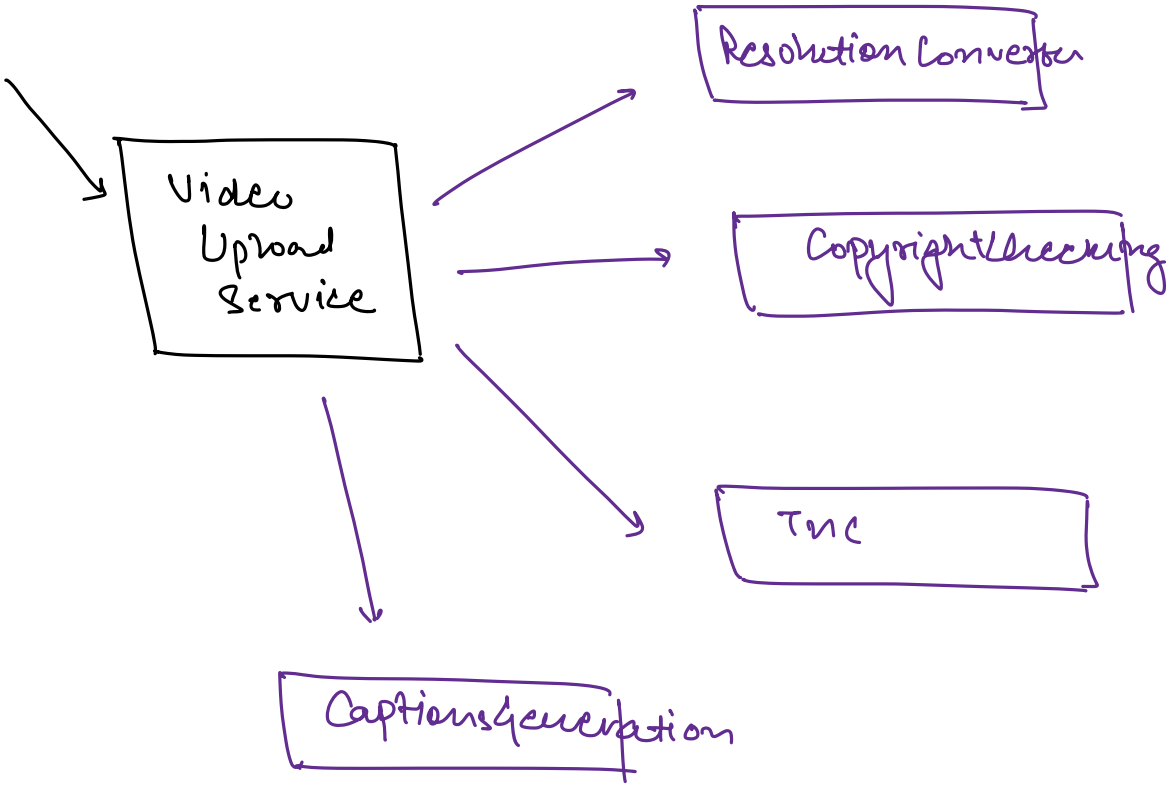
Agenda.

→ Kafka

→ Zookeeper

Kafka.

