

Installing SQL Express 2019

Last Modified on 10/29/2024 3:10 pm CDT

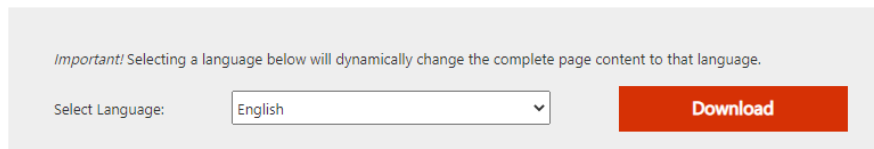
SQL 2019 is not compatible with Windows 7, Windows Server 2008R2, or Windows Server 2012. It is only compatible with Windows 10, Windows Server 2016, and later operating systems.

Note: The installation and setup process is lengthy and quite detailed. If assistance is needed at any time during the process, please contact a member of the IS Support team.

1. Download SQL Server 2019 by going to <https://www.microsoft.com/en-us/Download/details.aspx?id=101064>. Select **Download**.

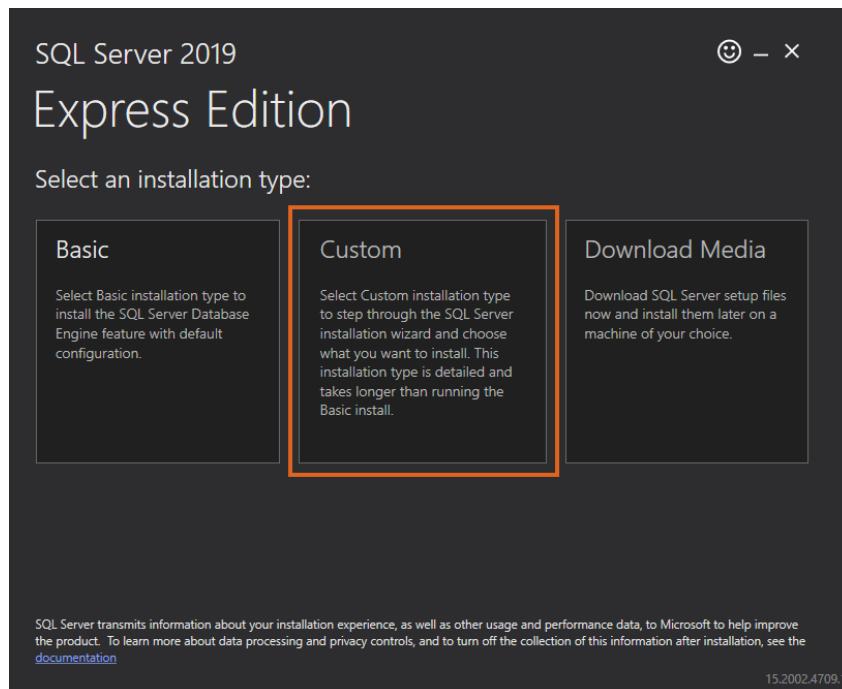
Note: To download the Standard edition, the product must be licensed from Microsoft.

Microsoft® SQL Server® 2019 Express

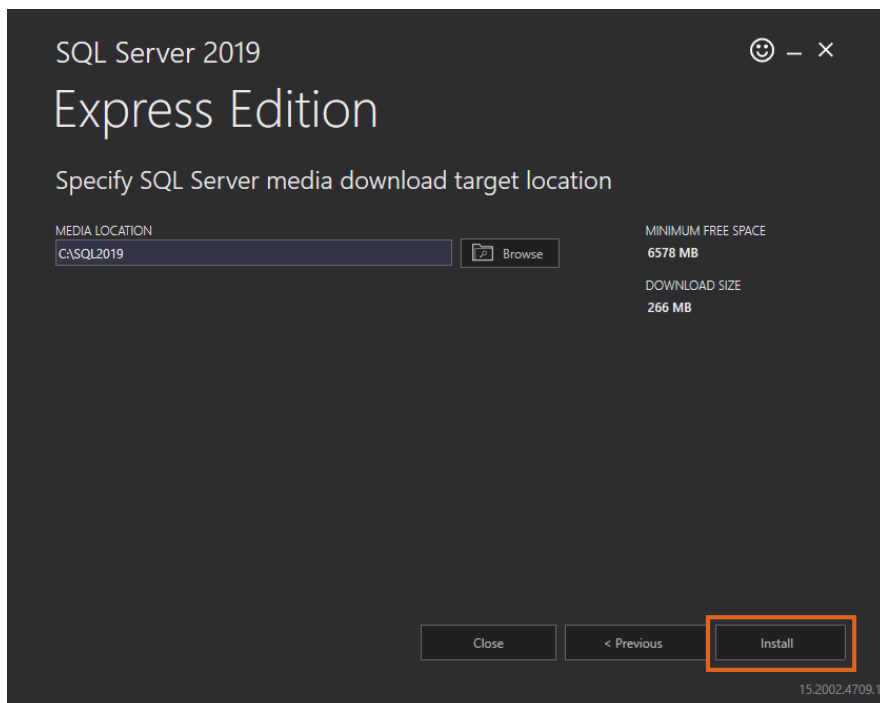


Microsoft® SQL Server® 2019 Express is a powerful and reliable free data management system that delivers a rich and reliable data store for lightweight Web Sites and desktop applications.

