MIRASYS
DEEP VISION DATA COMPANY

Mirasys Reporting Grafana User Guide

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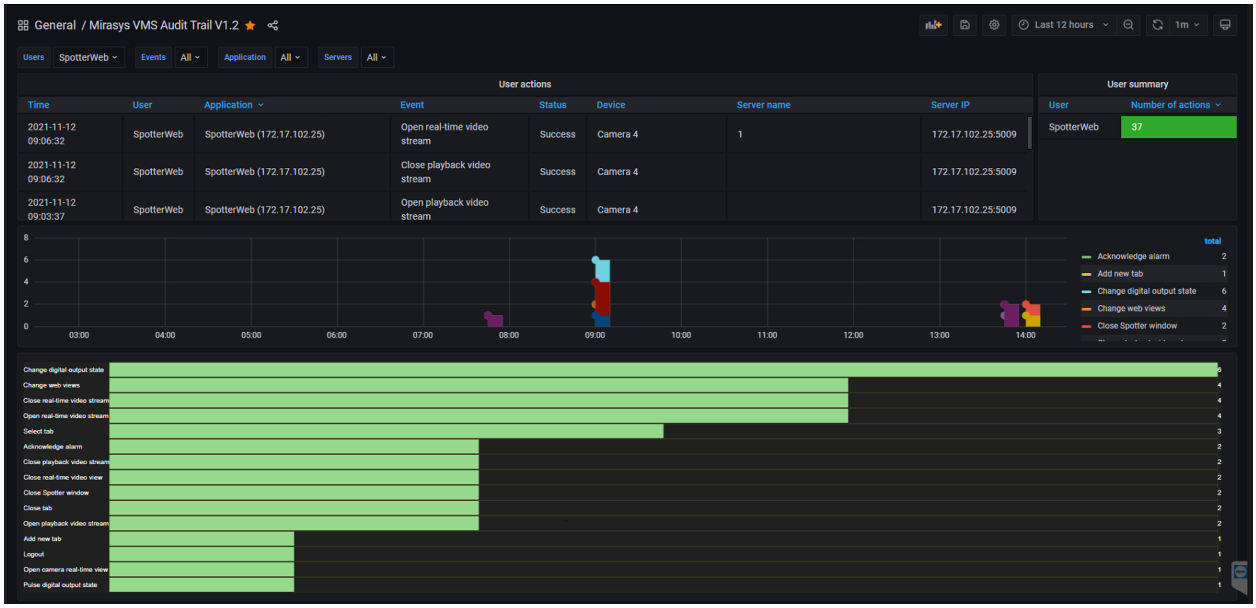
Mirasys Reporting Grafana User Guide

1. Mirasys Reporting Grafana



1.1. Introduction

Grafana reporting tool is used as a user interface to create reports from Mirasys VMS database.

Basic reports are created from the **Audit Trail** database and **VMS Alarm**s database.

Grafana user interface is browser-based, so it can be run in any modern browser (like Chrome, Edge, Firefox) and also inside Mirasys Spotter using the Spotter Web browser plugin

1.2. Requirements

- Mirasys VMS V7.6.1 or newer
- Microsoft SQL Express 2014 or newer
- Grafana 6.4.4 or newer
- Grafana plugins; Multistat and Grafana Image Renderer

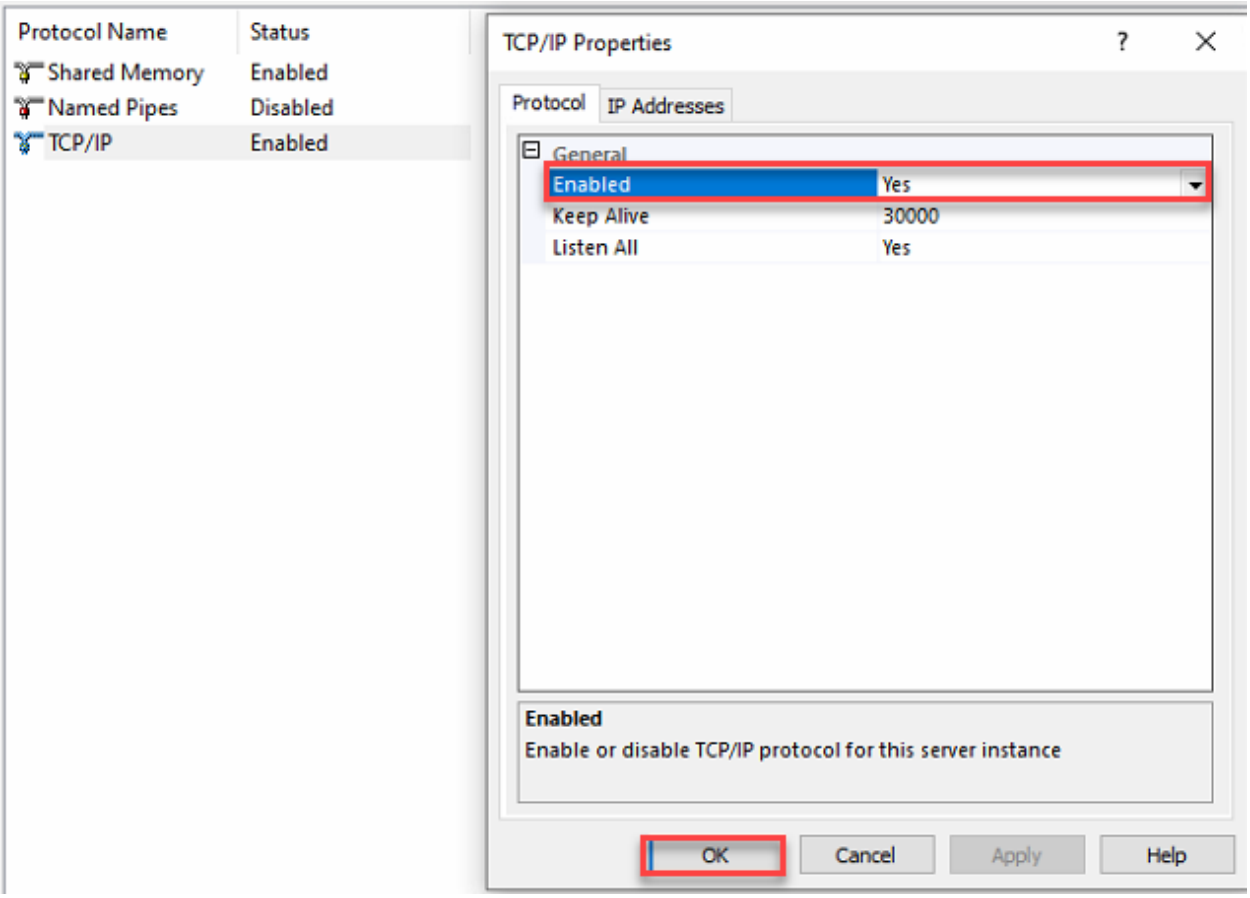
https://grafana.com/grafana/plugins/michaeldmoore-multistat-panel

https://grafana.com/grafana/plugins/grafana-image-renderer

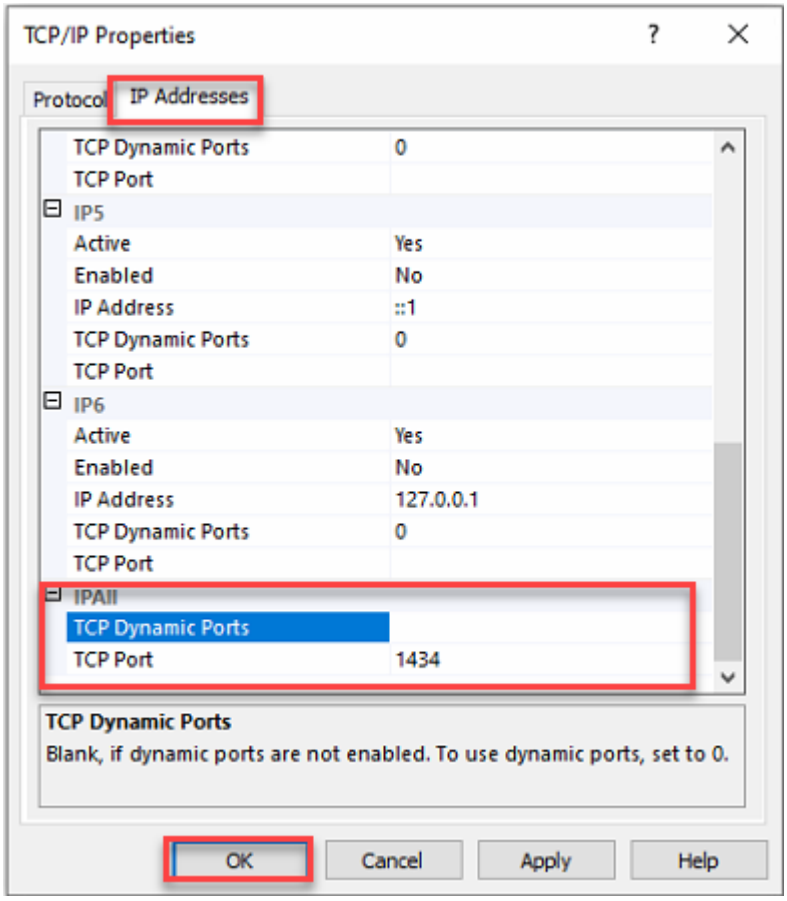
1.3. MICROSOFT SQL Configuration Manager

You can check this opening SQL Server Configuration Manager; this program can be found in Start-menu.

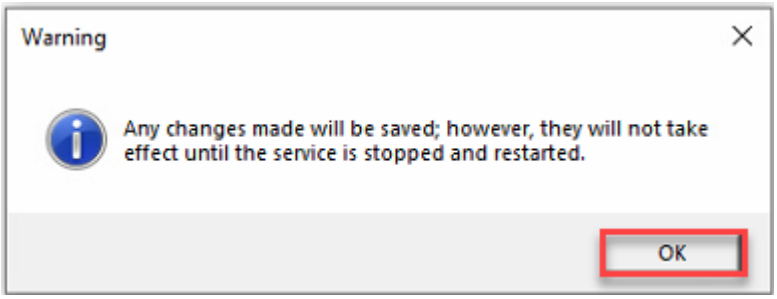
1. Start Microsoft SQL Server Configuration Manager
2. Select **Protocols for SQLEXPRESS**
3. Double-click top of the **TCP/IP**
4. Check that **TCP/IP** is enabled
5. Click **OK**



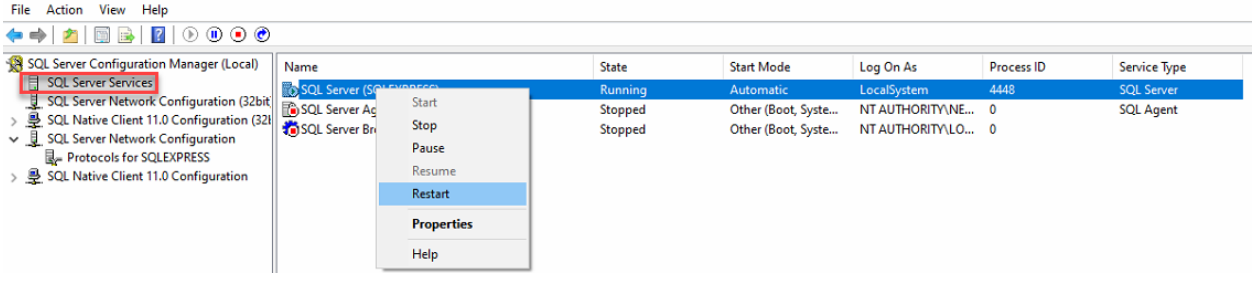
6. Open **IP addresses tab**
7. Find **IPALL**
8. Remove all numbers **TCP Dynamic Ports** field
9. When this is done, press **OK**



and you should see the Warning message what is saying that you need to restart the SQL service.



1. Select SQL Server Services
2. Right mouse click and select **Restart**



1.4. MICROSOFT SQL Server Management Studio

There is also an option that you want to create your own user account in Microsoft SQL which is used for reading database information.

You may need your own account if you want to example make the connection more secure.

When you have installed VMS using the Full Installer package this normally use only Windows Authentication.

This means that you need to enable Mixed Mode in Microsoft SQL which allow using your own account for database login.

