

Cloudera Flow Management Operator for Kubernetes 2.11.0

NiFi Registry Deployment

Date published: 2024-06-11

Date modified: 2025-09-30

The Cloudera logo is displayed in a bold, orange, sans-serif font. The word "CLOUDERA" is written in all caps, with a stylized 'E' that has a horizontal bar extending to the right.

<https://docs.cloudera.com/>

Legal Notice

© Cloudera Inc. 2026. All rights reserved.

The documentation is and contains Cloudera proprietary information protected by copyright and other intellectual property rights. No license under copyright or any other intellectual property right is granted herein.

Unless otherwise noted, scripts and sample code are licensed under the Apache License, Version 2.0.

Copyright information for Cloudera software may be found within the documentation accompanying each component in a particular release.

Cloudera software includes software from various open source or other third party projects, and may be released under the Apache Software License 2.0 (“ASLv2”), the Affero General Public License version 3 (AGPLv3), or other license terms. Other software included may be released under the terms of alternative open source licenses. Please review the license and notice files accompanying the software for additional licensing information.

Please visit the Cloudera software product page for more information on Cloudera software. For more information on Cloudera support services, please visit either the Support or Sales page. Feel free to contact us directly to discuss your specific needs.

Cloudera reserves the right to change any products at any time, and without notice. Cloudera assumes no responsibility nor liability arising from the use of products, except as expressly agreed to in writing by Cloudera.

Cloudera, Cloudera Altus, HUE, Impala, Cloudera Impala, and other Cloudera marks are registered or unregistered trademarks in the United States and other countries. All other trademarks are the property of their respective owners.

Disclaimer: EXCEPT AS EXPRESSLY PROVIDED IN A WRITTEN AGREEMENT WITH CLOUDERA, CLOUDERA DOES NOT MAKE NOR GIVE ANY REPRESENTATION, WARRANTY, NOR COVENANT OF ANY KIND, WHETHER EXPRESS OR IMPLIED, IN CONNECTION WITH CLOUDERA TECHNOLOGY OR RELATED SUPPORT PROVIDED IN CONNECTION THEREWITH. CLOUDERA DOES NOT WARRANT THAT CLOUDERA PRODUCTS NOR SOFTWARE WILL OPERATE UNINTERRUPTED NOR THAT IT WILL BE FREE FROM DEFECTS NOR ERRORS, THAT IT WILL PROTECT YOUR DATA FROM LOSS, CORRUPTION NOR UNAVAILABILITY, NOR THAT IT WILL MEET ALL OF CUSTOMER’S BUSINESS REQUIREMENTS. WITHOUT LIMITING THE FOREGOING, AND TO THE MAXIMUM EXTENT PERMITTED BY APPLICABLE LAW, CLOUDERA EXPRESSLY DISCLAIMS ANY AND ALL IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO IMPLIED WARRANTIES OF MERCHANTABILITY, QUALITY, NON-INFRINGEMENT, TITLE, AND FITNESS FOR A PARTICULAR PURPOSE AND ANY REPRESENTATION, WARRANTY, OR COVENANT BASED ON COURSE OF DEALING OR USAGE IN TRADE.

Contents

Deploying a NiFi Registry instance (internet).....	4
Deploying a NiFi Registry instance in an air-gapped environment.....	5

Deploying a NiFi Registry instance (internet)

Learn about deploying a NiFi Registry cluster using Cloudera Flow Management Operator for Kubernetes.

About this task

You can deploy a NiFi Registry cluster by creating a NiFi Registry custom resource (CR) and deploying in a Kubernetes cluster.

Before you begin

- Ensure the Cloudera Flow Management Operator for Kubernetes has been installed and is running.
- You have created a NiFi Registry custom resource (CR) YAML file that complies with the documentation provided by Cloudera.

Procedure

1. Create a namespace for the NiFi Registry if it does not already exist.

```
$ kubectl create namespace my-nifi-registry
```

2. In `[***REGISTRY CLUSTER NAMESPACE***]`, create an image pull secret to access the installation artifacts.

```
kubectl create secret docker-registry [***SECRET NAME***] \
  --namespace [***REGISTRY CLUSTER NAMESPACE***] \
  --docker-server container.repository.cloudera.com \
  --docker-username [***USERNAME***] \
  --docker-password [***PASSWORD***]
```

Replace:

- `[***SECRET NAME***]` with the desired Kubernetes secret name.
- `[***REGISTRY CLUSTER NAMESPACE***]` with the namespace you created.
- `[***USERNAME***]` and `[***PASSWORD***]` with your Cloudera credentials.

For example:

```
kubectl create secret docker-registry docker-pull-secret \
  --namespace cfm-operator-system \
  --docker-server container.repository.cloudera.com \
  --docker-username my-username \
  --docker-password my-password
```

3. Deploy NiFi Registry to the Kubernetes cluster.

```
kubectl apply -f [***CR YAML PATH***] --namespace [***REGISTRY CLUSTER NAMESPACE***]
```

Replace:

- `[***CR YAML PATH***]` with the absolute or relative path to the CR YAML file you created for NiFi Registry.
- `[***REGISTRY CLUSTER NAMESPACE***]` with the namespace you created to deploy NiFi Registry.

