PolyWorks DataLoop™

Installation Guide 2025

Setting up PolyWorks|DataLoop™ for Azure

innovmetric

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Installation Guide
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PolyWorks|DataLoop for Azure

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Introduction

About this document

This document explains how to deploy a ready-to-use PolyWorks|DataLoop server on Azure using PolyWorks|DataLoop for Azure.

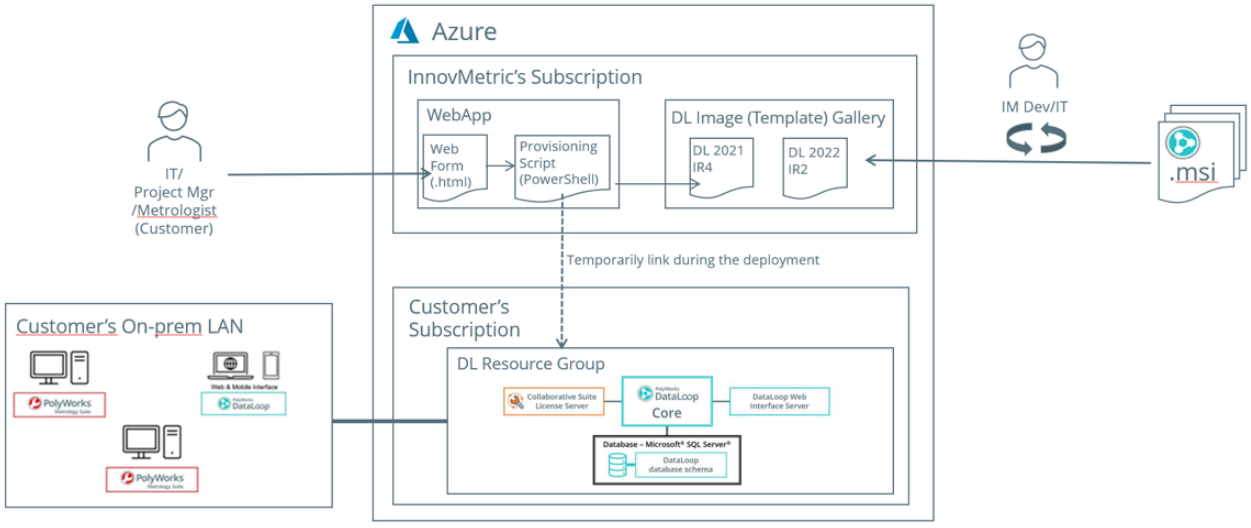
Introduction

PolyWorks|DataLoop for Azure deploys on Azure a ready-to-use PolyWorks|DataLoop server, including SQL Server, an SSL certificate and all the PolyWorks|DataLoop server applications.

Through a user-friendly web form, PolyWorks|DataLoop for Azure executes the initial deployment of a PolyWorks|DataLoop environment in the customer's Azure subscription. The deployment includes the following server components:

- Microsoft Windows Server 2019 or later with Internet Information Services (IIS)
- Microsoft SQL server 2019 or later
- SSL certificate
- PolyWorks|DataLoop Core
- PolyWorks|DataLoop Web Interface Server
- PolyWorks Collaborative Suite License Server

The following schema shows the different interactions during the deployment:



Scope and terms of use

This tool is meant to accelerate the deployment of your initial PolyWorks|DataLoop server. You are responsible for the operation, the maintenance and the cost of the Azure resources deployed. You must ensure that the deployed infrastructure respects the IT security policies defined by your organization. To the maximum extent permitted by applicable law, InnovMetric Software is not responsible and disclaims all liability for any data that could be lost, corrupted or stolen arising out of the use or inability to use the Software Product. The current terms of use include Microsoft Azure Service Agreement & Terms, Let's Encrypt Subscriber Agreement and InnovMetric Software End-User License Agreement.

1. Read first

1.1 Prerequisites

- You will need a Microsoft Azure account with a Contributor or Owner role inside a valid Azure subscription. All Office365 users have access to an Azure account.

  For more information on the different subscription types, please visit: https://azure.microsoft.com/pricing/purchase-options/

  Azure portal: https://portal.azure.com/

- You will also need your PolyWorks|DataLoop license unique ID provided by InnovMetric, e.g. ABCDEF1234567890. Make sure it has not yet been registered.

- Send a request to *dataloopdeployment@polyworks.com* to obtain the access rights to the PolyWorks|DataLoop Azure VM images. Include the email address of the Azure account that will be used to deploy the environment (e.g. *jsmith@mycompany.com*).