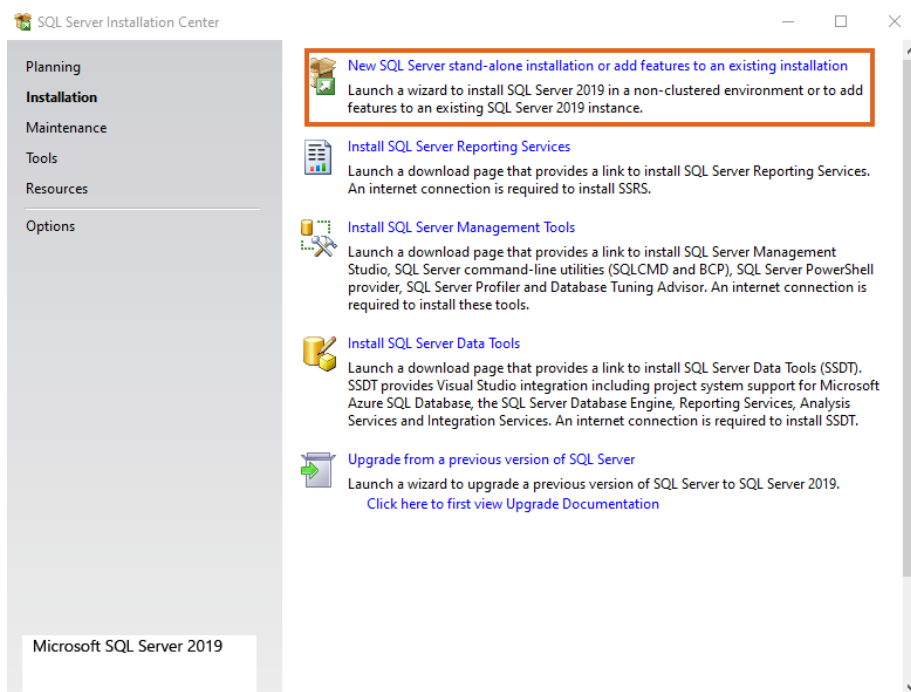
2. Select **Custom**.



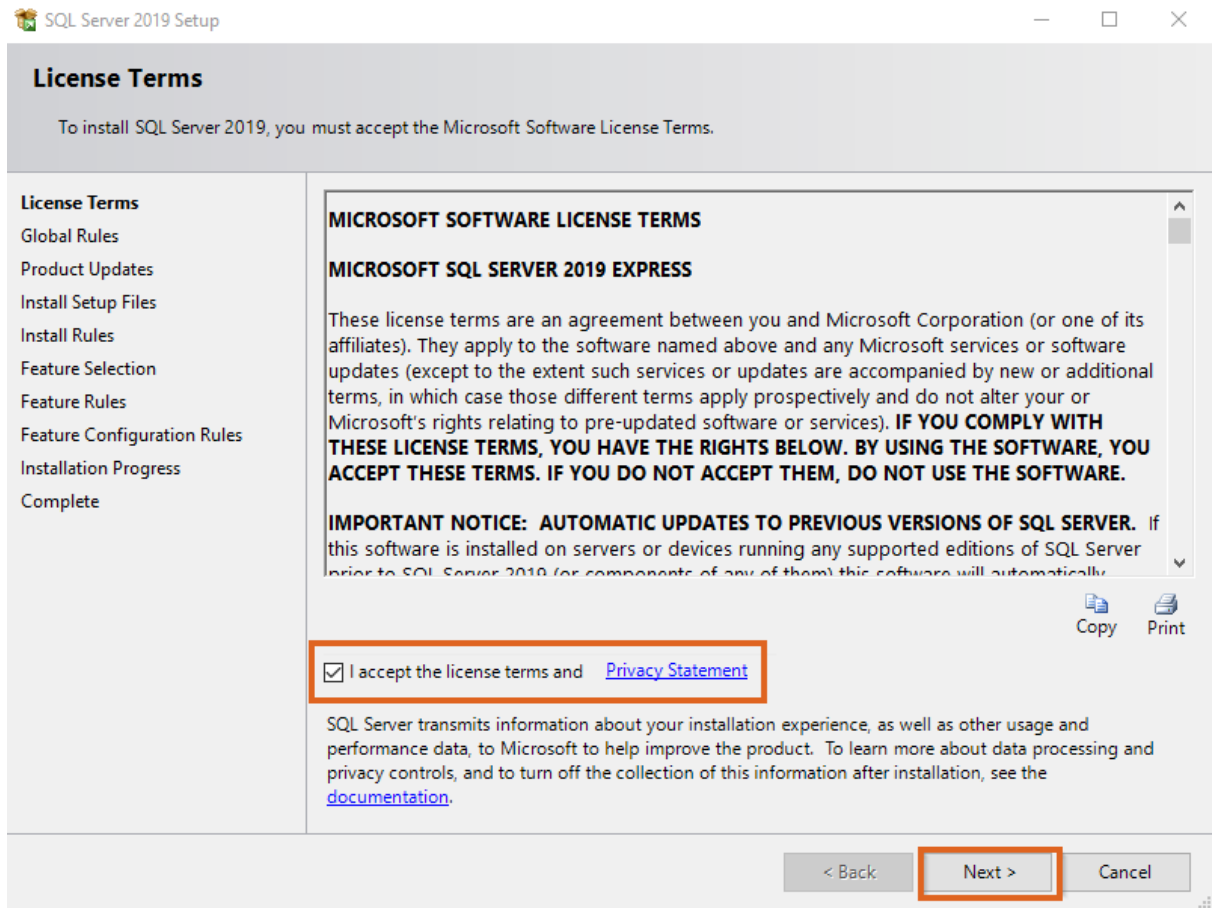
3. After initial setup, the following screen displays. Select **Install**.



