



Denodo Platform for Azure 8.0 BYOL - Quick Start Guide

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1 OVERVIEW

[Denodo Platform](#), the data virtualization leader for unifying enterprise data and delivering data services for the business, is available on Azure as bring your own license (BYOL) virtual machine (VM). The VMs contain the latest versions of Denodo Solution Manager, optimized for use with the Azure Virtual Machines service.

Thank you for your confidence in Denodo and choosing the [Denodo Platform for Azure](#) as your data virtualization technology!

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

Once the Denodo Solution Manager is deployed, it allows you to create and manage the Denodo Platform environments on Azure.

2 OFFERING CONTENT

This offering provides:

1. A Windows Server Virtual Machine with Denodo Solution Manager.
2. The latest version of Denodo Solution Manager, optimized for use with the Azure Virtual Machines service.
3. A limited Denodo Solution Manager license.

3 DENODO SOLUTION MANAGER LICENSE

The offering includes a limited Denodo Solution Manager license:

- It allows you to manage up to 2 Denodo Platform environments (PRODUCTION and DEVELOPMENT) in [Standard Mode](#).
- It does not assign licenses to Denodo Platform Servers (VDP, Scheduler, Data Catalog) so it will require you to [create Denodo Platform Servers](#) referencing those Denodo Platform machines with already assigned licenses and Denodo services running, for example those from Denodo 8.0 PAYG offerings in the Azure Marketplace.
- It allows you to configure the [Denodo Security Token](#) to use Single Sign On for Denodo Web Tools (Design Studio, Scheduler Admin...).

As this is a BYOL offering you can replace that limited Denodo Solution Manager License that is included by another Denodo Solution Manager license you obtain from Denodo Technologies or resellers. If you currently do not hold a license agreement for Denodo Platform, and you are interested in, please [contact Denodo directly](#) to pursue a license to use the software.

4 DENODO PLATFORM SOLUTION MANAGER (BYOL) DEPLOYMENT STEPS

4.1 OVERVIEW

The high level list of steps needed to provision and configuring your Denodo Platform Solution Manager (BYOL) on Azure is the following:

1. Use your Azure Subscription to get the Denodo Platform 8.0 (BYOL) VM available on the Azure Marketplace.
2. Deploy the Denodo Platform Solution Manager virtual machine through your Azure console.
3. Install Denodo Platform Solution Manager License in the Denodo Platform Solution Manager VM.
4. Start Denodo Platform Services in the Denodo SM VM.
5. Log in the Solution Manager Administration Web Tool.
6. Create one or more environments.
7. Register one or more Denodo servers.
8. Connect to a VDP Server with Design Studio

All the process can take an approximate time of 30 to 50 minutes.

4.2 SM1 - GET DENODO PLATFORM SOLUTION MANAGER 8.0 ON WINDOWS SERVER BYOL

You are responsible for operating your own Azure subscription.

You can create and launch your Denodo Platform Solution Manager for Azure BYOL VM using your Azure subscription.

The Azure offering includes a Windows Server Virtual Machine with Denodo Platform Solution Manager 8.0 installed.

Log on to the Azure Marketplace and search for the [Denodo 8.0 for Azure listing](#).

4.3 SM2 - DENODO SM VIRTUAL MACHINE DEPLOYMENT

After selecting the Denodo Solution Manager 8.0 BYOL on Windows Server available through the Azure Marketplace you have to complete some few configuration steps in order to launch the Denodo Platform Solution Manager virtual machine through the Azure console.

NOTE: you will be requested to choose the username for the Administrator Account; don't use *denodo* as the username for the Administrator Account as *denodo* is a local user already created in the VM.

NOTE: see [Denodo Platform Solution Manager Hardware Requirements](#) before choosing the VM Size.

[Home](#) > [Denodo 8.0](#) > [Choose recommended defaults that match your workload](#) >

Create a virtual machine

Create a virtual machine that runs Linux or Windows. Select an image from Azure marketplace or use your own customized image. Complete the Basics tab then Review + create to provision a virtual machine with default parameters or review each tab for full customization. [Learn more](#)

Project details

Select the subscription to manage deployed resources and costs. Use resource groups like folders to organize and manage all your resources.

Subscription * ⓘ

Resource group * ⓘ
[Create new](#)

Instance details

Virtual machine name * ⓘ

Region * ⓘ

Availability options ⓘ

Image * ⓘ
[See all images](#)

Azure Spot instance ⓘ

Size * ⓘ
[See all sizes](#)

D-series is recommended for general purpose workloads.

Administrator account

Username * ⓘ

[Review + create](#) [< Previous](#) [Next : Disks >](#)

4.4 SM3 - INSTALL DENODO PLATFORM SOLUTION MANAGER LICENSE

The Denodo services require a Denodo license to start.

Once the Denodo Platform Solution Manager BYOL VM is running you have to log in Windows with your Administrator Account username through a Remote Desktop Connection. Detailed instructions are available on [Connect to a Windows Virtual Machine](#).

Then copy your previously obtained Denodo Platform Solution Manager license file to the Azure VM, rename the file as *denodo.lic*, and save it in the *C:\Denodo\DenodoSolutionManager8.0\conf* directory.

NOTE: the appropriate license is checked out after starting the Denodo Platform Control Center. If you already have the Denodo Platform Control Center open you can click the License information link to force the licence validation.

4.5 SM4 - START DENODO PLATFORM SOLUTION MANAGER SERVICES

Logged in with your Administrator Account user through Remote Desktop Connection and once a Denodo license is installed you can start enjoying Denodo software.