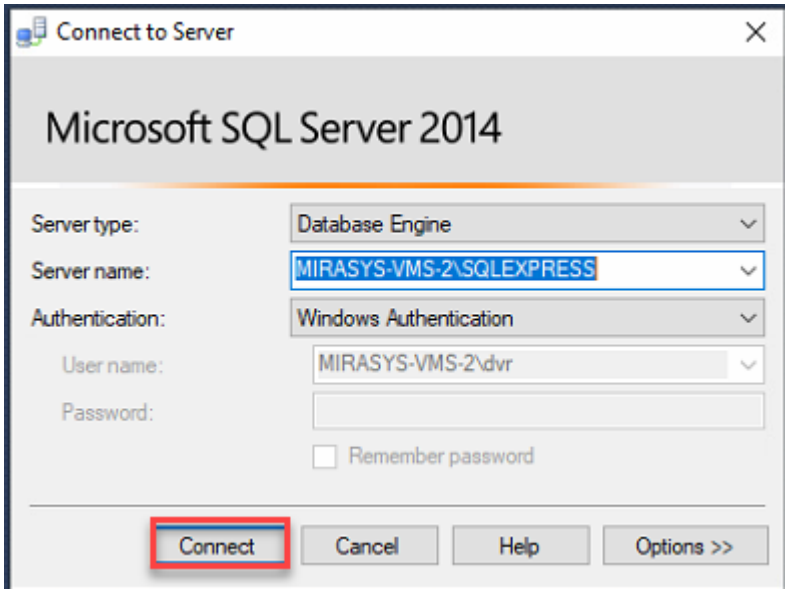
All needed changes and configuration for own user account can be done in Microsoft SQL Server Management Studio.

This program can be found in Start Menu.

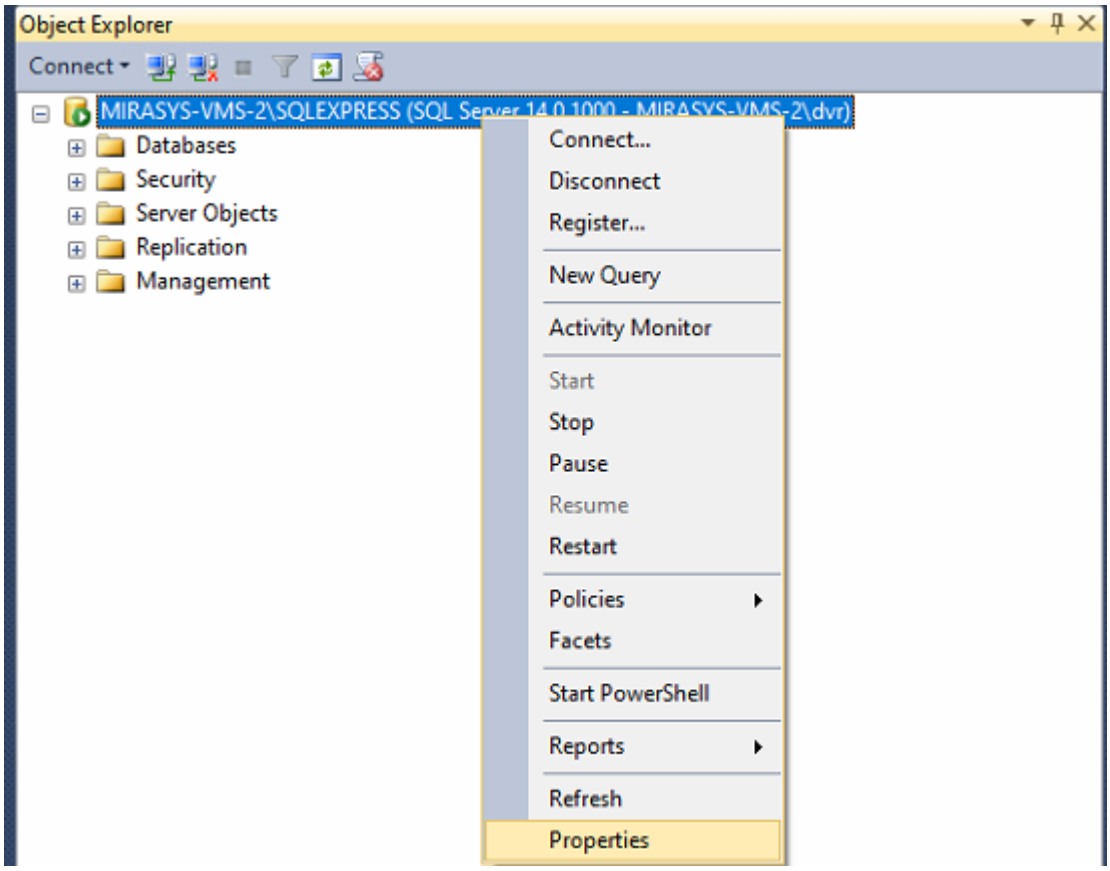
1.4.1. MICROSOFT SQL account for the GRAFANA

Server Authentication

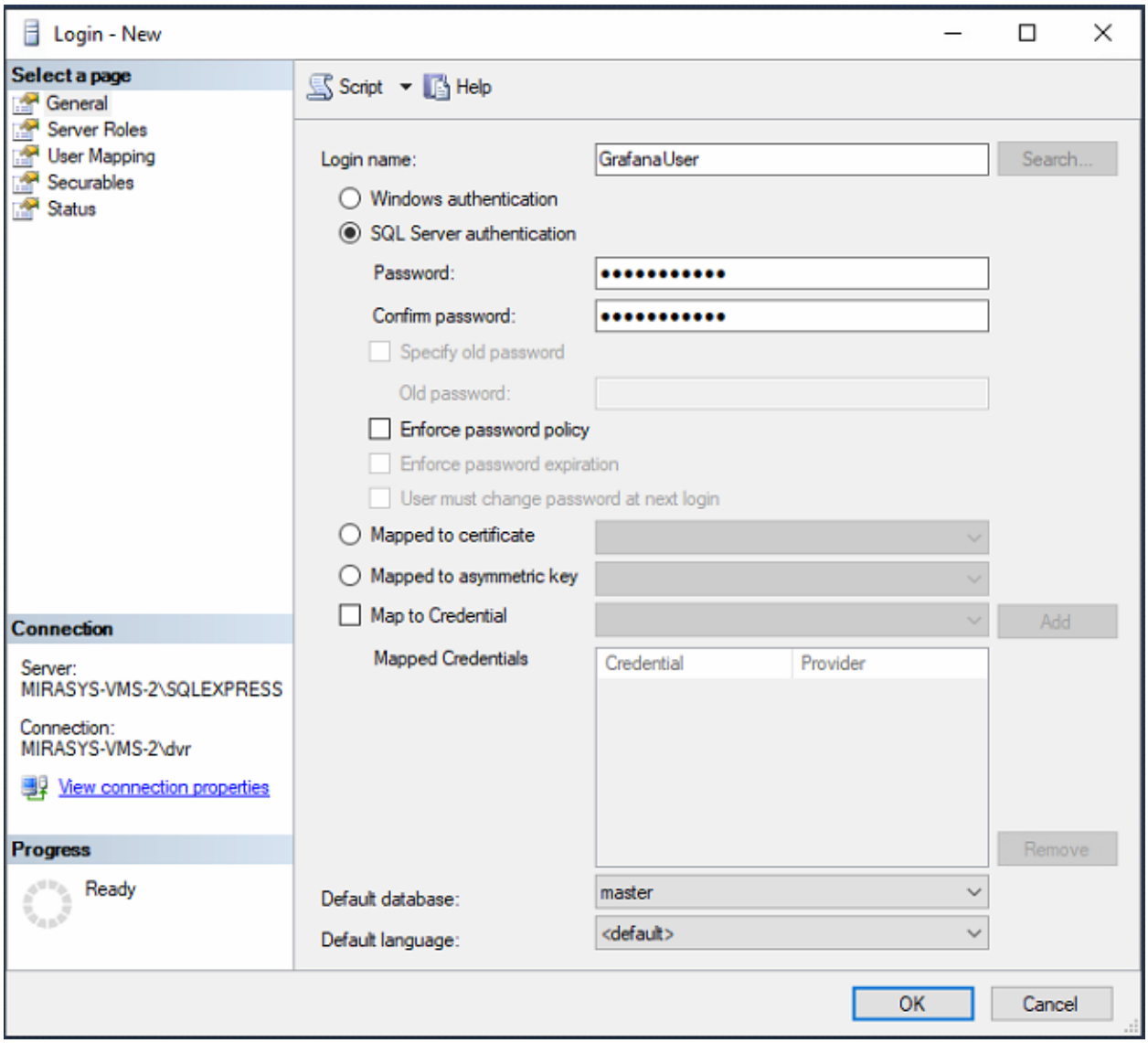
1. Start Microsoft SQL Server Management Studio
2. Click **Connect**



