

# Transforming Non-Streaming Models

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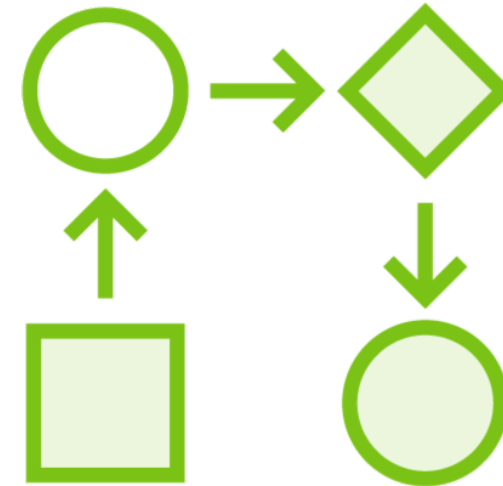


# Data Processing Types



## Batching

Processing groups of records at discrete times



## Streaming

Process individual records in continuous manner

# “Static” Data Sources



Databases



Key-Value  
Stores

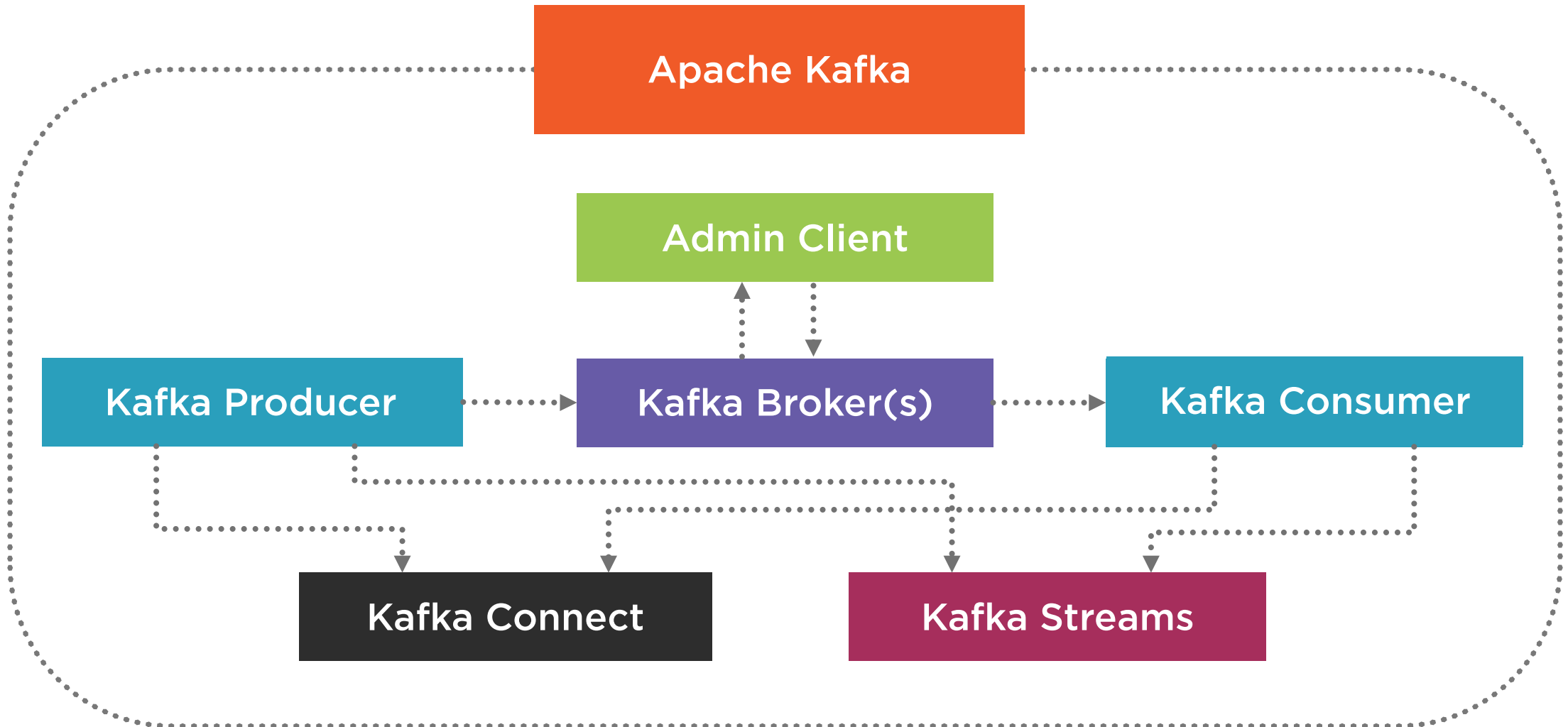


Search Indexes

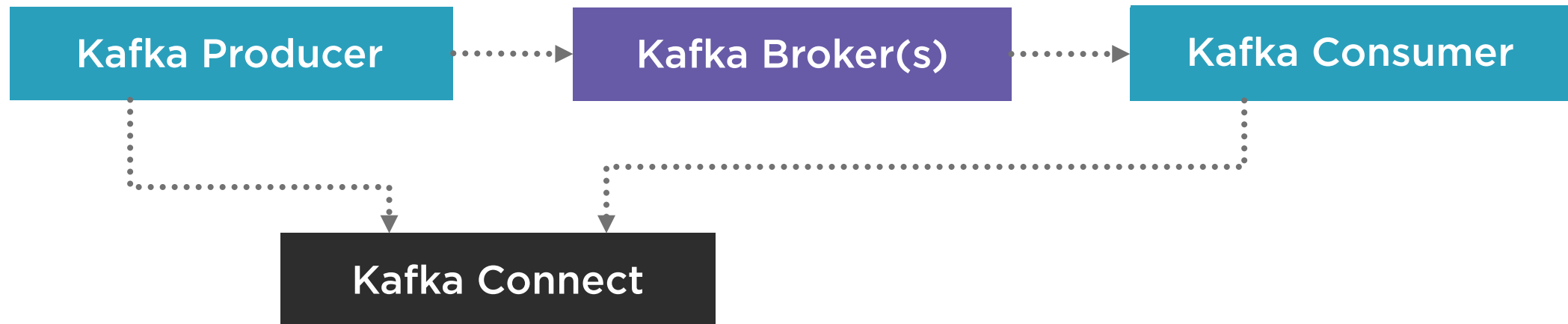


File Systems

# Static Data Sources



# Static Data Sources



# Turning a Database Inside Out

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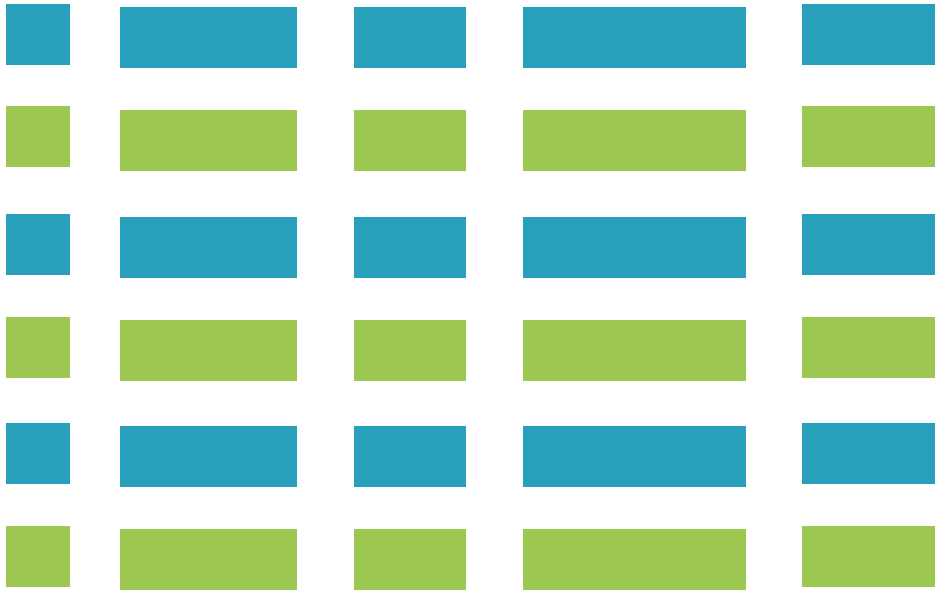


