

### VeSion™ Server

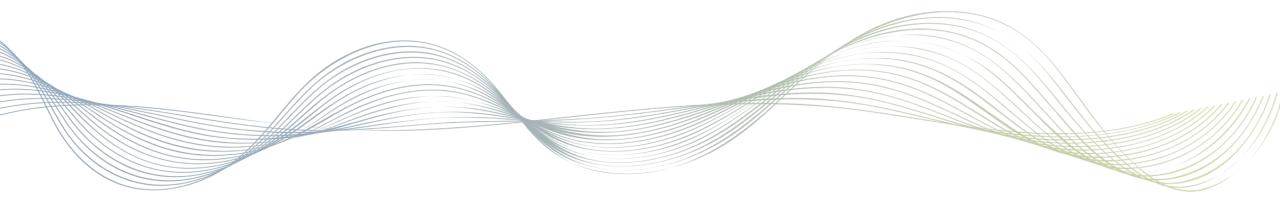
Installation Guide

April 2020 | D08-00-075 Rev. A00









### VeSion™ Server Installation Overview



# VeSion™ System

#### Major software components



- The VeSion system software runs on Microsoft Windows operating system. The operating system can be
  - Windows Server 2008 R2
  - Windows Server 2012
  - Windows Server 2016
- This quick guide provides detail steps to install the applications needed for a VeSion Server. The below are the major software and server role that need to be installed on the server in additional to the relevant tools to facilitate the installation.
  - Web Server (IIS), .NET Framework 3.5 and Telnet Client features
  - MySQL database and workbench
  - GnuGPG Privacy Guard for VeSion system license
  - VeSion Server Application
  - VeSion Web HTML5 Application running under Internet Information Services (IIS)

# **Installation Highlights**



- This guide is based on the use of Windows Server 2016
- Procedure highlights
  - Add operating system features and Install Microsoft applications
    - Turn on Remote Desktop Connection
    - Add Web Server (Internet Information Services) role
    - Add .NET Framework 3.5 feature
    - Add Telnet Client feature
    - Install Microsoft Visual C++ Runtime Libraries 2015 Redistribution
  - Open TCP ports on firewall (assuming that the built-in firewall of the Windows Operating System is used)
  - Install database and configure VeEX applications
    - Install MySQL Installer version 8
    - Install MySQL Server
    - Install MySQL Workbench
    - Configure MySQL Database
    - Install and configure VeSion Sever application
    - Install VeSion Web HTML5 application and upload system license
  - Add application shortcuts to Startup

#### Software and Tools

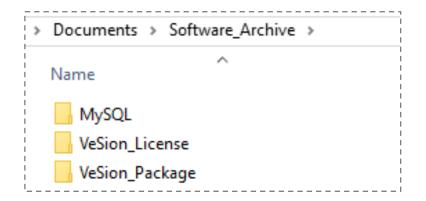


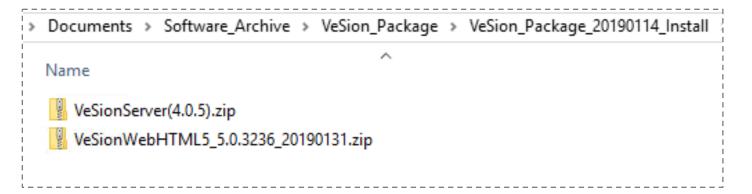
- MySQL Installer for Windows version 8.0.17.0.
  - https://dev.mysql.com/downloads/mysql/
  - Consult with VeEX <u>Customer Care</u> for compatibility with other versions
- MySQL configuration tool <MySQLConfigurationHelper(3.0.0)190218>
  - Provided by VeEX
- PnuGPG <gpg4win-vanilla-2.3.3.zip>
  - Provided by VeEX
- VeSion GPG public key file <vesion public.key>
  - Provided by VeEX
- VeSion license file:
  - Provided by VeEX for the ordered configuration and license duration
- VeSion Server
  - Provided by VeEX
- VeSion Web HTML5
  - Provided by VeEX

# Organizing the Software on the Server



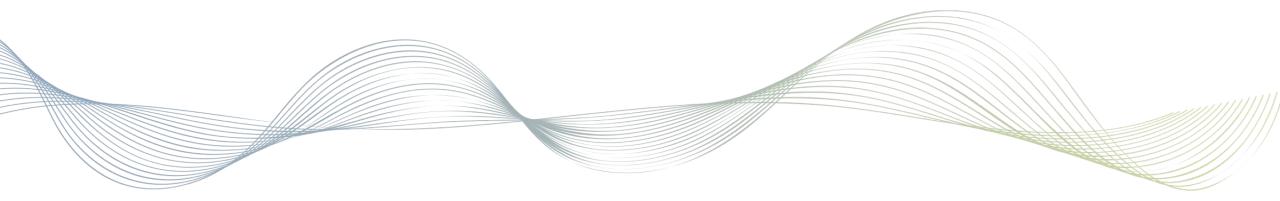
- To allow an easy reference to the software installation history and access to the software for future use, it is recommended to put the installation software on the server.
- If Drive C: has a good amount of free disk space, use the default Documents folder.
- Create a Software Archive folder under Documents.
- Under the Software\_Archive folder, create the following folders
  - MySQL, which contains the MySQL installation software, MySQL Configuration Helper
  - VeSion\_License, which contains the gnu installation software and the vesion\_public.key file
  - VeSion\_Package, which contains the VeSion Server and the VeSion Web HTMLT software











### Server Roles and Features

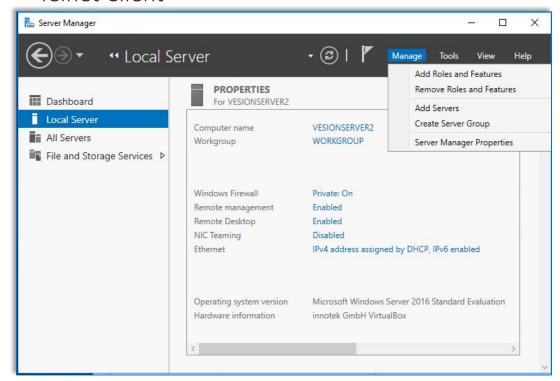
Step 1

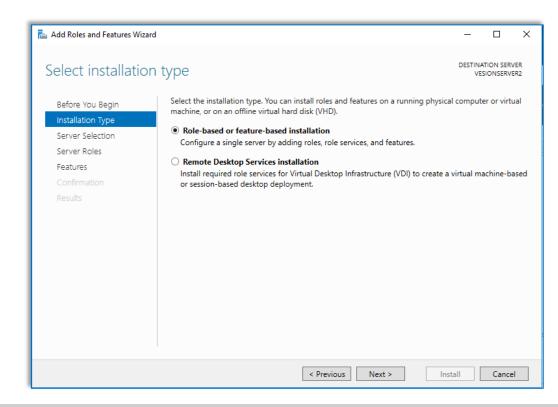


#### Add Roles and Features



- The first step of the installation is to use the Add Roles and Features of the Server Manager to add the below roles and features
  - Web Server (IIS)
  - .NET Framework 3.5 Features
  - Telnet Client

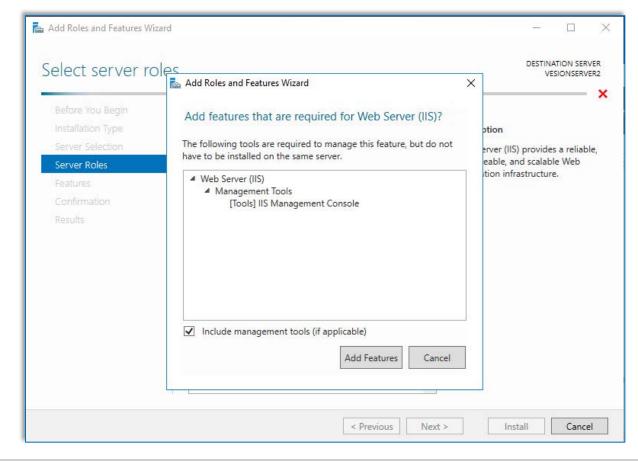


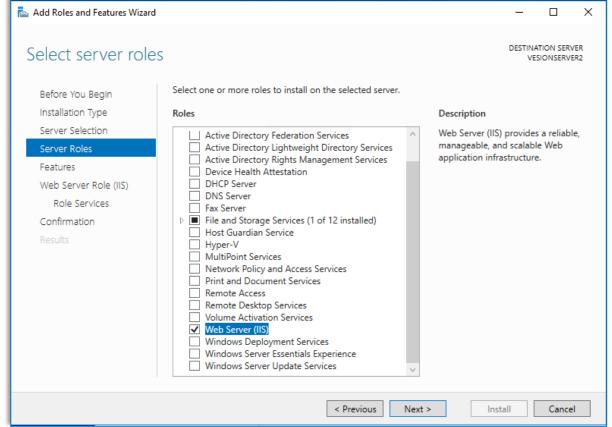


#### Add Web Server (IIS) Role



Web Server (IIS) and associated features

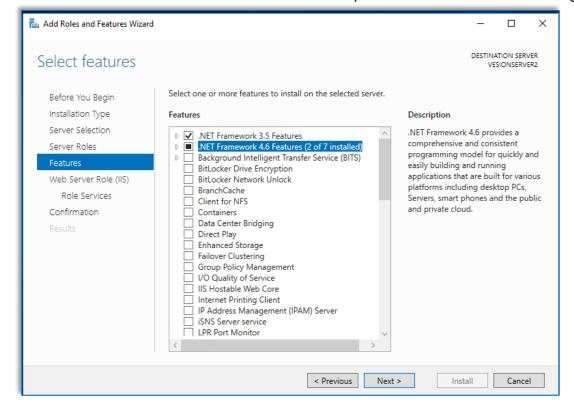


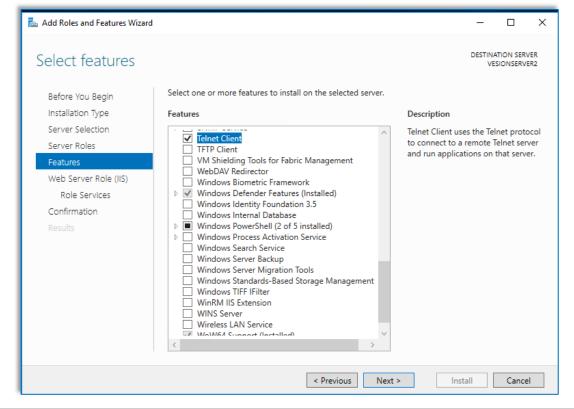


#### Add .NET Framework and Telnet Features



- NET Framework 3.5 Features
  - The .NET Framework 3.5 features are needed to run the MySQL Configuration Tool when setting up the database
- Telnet client
  - The telnet client is needed for probe troubleshooting, if needed.

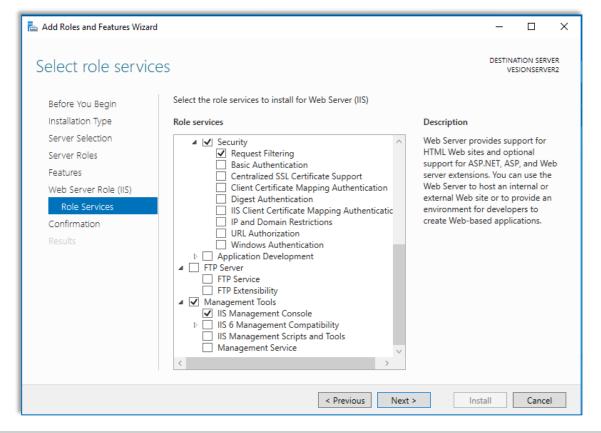


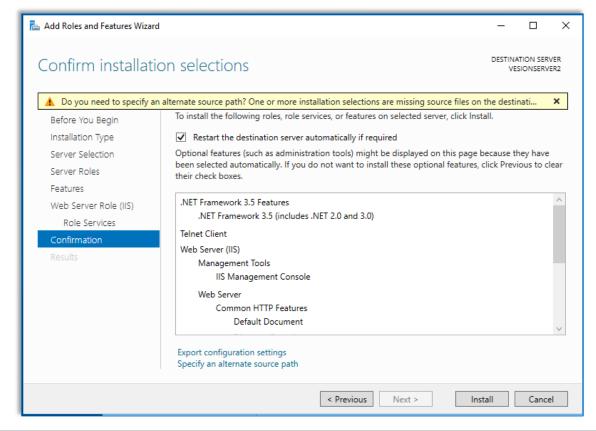


#### Add Roles and Features



 Check in the Web Server Role (IIS) > Role Services includes Management Tools > IIS Management Console. Then click Next> to continue.