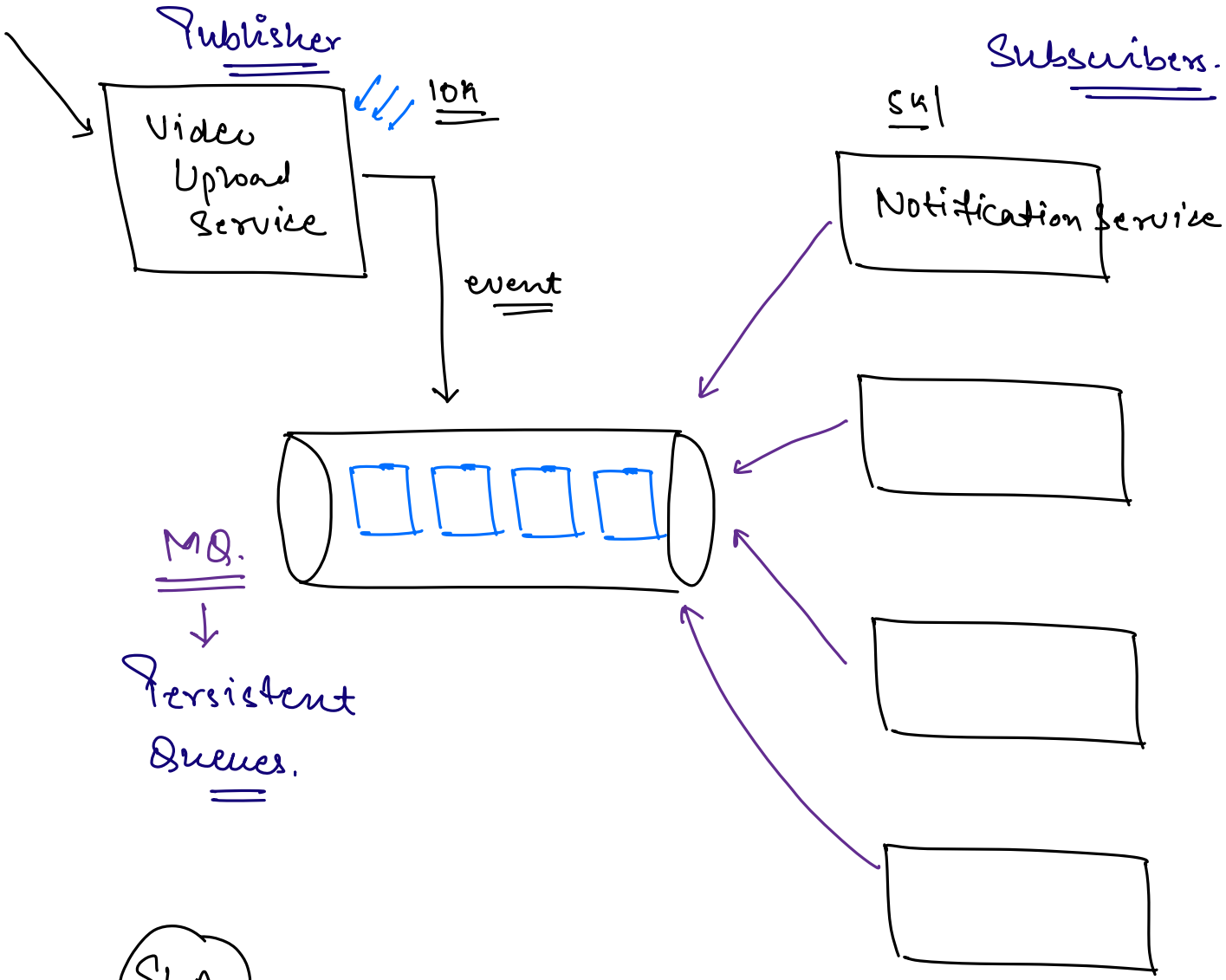
↳ Async communication



⇒ Tight Coupling.

Synchronous. (VS) ASynchronous.

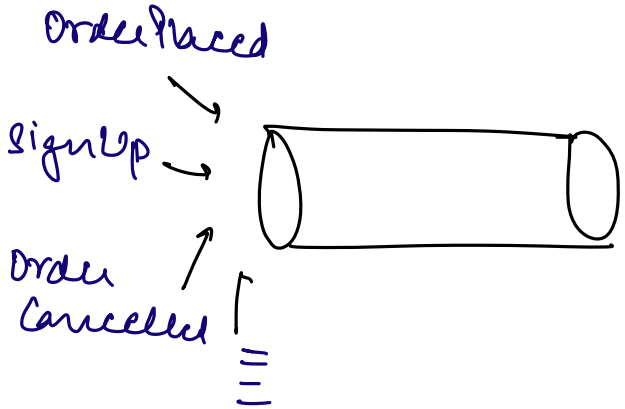
⇒ Asynchronous Communication.

