

Encrypting Communication with Kafka



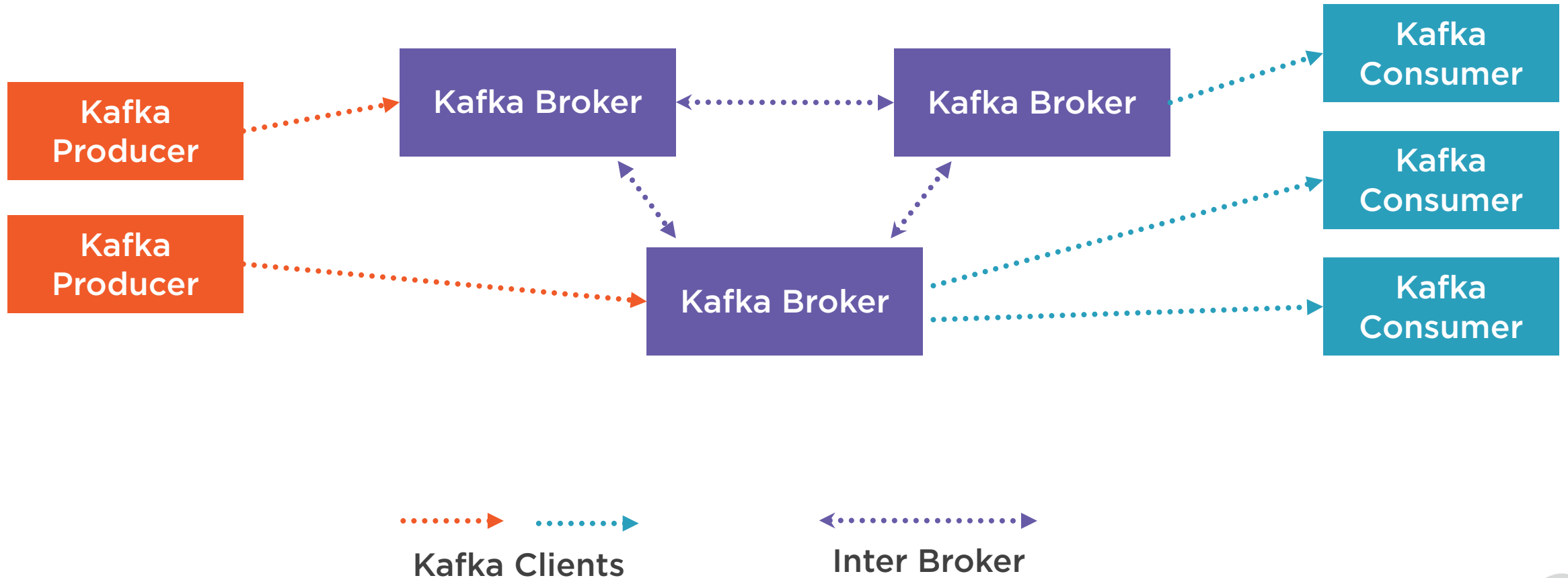
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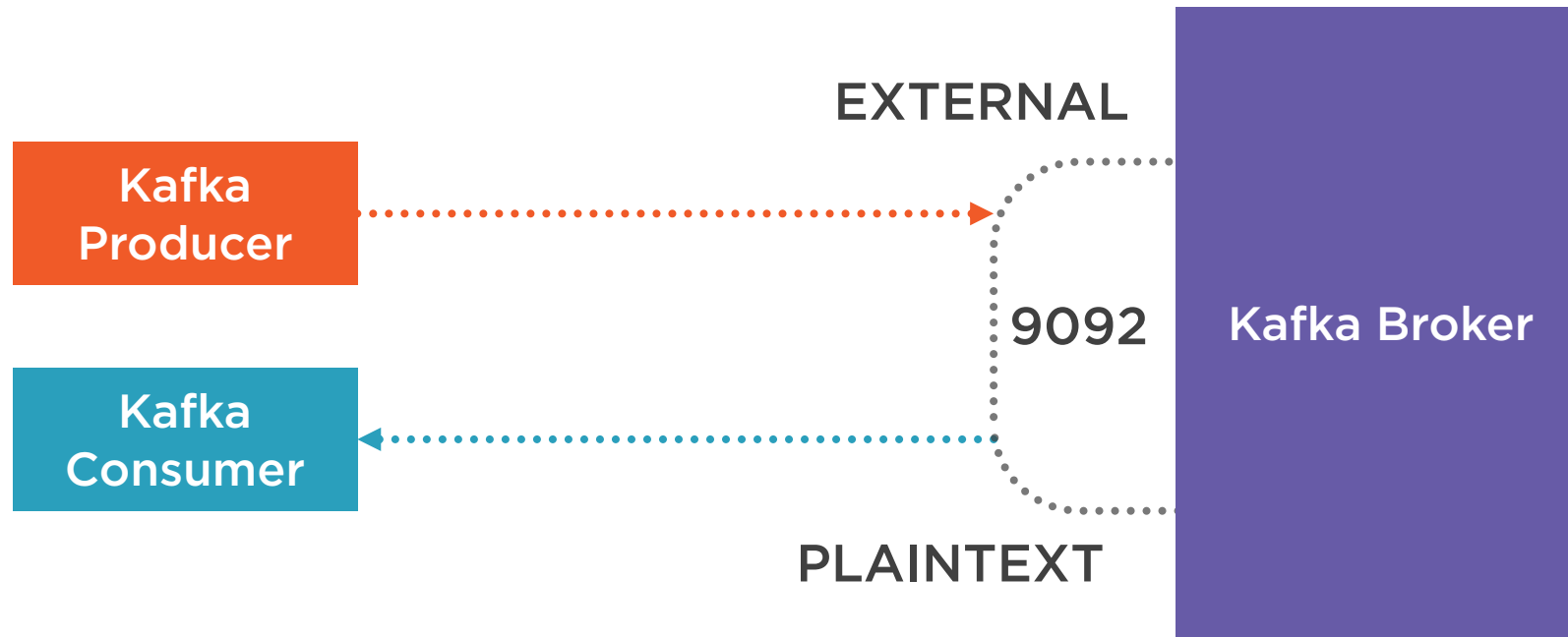
Kafka Security



