

## Non-Cloudera ADLS to Cloudera ADLS

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# Contents

<b>ReadyFlow overview: Non-CDP ADLS to CDP ADLS.....</b>	<b>4</b>
<b>Prerequisites.....</b>	<b>4</b>
<b>Required parameters.....</b>	<b>6</b>

## ReadyFlow overview: Non-CDP ADLS to CDP ADLS

You can use the Non-CDP ADLS to ADLS ReadyFlow to move data between a non-Cloudera managed source ADLS location and a Cloudera managed destination ADLS location.

This ReadyFlow consumes files from an external source Azure Data Lake Service (ADLS) location and writes them to the destination Cloudera managed ADLS location. You can specify the source and target locations. The ReadyFlow polls the source container for new files by periodically listing its content.



**Note:** This ReadyFlow leverages Cloudera on cloud's centralized access control for cloud storage access. Make sure to either set up Ranger policies or an IDBroker mapping allowing your workload user access to the target S3 or ADLS location.

Non-CDP ADLS to CDP ADLS ReadyFlow details	
Source	External ADLS
Source Format	Any
Destination	Cloudera managed ADLS
Destination Format	Same as source

## Prerequisites

Learn how to collect the information you need to deploy the Non-CDP ADLS to CDP ADLS ReadyFlow, and meet other prerequisites.

### For your data ingest source

- You have the source ADLS file system/container name, path, and storage account name and key.
- You have access to the source ADLS directory.

### For Cloudera Data Flow

- You have enabled Cloudera Data Flow for an environment.

For information on how to enable Cloudera Data Flow for an environment, see [Enabling Cloudera Data Flow for an Environment](#).

- You have created a Machine User to use as the Cloudera Workload User.
- You have given the Cloudera Workload User the EnvironmentUser role.

1. From the Management Console, go to the environment for which Cloudera Data Flow is enabled.
2. From the Actions drop down, click Manage Access.
3. Identify the user you want to use as a Workload User.




**Note:**


The Cloudera Workload User can be a machine user or your own user name. It is best practice to create a dedicated Machine user for this.

4. Give that user EnvironmentUser role.
- You have synchronized your user to the Cloudera on cloud environment that you enabled for Cloudera Data Flow.

For information on how to synchronize your user to FreeIPA, see [Performing User Sync](#).

- You have granted your Cloudera user the DFCatalogAdmin and DFFlowAdmin roles to enable your user to add the ReadyFlow to the Catalog and deploy the flow definition.
  1. Give a user permission to add the ReadyFlow to the Catalog.
    - a. From the Management Console, click User Management.
    - b. Enter the name of the user or group you wish to authorize in the Search field.
    - c. Select the user or group from the list that displays.
    - d. Click Roles Update Roles .
    - e. From Update Roles, select DFCatalogAdmin and click Update.



**Note:** If the ReadyFlow is already in the Catalog, then you can give your user just the DFCatalogViewer role.
  2. Give your user or group permission to deploy flow definitions.
    - a. From the Management Console, click Environments to display the Environment List page.
    - b. Select the environment to which you want your user or group to deploy flow definitions.
    - c. Click Actions Manage Access to display the Environment Access page.
    - d. Enter the name of your user or group you wish to authorize in the Search field.
    - e. Select your user or group and click Update Roles.
    - f. Select DFFlowAdmin from the list of roles.
    - g. Click Update Roles.
  3. Give your user or group access to the Project where the ReadyFlow will be deployed.
    - a. Go to DataFlow Projects .
    - b. Select the project where you want to manage access rights and click  More Manage Access .
  4. Start typing the name of the user or group you want to add and select them from the list.
  5. Select the Resource Roles you want to grant.
  6. Click Update Roles.
  7. Click Synchronize Users.

### For your data ingest target

- You have the destination ADLS file system/container name, path, and storage account name.

- You have performed one of the following to configure access to the destination ADLS folder:
  - You have configured access to the ADLS folders with a RAZ enabled environment.

It is a best practice to enable RAZ to control access to your object store folders. This allows you to use your Cloudera on cloud credentials to access ADLS folders, increases auditability, and makes object store data ingest workflows portable across cloud providers.

- Ensure that Fine-grained access control is enabled for your Cloudera Data Flow environment.
- From the Ranger UI, navigate to the ADLS repository.
- Create a policy to govern access to the ADLS container and path used in your ingest workflow. For example: adls-to-adls-avro-ingest



**Tip:** The Path field must begin with a forward slash ( / ).

- Add the machine user that you have created for your ingest workflow to ingest the policy you just created.

For more information, see *Ranger policies for RAZ-enabled Azure environment*.

- You have configured access to ADLS folders using ID Broker mapping.

If your environment is not RAZ-enabled, you can configure access to ADLS folders using ID Broker mapping.

- Access IDBroker mappings.
  - To access IDBroker mappings in your environment, click **Actions Manage Access**.
  - Choose the IDBroker Mappings tab where you can provide mappings for users or groups and click **Edit**.
- Add your Cloudera Workload User and the corresponding Azure role that provides write access to your folder in ADLS to the Current Mappings section by clicking the blue + sign.



**Note:** You can get the Azure Managed Identity Resource ID from the Azure Portal by navigating to **Managed Identities Your Managed Identity Properties Resource ID**. The selected Azure MSI role must have a trust policy allowing IDBroker to assume this role.

- Click **Save and Sync**.

### Related Concepts

[Required parameters](#)

## Required parameters

When deploying the Non-Cloudera ADLS to Cloudera ADLS ReadyFlow, you have to provide the following parameters. Use the information you collected in *Prerequisites*.

You have to provide the following parameters during Non-Cloudera ADLS to Cloudera ADLS ReadyFlow deployment. For more information, see *Deploying a ReadyFlow*.

**Table 1: Non-Cloudera ADLS to Cloudera ADLS ReadyFlow configuration parameters**

Parameter Name	Description
CDP Workload User	Specify the Cloudera machine user or workload username that you want to use to authenticate to the destination object store. Ensure this user has the appropriate access rights to the destination object store locations in Ranger or IDBroker.
CDP Workload User Password	Specify the password of the Cloudera machine user or workload user you are using to authenticate against the destination object stores (via IDBroker).
Destination ADLS File System	Specify the file system name you want to write to.  The full path will be constructed from:  abfs://#{Destination ADLS File System}@#{Destination ADLS Storage Account}.dfs.core.windows.net/#{Destination ADLS Path}

Parameter Name	Description
Destination ADLS Path	<p>Specify the path within the ADLS data container where you want to write to. Make sure that the path starts with "/".</p> <p>The full path will be constructed from:</p> <p>abfs://#{Destination ADLS File System}@#{Destination ADLS Storage Account}.dfs.core.windows.net/#{Destination ADLS Path}</p>
Destination ADLS Storage Account	<p>Specify the storage account name you want to write to.</p> <p>The full path will be constructed from:</p> <p>abfs://#{Destination ADLS File System}@#{Destination ADLS Storage Account}.dfs.core.windows.net/#{Destination ADLS Path}</p>
Source ADLS File System	Specify the name of the source ADLS file system also known as container.
Source ADLS Path	Specify the name of the ADLS path you want to read from.
Source ADLS Storage Account Key	Specify the source ADLS storage account key.
Source ADLS Storage Account Name	Specify the source ADLS storage account name.

### Related Concepts

[Prerequisites](#)

### Related Information

[Deploying a ReadyFlow](#)