1.2 Specifications

Costs

Description		Cost (per month, 24/7 - 730 hours*, taxes not included)
Esential (up to 25 DataLoop users) Standard_B4ms (4 vCPUs, 16GB RAM), 512GiB SSD, Windows Server and SQL Server licenses		**US $490**
Increased capacity (recommended 25-50 DataLoop users) Standard_E4ads_v5 (4 vCPUs, 32GB RAM), 512GiB SSD, Windows Server and SQL Server licenses		**US $680**
File storage	1 TB	**+US $35**
	1.5 TB	**+US $75**
	2 TB	**+US $115**

- Azure costs may vary and change; always monitor them on the Azure portal.
- You can easily modify the size (vCPUs, RAM) through the Azure portal.
- Prices include SQL Server Standard License — US $275/month.
- Cost is similar for all available Azure regions, February 2025.
- (*) Note that if you put the virtual machine (VM) on a schedule to save some costs, it may affect some tasks done during the night, e.g. data retention policies cleanup.

Installed components

Component	Details
Operating system and default applications	Microsoft Windows Server 2019 or later Internet Information Services (IIS) Microsoft Windows Defender Firewall Chrome 64-bit web browser
SQL Server	Microsoft SQL Server 2019 or later Standard Edition licensed as Pay As You Go within Azure Microsoft SQL Server Management Studio 18
SSL Certificate	Let's Encrypt 90 days free auto-renewable certificate
DataLoop applications	PolyWorks|DataLoop Core PolyWorks|DataLoop Web Interface Server PolyWorks Collaborative Suite License Server

Inbound port requirements

Source	Destination	Port	Notes
Metrology Suite Web browser - DataLoop Web Interface Web browser - DataLoop Core Administrator DataLoop Web Interface Server DataLoop Mobile Interface	DataLoop Core	443 TCP	HTTPS
Web browser - DataLoop Web Interface DataLoop Mobile Interface	DataLoop Web Interface Server	443 TCP	HTTPS
DataLoop Core DataLoop Web Interface Server Web browser - Collaborative Suite License Server	Collaborative Suite License Server	443 TCP	HTTPS
Let's Encrypt SSL certificate renewal process	Default website	80 TCP	*HTTP-01 Challenge* Closed by default in Windows Defender Firewall. Only required during the SSL certificate renewal process. See https://letsencrypt.org/docs/challenge-types/
Access for maintenance or custom configuration	Windows RDP service	3389 TCP	RDP access configured during the deployment