Kafka Listeners



Kafka Listeners



PLAINTEXT

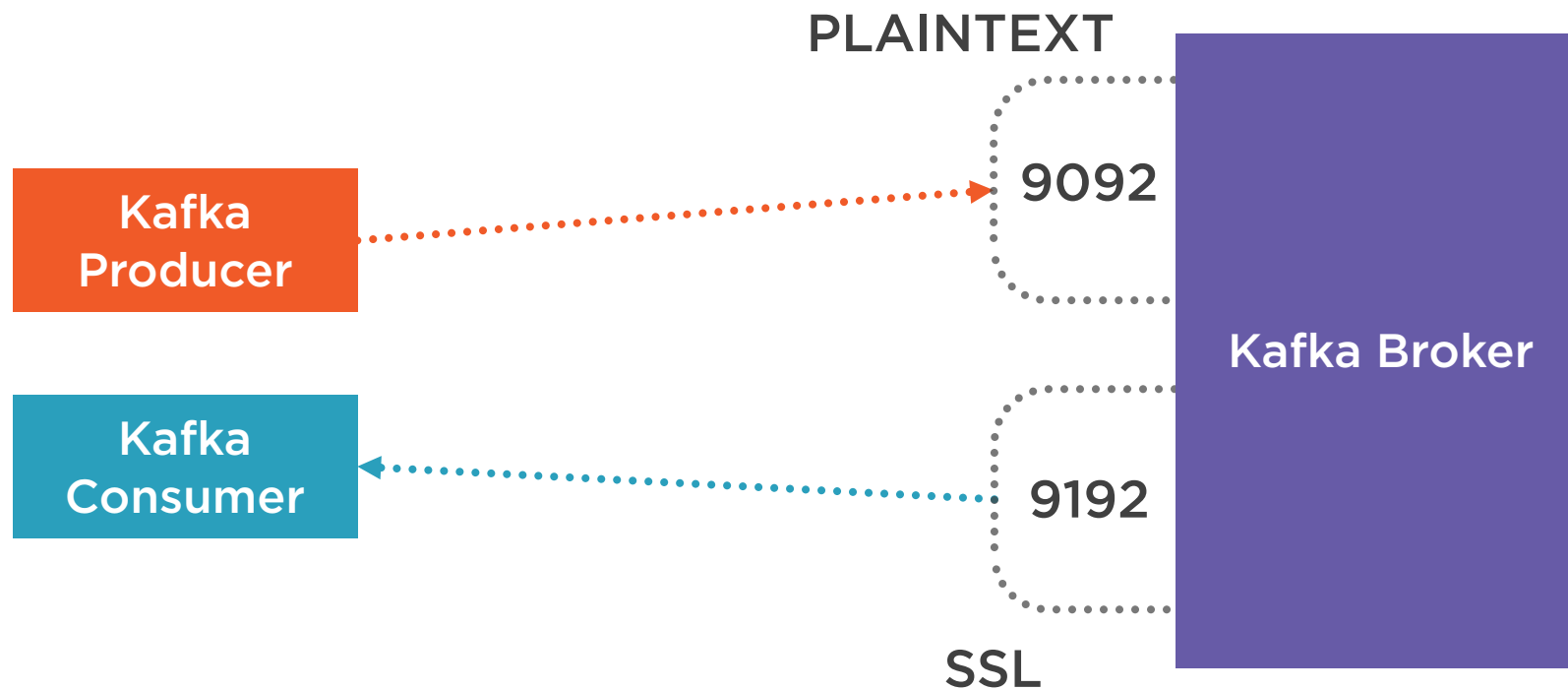
SSL

SASL_PLAINTEXT

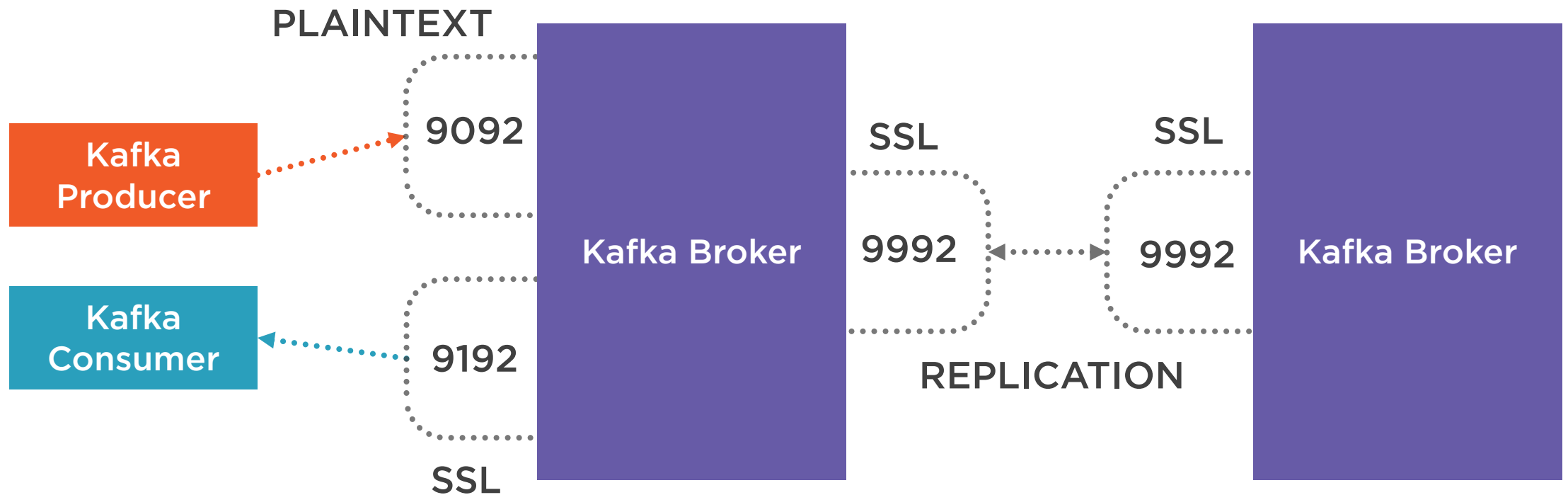
SASL_SSL



Kafka Listeners



Kafka Listeners



Kafka Listeners Configuration

```
listeners: UNSECURED://127.0.0.1:9092, SECURED://localhost:9192  
listener.security.protocol.map: UNSECURED:PLAINTEXT, SECURED:SSL  
advertised.listeners: UNSECURED://broker-1:9092, SECURED://172.32.42.80:9192
```

```
listener.name.unsecured.max.connections: ...  
listener.name.secured.keystore.location: .....  
listener.name.secured.truststore.password: .....
```

```
security.inter.broker.protocol: SSL
```

```
inter.broker.listener.name: SECURED
```