3. Select SQL Server and right-click
4. Select **Properties**

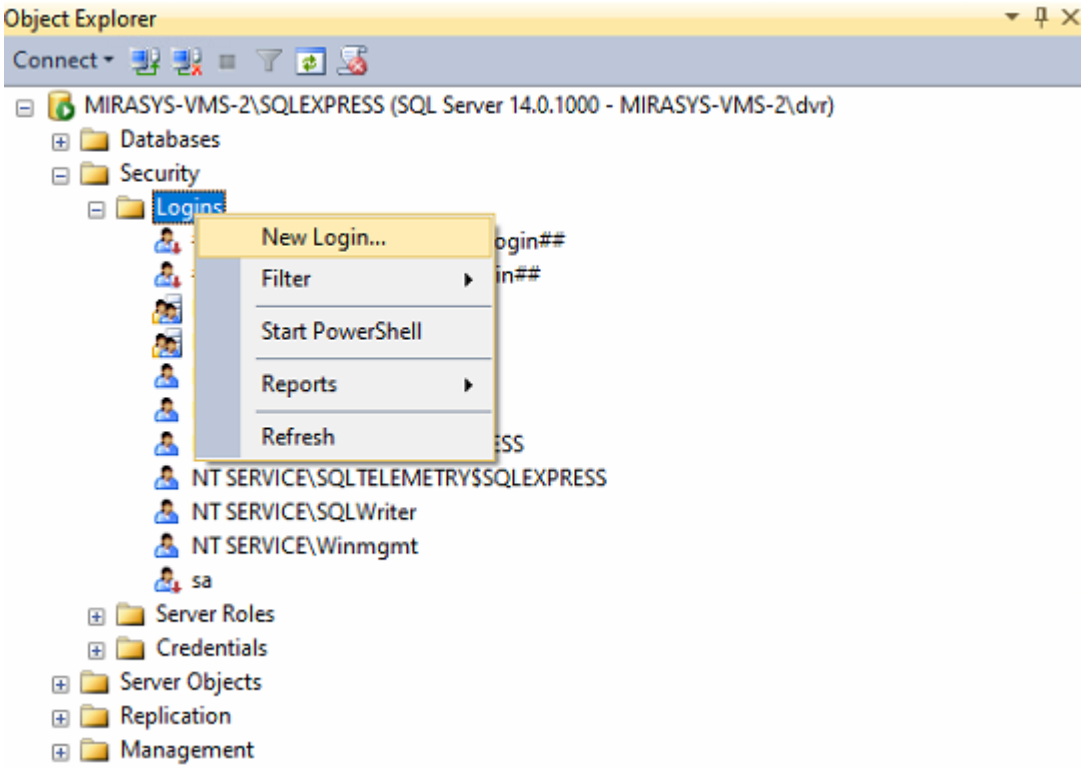


5. Select **SQL Server and Windows Authentication mode**
6. Click **OK**



Adding new user

1. Select **SecurityLogins**
2. Right-click top of the **Logins**
3. Select **New Login**

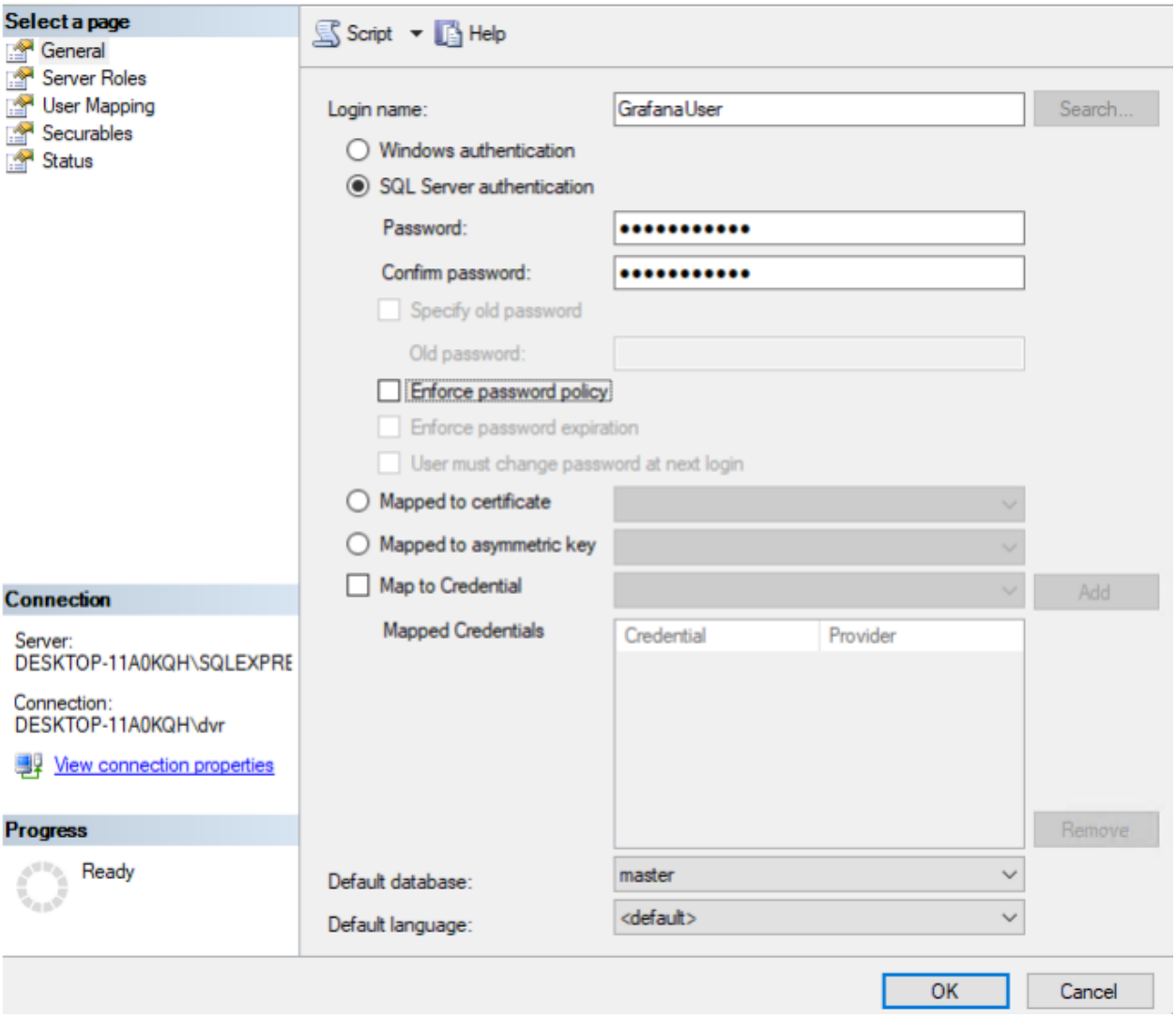


This will open a new window where you can fill in information for this new user.

Example

- Login name: GrafanaUser
- SQL Server authentication
- Password: GrafanaUser
- Default database: master

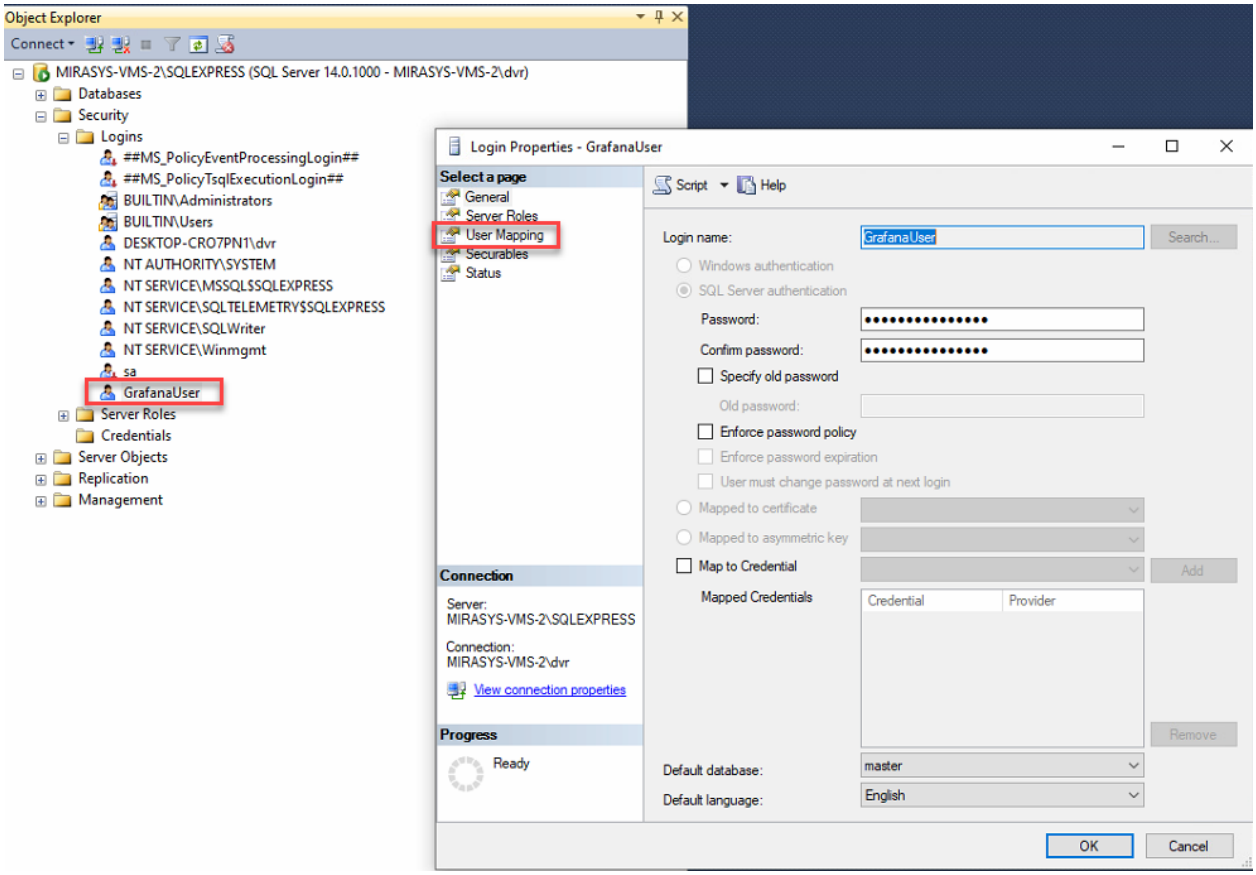
4. Enter Login name
5. Set **SQL Server Authentication**
6. Enter **Password**
7. Remove **Enforce password policy**
8. Click **OK**



Giving access to the Mirasys VMS database

After this, you need to give rights for this user that they can access VMS databases.

1. Go to the User Mapping page



2. Map
    a. DvmsData
    b. RecorderDB
    c. WdContext
3. Give **db_datareader** role for each of these databases.
4. When you have done this you can click **OK**.

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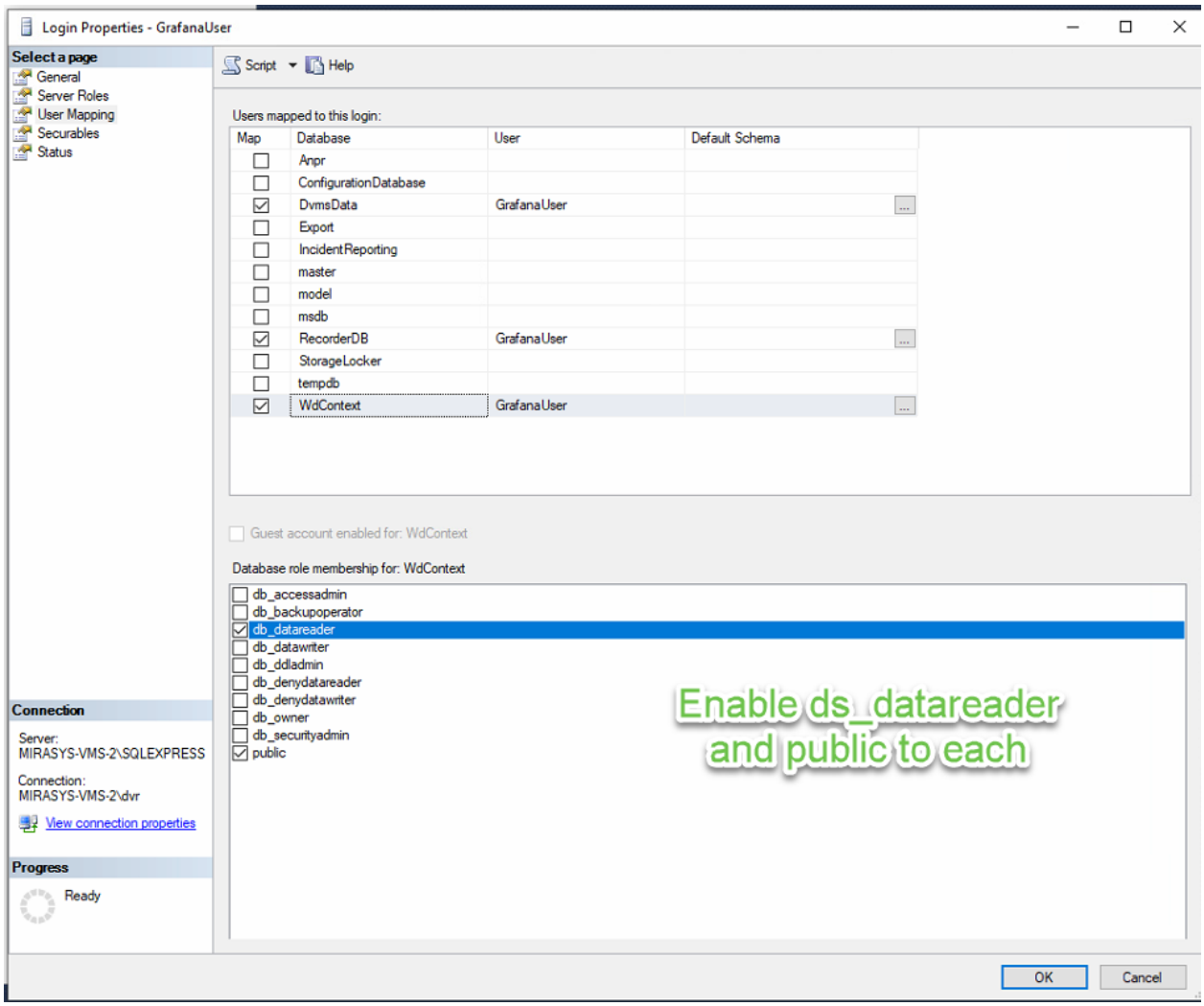
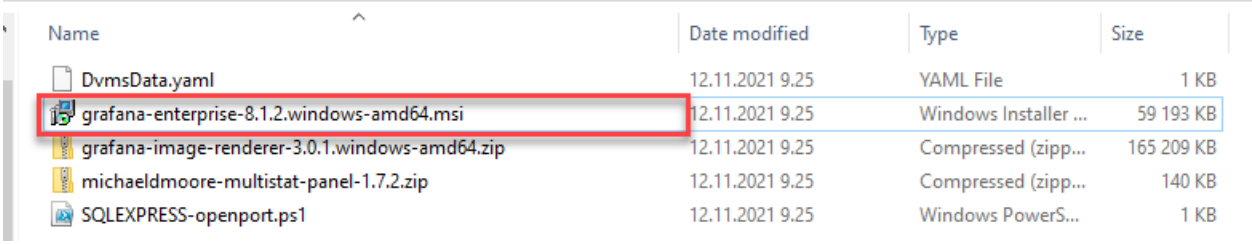
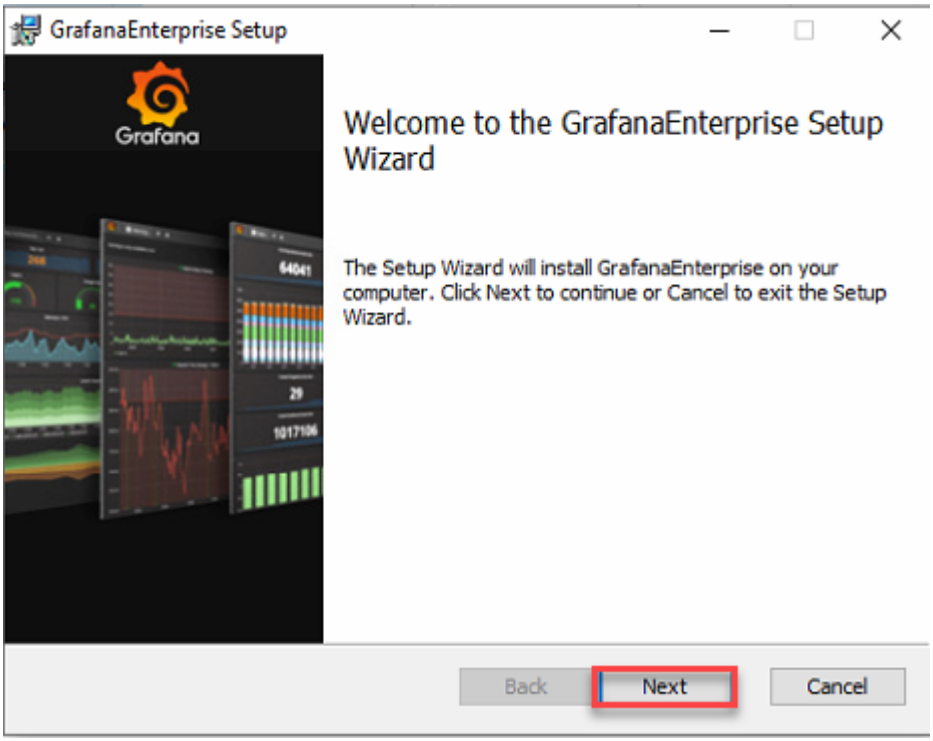


