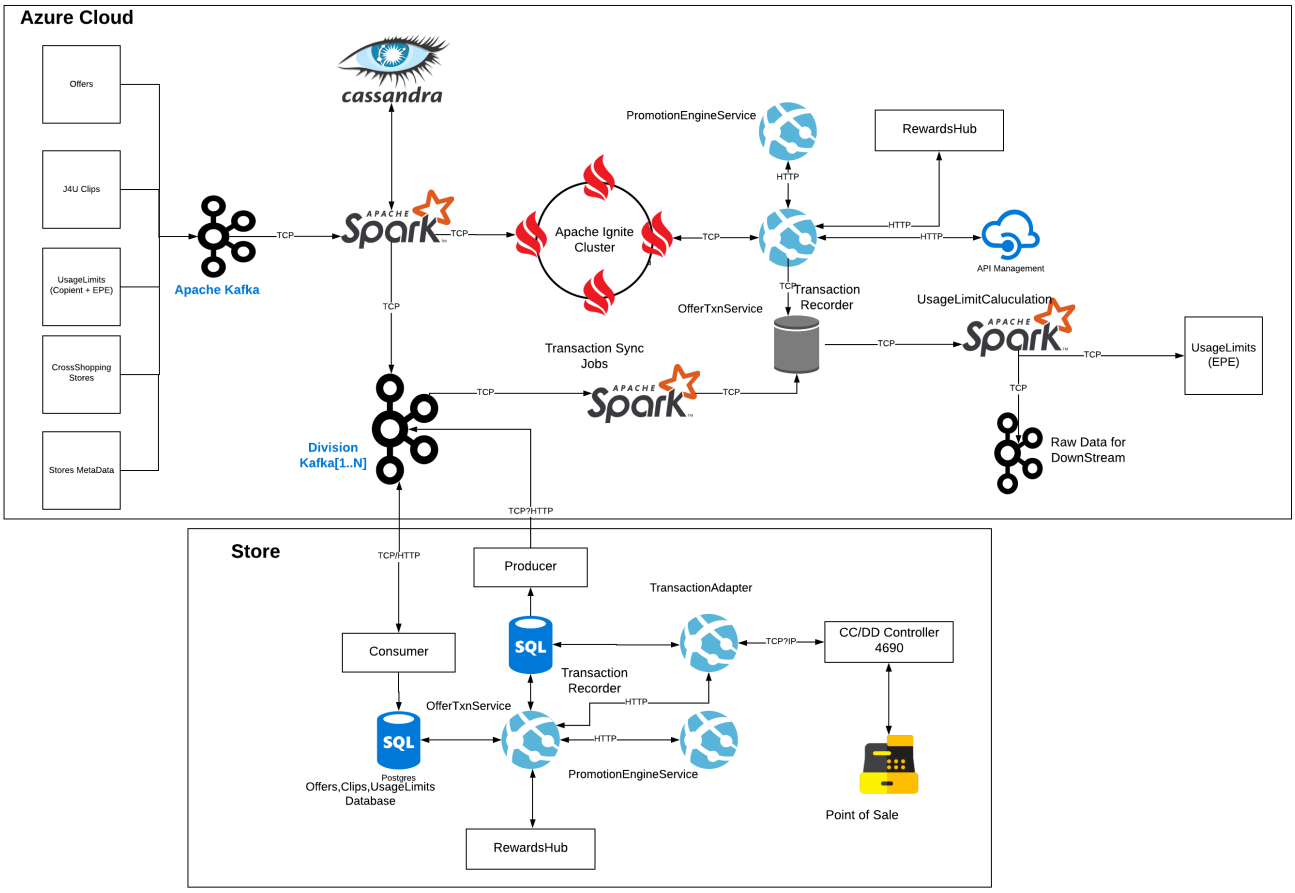
System Architecture



Notes

- Data is published into various kafka Topics from the source systems
- Data is transposed by Spark Jobs to store Data in Cassandra and Ignite Clusters
- Data is republished to division Kafka(REST-Proxy Enabled) based on configuration within the spark jobs
- Consumer in the store reads the data via REST and store into local store Database(Postgres)
- OfferTxnService will be responsible for reading the inputs(cart.list of items,store,terminal,etc..) and retrieve all offers from ignite(cloud) cluster/ postgres(store) belonging to the cart/bag/basket
- OfferTxnService is responsible to send points accumalted/redeemed in transaction at item level and at transaction level to RewardsHub (Points Management Service)
- PromoEngine is responsible to apply offers after evaluating the eligible for the items in the cart/bag/basket
- A record of transaction is stored in the cassandra(cloud)/postgres(store) by the offertxnservice for post transaction processing (usagelimits,reporting,etc.)
- TransactionAdapter Service is a interface between offertxnservice and POS Controller
- TransactionAdapter Service is responsible for serializing/deserializing the POS messages from/to JSON payload as expected by OfferTxnService
- All Completed Transaction in stores are synced from Store to division kafka topic using a producer in store
- transaction data is synced from division kafka to central transaction recorder database(cassandra) using spark
- offertxnservice will be exposed to clients using Azure API Management gateway