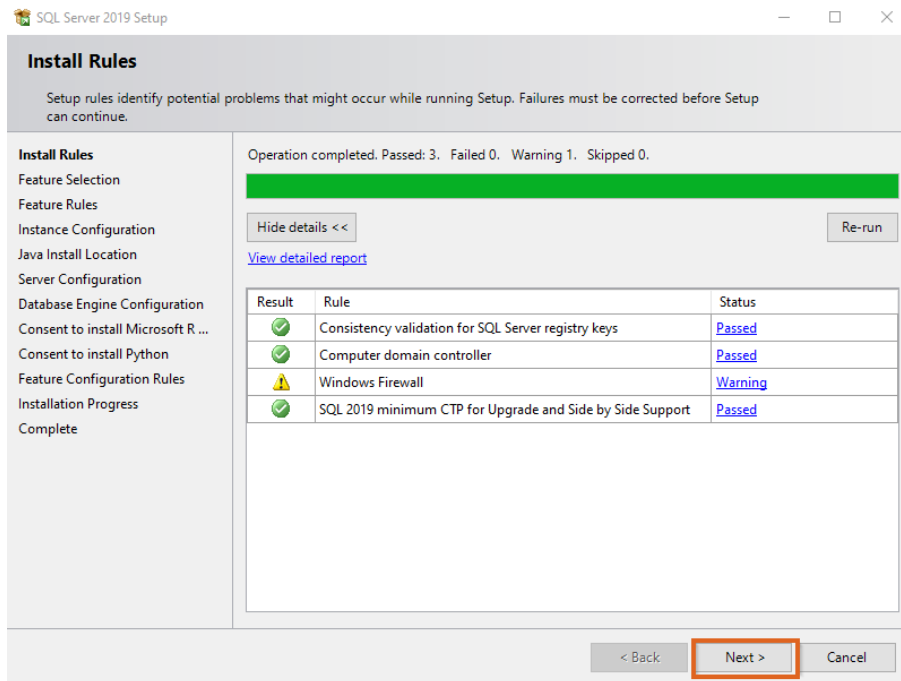
4. Select the **New SQL Server stand-alone installation** option.



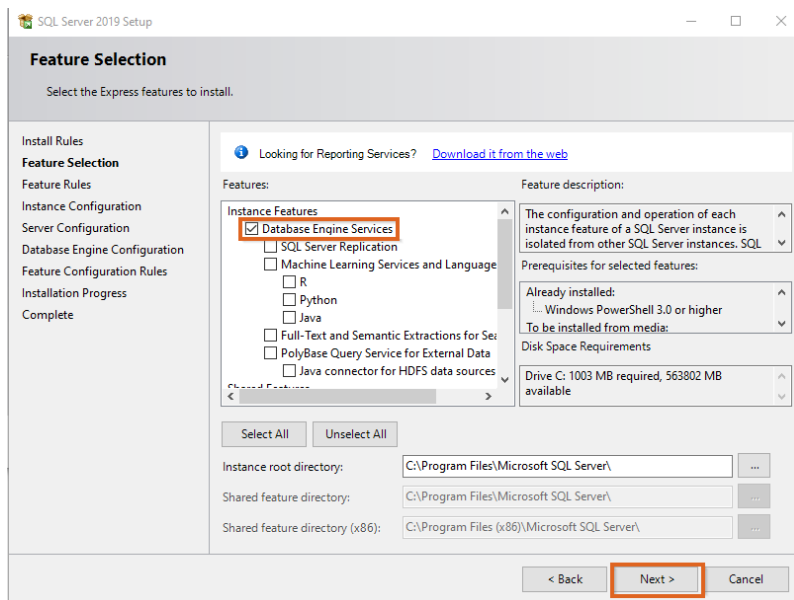
5. Check the box to accept the license terms and select **Next**.



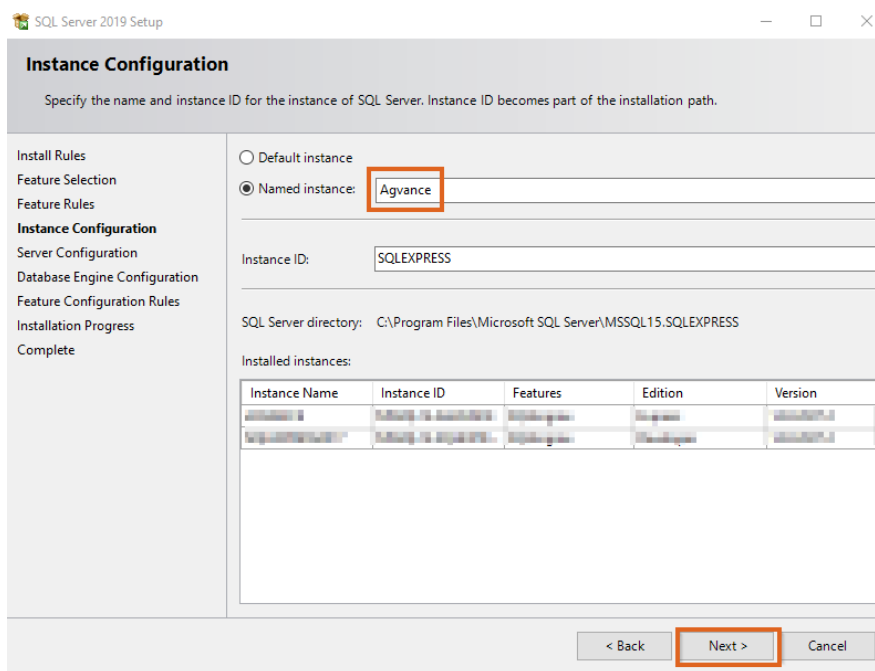
6. Ignore the Windows Firewall warning as those rules will be entered in later. Select **Next**.



