CDP Private Cloud Data Services 1.5.3

CDP Private Cloud Command Line Interface

Date published: 2023-12-16
Date modified: 2024-03-05

CLOUDERA

https://docs.cloudera.com/

Legal Notice

© Cloudera Inc. 2025. All rights reserved.

The documentation is and contains Cloudera proprietary information protected by copyright and other intellectual property rights. No license under copyright or any other intellectual property right is granted herein.

Unless otherwise noted, scripts and sample code are licensed under the Apache License, Version 2.0.

Copyright information for Cloudera software may be found within the documentation accompanying each component in a particular release.

Cloudera software includes software from various open source or other third party projects, and may be released under the Apache Software License 2.0 (“ASLv2”), the Affero General Public License version 3 (AGPLv3), or other license terms. Other software included may be released under the terms of alternative open source licenses. Please review the license and notice files accompanying the software for additional licensing information.

Please visit the Cloudera software product page for more information on Cloudera software. For more information on Cloudera support services, please visit either the Support or Sales page. Feel free to contact us directly to discuss your specific needs.

Cloudera reserves the right to change any products at any time, and without notice. Cloudera assumes no responsibility nor liability arising from the use of products, except as expressly agreed to in writing by Cloudera.

Cloudera, Cloudera Altus, HUE, Impala, Cloudera Impala, and other Cloudera marks are registered or unregistered trademarks in the United States and other countries. All other trademarks are the property of their respective owners.

Disclaimer: EXCEPT AS EXPRESSLY PROVIDED IN A WRITTEN AGREEMENT WITH CLOUDERA, CLOUDERA DOES NOT MAKE NOR GIVE ANY REPRESENTATION, WARRANTY, NOR COVENANT OF ANY KIND, WHETHER EXPRESS OR IMPLIED, IN CONNECTION WITH CLOUDERA TECHNOLOGY OR RELATED SUPPORT PROVIDED IN CONNECTION THEREWITH. CLOUDERA DOES NOT WARRANT THAT CLOUDERA PRODUCTS NOR SOFTWARE WILL OPERATE UNINTERRUPTED NOR THAT IT WILL BE FREE FROM DEFECTS NOR ERRORS, THAT IT WILL PROTECT YOUR DATA FROM LOSS, CORRUPTION NOR UNAVAILABILITY, NOR THAT IT WILL MEET ALL OF CUSTOMER’S BUSINESS REQUIREMENTS. WITHOUT LIMITING THE FOREGOING, AND TO THE MAXIMUM EXTENT PERMITTED BY APPLICABLE LAW, CLOUDERA EXPRESSLY DISCLAIMS ANY AND ALL IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO IMPLIED WARRANTIES OF MERCHANTABILITY, QUALITY, NON-INFRINGEMENT, TITLE, AND FITNESS FOR A PARTICULAR PURPOSE AND ANY REPRESENTATION, WARRANTY, OR COVENANT BASED ON COURSE OF DEALING OR USAGE IN TRADE.

Contents

CDP Private Cloud CLI....4

CLI client setup....4
Installing CDP client....4
Install CDP client on Linux....4
Install CDP client on macOS....5
Install CDP client on Windows....5
Generating an API access key....6
Generate an access key for another user or machine user....7
Configuring CDP client with the API access key....7

Configuring CLI autocomplete....8

CLI reference....9

Accessing CLI help....9

CDP Private Cloud CLI

CDP CLI allows you to manage users, environments and other entities in your Private Cloud deployment.

Related Information

CLI client setup
Generating an API access key
Configuring CDP client with the API access key
Configuring CLI autocomplete
CLI reference
Accessing CLI help

CLI client setup

You must set up the CLI client to use the various available commands. To set up the CDP client, you must install the client, generate an API access key, and configure the client with the access key.

Installing CDP client

You can install the CDP client through pip on Linux, macOS, or Windows. The CDP client works with Python version 3.6 or later.

For current information on changes to the CLI, see the API changelog.

Install CDP client on Linux

Install CDP client on Linux and verify that the CDP CLI client is working.