1.5. Mirasys Reporting Grafana

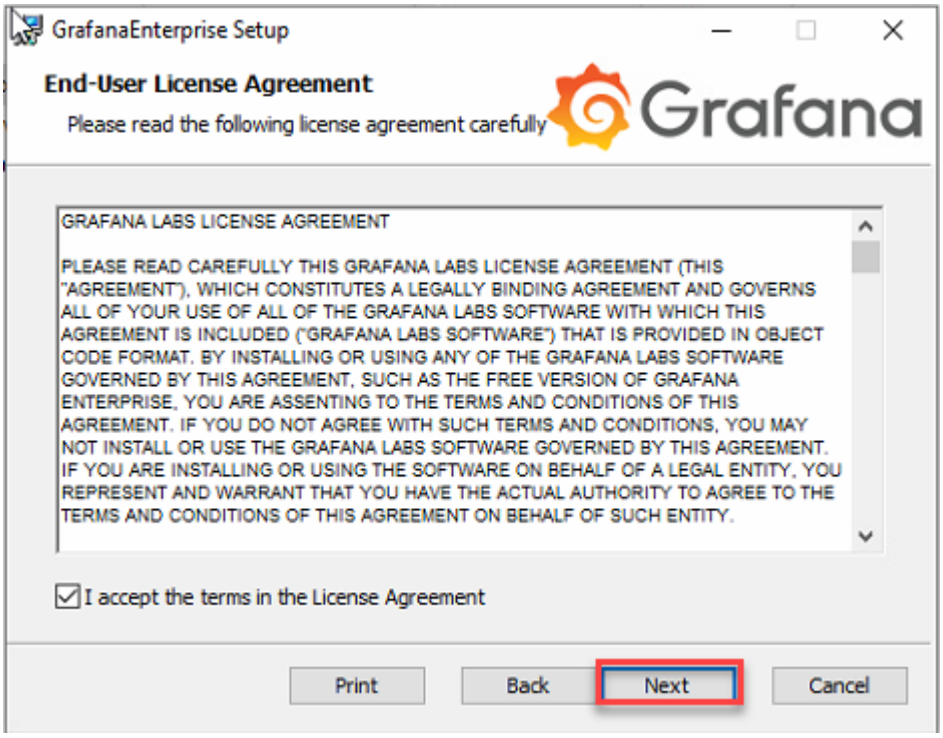
1. Download package from Mirasys Extranet. The current version is 1.0.3
2. Extract downloaded package
3. Browse to the **Installation** folder
4. Start the installation by clicking the installation package



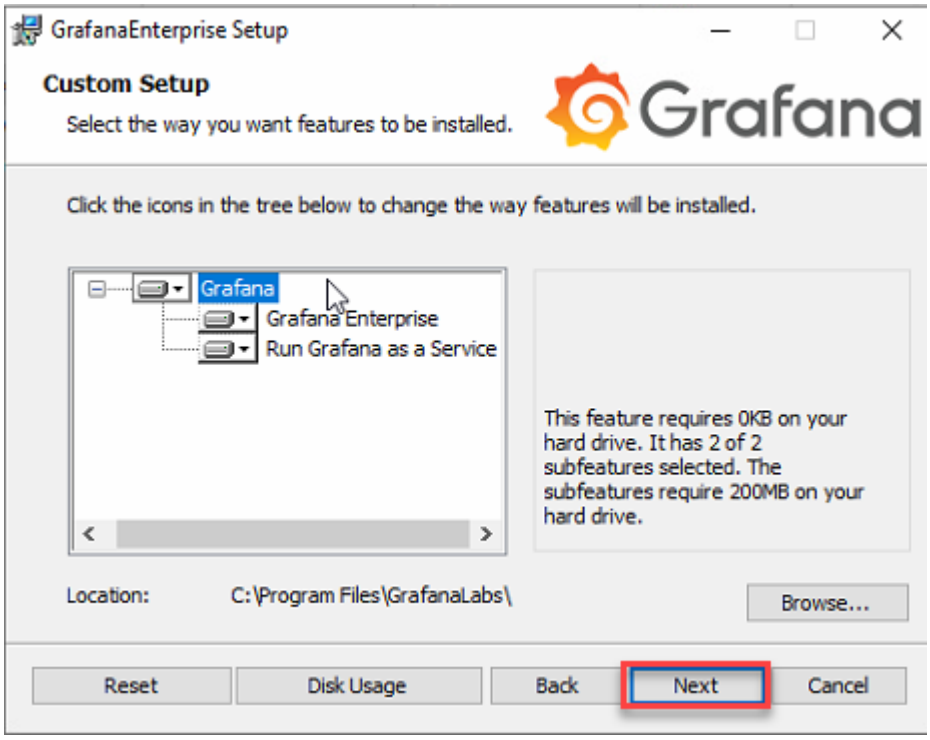
5. Click **Next**



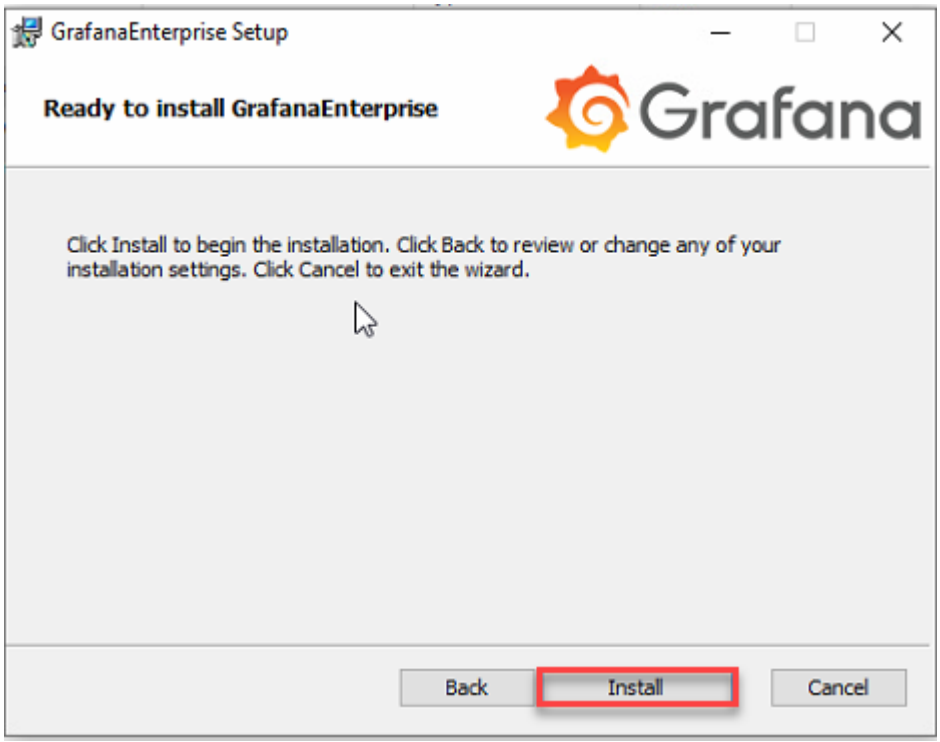
6. Accept the License Agreement and click **Next**



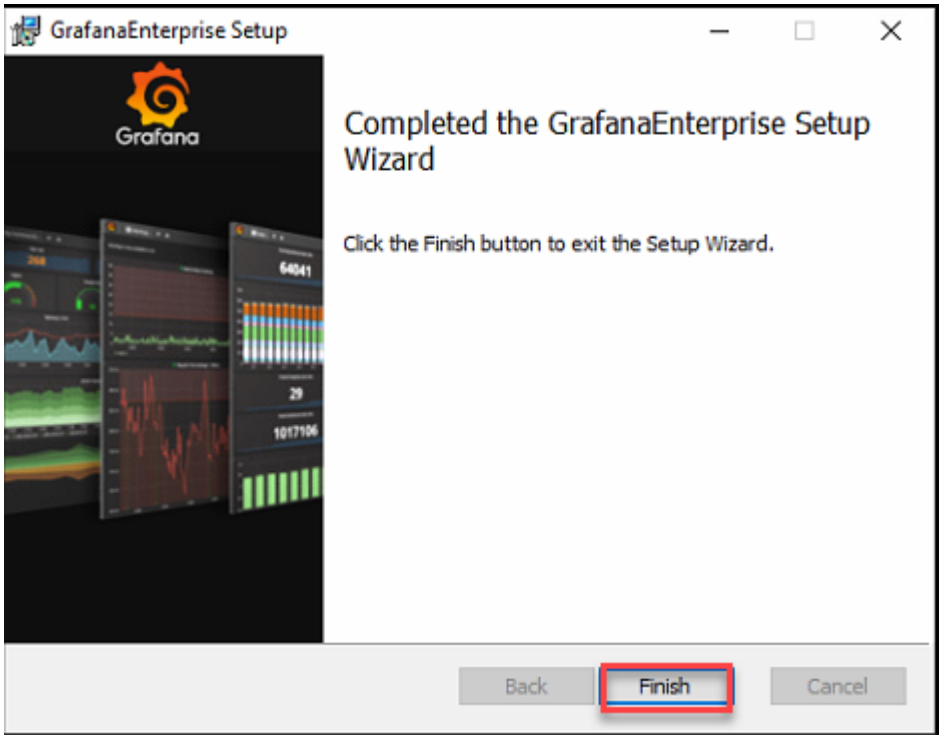
7. Use all default settings and click **Next**



