Cloudera Flow Management 2.1.7

Cloudera Flow Management Upgrade and Migration

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Upgrade and migration paths

Cloudera encourages you to run NiFi on Cloudera Data Platform (CDP) so that you can take advantage of the latest updates and features. You can run NiFi on CDP by installing the CFM parcel on top of CDP. You can upgrade or migrate from earlier versions of CFM on CDP Private Cloud Base or from HDF and CFM on CDH. Review the upgrade and migration information to ensure that you are aware of the requirements pertaining to the upgrade or migration scenario appropriate to your use case.

Upgrade and migration paths overview

You are using CFM 2.x on CDP Private Cloud Base

If you are using CFM 2.x on CDP Private Cloud Base 7.1.1-7.1.9, and you want to upgrade to a higher version of CFM, there are specific upgrade paths that you need to take. Review them in the Upgrade and migration paths diagram and see the procedure steps in the following table:

Table 1: Upgrade procedure from CFM 2.x

	Upgrade
Step 1.	Upgrade CFM to 2.0.4 if you are using CFM 2.0.1
Step 2.	Upgrade CDP Private Cloud Base to 7.1.7, 7.1.7 SP1, or 7.1.7 SP2
Step 3.	Check the Upgrade and migration paths diagram to identify the sequence of intermediate upgrades required to transition from your current CFM version to the desired one. Upgrade to CFM 2.1.5 from CFM 2.x Upgrade to CFM 2.1.6 from CFM 2.1.5 Upgrade to CFM 2.1.7 from CFM 2.1.6
Step 4.	Upgrade CDP Private Cloud Base to 7.1.8 or 7.1.9

Note: CFM 2.1.1 is also supported on CDP Private Cloud Base 7.1.6.

You are using CFM 1.x on CDH

If you are using CFM 1.x on CDH 5 or CDH 6, or as standalone CFM, and you want to upgrade to a higher version of CFM, there are specific upgrade paths that you can take. Compare the different upgrade options in the Upgrade and migration paths diagram and see both migration and upgrade processes in the following table:

Table 2: Upgrade procedure options from CFM 1.x

	Migration		Upgrade from CFM 1.x on CDH 6		Upgrade from CFM 1.x on CDH 5		Upgrade from standalone CFM 1.x	
Step 1.	Upgrade CFM 1.0.0 to CFM 1.1.0	Upgrade CFM 1.0.1 to CFM 1.1.0	Upgrade CFM 1.0.0 to CFM 1.1.0	Upgrade CFM 1.0.1 to CFM 1.1.0	Upgrade CFM 1.0.0 to CFM 1.1.0	Upgrade CFM 1.0.1 to CFM 1.1.0	Upgrade CFM 1.0.0 to CFM 1.1.0	Upgrade CFM 1.0.1 to CFM 1.1.0
Step 2.	Install CFM 2.x on CDP Private Cloud Base 7.1.1 - 7.1.8		Upgrade CDH 6 to CDP Private Cloud Base 7.1.7, 7.1.7 SP1 or 7.1.7 SP2		Upgrade CDH/CM 5.0-5.12 to CDH/CM 5.13 or higher. See also the Cloudera Enterprise Upgrade Guide.		Upgrade CFM 1.1.0 to CFM 2.x	
Step 3.	Migrate data from CFM 1.x to CFM 2.x		Upgrade from CFM 1.1.0 to CFM 2.x		Upgrade CDH 5.13 or higher to CDP Private Cloud Base 7.1.1 or 7.1.7			
Step 4.					Upgrade CFM 1.1.0 to CFM 2.x			

For an explanation on the differences between upgrade and migration, see CFM upgrade and migration options.

You are using HDF

If you are using HDF and you want to upgrade to CFM, there are specific upgrade paths that you can take. Compare the different upgrade options in the Upgrade and migration paths diagram and see both migration and in-place upgrade processes in the following table:

Table 3: Upgrade procedure options from HDF

	Migration	In-place upgrade
Step 1.	Upgrade HDF to 3.5.x. See also the HDF 3.5.2 Release Notes.	Upgrade HDF to 3.5.2. See also the HDF 3.5.2 Release Notes.

	Migration	In-place upgrade
Step 2.	Install CFM 2.x on CDP Private Cloud Base 7.1.1 - 7.1.8	In-place upgrade HDF 3.5.2 to CFM 2.1.1 on CDP Private Cloud Base 7.1.6 or CFM 2.1.2-2.1.4 on CDP Private Cloud Base 7.1.7.
Step 3.	Migrate data from HDF to CFM	

For an explanation on the differences between in-place upgrade and migration, see CFM upgrade and migration options.

Note: Cloudera recommends migration over in-place upgrade.

CFM upgrade and migration options

There are three methods to change from an older version to CFM 2.x.

Upgrade

Upgrade refers to a full upgrade of CFM on CDP Private Cloud Base without the need of having to migrate data between clusters. For detailed information on performing an upgrade, see Upgrading from CFM 2.x and Upgrading from CFM 1.x.

