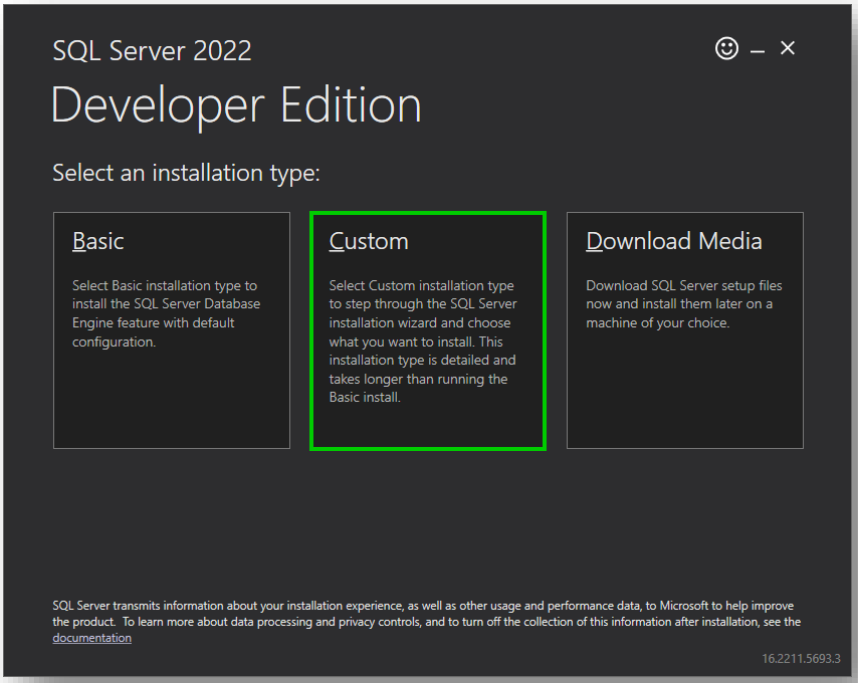
Microsoft SQL Server

Installation & Configuration Instructions

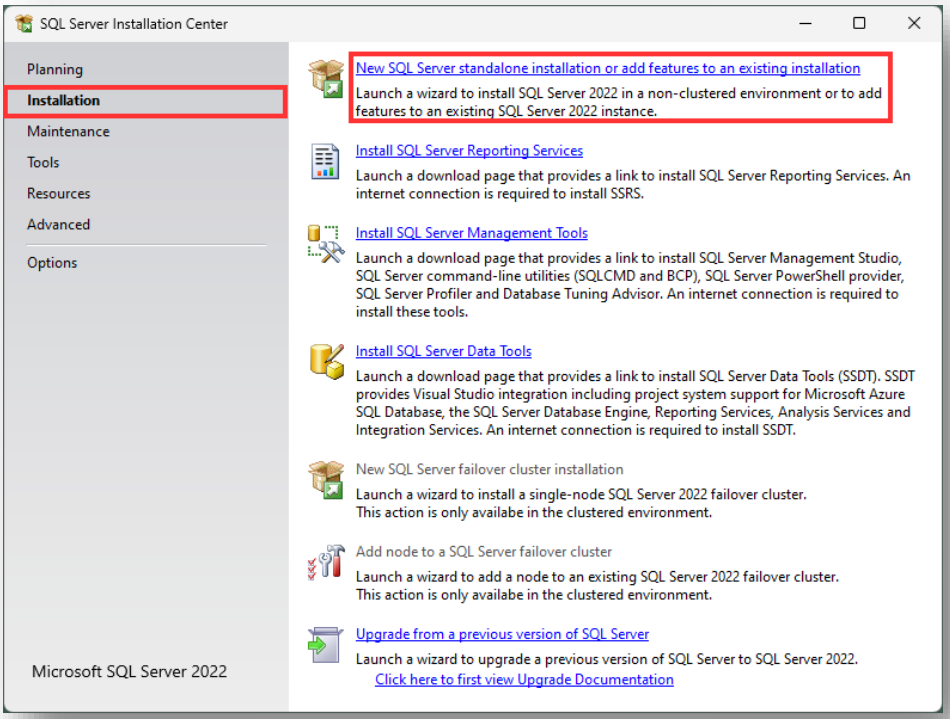
Rev. 05/11/2024

STEP 1: Install SQL Server

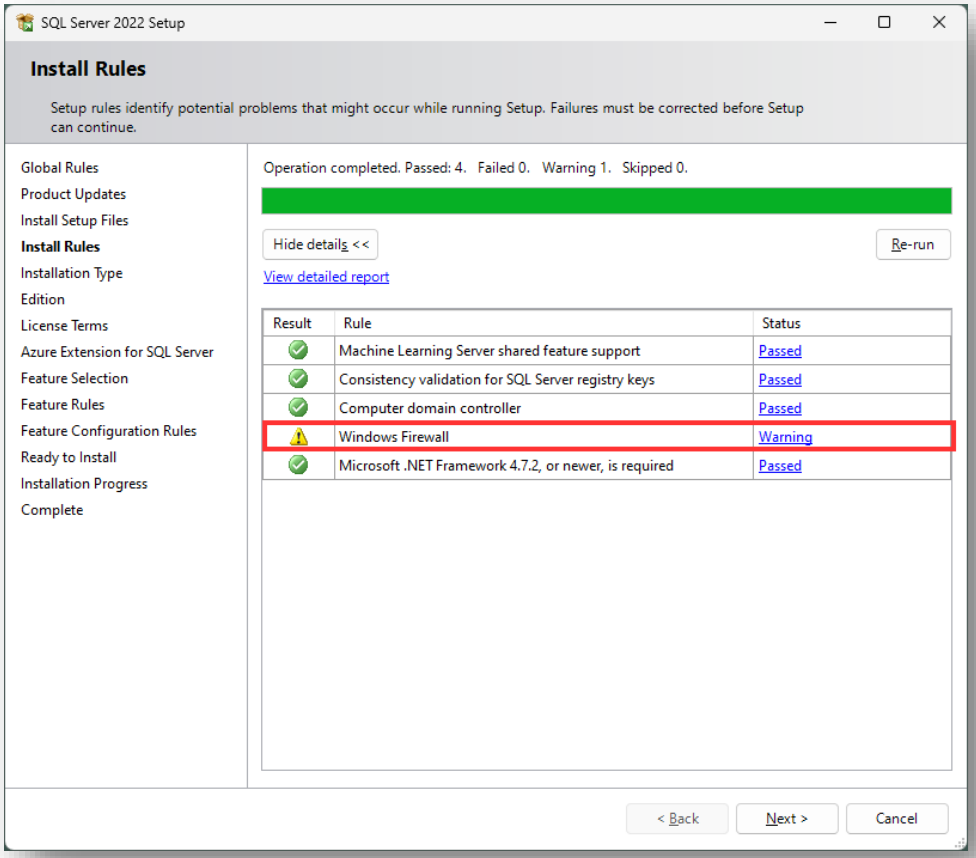
- **Before beginning the installation of SQL, ensure .NET 3.5 & 4.7 are installed.**
- Download the appropriate SQL installation file from Microsoft.
- Run the SQL installation file. Steps that require specific settings will be explained below. In the absence of specific instructions, the default settings can be used.
- Select **Custom** for the installation type (this will allow you to configure SQL correctly for RFMS).



