Registering Classic Clusters with CCMv2 (Preview)

Date published: 2021-08-10
Date modified: 2021-08-10

Legal Notice

Contents

Prerequisites for adding classic clusters

Make sure that you verify the version requirements of your classic clusters and install or configure all of the classic cluster requirements before you try to add or register them to CDP.

Required roles

You need to have the PowerUser role to register classic clusters.

Check the version compatibility

Make sure that the following version requirements are met.

- For adding HDP clusters:
  - HDP - HDP 2.6.5.50000 plus any required patch version
  - DLM Engine version - 1.7.0.0-x
  - Ambari - 2.7.3 or 2.6.2.2 or 2.6.2
- For adding CDH clusters:
  - CDH - 5.x or 6.x
  - Cloudera Manager - 5.x or 6.x
- For adding CDP Private Cloud Base clusters:
  - CDP Private Cloud Base 7.1.4 or later, and its respective Cloudera Manager version; For example, CDP Private Cloud Base 7.1.6 uses Cloudera Manager 7.3.1.

For more information about support for databases, operating systems, and processors, see the Cloudera Support Matrix.

Verify that the required roles are assigned

- Make sure that the user can log in as the admin user to Ambari in the HDP cluster.
- Make sure the user can log in as the admin user to Cloudera Manager in the CDH cluster or the CDP Private Cloud Base cluster.

Install the required components

HDP

- Make sure that Ambari Metrics is installed in Ambari in the HDP clusters.
- Make sure that Ambari is configured with LDAP.

- Make sure that Knox is installed and the default topology is configured with LDAP.
  Note: Knox does not need to be used by other services in the cluster; It is only required for CDP communication.
- Make sure that there is at least one topology in the Knox setup with the same LDAP as Ambari.
- If there are policies restricting access through Knox, make sure that Ranger policies allow communication through Knox.
- Make sure that the cluster is configured with Kerberos.
- Make sure that the user credential used for registering the classic cluster is a valid LDAP user with an admin role in Ambari.

CDH

- Make sure that Metrics Server is installed in Cloudera Manager in the CDH clusters.

CDP Private Cloud Base

- Make sure that the Metrics Server is installed in Cloudera Manager on the CDP Private Cloud Base cluster.

Open ports for CCMv2

If you would like to use Cluster Connectivity Manager v2 (CCMv2), ensure that outgoing traffic is allowed on the port 443 on the legacy CDH, HDP, or CDP Private Cloud Base cluster.

After making sure that your clusters meet all the requirements, you can add your CDH, HDP, and CDP Private Cloud Base clusters to CDP.

Related information

- Using classic clusters with a non-transparent proxy

Adding an HDP cluster

You must register HDP clusters with CDP before you can use them with CDP Public Cloud services and components.

Context

To ensure optimum security, clusters within the customer environment are not accessible for communication: They have private IP addresses and cannot be accessed outside the firewall. To add your cluster to CDP, a communication line needs to be established.

The CCM inverted proxy solves the problem by establishing a connection from the on-prem cluster to CDP. You must download and install the jumpgate agent and the connectivity install scripts to establish a secure two-way communication channel. The jumpgate agent ensures that the connectivity is stable. The connectivity scripts and their installation ensure safe connectivity and communication.

Before you begin

- HDP clusters must be managed by Ambari. HDP clusters that are not managed by Ambari cannot be registered to CDP.
- HDP clusters must include Knox.
- HDP clusters must include Ranger policy settings
- LDAP/AD must be set up and synced in Ambari.
  LDAP settings are automatically detected from the default topology setup in Knox. If the default topology does not have the LDAP setup, you will be asked to provide another topology name where you have configured the LDAP. If that topology has LDAP, the setup continues. If the LDAP is not configured, you will receive an error message.
- Kerberos must be enabled on the HDP cluster and the LDAP/AD must be set up in the Kerberos authentication so that the same set of LDAP/AD credentials can be used to access Ambari APIs as well as Beacon APIs.
- All clusters must meet the requirements identified in Prerequisites for adding classic clusters.

Caution: After you register an HDP cluster in CDP, do not change the cluster name in Ambari. A cluster name change in Ambari does not currently propagate to CDP, which can result in issues when using the HDP cluster with CDP clusters and components.

Caution: The jumphost and connectivity-install scripts files must be stored in a secure environment.