# Turning a Database Inside Out



# Turning a Database Inside Out

Database Table



Streaming Data





# Change Data Capture



Log-Based



# Turning a Database Inside Out

## Database Table



## Streaming Data



## Transaction Logs

MySQL

binlog

PostgreSQL

write-ahead log

MongoDB

op log



# Change Data Capture

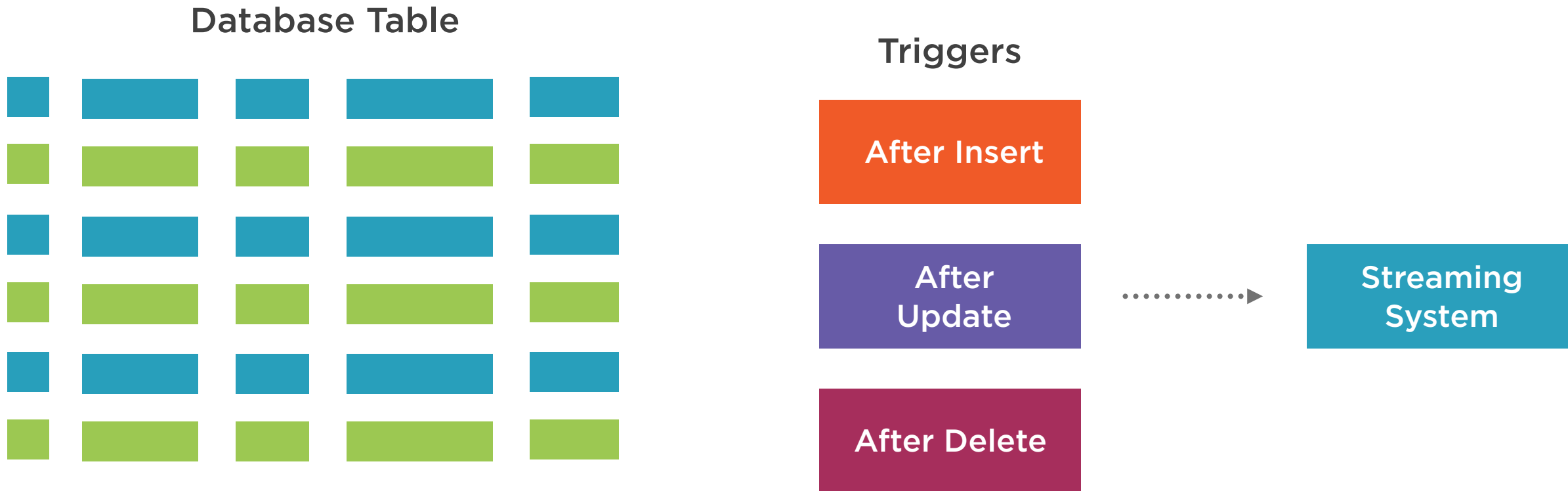


Log-Based



Trigger-Based  
( Push Mechanism )

# Turning a Database Inside Out



# Change Data Capture



Log-Based



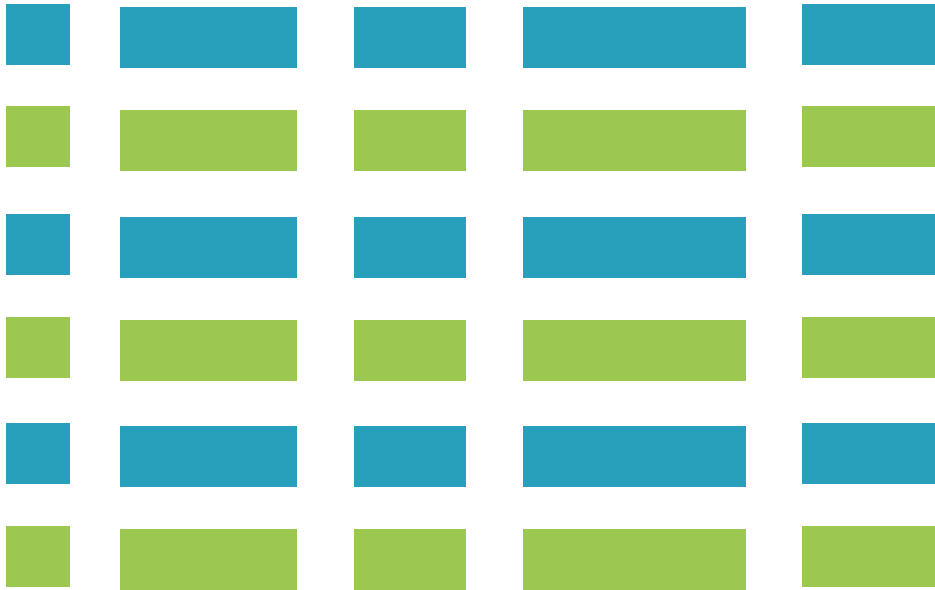
Trigger-Based  
( Push Mechanism )



Query-Based  
( Pull Mechanism )

# Turning a Database Inside Out

Database Table



Streaming  
System



# Pluralsight Course

## Kafka Connect Fundamentals

by Bogdan Sucaciu

This course is a technical introduction to Kafka Connect and how to use it to quickly transfer data in and out of the Apache Kafka ecosystem, to and from common data systems like databases, key-value stores, search indexes, and file systems.