Procedure

1. To avoid conflicts with older versions of Python or other packages, Cloudera recommends that you install the CDP client in a virtual environment. Use the virtualenv tool to create a virtual environment and install the client.
2. Use pip to install the client on a virtual environment:

```
mkdir ~/cdpclienv
```

```
virtualenv ~/cdpclienv
```

```
source ~/cdpclienv/bin/activate
```

```
~/cdpclienv/bin/pip install cdpcli
```

3. To upgrade the CDP client to the latest version, run the following command:

```
~/cdpclienv/bin/pip install --upgrade cdpcli
```

4. After the client installation process is complete, run the following command to confirm that the CDP client is working:
   - If virtualenv is activated: cdp --version
   - If virtualenv is not activated: ~/cdpclienv/bin/cdp --version

Install CDP client on macOS

The version of Python and pip installed with macOS is older than the one required for the CDP client. You must install the latest version of Python before you install the CDP client.

Install Python on macOS

Install Python on macOS and verify the installation.

Procedure

1. Download and install the latest version of Python for macOS from the Python downloads page.
2. Use the following commands to install pip:

```
$ curl -O https://bootstrap.pypa.io/get-pip.py
```

```
$ python3 get-pip.py --user
```

3. Use the following commands to verify that Python and pip are correctly installed:

```
python3 --version
```

```
pip3 --version
```

Install CDP client after Python on macOS

Install the CDP CLI client and verify the installation.

Procedure

1. Use the following command to install the CDP client:

```
$ pip3 install cdpcli --user
```

2. Check the location of your Python directory that contains the client executable files. For example, for Python 3.6.x the executable files are in the following directory:

```
~/Library/Python/3.6/bin
```

3. Add the Python directory that contains the client executable files to the PATH environment variable.

   For example:

```
echo "~/Library/Python/3.6/bin" | sudo tee -a /etc/paths
```

4. Use the following command to verify that the CDP client is correctly installed:

```
cdp --version
```

   To upgrade the CDP client to the latest version, run the following command:

```
$ pip3 install cdpcli --upgrade --user
```

Install CDP client on Windows

You must install Python and pip before you install the CDP client.

Install Python and pip on Windows

Install Python on Windows verify the installation.

Procedure

1. Download and install the latest version of Python for Windows from the Python downloads page.
2. Add the Python home and scripts directories to the Windows PATH environment variable.

   The Python directory can vary for different versions of Python and different versions of Windows.

   For example, on the Windows 2016 server, the Python 3.6.1 home directory and the scripts directory are in the following locations:

   ```
   C:\Users\Administrator\AppData\Local\Programs\Python\Python36-32\;
   ```

   ```
   C:\Users\Administrator\AppData\Local\Programs\Python\Python36-32\Scripts\;
   ```

Install CDP client after Python on Windows

Install the CDP client and verify if it is working.

Procedure

1. Open a Command Prompt window.
2. Use the following commands to verify that Python and pip are correctly installed:

   ```
   python --version
   ```

   ```
   pip --version
   ```

3. Use pip to install the CDP client using the following command:

   ```
   pip install cdpcli
   ```

4. Use the following command to verify that the CDP client is correctly installed:

   ```
   cdp --version
   ```

   To upgrade the client to the latest version, run the following command:

   ```
   pip install --upgrade cdpcli
   ```

Generating an API access key

A CDP user account (a user or a machine user) must have API access credentials to access CDP services.

About this task

When you use this method to generate an access key and then manually configure the access key in the ~/.cdp/credentials, the access credentials are permanent until they are removed from the ~/.cdp/credentials file. If you prefer that the API access key is shorter-lived, refer to the topic Logging into the CDP CLI/SDK, which describes a method of logging into the CLI/SDK through any SAML-compliant identity provider.

Required roles: Users who have the IAMUser role can generate an access key from their own account page. As a CDP Private Cloud administrator or PowerUser, you can generate an access key for a user account that does not have the IAMUser role.

To generate an API access key using the CLI, refer to the following commands on the IAM documentation page:

- create-user-access-key: for generating access key for users
- create-machine-user-access-key: for generating access key for machine users

To generate an API access key using the Management Console:

Procedure

1. Sign in to the CDP console.
2. Click on your user name in the bottom left corner and then select Profile.
3. On the user profile page that appears, click Generate Access Key.
4. On the **Generate Access Key** pop-up window, click Generate Access Key.

   CDP creates the key and displays the information on the screen.
5. Copy the access key and private key to a text file and send it to the CDP user who requires it.