Steps

The process to register an HDP cluster is as follows:

1) Log in to CDP and navigate to the **Management Console**.
2) Click **Classic Clusters** in the left navigation panel.
3) Click **Add Cluster**.
   CDP displays the *Cluster Details* dialog box.
4) If you are a first time user, under *Step 1* in the *Register Classic Cluster* wizard, click **GET STARTED**. If you are not a first time user, click the **ADD CLUSTER** button on the right side of the listing page.
   CDP displays the *Cluster Details* dialog box.

5) Select **HDP**.
6) Provide the following connectivity information for your new cluster:

a) **Knox IP Address**
b) **Knox port**
c) **Data center**
d) Click **CONNECT**

Step 1 might take up to 5 minutes if you are adding the cluster for the first time. After Classic Cluster establishes connection, CDP will highlight *Step 2* in the *Register Classic Cluster* wizard.

7) Start the download and installation process for the connectivity files by clicking the **Files** button in *Step 2* of the wizard.
8) Follow the instructions in the *Setup Connectivity Client* dialog box. You need to download the `jumpgate-agent` rpm file and the `cluster_connectivity_setup_files` zip files and copy them to your Knox node. Or if your Knox is running in HA mode, you need to copy the files to the Knox proxy host in the cluster:
    a) Download the `jumpgate-agent` RPM and `cluster_connectivity_setup_files.zip`.
    b) In the command line interface, copy the two files to the Knox or Knox proxy host.
    c) SSH to the host.
    d) Install the `jumpgate-agent` rpm using:

```
yum --nogpgcheck localinstall <
downloaded-jumpgate-agent-rpm >
```

    e) Unzip the `cluster_connectivity_setup_files` file. Inside this zip file there is a script `install.sh`.
    f) Run `install.sh` by using `./install.sh` command.
    g) Check service status to see if the agent has been connected:

```
systemctl status jumpgate-agent.service
```

9) Enter the following information as the install script prompts for it:
    a) **Enter Ambari URL (http(s)://host:[port]):**
    b) **Enter Ambari Username:**
    c) **Enter Ambari Password:**
10) If Knox is **not** installed on a proxy server, proceed to Step 12.
    Classic Cluster sets up the topology for the Knox server and establishes the connection.
11) If Knox is installed on a proxy server, Classic Cluster displays the following message:
    We discovered that your Knox is installed in HA mode. Please confirm if this node is your proxy node (yes/no):
    Enter **yes**.

Classic Cluster generates XML content that you will need to add to your Knox hosts.
Classic Cluster also displays three steps you must perform on all of your Knox hosts:

a) Copy the generated XML to `/usr/hdp/current/knox-server/conf/topologies/cdp_default.xml`
b) Run `chown knox:knox cdp_default.xml`
c) Check the Knox logs/deployment directory to verify that the cdp_default topology is deployed.
d) After you have completed steps a through c on all of your Knox hosts, type **Enter** to continue.
This sets up the topology for the Knox server or Knox proxy host and establishes the connection.

12) On the Classic Clusters page, click **Test Connection** in the *Step 2* pane to verify whether the connection is successful.
13) CDP starts checking the connectivity with the HDP cluster. When the connectivity is successful, proceed to *Step 3* in the wizard.
If the connection attempts fail or if there is an error in the connectivity,CDP displays troubleshooting information in *Step 2* of the registration wizard. Follow the troubleshooting information to fix the connectivity error, then click **Test connection**.

Note: After you download the files, the cluster_connectivity_setup files download is disabled. At this point, you can regenerate the cluster connectivity setup files using the regenerate files option. This option comes in handy if you lose the files previously downloaded before you can set the cluster connectivity in the cluster.

14) Click **Register** in *Step 3* of the registration wizard.
15) In the *Cluster Details* dialog box, provide the username and password to access the cluster, then click **CONNECT**.
The user should have admin access to the cluster services.
16) Finish registering the cluster by providing the following information.
    a) **Cluster Location**
    b) **Data Center**
    c) **Tags (optional)**
    d) **Description (optional)**

If LDAP is not set up on the default topology, the system will ask for the following additional information:
Enter knox topology name that contains LDAP setup.

17) Click **ADD**.

Adding a CDH cluster

You must register CDH clusters in CDP before you can use them with CDP Public Cloud services and components.

Context

To ensure optimal security, clusters within the customer environment are not accessible for communication; They have private IP addresses and cannot be accessed outside the firewall. To add your cluster to the CDP, a communication line needs to be established.

The CCM inverted proxy solves the problem by establishing a connection from the on-prem cluster to CDP. You must download and install the jumpgate agent and the connectivity install scripts to establish a secure two-way communication channel. The jumpgate agent ensures that the connectivity is stable. The connectivity scripts and their installation ensure safe connectivity and communication.