Resume Course



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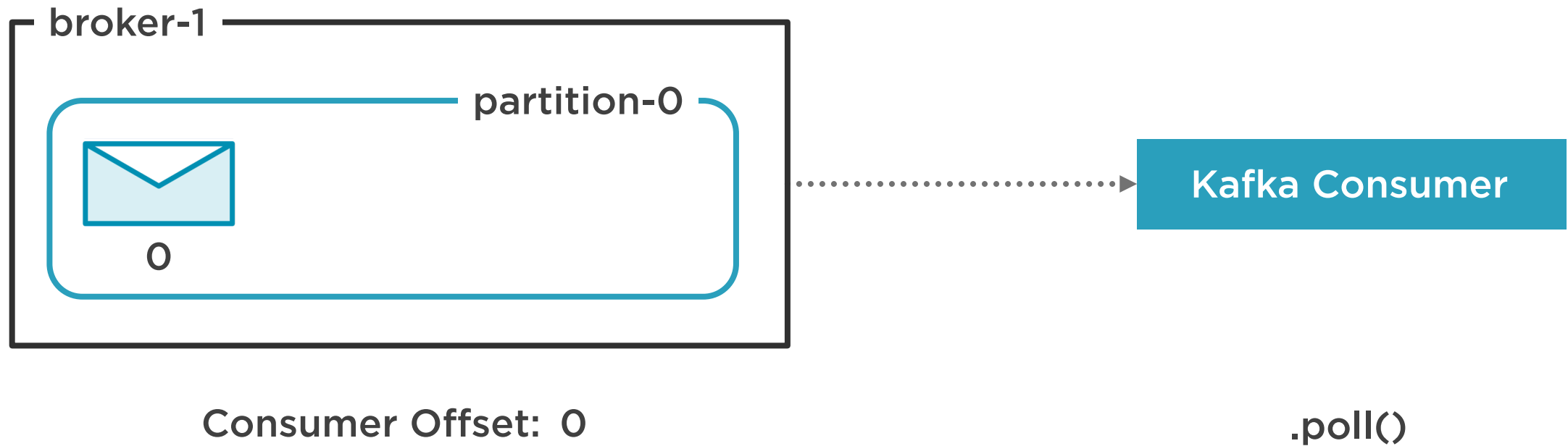
# Synchronous Producers and Consumers

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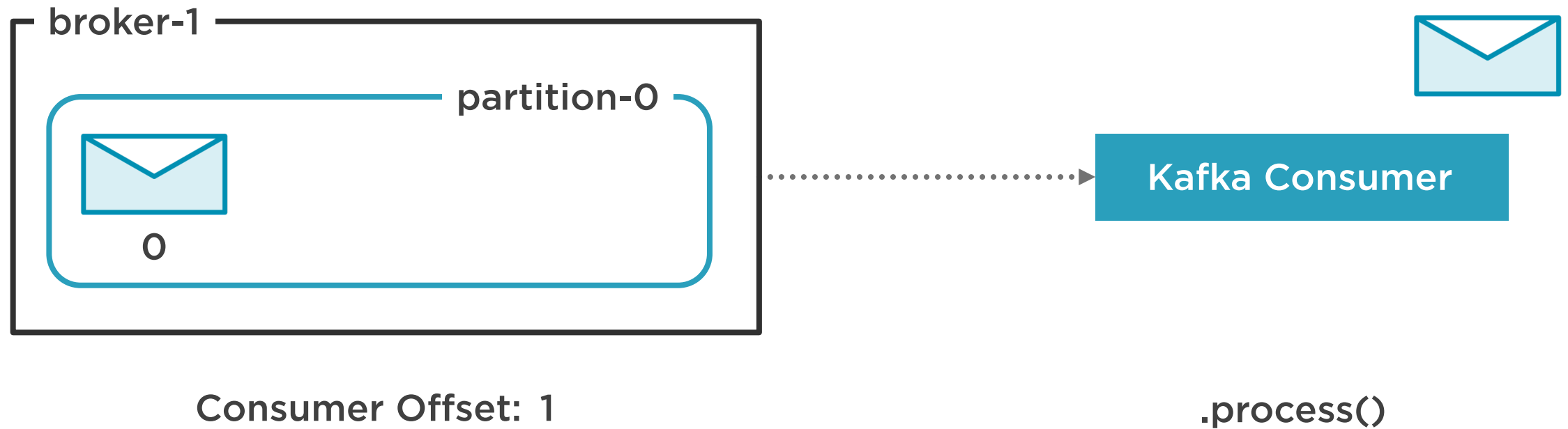




