Strimzi

What is Strimzi ?

Strimzi **simplifies** the process of running Apache Kafka in a Kubernetes cluster.

How Strimzi supports kafka?

Strimzi provides **container images and operators** for running Kafka on Kubernetes.

Strimzi operators are purpose-built with specialist operational knowledge to effectively manage Kafka on Kubernetes.

Operators simplify the process of:

➜ Deploying and running Kafka clusters
➜ Deploying and running Kafka components
➜ Configuring access to Kafka
➜ Securing access to Kafka
➜ Upgrading Kafka
➜ Managing brokers
➜ Creating and managing topics
➜ Creating and managing users

Strimzi deployment of Kafka

- ➔ Kafka cluster of broker nodes
- ➔ ZooKeeper cluster of replicated ZooKeeper instances
- ➔ Kafka Connect cluster for external data connections
- ➔ Kafka MirrorMaker cluster to mirror the Kafka cluster in a secondary cluster
- ➔ Kafka Exporter to extract additional Kafka metrics data for monitoring
- ➔ Kafka Bridge to make HTTP-based requests to the Kafka cluster
- ➔ Cruise Control to rebalance topic partitions across broker nodes

Kafka component architecture

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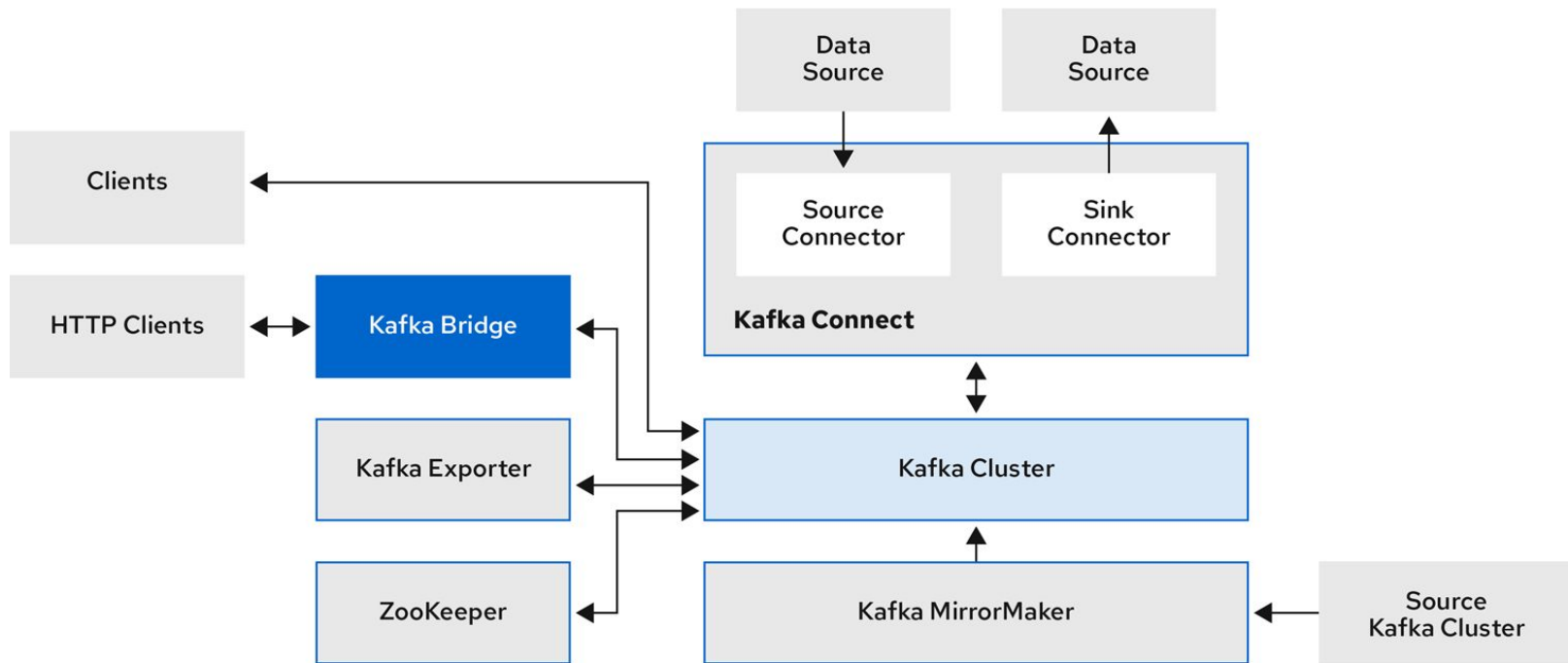
Strimzi Operators