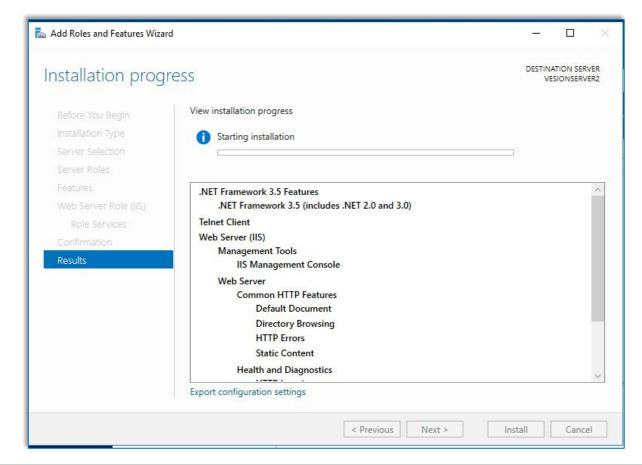




#### Add Roles and Features

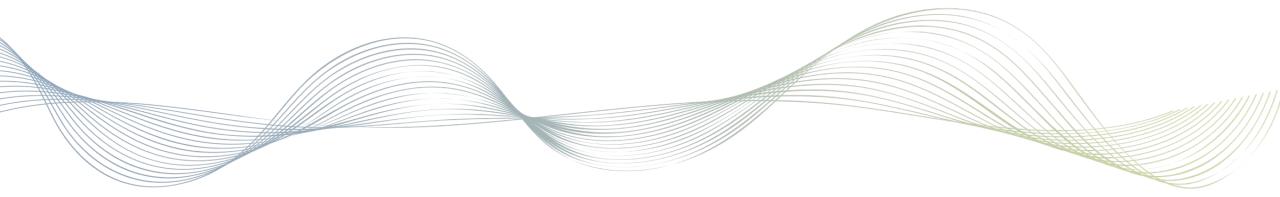


 Click Install in the Confirmation to proceed add the IIS role and the .NET Framework and Telnet Client features. Let it finish the installation.









# Open Ports on Windows® Firewall

Step 2

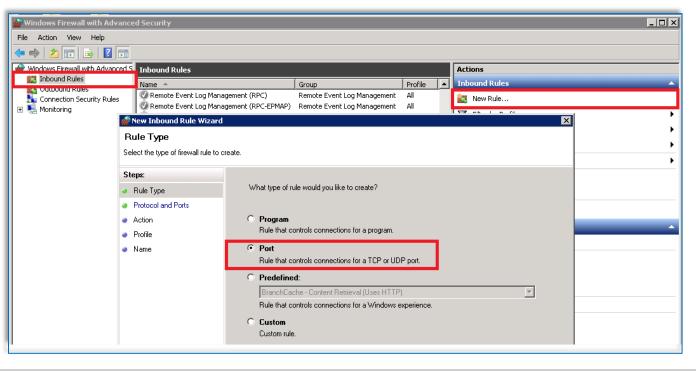


# Open Required Ports on Windows Firewall



- For the VeSion Server, the following inbound TCP ports need to be opened:
  - Port 80 for http web access
  - Port 4523 for access from HTML5 web client and mobile app
  - Port 40000 for VeSion probe servers to VeSion
     Server access

- Launch Windows Firewall with Advanced Security
  - Click Inbound Rules at the left pane, then click New Rule... at the right under Actions > Inbound Rules to bring up the Rule setting pop-up.

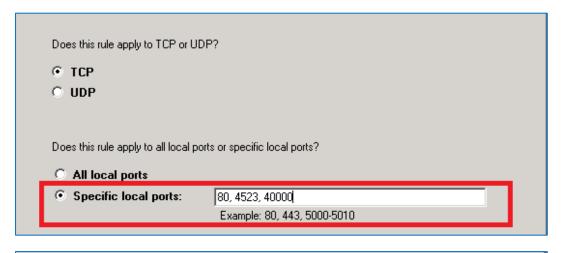


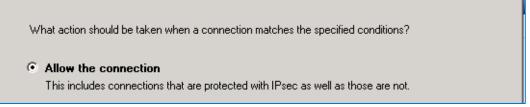
### Open Required Ports on Windows Firewall

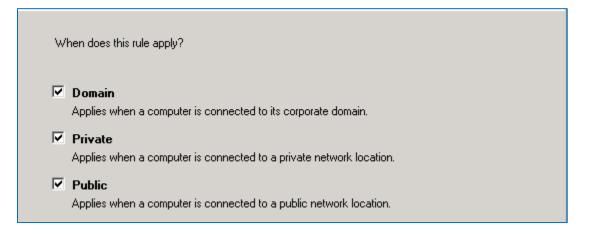
#### **Inbound Rules**



- Click Inbound Rules at the left pane, then click New Rule... at the right under Actions > Inbound Rules to bring up the Rule setting pop-up.
- Select Port, click Next > to continue then pick Specific local ports and enter the tcp port 80, 4523 and 40000. Click Next > to continue. Select Allow the connection and apply the rule to all three





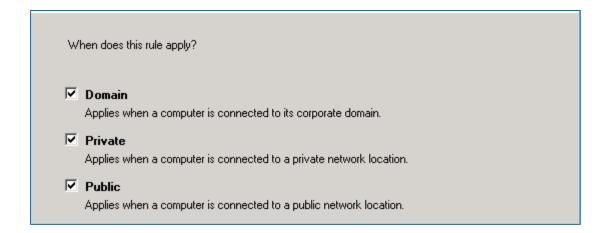


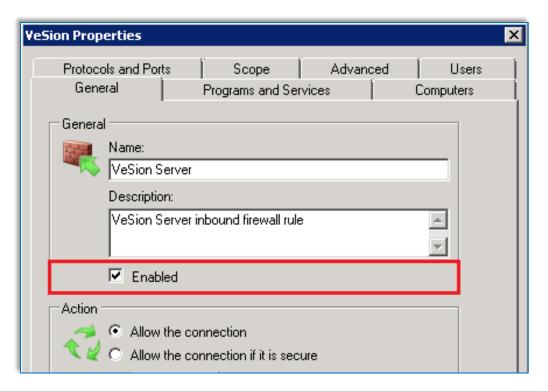
### Open Required Ports on Windows Firewall

#### **Inbound Rules**



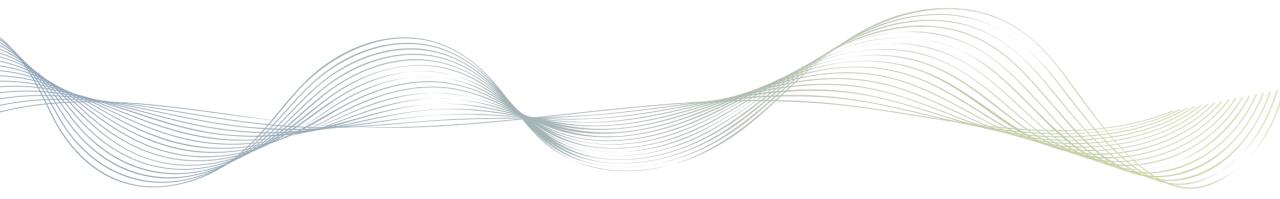
- Apply the rule to Domain, Private and Public networks
- In the next screen enter VeSion Server for the Name and a short statement, e.g. VeSion Server inbound firewall rule for the Description.
- Make sure that the rule is enabled, then click Apply.











# Installing MySQL

Step 3

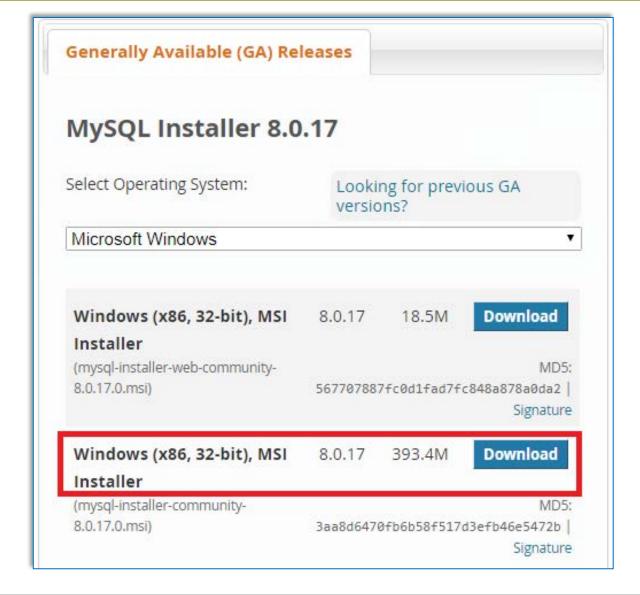


# MySQL Installer

#### Download



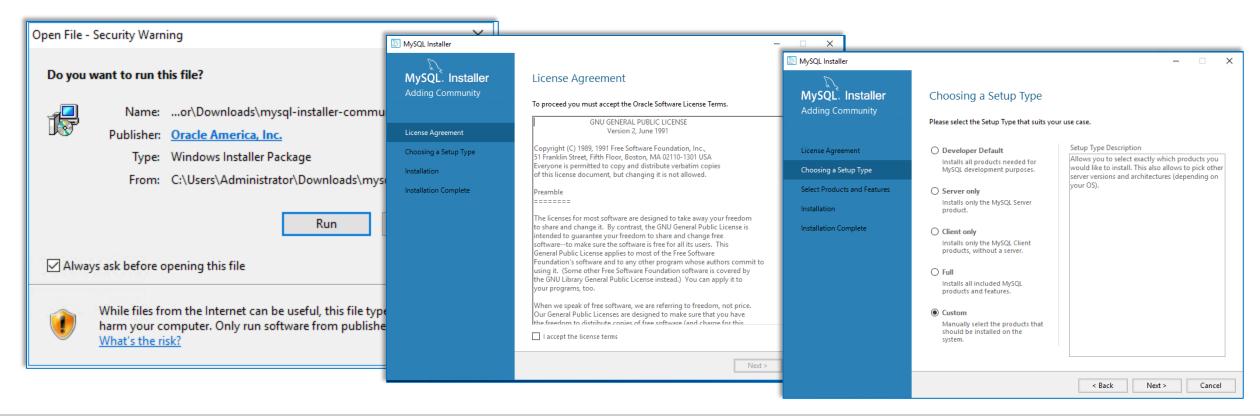
- Download MySQL Installer for Windows for MySQL Community Server from
  - https://dev.mysql.com/downloads/mysql/
  - Download the mysql-installer-community version, which has a large file size and keep a copy on the server. this way if there is a need to reinstall/reconfigure MySQL Server or Workbench the software is readily available.



# MySQL Installer



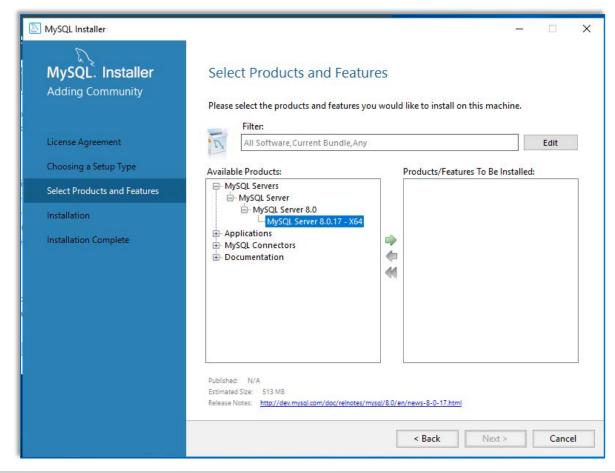
Run the installer and choose Customs as the Setup Type

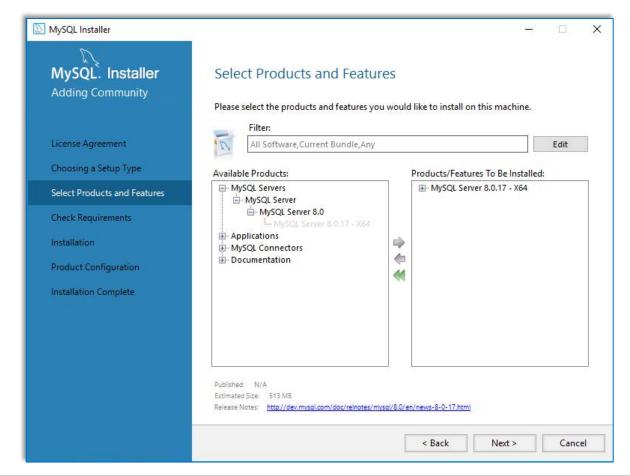


#### MySQL server



Expand the MySQL Servers tree and select the MySQL Server version available to install.

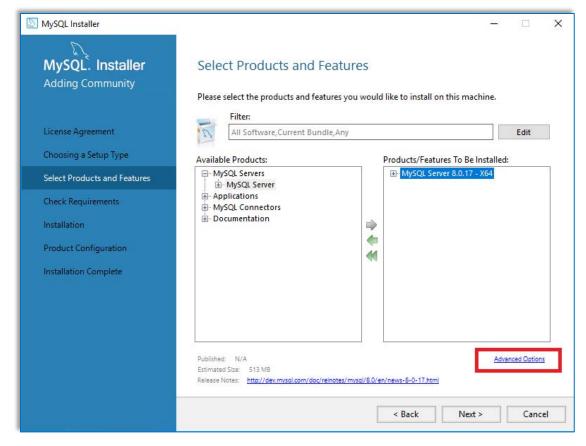


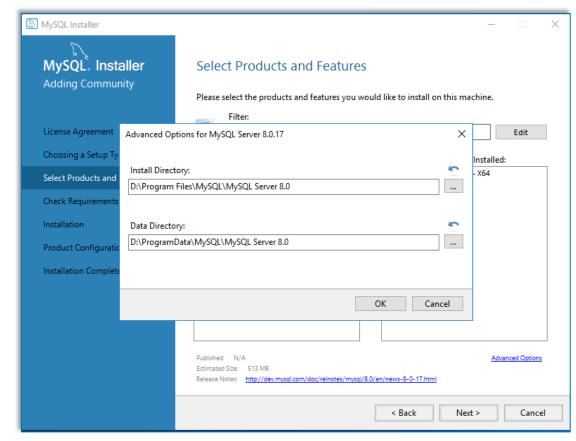


#### MySQL server installation location



- Highlight MySQL Server in the Products/Features To be Installed section
- Click Advanced Options to bring up the Install Directory and Data Directory. Change the directory as appropriate. In our example, drive D: is used for the installation.