Related Information

[Configuring a NiFi Registry CR](#)

[NiFi Registry CR example](#)

Deploying a NiFi Registry instance in an air-gapped environment

Learn about deploying a NiFi Registry cluster using Cloudera Flow Management Operator for Kubernetes. Complete these steps if your Kubernetes cluster does not have internet access, or if you want to install it from a self-hosted registry.

About this task

You can deploy a NiFi Registry cluster by creating a NiFi Registry custom resource (CR) and deploying on Kubernetes.

Before you begin

- Ensure the Cloudera Flow Management Operator for Kubernetes has been installed and is running.
- A self-hosted Docker registry is required. Your registry must be accessible by your Kubernetes cluster.
- A machine with Internet connectivity is required. While the Kubernetes cluster does not need internet access, you will need a machine to pull the images from the Cloudera Docker registry.
- Access to docker or equivalent utility that you can use to pull and push images is required. The following steps use docker. Replace commands where necessary.
- Ensure that you have access to your Cloudera credentials (username and password). Credentials are required to access the Cloudera Archive and Cloudera Docker registry where installation artifacts are hosted.
- Ensure that you have access to a valid Cloudera license.
- Review the [Helm chart reference](#) before installation.

The Helm chart accepts various configuration properties that you can set during installation. Using these properties you can customize your installation.

- You have created a NiFi Registry custom resource (CR) YAML file that complies with the documentation provided by Cloudera.
- Obtain the Apache NiFi Registry Docker image that is required for your installation scenario.

Artifact	Location
Apache NiFi Registry Docker images	container.repository.cloudera.com/cloudera/cfm-nifiregistry-k8s:3.0.0-b126-nifi_1.28.1.2.3.17.0-9
	container.repository.cloudera.com/cloudera/cfm-nifiregistry-k8s:3.0.0-b126-nifi_2.6.0.4.3.4.0-234

Procedure

1. Create a namespace for the NiFi Registry if it does not already exist.

```
kubectl create namespace [***REGISTRY CLUSTER NAMESPACE***]
```

Replace `[***REGISTRY CLUSTER NAMESPACE***]` with the desired namespace for NiFi Registry.

```
$ kubectl create namespace my-nifi-registry
```

2. Create a Kubernetes secret containing your Cloudera credentials.

```
kubectl create secret docker-registry [***SECRET NAME***] \
  --namespace [***REGISTRY CLUSTER NAMESPACE***] \
  --docker-server [***CONTAINER REGISTRY***] \
  --docker-username [***USERNAME***] \
  --docker-password [***PASSWORD***]
```

Replace:

- `[**SECRET NAME**]` with the desired Kubernetes secret name.
 - `[**USERNAME**]` and `[**PASSWORD**]` with your internal registry credentials.
 - `[**REGISTRY CLUSTER NAMESPACE**]` with the Cloudera Flow Management Operator for Kubernetes installation namespace.
 - `[**CONTAINER REGISTRY**]` with your internal registry URL.
3. Move the installation artifacts to a local registry using the `docker pull`, `docker tag`, and `docker push` commands.

```
docker pull container.repository.cloudera.com/cloudera/cfm-nifiregistry-k8s:[**NIFI REGISTRY VERSION**] \
docker tag container.repository.cloudera.com/cloudera/cfm-nifiregistry-k8s:[**NIFI REGISTRY VERSION**] [**PRIVATE REGISTRY[:PORT]/PATH/TAG:NIFI REGISTRY VERSION**] \
docker push [**PATH TO SELF-HOSTED REGISTRY**]/cfm-nifiregistry-k8s:[**NIFI REGISTRY VERSION**]
```

For example:

```
docker pull container.repository.cloudera.com/cloudera/cfm-nifiregistry-k8s:3.0.0-b126-nifi_1.28.1.2.3.17.0-9 \
docker tag container.repository.cloudera.com/cloudera/cfm-nifiregistry-k8s:3.0.0-b126-nifi_1.28.1.2.3.17.0-9 us-centrall-docker.pkg.dev/nifi-testing/cfm-k8s/cfm-nifiregistry-k8s:3.0.0-b126-nifi_1.28.1.2.3.17.0-9 \
docker push us-centrall-docker.pkg.dev/nifi-testing/cfm-k8s/cfm-nifiregistry-k8s:3.0.0-b126-nifi_1.28.1.2.3.17.0-9
```



Note:

If Kubernetes is running on a different architecture than your local machine, you may need to specify a `--platform` option for your `docker pull`.

For more information on pulling, pushing, and tagging Docker images, see the Docker documentation.

4. Deploy NiFi Registry to the Kubernetes cluster.

```
kubectl apply -f [**CR YAML PATH**] --namespace [**REGISTRY CLUSTER NAMESPACE**]
```

Replace:

- `[**CR YAML PATH**]` with the absolute or relative path to the CR YAML file you created for NiFi Registry.
- `[**REGISTRY CLUSTER NAMESPACE**]` with the namespace you created to deploy NiFi Registry.

Related Information

[Configuring a NiFi Registry CR](#)

[NiFi Registry CR example](#)