The high-level steps to register a CDH cluster using CCM are as follows:

1. In the CDP Management Console, you enter the private IP address of your cluster and provide the cluster details.
2. You download the jumpgate agent rpm from the specified location and the connectivity installation scripts from CDP on to the cluster.
3. You install jumpgate agent on the cluster.
4. You register the cluster for performing further operations.

Detailed steps are provided below.

Before you begin

- CDH clusters must have been created using Cloudera Manager. Clusters that are not managed by Cloudera Manager cannot be registered to CDP.
- All clusters must meet the requirements identified in Prerequisites for adding classic clusters.

Caution: After you register a CDH cluster in CDP, do not change the cluster name in Cloudera Manager. A cluster name change in Cloudera Manager does not currently propagate to CDP, which can result in issues when using the CDH cluster with CDP clusters and components.

Caution: The jumpgate agent and connectivity-install scripts files must be stored in a secure location.

Steps

Perform the following steps to add a CDH cluster:

1. Log in to CDP and navigate to the **Management Console**.
2. Click **Classic Clusters** in the left navigation panel.
3. Click **Add Cluster**.
   CDP displays the *Cluster Details* dialog box.
4. Click **CDH**.
5. Provide the connectivity information for your new cluster:

   Note: Make sure that the Data Center name is different from the Data Center names that have already been registered. If the Data Center name exists, make sure that the combination of the Data Center name and the cluster name is unique. Else, you may get an error when you try to add a cluster with an existing Data Center-cluster name combination.

   a. **Cloudera Manger IP address**
   b. **Cloudera Manager Port**
   c. **Data center**
   d. Select the **My cluster runs on HTTPS** option if the CDH cluster uses HTTPS.

   Step 1 might take up to five minutes if you are adding the cluster for the first time. After Step 1 is complete, CDP will highlight Step 2.

6. Start the download and installation process for the connectivity files by clicking the **Files** button in the *Step 2* pane.
7. Follow the instructions in the *Setup Connectivity Client* dialog box. You need to download the `jumpgate-agent` rpm file and the `cluster_connectivity_setup_files zip` file onto Cloudera Manager host in your new cluster:
   a. Download the `jumpgate-agent` RPM and `cluster_connectivity_setup_files.`
   b. In the command line interface, copy the two files to the Cloudera Manager host.
   c. SSH to the Cloudera Manager host.
   d. Install the `jumpgate-agent` rpm using:

      ```
      yum --nogpgcheck localinstall <
      downloaded-jumpgate-agent-rpm >
      ```

   e. Unzip the `cluster_connectivity_setup_files` file. Inside this zip file there is a script `install.sh`.
   f. Run `install.sh` by using `./install.sh` command.
   g. Check service status to see if the agent has been connected:

      ```
      systemctl status jumpgate-agent.service
      ```

On the *Classic Clusters* page, click **Test Connection** in the Step 2 pane to verify whether the connection is successful.
After CDP successfully connects to your new cluster, it will highlight *Step 2*. the connectivity with the cluster. When the connectivity is successful, proceed to *Step 3* in the UI.
If the connection attempts fail or if there is an error in the connectivity, CDP displays troubleshooting information in the *Step 2* pane. Follow the troubleshooting information to fix the connectivity error, then click **Test connection**.

Note: After you download the files, the cluster_connectivity_setup file download is disabled. At this point, you can regenerate the cluster connectivity setup files using the regenerate files option. This option comes in handy if you lose the files previously downloaded before you can set the cluster connectivity in the cluster.

8. Click **Register** in the *Step 3* pane.
9. Provide the username and password of the Cloudera Manager user to access the cluster.
10. Finishing registering the cluster by providing the following information:
    a. **Cluster Location**
    b. **Data Center**
    c. **Tags (optional)**
    d. **Description (optional)**
11. Click **Submit**.

Adding a CDP Private Cloud Base cluster

You must register CDP Private Cloud Base clusters with CDP before you can use them with CDP Public Cloud services and components.

Context

To ensure optimum security, clusters within the customer environment are not accessible for communication: They have private IP addresses and cannot be accessed outside the firewall. To add your cluster to the CDP, a communication line needs to be established.

The CCM inverted proxy solves the problem by establishing a connection from the on-prem cluster to CDP. You must download and install the jumpgate agent and the connectivity install scripts to establish a secure two-way communication channel. The jumpgate agent ensures that the connectivity is stable. The connectivity scripts and their installation ensure safe connectivity and communication.

Note: The jumphost and connectivity-install scripts files must be stored in a secure environment.