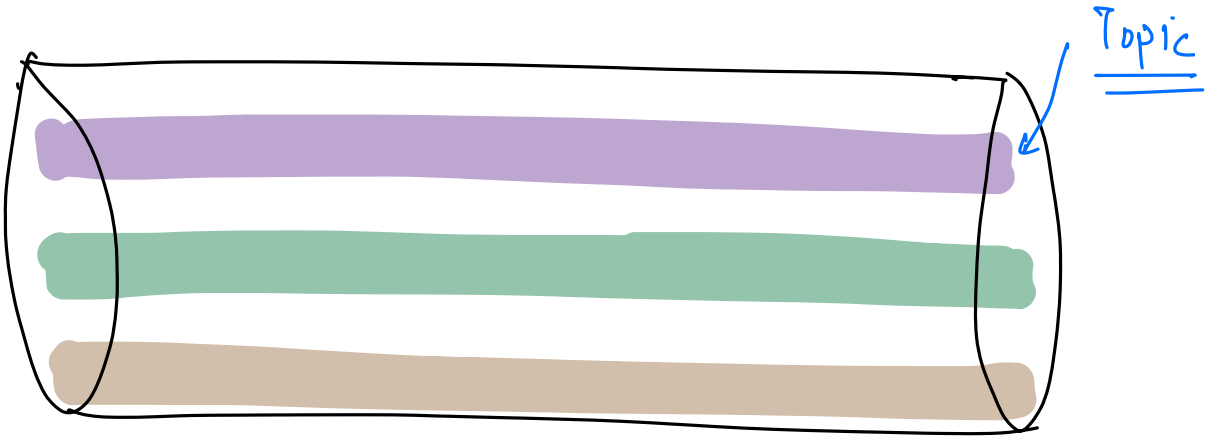


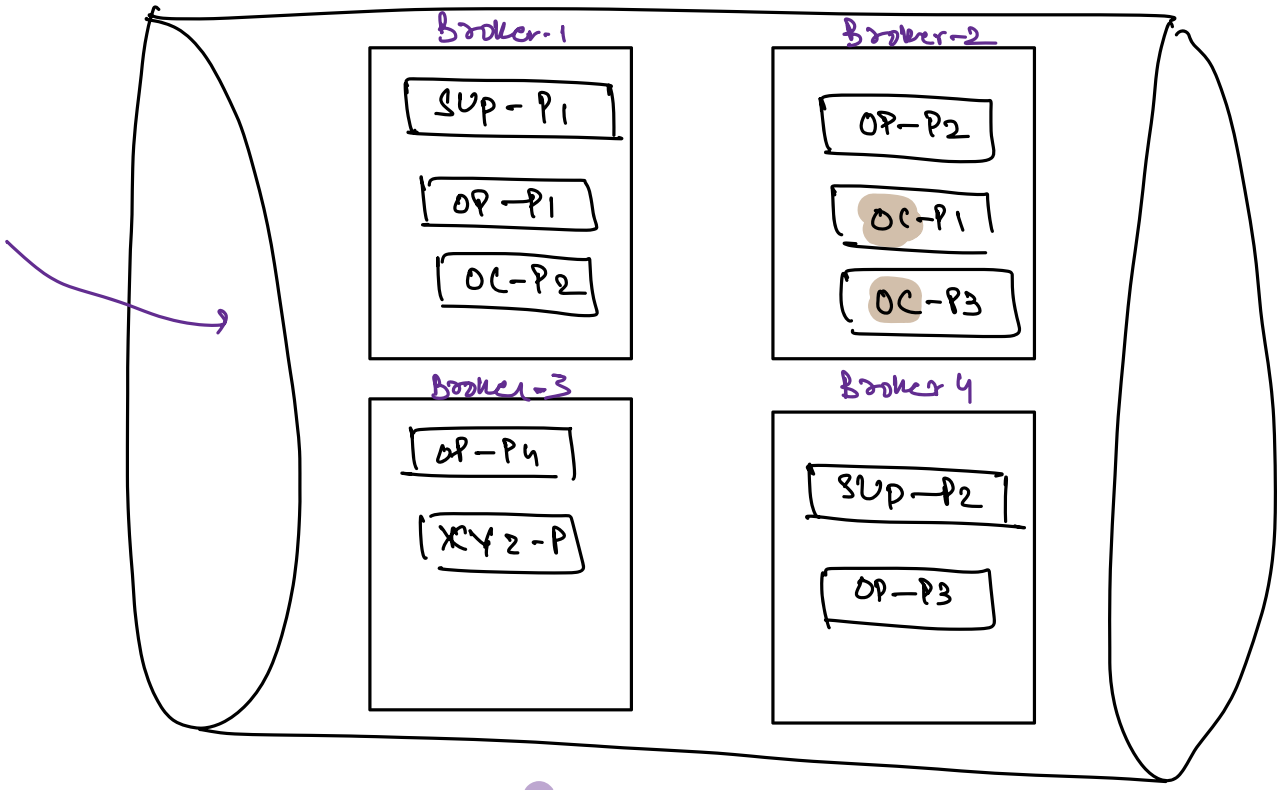
Service Level Agreement

⇒ Auto Scaling

⇒ Topic







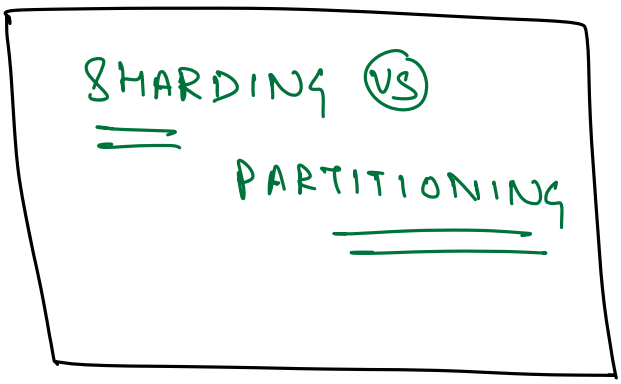