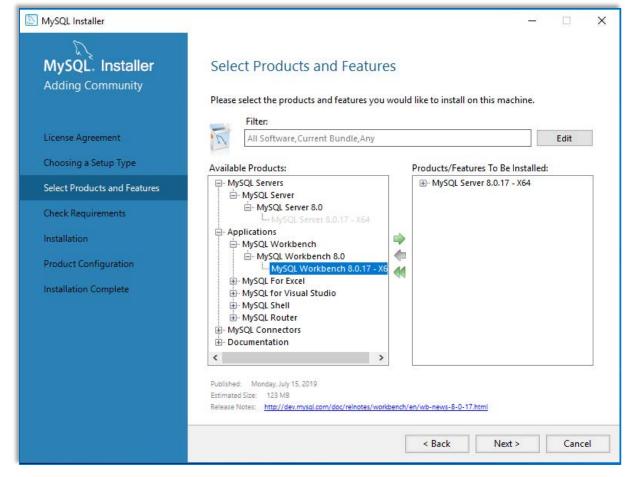


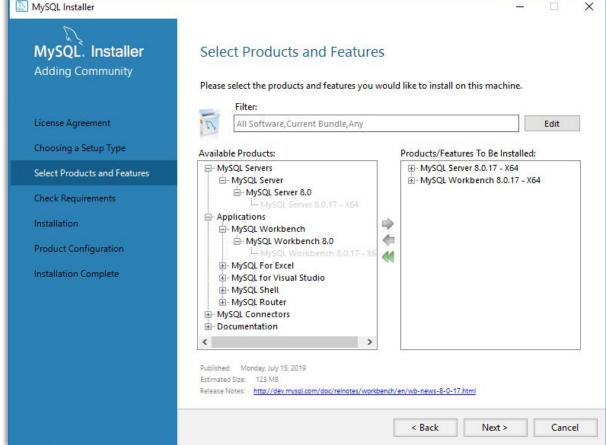


### Add Workbench application



Expand the Applications tree and navigate to the MySQL Workbench

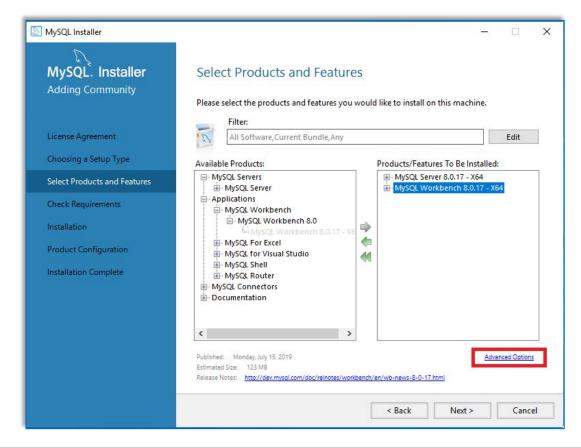


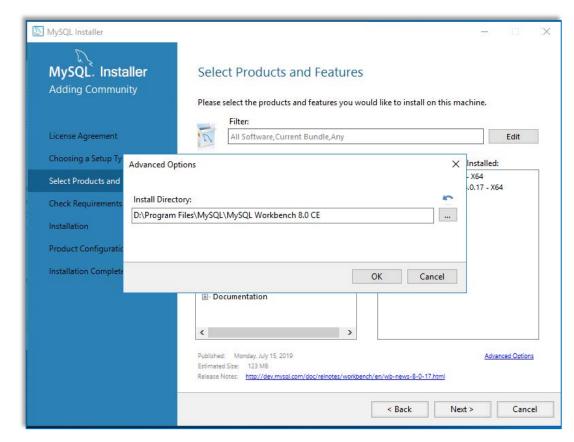


#### Workbench installation location



- Select MySQL Workbench in the Products/Features To Be Installed section.
- Click Advanced Options and change the directory as appropriate. Change the directory as appropriate. In our example, drive D: is used for the installation.

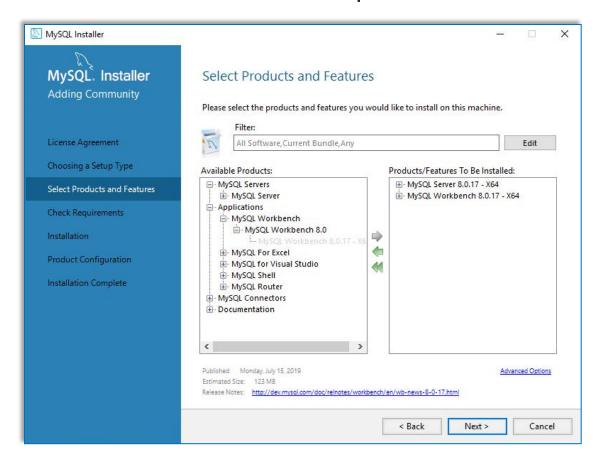


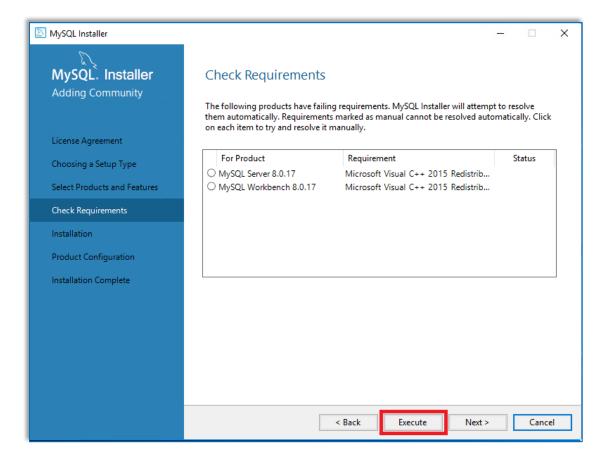


#### Visual C++ Redistribution



Click Next > to proceed. The installer will check if the Microsoft Visual C++ redistribution
required is already installed in the system and provides the relevant requirement. Click Execute
and the installer will attempt to download and install the required redistribution software.

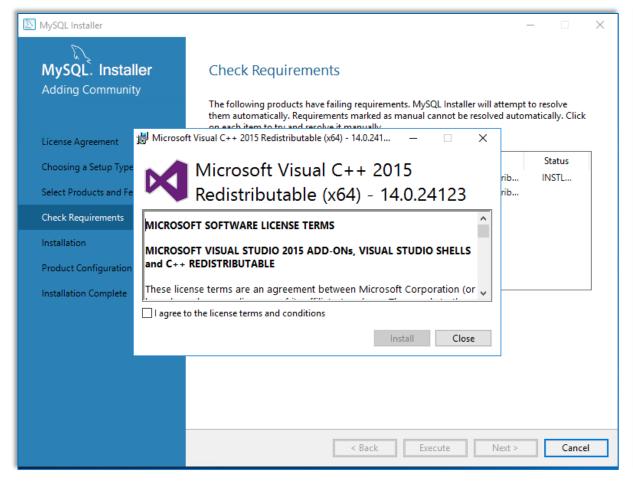


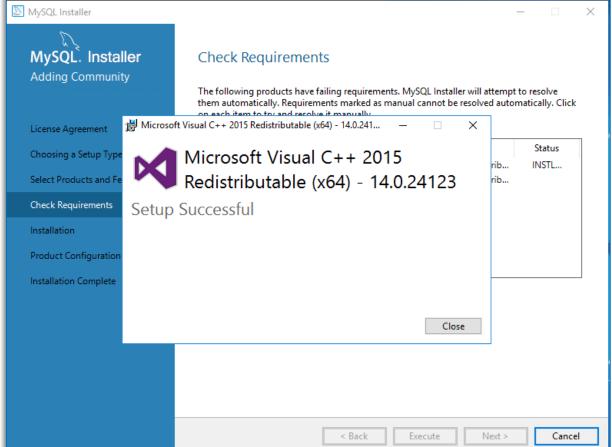


#### Visual C++ Redistribution



Accept the agreement and click Install to proceed.

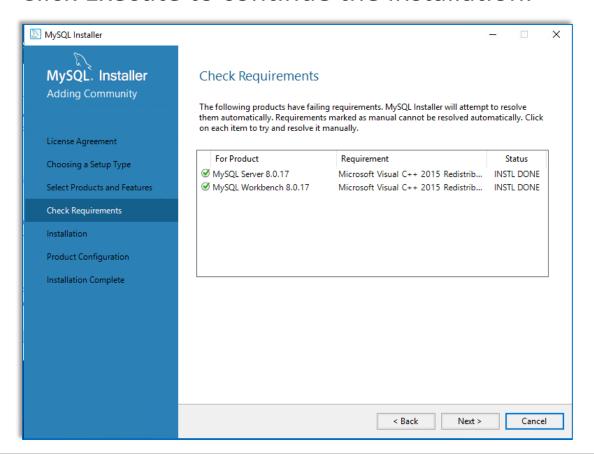


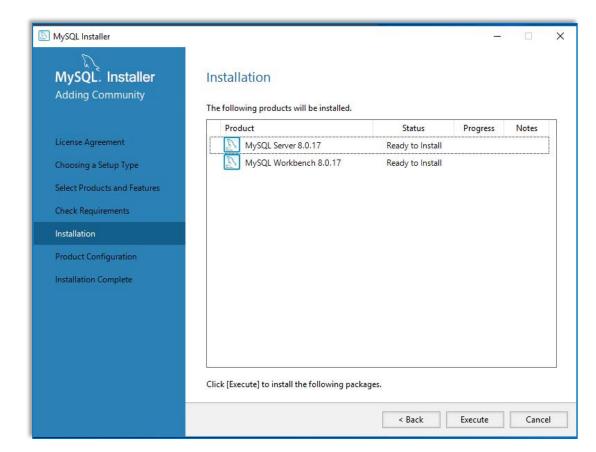


#### Visual C++ Redistribution



- Click Next > to verify the prerequisite of the installation has been met that the MySQL Server and MySQL Workbench are ready to install.
- Click Execute to continue the installation.

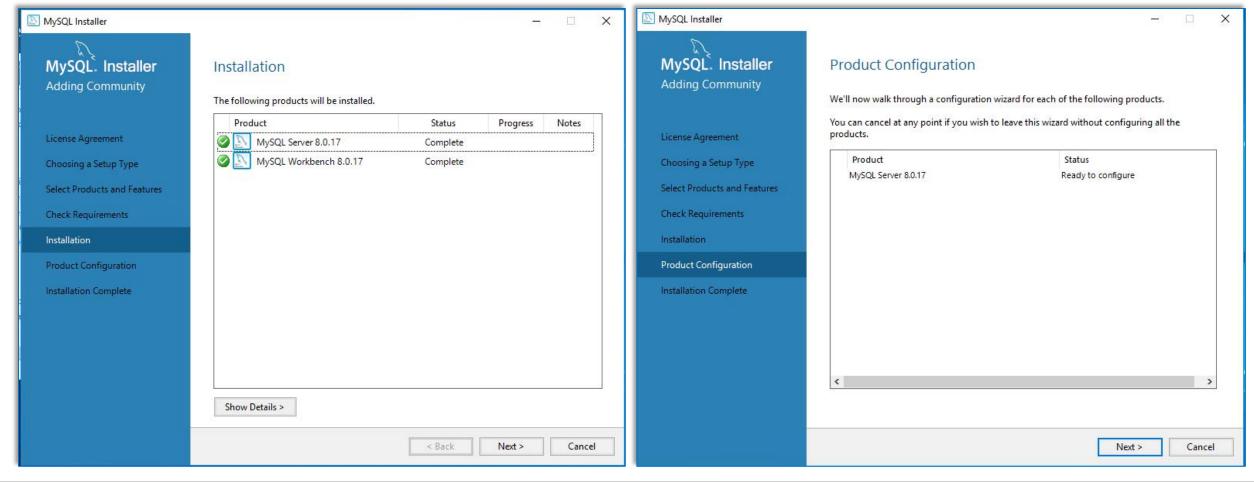




#### Installation completed

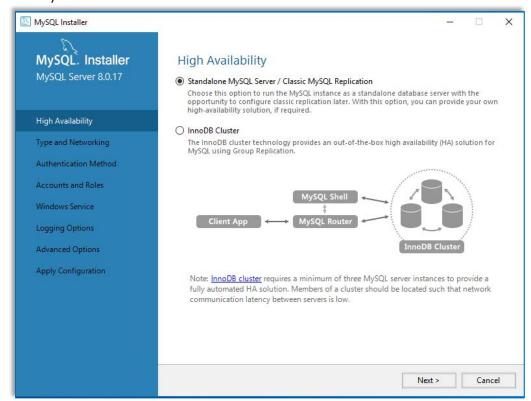


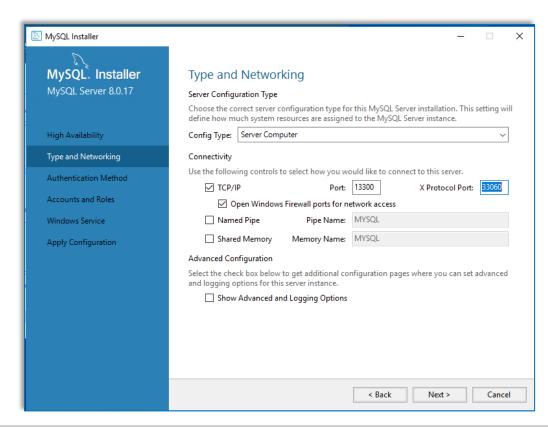
Once the installation has been completed, the next step is to configure the MySQL Server.