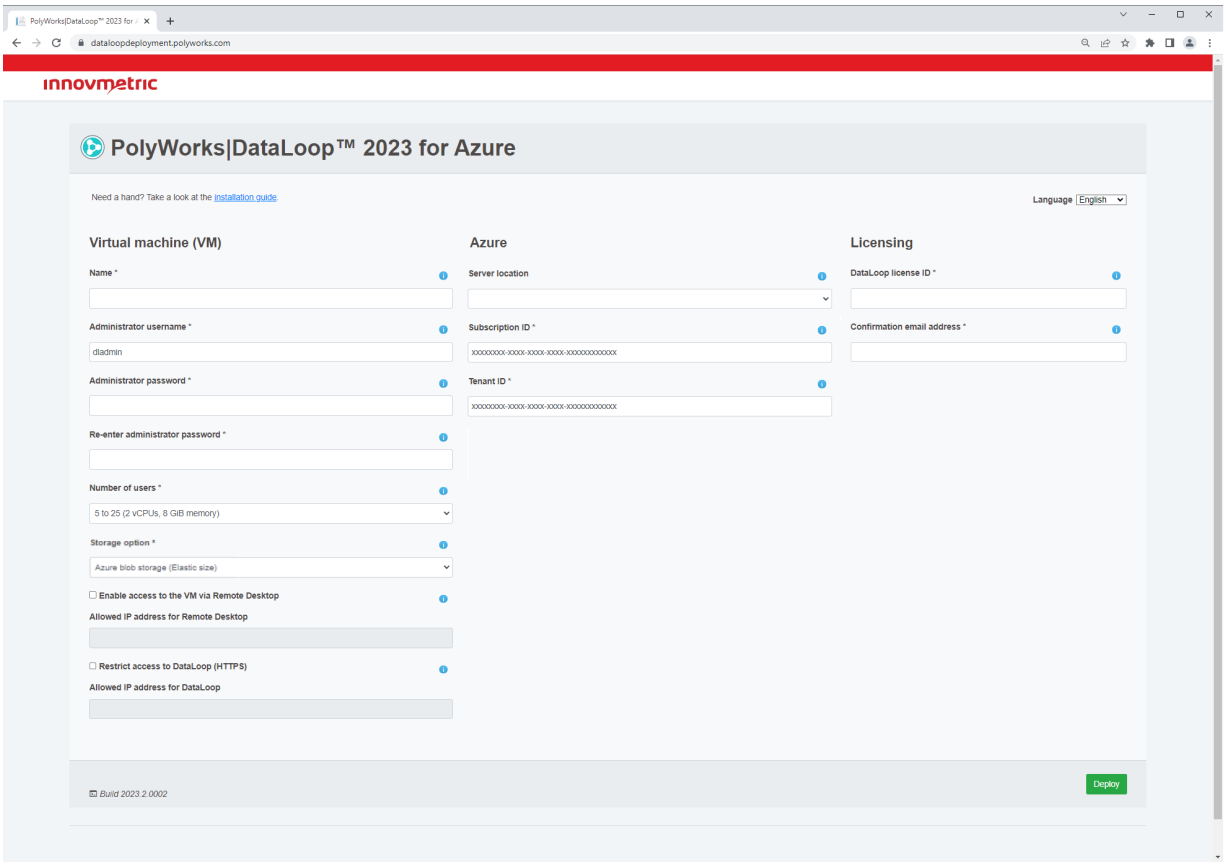
Authentication

DataLoop accounts are ready to use. Other authentication options can be manually configured (see the PolyWorks|DataLoop IT Administrator Guide and Azure online documentation).

2. Deploy a PolyWorks|DataLoop environment on Azure

To deploy PolyWorks|DataLoop on Azure, proceed as follows:

1. Fill out the web form launched through MyPolyWorks custom portal on the InnovMetric website (under *Software Downloads > Data Management & Digital Connectivity > Express Cloud Deployment*).



Virtual machine (VM)

Specify the following information regarding the virtual machine:

- **Name:** The virtual machine name and unique URL prefix of your DataLoop environment (maximum 13 characters). For example, if your virtual machine is called dataloopenv and Canada Central is the selected server location, the full base URL of your environment would be: https://dataloopenv.canadacentral.cloudapp.azure.com/.

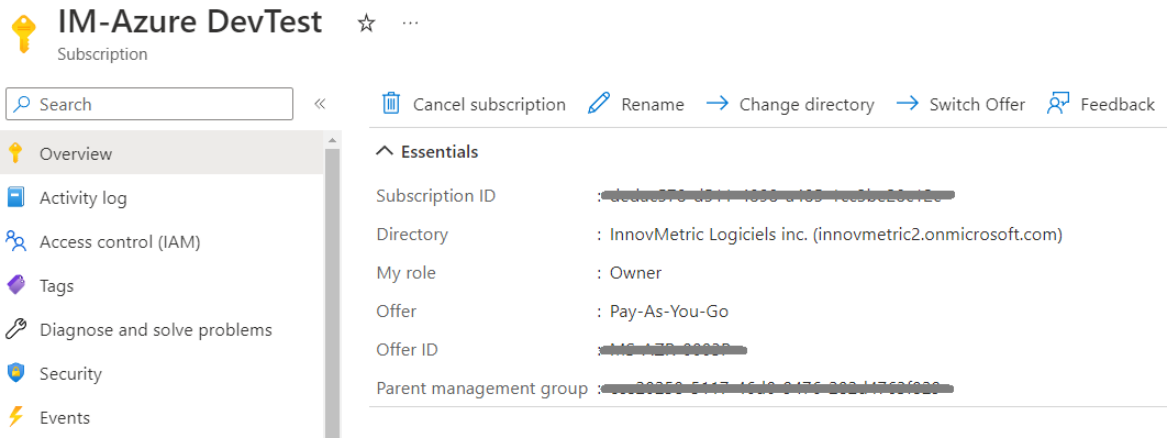
- **Administrator username:** The Windows administrator username to access the Azure Virtual machine through Remote Desktop Protocol (RDP) (maximum 20 characters).

- **Administrator password:** Password of the Windows administrator account. Must be at least 12 characters long and contain at least 3 of the following:
  - An uppercase character
  - A lowercase character
  - A number
  - A symbol (@$!%*?&.)
- **Re-enter administrator password:** Re-enter the Windows administrator account password for confirmation.
- **Number of users:** Target number of DataLoop users used to determine the size (vCPUs and memory) of the VM. The size can be easily modified afterwards in the Azure portal.
- **Storage option:** Disk storage capacity of the SSD disk used to store the DataLoop database. The storage capacity can be increased in the Azure portal. When choosing the **Azure blob storage** option, the PolyWorks workspaces and PolyWorks|Inspector projects are saved to an Azure blob container which will be created during deployment. This option requires the **Owner** or **User Access Administrator** roles in Azure. Note that it is easy to migrate from FILESTREAM to Azure blob storage at a later date.
- **Enable access to the VM via Remote Desktop:** To access your VM using Remote Desktop connection (RDP inbound rule), you must specify an IP address. This setting can be easily set later. To get your current public IP address, go to: https://www.whatsmyip.org/
- **Restrict access to DataLoop (HTTPS):** To protect your DataLoop environment from unwanted traffic, you can specify an IP address. To get your current public IP address, go to: https://www.whatsmyip.org/

