Big Data for real-time customer engagement

Client Overview

⊙ Mobile engagement platform solutions provider helping enterprises drive their marketing outreach

Status Quo

⊙ The client's platform powers mass mobile interactions and time bound campaigns permitting billions of transactions – 150mn/day on average

⊙ The data aggregates were stored in database and undergo ETL process to derive timely performance and integrity reports

⊙ Achieve maximum reach and responsiveness by designing efficient data storage and processing architecture

Business Challenge

⊙ The existing architecture used MySQL for storing messages, which limited insertion rate. The server required heavy IO and computation power for ETL processes

⊙ PostgreSQL server used for reporting and aggregating logs was unable to lend access to real time reporting data

⊙ The system required a horizontal data storage scale up, reduced ETL process time and support real time access to reporting data
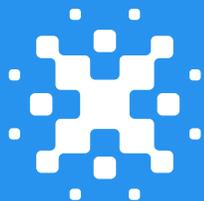
Technology

- Hadoop, Oozie, SQOOP, HIVE, HDFS, HBase, Phoenix

Business Impact

- Enhanced the ETL process by enforcing a centralized Big Data Hadoop ecosystem

- Merged the log database into Hadoop clusters. This enabled distributed processing

- Data required for real time reporting was generated using Hive tables

- Removed the data insertion bottleneck by introducing direct inserts into Hbase

- Hbase on top of HDFS and Phoenix implementation loaded real time data into Hbase and made accessing reports in real time effortless

- Reduced data processing times from 3 days to 3 hours

Case Study