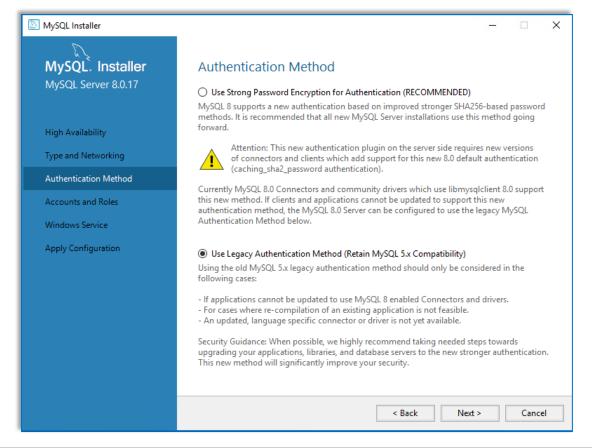
- Select Standalone MySQL Server / Classic MySQL Replication.
- Use the below settings for Type and Networking configuration
  - Config Type: Server Computer
  - TCP/IP Port: 13300

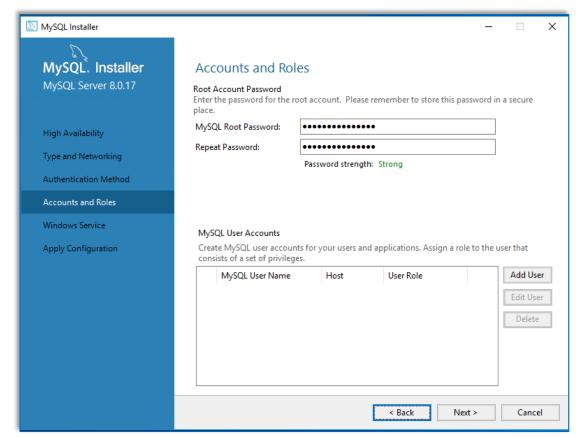






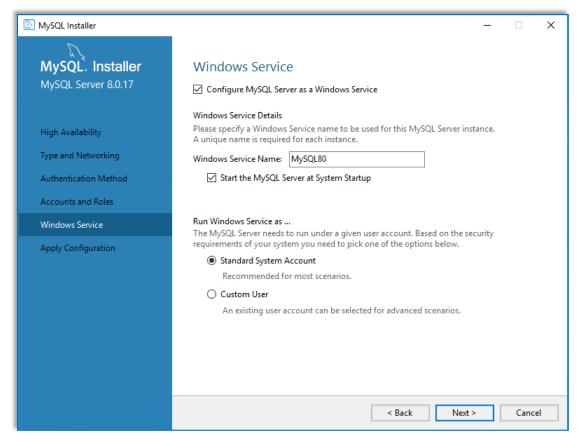
- Select Use Legacy Authentication Method. Click Next to continue
- Set the MySQL Root Password. Safe keep this root password and is needed to reconfigure MySQL and perform database export and import, if needed.

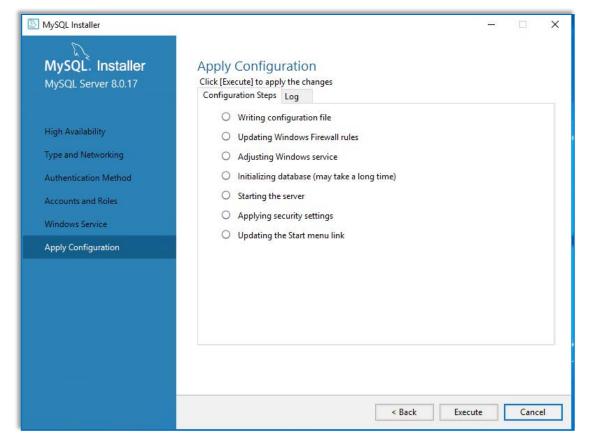






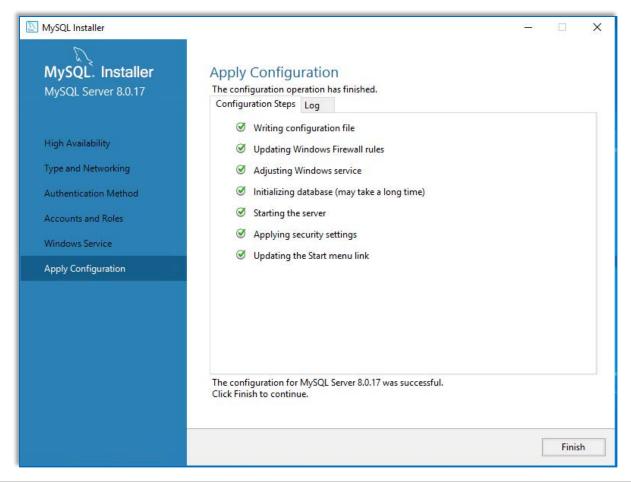
- Take note of the default Windows Service Name make sure that the MySQL Server starts at Windows system startup.
- Click Execute to apply and complete the configuration.

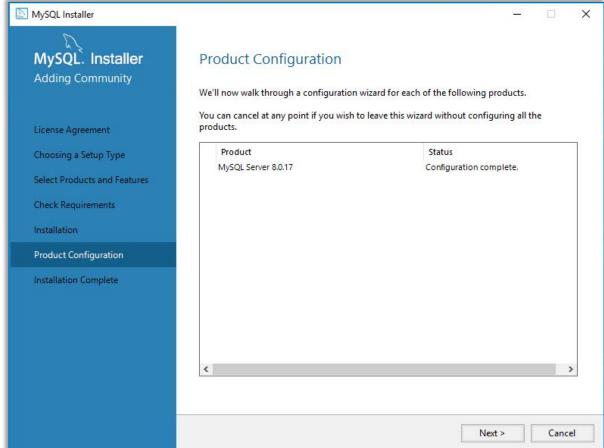






- At this point the basic configuration of MySQL is complete.
- Click Next to finish and it will bring up Workbench.

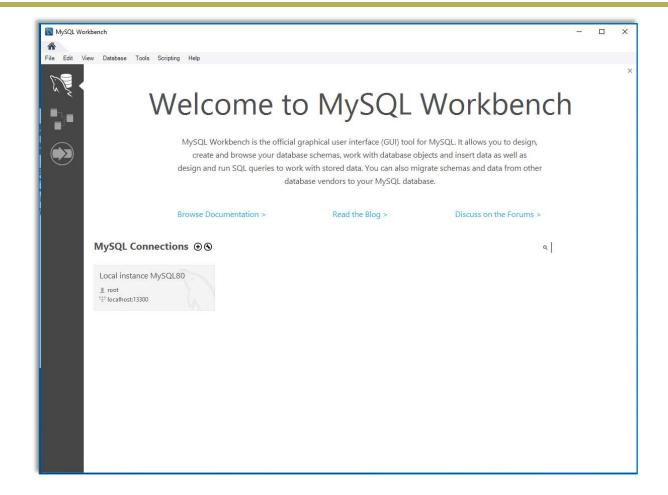




# MySQL Workbench



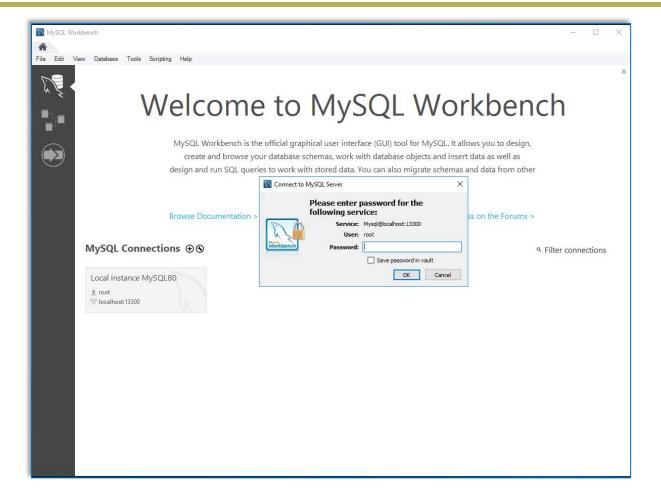
- When done, the MySQL Workbench opening menu is displayed.
- There is a Local Instance MySQL80 in the MySQL Connections list. The connection was set up during MySQL configuration phase earlier.



#### Setup for VeSion



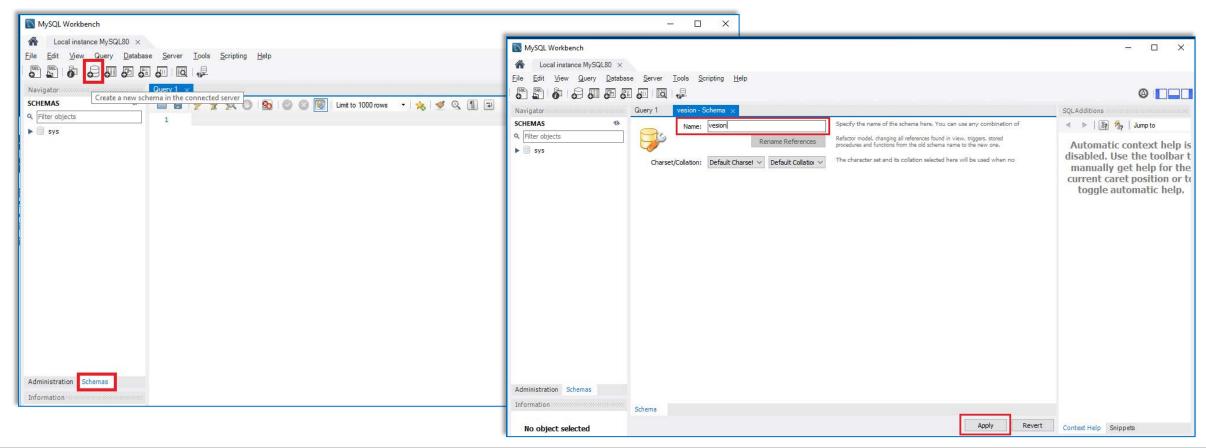
 Double click on the Local instance MySQL80 connection and log in as root, with the password previously set up during MySQL Server installation and configuration.



#### Create Schema



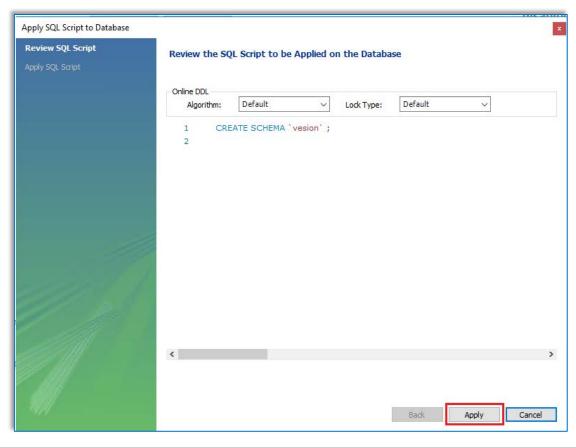
- Select the Schemas tab near the bottom left, then click on the Create a new schema icon at the tool bar.
- Type vesion as the name of the schema. Click Apply.