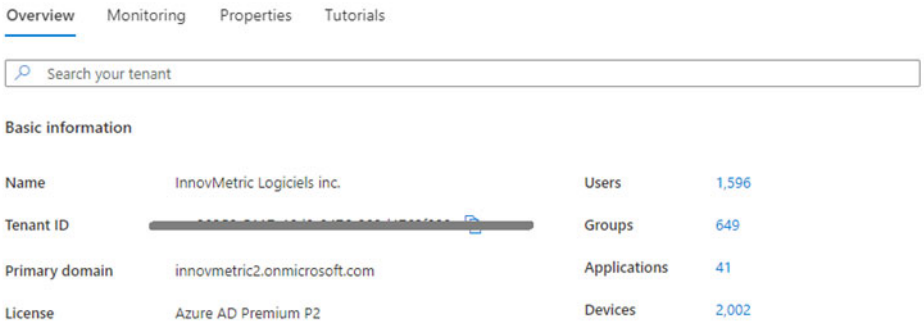
Azure

Specify the following information regarding Azure:

- **Server location:** Azure server location where the resources will be located. For network performance (latency), please select the location closest or central to your DataLoop users.
- **Subscription ID:** Subscription ID of your Azure subscription. Can be found in the overview of your subscription.



- **Tenant ID:** Tenant ID of your Azure account. Can be found in the overview of the Azure Active Directory service in your Azure account.



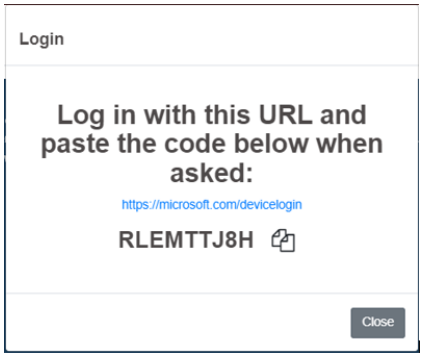
Licensing

Specify the following licensing information:

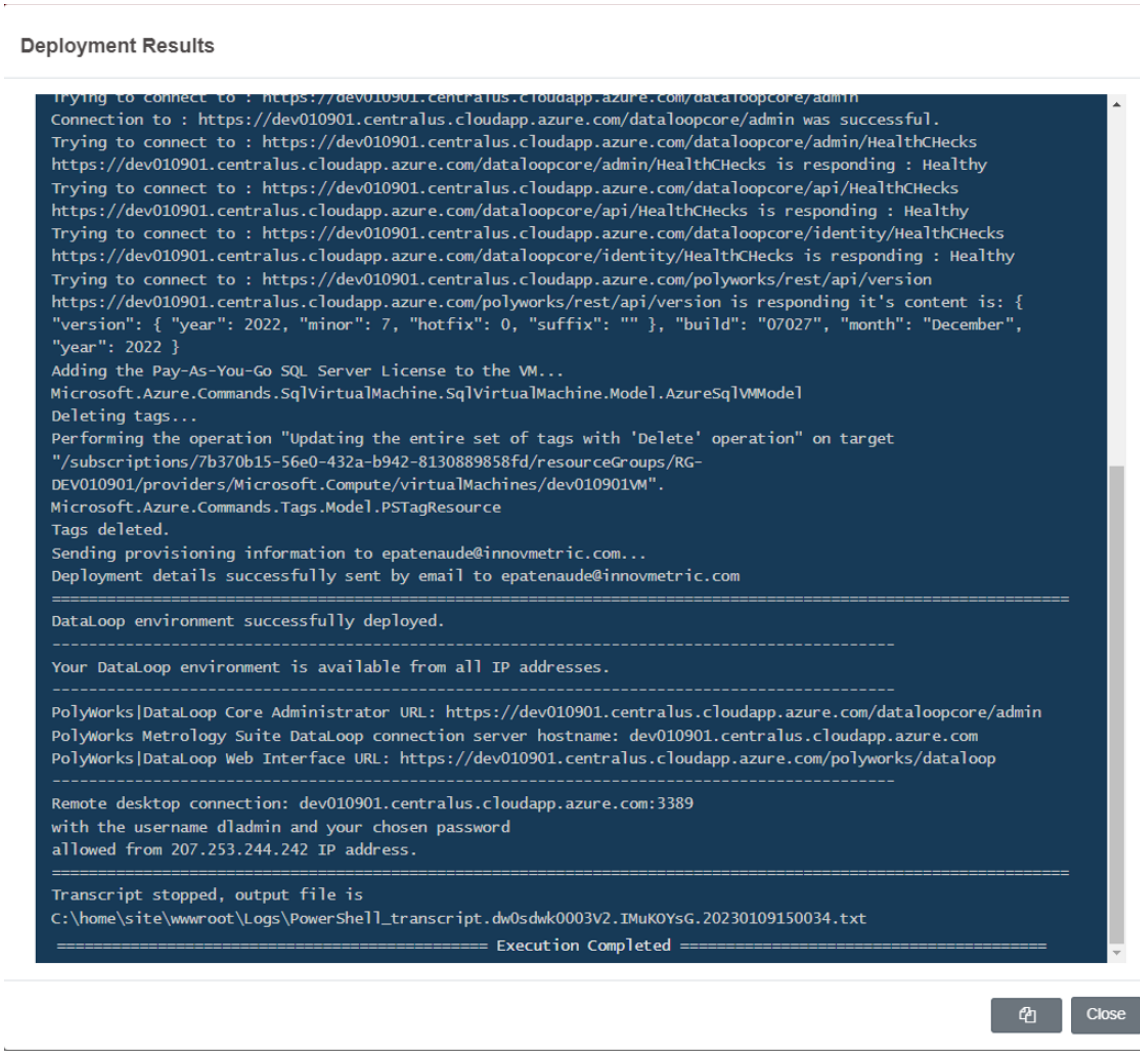
- **DataLoop License ID:** Your PolyWorks|DataLoop license unique ID provided by InnovMetric.
- **Confirmation Email Address:** A confirmation email will be sent to this email address.

