

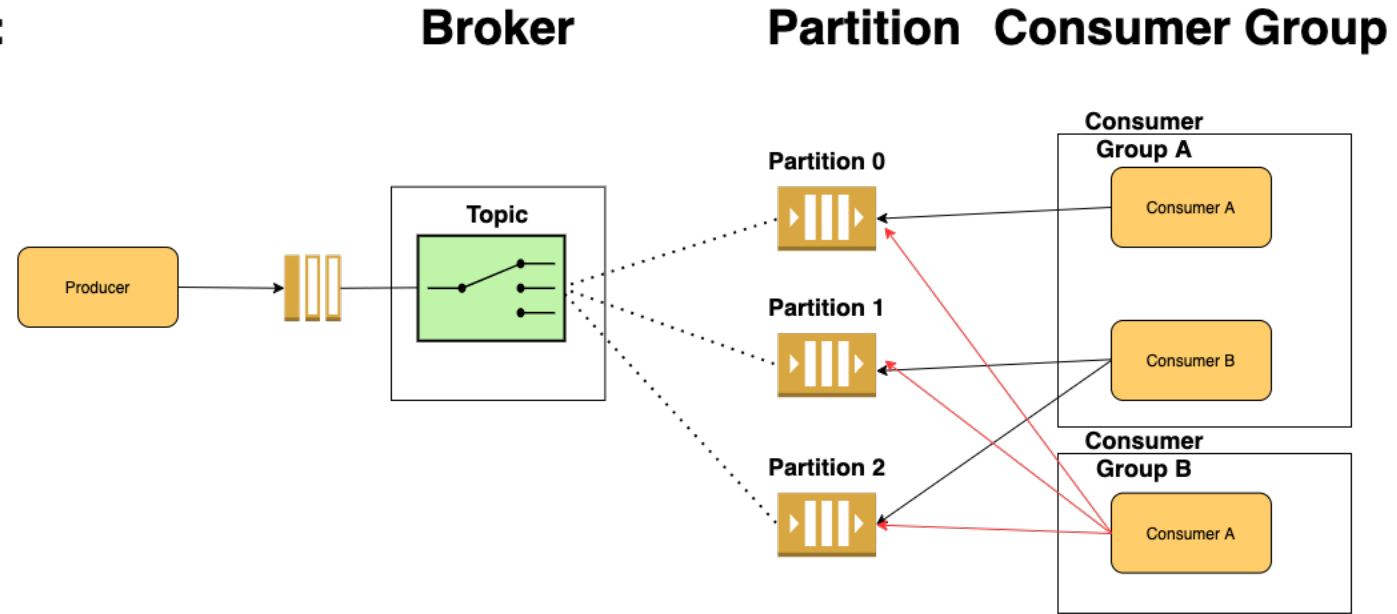
Quick Start Kafka

A Hitchhikers Guide to Kafka

Protocol

- Kafka uses its own Protocol
 - <https://kafka.apache.org/protocol.html>
 - Request-Response Pairs sent over TCP/IP. Connections relatively expensive, but single clients don't need to pool
 - Only processes a single request at a time per client connection to guarantee ordering

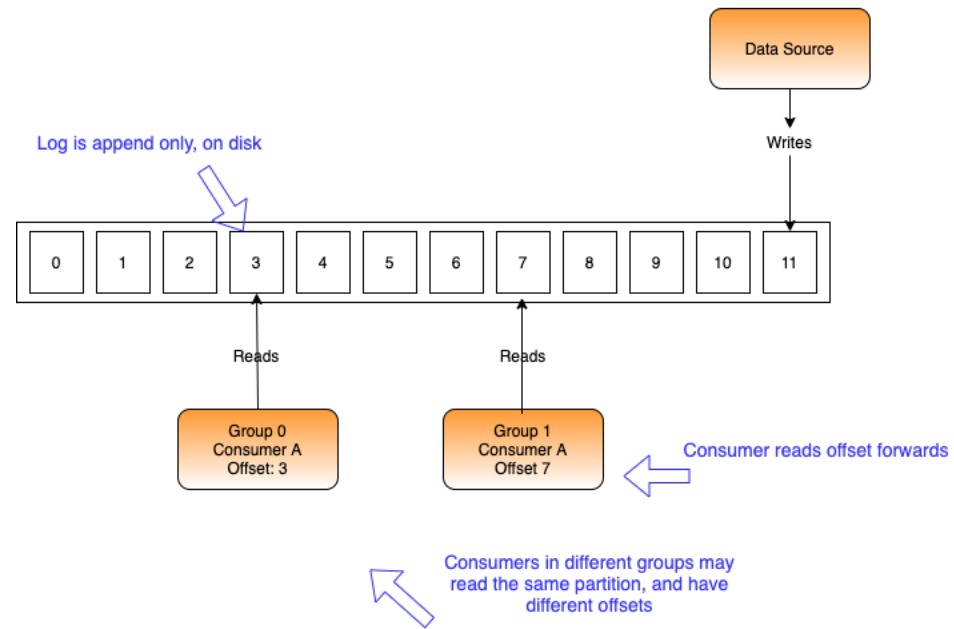
Kafka Primitive:

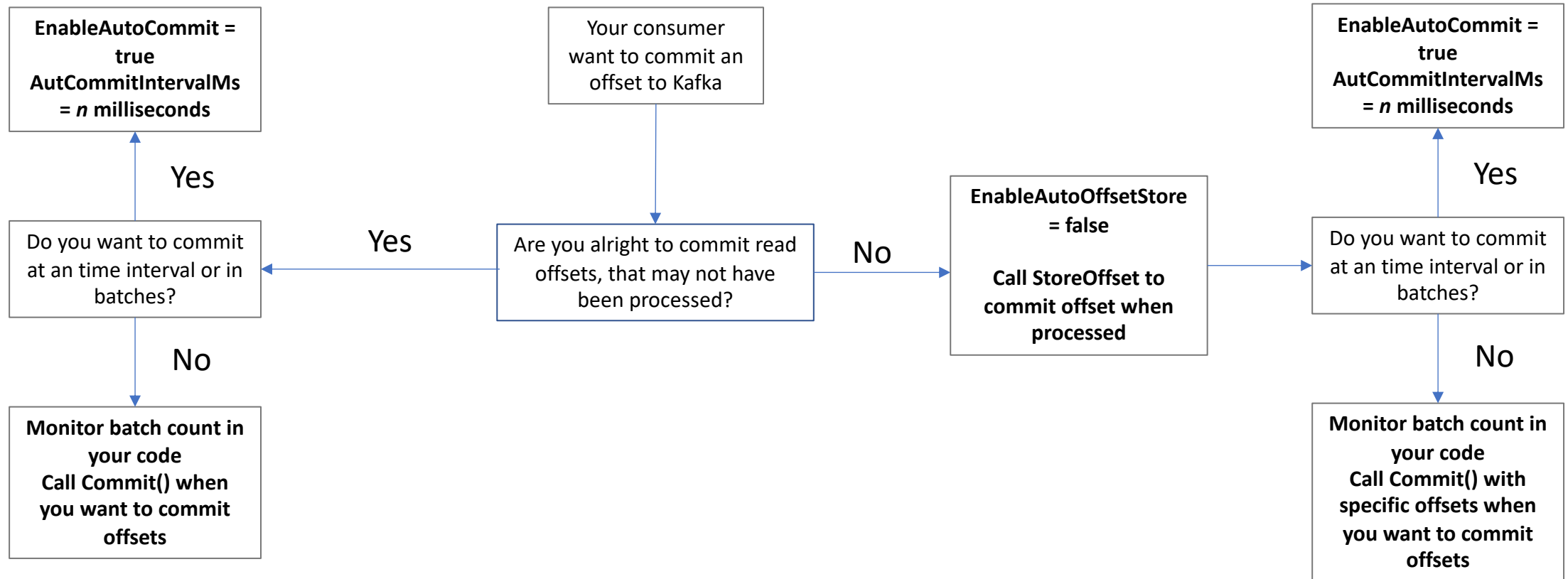


Pattern:

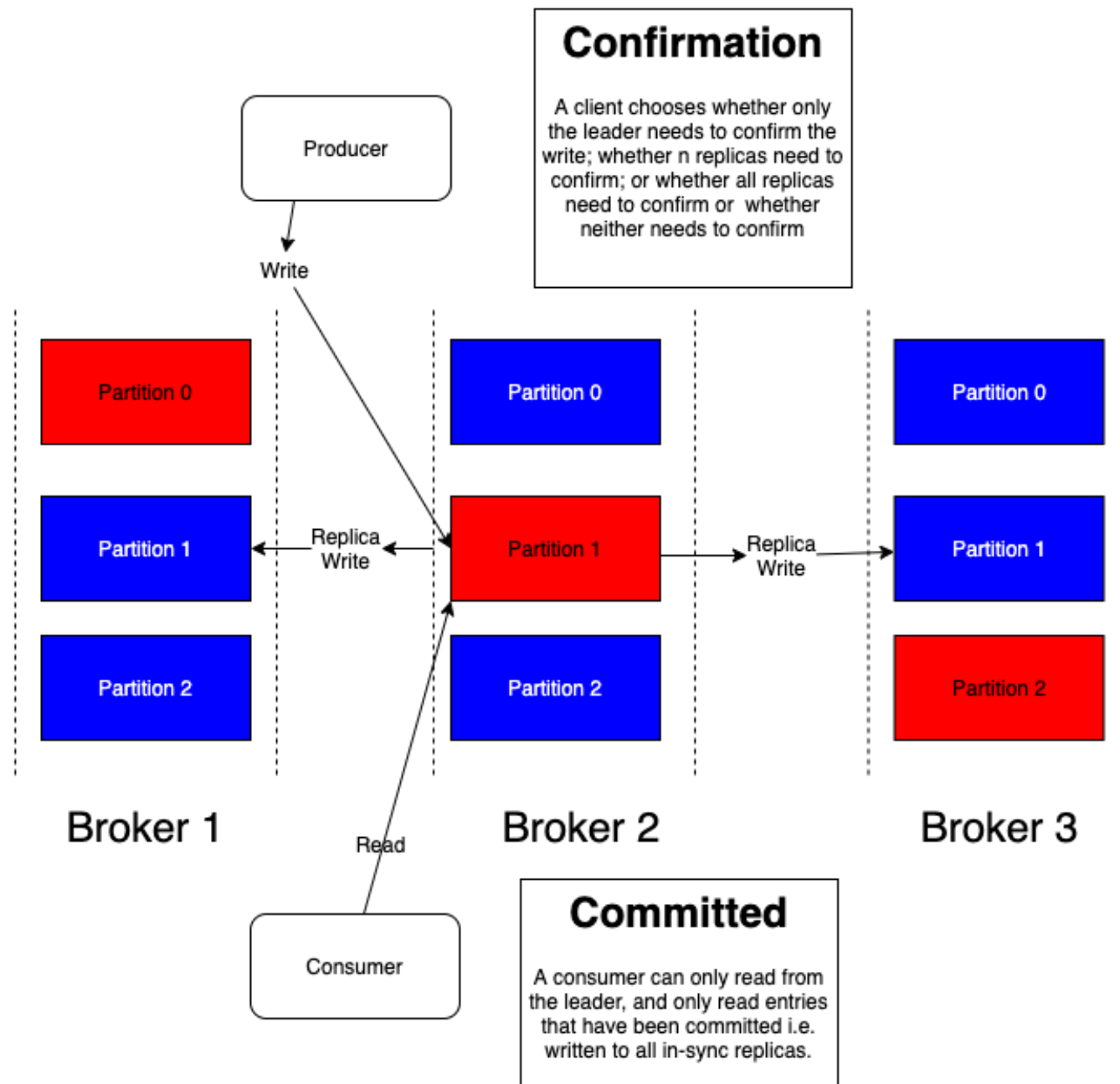
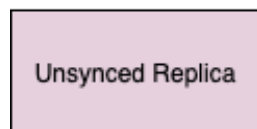