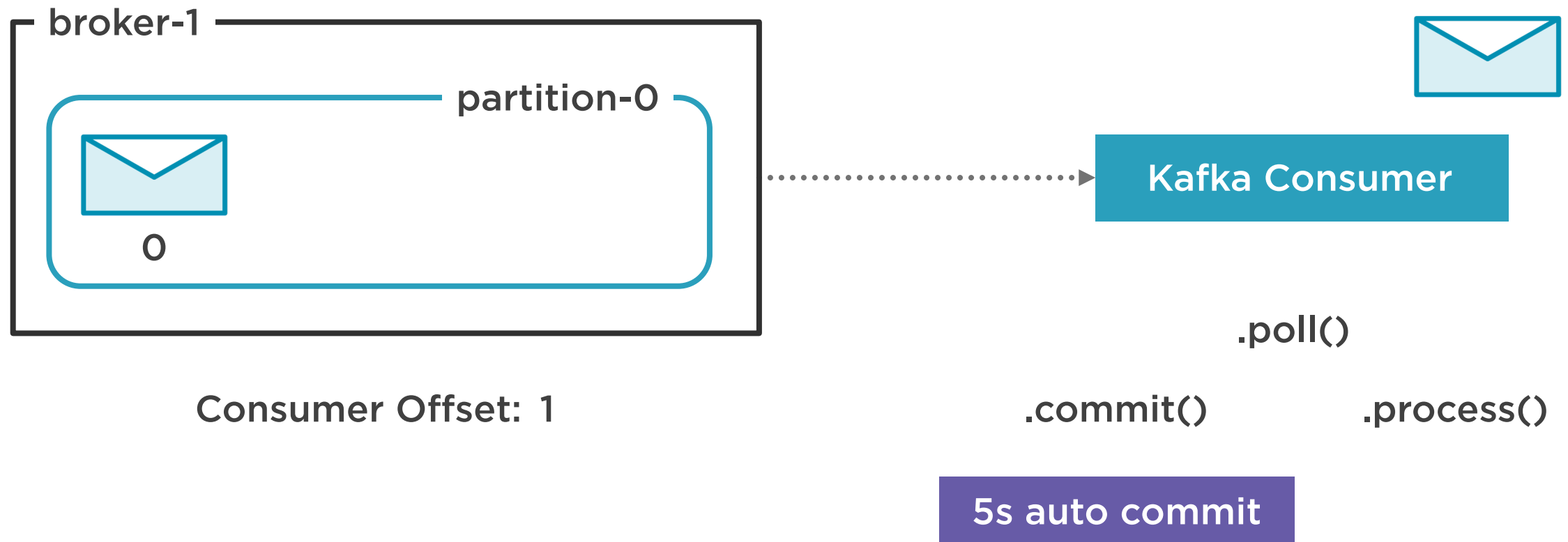
# Synchronous Consumer



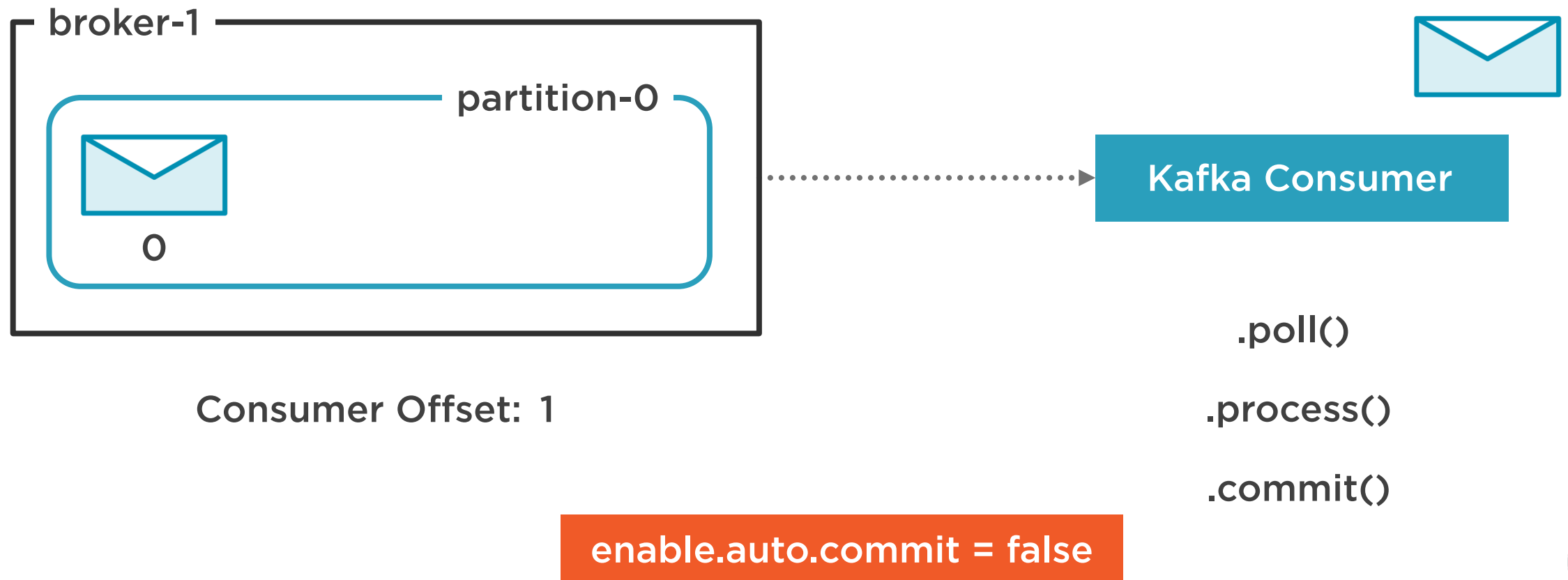
# Synchronous Consumer



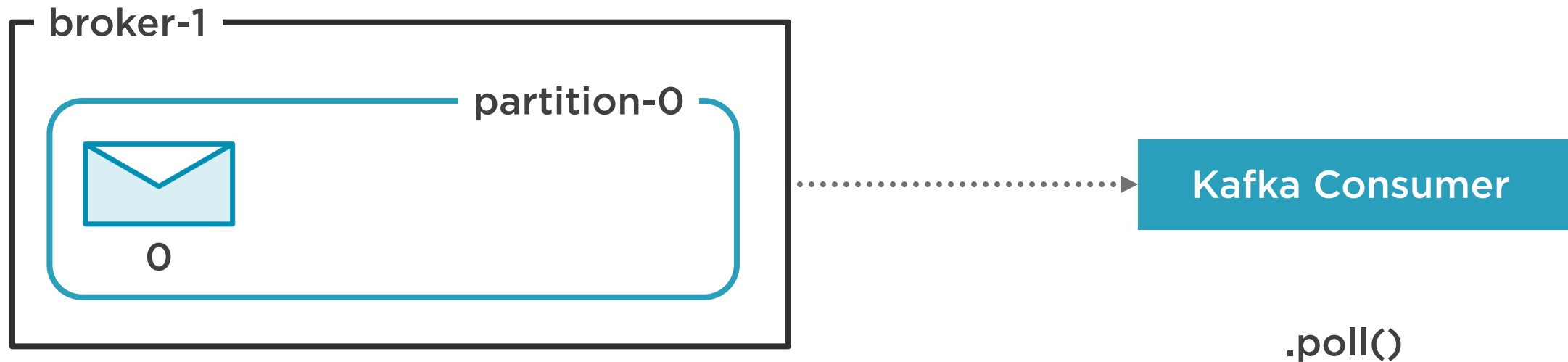
# Synchronous Consumer



# Synchronous Consumer



# Synchronous