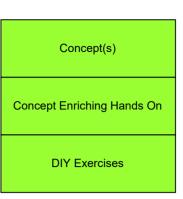
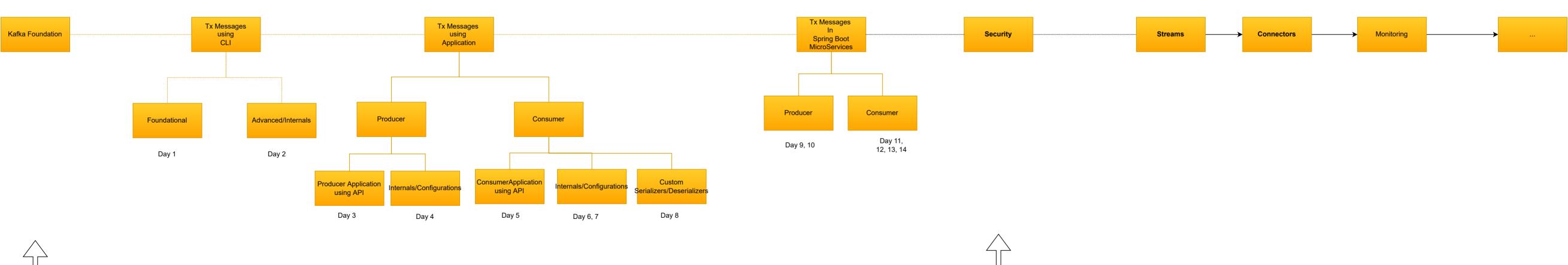
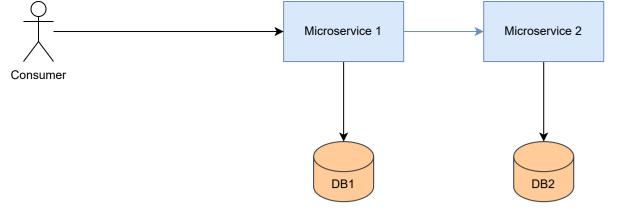
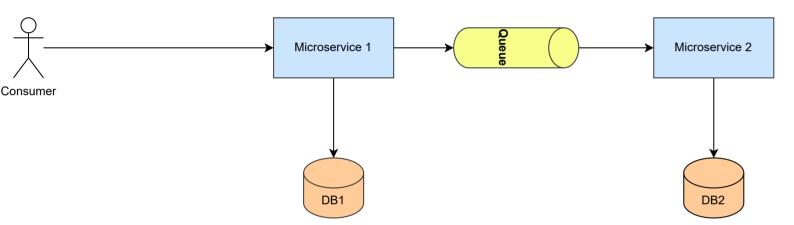
## **Teaching Principle**