8. Click **Install**



9. Click **Finish**



After the installation check that Grafana service is running

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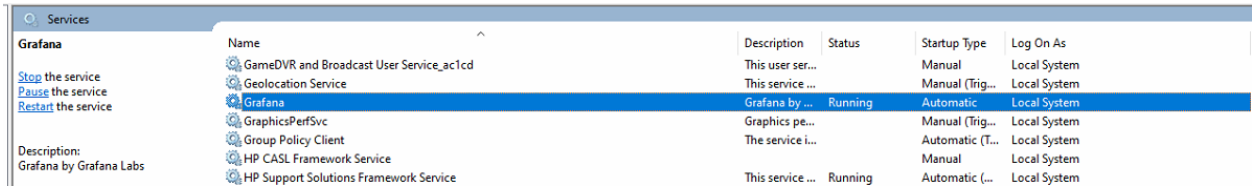
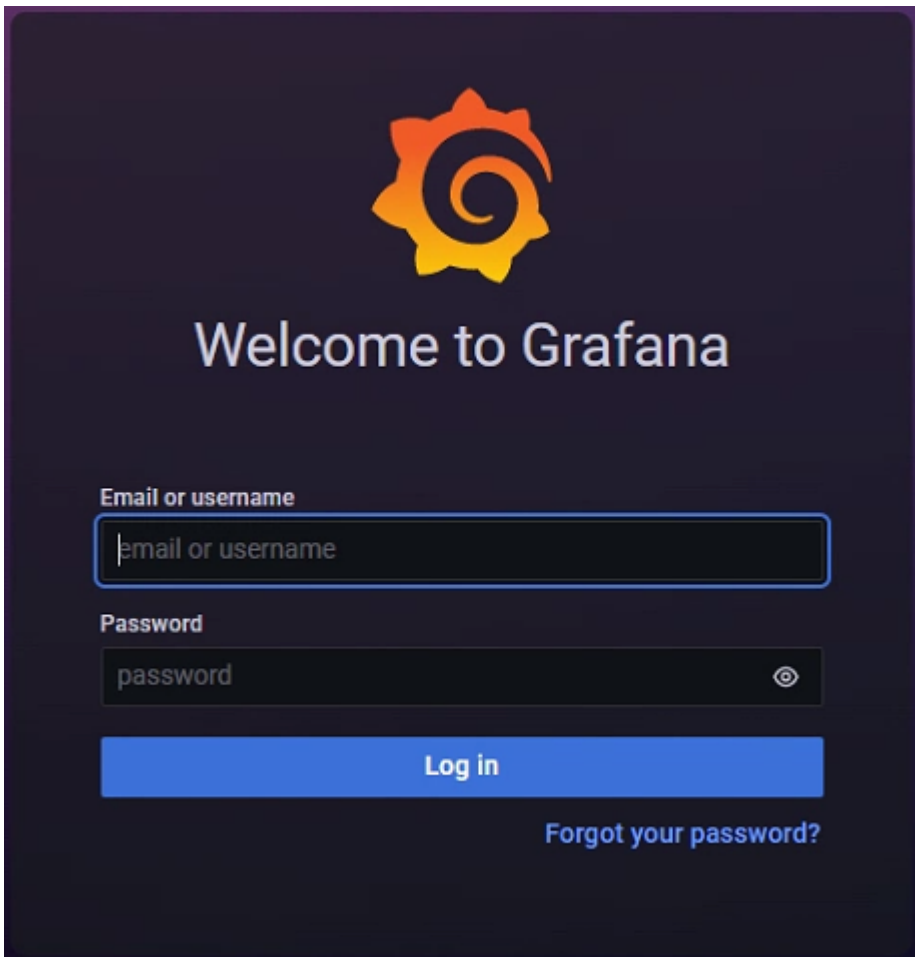


1.6. Login Grafana

If the service is running, then open the browser on the master server and enter an address **http://127.0.0.1:3000**.

If you run the browser on some other machine, please enter the master server IP address instead of 127.0.0.1

The default username is **admin** and password **admin**. It is recommended to change the default password as soon as possible.



Set a new password for the admin user

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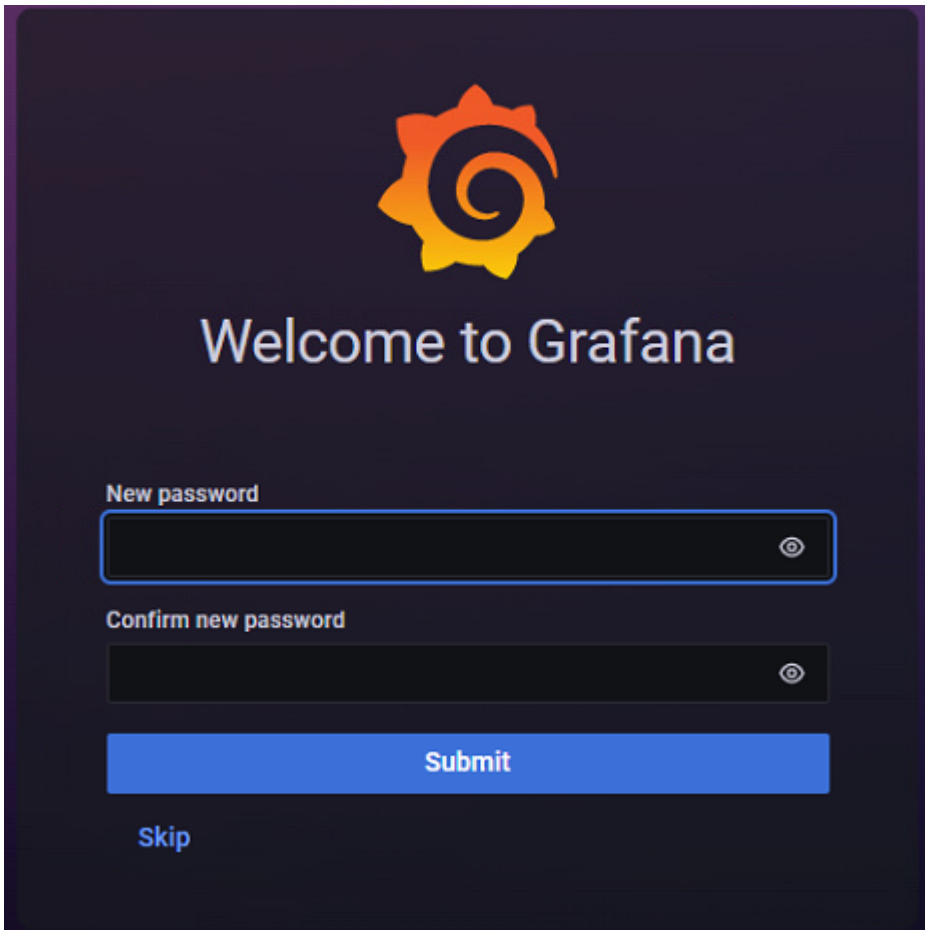

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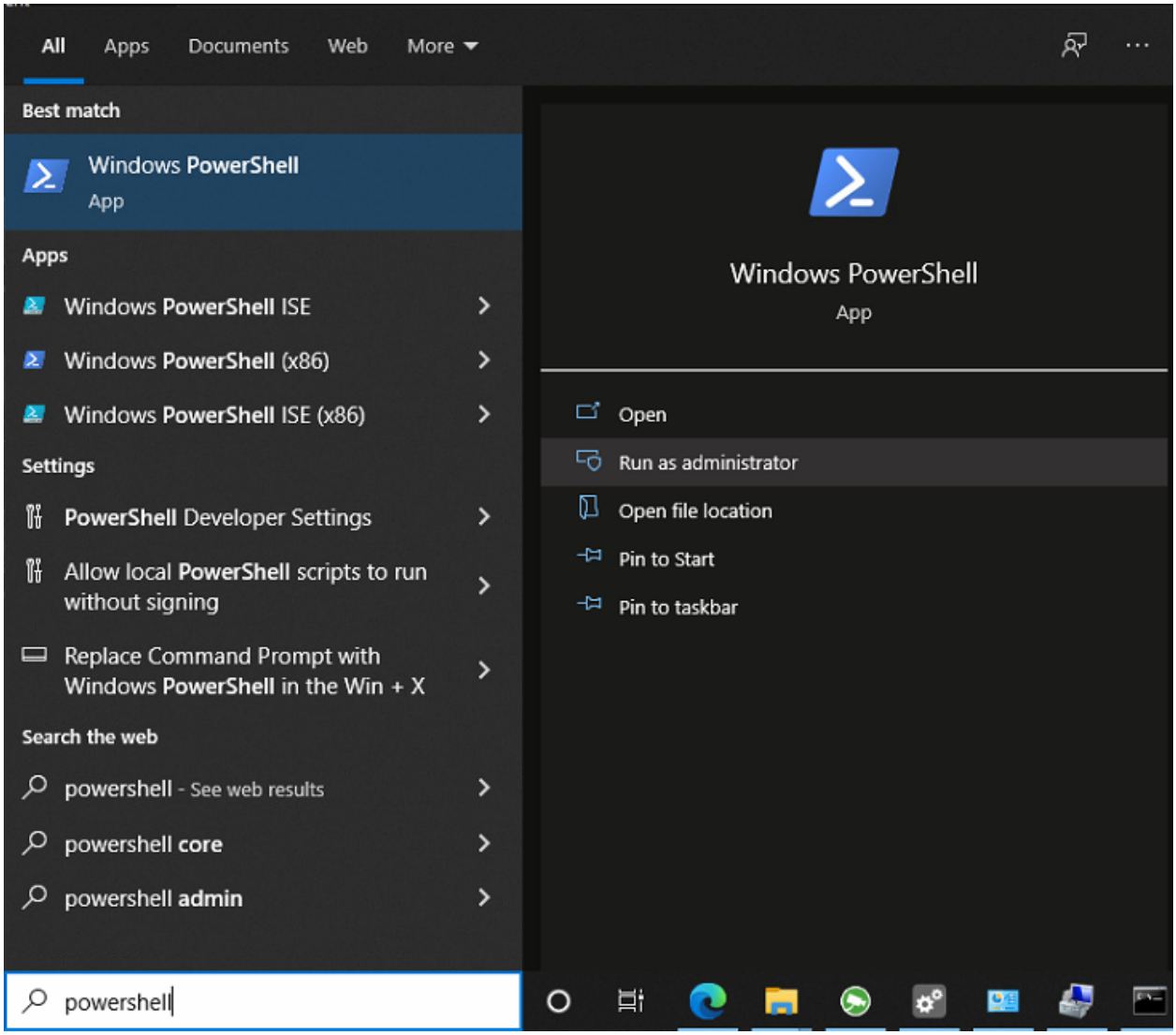
Tel +358 (0)9 2533 3300 - info@mirasys.com - www.mirasys.com

1.7. Database configuration

Grafana will need access to the VMS DvmsData database running on the Master server.

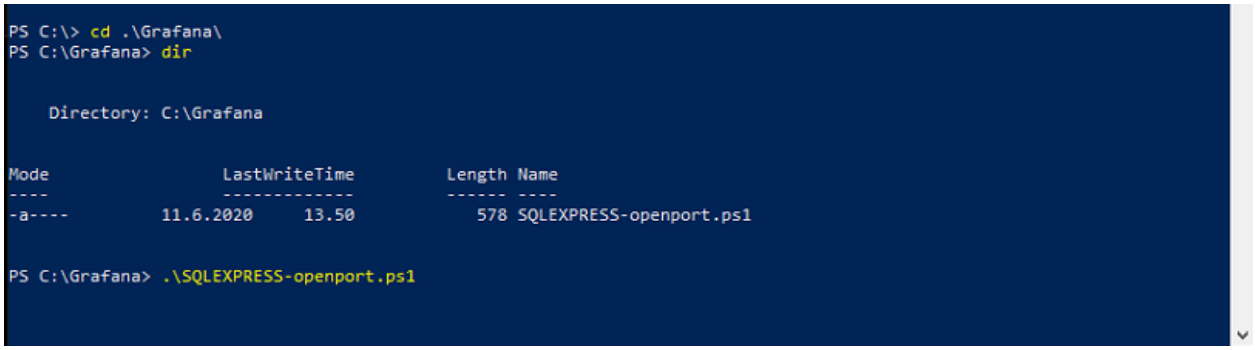
Windows PowerShell

1. Create folder Grafana to the root of the C:
2. Browse to the extracted Grafana package Installation folder
3. Copy script file "**SQLEXPRESS-openport**" to the C:\Grafana
4. Open search and type PowerShell
5. Select **Windows PowerShell** and click **Run as administrator**



