



Denodo 8.0 Enterprise Plus for GCP - Quick Start Guide

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[Denodo Technologies](#), the data virtualization leader for unifying enterprise data and delivering data services for the business, is offering Denodo on the Google Cloud Platform (GCP) as a pay by hour (PAYG) virtual machine (VM) image. The VM image contains the latest version of Denodo, optimized for use with the GCP Compute Engine.

Thank you for your confidence in Denodo and for choosing the Denodo for GCP as your data virtualization technology!

This quick start guide will give you an overview of the Denodo software and how to quickly start building data virtualization solutions on GCP.

1 MARKETPLACE OFFERING OVERVIEW

This Denodo Enterprise Plus for GCP offering is based on a pay as you go (PAYG) model under your GCP account.

The Denodo Enterprise Plus offer on Linux Server consists of:

- The Denodo Virtual DataPort (VDP), the core Denodo Data Virtualization engine, to integrate data from any data source and deliver it to any consumer in any format allowing to connect unlimited data sources.
- The Denodo Scheduler, for scheduling data pipelines and cache loads among other tasks.
- The Denodo Data Catalog webtool to enable self-service and data discovery for end users.
- Additional tools for administering and developing like the Denodo Design Studio and the Denodo VDP Administration Tool.

In the sections below you can find more information on how to deploy.

NOTE: this offering does not require a Denodo Solution Manager with a Denodo License Server to run the VDP services in the VM.

2 DEPLOY THE DENODO ENTERPRISE PLUS FOR GCP VM

2.1 OVERVIEW

You must have a GCP account. You are responsible for operating your own GCP account. You can create and launch your Denodo Enterprise Plus for GCP PAYG VM instance using that GCP Account.

To quickly set up a Denodo Enterprise Plus environment on the GCP, perform the following steps:

1. Launch the Denodo Enterprise Plus VM
2. Login to the Design Studio
3. Login to the Scheduler Admin
4. Register for Denodo Support

Note: The GCP interface is subject to change and the exact options you see depend on whether or not you have existing projects.

2.2 STEP 1 - LAUNCH THE DENODO ENTERPRISE PLUS VM

Log on to the GCP Marketplace and access the [Denodo Enterprise Plus 8.0 VDP pay per hour offering page](#).

And then click the *LAUNCH* button.



Denodo Enterprise Plus

Denodo Technologies Inc.

Integrate and Deliver Your Data in Real Time Without Replication

LAUNCH

VIEW PAST DEPLOYMENTS

OVERVIEW

PRICING

DOCUMENTATION

SUPPORT

Overview

Denodo Enterprise Plus integrates and delivers data from GCP, SaaS and other data sources. Discover smart data virtualization designed for public and hybrid cloud. Access data directly, in real-time. This is a new, advanced enterprise grade solution, powering data integration with AI/ML driven automatic recommendation of datasets, infrastructure management and smart query optimization.

Components of Denodo Enterprise Plus subscription:

- A production instance of the Denodo VDP server

Additional details

Runs on: Google Compute Engine

Last updated: 10/02/2022

Category: [Analytics](#), [Big data](#), [Datab:](#)

Version: 8.0.202201261

Operating System: CentOS Stream 8

Package contents: Denodo Enterpris

Then, *Select a project* or *Create a project* page could be the next. Enter a project name and select a value from the Organization drop-down, then click the Create button.

After that the deployment configuration appears where you can select appropriate values for zone, machine type, and so on.

New Denodo Enterprise Plus deployment

i Google Cloud Marketplace does not permit the reselling of any Marketplace solutions, as stated in the [Marketplace Customer Terms of Service](#). If you are transacting under a reseller billing account, you cannot purchase Marketplace solutions. Contact your Google Cloud Partner Sales Manager for more information.

i Product preview. Go through the deployment flow available to Cloud Marketplace customers. Pricing info may not be reflected in the preview

Deployment name *
denodo-80-enterprise-plus-vdp-payg-sa-1

Zone
europe-west6-a

Machine type

Machine family

GENERAL-PURPOSE COMPUTE-OPTIMISED

Machine types for common workloads, optimised for cost and flexibility

Series
E2

CPU platform selection based on availability

Machine type
e2-standard-4 (4 vCPU, 16 GB memory)

vCPU Memory

For choosing the machine type please see [Denodo Hardware Requirements](#).

Then Click the *Deploy* button.

As soon as the project deploys, and the new virtual machine (VM) instance starts running, the following services are automatically started:

- Denodo VDP Server.
- Denodo Web Container for accessing Denodo Design Studio, Scheduler Admin y Data Catalog web tools.

2.3 STEP 2 - LOGIN TO THE DESIGN STUDIO WEB TOOL

The Design Studio provides a web interface to the developers to create data sources, base views, derived views, publish web services, etc.