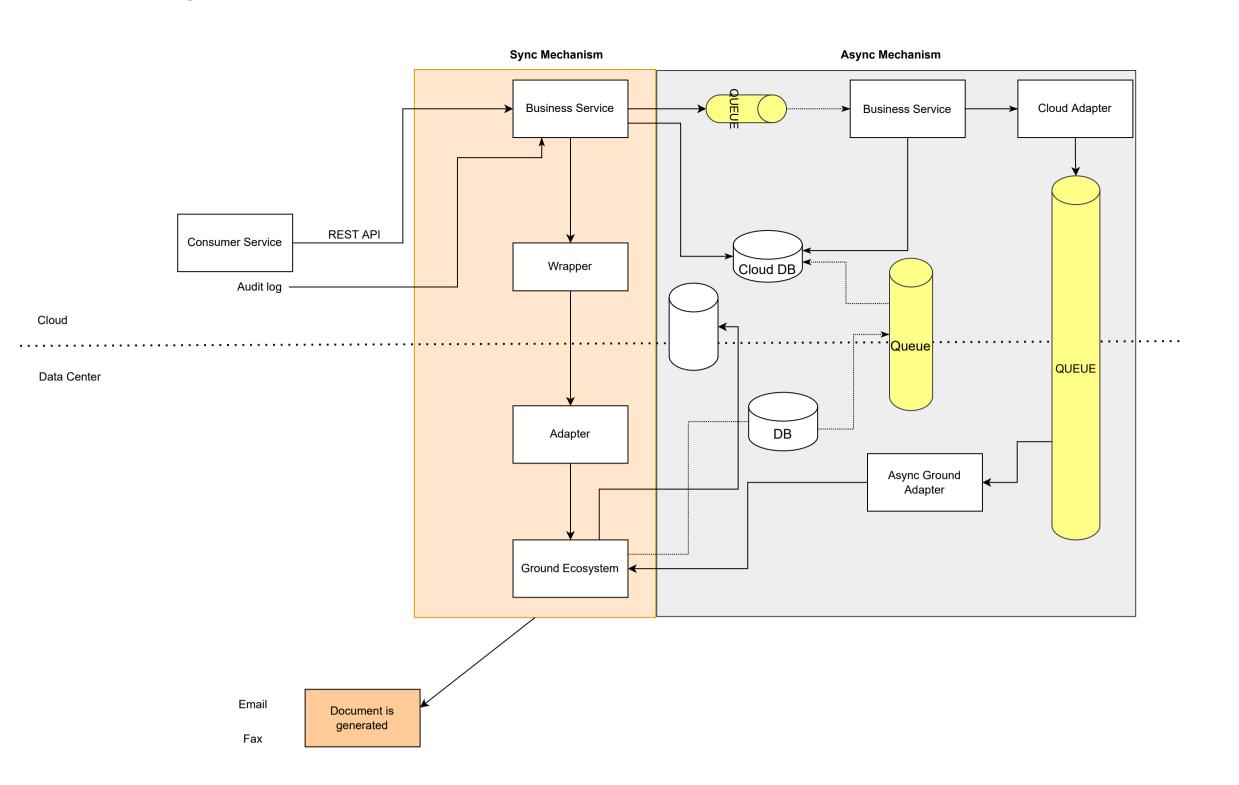


# **Learning Map**

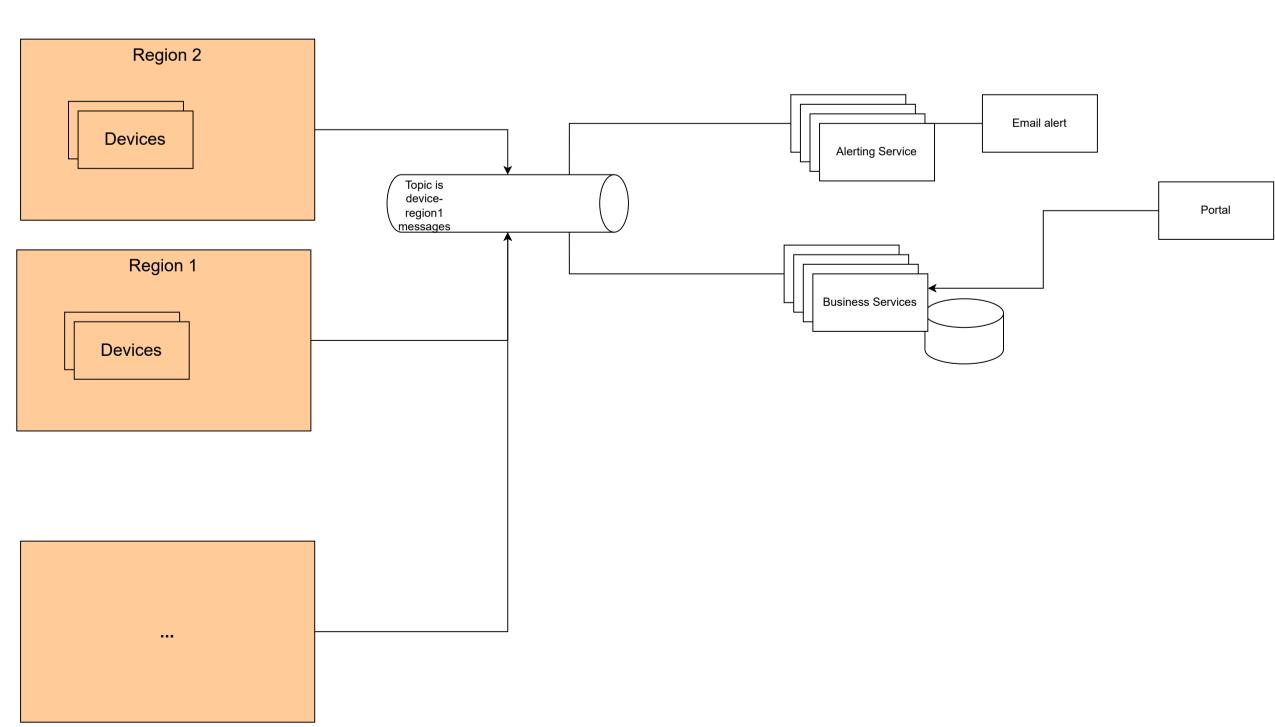




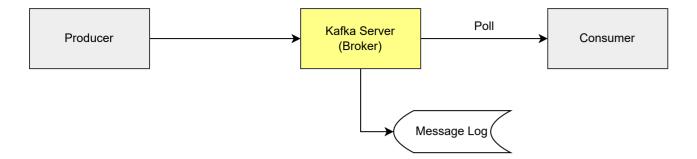




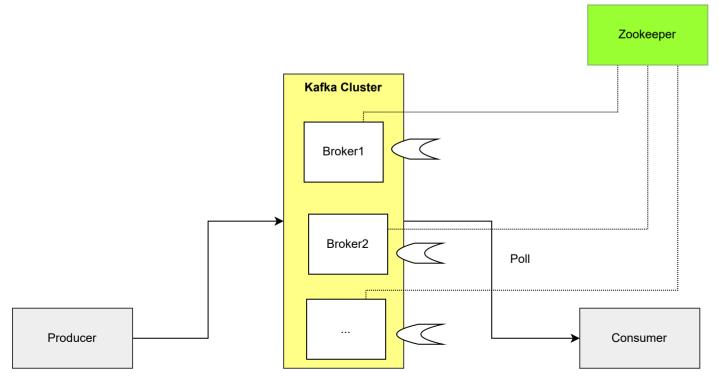
#### Use case 2



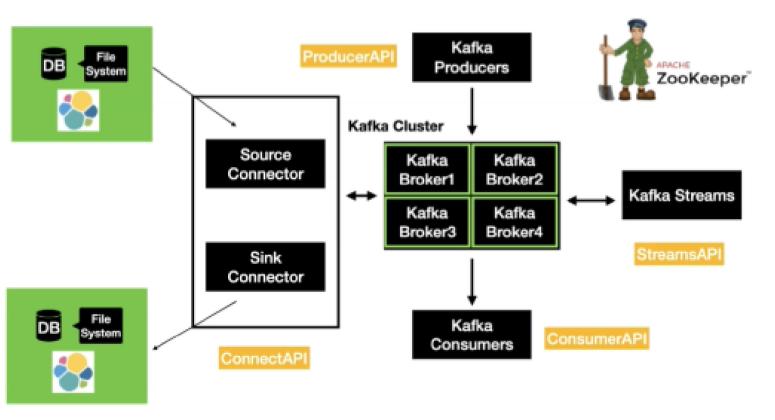
#### **Basic Topology**



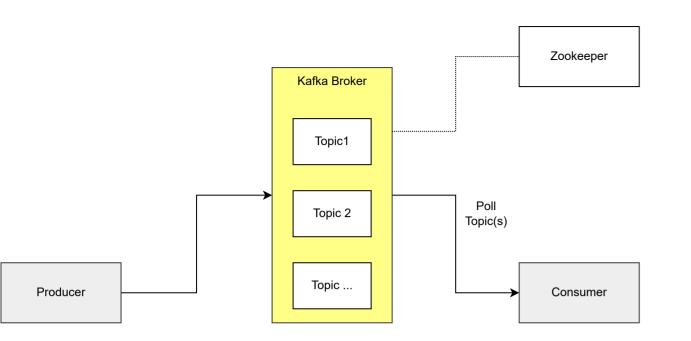
#### **Distributed Topology**



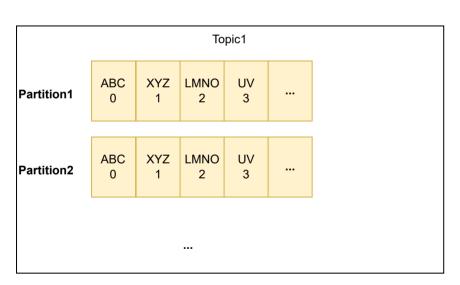
#### Kafka Landscape



#### **Broker Anatomy**



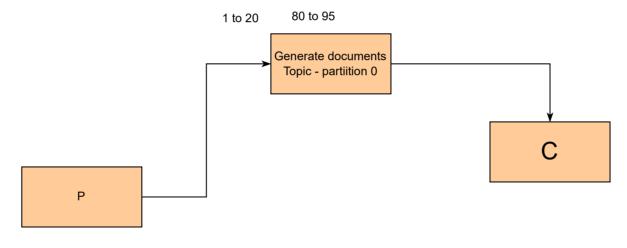
#### **Topic Anatomy**



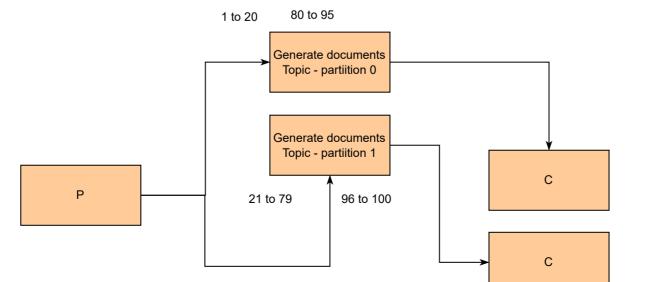
#### Message Anatomy

Header

# Topic-Same



# Topic-Same

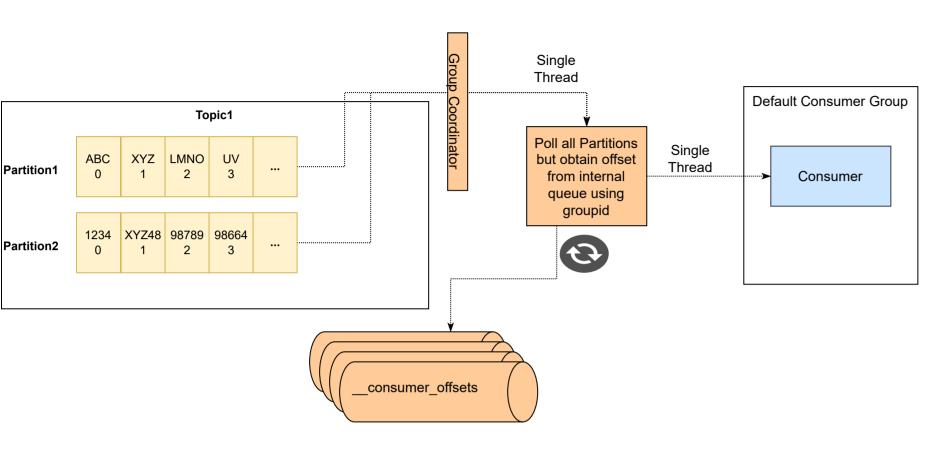


Key(optional)