To register the CDP Private Cloud Base cluster as a classic cluster, you enter the CDP Private Cloud Base cluster details. The Management Console acquires the configuration details from Cluster Connectivity Manager (CCM) service and saves it as ZIP files. You download the ZIP files, install the acquired configurations, and then register the CDP Private Cloud Base cluster as a classic cluster.

Note: After you register a CDP Private Cloud Base cluster in CDP, do not change the cluster name in Cloudera Manager. A cluster name change in Cloudera Manager does not currently propagate to CDP, which can result in issues when using clusters with CDP clusters and components.

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

You have two options for registering your CDP Private Cloud Base cluster:

- If you would like to use the CDP Private Cloud Base cluster with Replication Manager, register the cluster using Cloudera Manager.
- If you would like to use the CDP Private Cloud Base cluster with Replication Manager and Data Catalog, register the cluster using Cloudera Manager and Knox.

Important: CDP Private Cloud Base clusters can be used in 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.

For CDP Private Cloud Base cluster registration steps in CDP, see the following documentation:

Adding CDP Private Cloud Base cluster for use in Replication Manager

Register a CDP Private Cloud Base cluster as a classic cluster using Cloudera Manager so that you can use this cluster as a source cluster in Replication Manager.

Before you begin

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

Steps

1. Log in to CDP **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 **CDP 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 CDP 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 CDP Private Cloud Base cluster.
    d. **Data center** - Enter a unique data center name for the CDP Private Cloud Base cluster.
    e. Select the **My cluster runs on HTTPS** option if the CDP Private Cloud Base cluster uses HTTPS.
    f. Clear the **Register KNOX endpoint** (Optional) option, if selected.
    g. Click **CONNECT**.

    The Management Console acquires the configuration details from Cluster Connectivity Manager (CCM) service. After CDP successfully connects to your new cluster (which should take no more than 5 minutes), it will highlight Step 2.

5. On the **Classic Clusters** page, click **Files** in the *Step 2* pane.
6. Follow the instructions in the *Setup Connectivity Client* dialog box. You need to download the `jumpgate-agent` rpm 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 `jumpgate-agent` RPM and `cluster_connectivity_setup_files.zip` 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.

7. On the *Classic Clusters* page, click **Test Connection** in the *Step 2* pane to verify whether the connection is successful.
8. Click **Register** in the *Step 3* pane.
9. In the *Cluster Details* dialog box, enter the Cloudera Manager credentials that have Admin access to Cloudera Manager and the cluster services.
10. Click **CONNECT**.
11. 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 CDP Private Cloud Base cluster during registration.
    c. **Tags -** Optionally, enter the tags for the cluster.
    d. **Description -** Optionally, enter a description.
12. Click **Add**.

Result
You can use the registered classic cluster in the Replication Manager.

Adding CDP Private Cloud Base cluster for use in Replication Manager and Data Catalog

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

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 CDP 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 CDP 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.
- An LDAP-based topology cdp_defaul.xml with CM-API, CM-UI, ATLAS, ATLAS-API, RANGERUI, and RANGER services exists. The topology name is used during the classic cluster registration process. For more information, see Using the 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.

Important: CDP Private Cloud Base clusters can be used in 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 CDP **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 **CDP 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 CDP 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 CDP Private Cloud Base cluster.
    d. **Data center -** Enter a unique datacenter name for the CDP Private Cloud Base cluster.
    e. Select the **My cluster runs on HTTPS** option if the CDP 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 CDP Private Cloud Base cluster.
    h. **KNOX Port** - Enter the port for the Knox service.
    i. Click **CONNECT**.

    The Management Console acquires the configuration details from Cluster Connectivity Manager (CCM) service. After CDP successfully connects to your new cluster (which should take no more than 5 minutes), it will highlight Step 2.

5. On the **Classic Clusters** page, click **Files** in the *Step 2* pane.
6. Follow the instructions in the *Setup Connectivity Client* dialog box. You need to download the `jumpgate-agent` rpm 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.

7. On the *Classic Clusters* page, click T**est Connection** in the *Step 2* pane to verify whether the connection is successful.
8. On the *Classic Clusters* page, click **Register** in the *Step 3* pane.
9. In the *Cluster Details* dialog box, enter the Cloudera Manager credentials that have Admin access to Cloudera Manager and the cluster services.
10. Click **CONNECT**.
11. 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 CDP Private Cloud Base cluster during registration.
    c. **Tags -** Optionally, enter the tags for the cluster, if any.
    d. **Description -** Optionally, enter a description.
12. Click **Add**.