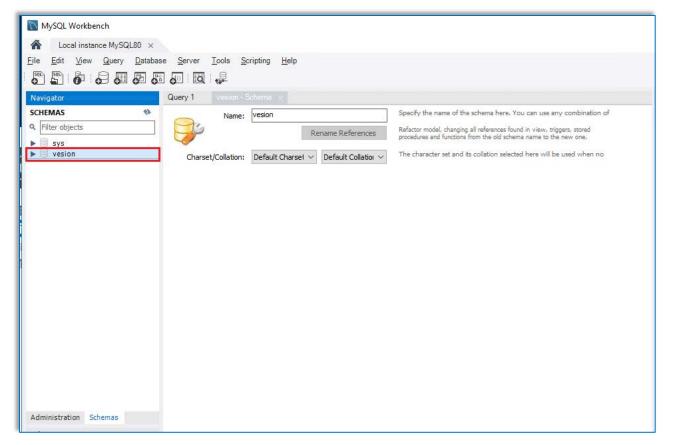


#### Create VeSion Schema



- In the Review SQL script click Apply to create the schema. Click Finish to complete creating the schema.
- Check that the VeSion schema is listed in the SCHEMAS section

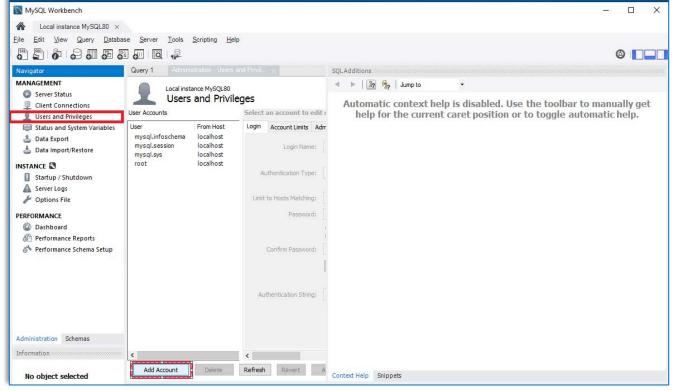


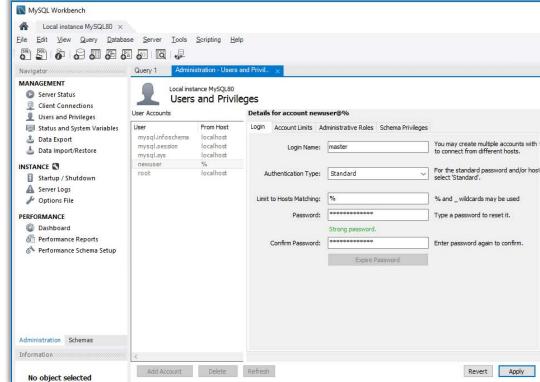


#### Add user for VeSion server login



- Select Administration tab at the bottom left, then click on Users and Privileges and Add Account.
- Add a new user account with login name "master". Enter a password and click Apply. Safe keep the user account password.

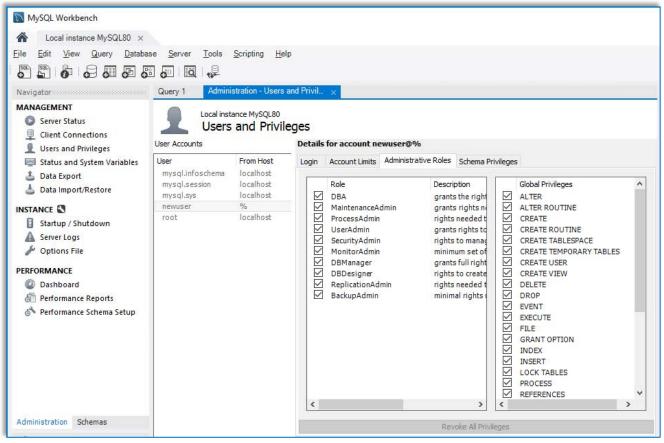




#### Assign administrative roles

The Verification Experts

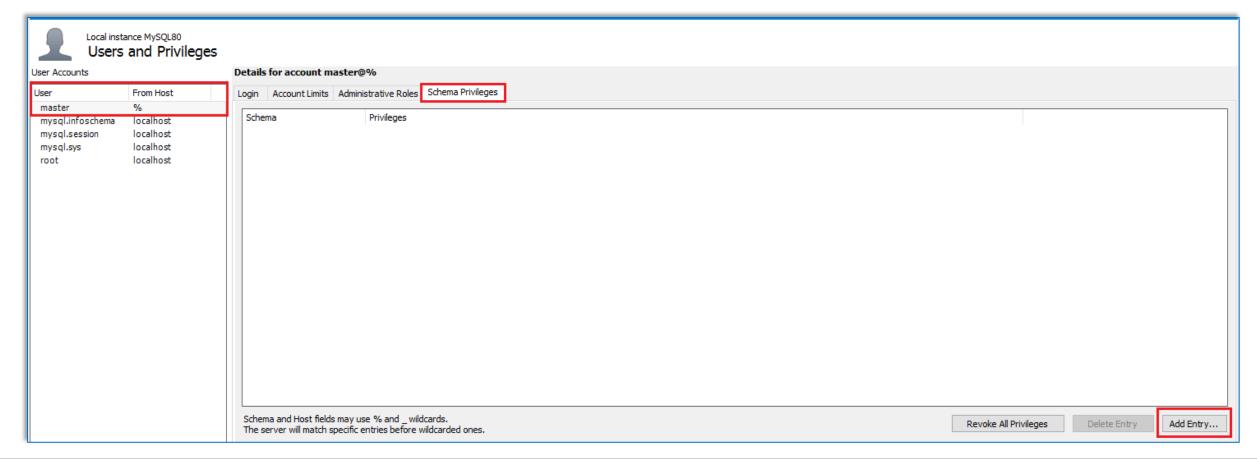
 While with user "master" selected in the User section, move to the Administrative Roles tab and enable DBA. This allocates all privileges to the user "master".



### Schema Privileges



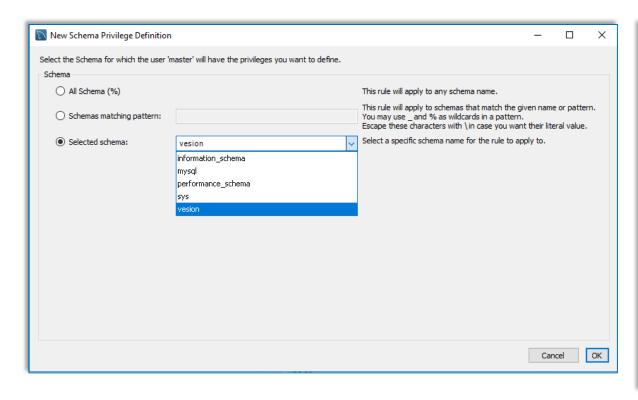
• Now, make sure that the Workbench window is maximized to fully display the window select the Schema Privileges tab and hit the Add Entry... button to access the schema list.

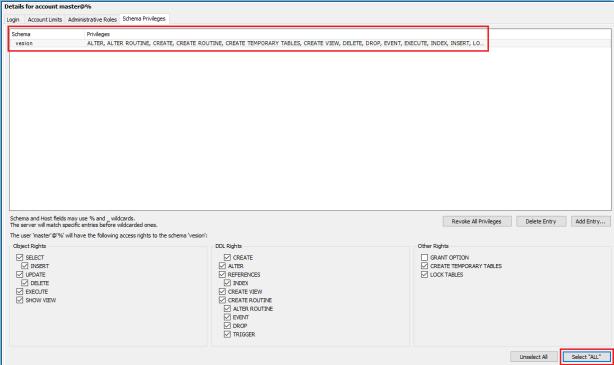






- Choose the Selected schema option in the New Schema Privilege Definition pop-up. Pick the vesion schema from the list, then click OK to close the selection window.
- Click on Select "ALL" to allocate all applicable privileges.



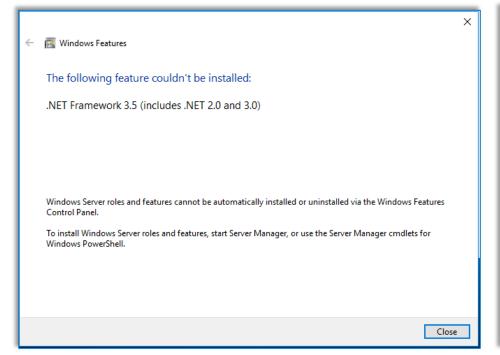


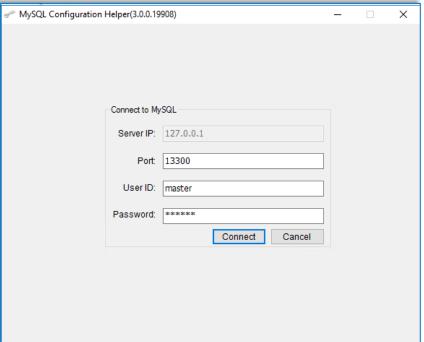
#### Set up variable values



- Unzip MySQLConfigurationHelper(3.0.0) and put a copy in the local drive of the server.
- Execute the software by clicking on MySQLConfigurationHelper.exe. If .NET Framework 3.5 features have not been added, then it will prompt for the required features.

 Once the configuration tool is launched, enter the password for user "master" and then Connect.

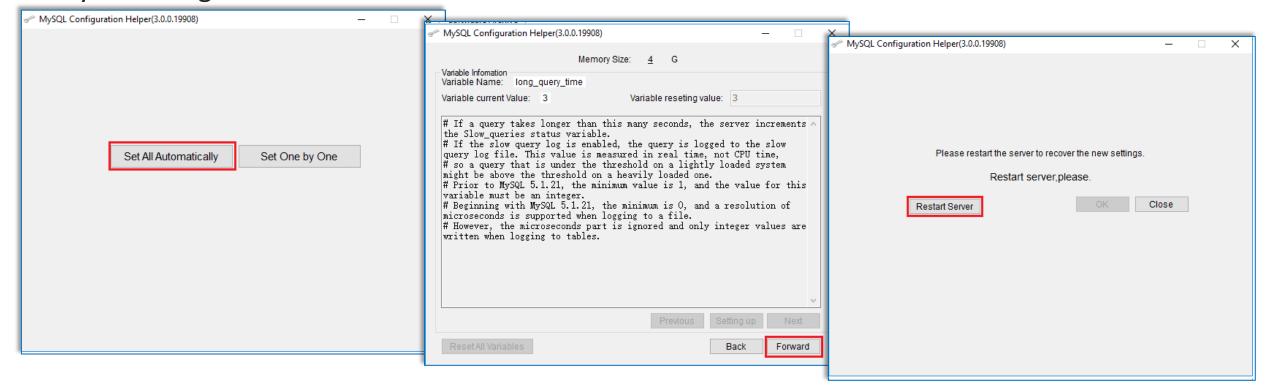




### Set up variable values

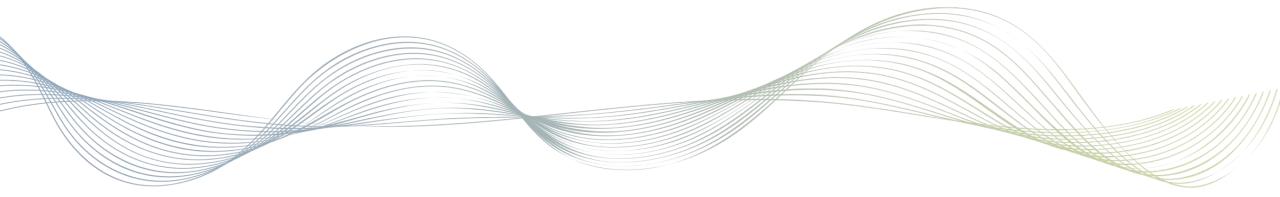


- Select Set All Automatically to run the configuration tool.
- It will go through each variable setting and set the value. Click Forward when prompted.
- Click Restart Server to restart MySQL to take the new variable settings. Or click Close to restart MySQL using Workbench.









# Installing PnuGPG

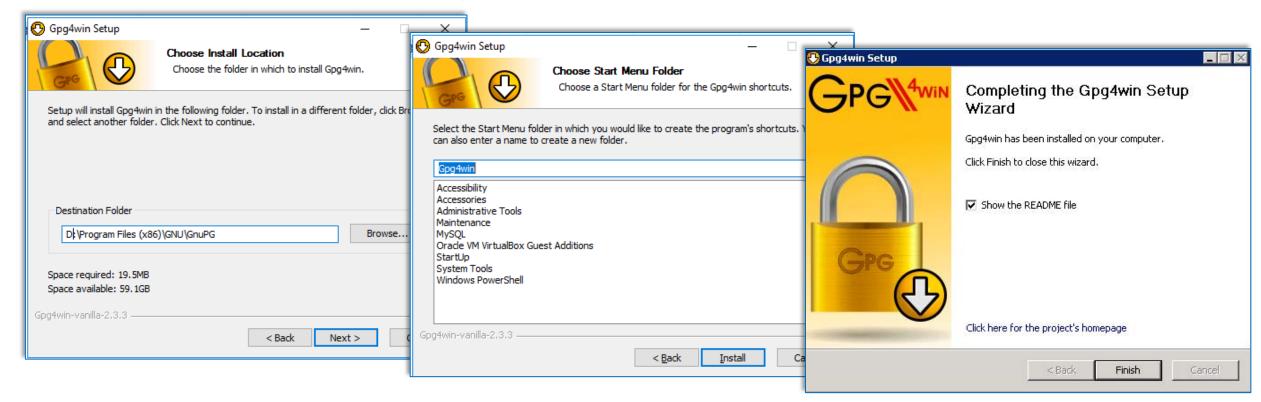
Step 4



### **Install GPG4win Application**



- Unzip the gpg4win-vanilla-2.3.3.zip then double-click gpg4win-vanilla-2.3.3.exe to start the installation
- Set the Destination Folder to the appropriate installation drive, Drive D: in our example. Follow the on-screen instruction to complete the installation.