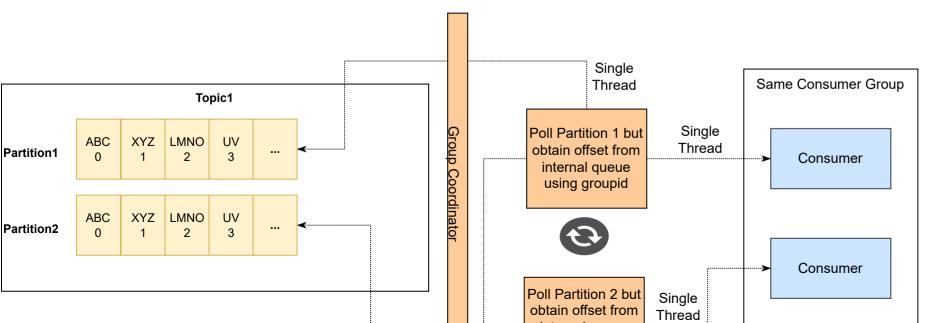
Value

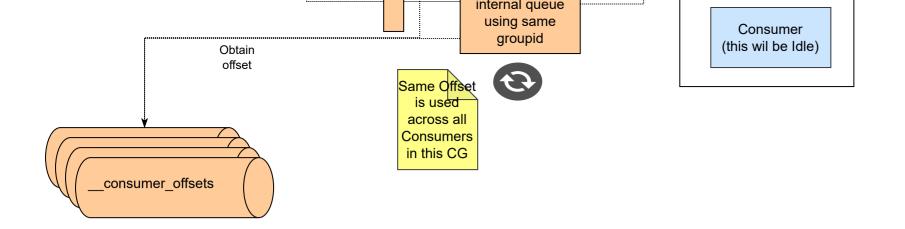
Timestamp

#### **Default Consumer Group**

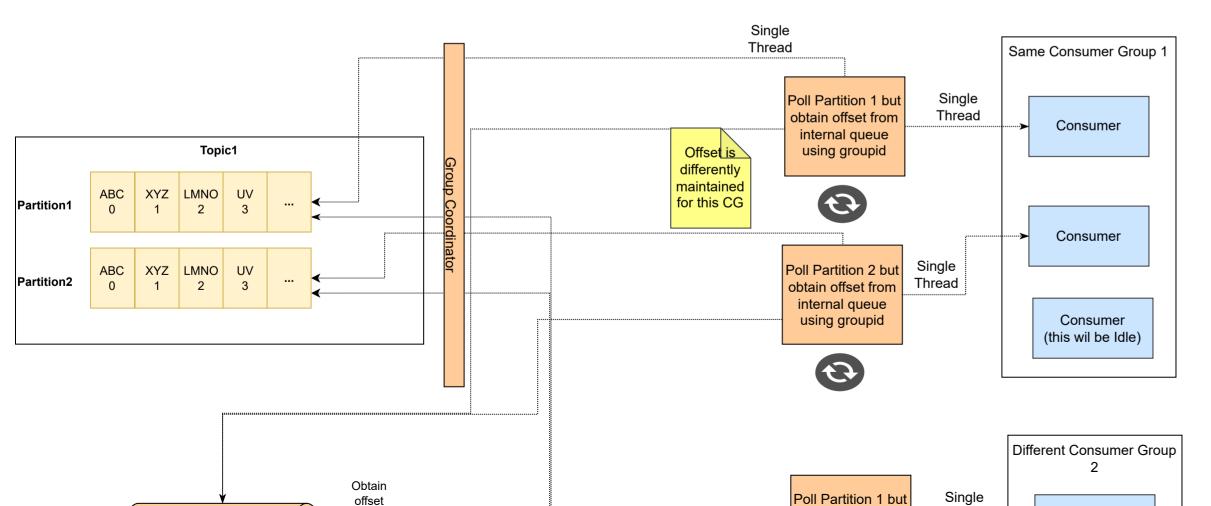


#### Using same Consumer Group to Read Messages at Scale

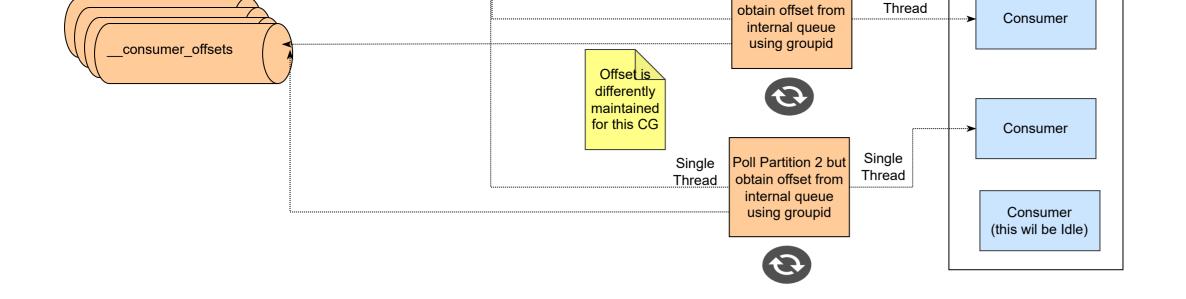




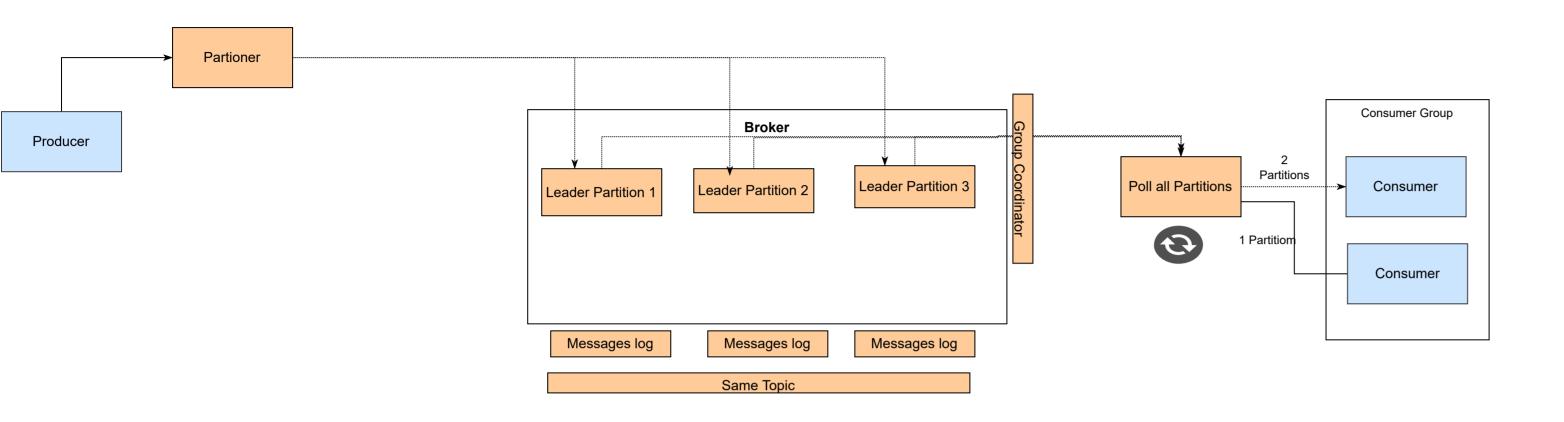
# Using Different Consumer Group to Read Messages From Same Topic at Scale



