How-To Library

How to deploy the Axon Data Governance solution on the Microsoft Azure Marketplace for 7.3.1

Abstract

The automated marketplace solution uses Azure Resource Manager to launch, configure, and run the Azure virtual machine, virtual network, and other services required to deploy a specific workload on Azure. This deployment reference provides step-by-step instructions for deploying Informatica Axon Data Governance on the Microsoft Azure Marketplace.

Supported Versions

- Axon Data Governance 7.3.1

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Overview

Customers of Microsoft Azure and Informatica can execute an Axon Data Governance deployment from the Azure marketplace to create an Axon instance in the Azure and explore Axon Data Governance functionality.

This deployment reference provides step-by-step instructions for deploying Axon Data Governance on Microsoft Azure. Automated reference deployments use Azure Resource Manager to launch, configure, and run the Azure virtual machine, virtual network, and other services required to deploy a specific workload on Microsoft Azure.

Intended Audience

This document is for users who are responsible for deploying the marketplace solution of Axon Data Governance 7.3.1 on Microsoft Azure.

As a user with administrator privileges to deploy applications on Microsoft Azure, you must be familiar with Azure platform elements such as Azure Resource Manager, Virtual Machine, and Virtual Network. See the Microsoft Azure documentation.

To find Axon Data Governance documentation, see the Informatica documentation portal.

Costs and Licenses

You are responsible for the cost of the Azure services used while running this deployment. There is no additional cost for using this marketplace deployment.

The Azure resource manager template for this deployment includes configuration parameters that you can customize. Some of these settings, such as instance type, will affect the cost of deployment. See the pricing pages for each Azure service that you plan to use for cost estimates.

This deployment requires a license for Informatica Axon Data Governance. To sign up for a license, contact your organization's Informatica sales contact or Informatica Global Customer Support.

Note: You supply the license key value in the Informatica Axon License Key parameter when you configure the deployment.

The following table lists the instance types that you can choose based on sizing requirements:

Virtual Machine	Instance Type
Axon server	Standard_D4as_v4/ Standard_D4ds_v4/ Standard_D4s_v4/ Standard_D8as_v4/ Standard_D8ds_v4/ Standard_D8s_v4/ Standard_D16as_v4/ Standard_D16s_v4/ Standard_D32as_v4/ Standard_D32s_v4/ Standard_D48as_v4/ Standard_D48s_v4/ Standard_D64as_v4/ Standard_D64ds_v4/ Standard_D64s_v4/ Standard_B4ms/ Standard_B8ms/ Standard_B16ms/ Standard_E4as_v4/ Standard_E4s_v4/ Standard_E8as_v4/ Standard_E8ds_v4/ Standard_E8s_v4/ Standard_E16as_v4/ Standard_E16s_v4/ Standard_E32-16ds_v4/ Standard_E32as_v4/ Standard_E32s_v4/ Standard_E48as_v4/ Standard_E48s_v4/ Standard_E64ds_v4/ Standard_E64s_v4/ Standard_D4s_v3/ Standard_D8s_v3/ Standard_D16s_v3/ Standard_D32s_v3/ Standard_D64s_v3
Bastion server	Standard_D4s_v3/Standard_D8s_v3/Standard_D16s_v3/Standard_E16_v3/Standard_D4as_v4/ Standard_D16as_v4/Standard_D16ds_v4/Standard_D8s_v4/Standard_D32as_v4/Standard_E16as_v4/ Standard_E16ds_v4/Standard_D16ds_v5

Architecture

The Microsoft Azure marketplace solution creates and connects the following resources in a virtual network:

• Informatica Axon server on a virtual machine.

• Informatica Axon Quick Look on a bastion server.

• Azure Database for PostgreSQL servers.

