New UI for adding a Cloudera Private Cloud Base cluster for use in Cloudera Replication Manager and Cloudera Data Catalog (Preview)

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Summary

Register a Cloudera Private Cloud Base cluster as a classic cluster using Cloudera Manager and Knox endpoints so that you can use this cluster in Cloudera Replication Manager and Cloudera Data Catalog services.

Before you begin

All the clusters must meet the requirements identified in Prerequisites for adding classic clusters.

Additionally, ensure that the following components and roles are available:

- The Cloudera Private Cloud Base cluster has an active Knox service.
- You can proxy to Cloudera Manager through Knox for communication purposes. For more information, see Proxy Cloudera Manager through Apache Knox.
- LDAP is configured in the Cloudera Manager of Cloudera Private Cloud Base cluster. For more information, see Configure authentication using an LDAP-compliant identity service.
- A minimum of one LDAP user with the Full Administrator role.

Note: A multi-cluster scenario is not supported by the Cloudera Data Catalog use case. It is only supported by the Cloudera Replication Manager use case.

Important: Cloudera Private Cloud Base clusters can be used in Cloudera Data Catalog by registering them using Cloudera Manager and Knox endpoints. Note that this is a technical preview feature and is under development. Do not use this in your production environment. If you have feedback, contact Support by logging a case on the Cloudera Support Portal at https://my.cloudera.com/support.html. Technical preview features are not guaranteed troubleshooting and fixes.

Steps

1. Log in to Cloudera Management Console.
2. Click Classic Clusters.
3. On the *Classic Clusters* page, click ADD CLUSTER.
4. In the Add Cluster dialog box, navigate to the Cloudera Private Cloud Base tab and enter the following details:
    a. If your cluster is not reachable by a public network, click “My cluster is accessible only in my private network”.

   b. Cloudera Manager IP address - Enter the IP address of the Cloudera Manager of the Cloudera Private Cloud Base cluster. The Management Console uses this IP address to identify the cluster for registration purposes.
   c. Cloudera Manager Port - Enter the port of the Cloudera Manager of the Cloudera Private Cloud Base cluster.
   d. Data center - Enter a unique datacenter name for the Cloudera Private Cloud Base cluster.
   e. Select the My cluster runs on HTTPS option if the Cloudera Private Cloud Base cluster uses HTTPS.
   f. Select the Register KNOX endpoint (Optional) option.
   g. KNOX IP Address - Enter the IP address of the Knox host for the Cloudera Private Cloud Base cluster.
   h. KNOX Port - Enter the port for the Knox service.
   i. Click CONNECT.
5. The Cloudera Management Console acquires the configuration details from Cluster Connectivity Manager (CCM) service. After Cloudera successfully connects to your new cluster (which should take no more than 5 minutes), it will highlight Step 2.
6. On the Classic Clusters page, click Files in the *Step 2* pane.
7. Follow the instructions in the *Setup Connectivity Client* dialog box. You need to download the jumpgate-agentrpm file and the cluster_connectivity_setup_files zip file onto Cloudera Manager host in your new cluster:
   a. In the command line interface, copy the RPM and ZIP files to the Cloudera Manager host.
   b. SSH to the Cloudera Manager host.
   c. Install the jumpgate-agent rpm using yum --nogpgcheck localinstall < downloaded-jumpgate-agent-rpm >
   d. Unzip the cluster_connectivity_setup_files file. Inside this zip file there is a script install.sh.
   e. Run install.sh by using ./install.sh command.
   f. Check service status to see if the agent has been connected: systemctl status jumpgate-agent.service

   Note: If you regenerate the script files, you cannot use the previously downloaded cluster_connectivity_setup_files.zip file because the file is no longer valid.

8. On the *Classic Clusters* page, click Test Connection in the *Step 2* pane to verify whether the connection is successful.
9. On the *Classic Clusters* page, click Register in the *Step 3* pane.
10. In the *Cluster Details* dialog box, enter the Cloudera Manager credentials that have Admin access to Cloudera Manager and the cluster services.
11. Click CONNECT.

12. To complete the registration, enter the following details on the *Classic Clusters* page:
    a. Cluster Location - Enter the geographical location of the Data Lake.
    b. Data Center - Ensure that the data center name is the name that you provided for Cloudera Private Cloud Base cluster during registration.
    c. Tags - Optionally, enter the tags for the cluster, if any.
    d. Description - Optionally, enter a description.
    e. In the **Knox Topology Configuration** section, you have two options: automatic deployment or manual deployment.
       If you choose automatic deployment**,** simply provide Knox username and password and the token topology and gateway topology will be added automatically after clicking the Add button.
       If you prefer not to provide Knox credentials, choose manual deployment and following the steps below:
        i. Click **Add** to proceed and on the next page.
        ii. Click on **Download Topology File** and a pop-up window appears.
        iii. Download the cdp-token file onto your computer.
        iv. Copy the downloaded file to the /var/lib/knox/gateway/conf/toppologies folder on the Knox host of the Cloudera Private Cloud Base cluster that you are registering.
        v. Manually create the cdp_default.xml gateway topology file with required services. The cdp_defaul.xml file should include CM-API, CM-UI, ATLAS, ATLAS-API, RANGERUI, and RANGER services. For instructions, see Configuring Apache Knox Gateway UI.

           Note: If there are policies that restrict access through Knox, then add the topology name to the cdp_default Ranger policy so that the Ranger policies can communicate through Knox.

        vi. Once done click **Close.**
        vii. Click **Test Connection** to verify the connection.
        viii. If the connection was successful, the registration status changes to *Completed*.
13. Once the cluster has been successfully registered, its status on the summary page changes to *Active*. If you click on cluster details, its connectivity status is *Reachable*.

Result

You can use the registered classic cluster in Cloudera Replication Manager and Cloudera Data Catalog services.