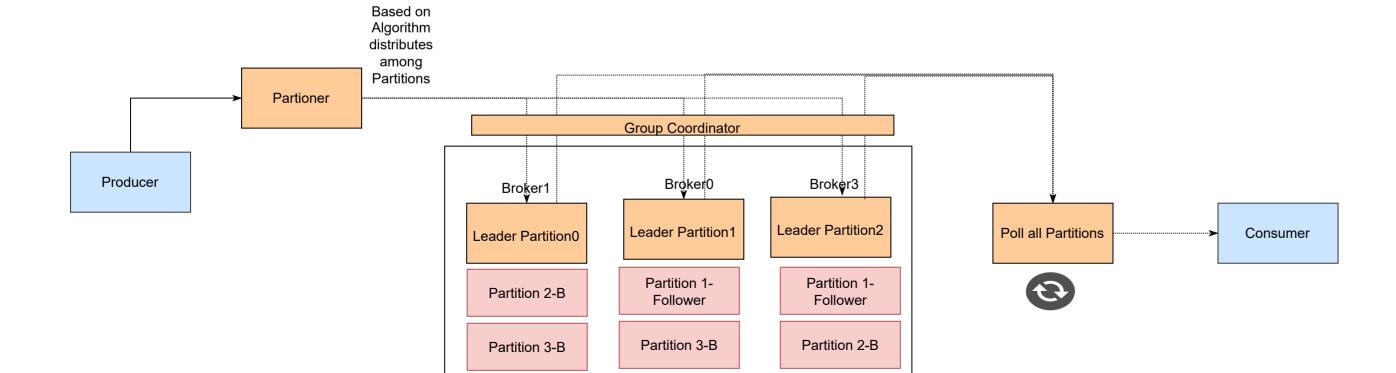




#### Standalone Topology

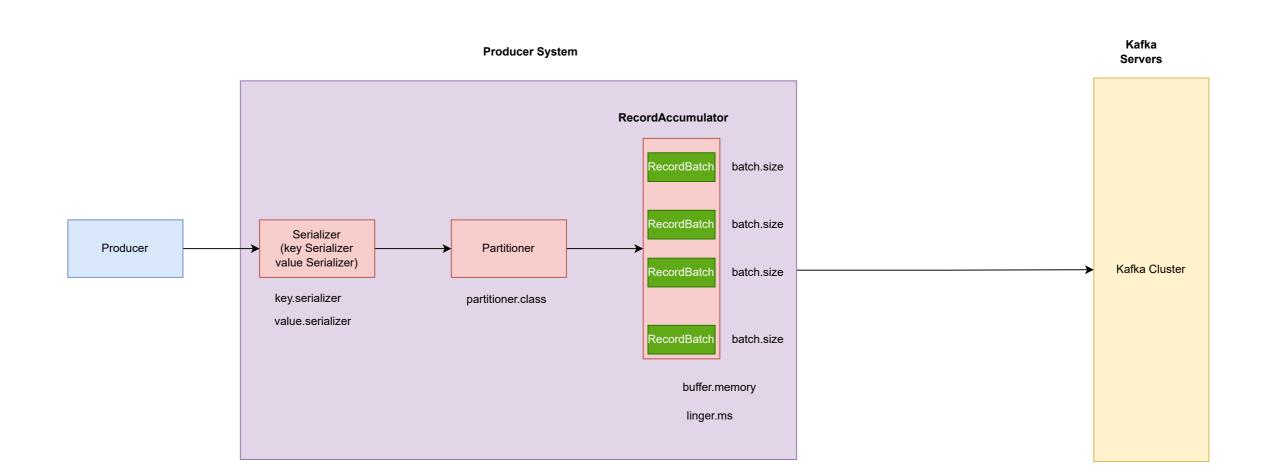


#### **Distributed Topology**

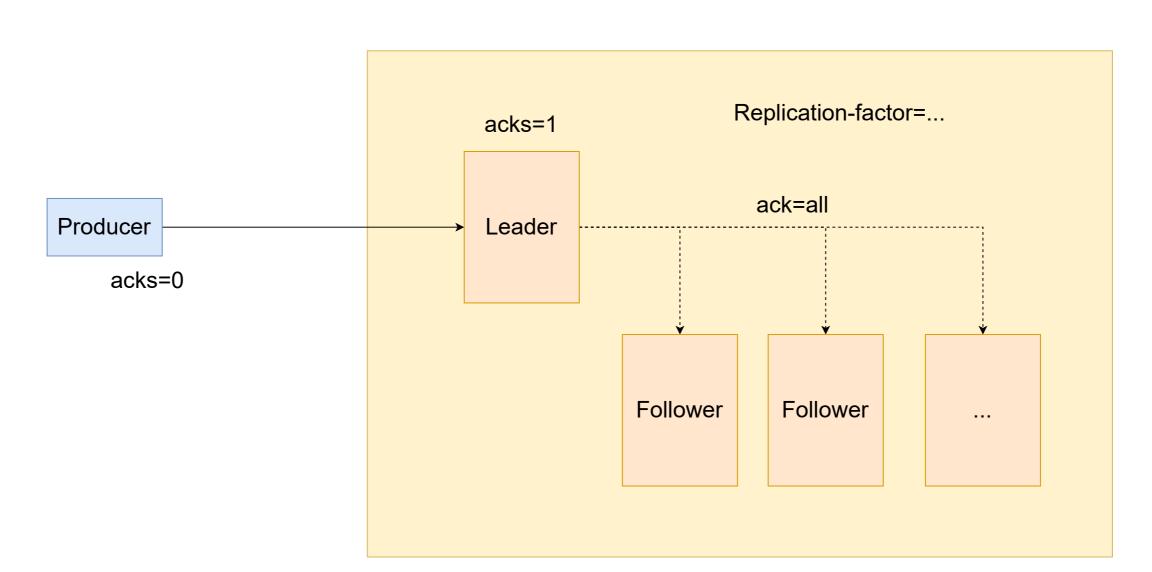


Messages log Messages log

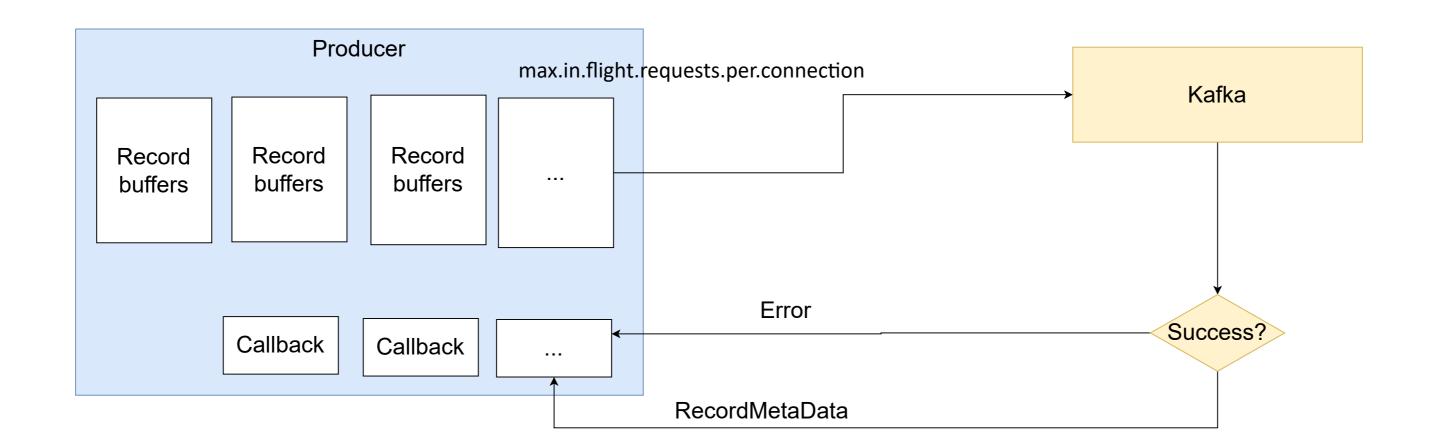
Same Topic



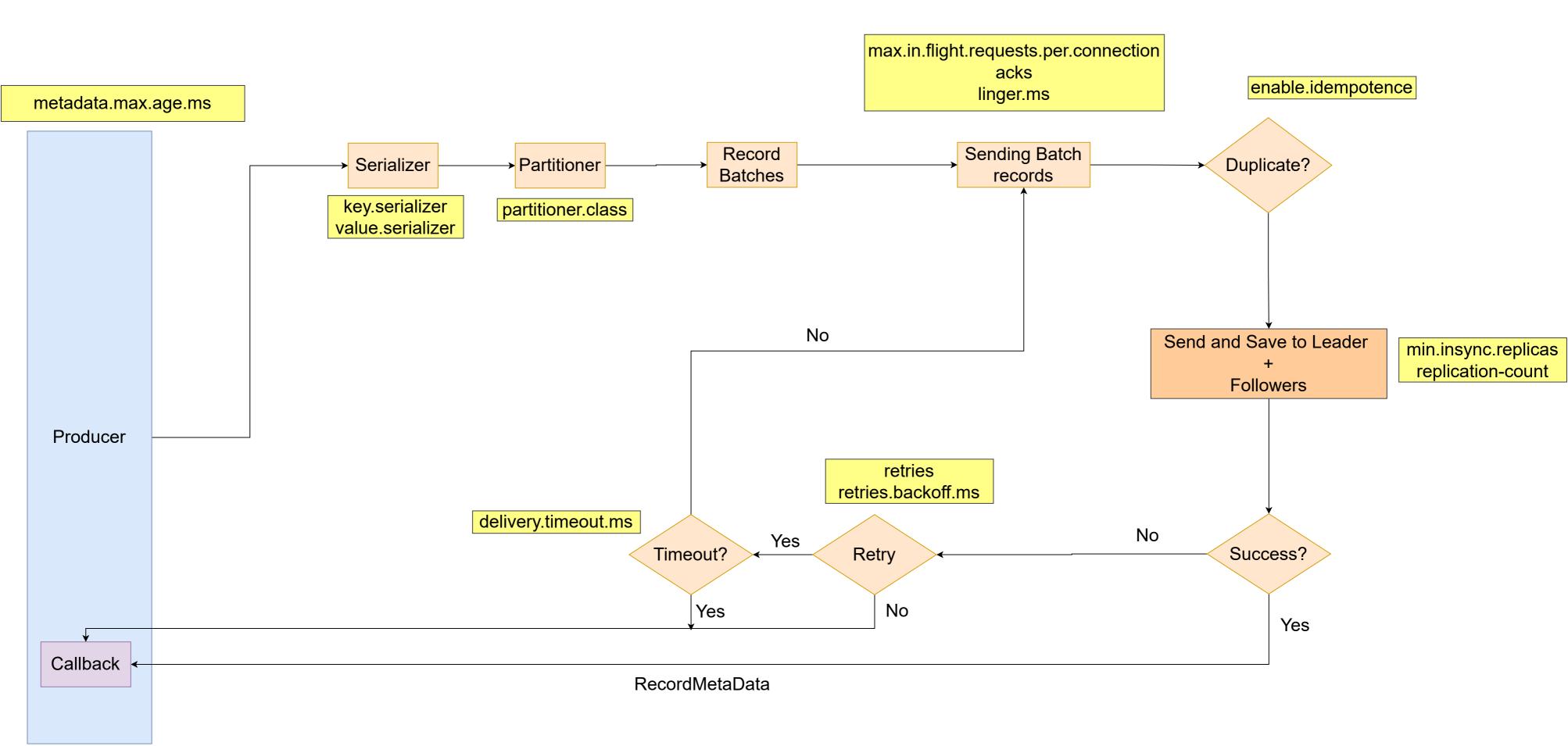
# ack configuration

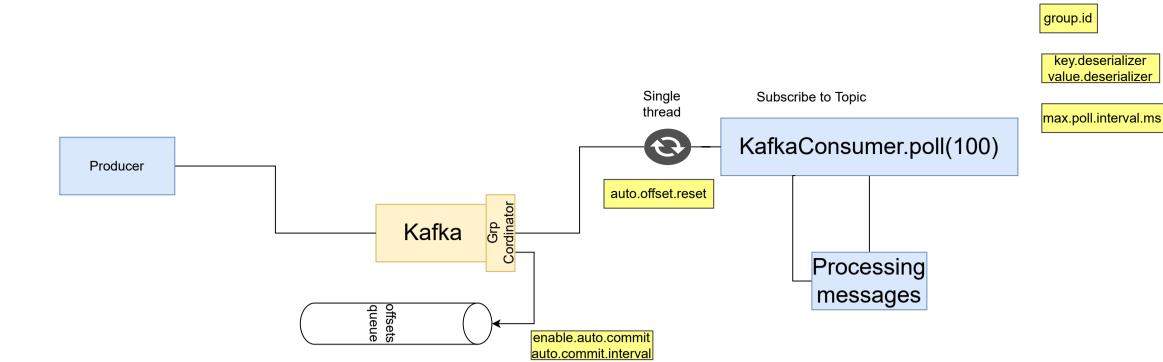


## max.in.flight.requests.per.connection Configuration

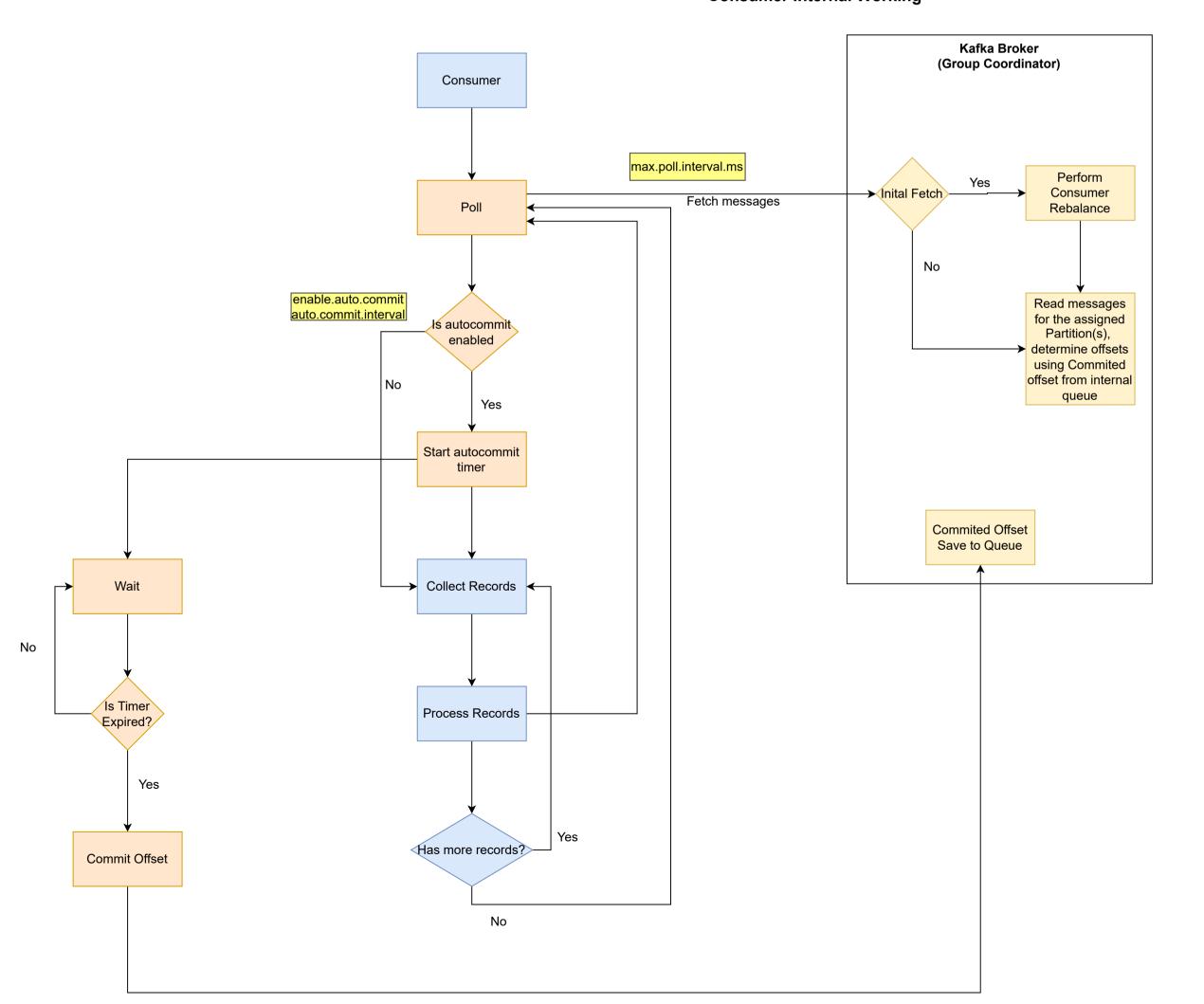


# **Consolidated Flow**

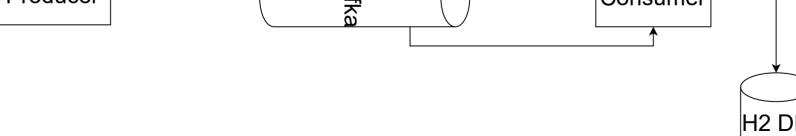