1. Click **Deploy** to start the deployment. After accepting the terms of use, a message box with a loading symbol will be shown during the operation. If any error occurs, the details will be displayed in that message box. It takes between ten (10) and fifteen (15) minutes to complete the operation.

2. At one point you will need to log in to your Azure account on Microsoft identity server. Simply copy the code displayed and click on the URL shown. You will have to paste the code and enter your Azure account credentials.



3. At the end, the URLs to access your environment will be displayed alongside some useful information.



A new resource group is automatically created using the name of the virtual machine: rg-dlenv-{VM Name}. This resource group includes all the required Azure resources for the DataLoop server environment (VM, disks, networking, etc.). When the **Azure blob storage** option is selected, a second resource group named rg-dlsto-{VM Name} will be created for the Azure container.

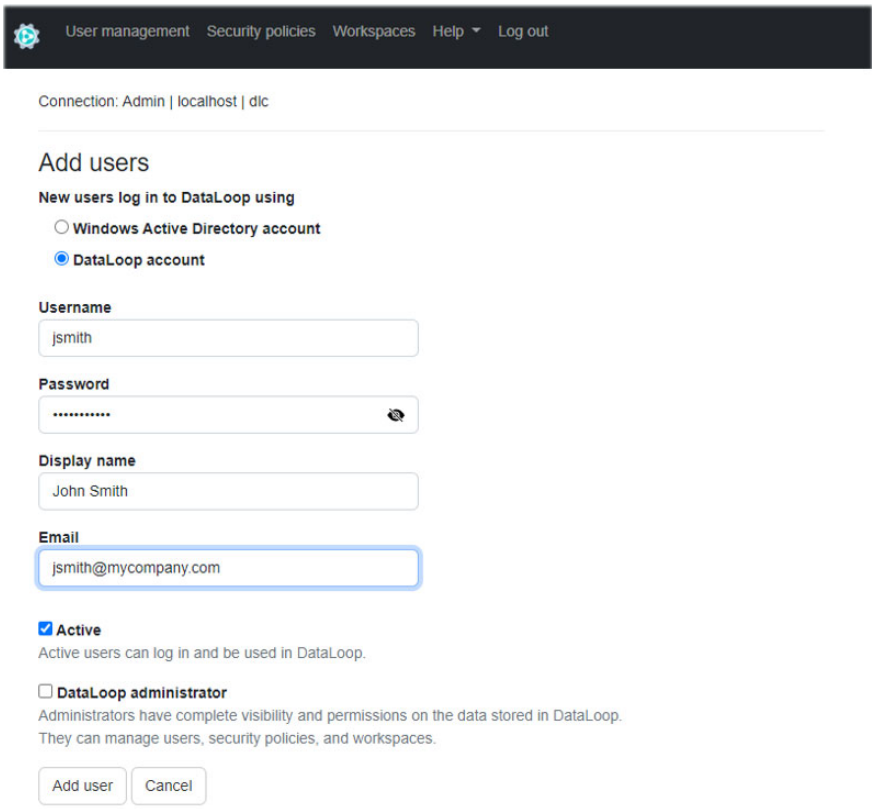
3. Configure PolyWorks|DataLoop

1. Connect to PolyWorks|DataLoop Core Administrator through your standard Web browser (Chrome recommended) by entering the URL displayed previously (e.g.: https://dataloopenv.canadacentral.cloudapp.azure.com/dataloopcore/admin).

