Kafka Cluster

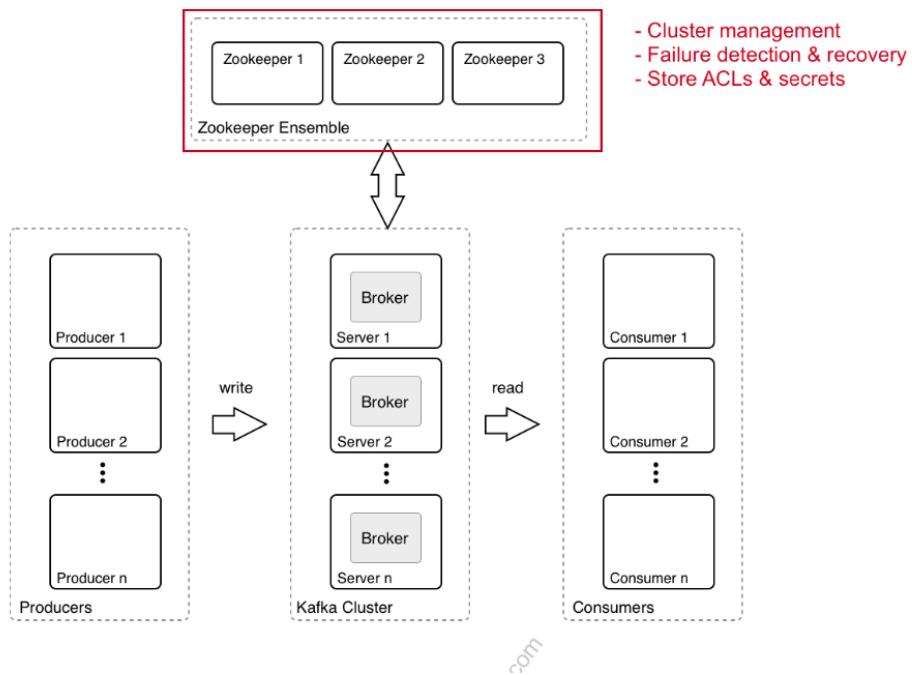**ZooKeeper Basics**

- **Open Source** Apache Project

- Distributed **Key Value Store**

- Maintains **configuration information**

- Stores **ACLs** and **Secrets**

- Enables highly reliable **distributed coordination**

- Provides **distributed synchronization**

- 3 or 5 servers form an **ensemble**

Kafka Brokers use ZooKeeper for a number of important internal features such as

- Cluster management

- Failure detection and recovery (e.g. when a broker goes down)

- To store Access Control Lists (ACLs) used for authorization in the Kafka cluster

Zookeeper Ensemble

- Cluster management
- Failure detection & recovery
- Store ACLs & secrets

Producers / Kafka Cluster / Consumers

write → read →

```
zookeeper-server-start.sh etc/kafka/zookeeper.properties
kafka-server-start.sh etc/kafka/server.properties
```