#### **Consumer Internal Working**



# **Persistency of read messages** Producer Consumer



P0 m1 m2 m3 m4 m5 m6 m7 P1 P2 P3

Р

m6 m7

m1 m2 m3 m4 m5

Current offset

С

m5

Commited offset

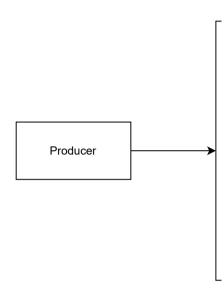
Config Kafkaconsı

Subscrik

Polling Revocati

ا Assignme

Partitions —



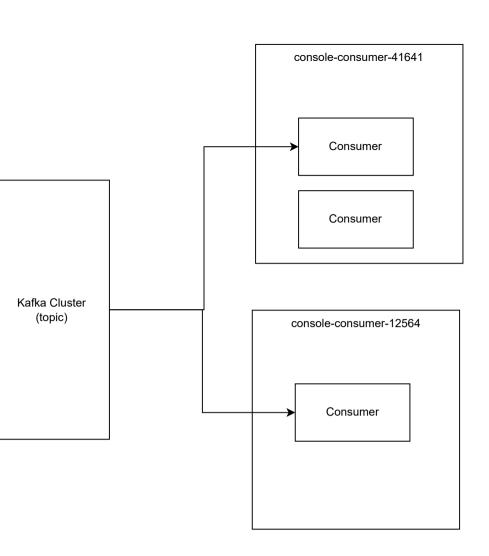
Р

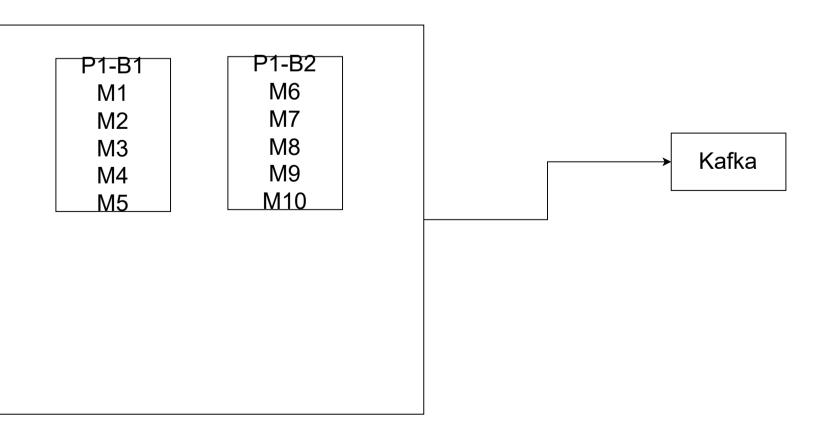
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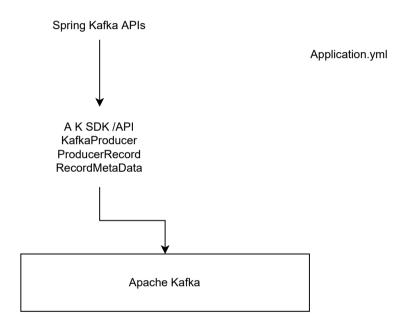