6. Browse to the C:\Grafana
7. Type **SQLEXPRESS-openport.ps1** and press **Enter**

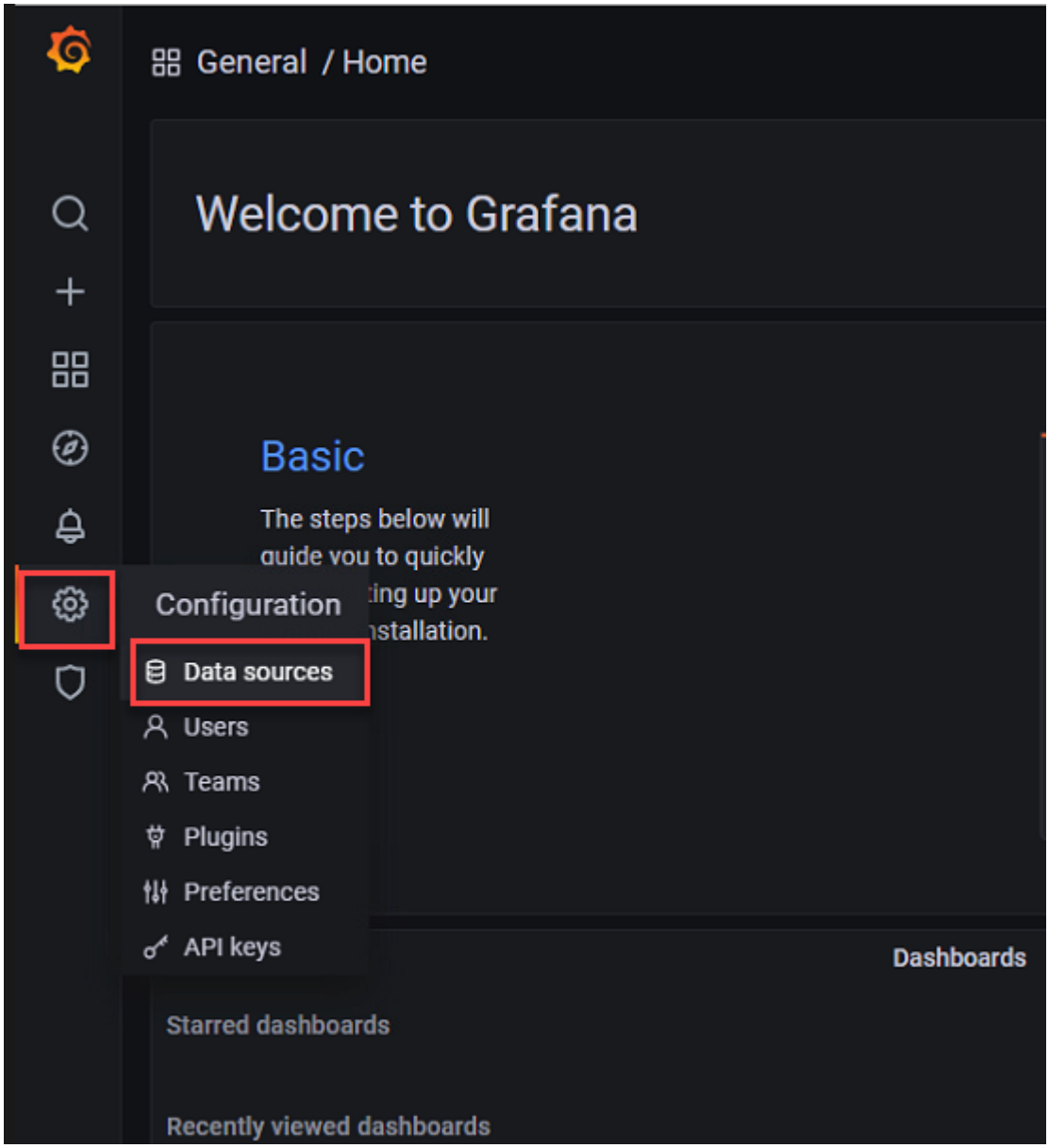
8. Close PowerShell



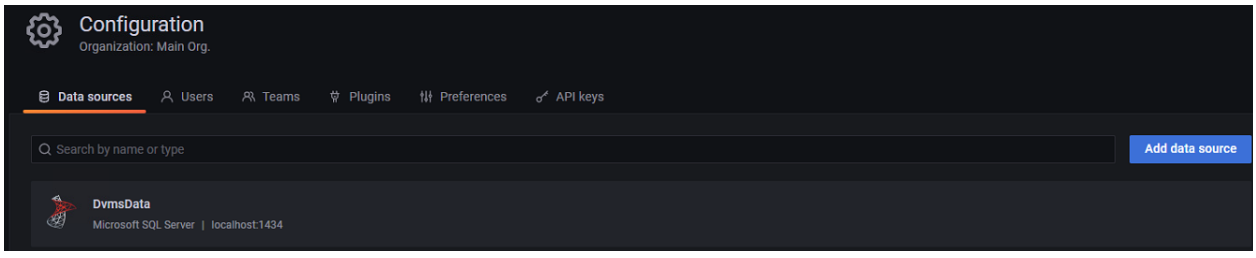
Database credentials

As default **DvmsData.DB** uses credentials **dvr** and password **32dvr**

1. Open **Configuration**
2. Click **Data sources**

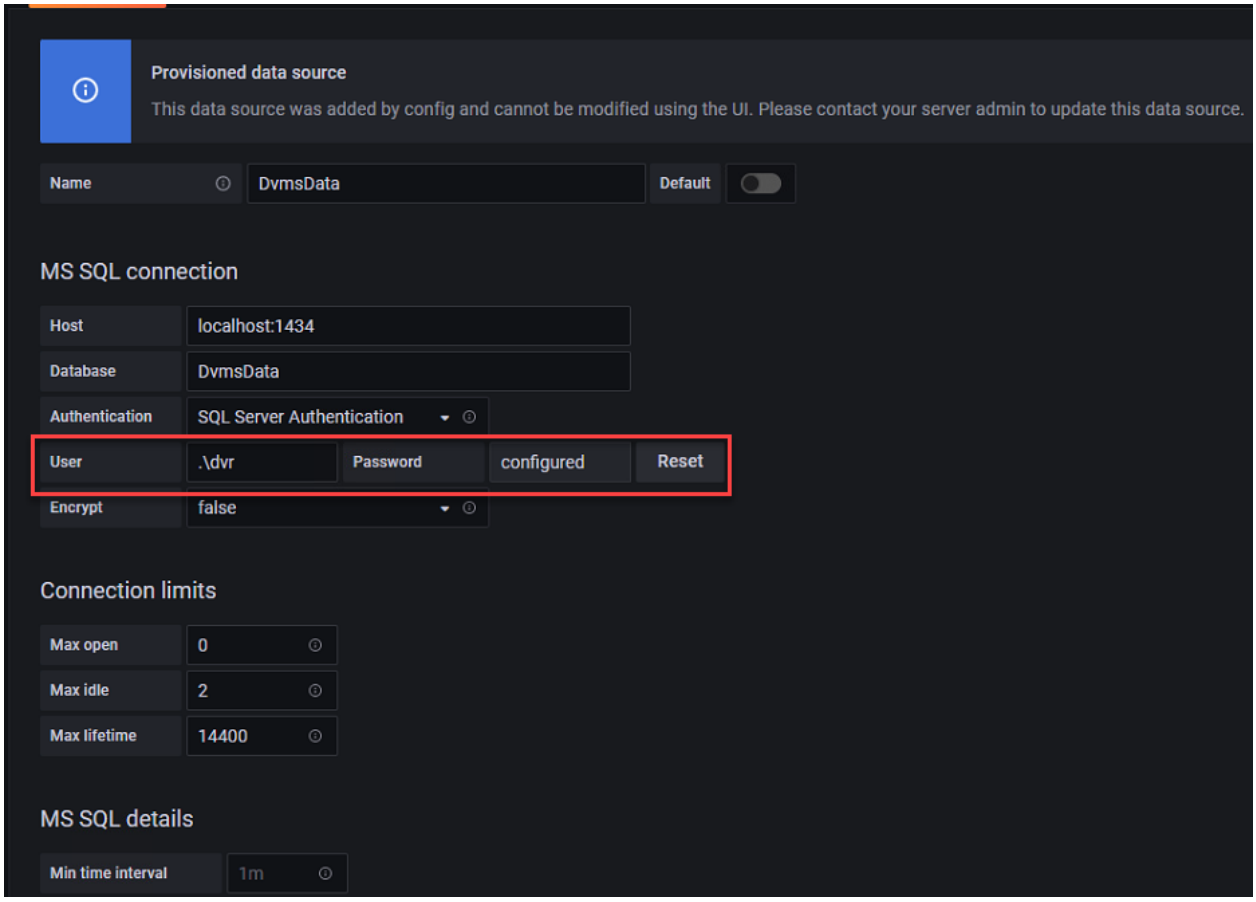


DvmsData should be found from the **Data sources** list



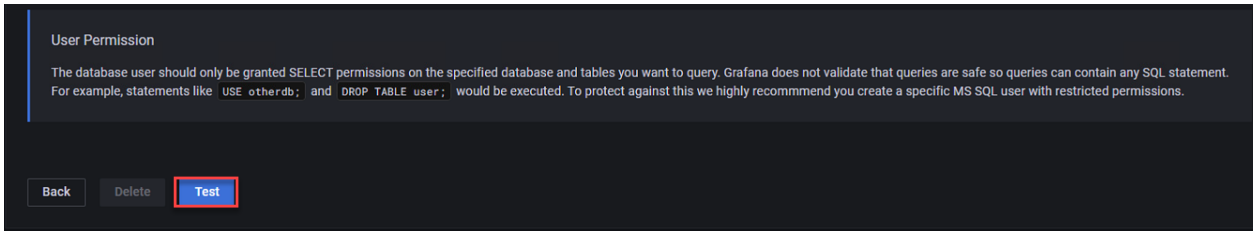
Changing database credentials

1. Click **DvmsData**
2. Change username and password, if needed

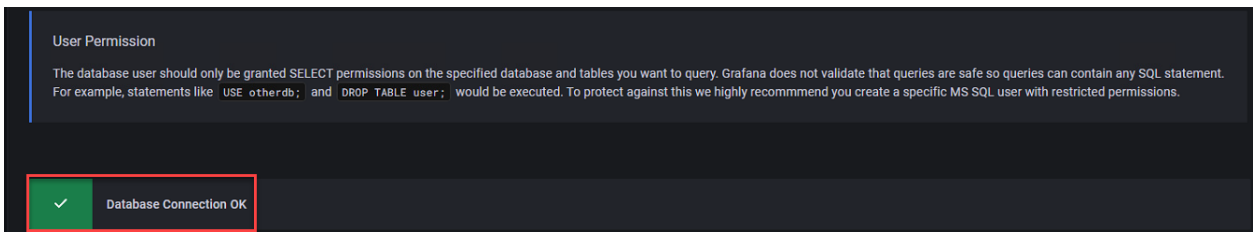


Testing database connection

Click **Test**



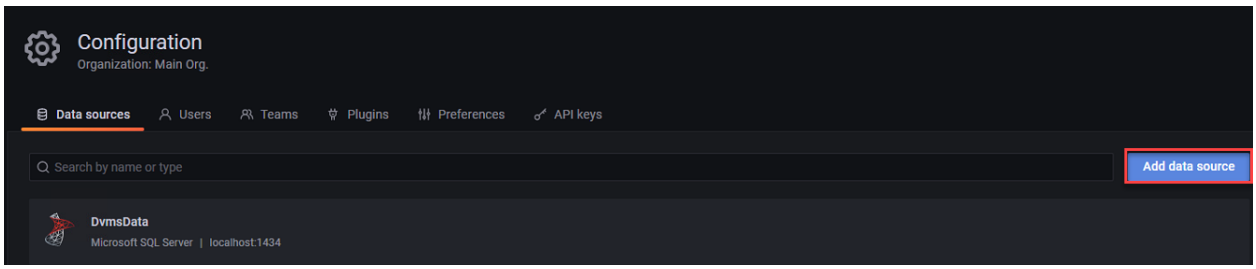
If credentials and connection to the database are okay, you will see the **Database Connection OK** message