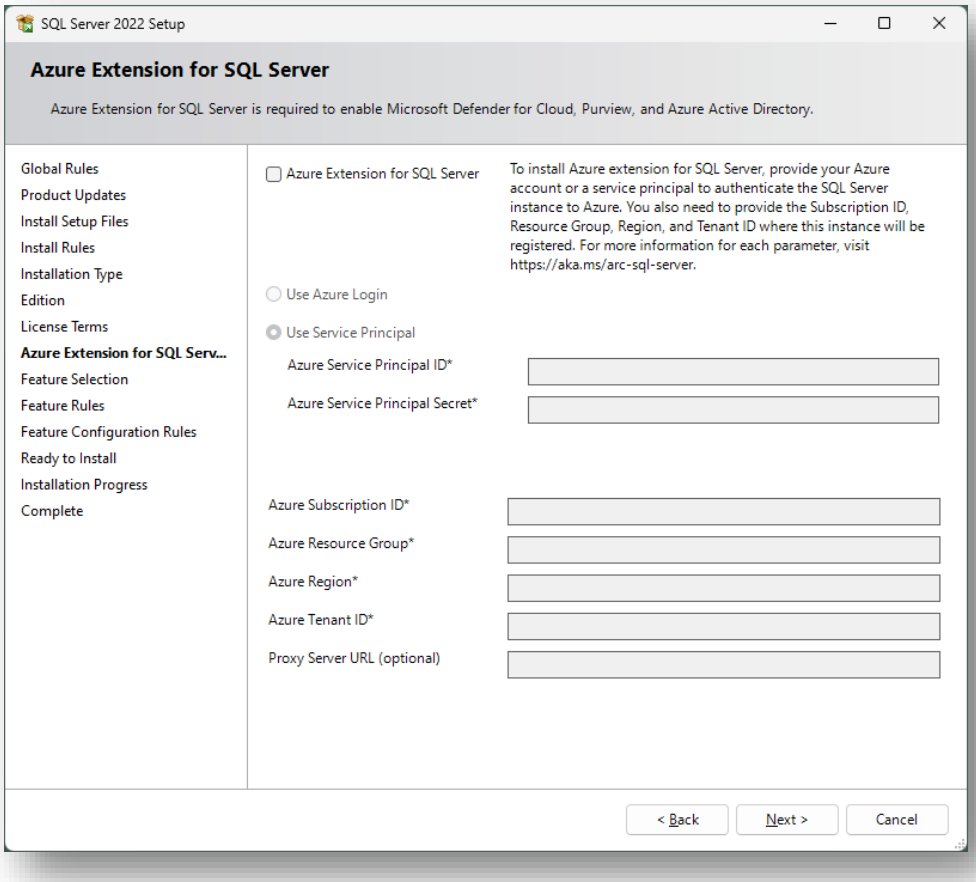
- In the Installation Centre window, click on the **Installation** tab on the left, and then click on the first option in the list.