Set of offsets

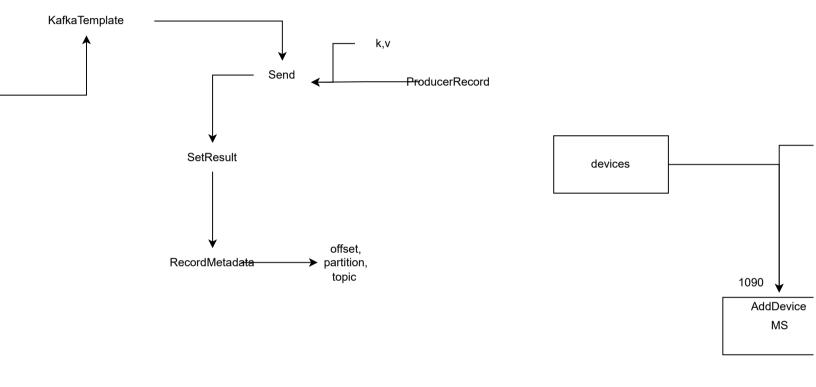
Particula offset

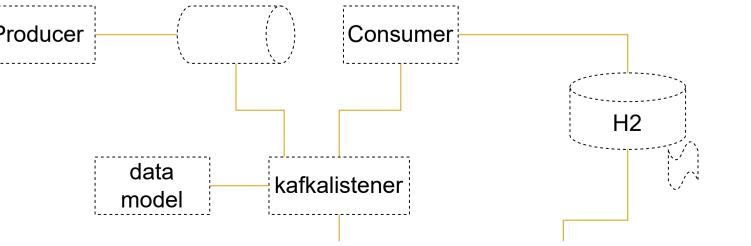
Properties file yml

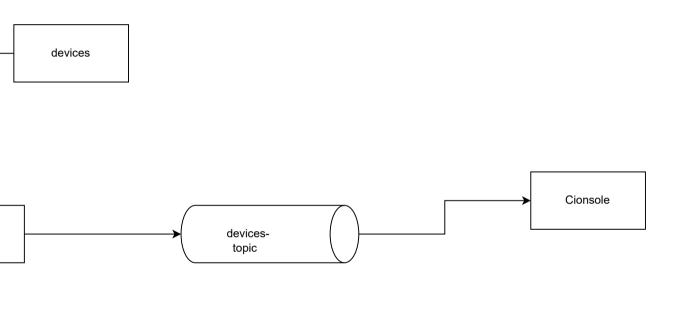
AutoWiring of Kafka objects

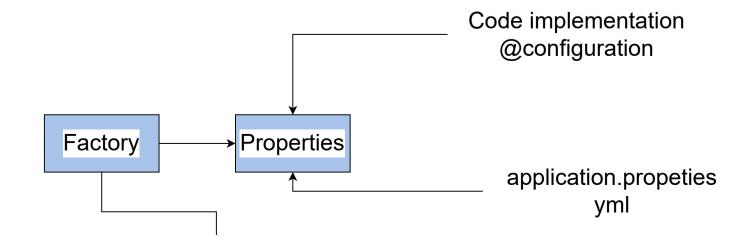


ar









me

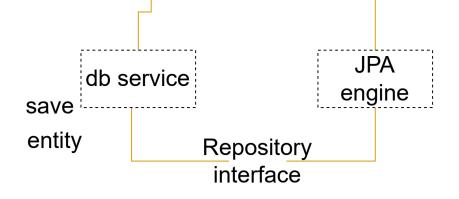
message

Queue

Partion

Partion

Partion



message ssage

message

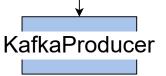
message message

thread 1

Polling

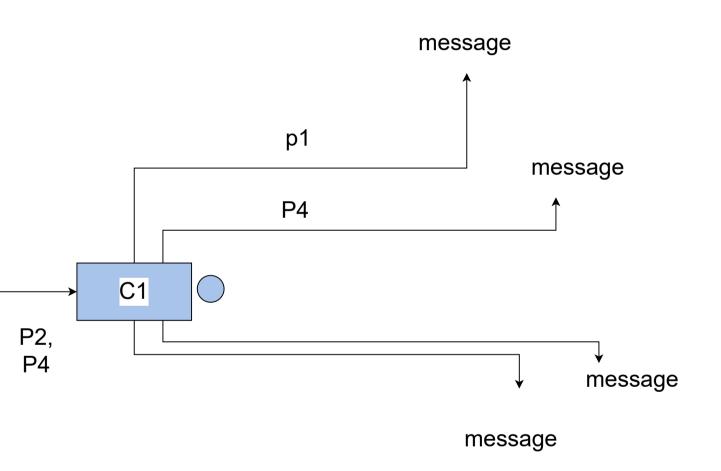
