Cloudera Flow Management 4.10.0

Managing NiFi in Cloudera Manager

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Using the Actions menu

You can manage the NiFi service in Cloudera Manager on Cloudera Base on premises using the Actions menu available on the service page. This menu provides a list of commands relevant to the role type you are viewing. These commands typically include stopping, starting, or restarting the instance, and may include additional commands depending on your role.

About this task

Follow these steps to access the Actions menu.

Procedure

1. From Cloudera Manager, click the Clusters tab in the left-hand navigation.
2. Click NiFi in the list of services to display the NiFi service page.
3. Click the Actions drop-down next to the service name.

   The following commands are available:

   Start

   This action starts the NiFi service.

   Restart

   This action runs two other actions, ‘Stop NiFi’ and ‘Start NiFi’, one after another.

   Rolling Restart

   This action consists of three actions, and it runs a specific restart of the NiFi service. The Rolling restart action first runs ‘Stop NiFi’, then it runs ‘Start NiFi’, and finally it runs ‘NifiNodeWaitUntilHealthy’. The goal of the last action is to wait until the NiFi service is started and works correctly. It is needed in the rolling restart because the ‘Start NiFi’ action just runs the start NiFi service command and does not wait until the NiFi service actually starts and also does not check if the service works correctly.

   Migrate File-based Authorizations to Ranger

   This action migrates policies from authorizations.xml to Ranger. For more information, see *Migrating NiFi File-Based authorization to Ranger*.

   Create required NiFi objects

   This action calls the CreateRequiredNiFiObjects.sh script, which is used to create NiFi objects like: ReportLineageToAtlas, StandardRestrictedSSLContextService, or MonitorDiskUsage. This script also adds component policies to Ranger, which are described in the ranger-component-policies.xml file. The action is automatically executed after the first NiFi start. If needed, you can rerun it later manually.

   Remove Ranger repository

   This action removes the related NiFi repository/service from Ranger.

   

   Important: Use this action with caution as it causes NiFi to fail. If you ran the command accidentally, 1. stop NiFi, 2. create a marker file, and 3. start NiFi again. After completing these actions, Ranger NiFi repository/service, all related policies, and all NiFi objects will be created/added.

   Reset File-based Authorizer Users and Policies

   This action automatically removes the users.xml and authorizations.xml configuration files on each host with NiFi. It also creates backups of these two configurations in the same directory, but with

the file names changed (users.xml{current-date}, authorizations.xml{current-date}). This action helps you to regenerate users.xml and authorizations.xml config files on all NiFi hosts.

Create Marker File

This action creates the /var/lib/nifi/marker.txt file on a random NiFi host. You need this file to understand exactly which NiFi instance should create a NiFi Ranger repository/service and basic policies during the NiFi start. Without this file, Ranger repository/service is not created and NiFi service fails. The action runs before 'Start NiFI' only during the first NiFi start (after installation).

Create First Run File

This action creates the /var/lib/nifi/first_run.txt file on all NiFi hosts. You can use this file to check whether it is the first start of NiFi. For example during the NiFi start process (controller.sh), it is checked that it is not the first start of NiFi and groups are updated for some policies in the NiFi Ranger repository/service, if needed. After the /var/lib/nifi/first_run.txt file is created, it is removed automatically.

Run Post Upgrade Changes

This action runs the run_post_upgrade_changes.sh script. This script adds the required changes for a new Cloudera Flow Management version after an upgrade. It also automatically runs during the first run after an upgrade, if the Cloudera Flow Management version has changed.

Important: Do not execute this action manually, only in specific cases when you need to fix things in the scope of run_post_upgrade_changes.sh.

Wait until the NiFi Node is healthy

This action runs the 'nifi_wait_until_healthy' script, and the system waits until the NiFi service is started and works correctly.

Stop

This action stops the NiFi service.

Related Information

Migrating NiFi File-Based authorization to Ranger

Managing NiFi nodes

Cloudera Manager helps you to handle NiFi clusters within the Cloudera Base on premises environment. It simplifies the process of adding and removing NiFi nodes, providing a centralized and real-time view of the instances across your cluster. Through the Admin Console, you have access to a single, unified platform to facilitate configuration changes and streamline cluster management.

Adding a NiFi node

Follow these steps to add a NiFi node to your cluster.

About this task

The new NiFi node(s) will be added to your cluster. You should now be able to use the new instance seamlessly.

Procedure

1. Go to your cluster’s homepage on the Cloudera Manager UI.
2. Open the NiFi service page by clicking NiFi in the list of services.
3. Click Instances.

4. Click Add Role Instance to initiate the process of adding a NiFi node.
   The Assign Roles page is displayed.
5. Assign the NiFi roles to the relevant hosts and click Continueto proceed.
   The Review Change page is displayed allowing you to verify the configurations and assignments.
6. If needed, update the NiFi properties according to your specific requirements.
7. Click Finish to finalize the configuration process.
8. Click Actions Restart to restart the cluster.

Results

The new NiFi node(s) will be added to your cluster. You should now be able to use the new instance seamlessly.

Removing a NiFi node

Follow these steps to remove a NiFi node from your cluster.

About this task

After successful completion, the NiFi node will be removed from your cluster, and everything should continue to function correctly without the instance you removed.

Procedure

1. Go to your cluster's homepage on the Cloudera Manager UI.
2. Open the NiFi service page by clicking NiFi in the list of services.
3. Click Instances.
4. Select the NiFi Roles associated with the node you wish to remove.
5. Click Actions for selected Decommission to initiate the decommissioning process.
6. Once decommissioning is successfully completed, click Actions for selected once more and select Delete to remove the decommissioned roles.
7. Click Actions Restart to restart the cluster.

Results

After successful completion, the NiFi node will be removed from your cluster, and everything should continue to function correctly without the instance you removed.