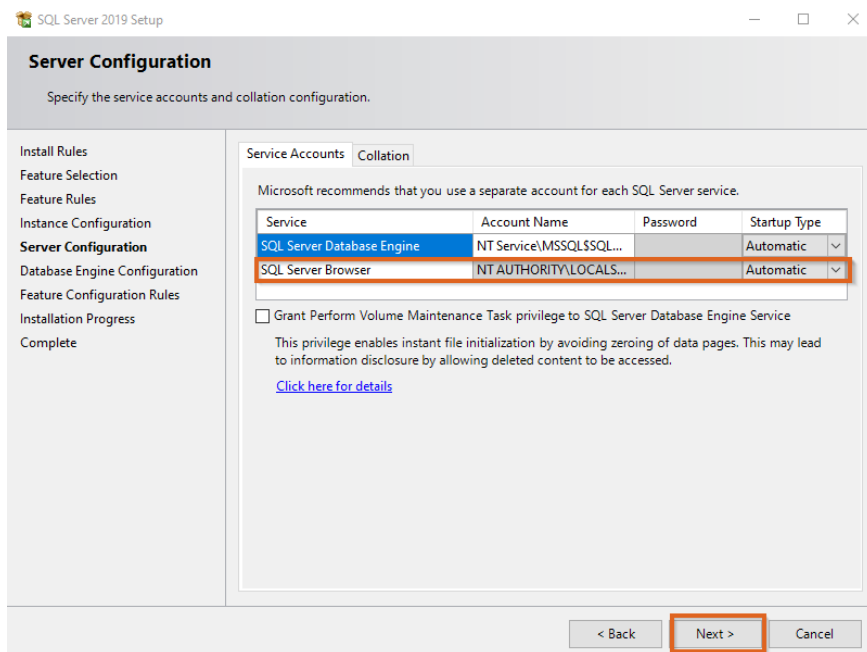
7. Select the *Database Engine Services* option and then select **Next**.



8. On the *Instance Configuration* window, choose the *Named instance* option and enter a name for the SQL instance. In this example, it is *Agvance*. Select **Next**.

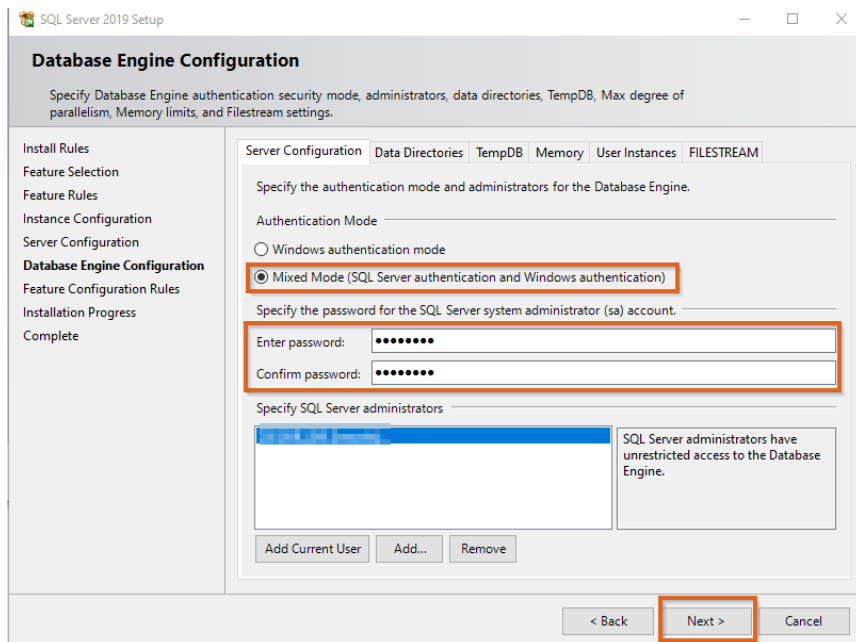


9. On the *Server Configuration* window, make sure the *Startup Type* for the *SQL Server Browser* service is set to *Automatic* and select **Next**.

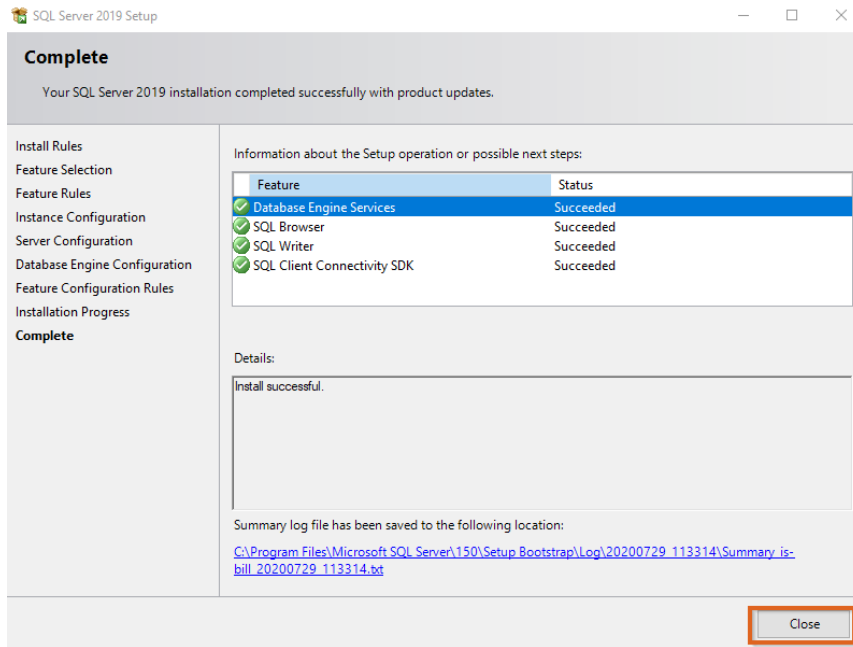


10. Choose the *Mixed Mode (SQL Server authentication and Windows authentication)* option and create a password.

Select **Next**.