$x >= \#$ of brokers ✓

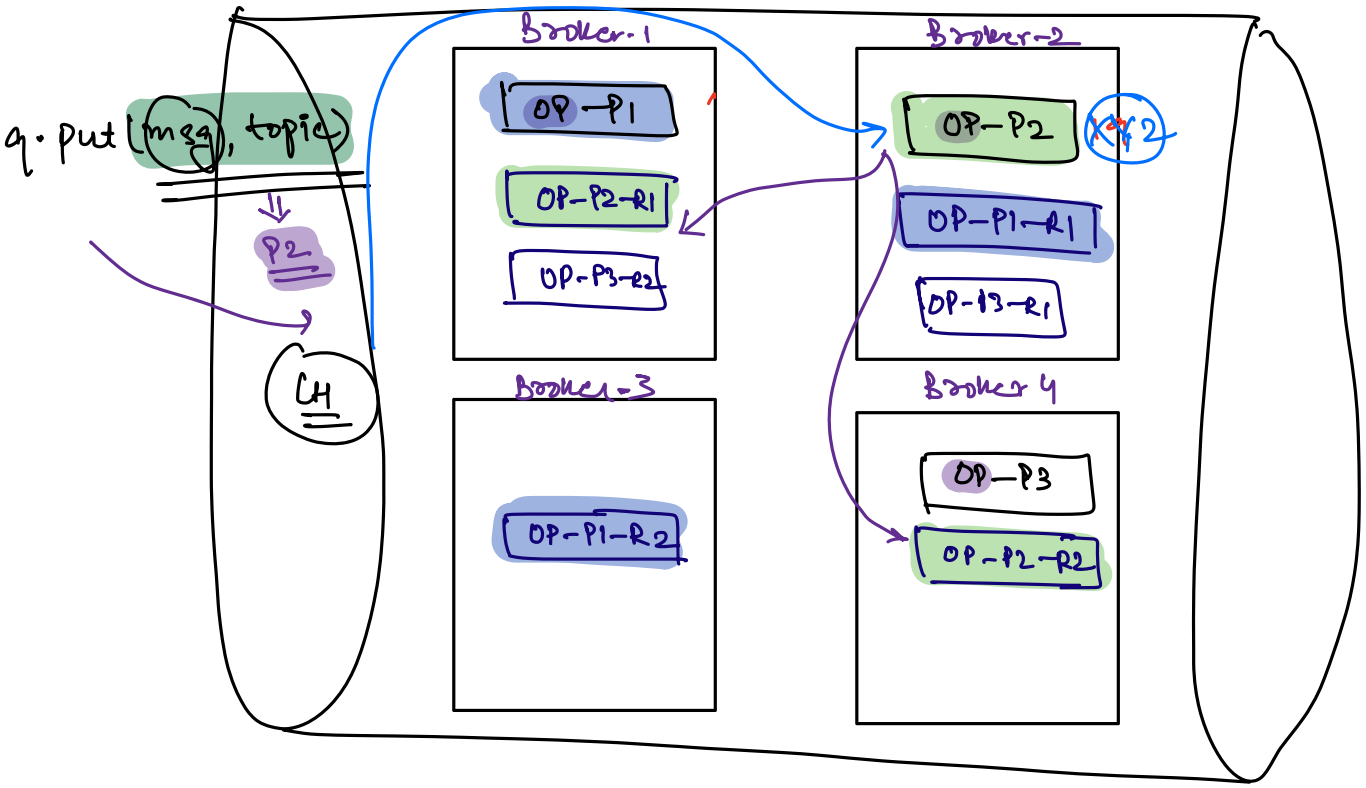
$y <= \#$ of brokers.

topic_name	# of partitions (x)	# of Replicas (y)
SignUp	2	3
OrderPlaced	4	2
OrderCancelled	3	2

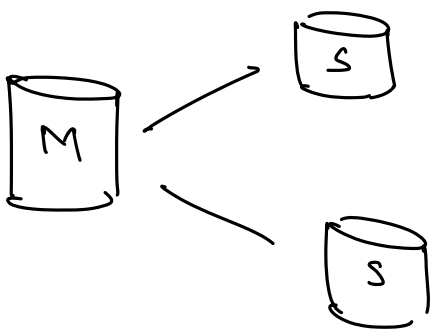
kafka.put(msg, topic)

Orderid





topic	Partition	Master	Slaves.
Order Placed	P1	[0]	[.....]
Order Placed	P2	XYZ	
Order Placed	P3		

