Deploying HCL OneDB on AWS

Contents

Chapter 1. Overview..... 1
Chapter 2. Getting Started..... 2
Connecting to OneDB..... 3
Configuring OneDB.....3
Configuring OneDB Explore..... 3
Chapter 3. Migrating & Upgrading..... 4
Index..... 5

Chapter 1. Overview

HCL OneDB on AWS is an enterprise-class database offered on the Amazon Web Services (AWS) Cloud. It features a cloud-delivered, ready-to-run, fast, resilient, and scalable database management system that manages traditional relational, object-relational, and dimensional data types. HCL OneDB on AWS offers the complete features of OneDB on-premises deployments without the complexity and risk of managing your own infrastructure. AWS provides an infrastructure to run OneDB in a flexible, scalable, and cost-effective manner in the cloud.

The Amazon Machine Image (AMI) for HCL OneDB provides all the information required to launch a virtual server instance in the AWS cloud. Select the AMI that meets your business needs and launch as many instances as required. OneDB AMI includes the latest versions of:

OneDB Products	Installation directory
OneDB Server	/opt/hcl/onedb/server
OneDB Mongo(WireListener)	/opt/hcl/onedb/apis/mongo
OneDB REST	/opt/hcl/onedb/apis/rest
OneDB Explore	/opt/hcl/onedb/explore
OneDB CSDK	/opt/hcl/onedb/csdk
OneDB JDBC	/opt/hcl/onedb/jdbc

Note: HCL OneDB server, CSDK, JDBC, WireListener, REST and OneDB Explore are installed and configured for OLTP environments.

Chapter 2. Getting Started

About this task

HCL OneDB™ is offered as an hourly Amazon Machine Image (AMI). An AMI is an image applied to compute and memory resources which Amazon calls “EC2”. To place an order in your AWS account, navigate to **Services > EC2**. Click the **Launch Instance** button.

1. Navigate to AWS Marketplace.”
2. Search for HCL OneDB and select the latest available version. (Delivery Method is AMI - Amazon Machine Image).
3. Click on the **Continue to Subscribe** button and complete all selections.
4. Proceed through the remaining steps to provision OneDB EC2 instance (virtual machine) on AWS.
5. Connect to the virtual machine via a ssh program, using the private key for the keypair specified during your instance provisioning.

   SSH as the user “ubuntu”:

   ```
   $ ssh -i ~/.ssh/my_aws_private_key ubuntu@hostname-of-my-onedb-ec2
   ```
6. After you are logged into the virtual machine, use the sudo command to become the user “Informix”.

   ```
   $ sudo -u informix bash
   ```

   As the user Informix, you will be able to run the various OneDB commands, such as onstat, onmode, and oninit. The machine is configured with the OneDB server running and listening to the following client types on the respective ports:

Protocol	Without TLS	With TLS	Installation directory
OneDB Server (SQLI)	9088	9089	/opt/hcl/onedb/server
OneDB Mongo(WireListener)	27001	27002	/opt/hcl/onedb/apis/mongo
OneDB REST	26001	26001	/opt/hcl/onedb/apis/rest
OneDB Explore Server	28001	28002	/opt/hcl/onedb/explore

   To control the network traffic on the EC2 instance (to and from), it is preferable to use the Amazon “Security Group”, instead of an OS-based firewall configuration.

   For security reasons, the OS (Operating Systems) accounts on the AMI do not have a password, and the only account initially configured for inbound SSH is “ubuntu”. To allow a remote client to connect to the OneDB database server you can set a password on the desired OS account or create a database user via the CREATE USER STATEMENT.

   OneDB AMI can be ordered in all AWS regions and on all EC2 types. Since EC2 types have varying amounts of CPU and memory, several types and amounts of storage may be added to an EC2, tuning the OneDB Server to meet your needs (E.g., altering the number of CPU VPs, increasing the size of the buffer-pool, adding dbspaces on the desired storage devices).

Connecting to OneDB

To connect a remote client to OneDB, first ensure the AWS Security Group permits traffic on the appropriate ports. To encrypt communication between the client and server, configure the client for TLS by following these guidelines:

- Client TLS setup for a JDBC application: Connecting JDBC applications with SSL
- Client TLS setup for a SQLI application: Configuring a client for SSL connections
- Client TLS setup for a WireListener(Mongo) application: https://docs.mongodb.com/manual/tutorial/configure-ssl/
- Client TLS setup for a REST application: HCL OneDB REST API Guide

Configuring OneDB

OneDB certificate is located at `/home/Informix/client_ssl/selfsigned_ssl.cert`. For security reasons this certificate should be changed immediately to a certificate you control:

- Instructions to configure OneDB:Configuring a server instance for secure sockets layer connections.
- Instructions to configure the WireListener(Mongo):Encryption for wire listener communications.

Note: HCL OneDB is initially configured to interact with clients using the SQL, Mongo, and REST protocols and to run with a small buffer pool on a single CPU VP. If you have ordered a larger EC2 type and want to get more power from OneDB, please consider increasing the number of CPU VPs as well as the buffer pool.

Configuring OneDB Explore

OneDBExplore is a web-based monitoring and administration tool for DBAs and developers which by default will already be configured, up and running. The Explore Server and Agent processes run as the OS user "onedbexpu".

- From your provisioned instance, open a browser and connect to OneDB Explore at https://127.0.0.1:28002.
- If you prefer to access OneDB Explore from a remote host, ensure that the AWS Security Group permits the traffic, and then use the browser to connect to `https:// (your EC2 instance IP address) :28002`.
- Details about the initial credentials can be found in the `/opt/hcl/onedb/explore/explore/informixhq-server.properties` file. This is a text file and can be viewed using the UNIX “cat” command. For more information, seeStarting OneDB Explore Server.
- To change the password for the “OneDB Explore server admin”, log into OneDB Explore as user **admin** and then navigate to the **User Settings** area. For more information. see OneDB Explore Server – User Settings.

Chapter 3. Migrating & Upgrading

Index

C

Configuring OneDB 3
Configuring OneDB Explore 3
Connecting to OneDB 3

D

Deploying HCL OneDB on AWS 1, 2

G

Getting started 2

H

HCL OneDB on AWS 1, 2, 3, 3, 3, 3, 3, 3, 4

M

Migrating HCL OneDB on AWS 4