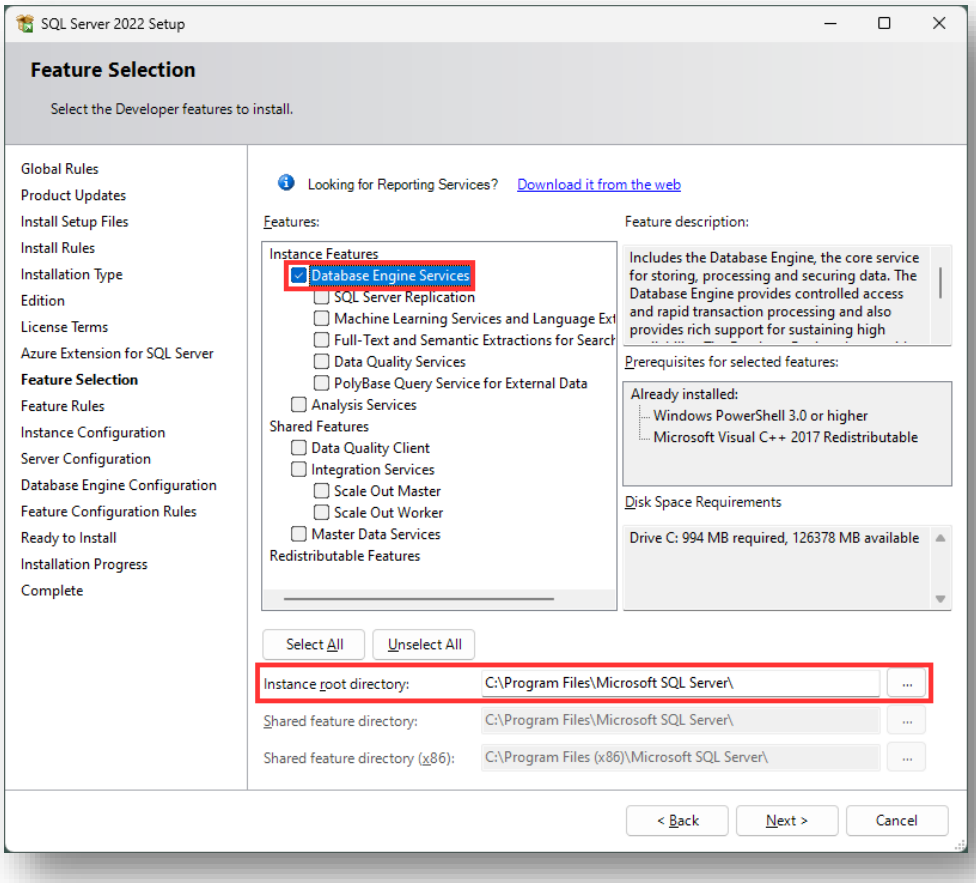
- On the **Install Rules** page of the installer, you will likely be warned about Windows Firewall. This is normal and will be addressed in later steps.



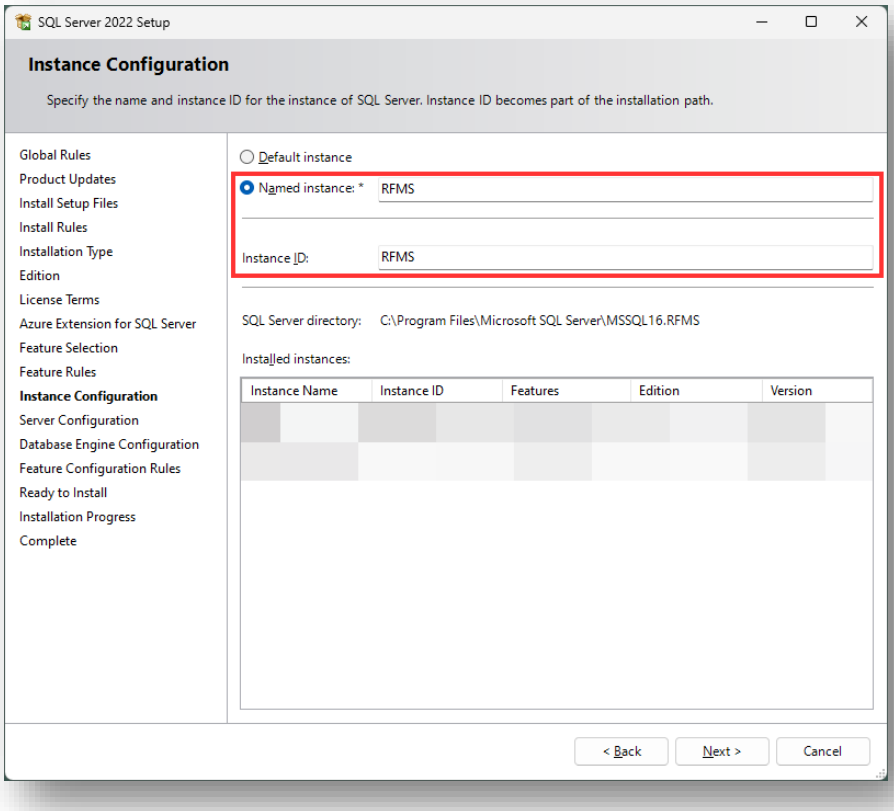
- The Azure Extension for SQL Server is not required for RFMS and can be unticked.