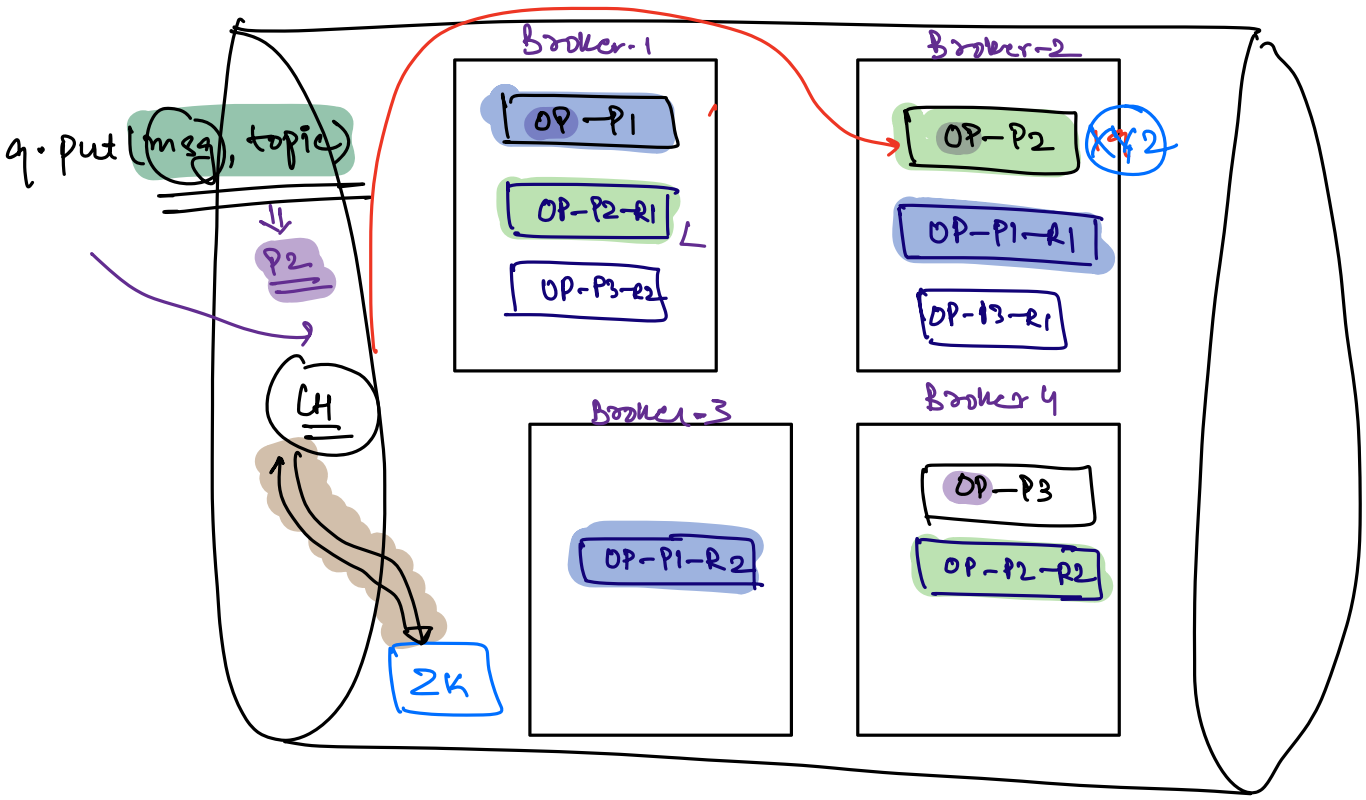


⇒ Leader Election Algo

Zookeeper.

↓

Central Manager.