11. Select the **Install** button and allow the install to finish. Select **Close**.



Installing Management Studio

1. Go to <https://docs.microsoft.com/en-us/sql/ssms/download-sql-server-management-studio-ssms>, and download SQL Server Management Studio.

Download SQL Server Management Studio (SSMS)

Applies to: ✓ SQL Server (all supported versions) ✓ Azure SQL Database ✓ Azure SQL Managed Instance ✓ Azure Synapse Analytics

SQL Server Management Studio (SSMS) is an integrated environment for managing any SQL infrastructure, from SQL Server to Azure SQL Database. SSMS provides tools to configure, monitor, and administer instances of SQL Server and databases. Use SSMS to deploy, monitor, and upgrade the data-tier components used by your applications, and build queries and scripts.

Use SSMS to query, design, and manage your databases and data warehouses, wherever they are - on your local computer, or in the cloud.

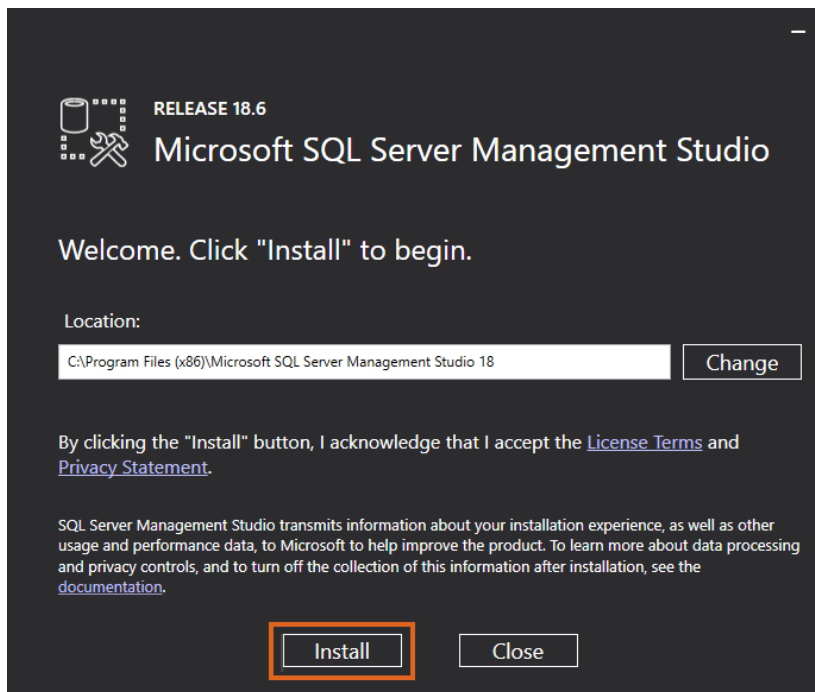
SSMS is free!

Download SSMS

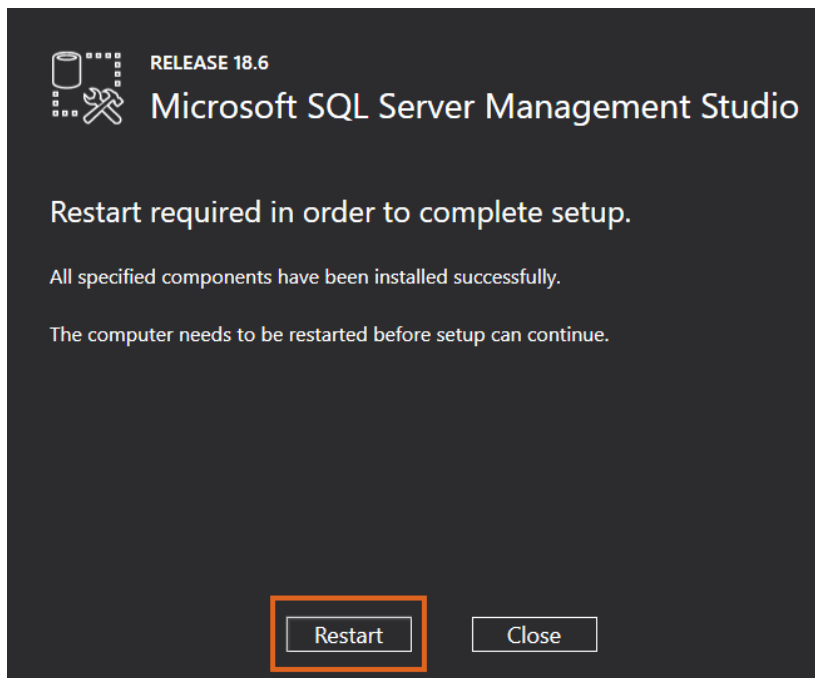
 [Download SQL Server Management Studio \(SSMS\)](#)

SSMS 18.6 is the latest general availability (GA) version of SSMS. If you have a previous GA version of SSMS 18 installed, installing SSMS 18.6 upgrades it to 18.6.