Performance Degradation

30%

Java 8

10%

Java 9+



Demo



Broker Clients SSL

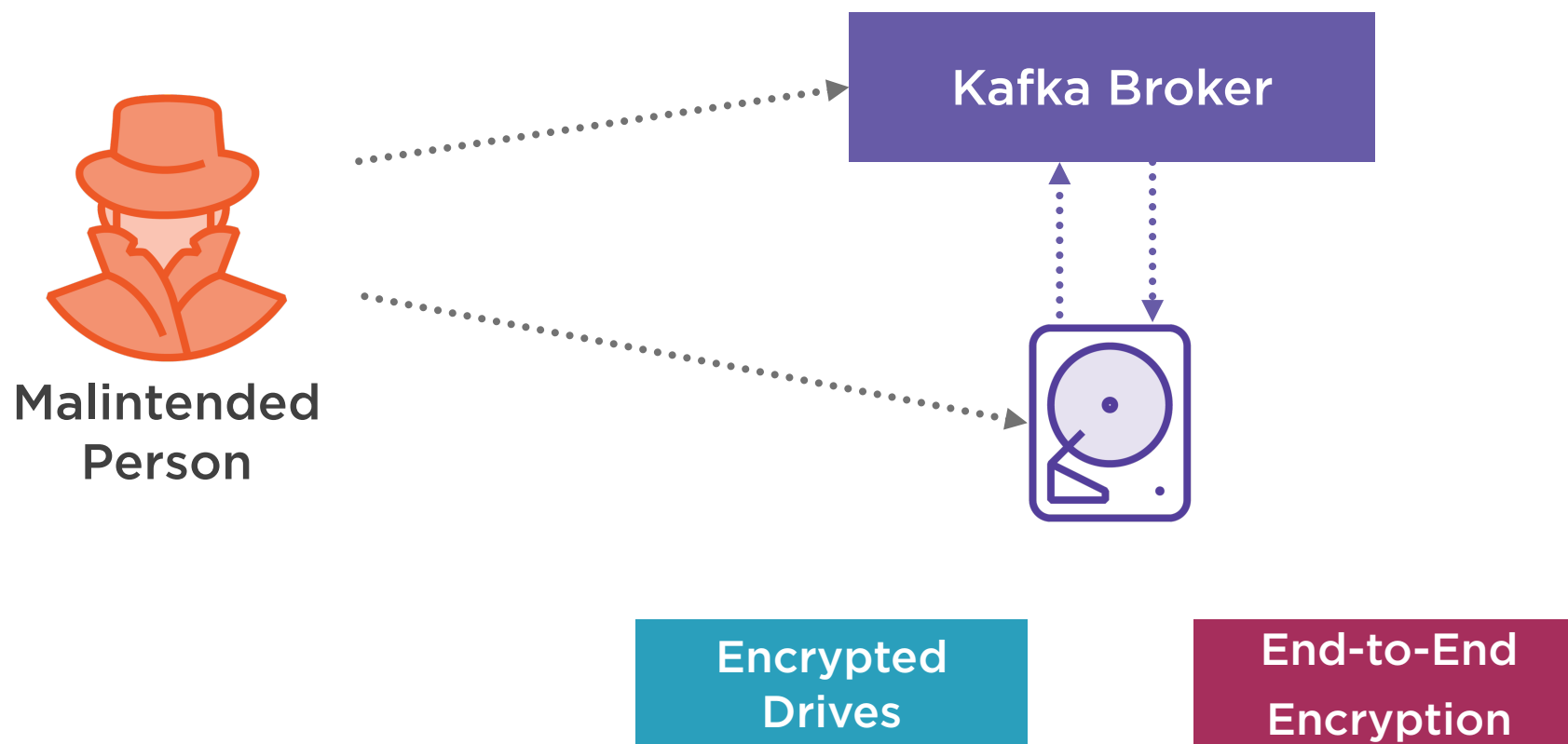
Inter Broker SSL



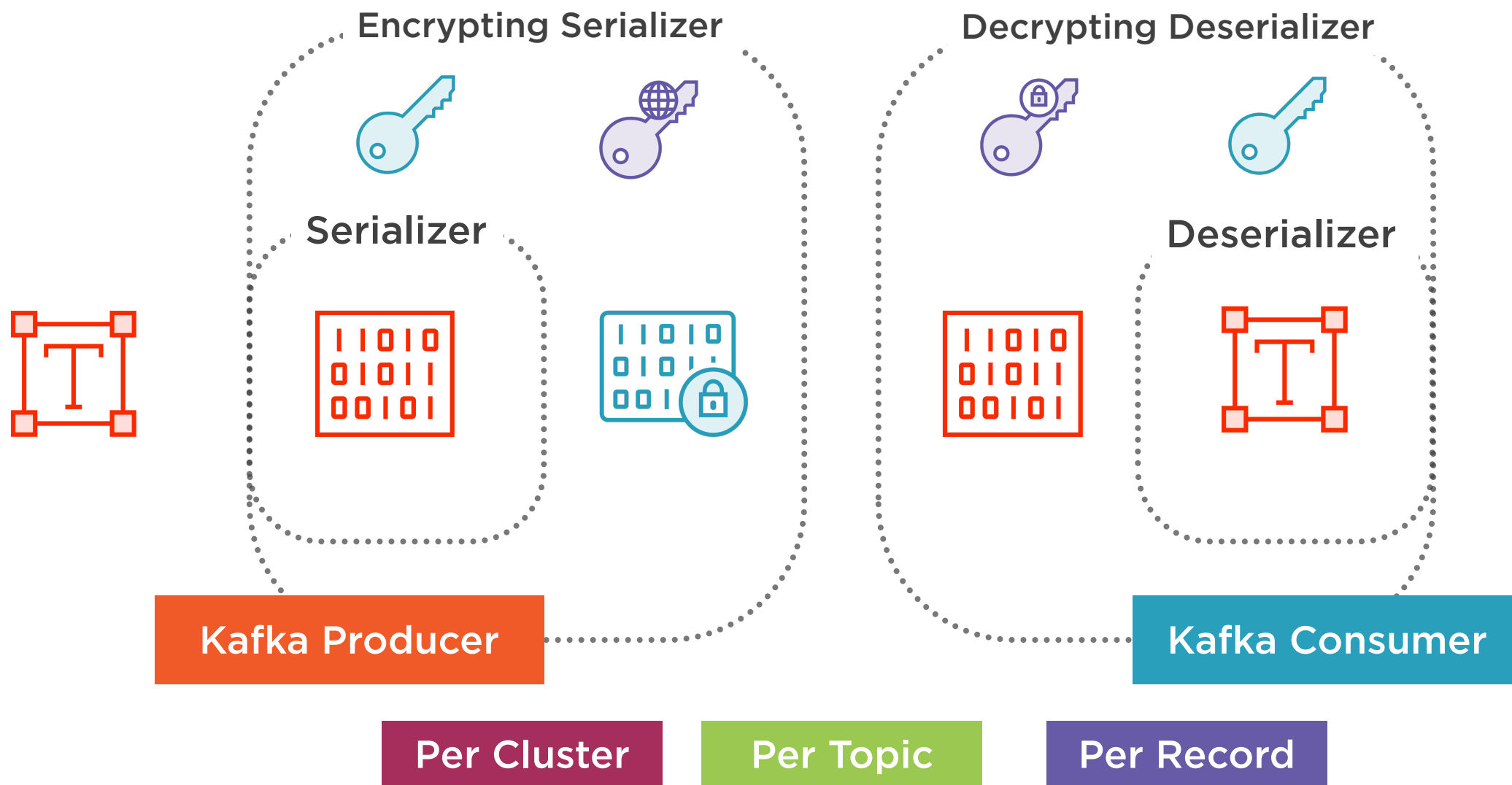
End to End Encryption



Data Security



End-To-End Encryption



Data Protection Laws

**Fine Control Key
Management**

Field Encryption



Demo



End-To-End Encryption