Cluster Operator

Deploys and manages Apache Kafka clusters, Kafka Connect, Kafka MirrorMaker, Kafka Bridge, Kafka Exporter, Cruise Control, and the Entity Operator

Entity Operator

Comprises the Topic Operator and User Operator
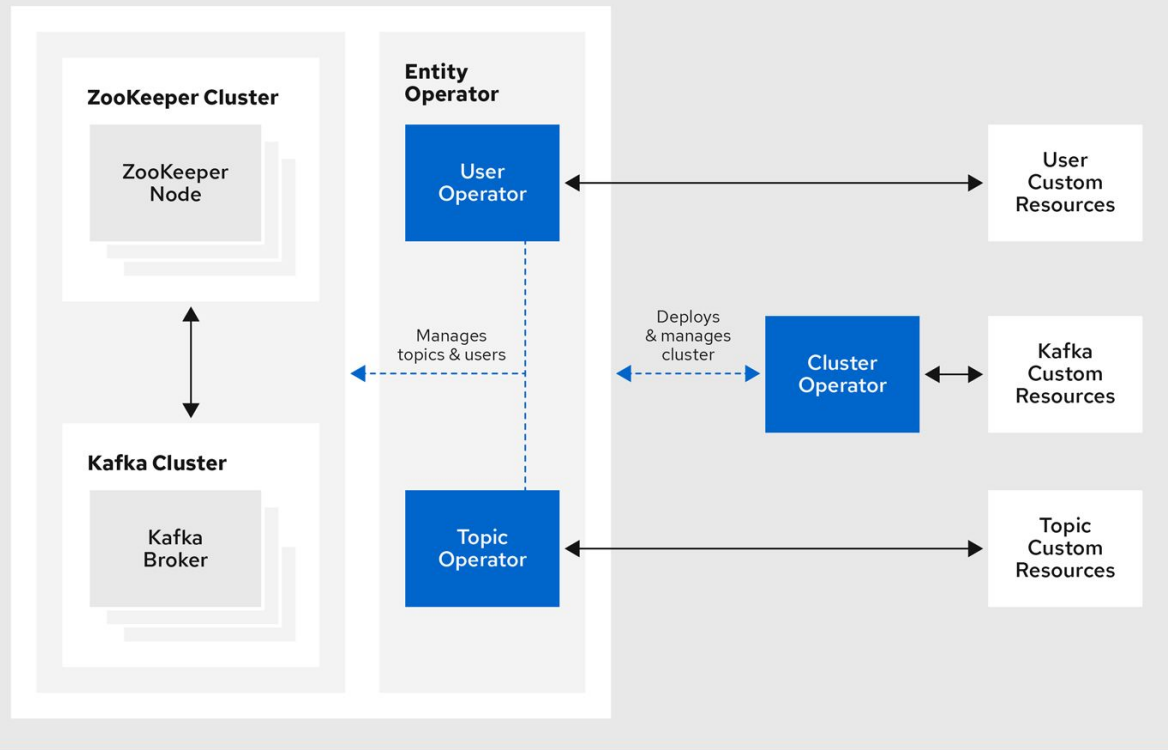
Topic Operator