   The private key is a very long string of characters. Make sure that you copy the full string. You can optionally download the credentials file containing the access key information by clicking Download Credentials File.

   

   Note: The CDP console displays the API access key immediately after you create it. You must copy or download the access key ID and private key information when it is displayed. Do not exit the console without copying the private key. After you exit the console, there is no other way to view or copy the private key.
6. Click Close to exit the access key window.

Results

Once you have generated the access key, you can configure CDP CLI, SDK, or other utilities that require it.

Generate an access key for another user or machine user

Only administrator can generate API access keys for other users, including machine users.

Procedure

1. Sign in to the CDP console as an Administrator.
2. From the CDP home page, click Management Console.
3. On the side navigation panel, click User Management.
4. On the **Users** tab, click the name of the user or machine user account for which you want to generate an access key.
5. On the user account page, go to the Access Keys section and click Generate Access Key.
6. On the **Generate Access Key** pop-up window, click Generate Access Key.

   CDP creates the key and displays the information on the screen.
7. Copy the access key and private key to a text file and send it to the CDP user who requires it.

   The private key is a very long string of characters. Make sure that you copy the full string. You can optionally download the credentials file containing the access key information by clicking Download Credentials File.

   

   Note: The CDP console displays the API access key immediately after you create it. You must copy or download the access key ID and private key information when it is displayed. Do not exit the console without copying the private key. After you exit the console, there is no other way to view or copy the private key.
8. Click Close to exit the access key window.

Results

Once you have generated the access key, you can configure CDP CLI, SDK, or other utilities that require it.

Configuring CDP client with the API access key

After you generate the access key, go to the command line and run a specific set of commands to configure the CDP client.

Procedure

1. On the command line, run the following command to configure the client with the access key:

```
cdp configure
```

2. Enter the following information at the prompt:
   - CDP Access key: Copy and paste the access key ID that you generated in the Management Console.
   - CDP Private key: Copy and paste the private key that you generated in the Management Console.
   - CDP region. Skip entering any value for this parameter.
   - CDP Endpoint URL: Specify the CDP console URL.

   The configuration utility creates the following files:
   - ~/.cdp/credentials: to store your user credentials
   - ~/.cdp/config: to store the endpoint URL configuration
3. To verify that the credentials were created correctly, run the following command:

```
cdp iam get-user
```

   The command displays your CDP client credentials.
4. After you configure the client, go back to the Management Console and click OK to exit the access key window.

Configuring CLI autocomplete

The CDP CLI includes a command-completion feature that enables you to use the Tab key to complete a partially entered command. Because the feature is not automatically installed, you must configure it manually.

Procedure

1. Locate the CLI completer.

```
which cdp_completer
```

2. Add the CLI completer folder to your path:
   a) Find the profile script for the shell profile script in your user folder.

```
~/.bash_profile
```

   b) Add the following command to your bash_profiler, replacing /usr/local/bin/cdp_completer with the actual location discovered in the previous sub-step:

```
complete -C /usr/local/bin/cdp_completer cdp
```

   c) Reload the profile into the current session to put the changes into effect. Replace .bash_profile with the name of the shell script you discovered in the first sub-step:

```
$ source ~/.bash_profile
```

3. Enter cdp and press the Tab key to display the available options for autocomplete.



Note: When you partially enter a command, parameter, or option, the command-completion feature either automatically completes your command or displays a suggested list of commands. To prompt command completion, you must partially enter a command and use the Tab key.

CLI reference

The CLI reference documentation is available on Cloudera GitHub. It provides the list of subcommands and its options for managing your CDP services.

See: CDP CLI Reference.

Important: In 1.4.1, you can use the CDP CLI only for configuring and managing the Data Warehouse service. The available sub-commands for Cloudera Data Warehouse are common for Public and Private Clouds. See the "Form Factors" section to make sure that the command is supported in Private Cloud environments.

Accessing CLI help

CDP CLI includes help that can be accessed by using the cdp help command.

To get more information about a certain CDP CLI, use:

```
cdp <module-name> <command-name> help
```

For example:

```
cdp iam add-ssh-public-key help
```

```
cdp iam help|grep group
```

You can also find all of the CDP CLI commands in the CDP CLI Reference documentation.