Launch the [Services app to start Denodo Servers](#) in the following order:

1. *Start Denodo License Manager Server, wait until getting status **Running**.*
2. *Start Denodo Solution Manager Server, wait until getting status **Running**.*
3. *Start Denodo Solution Manager Web Tool, wait until getting status **Running**.*
4. *Start Denodo Web Design Studio, wait until getting status **Running**.*
5. *Start Denodo Scheduler Web Admin Tool, wait until getting status **Running**.*
6. *Start Denodo Diagnostic and Monitoring Tool, wait until getting status **Running**.*

4.6 SM5 - LOG INTO THE DENODO PLATFORM SOLUTION MANAGER ADMINISTRATION TOOL

The Denodo Platform Solution Manager is a component to help you manage Denodo deployments.

Once you logged in, the [Denodo Solution Manager Administration Tool](#) provides a single point of entry to all the web applications of the Denodo deployment.

Check first the list of [Supported Browsers for Denodo Solution Manager Administration Tool](#).

Then use a supported browser to point to the URL to access Denodo Solution Manager Administration Tool with the following pattern:

http://<sm_ip>:19090/solution-manager-web-tool/Login

Where <sm_ip> is the IP address or DNS name for the Denodo Platform Solution Manager virtual machine in the stack deployed.

NOTE: the application may take some time to start so you may need to wait for a couple of minutes before the link works correctly. You may get a connection error or a '404 Not Found' error if you try to access it before the service has completely started.

The user is *admin* and the password by default is *admin* so the recommendation is to [change the default password first thing](#):

- Go to the Configuration menu.
- Click on *User management*.
- Click the *Edit* icon on the right side for the *admin* user.
- Set the new password.

Then logout and sign in again with *admin* as username and the new password.

4.7 SM6 - CREATE ONE OR MORE STANDARD MODE ENVIRONMENTS

A [Denodo Environment](#) is defined as a set of servers, of the same or different type, working together for a common purpose. For example, Production, Development or Staging environments.

For [creating a new Standard Mode Environment](#) from the Denodo Solution Manager Administration Web Tool:

- Click on Environments > New Environment.
 - Choose Standard Mode.
 - Click on Create Environment.
 - Set a Name for this environment.
 - Select the License scenario for this environment.
 - Save this new environment.
- Click over the new environment on the left side > New Cluster.
 - Set a Name for this cluster.
 - Save this new cluster.
 - Click on the left side of the Environment and the new cluster will be displayed underneath

Repeat above steps for all environments and clusters you want to set up.

With the environment and cluster created everything is ready to add Denodo servers like VDP or Scheduler.

4.8 SM7 - REGISTER ONE OR MORE DENODO SERVERS

Last step is registering deployed Denodo servers (like VDP or Schedulers) in created clusters.

Instructions on how to deploy a Denodo VDP Virtual Machine are available in a chapter below in this guide.

For [adding a new Denodo server to a cluster](#) from the Denodo Solution Manager Administration Web Tool:

- Click over the environment
- Click over the cluster > New Server.
 - Set a Name for this server.
 - Select the Type of server. There are different types available: Virtual DataPort, Scheduler, ITPilot Browser Pool, ITPilot Verification or Data Catalog. In this case, add a Virtual DataPort Server.
 - Set the Host, Port, Type, User, Password and Default database.
 - Save this new server.

Repeat above steps for all deployed Denodo servers.

4.9 SM8 - LOG INTO THE DESIGN STUDIO

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://<sm_ip>:19443/denodo-design-studio/
```

Where <sm_ip> is the IP address or DNS name for the Solution Manager virtual machine in the stack deployed.

In the Solution Manager Web Tool homepage you have links to the Design Studio and Scheduler Web Tools: select the Environment and then click on the Open link for going to the homepage of the Design Studio preloaded with the connection data to the cluster in that environment.

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

Note that certain administrative tasks like cache configuration, setting-up the authentication, user management, etc can be done by graphical way only by using the Virtual Dataport Administration tool (desktop based).

5 SECURITY CONFIGURATION

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

5.1 **CHANGING THE DEFAULT DENODO PLATFORM SOLUTION MANAGER ADMINISTRATION PASSWORD**

As the first step of the configuration of your new Denodo Platform Solution Manager 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.

5.2 **CONFIGURING THE SECURITY GROUPS**

Please, check first the list of [Denodo Platform Solution Manager default ports](#) to review which ones are needed for operating your environment.

When the Denodo Platform Solution Manager for Azure BYOL virtual machine is deployed it creates by default a new security group. This group contains an inbound port rule for RDP (for server administration). The default values specify that this port can be reached from any IP addresses - our strong recommendation is to modify the group so it 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 Azure guide located at: <https://docs.microsoft.com/en-us/azure/virtual-network/virtual-network-manage-nsg-arm-portal>

5.3 ENABLING SSL

You can find details about how to secure with SSL the connections between the Solution Manager servers, the administration tools and their clients in [Enable SSL in the Denodo Platform Solution Manager](#).

5.4 ENABLING DENODO SECURITY TOKEN

Denodo Platform Solution Manager requires privileged connections to manage the Denodo VDP servers. It uses a temporary system token with the necessary permissions to perform administrative tasks and therefore, the Denodo VDP server must be configured with Denodo Security Token authentication in order to validate these tokens.

See [Enable Denodo Security Token](#) for details.

6 FURTHER RECOMMENDED STEPS

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

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