Cloudera Flow Management Operator 2.8.0

# CFM Operator Release Notes

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# CLOUDERA

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# What's new

Learn about the new features and notable changes in this release of Cloudera Flow Management (CFM) Operator.

CFM Operator 2.8.0 is the first release of the CFM Kubernetes operator, which provides a way to deploy, manage, and operate NiFi clusters and NiFi Registry instances on Kubernetes application platforms. This release comes with container images based on Apache NiFi 1.25 and Apache NiFi 2.0 (milestone release). To learn more about the CFM Operator and its typical deployment architecture, see the CFM Operator overview. To get started with installing the operator, see Installation overview.

# Known issues

Learn about the known issues in this release of Cloudera Flow Management (CFM) Operator.

**JVM memory values not automatically scaled based on pod memory**

The JVM memory minimum and maximum values are not automatically scaled based on pod memory. By default, both values are set to 2 GB (-Xms2G and -Xmx2G).

Recommendation:

- Set the minimum JVM memory to 50% of the pod memory limit.
- Set the maximum JVM memory to 75% of the pod memory limit.

You can manually configure the JVM memory settings using the following parameters:

```
spec:
  configOverride:
    bootstrapConf:
      upsert:
        java.arg.2: -Xms[***MEMORY MIN***]G
        java.arg.3: -Xmx[***MEMORY MAX***]G
```

**Sensitive properties key regeneration causing node startup failures**

Due to a flaw in the operator, the provided sensitive properties key Secret is regenerated regularly. This leads to issues when adding nodes to the NiFi cluster, as the new NiFi node will have a different sensitive properties key. This discrepancy prevents the new NiFi node from decrypting the sensitive properties, causing a failed startup.

1. Provide your own sensitive properties key, which can be any random alphanumeric string of arbitrary length.
2. Create a secret using the following command.

   ```
   kubectl create secret generic [***NIFI NAME***]-sensitive-pr
   operties-key -n [***NAMESPACE***] --from-literal=nifi.sensit
   ive.props.key=[***ALPHANUMERIC STRING***]
   ```

3. Add the field spec.sensitivePropsKeySecretName:[***NIFI    NAME***]-sensitive-properties-key to your NiFi YAML file.

**Insufficient hostname generated by `cfmctl quick` in OpenShift**

When using the `cfmctl quick` command in OpenShift, the generated route has an insufficient hostname for resolving in a web browser.

1. Find a standard OpenShift Route and extract the default route. For example, to get the OpenShift console route, run the following command.

```
kubectl -n openshift-console get route console -ojsonpath='{
.status.ingress[0].routerCanonicalHostname}'
```

The response will be similar to: router-default.apps-crc.testing.

2. Construct a unique URL by replacing router-default with your CR name and namespace.
3. Edit the route resource directly and set your constructed URL as the hostname.

```
kubectl -n [***NAMESPACE***] edit route demo-nifi
```

# Supported component versions

Cloudera Flow Management (CFM) Operator components and their versions delivered in this release of the CFM Operator.

**Table 1: CFM Operatorcomponent versions**

| Component | Version |
|---|---|
| CFM Operator and cfmctl | 2.8.0 |
| NiFi | 1.25.0 / 2.0.0 [Technical Preview] |
| NiFi Registry | 1.25.0 |

# System requirements

To install and use Cloudera Flow Management (CFM) Operator and its components, your Kubernetes cluster environment must meet the following system requirements and prerequisites.

- Kubernetes cluster

  - Version 1.23 or later
  - OpenShift 4.10 or later

    **Note:** Note: CFM Operator complies with Cloud Native Computing Foundation (CNCF) standards and is compatible with any Kubernetes distribution. For supporting your specific Kubernetes distribution, contact Cloudera.
- Administrative rights on the Kubernetes cluster
- Access to kubectl or oc, configured to connect to your running cluster
- Access to helm
- cert-manager installed on the Kubernetes cluster
- Log collection enabled for the Kubernetes cluster
- Cloudera requires that the logs of CFM Operator components are stored long term for diagnostic and supportability purposes.
- Persistent storage class configured on the Kubernetes cluster that satisfies the durability and low-latency requirements for operating NiFi. The ideal storage class configuration can vary depending on the environment and use case, and it is determined by the Kubernetes platform where the product is deployed.
- (Optional): Prometheus installation running in the same Kubernetes cluster where you install CFM Operator. Prometheus is used for collecting and monitoring NiFi metrics.