Adding a new data source

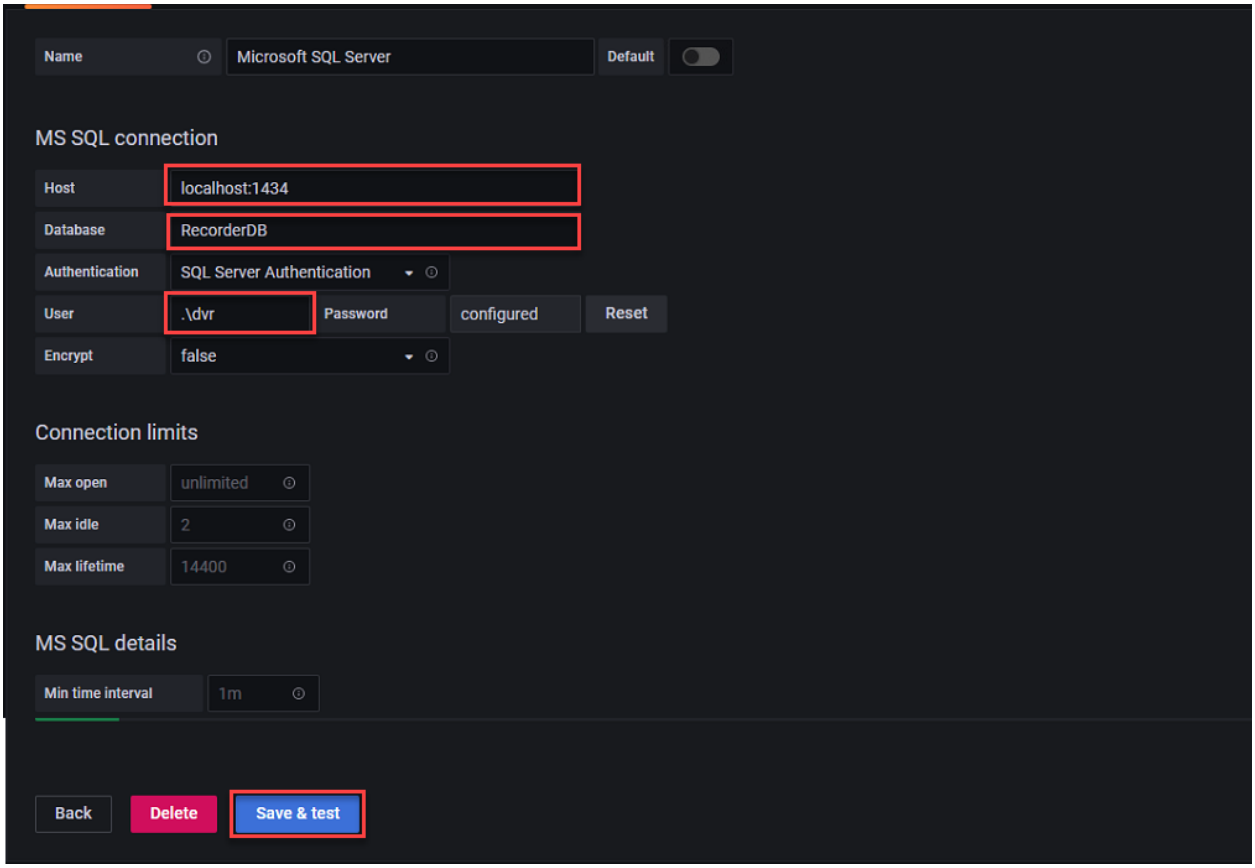
RecorderDB

1. Click **Add data source**



2. Find **Microsoft SQL Server** and click **Select**

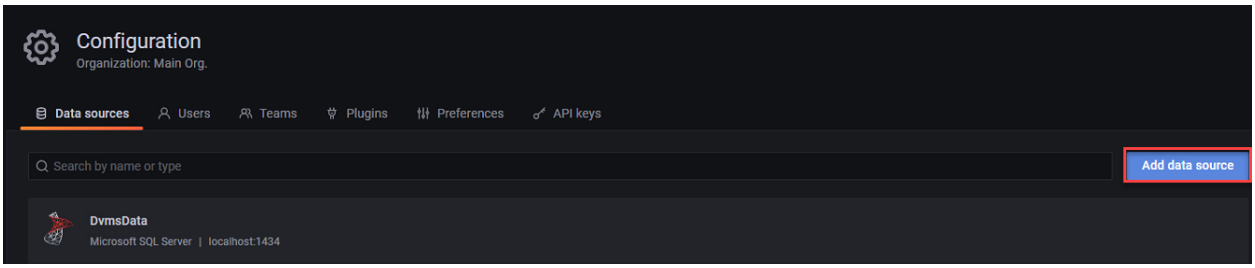
3. Set **Name**: **RecorderDB**
4. Set **Host**: **localhost:1434**
5. Set **Database: RecorderDB**
6. **Authentication: SQL Server Authentication**
7. Set **user and password**
8. Click **Save & Test**



When Grafana is connected to the database, you will see the message **Database Connection OK**

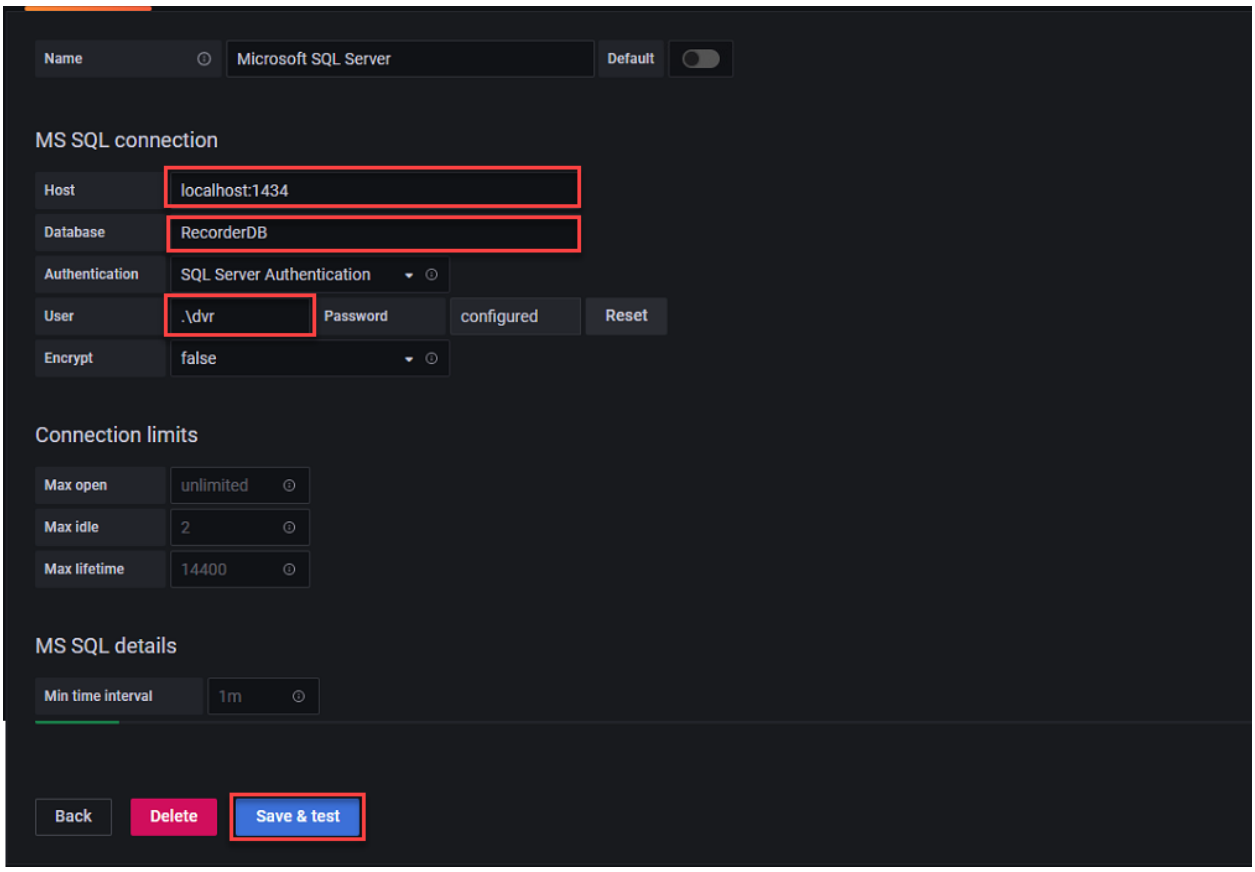
WDContext.DB

1. Click **Add data source**

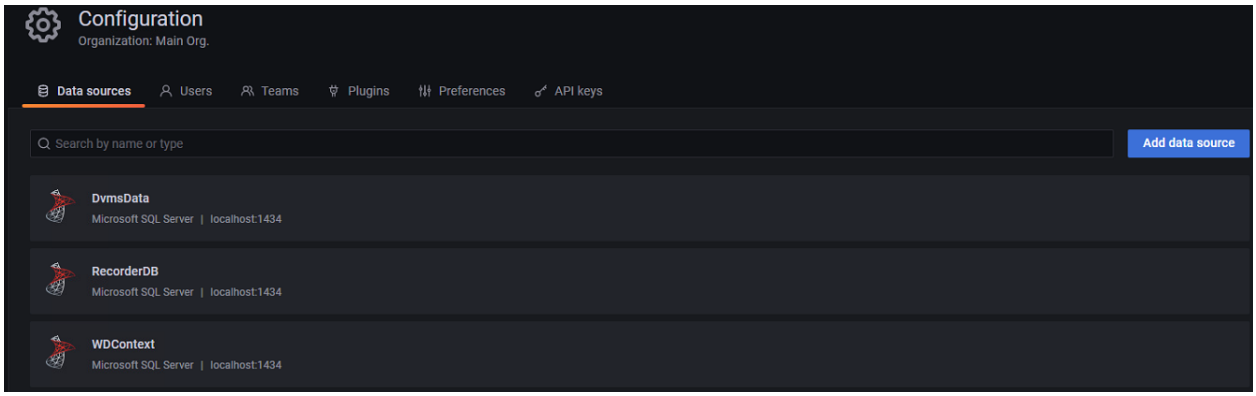


2. Find **Microsoft SQL Server** and click **Select**

3. Set **Name**: **WDContext**
4. Set **Host**: **localhost:1434**
5. Set **Database: WDContext**
6. **Authentication: SQL Server Authentication**
7. Set **user and password(**please set .\ front of the username, if Windows credentials is used)
8. Click **Save & Test**