- On the **Feature Selection** page, the only feature required by RFMS is the **Database Engine Services**. This pages is also where you can specify an alternate instance directory if you want the SQL data files to be stored on a different drive or in another location.

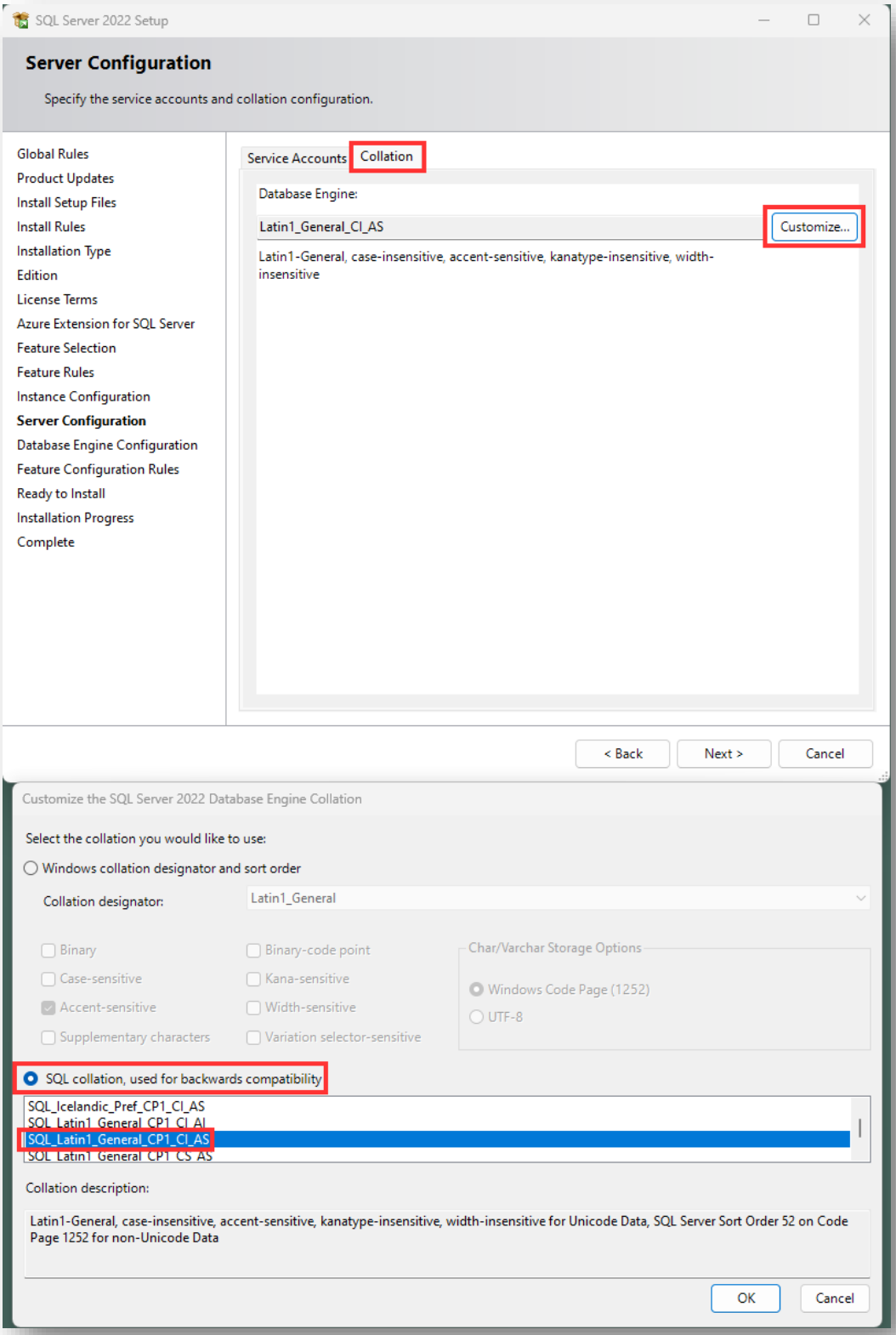


- In the **Instance Configuration** page, you must specify a Named Instance. Do not use spaces in the instance name. Instead use underscores, hyphens, or CamelCase.