2. After the download completes, run the file and then choose **Install**.

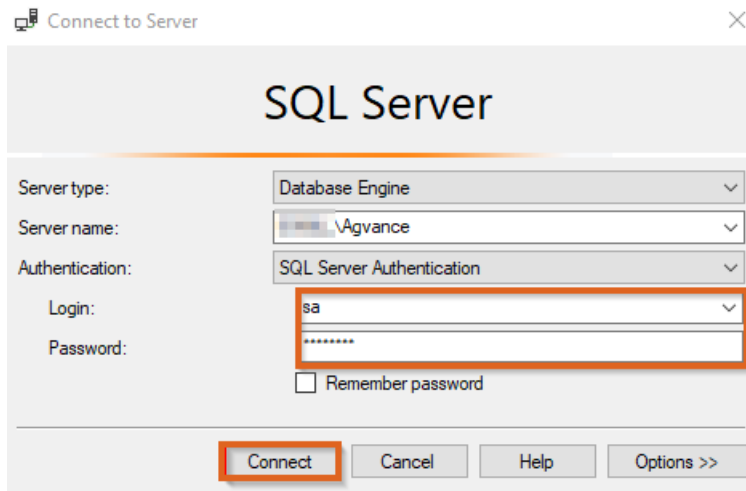


3. As the installation progresses, there may be a prompt to reboot the machine to complete the installation.

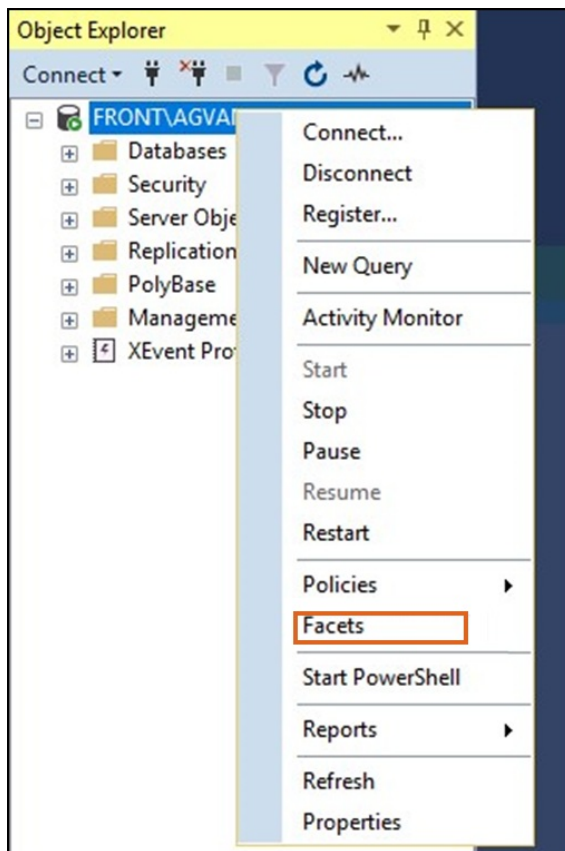


Configuring SQL Express 2019

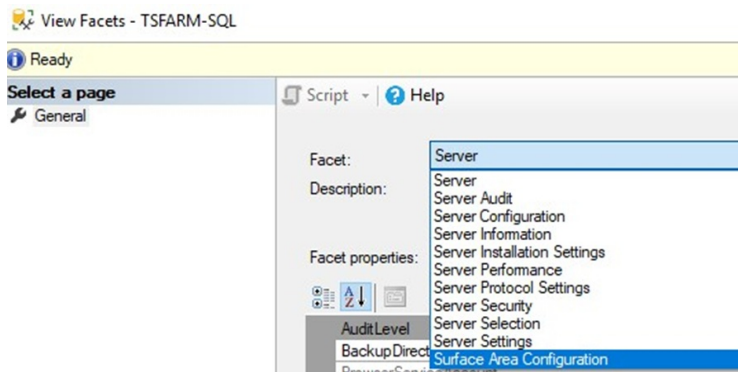
1. Open SQL Server Management Studio and log in via *SQL Server Authentication* using the *sa* login. Enter the password created on Step 10 of the *Installing SQL Express 2019* section.



2. After logging in, right-click on the SQL Server instance name, and select *Facets*.



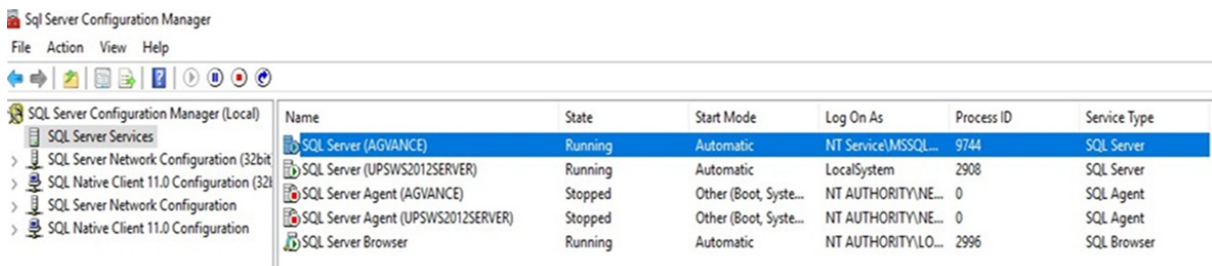
3. From the *Facet* drop-down list, choose *Surface Area Configuration*.