p1, p2, p3, p4

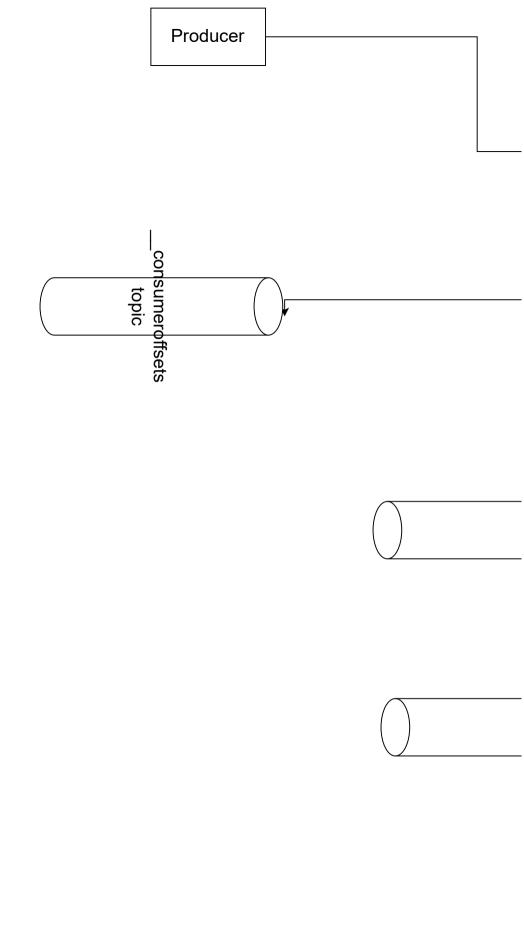
Spring Kafka controllerd retry

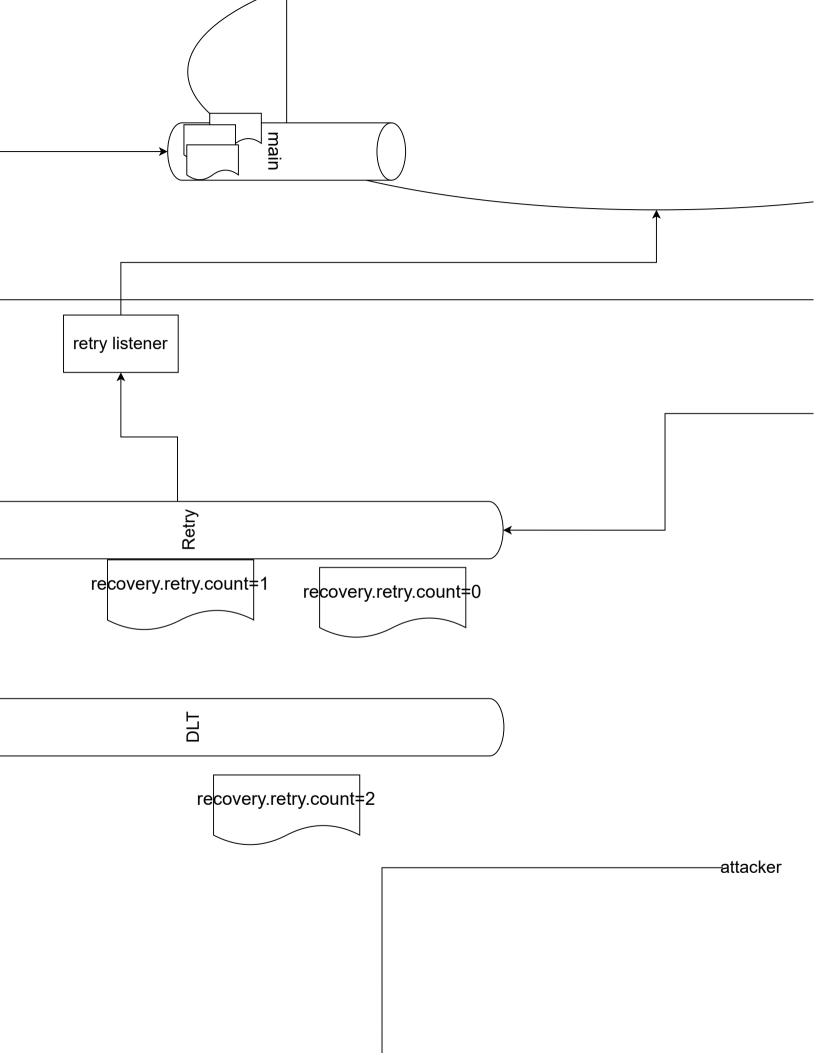


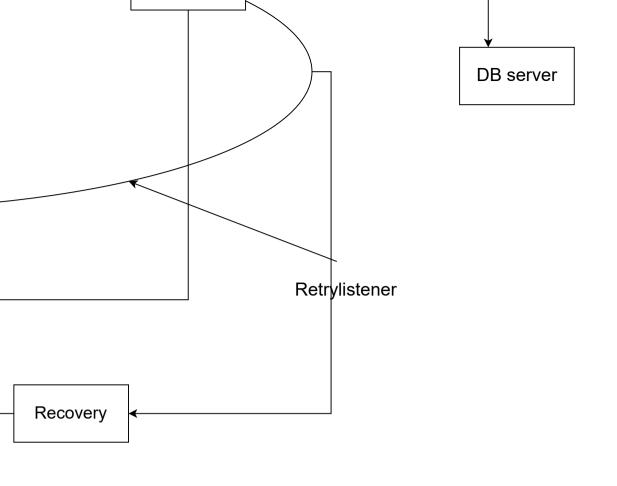
stener

KafkaConsumer

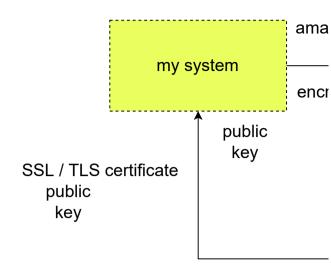




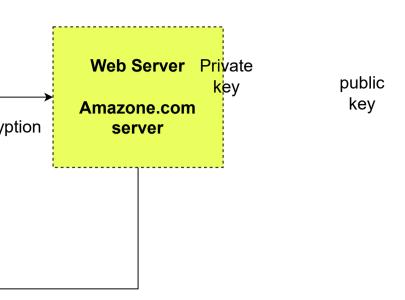


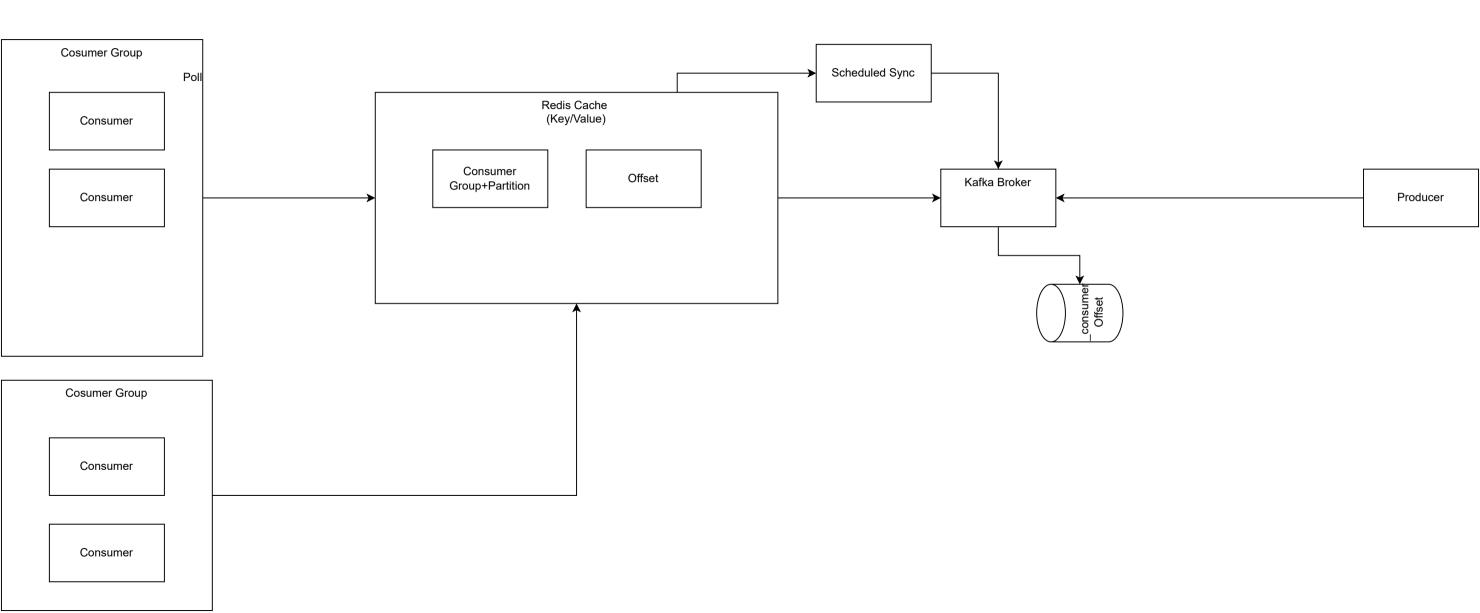


Trust store

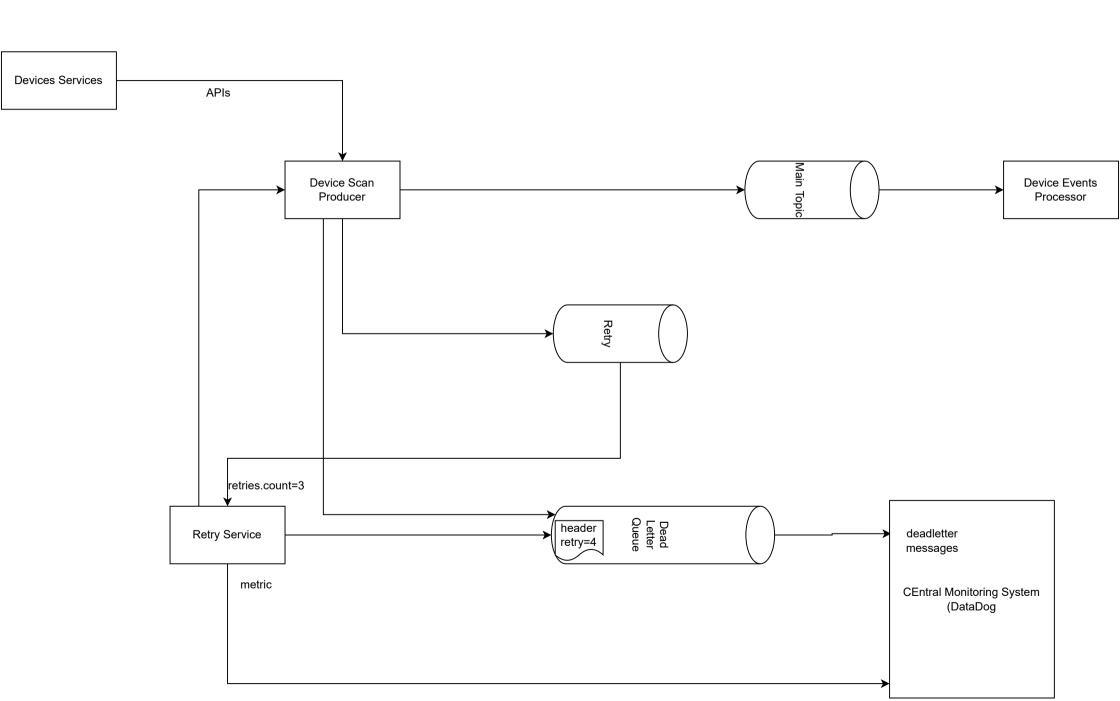


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zon.com	plain text -> cipher text	
yption	de	e¢ry