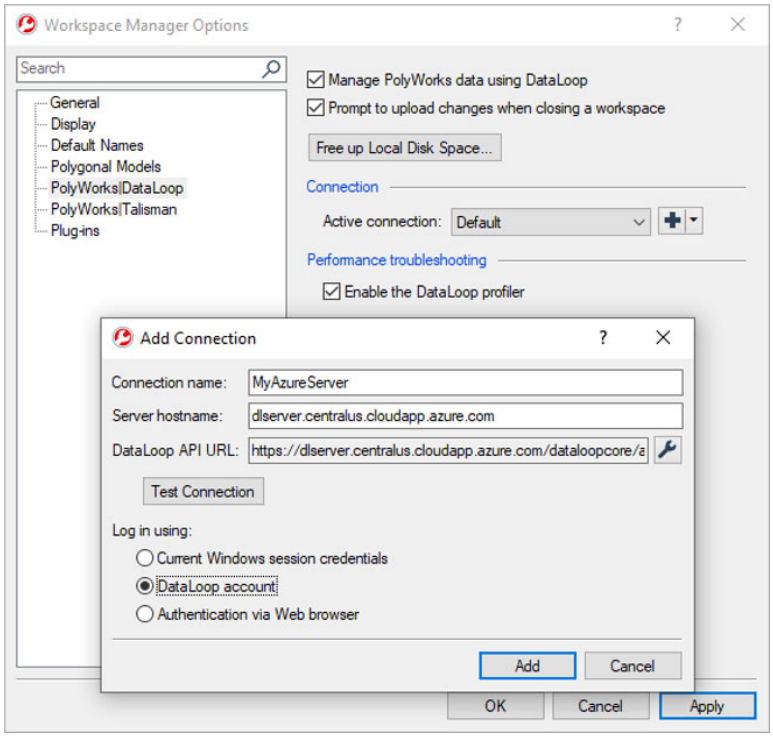
2. Log in with the default PolyWorks|DataLoop administrator account: Username: Admin, Password: PleaseChangeMe!123

3. Edit the Admin user to modify the password.

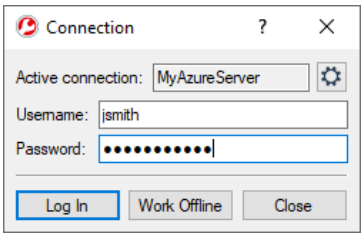
4. Add some users. Note that only DataLoop accounts are available by default.



5. In your desktop PolyWorks|Metrology Suite installation, choose *Tools > Options* to display the Workspace Manager Options dialog box. On the **PolyWorks|DataLoop** page, add a **Connection**.