The following image shows the architecture of Axon Data Governance on Microsoft Azure:
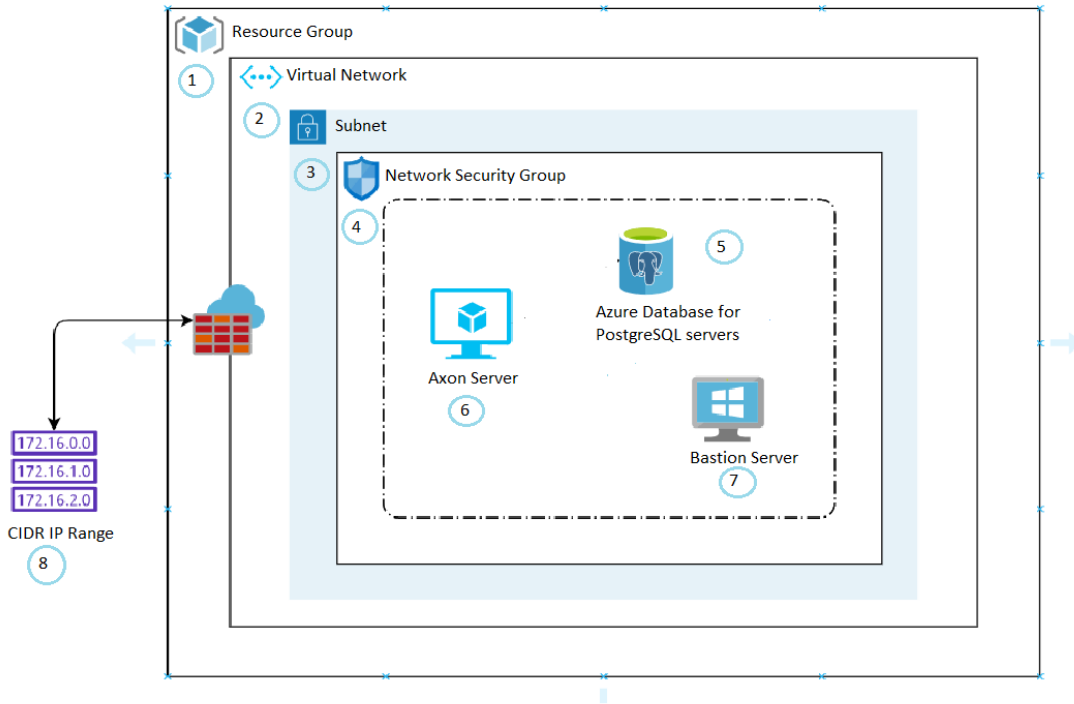
The numbers in the architecture diagram correspond to items in the following list:

1. A resource group on the Azure platform.
2. A virtual network that includes a subnet.
3. A subnet to contain specific elements of the deployment.
4. A network security group that includes the Axon Data Governance deployment.
5. The Azure Database for PostgreSQL servers if you choose to deploy on an external PostgreSQL database.
6. The Axon Data Governance server.
7. Bastion server, if you selected the option to deploy a bastion server.
8. The CIDR IP address range that you use to access the Axon instance and virtual machines.

Azure Platform Resources in the Deployment

The deployment process creates or includes the components listed in this section.

Components in a deployment in a new network

The following components are created when you deploy the software:

Component	Number of Components Created
Virtual Network	One virtual network.
Network security group	One network security group.

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Component	Number of Components Created
Subnet	One subnet.
Virtual machines	Two virtual machines: - One for Axon Data Governance. - One for bastion server.
Disk	Two disks: - One for Axon Data Governance disk with 200 GiB. - One for Bastion disk with 127 GiB.
PostgreSQL Server	One Azure Database for PostgreSQL servers if you choose to deploy on an external PostgreSQL database.

Components in a Deployment on an Existing Network

The following components are created when you deploy the software:

Component	Number of Components Created
Network security group	One network security group.
Virtual machines	Two virtual machines : - One for Axon Data Governance. - One for bastion server.
Disk	Two disks: - One for Axon Data Governance disk with 200 GiB. - One for Bastion disk with 127 GiB.
PostgreSQL Server	One Azure Database for PostgreSQL servers if you choose to deploy on an external PostgreSQL database.

Bastion Server

You can optionally deploy a bastion server as an element in the solution. The bastion server acts as a firewall between the internet and the cloud platform network where the solution deploys. It can also act as a remote server which you can log in to run Informatica Axon Quick Look.

Informatica Axon Data Governance Services

The Axon application consists of the core Axon component, application services and microservices, and databases. These components exchange information through REST APIs.

Application Services

Axon uses application services and microservices to provide specific functionality that enable you to implement data governance. These services are independent, modular services that work together to enhance Axon capabilities.

Informatica Axon Data Governance includes the following Axon application services:
Authorization

> Provides access to Axon objects based on the segments that are assigned to users.

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Bulk Upload

Uploads a large number of Axon objects and saves them to the PostgreSQL database.

Change Request

Provides a controlled and audited process to make changes to Axon objects. Axon uses the Camunda service to manage and run workflows within a change request.