#### **GnuPG Installation**

#### Import public key file



- Copy the provided vesion\_public.key file to \Documents\Software Archive\License folder
- Launch Command Prompt (cmd). Change directory to the GnuPG installation folder and enter the below command to import the public key to the system.

```
D:\Program Files (x86)\GNU\GnuPG>gpg2.exe --import "c:\users\Administrator\Documents\Software Archive\License\vesion_public.key"
```

Below is the expected output of the command for a successful public key import.

```
Administrator: C:\Windows\system32\cmd.exe — \ \

D:\Program Files (x86)\GNU\GnuPG>gpg2.exe --import "c:\users\Administrator\Documents\Software Archive\License\vesion_pub \ \
lic.key"
gpg: keyring `C:/Users/Administrator/AppData/Roaming/gnupg/secring.gpg' created
gpg: keyring `C:/Users/Administrator/AppData/Roaming/gnupg/pubring.gpg' created
gpg: C:/Users/Administrator/AppData/Roaming/gnupg/trustdb.gpg: trustdb created
gpg: key FEF85D87: public key "VeEX Inc., Licensing <sales@veexinc.com>" imported
gpg: Total number processed: 1
gpg: imported: 1 (RSA: 1)

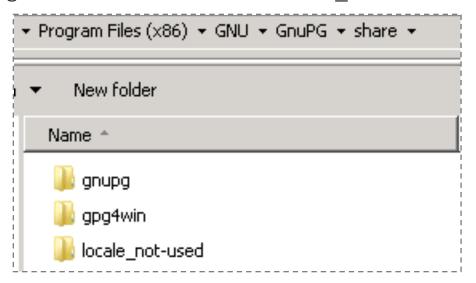
D:\Program Files (x86)\GNU\GnuPG>__
```

#### **GnuPG Installation**

# The Verification Experts

#### Running on Windows OS in non-English version

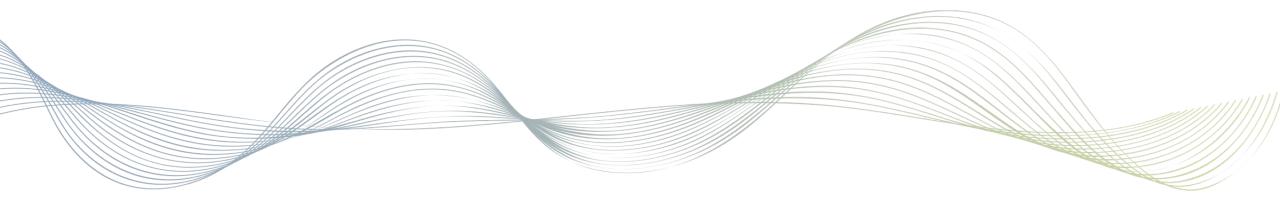
- If the VeSion system is running on a non-English language version, then it is required to remove the locale folder in the GnuPG installation.
  - This can be done by renaming the folder from locale to locale\_not-used.



• If this is not done, the VeSion System will always display the license expiration page when logging in, even when having a valid license.







# Installing VeSion Server

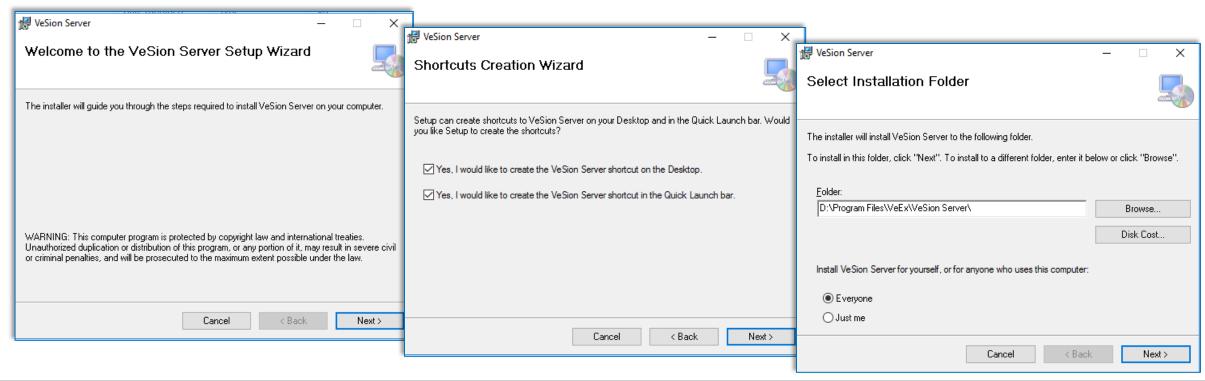
Step 5



### Install VeSion Server Application



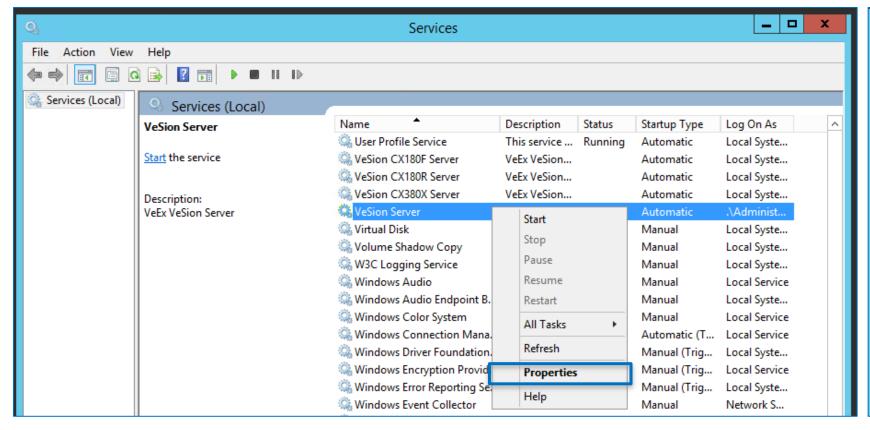
- Run setup.exe to install the VeSion Server application to the target hard drive.
  - The VeSion Server is a 64-bit application and will install in the \Program Files\VeEx\VeSion Server\ by default.
  - Set the target drive as appropriate. In the example below drive D: is the target drive.
  - Select install VeSion for Everyone.
  - Click Next> to continue.

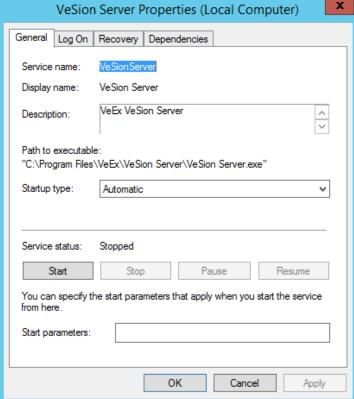


### Configure Login for VeSion Server Services



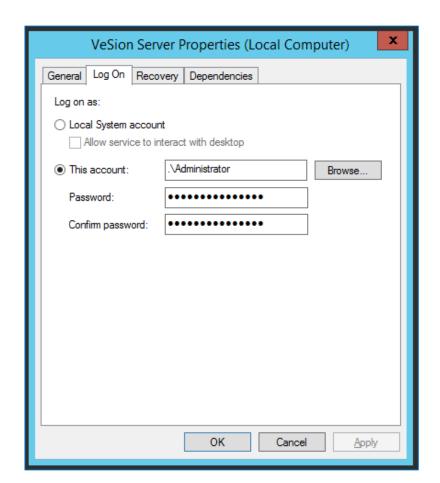
- After the VeSion Server application has been installed, open Windows Services.
- Navigate to and double click on VeSion Server service, then open Properties.







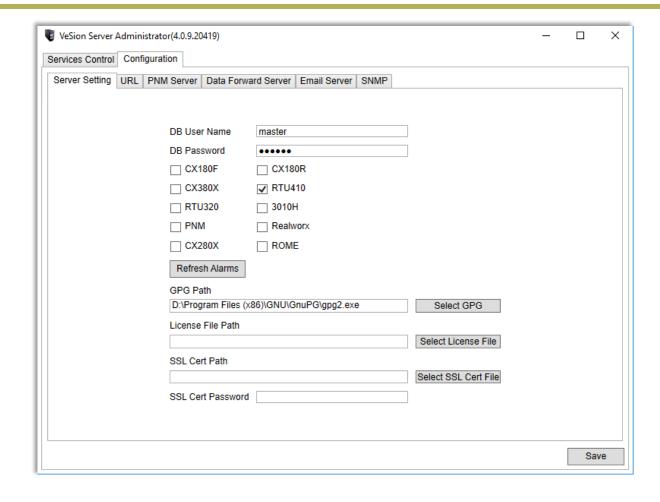
- Open the Log On tab.
- Select This account:
  - Enter the credentials of the user account with the administrator rights
  - The Administrator account was used in this example.
- Click Apply
- Click OK to exit.



#### Server Setting



- Launch VeSion Server Administrator and select the Configuration tab
- Update the settings in the Server Setting sub-tab:
  - DB User Name: master
  - DB Password: as previously configured
  - Mark the checkbox corresponding to the VeSion
    - sub-systems that the VeSion system is supposed to use and is licensed for
  - To set the PGP Path, clock Select GPG and navigate
    - to the GnuPG installation folder and select gpg2.exe
  - Click Save to save settings

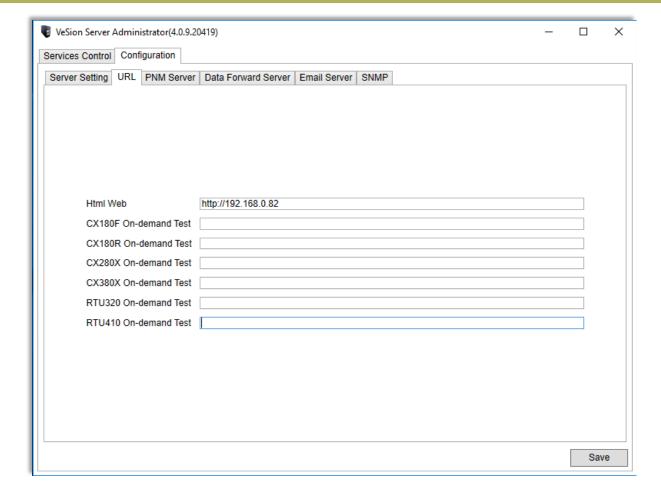






#### Go to the URL tab

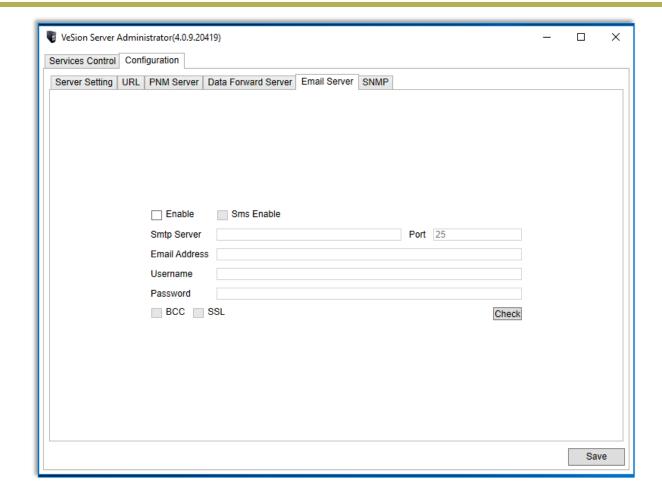
- Enter the VeSion Web HTML5 URL
- The other on-demand test links are used to provide a link to the alarmed port in the SNMP alarm trap to facilitate a Network Operator Center tester to verify the issue.



#### **Email Server**



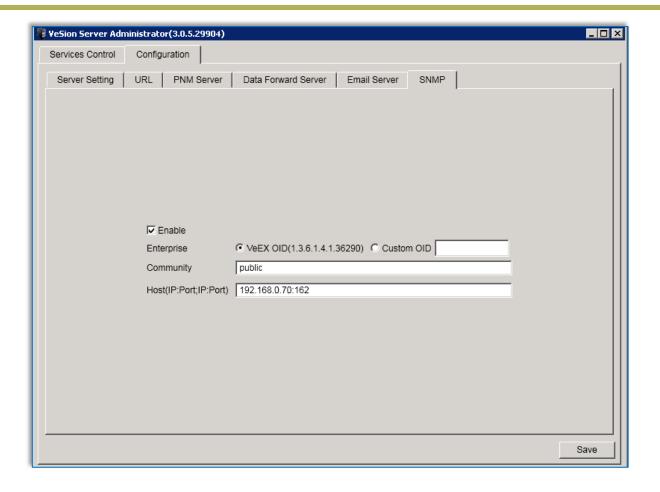
- Navigate to the Email Server tab to set up email account for email notifications
- When finish all the settings, click the Check button to run an email check



#### **SNMP Server**



- Navigate to the SNMP tab to configure the IP address and the UDP port of the SNMP trap collector server.
- The SNMP Server settings on the VeSion Server Administrator are for sending system alarm traps.

