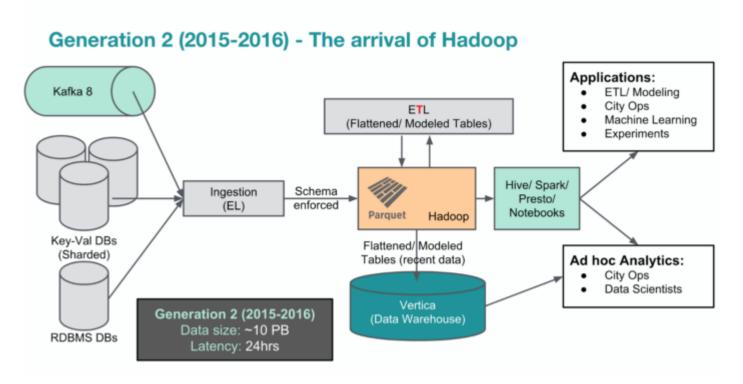


Figure source: https://eng.uber.com/uber-big-data-platform/



#### **Uber case: with Hudi**

#### Generation 3 (2017-present) - Let's rebuild for long term

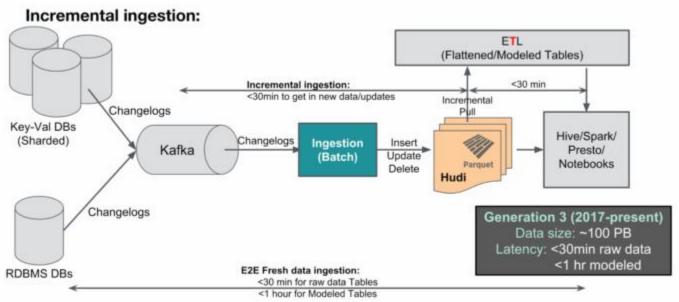


Figure source: https://eng.uber.com/uber-big-data-platform/Read Hudi: https://eng.uber.com/hoodie/