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

Using classic clusters with a non-transparent proxy

If your organization has a non-transparent proxy on the CM/Knox node, the following steps must be performed prior to classic cluster registration.

Note: These steps only apply if you have a non-transparent proxy. You do not need to perform them if you have a transparent proxy.

Note: An https proxy is supported only if the certificate is added to the system trust store.

When you register a cluster in CDP as a classic cluster, CDP installs CCM on the CM/Knox node of CDH and HDP clusters to establish connection between the on-premise cluster and CDP, allowing communication with the CDP Control Plane to kick off replication jobs on schedule. To do this, CCM must be able to connect to the outside of the Data Center.

Steps

Create the following file on the Cloudera Manager node (in case of a CDH or CDP Private Cloud Base cluster) or on the Knox node (in case of an HDP cluster):
`/etc/cdp/proxy.env`

The file should include a proxy link. The format of the file should be:
`http_proxy=http://<username>:<password>@<proxy.com>`

- The <username> and <password> should be replaced with an actual username that allows access to the proxy.
- The <proxy.com> should be replaced with the URL of the proxy server.

Once you've performed these steps, you can proceed to registering your cluster in CDP.

Troubleshooting classic clusters

While trying to resume the registration process, you can identify the problem behind the error and fix it.

Issues during registration in CDP

Error or issue details	Resolution
Alert: Registration is pending for a cluster with the same details.	• A cluster with the same IP Address and Data Center cannot be registered again. • Check if you have registered this cluster already. To check this, navigate to the **Classic Clusters** page and search for your cluster. • Check if the IP address is correct. • Provide a different Data Center name.

Cluster side issues

Error or issue details	Resolution
Connection refused even though the systemctl status jumpgate-agent.service shows that the jumpgate agent is running.	Make sure that you copied the right setup files for the cluster or check if the port number `CCM_TUNNEL_SERVICE_PORT` in `cluster_connectivity.conf` is your Cloudera Manager's port number in case of CDH/CDP Private Cloud Base cluster and Knox port number in case of HDP cluster.

Test connection failure	Try the following: ● Check if the jumpgate agent is running: `systemctl status jumpgate-agent.service` ● If the jumpgate agent is not running, start the agent by running the install script. ● If the agent is active, check if the port number entered during registration is correct. ● If the port number is incorrect, delete the registration attempt from the UI, remove all the setup-related files from the cluster node and re-register the cluster with the correct information. ● If the port number is correct, check if outbound connection to the CDP Control Plane is allowed. ○ `cat cluster_connectivity.conf` and collect the `RELAY_SERVER` ○ Check if the `RELAY_SERVER` is reachable from the node: ■ On the node, execute the command nslookup `<RELAY_SERVER>` to check if the `RELAY_SERVER` is reachable from the node. Or execute curl command as mentioned here for connectivity check: `curl https://<RELAY_SEVRER>:443` Or execute telnet command as mentioned here: `telnet <RELAY_SERVER> 443` ■ If this fails, then the traffic to the cloudera network is blocked on the customer's VPC. ■ The customer should check the outbound rules on their VPC to make sure that the traffic to the cloudera network is allowed. ● If the agent is active, check if there are any Ranger policies set up to deny access to the cluster. If such policies exist on the cluster, modify or set up policies to allow access to the cluster `cdp_default topology`

CCM issues

Classic Clusters registration uses CCM, enabled by the installation of the CCM client and secrets on the CM node.

Error or issue details	Resolution
“Unable to identify a backendId for this request. This usually happens if either the backendId is invalid or the agent has not yet connected to the relay server” OR “No route found for backend with id <backend-id>. This usually happens if either the backendId is invalid or the agent has not yet connected to the relay server."	The CCMv2 Network Load Balancers (NLBs) might be unreachable. To verify, execute `cat cluster_connectivity.conf` and collect the `RELAY_SERVER` field’s value and make sure that the RELEY_SERVER on port 443 is reachable from the legacy CDH/HDP master nodes.

Other issues

Error or issue details	Resolution
If **Cluster name** and **Display name** are different, few details are missing from the cluster detail page.	**Cluster name** and **Display name** must be the same.

If registering your cluster for use with Data Catalog, also check the following:

- Check Proxy to Cloudera Manager through Apache Knox is enabled. For more information, see Using the Apache Knox Gateway UI.
- Make sure that you created the `cdp_default` topology on the Knox host with required services and LDAP configuration; it's a prerequisite. For more information, see Using the Apache Knox Gateway UI.