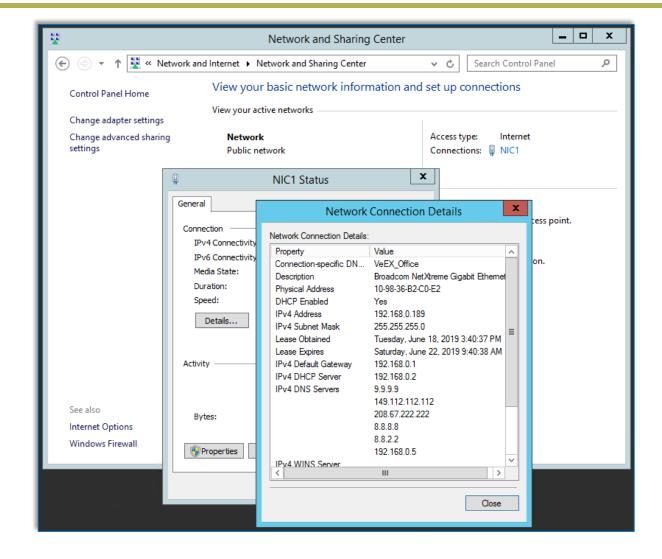


### Starting VeSion Server

#### Ethernet port



- Before starting VeSion Server service, make sure the Ethernet port, with the MAC address the VeSion Server is licensed for, is in port linkup state.
- The MAC address of the Ethernet port should be provided to VeEX in order to obtain a license file for the VeSion system.
  - The MAC address of the Ethernet port is found in the 'Network Connection > Details... window.
  - When there are multiple Ethernet ports in the server, make sure to provide the one that will be used for connecting the server to the network.

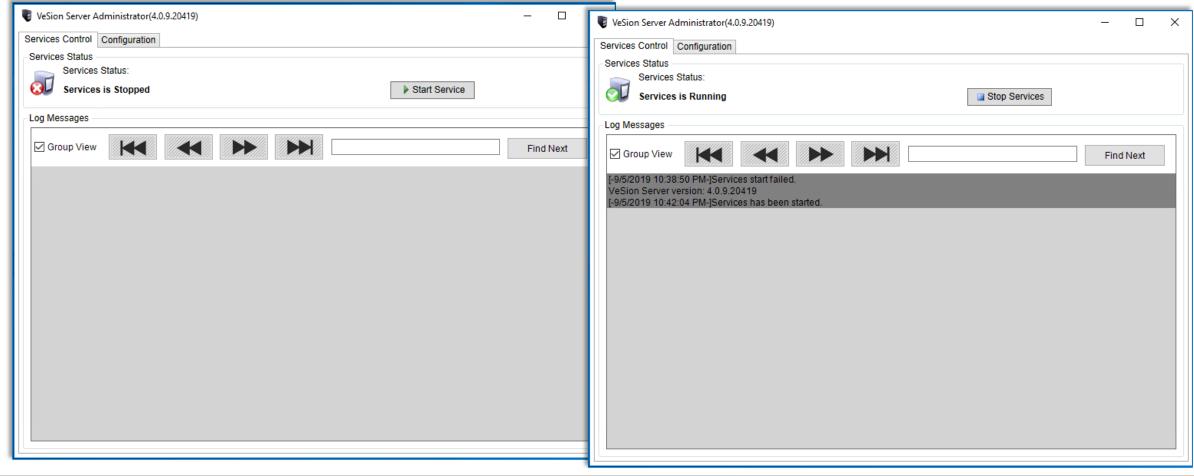


### Starting VeSion Server

#### Services Control

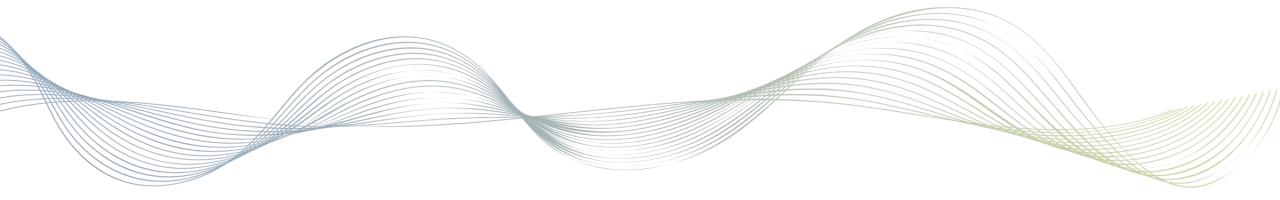


- Go to the Services Control tab on the VeSion Server Administrator.
- Click Start Service button to start the VeSion Server service.









# Installing VeSion Web HTML5

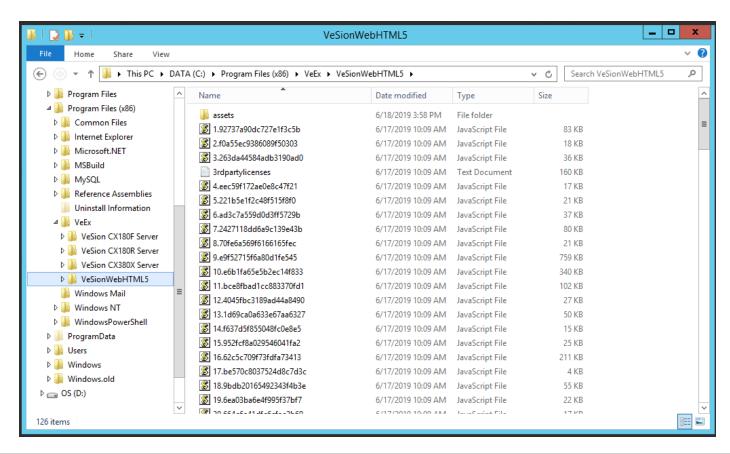
Step 6



#### VeSion Web HTML5 Installation

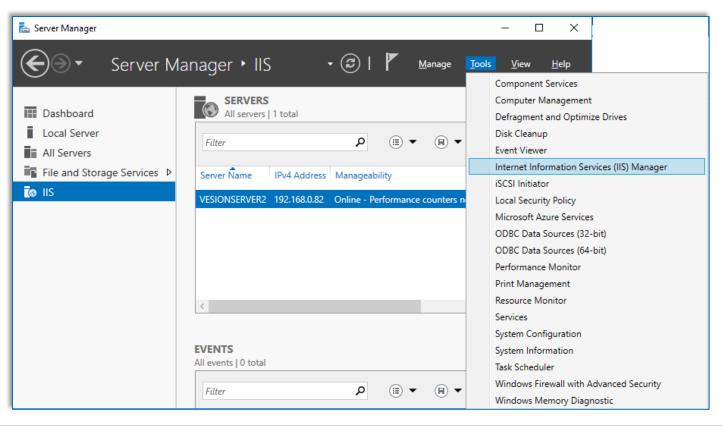


- Create a VeSionWebHTML5 folder under the Drive:\Program Files\VeEx\.
- Unzip the VeSionWebHTML5 software
- Copy all the files to the \Program
   Files\VeEx\VeSionWebHTML5 folder.





Open Internet Information Services (IIS)
 Manager on the Server Manager.



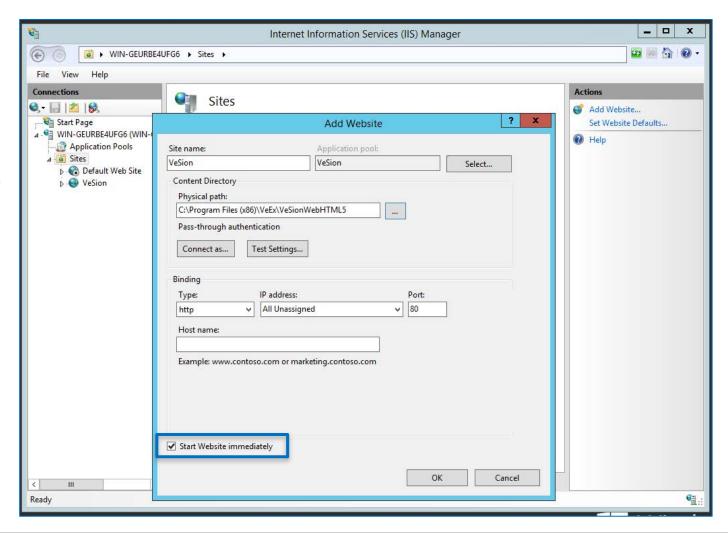


Right click on Sites and then select Add Web

Site...

In the Add Web Site window

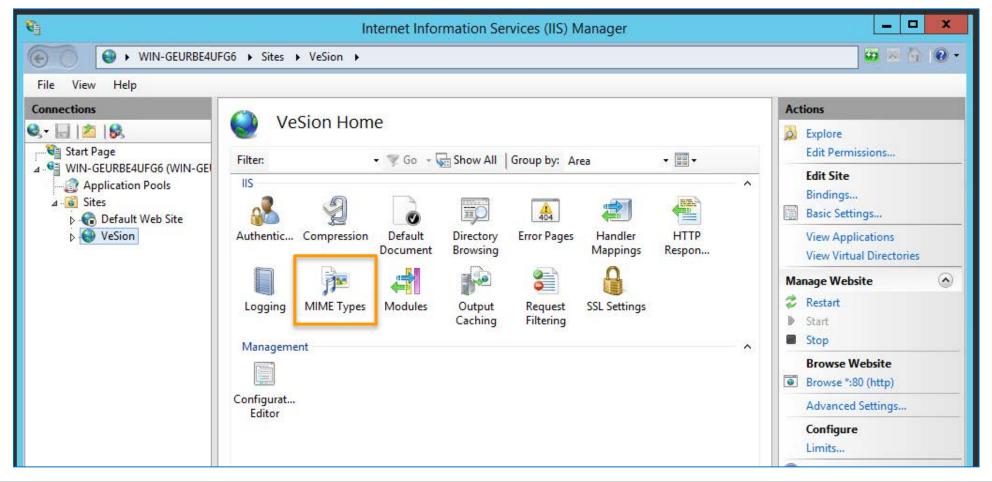
- Enter VeSion as the Site Name
- Set Physical path to Drive:\Program Files\VeEx\VeSionWebHTML5
- Enable 'Start Website immediately'
- Press OK



#### MIME Types



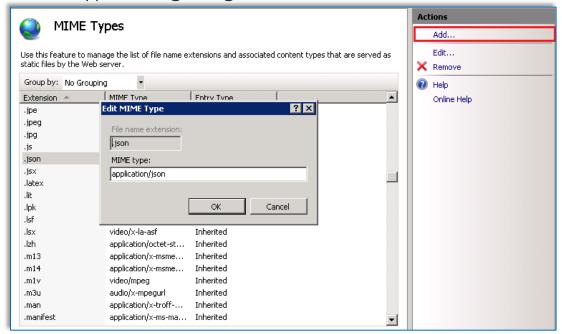
- Select VeSion in the Sites list
- Double-click MIME Types

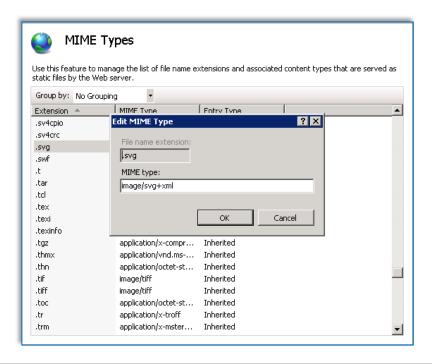


#### MIME Types



- Click on Add... in the Actions pane at the right.
- Add or modify the below 2 MIME types
  - Filename extension: .json
     MIME type: application/json
  - Filename extension: .svgMIME type: image/svg+xml

