

Onboarding COD Users

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Contents

Onboarding COD users..... 4
 Onboarding to Apache components..... 4

Migrating HBase data to COD..... 6

Migrating Phoenix data to COD..... 6

Onboarding COD users

To enable users to work on Cloudera Operational Database (COD) and various CDP components, like HBase and Phoenix, you can onboard them to COD.

Before you begin

1. You have created a CDP environment. See *CDP environments*.
2. You have created the IDBroker mapping. See *Create IDBroker mapping*.
3. You have a prior knowledge of HBase and Phoenix.

Procedure

1. Set up a workload password in CDP to compile any application against COD. See *Setting the workload password*.
2. Create an Operational Database on your CDP environment. See *Creating a database using COD*.
3. Assign the appropriate roles to the COD users. See *User management in COD*.
4. Configure and deploy an edge node to work with HBase and Phoenix thick clients. See *Configuring edge nodes*.

Related Information

[CDP environments](#)

[Create IDBroker mapping](#)

[Setting the workload password](#)

[Creating a database using COD](#)

[User management in COD](#)

[COD edge node overview](#)

[How to setup a user in CDP](#)

[\(Admin user\) How to create COD](#)

[How to Deploy an edge node \(for use with HBase/Phoenix thick clients\)](#)

Onboarding to Apache components

You can create an Operational Database Docker Container to experiment with a simplified setup similar to COD, built using Apache HBase, Apache Zookeeper, Apache Omid, and Apache Phoenix.

About this task

Please know that the setup provided in the Docker image is:

- a highly simplified and single node setup, and not comparable to an actual COD cluster in performance or management.
- not using the same builds used in COD. Docker only contains the freely available upstream builds of some of the components.
- to provide an easy to use and setup environment for learning the basics and experimenting with the technology and not for testing with any load.

Before you begin

1. Launch Docker container and add *opdb-docker* as localhost in the host file. Run the following command.

```
$ sudo vim /etc/hosts
```

Add the following entry to the host file.

```
127.0.0.1 localhost opdb-docker
```

2. The *opdb-docker* runs many services in the same container so it is recommended to increase the Docker resource configurations under Preferences > Resources to the following:

- CPUs: 6
- Memory: 10 GB
- Swap: 1.5 GB
- Disk image size: 64 GB



Note: It is recommended to set higher values to avoid issues with memory allocation.

Procedure

1. Pull the docker image from Docker Hub.

```
$ docker pull cloudera/opdb-docker
```

2. Run the *opdb-docker* container.

```
$ docker run -p 8765:8765 -p 8080:8080 -p 8085:8085 -p 9090:9090 \
  -p 9095:9095 -p 2181:2181 -p 16010:16010 -p 16020:16020 -p 16000:16000 \
  -p 16030:16030 -d -h "opdb-docker" --name opdb-docker opdb-docker
```

3. Log in to the Docker and run Apache Phoenix or Apache HBase.

```
$ docker exec -it opdb-docker /bin/bash
$ phoenix-sqlline
$ hbase shell
```

4. Run the following commands to start the HBase Thrift and HBase REST servers as they are not started automatically.

```
$ docker exec opdb-docker /opt/hbase/bin/hbase-daemon.sh start thrift
$ docker exec opdb-docker /opt/hbase/bin/hbase-daemon.sh start rest
```

5. Run the following commands to stop the HBase Thrift and HBase REST servers.

```
$ docker exec opdb-docker /opt/hbase/bin/hbase-daemon.sh stop thrift
$ docker exec opdb-docker /opt/hbase/bin/hbase-daemon.sh stop rest
```

Related Information

[GitHub Operational Database repository](#)

[Operational Database Docker image](#)

[Sample applications for Cloudera Operational Database](#)

Migrating HBase data to COD

If you have an existing HBase application running on a CDH or HDP environment, you can migrate your data to a COD CDP Public Cloud environment. You can launch a database with the durable and consistent storage technology you may already be familiar with while using CDH or HDP, but with none of the legacy complexity.

About this task

To migrate your HBase data into a COD CDP Public Cloud environment, see *HBase Migration through Replication Manager*.

Related Information

[HBase Migration through Replication Manager](#)

Migrating Phoenix data to COD

Cloudera Operational Database Replication plugin enables HBase replication from a number of products which also include Phoenix to COD, such as CDH 5, CDH 6, HDP 2.6, and HDP 3.1. You can replicate Phoenix tables to COD using the Replication plugin.

About this task

Currently, COD includes Apache Phoenix 5.1.1 while other products include a range of versions of Phoenix from 4.7.0 to 5.0.0.

To migrate your Phoenix data into a COD CDP Public Cloud environment, see *Phoenix Replication to Cloudera Operational Database*.

Related Information

[Phoenix Replication to Cloudera Operational Database](#)