Data Marketplace

Provides access to Axon Data Marketplace. In Axon Data Marketplace, you can search and access data collections that Informatica Axon Data Governance users publish.

Document Upload

Attaches and maintains reference documents to an Axon object.

Notification

Sends notifications about changes to user roles, status of workflows and change requests, and status of bulk upload tasks.

Unison

Performs the Unison search. When you run a Unison search, Axon searches for the objects and the linked objects in all the available facets.

Value List

Creates or updates a large number of values for data set attributes and saves the values to the PostgreSQL database.

Informatica Axon Quick Look

Informatica Axon Quick Look is a client program that you can quickly access from the desktop. Use Axon Quick Look to search and look up glossary terms that are defined in Axon Data Governance. You can also select keywords from applications, such as Microsoft Word, Microsoft Excel, and Google Chrome, and use the hotkeys to perform a lookup in the Axon Quick Look application.

You can optionally deploy a bastion server as an element in the solution. The bastion server is a Windows instance installed with the Axon Quick Look client.

The bastion server has the following functions:

- Acts as a firewall to access the network.
- Acts as a remote Windows server that you can log in to run the Axon Quick Look client.

Azure Database for PostgreSQL Servers

You can choose to deploy Axon on an external PostgreSQL server that is hosted in the Microsoft Azure environment. Azure Database for PostgreSQL is an Azure database service that provides security, automated backups, and scalability. See the Microsoft Azure documentation for more information.

Before You Begin

Before you deploy the solution on Microsoft Azure, verify the prerequisites and make the choices described in this section.

License Key Prerequisite

Verify that you have a license to deploy Axon Data Governance.

You supply the license key value in the License Key parameter when you configure the Axon deployment.

Prerequisites

Before you deploy Axon Data Governance on Microsoft Azure, verify the prerequisites.

- You must have a Microsoft Azure subscription with owner role.
- You must have access and permissions to create the following resources on the Azure platform:
    - Virtual network
    - Network security group
    - Virtual machines
- You have a Contributor or higher role.
- You have sufficient number of CPU cores based on the instance types in the region where you plan to deploy the Axon Data Governance solution.

Note: Not all Azure resources are supported in all regions. See the Azure documentation to verify that the resources for your solution are supported in your desired region.

In addition to geographical regions, the solution supports government cloud regions. Contact Informatica Global Customer Support to check support for your desired region.

Deploying Axon Data Governance on the Azure Marketplace

The automated deployment of Axon Data Governance on the Azure marketplace uses the Azure Resource Manager template to guide your choices and launch the solution deployment.

When you provision the Axon Data Governance solution on the Azure marketplace, launch the wizard and configure the basic properties. Later, configure the solution.

Step 1. Begin Provisioning

Use the Azure Marketplace website to provision Azure cluster resources including the deployment of Axon Data Governance.

When you implement the Axon Data Governance solution on the Azure marketplace, you launch the wizard and configure basic properties.

1. Log in to the Azure marketplace website. Use the search bar to search for Informatica Axon Data Governance.
2. Select **Informatica Axon Data Governance 7.3.1** from the list.
3. To launch the solution wizard, click **Get it now**.
4. Read the details of the terms of use and click **Continue**.

   The wizard redirects the browser window to the Axon Data Governance 7.3.1 solution on the Azure portal.

5. Click **Create**.

   A series of panels opens to enable you to configure the solution on the Azure platform.

6. Enter the information in the Basics panel, and click **OK**.

Step 2. Deploy Axon Data Governance and Configure Azure Resources

Create an Informatica Axon Data Governance instance and configure new or existing Azure resources to use with it.

Basics

Enter values for the following parameters:

Parameter	Description
Subscription	Required. Azure subscription you use to manage the deployment.
Resource Group	Required. The Azure resource group containing the Virtual Network where you deploy Axon Data Governance.
Region	Required. Azure location where you deploy Axon Data Governance.

Informatica Axon Data Governance

Enter values for the following parameters:

Parameter	Description
License Key	Required. Indicates the Axon Data Governance license key value to upload.
Axon Server	Required. Indicates the virtual machine size of the Axon server.
Password	Indicates the password for SSH and RDP.
Confirm Password	Confirms the password that you entered.

Azure Database for PostgreSQL

Enter values for the following parameter:

Parameter	Description
Deploy postgreSQL server	Deploys Azure database on PostgreSQL server. Default is **No**. If you select **Yes**, provide the server name.