Consumer

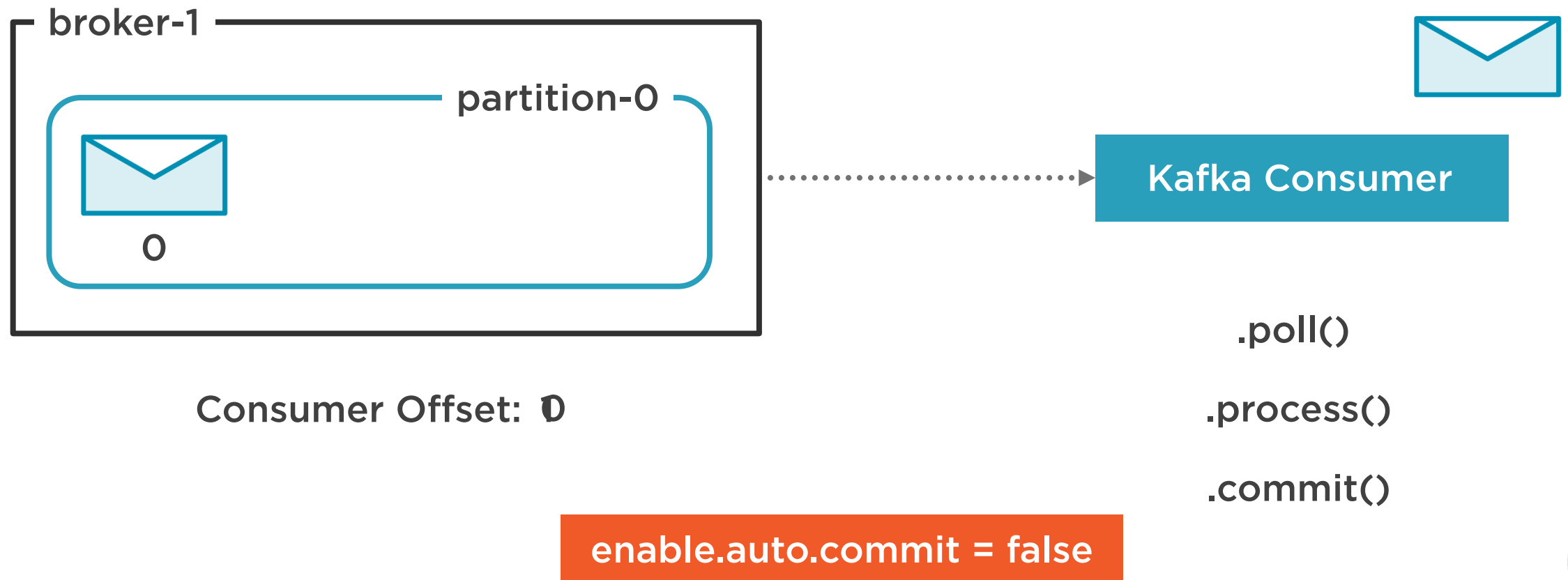


Consumer Offset: 0

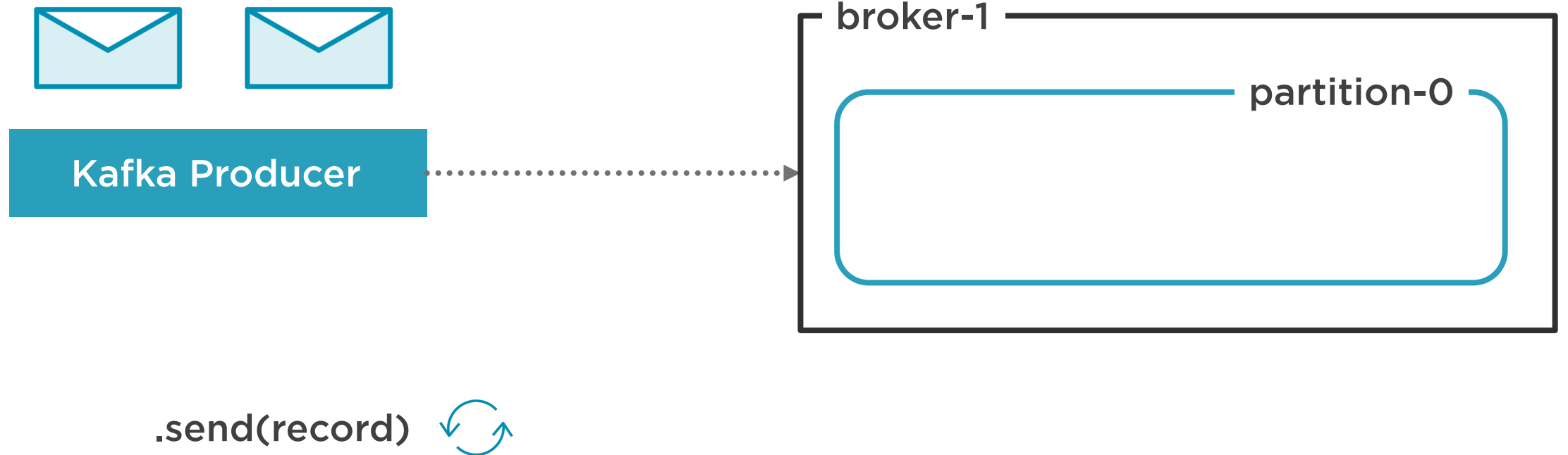
`enable.auto.commit = false`



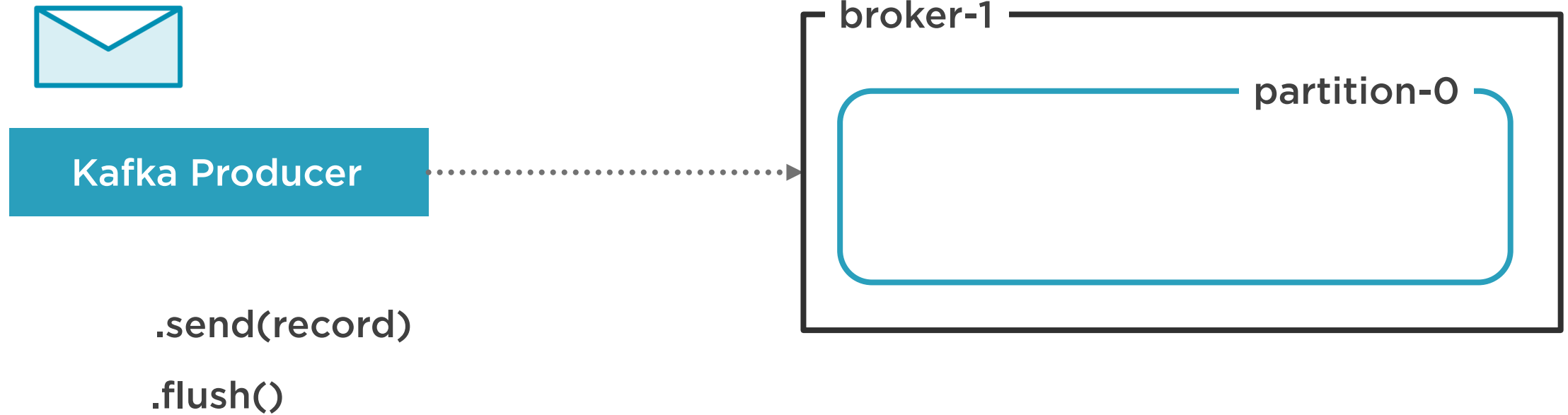
# Synchronous Consumer



# Synchronous Producer



# Synchronous Producer





# Demo



Synchronous Producing and Consuming

Connect Servings Producer with Orders  
Consumer



REST

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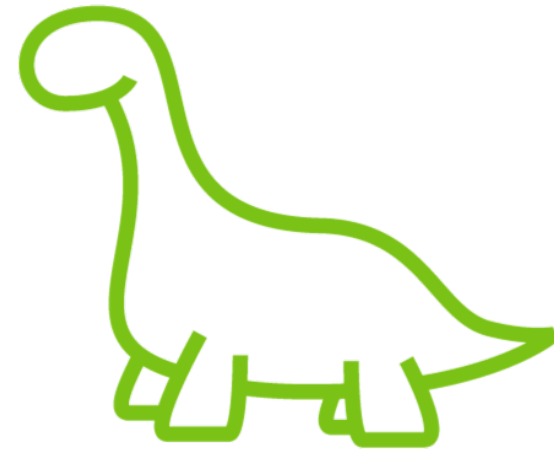


