

Cloudera Streams Messaging Operator 1.0.0

Release Notes

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Release notes

Learn about the new features, improvements, known and fixed issues, limitations, and unsupported features in this release of CSM Operator.

What's New

Learn about the new features and notable changes in this release of CSM Operator.

CSM Operator 1.0.0

This is the initial release of CSM Operator. This release of CSM Operator is based on Strimzi 0.40.0 and Kafka 3.7.0. See the following upstream resources for more information on these versions:

- [Strimzi 0.40.0 Release notes](#)
- [Kafka 3.7.0 Release notes](#)
- [Kafka 3.7.0 Notable changes](#)

To learn more about CSM Operator and its typical deployment architecture, see [Overview](#). For installation instructions, see [Installation](#).

Known Issues

Learn about the known issues in this release of CSM Operator.

CSMDS-334: ZooKeeper pods are running but Kafka pods are not created

Under certain circumstances, ZooKeeper pods might not be able to form a quorum. In a case like this, the creation of the Kafka cluster gets stuck in a state where ZooKeeper pods are running, but Kafka pods are not created.

If you encounter this issue, at least one of the ZooKeeper pods logs a WARN entry similar to the following:

```
2024-02-23 18:45:00,311 WARN Unexpected exception (org.apache.zookeeper.server.quorum.QuorumPeer) [QuorumPeer[myid=3](plain=127.0.0.1:12181)(secure=[0:0:0:0:0:0:0:0]:2181)]
java.lang.InterruptedException: Timeout while waiting for epoch from quorum
    at org.apache.zookeeper.server.quorum.Leader.getEpochToPropose(Leader.java:1443)
    at org.apache.zookeeper.server.quorum.Leader.lead(Leader.java:606)
    at org.apache.zookeeper.server.quorum.QuorumPeer.run(QuorumPeer.java:1552)
```

This is caused by a race condition issue in ZooKeeper. ZooKeeper is unable to recover from this state automatically.

Delete the ZooKeeper pods that are unable to form a quorum.

```
kubectl delete pod [***ZOOKEEPER POD***] -n [***NAMESPACE***]
```

The Cluster Operator automatically recreates the ZooKeeper pods that are deleted. The newly created ZooKeeper pods are less likely to encounter the issue.

Unsupported features

Learn what features are unsupported in this release of CSM Operator.

The following Strimzi features are unsupported in CSM Operator:

- Kafka Connect
- Kafka MirrorMaker
- Kafka MirrorMaker 2
- Kafka Bridge
- Kafka cluster creation without using `KafkaNodePool` resources

Component versions

CSM Operator components and their versions shipped in this release of CSM Operator.

Table 1: CSM Operator component versions

| Component | Version |
|----------------|--------------------|
| Cruise Control | 2.5.137.1.0.0-b283 |
| Kafka | 3.7.0.1.0.0-b283 |
| Strimzi | 0.40.0.1.0.0-b283 |
| ZooKeeper | 3.8.1.7.2.18.0-641 |

Supported Kafka versions

CSM Operator supports the following Kafka versions:

Table 2: Supported Kafka versions

| Latest (default) | Other |
|------------------|-------|
| 3.7.0.1.0 | None |

The latest version is the current and latest supported Kafka version. This version is used by default to deploy clusters if an explicit version is not provided in your `Kafka` resource. The default version is the version recommended by Cloudera. Other supported versions are previous Kafka releases that are also supported.

Notice that the Kafka versions are specific to Cloudera. The version is made up of two parts. The first three digits specify the Apache Kafka version. The digits following the Apache Kafka version specify the major and minor version of CSM Operator. When deploying a cluster, you must use the Cloudera versions for Kafka listed here. Specifying upstream versions is not supported.

System requirements

CSM Operator requires a Kubernetes cluster environment that meets the following system requirements and prerequisites. Ensure that you meet these requirements, otherwise, you will not be able to install and use CSM Operator or its components.

- A Kubernetes 1.23 or later cluster:
 - OpenShift 4.10 or later.
 - RKE2 (Rancher Kubernetes Engine 2) 1.23 or later.



Note: Cloudera recommends using Rancher with RKE2.

- Administrative rights on the Kubernetes cluster.
- Access to kubectl or oc. These command line tools must be configured to connect to your running cluster.
- Access to helm.
- Log collection is enabled for the Kubernetes cluster. Cloudera requires that the logs of CSM Operator components are stored long term for diagnostic and supportability purposes. Review [Log collection](#).
- A persistent storage class configured on the Kubernetes cluster that satisfies the durability and low-latency requirements for operating Kafka. The ideal storage class configuration can vary per environment and use-case and is determined by the Kubernetes platform where CSM Operator is deployed.
- A [Prometheus](#) installation running in the same Kubernetes cluster where you install CSM Operator is recommended. Prometheus is used for collecting and monitoring Kafka and Strimzi metrics.