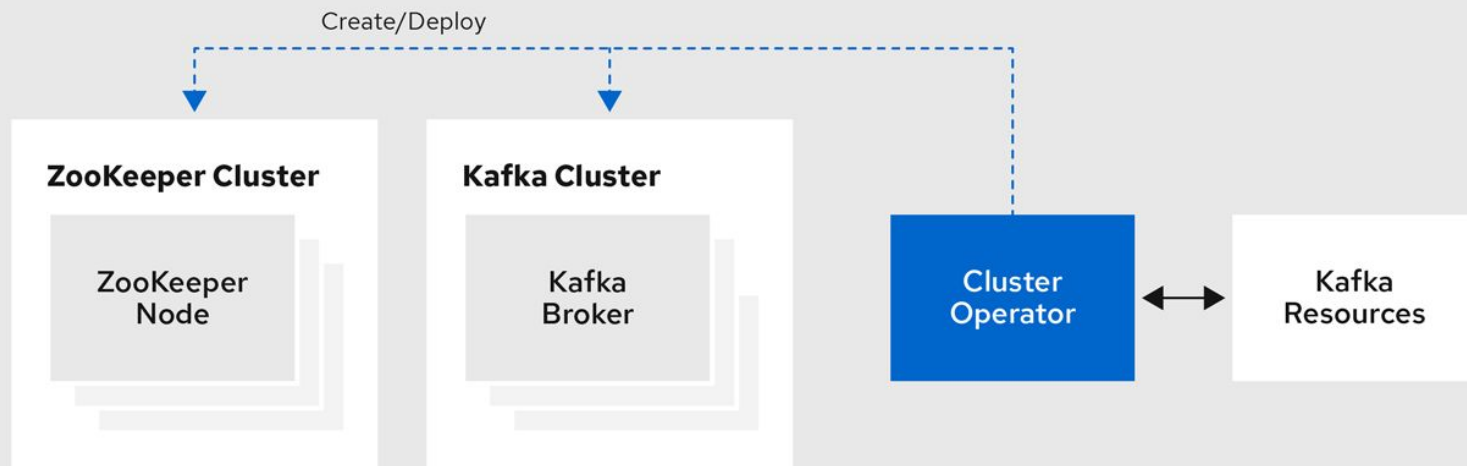Manage Kafka Topics

User Operator

Manage Kafka users

The Cluster Operator can deploy the Topic Operator and User Operator as part of an Entity Operator configuration at the same time as a Kafka cluster.
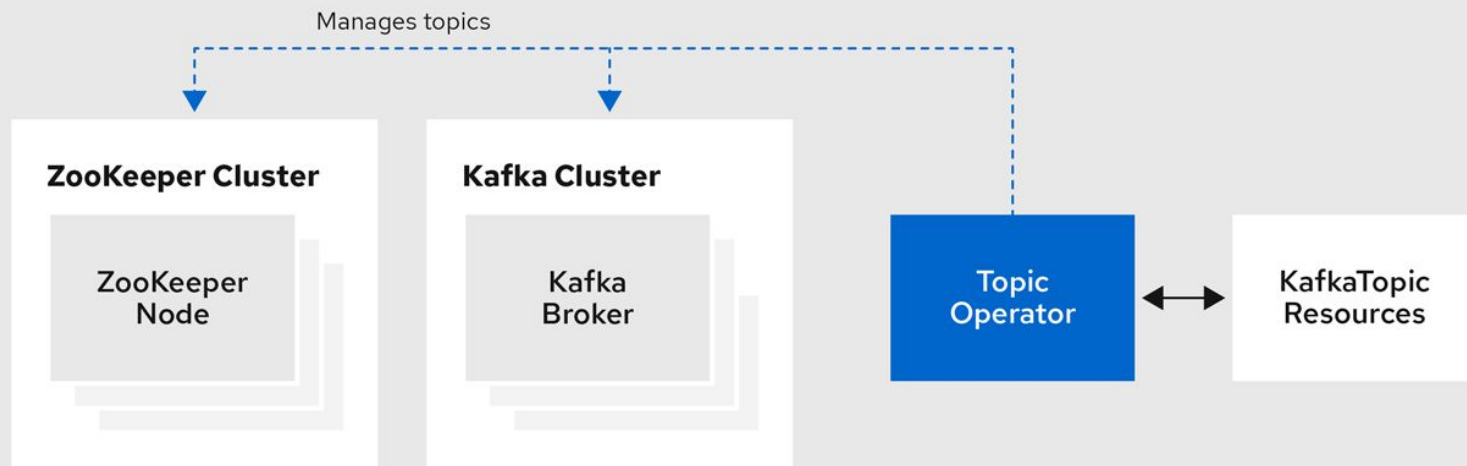
Operators within the Strimzi architecture

Example architecture for the Cluster Operator

Example architecture for the Topic Operator