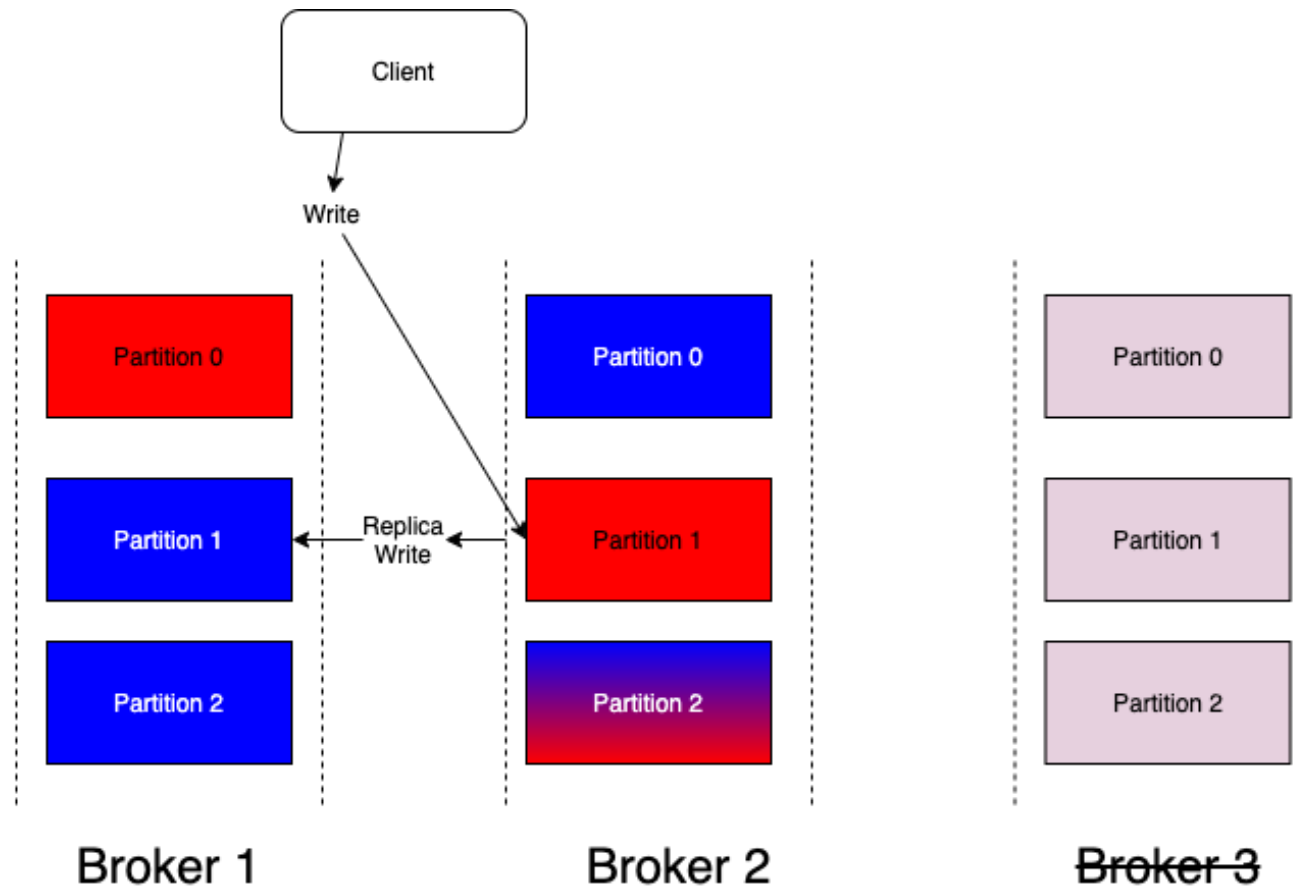
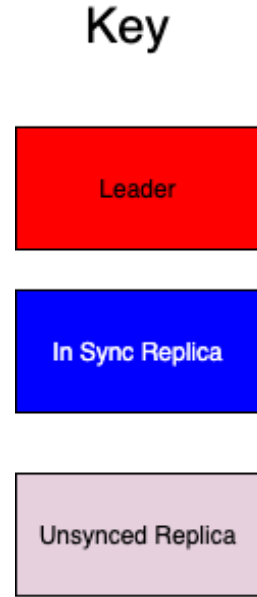
Anatomy of a Log





Key





Leader Loss

Kafka does not write to replicas that have become out-of-sync due to a partition or other failure.

If the leader is in the failed partition, then a leader is elected from the replica that is most up-to-date.

If the leader had writes that were not written to the replicas they are lost, as when the former leader returns, messages not on the current leader are discarded.