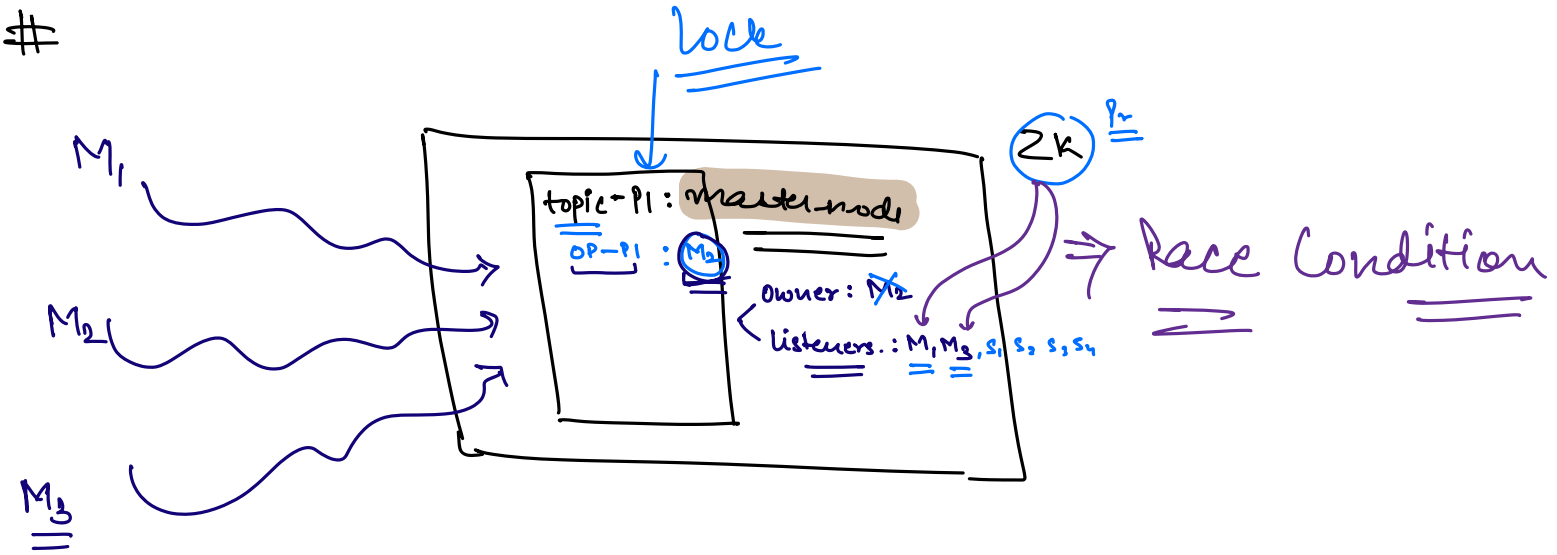
Issues.