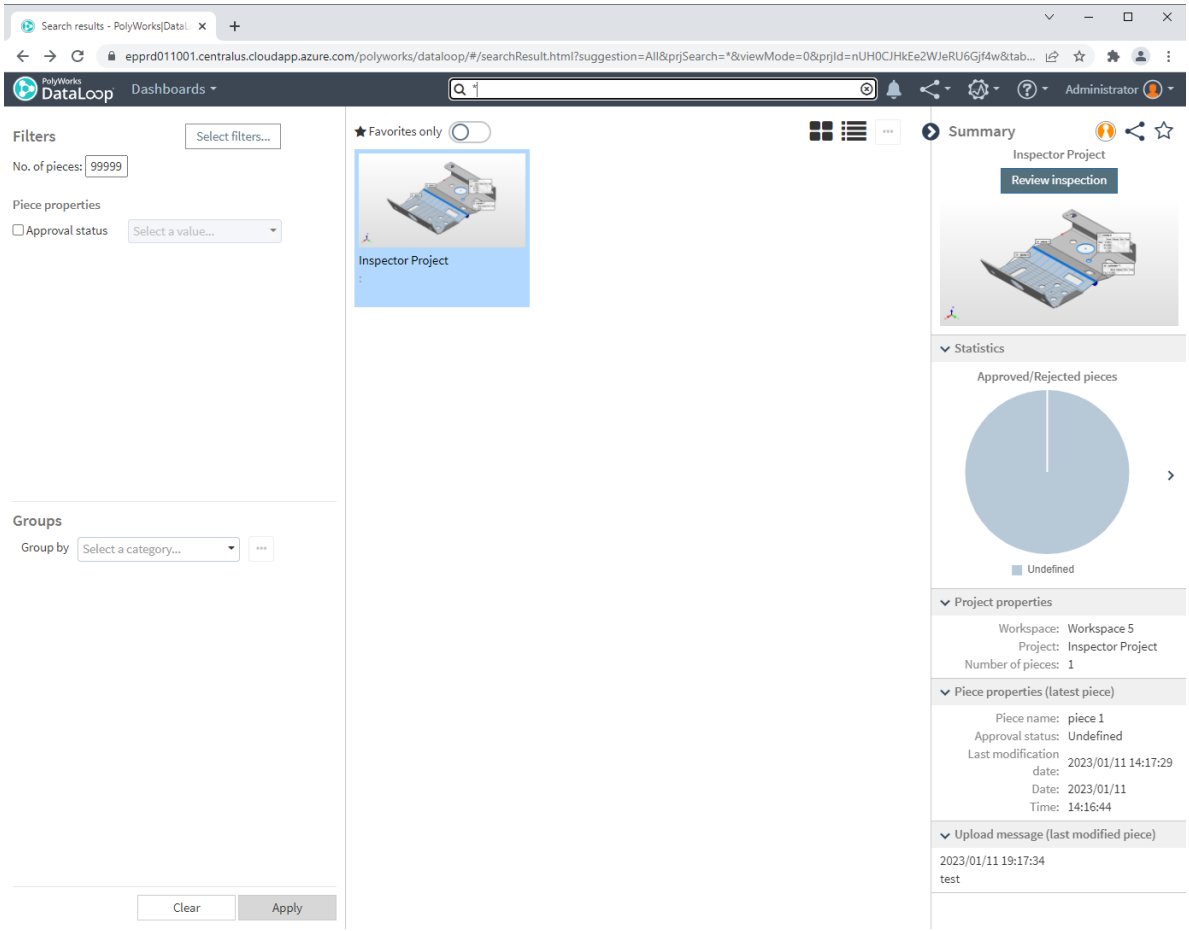


6. You can now log in PolyWorks|DataLoop using one of the previously created users and start uploading some PolyWorks|Inspector projects and pieces.



7. Log in to PolyWorks|DataLoop Web Interface by visiting the https://YourDataLoopBaseURL/polyworks/dataloop page (e.g., https://dataloopenv.canadacentral.cloudapp.azure.com/polyworks/dataloop/), using one of the previously created users and review the project you uploaded.

You can also access PolyWorks|DataLoop Web Interface on your mobile using your default mobile browser or with the Apple application.



4. Custom configurations and software upgrade

Maintenance

You can easily adjust any configuration as detailed in the PolyWorks|DataLoop Core IT Administrator Guide. To do so, simply log on to the PolyWorks|DataLoop VM using Remote Desktop Protocol (RDP), as detailed in the FAQ section.

SQL Server login

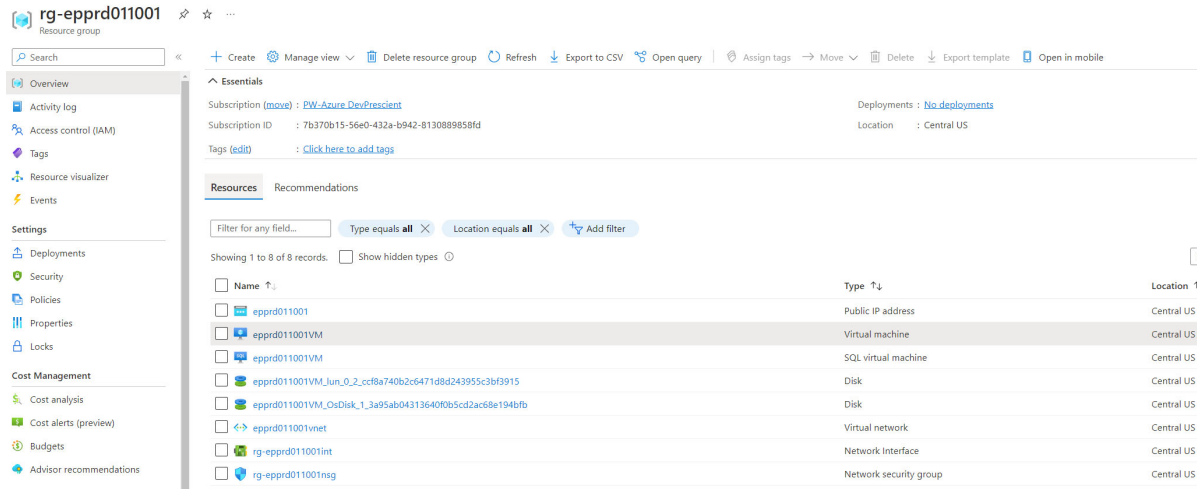
By default, the SQL Server service account uses the SQL Server login *dataloopadmin* (password: *PleaseChangeMe!123*). This account has administrator rights on the databases. We recommend that you change the password in the Microsoft SQL Server Management Studio even though it cannot be used to access the SQL Server databases from outside the VM.