Bastion Server

Enter values for the following parameters:

Parameter	Description
Deploy Bastion Server	Deploys a bastion server to access other resources in the virtual network. Default is No.
Bastion server size	Virtual machine size. Applicable only when you choose to deploy the bastion server. Default is Standard_D8s_v3.

Network Configuration

Enter values for the following parameters:

Parameter	Description
CIDR IP Address Range	Required. The CIDR public IP range of clients that are permitted to access the Informatica Axon Data Governance. Format is x.x.x.x/x.
Assign Public IP	Assigns a public IP address to the network interface that is attached to the virtual machine. Default is Yes.
Virtual Network	Required. The identifier for the Azure virtual network where you want to deploy Axon Data Governance. **Note:** The deployment supports new and existing virtual networks. The Azure location must be same for the virtual network resource group and the deployment resource group.
Subnet	Required. The identifier for the subnet within the virtual network where Axon Data Governance is deployed.

After you configure the parameters, verify the choices in **Review + create**, read the terms of use, and click **Create**.

When you click **Create,** Azure deploys the Axon Data Governance and creates resources in the environment that you configured.

Monitor Instance Provision and Informatica Axon Data Governance Creation

You can use cloud platform dashboards, logs, or other artifacts to verify the cluster creation and to identify Axon Data Governance on the cloud platform.

During Deployment

After you configure the solution and start the deployment process, the Azure dashboard displays the deployment status in the top right corner.

To view the deployment details, including resources, click **Deployment in progress...**

When Deployment is Complete

The automated deployment includes the following resources:

- Virtual network

- Network security group

- Informatica Axon Data Governance server

Perform the following steps to use your Azure dashboard to verify the status of resource deployment:

1. Use the dashboard search bar to search for the resource group that contains the Axon Data Governance deployment.
   The dashboard displays the **Overview** view of the resource group, with resource deployment status as a clickable link in the upper right corner.

2. Click the resource deployment status link.
   When you click the deployment status link, a detail window opens listing the failed and successful deployments.

3. Click **Error details** for information about failed resource deployments.

4. Click **Overview** to see a list of the resources in a resource group.

5. You can click column headings in the display to sort by name, type, or location of the resource.

When the deployment is complete, you can open the Axon Data Governance application in a browser. The Axon Data Governance application has the following format:

```
https://<dns-hostname>:9443
```

To access the Axon Data Governance application, enter the following details:

- Username: admin@informatica.com

- Password: Changeme@123

To access the Axon Data Governance application in a Linux system or through a remote desktop, enter the following details:

- Username: infauser

- Password: The password that you specified at the time of deployment.

Access the Axon Application

You can access the Axon application from the deployment output section.

If you are within same Azure virtual network, you can directly access the Axon application.

If you are outside of the Azure virtual network, perform the following tasks:

1. Open the `hosts` file from the following location:
   ```
   C:\Windows\System32\drivers\etc\hosts file
   ```

2. Enter the host and DNS information in the following format:
   ```
   <public IP>space< hostname>space<Axon server DNS name>
   ```

Review Logs

After the completion of the Axon Data Governance deployment, consult logs to see the success or failure of solution element creation.

You can access the following logs on the virtual machine that hosts Informatica Axon Data Governance:

Azure extension operation logs

Records the installation of Azure resources and services.

You can find the file in the following location:

```
/var/log/azure/custom-script/handler.log
```

Note: The directory path `/var/lib/waagent/custom-script/download/0` contains the `stdout` and `stderr` logs. The directory also contains the file `infa_server.sh`, which contains the script that was executed to install Azure resources and services.

Command execution log

This log records the installation and configuration events for Axon Data Governance. You can view the installation logs in the following location:

```
/opt/Informatica/Axon7.3.1/Informatica_Axon_7.3.1.log
```

You can view the configuration logs in the following location:

```
opt/Informatica/Axon7.3.1/Configure.log
```

You can find the file in the following location:

```
/opt/Infa_OneClick_Solution.log
```

Axon FAQ

The deployment fails with the `Extension Script time out` error message and the installation of Axon Data Governance is not successful. Why does this error occur?

This error occurs when the license key is not valid. Check for the error message in the `silentErrorLog.log` file in the following location:

```
/home/infa/
```

If the log file shows the `License key file is invalid.` error message, provide the correct license key for Axon Data Governance.

Author

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