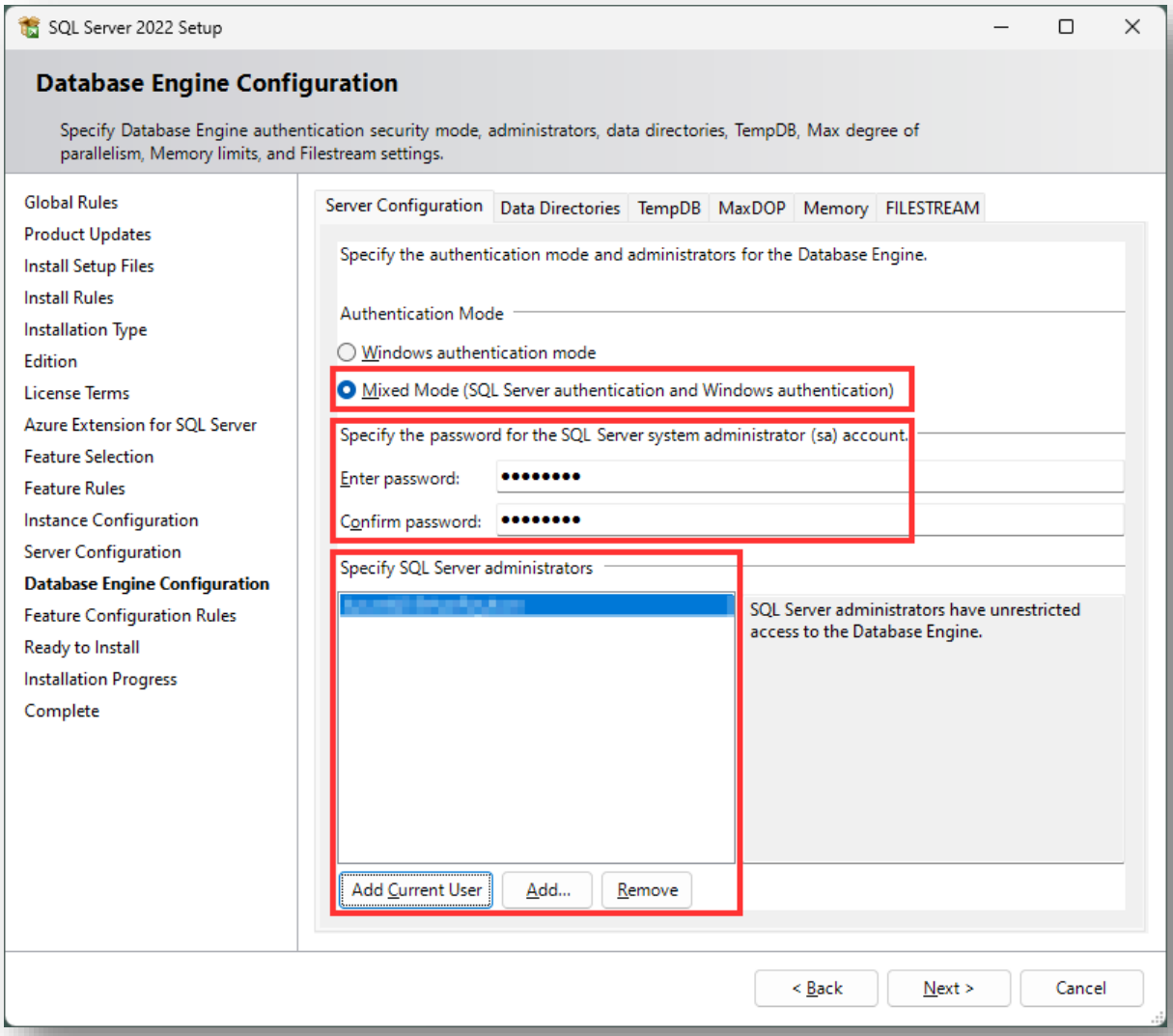


- In the **Server Configuration** page, on the **Service Accounts** tab, ensure that the SQL Server Database Engine and SQL Server Browser have the startup type **Automatic**. The SQL Server Agent is not used by RFMS, but may be needed if you intend to use SQL Maintenance Plans.