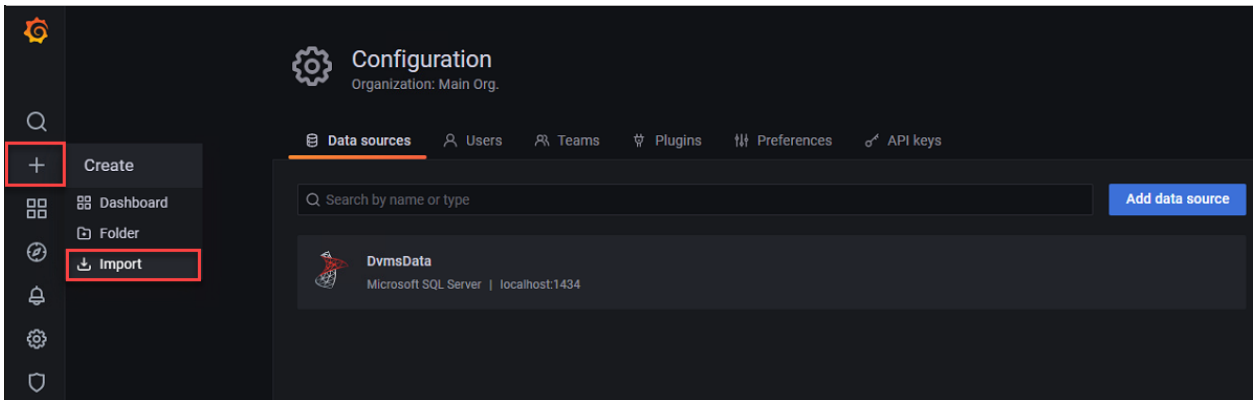
Data sources should look like below



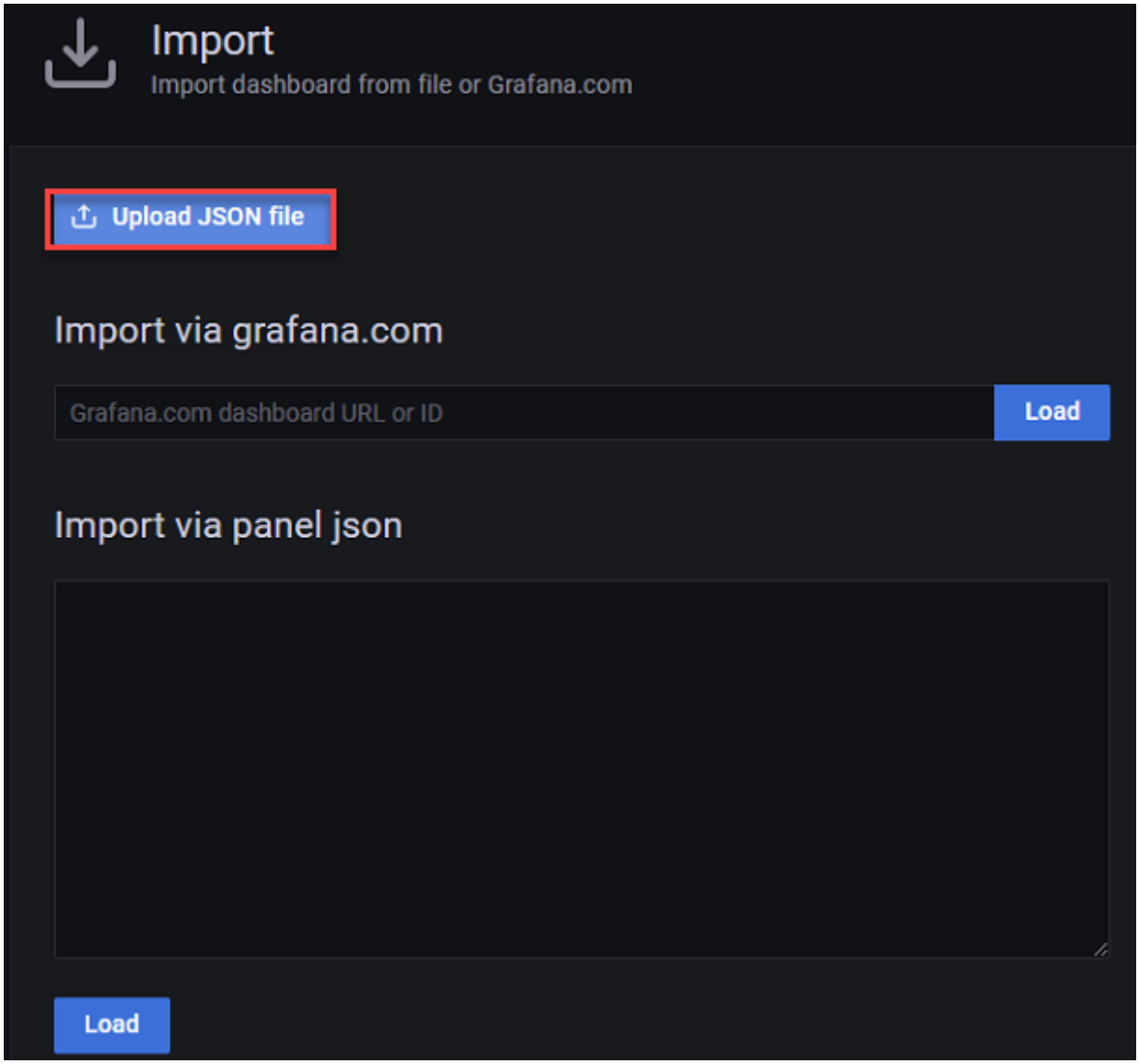
1.8. Importing dashboards

The next step is to import Mirasys VMS Audit Trail and VMS Alarms dashboards into the Grafana tool

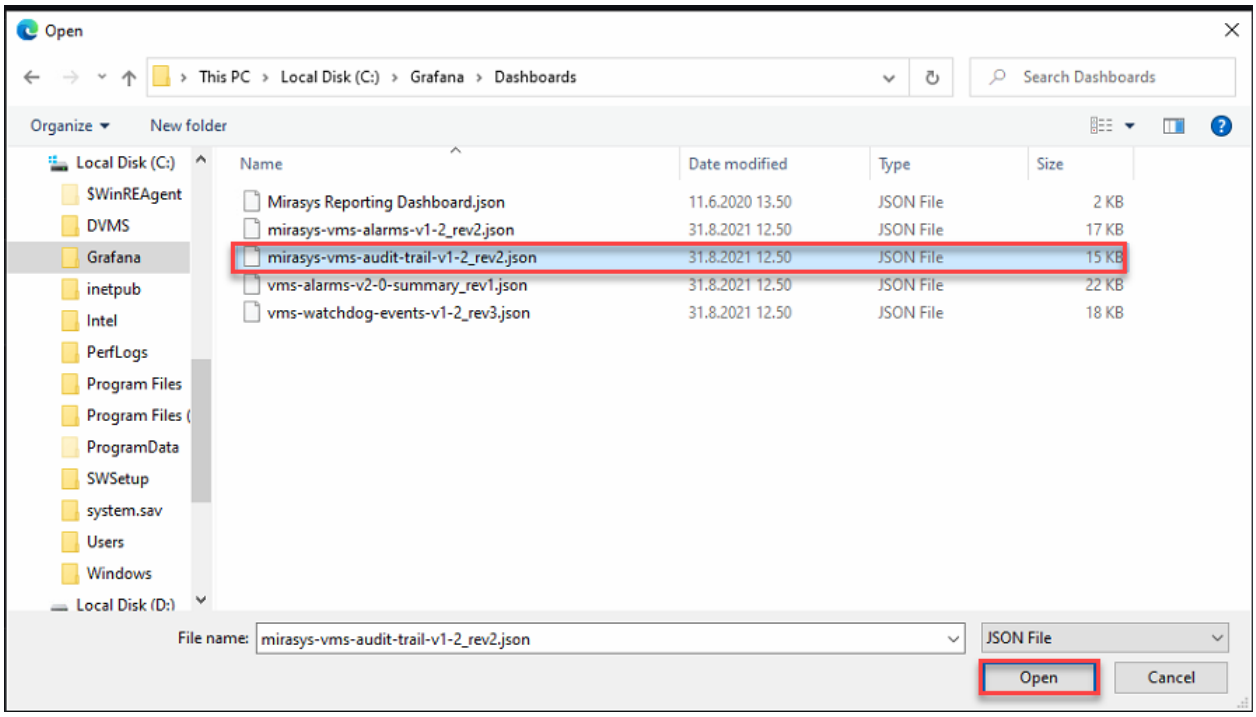
1. Browse to extracted Grafana package
2. Copy **Dashboards** folder to the **C:\Grafana**
3. Hover over the "**+**" sign (left upper corner) and select+click "Import" menu item



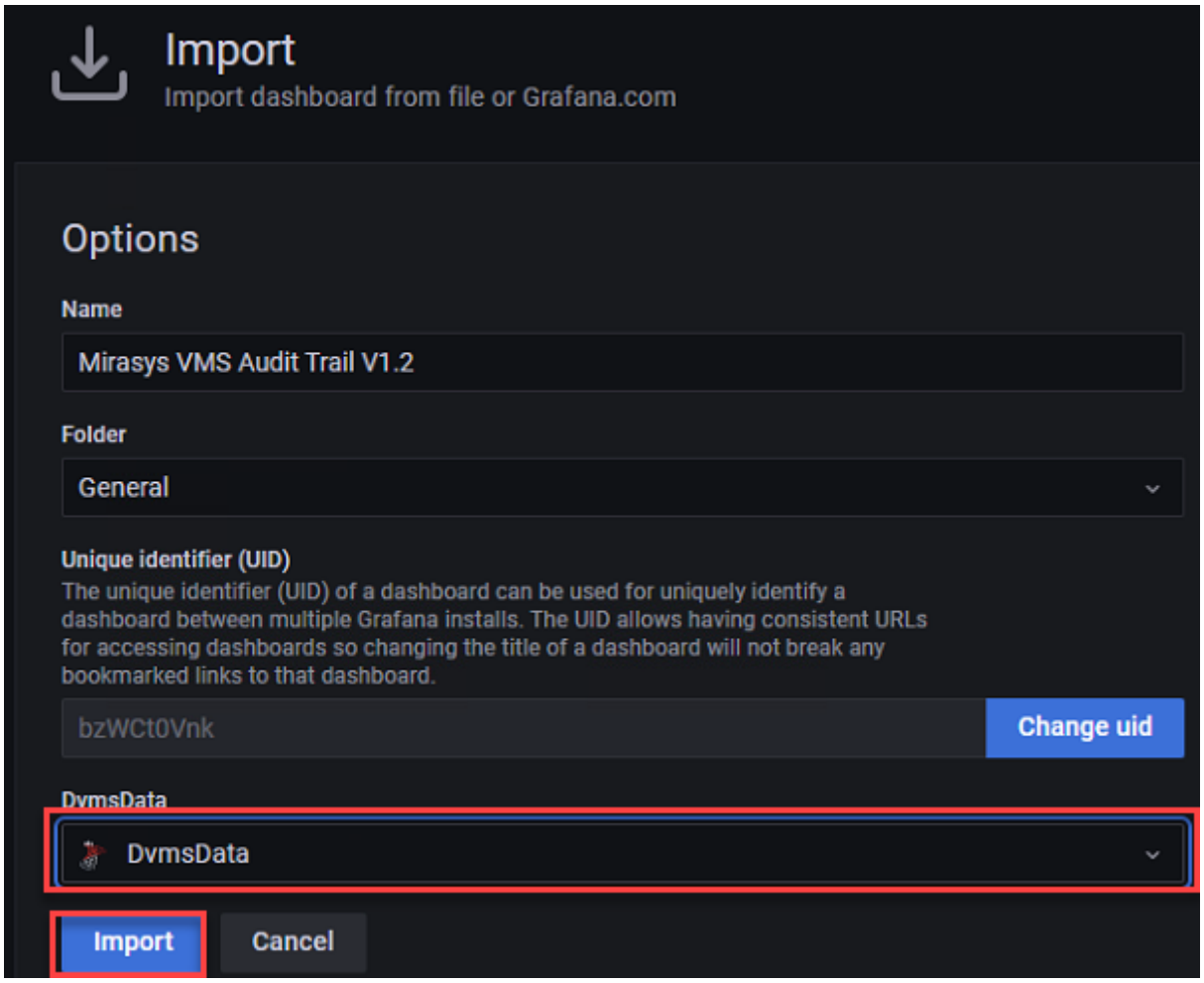
4. Click **Upload JSON file**



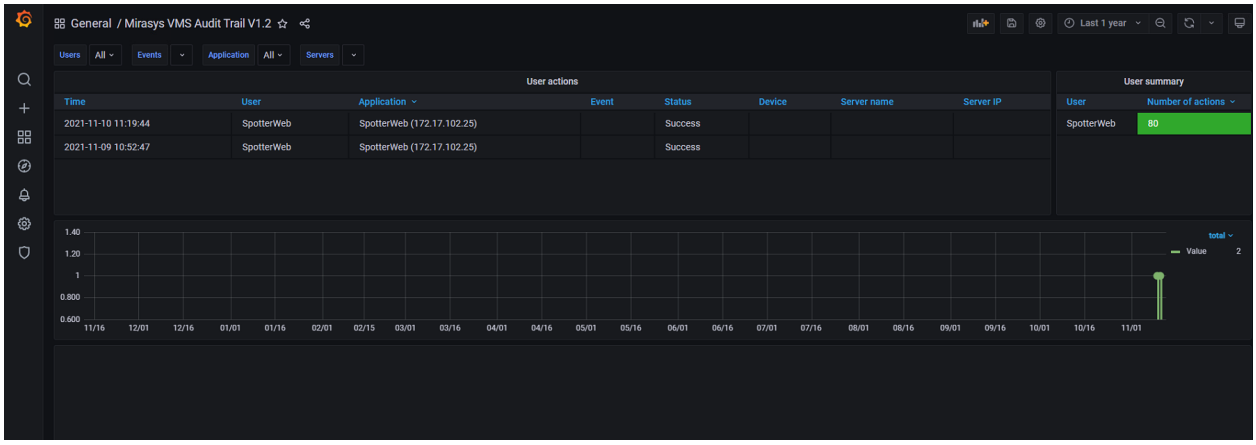
5. Select file “mirasys-vms auditTrail-v1-2_rev2.json
6. Click **Open**



7. Select **DvmsData** from the Microsoft SQL Server data source dropdown box
8. Click **Import**



When template import is done, Grafana will automatically run the report and show results:



Before starting to use reports, repeat template import for all “DVMS*.json” files in this order:

- VMS Audit Trail

- VMS Alarms
- VMS Watchdog Events