5. PolyWorks|DataLoop for Azure Frequently Asked Questions (FAQ)

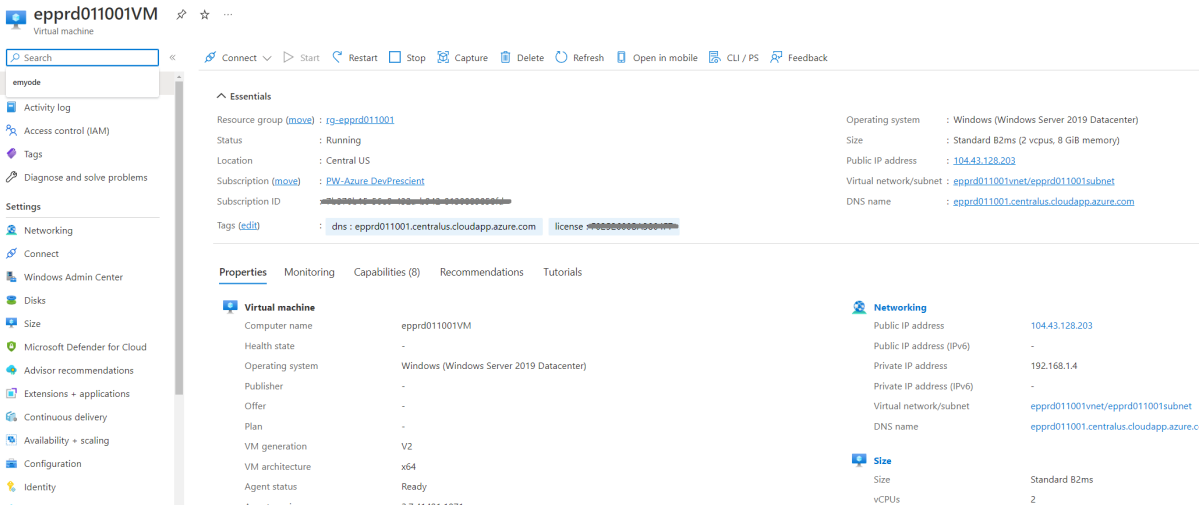
The following sections provide common questions and answers for PolyWorks|DataLoop for Azure.

1. How can I log in to the PolyWorks|DataLoop VM using Remote Desktop Protocol (RDP)?

1.1 In your Azure portal, go to the Azure resource corresponding to your PolyWorks|DataLoop VM:

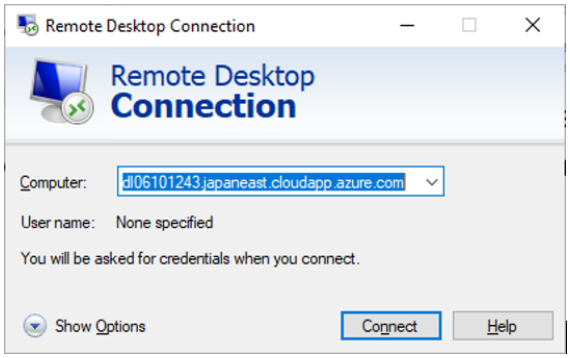


1.2 Identify its DNS name:



1.3 Invoke the Windows Remote Desktop Application on your host machine using the DNS name of the VM as the Computer name. You will need the administrator

username and password specified when you deployed the PolyWorks|DataLoop environment:



2. How can I modify the language used in PolyWorks|DataLoop Web Interface?

2.1 On the PolyWorks|DataLoop VM, open in a text editor the "C:\Program Files\InnovMetric\PolyWorks DataLoop Web Interface Server\rest\appsettings.json" file.

2.2 In the AppSettings section, set the Language parameter to the desired value and save the file. Here is the list of all supported languages, the default one is English-en:

German	DE
Japanese	JA
Chinese Traditional	ZH-rTW
Chinese Simplified	ZH-rCN
Korean	KO
Czech	CS
English	EN
French	FR
Hungarian	HU
Italian	IT
Polish	PL
Portuguese	PT
Russian	RU
Spanish	ES

2.3 Restart the IIS server by calling the iisreset command in a Windows command prompt.