Check first the list of [Supported Browsers for the Design Studio tool](#).

Then use a supported browser to point to the following URL of the Design Studio Web Tool following the pattern:

http://<vm_ip>:9090/denodo-design-studio/

Where <vm_ip> is the IP address or DNS name for the Denodo Enterprise Plus VDP virtual machine in the deployment.

NOTICE: Services require some time to start, meanwhile you could get a 404 page, wait some minutes and try again.

Denodo Enterprise Plus overview

Product provided by Denodo Technologies Inc.

Software

Operating system	CentOS Stream(8)
Software	Denodo Enterprise Plus(8.0.202201)

Terms of Service

By deploying the software or accessing the service you are agree [Denodo Technologies Inc. terms of service](#) [GCP Marketplace](#) the terms of applicable open source software licences bundled with the service. Please review these terms and licences carefully for details of obligations that you may have related to the software or service. If an open source software licence related to the software or service supersedes the GCP Marketplace Terms of Service, that open source licence governs your use of that software or service.

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Google is providing this software or service "as-is" and any support service will be provided by Denodo Technologies Inc. under their

The username is *admin* and the password is the one you can see in the GCP Console for the deployment.

Refer to [Main Areas of the Design Studio](#) for more information.

2.4 STEP 3 - LOG INTO THE DENODO SCHEDULER ADMIN WEB TOOL

The Scheduler Admin provides a web interface to administrators to create jobs.

`http://<vm_ip>:9090/webadmin/denodo-scheduler-admin/`

Where *<vm_ip>* is the IP address or DNS name for the Denodo VM. The username is *admin* and the password is the one you can see in the GCP Console for the deployment.

Refer to [Denodo Scheduler Administration Guide](#) for more information.

2.5 STEP 5 - LOG INTO THE DENODO CATALOG

The Denodo Data Catalog is a web application that allows end users to query and browse all the information accessible through Denodo.

`http://<vm_ip>:9090/denodo-data-catalog`

Where *<vm_ip>* is the IP address or DNS name for the Denodo VM. The username is *admin* and the password is the one you can see in the GCP Console for the deployment.

Refer to the [Denodo Data Catalog Documentation](#) for more information.

2.6 STEP 4 - REGISTER FOR DENODO SUPPORT

Denodo is committed to helping you succeed with the Denodo Enterprise Plus through our comprehensive network of technical support and services.

Denodo Support Standard is available for all paying subscribers. Denodo Support Premium is available for all subscribers at an additional fee.

To access this service, you must first register [on our website](#).

After you have signed-up, you will have access to the [Denodo Support Site](#) where you can get web-based support, software updates and DenodoConnects, which will improve your data virtualization experience. Denodo version upgrades are not available as version upgrades require migration between GCP instances procured through the GCP Marketplace.

You can always post your question directly on the [Q&A](#) section, a moderated forum on our [Community Site](#), where data virtualization professionals and enthusiasts will assist you. Our community is knowledgeable and tenacious and there is no question without a valid answer. Technical resources such as product documentation, Knowledge Base articles, step-by-step tutorials, and how-to videos are also available.

3 OPTIONAL ACTIONS AFTER DEPLOYING

3.1 ASSIGN A STATIC EXTERNAL IP ADDRESS TO YOUR VM INSTANCE

An ephemeral external IP address has been assigned to the VM instance. If you require a static external IP address, you may promote the address to static. [Learn more](#).

You will need to restart the Denodo VDP service after the change.

3.2 REVIEW THE SECURITY CONFIGURATION

There are a couple of optional steps that we recommend you to take in order to improve the security of your GCP deployment.

3.2.1 Changing the Default VDP Administration Password

As the first step of the configuration of your new Denodo virtual machine you should change the default administrator password. It is extremely important that you change this default password to ensure that you are operating under a secure environment.

3.2.2 Configuring the Firewall Rules

When a new virtual image is started GCP creates by default firewall rules. Firewall rules control all TCP ports that the Denodo may need to use plus the ssh (for server administration) and http (for the installation instructions and client installers).

The default configuration specifies that all those ports can be reached from any IP addresses - our strong recommendation is to modify the firewall rules to:

1. Remove access to the HTTP port once you have completed the installation instructions, including the download of the Denodo client installer.
2. Configure the rest of firewall rules so they can only be accessed from the range of authorized IP addresses that you control instead of being publicly accessible.

To do this, follow the steps in the [GCP documentation about firewall rules](#).

Review the list of [default ports Used by Denodo](#).

3.3 SECURING DENODO COMMUNICATIONS

In order to provide secure communications among your clients and Denodo services running on the GPC instance remember to follow the instructions in the [Denodo Installation Manual](#).