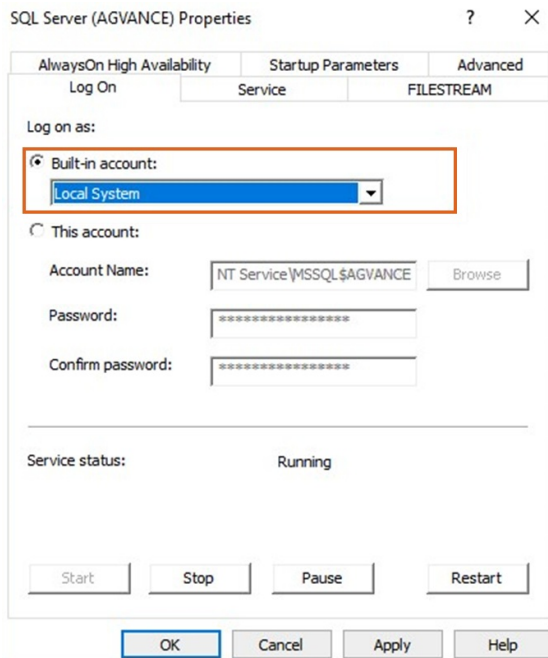
- Set the `XPCmdShellEnabled` option to `True` and exit SQL Server Management Studio.

AdHocRemoteQueriesEnabled	False
CiIntegrationEnabled	False
DatabaseMailEnabled	True
OleAutomationEnabled	False
RemoteDacEnabled	False
ServiceBrokerEndpointActive	False
SoapEndpointsEnabled	False
SqlMailEnabled	False
WebAssistantEnabled	Property value "WebAssistantEnabled" is not available.
XPCmdShellEnabled	True
	True
	False

- Open SQL Server Configuration Manager by navigating to `C:\Windows\SysWOW64\SQLServerManager15.msc`.
- In the left panel, select *SQL Server Services*. In the right panel, right-click the installed SQL Server instance, and choose *Properties*.



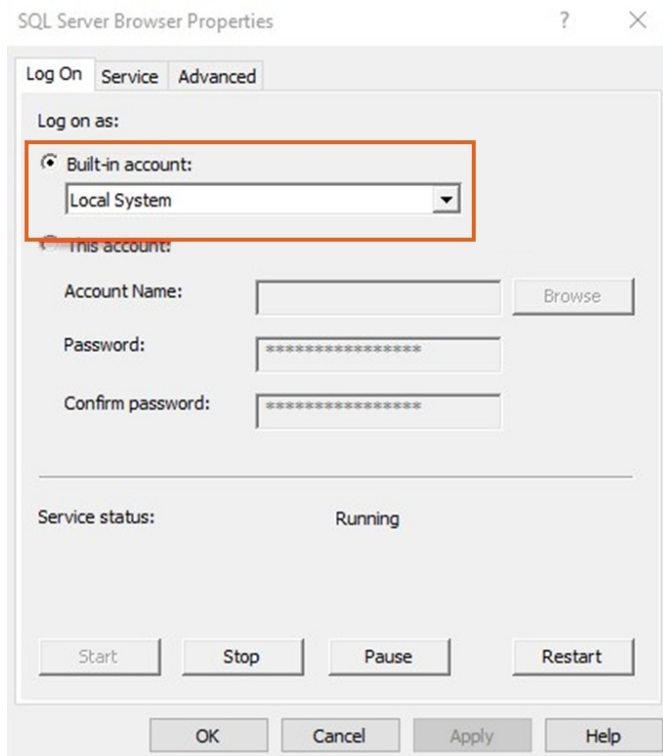
- On the *Log On* tab, select the *Built-in account* option, and choose *Local System* from the drop-down list. Select **Apply**. When the prompt to restart the service appears, select **OK**.



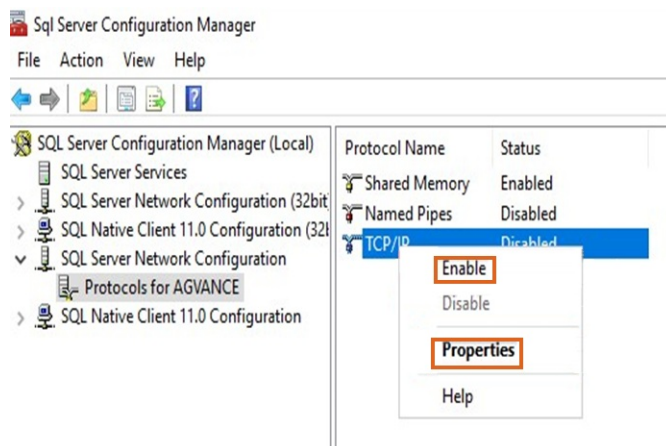
8. In the right panel of the *SQL Configuration Manager* window, right-click *SQL Server Browser*, and choose *Properties*.

Name	State	Start Mode	Log On As	Process ID
SQL Server (AGV...	Running	Automatic	LocalSystem	4580
SQL Full-text Filte...	Running	Manual	NT Service\MSSQL...	6400
SQL Server Launc...	Running	Automatic	NT Service\MSSQL...	6908
SQL Server Agent...	Stopped	Other (Boot, Syste...	NT AUTHORITY\NE...	0
SQL Server Browser	Running	Automatic	LocalSystem	4452

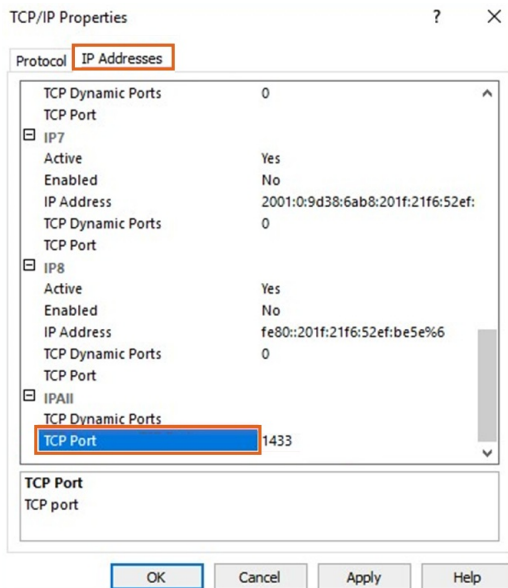
9. Similar to how the SQL Service is set up, select the *Built-in* account option on the *Log On* tab, and choose *Local System* from the drop-down menu. Click **Apply** and select **OK** when prompted.