→ Additional N/w hop. ⇒ latency ↑↑ ✓

→ SPOF

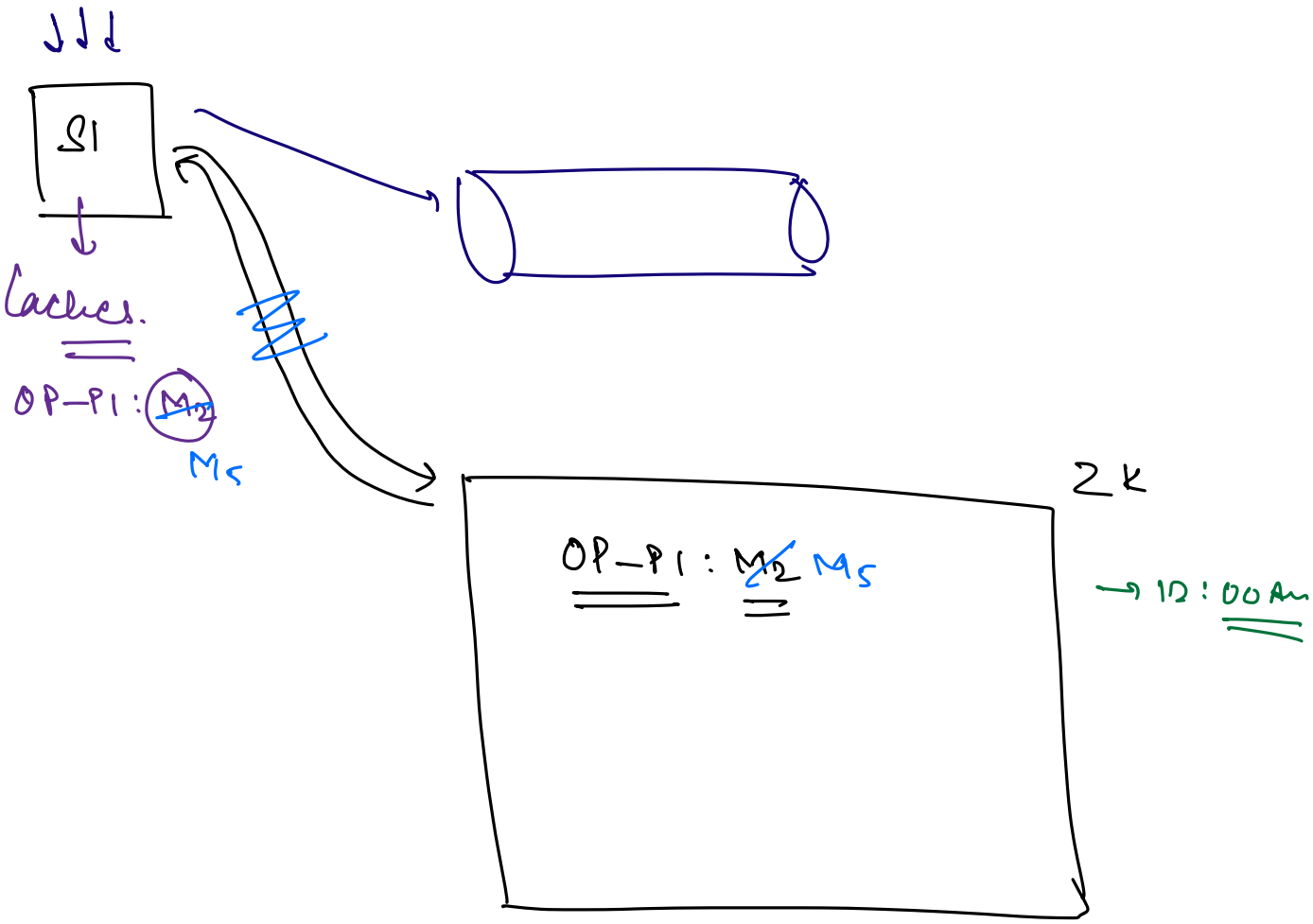
→ How to decide the master? ✓

#



⇒ Ephimeral.

↳ Temporary.



⇒ ZK notifies in case there's any change.

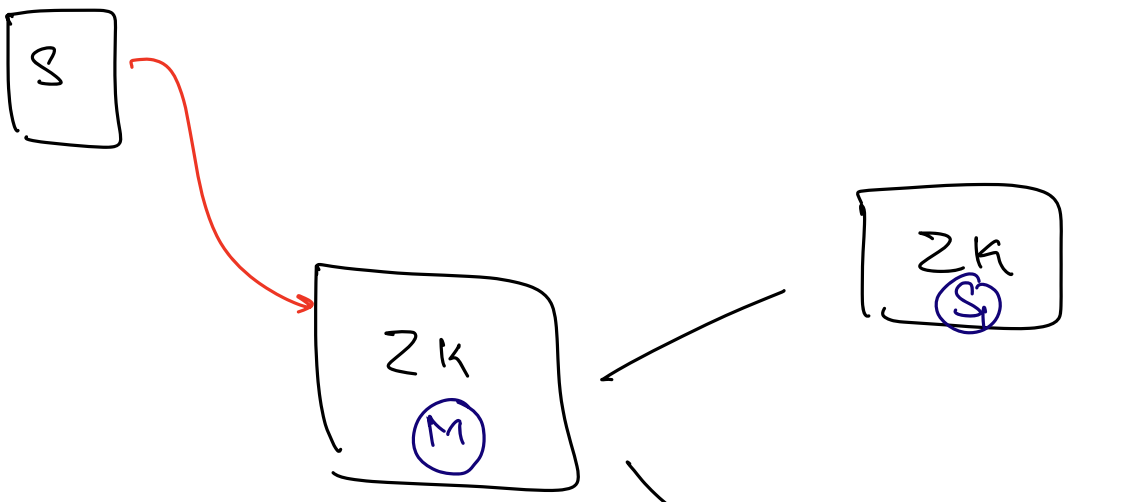
⇒ SPOF at ZK.

↓

Manage replicas for ZK as well.

⇓

Master - Slave



⇒ RAFT

↓

H/W

Kafka ⇒ ZK ⇒ Earlier

RAFT
+
Leader Election ✓
Algo

kraft

kafka + Raft