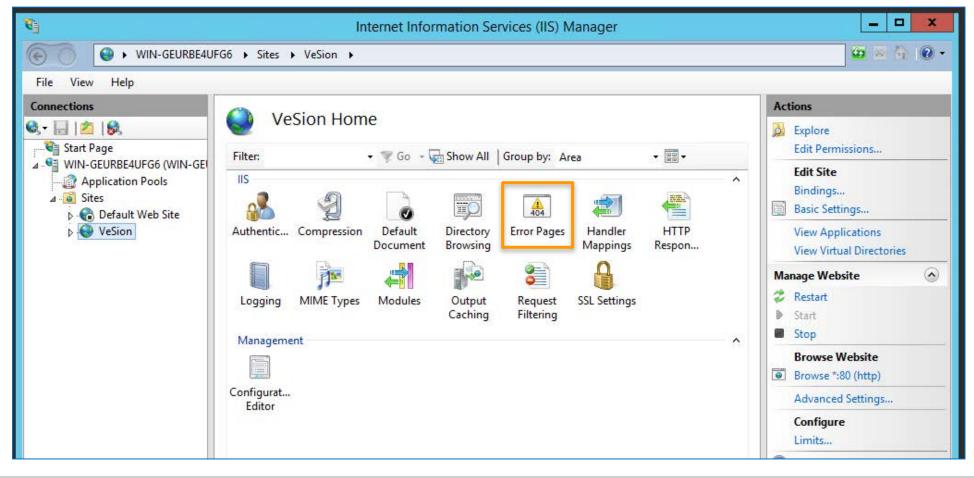




#### **Error Pages**



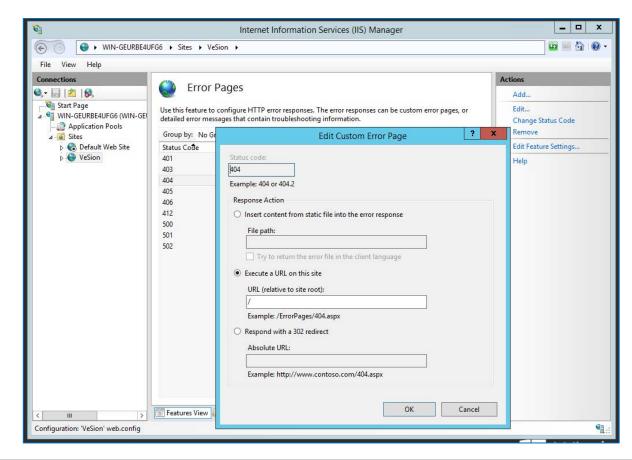
Double click on Error Pages



#### **Error Pages**



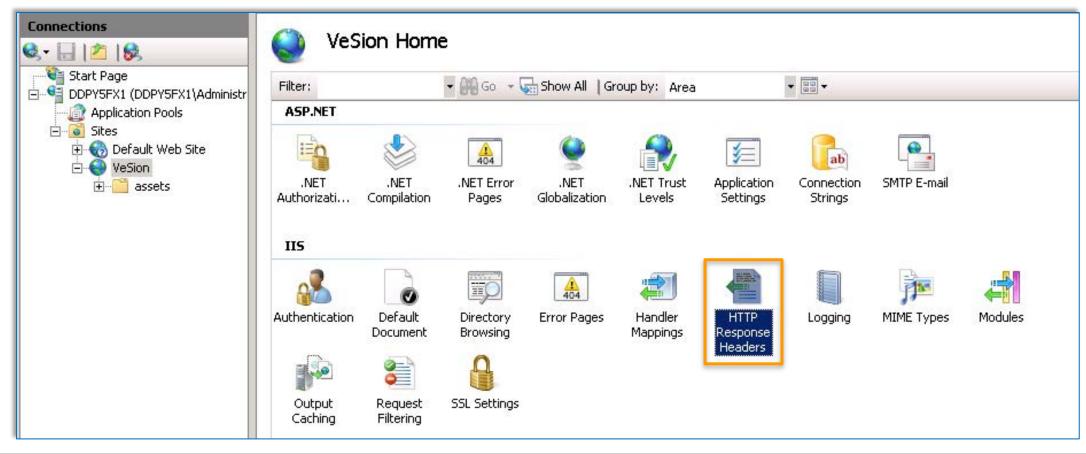
- This setting is to support user account password reset email function.
  - Double click Status Code 404 to edit the setting.
  - Select Execute a URL on this site and enter " / "



### HTTP Response Headers



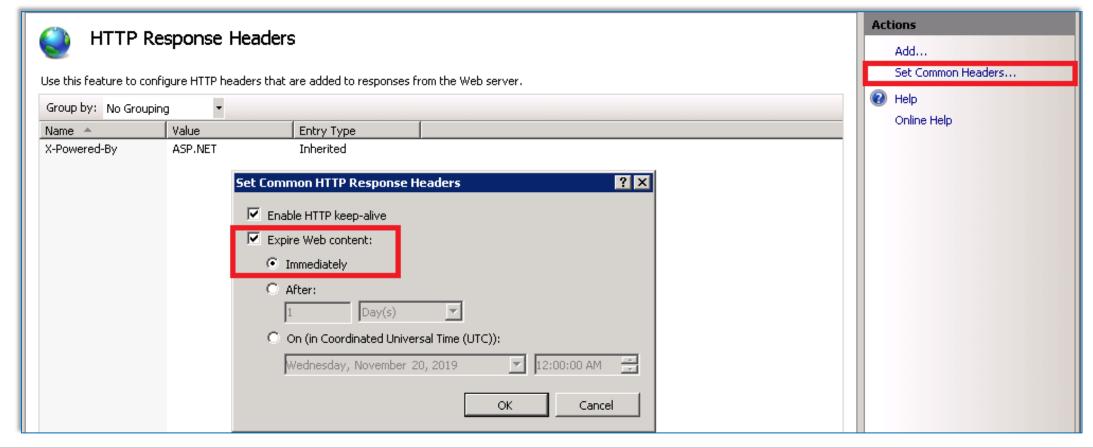
Double click on HTTP Response Headers



#### Web content expiration

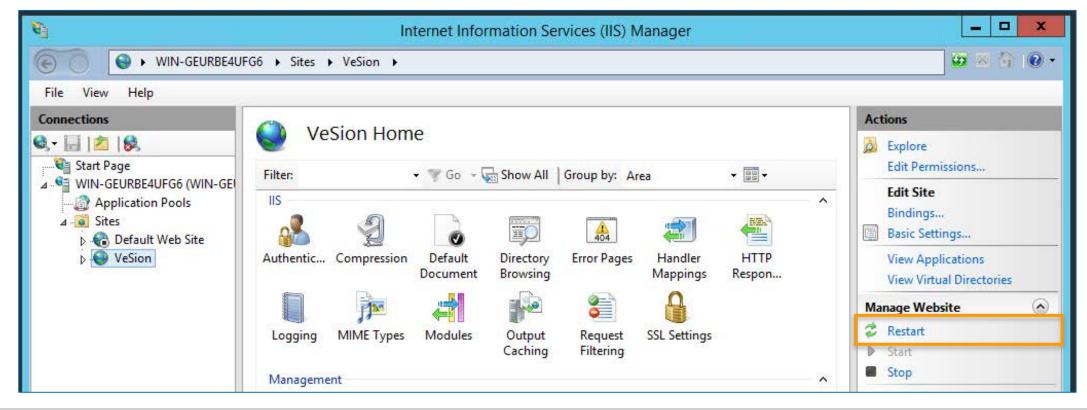


- In the left Actions pane, click on Set Common Headers... to bring up the Set Common HTTP Response Headers setting window.
- Enable Expire Web contents: Immediately.





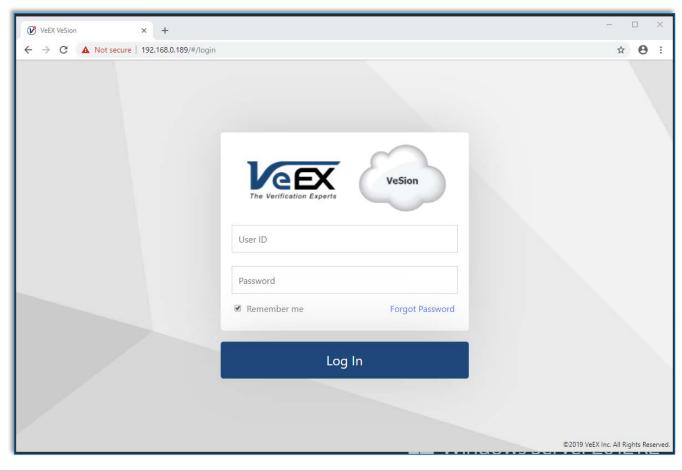
Restart VeSion website



#### Logging in using web browser

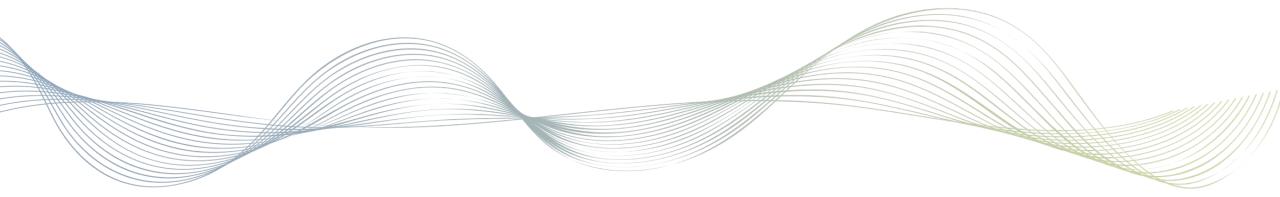


- Use a high-score HTML5 compatible webbrowser
  - Chrome is recommended.
- Enter the IP address of the VeSion server.
  - If the VeSion login web page is displayed this indicates that the VeSion website is active.
- Log in with the default user account
  - User ID: master
  - Password: master









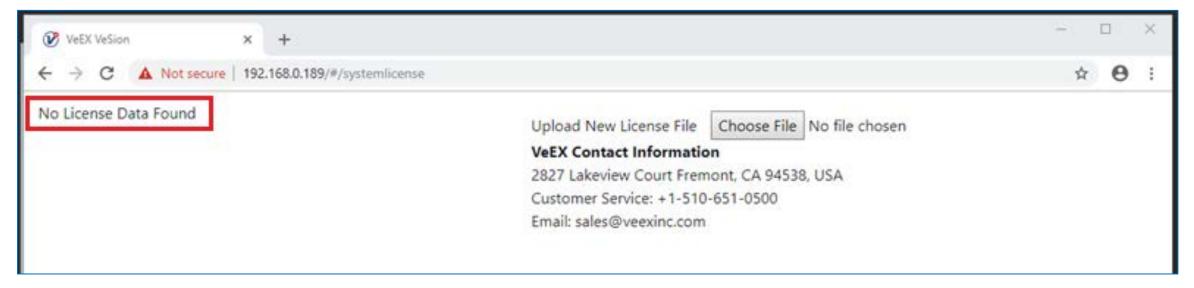
# VeSion System License Upload

Step 7



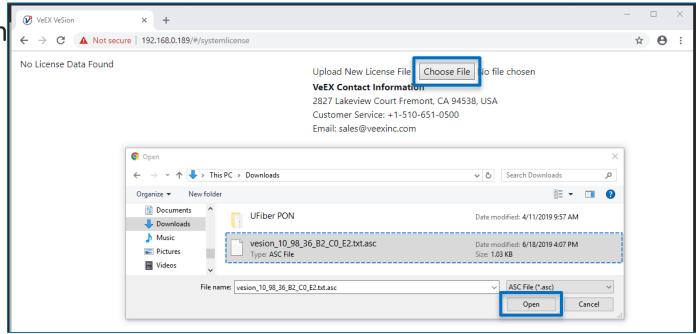


- When logging in the VeSion system via web interface for the first time, after the installation is done, it will display the 'No License Data Found' message.
- Make sure the Ethernet port with the MAC address the VeSion Server is licensed for is in port linkup state.



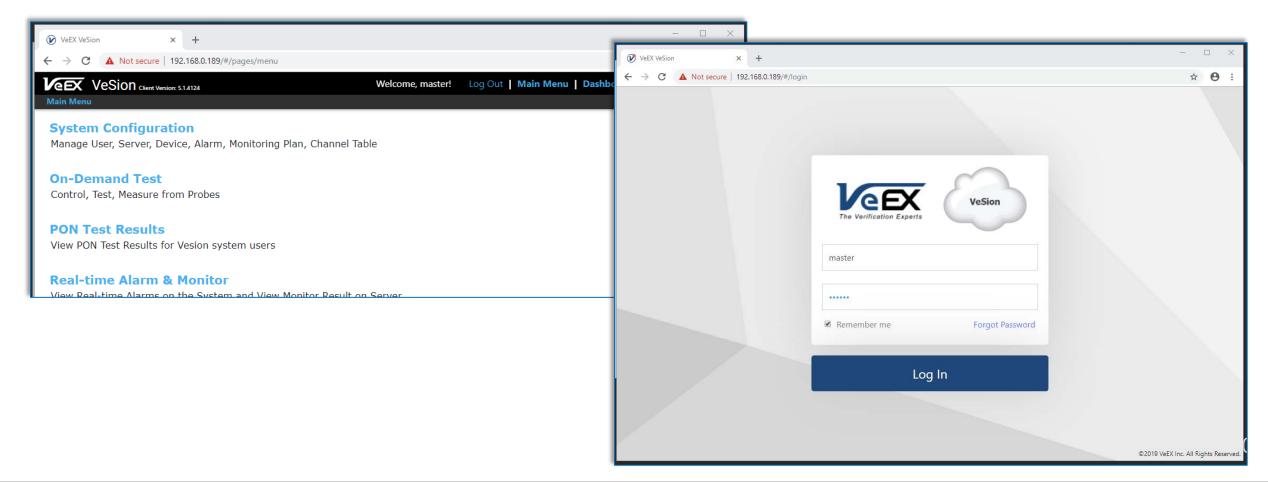


- Click Choose File to upload the license file,
  - Licenses have the following file name format vesion\_XX\_XX\_XX\_XX\_XXX\_XX.txt.asc, where XX\_XX\_XX\_XX\_XXX\_XX is the MAC address of the Ethernet port licensed.
- Click on the Open button
- Once the license is uploaded, the system will auto log out the user.
- Log in to the system again.





• After uploading the license file successfully and logging in again, the web browser should display the Main Menu.

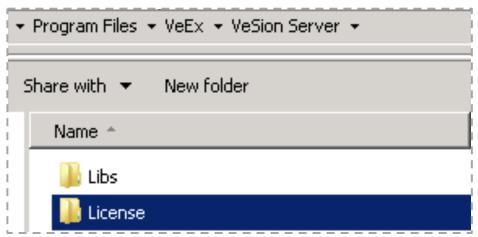




• Going back to the VeSion Server Administrator > Configuration > Server Setting tab, the License File Path is now populated with the license uploaded.

GPG Path	
D:\Program Files (x86)\GNU\GnuPG\gpg2.exe	Select GPG
License File Path	
D:\Program Files\VeEx\VeSion Server\License\vesion_D4_AE_52_C7_F9_	Select License File

A License folder containing the license file has been created under the VeSion Server





# Thank you!

Any questions?

info@veexinc.com

CustomerCare@veexinc.com

www.veexinc.com

**)** +1 (510) 651-0500