# Not Everyone Can Use Kafka



## No client

Programming language that does not have a Kafka Client implementation

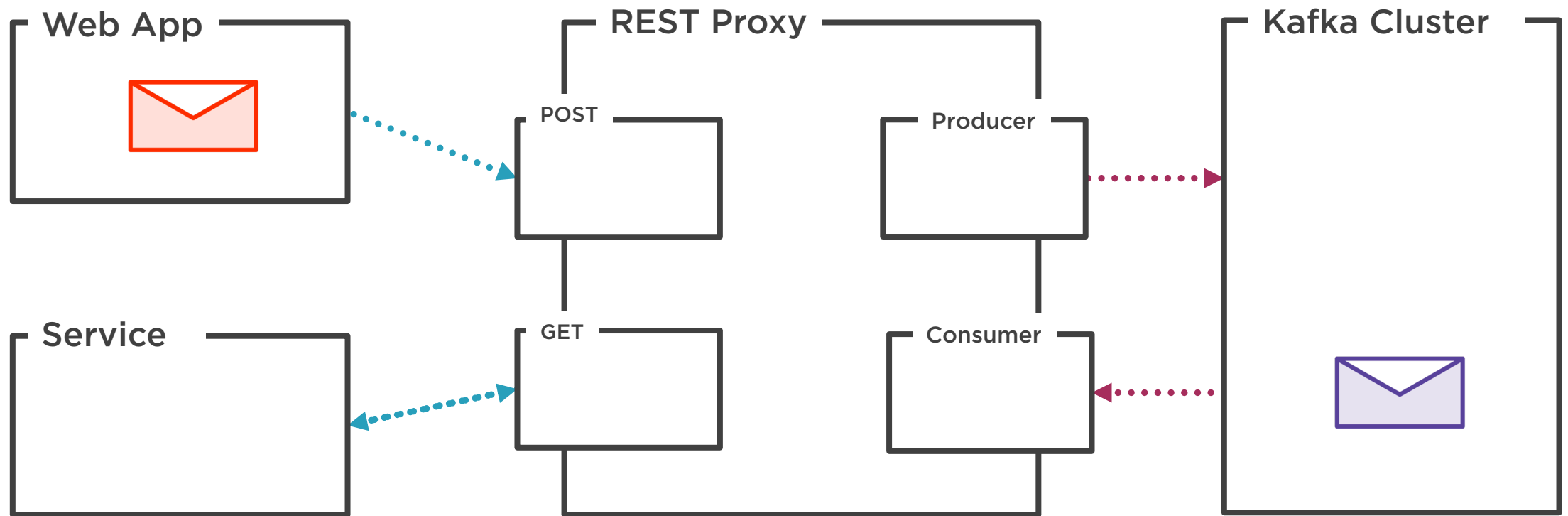


## Legacy application

Old application that cannot use the Kafka Clients

# REST Proxy

[docs.confluent.io/current/kafka-rest/api.html](https://docs.confluent.io/current/kafka-rest/api.html)



HTTP(S)

Kafka Protocol ( TCP )



# Demo



## Web Application

### Produce data with REST Proxy



# Summary



**Kafka Connect**

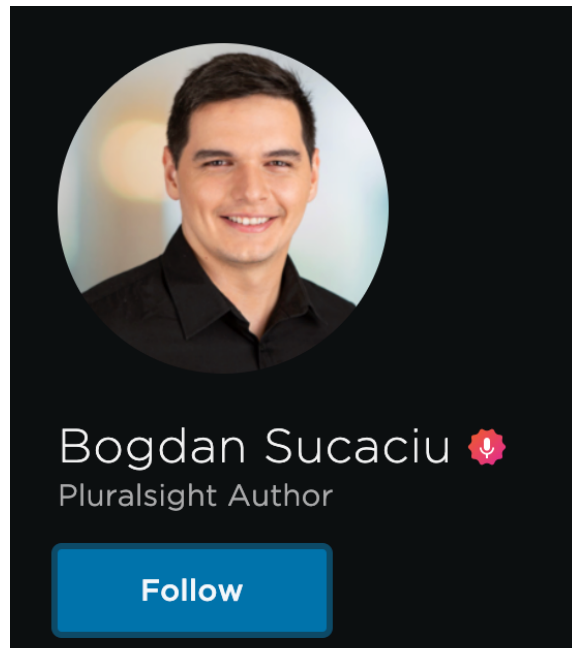
**Turning a Database Inside Out**

**Synchronous Operations**

**REST Proxy**



# Get in Touch with Me



Pluralsight

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[bsucaciu.com](https://bsucaciu.com)



# Keep Yourself up-to-date

## KAFKA SUMMIT

### Apache Kafka Meetups