  On the **Collation** tab, you MUST click on **Customize** and then choose the specified collation: **SQL_Latin1_General_CP1_CI_AS**. There are multiple collations in the list that only differ by one letter, so be certain that you have selected the correct one.



- In the **Database Engine Configuration** page, on the **Server Configuration** tab, select **Mixed Mode** as the authentication mode. You MUST specify a password for the (sa) account. This is the master password for the SQL instance. Retain this password somewhere safe. In the box below, you will want to specify which Windows users should be designated as SQL Administrators. You should add the current user (the account which you are currently logged in under) and any other domain or local administrators that might need access to the SQL server for management or maintenance purposes. This also provides a way to reset the (sa) password if it is ever lost/forgotten.



- This concludes the main part of the installation process. You must now download and install **SQL Server Management Studio** with default settings. The latest installer can be downloaded here: https://learn.microsoft.com/en-us/sql/ssms/download-sql-server-management-studio-ssms

STEP 2: Configure SQL Server

- Launch **SQL Server Configuration Manager** from the Start menu.
- In the navigation pane on the left, click **SQL Server Services**.
    - Right-click on the **SQL Server (InstanceName)** service and select **Properties.**
        - On the **Log On** tab, choose **Built-in account** and select **Network Service**.
        - Click **Apply** and **OK**.
    - Right-click on the **SQL Server Browser** service and select **Properties**.
        - On the **Log On** tab, choose **Built-in account** and select **Network Service**.
        - Click **Apply** and **OK**.
    - Ensure that the **Start Mode** for both the SQL Server and SQL Browser is set to **Automatic**.
- In the navigation pane on the left, expand **SQL Server Network Configuration**.
    - Click on **Protocols for InstanceName**.
    - Right-click on **Named Pipes** and click **Enable**.
    - Right-click on **TCP/IP** and click **Enable**.
    - Right-click on **TCP/IP** and click **Properties**.
        - On the **IP Addresses** tab, remove the **0** from **TCP Dynamic Ports** to disable this feature. Specify the **TCP Port** of 1433. You will need to repeat this for each IP section in the list, including the IPAll section at the bottom of the list.
        - Click **Apply** and **OK**.
- Return to the **SQL Server Services** page by using the navigation pane on the left.
- Right-click on the **SQL Server (InstanceName)** service and select **Restart**.
- Right-click on the **SQL Server Browser** service and select **Restart**.

STEP 3: Configure Firewall

These instructions assume that you are using Windows Firewall. If you are using a hardware firewall or a different software firewall, you will need to configure it using the same settings.

- Launch **Windows Firewall with Advanced Security**.
- In the navigation pane on the left, select **Inbound Rules**.
- In the **Actions** pane on the right, select **New Rule**.
- Select **Port** and click **Next**.
- Select **TCP** and **Specific local ports**, enter **1433**, and click **Next**.
- Select **Allow the connection** and click **Next**.
- Ensure that **Domain**, **Private**, and **Public** are selected and click **Next**.
- Name the rule **SQL TCP** and click **Finish**.
- In the **Actions** pane on the right, select **New Rule** again.
- Select **Port** and click **Next**.
- Select **UDP** and **Specific local ports**, enter **1433, 1434**, and click **Next**.
- Select **Allow the connection** and click **Next**.
- Ensure that **Domain**, **Private**, and **Public** are selected and click **Next**.
- Name the rule **SQL UDP** and click **Finish**.