Possible paths:

- CFM 1.1.0 CFM 2.x
- CFM 2.x CFM 2.x

Migration

Data migration refers to moving existing HDF or CFM 1.x cluster workloads to a new installation of CDP Private Cloud Base. You can move your NiFi dataflows and NiFi Registry versioned flows from an HDF 3.5.x or CFM 1.1.0 (standalone, or on CDH 5 or CDH 6) cluster to a CFM 2.x cluster on CDP Private Cloud Base. It requires that you have both your HDF or CFM 1.1.0 clusters and a CFM 2.x cluster running at the same time. Cloudera recommends migration over in-place upgrade. For detailed information on performing migration, see Migration from HDF 3.5.x or CFM 1.x.

Possible paths:

- HDF 3.5.x CFM 2.x
- CFM 1.1.0 CFM 2.x

In-place upgrade

This option enables you to install Cloudera Manager when using HDF and allows Cloudera Manager to take over the management of your services. You can convert your existing Ambari blueprint to a Cloudera Manager Deployment template using the AM2CM tool. Cloudera recommends migration over in-place upgrade. If you have a version of HDF lower than 3.5.2.0, first upgrade to HDF 3.5.2.0 and then upgrade HDF to CFM 2.1.1-2.1.4 on CDP Private Cloud Base 7.1.6 or 7.1.7. For detailed information on performing an in-place upgrade, see In-place upgrade from HDF 3.5.x.

Possible paths:

- HDF 3.5.2.0 CFM 2.1.1 on CDP 7.1.6
- HDF 3.5.2.0 CFM 2.1.1-2.1.5 on CDP 7.1.7

Related Information

Use case examples on how to migrate flows from HDF to CFM with no downtime

No Data Loss and No Service Interruption -- HDF to CFM Rolling Migration

Supported CDP Private Cloud Base in-place upgrade paths

Upgrading to CFM 2.1.7 from CFM 2.1.6

This guide outlines the prerequisites and steps for upgrading from Cloudera Flow Management (CFM) 2.1.6 to CFM 2.1.7. If you want to upgrade from other CFM 2.x versions, check the available upgrade paths in Upgrade and migration paths diagram to identify the sequence of intermediate upgrades required to transition from your current CFM version to CFM 2.1.7.

Before you begin

- Review the possible upgrade paths.

  Before starting your CFM upgrade, it is crucial that you review the available upgrade paths to ensure that you are performing the right upgrade for your use case.

  If you want to use CFM 2.1.7, you have the following options:

  - Upgrade from CFM 2.1.6 on CDP 7.1.7 to CFM 2.1.7 on CDP 7.1.7
  - Upgrade from CFM 2.1.6 on CDP 7.1.8 to CFM 2.1.7 on CDP 7.1.8
  - Upgrade from CFM 2.1.7 on CDP 7.1.7 to CFM 2.1.7 on CDP 7.1.8
  - Upgrade from CFM 2.1.7 on CDP 7.1.8 to CFM 2.1.7 on CDP 7.1.9

  > **Important:** In-place upgrades from CFM 1.x and in-place upgrades from HDF with AM2CM are not supported.

  For an overview of all available paths, see Upgrade and migration paths.
- Upgrade Cloudera Manager and CDP Private Cloud Base, if needed.

  > **Important:**
  >
  > CFM 2.1.7 requires at least CDP 7.1.7.

About this task

To upgrade to CFM 2.1.7 from an earlier version of CFM on CDP Private Cloud Base, you must stop the CFM services, update the CSD files, restart the SCM Server, activate the new CFM parcel, and then restart your CFM services.

Procedure

1. Stop the NiFi and NiFi Registry services, in this order.
2. Delete the old CSD files.
3. Download the new CSD files.

   The default CSD location is /opt/cloudera/csd, but you can configure that location from Cloudera Manager Administration | Settings | Local Descriptor Repository Path.

   Ensure that you maintain the appropriate file ownership and access attributes and SELinux permissions if needed.
4. Download the new CFM parcel and .sha checksums file appropriate for your operating system.

   The default parcel location is /opt/cloudera/parcel-repo/.

   Ensure that you maintain the appropriate file ownership and access attributes and SELinux permissions if needed.
5. Restart the cloudera-scm-server service:

   ```
   service cloudera-scm-server restart
   ```
6. In Cloudera Manager, from the **Parcels** page, distribute and activate the CFM 2.1.7 parcel.

   After clicking Activate, the Activate CFM <version> on <cluster-name> pop-up displays. Click Activate Only, and then OK.

7. Restart Cloudera Management Service.

8. Restart NiFi and NiFi Registry and deploy the client configurations.

9. Optionally, to clean up, remove the previous parcels from the host.

    a) From the Parcel menu, go to the older CFM parcel.

    b) Select Remove From Host.

    c) Select Delete.

10. From the Ranger UI, NiFi service controller policy:

    a) Add the nifi user to the policy with READ permissions.

    b) Verify the nifi group is set in the policy.