3.4 STARTING AND STOPPING DENODO SERVICES

Denodo Enterprise Plus for GCP includes the following services:

- VDP
- Scheduler Server
- Scheduler Web Admin

- Design Studio

Some of these services are not running by default to not overload the instance with services that may not be required. In case you decide to begin working with them, the procedure to start them is analogous:

1. Connect to the [Denodo instance using ssh](#).
2. Once connected, use the terminal to run these commands in your instance to start / stop Denodo services:

```
sudo systemctl [start | stop] [vq1server | schedulerserver | schedulerwebadmintool |  
designstudio | datacatalog | diagnosticmonitoringtool]
```

Additionally you can configure these services to start automatically at instance boot time with the command:

```
sudo systemctl enable [vq1server | schedulerserver | schedulerwebadmintool |  
designstudio | datacatalog | diagnosticmonitoringtool]
```

Take into account that *schedulerwebadmintool* requires *schedulerserver* to be running and so do *designstudio* with regard to *vq1server*.

3.5 VDP MEMORY ASSIGNMENT

Denodo for GCP automatically configures Virtual DataPort Server (VDP) memory allocation the first time the virtual machine instance boots depending on the instance memory size, so that you don't need to set an appropriate value.

In case this automatic memory assignment is not the most suitable for your scenario, you can always set a memory scheme on your own. Follow these steps:

1. Stop VDP server:

```
sudo systemctl stop vq1server
```

2. Open the file *VDBConfiguration.properties* for editing:

```
sudo -u denodo vim /opt/denodo/denodo-platform-8.0-  
linux64/conf/vdp/VDBConfiguration.properties
```

3. Update the property *java.env.DENODO_OPTS_START* with the most suitable values for your case (i.e. 2GB). Remember that *Xms* and *Xmx* parameters should have the same value:

```
java.env.DENODO_OPTS_START=-server -Xms4096m -Xmx4096m -XX:+DisableExplicitGC  
-XX:+UseG1GC -XX:ReservedCodeCacheSize=256m
```

4. Execute the script *regenerateFiles* to propagate these changes:

```
sudo -u denodo /opt/denodo/denodo-platform-8.0-linux64/bin/regenerateFiles.sh
```

5. Relaunch VDP server:

```
sudo systemctl start vq1server
```

3.6 INSTALL THE DENODO VDP CLIENT

Certain administrative tasks like cache configuration, setting-up the authentication, user management, etc. can only be done graphically by using a Denodo client tool known as Denodo Virtual Dataport Administration Tool (desktop based).

To execute those administrative tasks, a client-server architecture is followed, with the server (VDP) running in the GCP virtual machine instance, and the client (VDP Admin Tool) running in your local computer.

The client installer is distributed from the running GCP virtual machine instance; you can find links to the installers in step-by-step installation instructions described in your running GCP virtual machine instance's web server.

Once the graphical administration tool starts, it will prompt you for the connection details for the remote Denodo server in the GCP virtual machine instance. The first time you can login as *admin* with the password value from the Google Cloud console. As Virtual Dataport Server you can enter `//<vm_ip>:9999/admin` where `<vm_ip>` is the IP address or DNS name for the virtual machine in the deployment.

Refer to [Main Areas of the Administration Tool](#) for more information.

3.7 MIGRATE EXISTING METADATA FROM ANOTHER DENODO INSTALLATION

If you wish to migrate data from an existing Denodo installation to a new VM, proceed with the steps below. Note that each existing environment should be migrated to a different instance.

Start by exporting the metadata from the existing Virtual DataPort and importing it in the new one. The steps are detailed in [the Virtual DataPort metadata export and import guide](#).

A similar approach is to be taken to migrate Scheduler metadata. The steps are detailed in [the Scheduler metadata export and import guide](#).

If you wish to migrate Data Catalog metadata, the equivalent steps are detailed in the [Data Catalog metadata export and import guide](#).

Last, if you wish to migrate existing Diagnostic & Monitoring Tool metadata, follow the steps in [the Diagnostic & Monitoring metadata export and import guide](#).

3.8 DEPLOYING THE DENODO SOLUTION MANAGER

This is optional and may be needed if you are planning to use SSO configuration with Denodo webtools (Design Studio, Scheduler Admin...) using a third party IDP such as Okta.

You need to sign-up for Denodo Support and request a license key for the Denodo Solution Manager. Later, you can use the license key with the Solution Manager BYOL instance on the Marketplace.

4 FURTHER STEPS

Once you are all set to start building your data virtualization solutions on GCP, we recommend that you check out all the available Denodo information:

- [Denodo tutorials](#)
- [How-to videos](#)
- [Test Drives](#)
- [Knowledge base](#)
- [Product documentation](#)

If you want to move on to professionally guided training you can always check our course offerings on [our training site](#).

To get up and running on the Denodo for GCP in the quickest time, we recommend you to take advantage of [Denodo Professional Services](#).