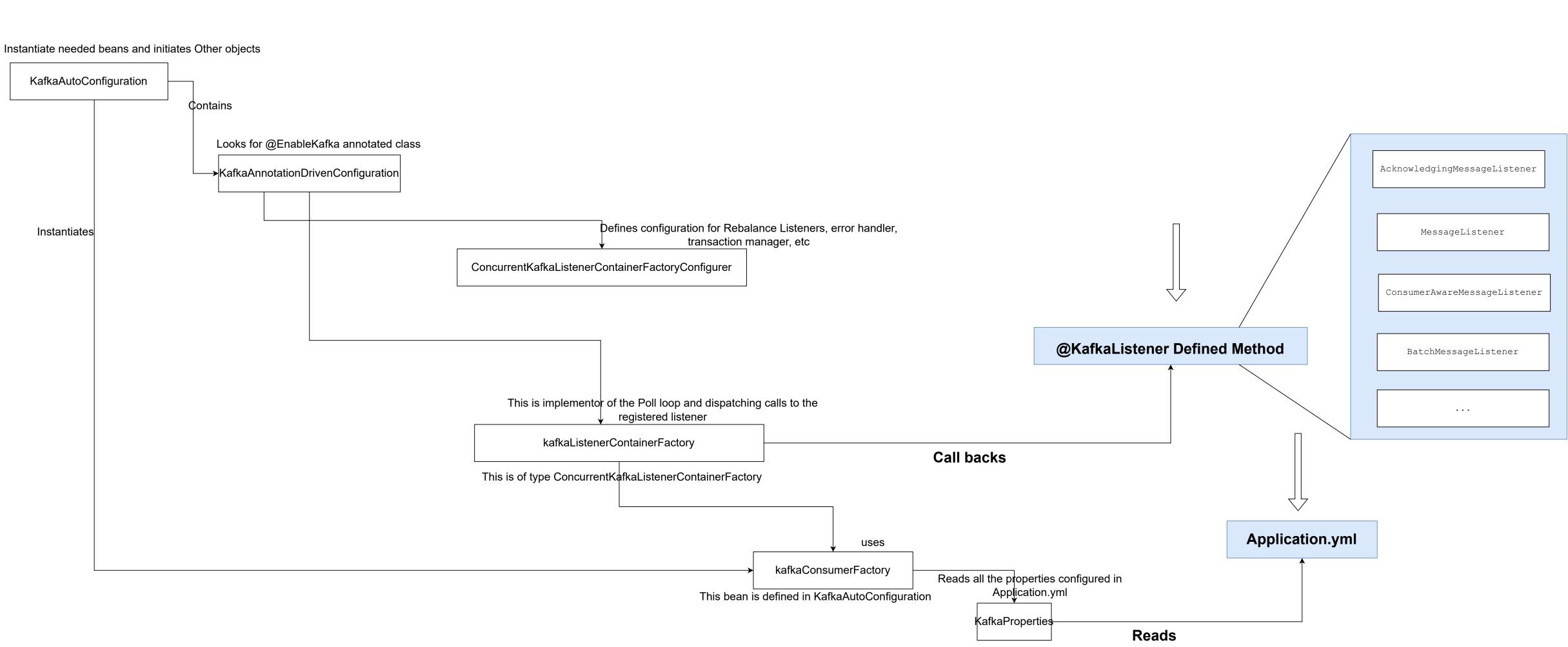




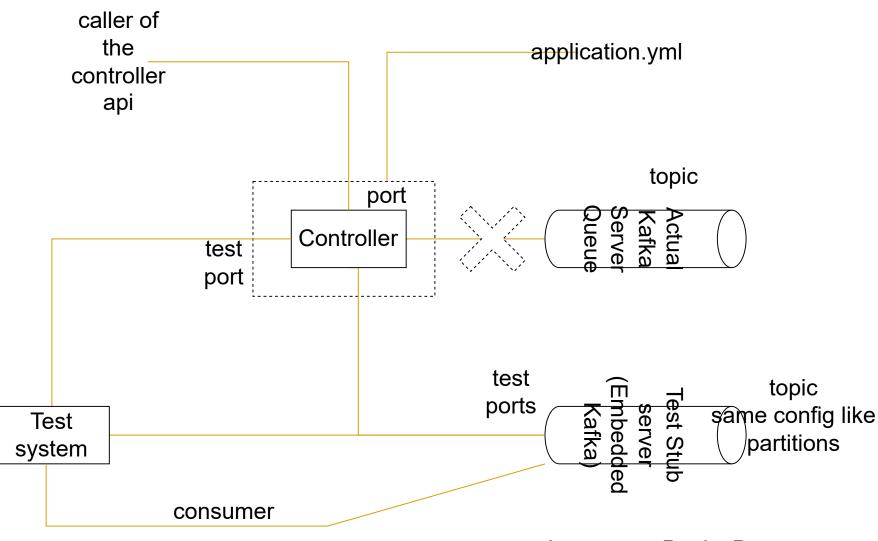
# **Producer Retry Mechanism**



# Spring Kafka Consumer Internals



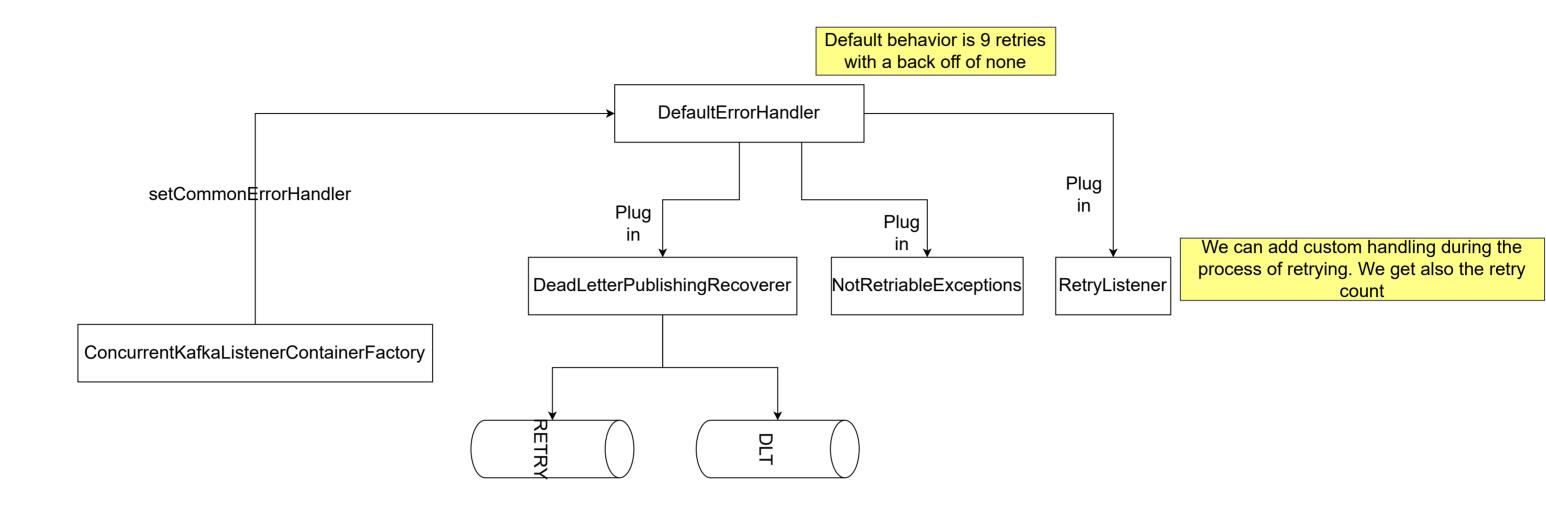
#### **Producer Test**



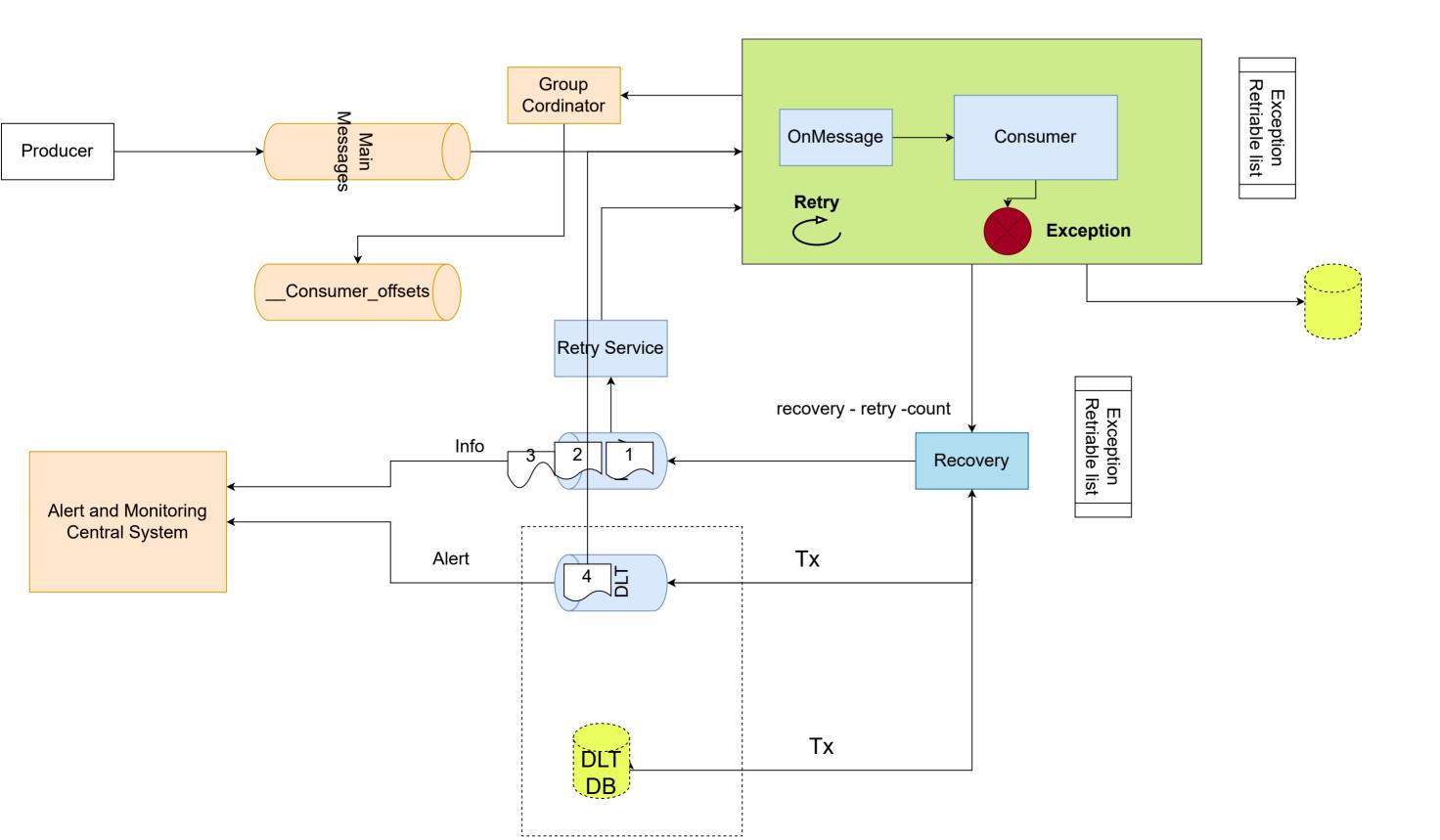
Integer ---- DeviceData

# Consumer Error Handling & Recovery Mechanism

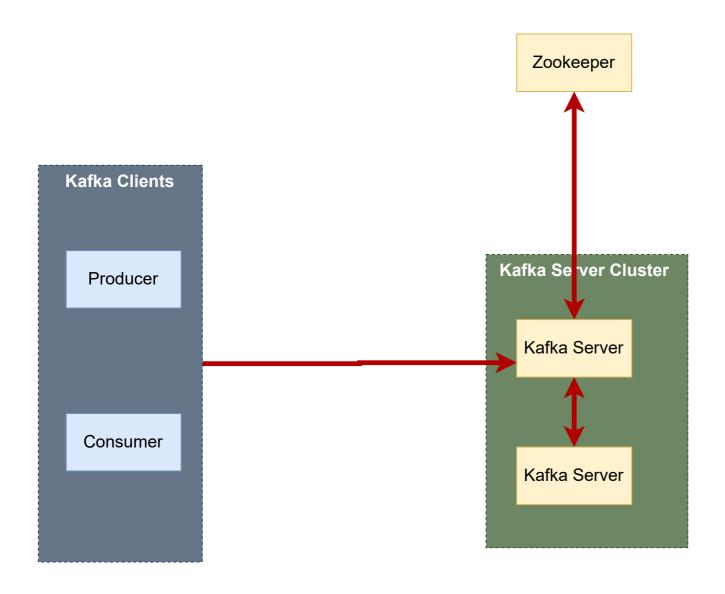
### **Spring Kafka Consumer Classes**



# Recovery



#### Communications in Kafka Infra To Be Secured



### **Securing Kafka Client and Server using SSL**