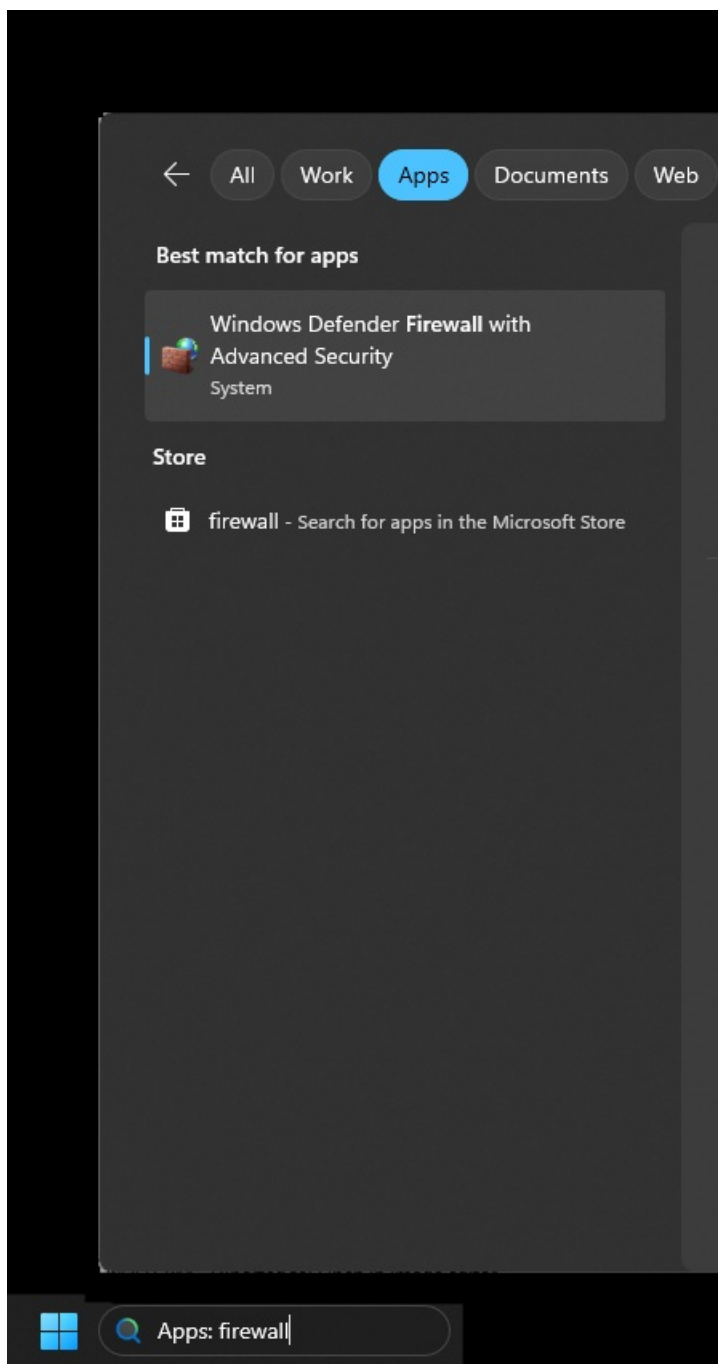
10. Select the *SQL Server Network Configuration* in the left panel of the *SQL Server Configuration Manager* window.
11. In the left panel, double-click the option for the installed SQL instance.
12. Right-click the *TCP/IP* option, and select *Enable*. When the prompt to restart the instance appears, select **OK**. Right-click *TCP/IP* again, and select *Properties*.



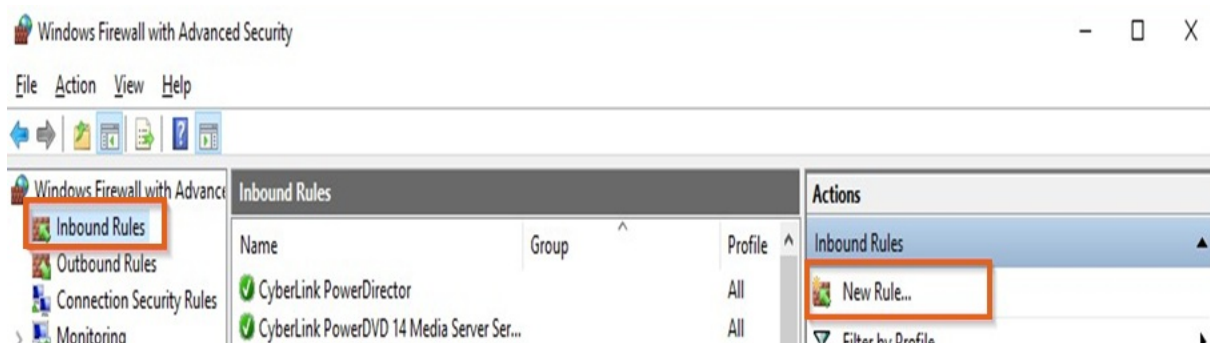
13. Go to the *IP Addresses* tab and scroll to the bottom of the window. Remove any TCP Dynamic Ports that may be listed (this value will most likely be 0), and then enter a port number for the TCP Port option (choose any port number desired). Write this port number down, as it is needed later when creating a firewall rule. Select **Apply** and then **OK** when the warning to restart the SQL Service appears.



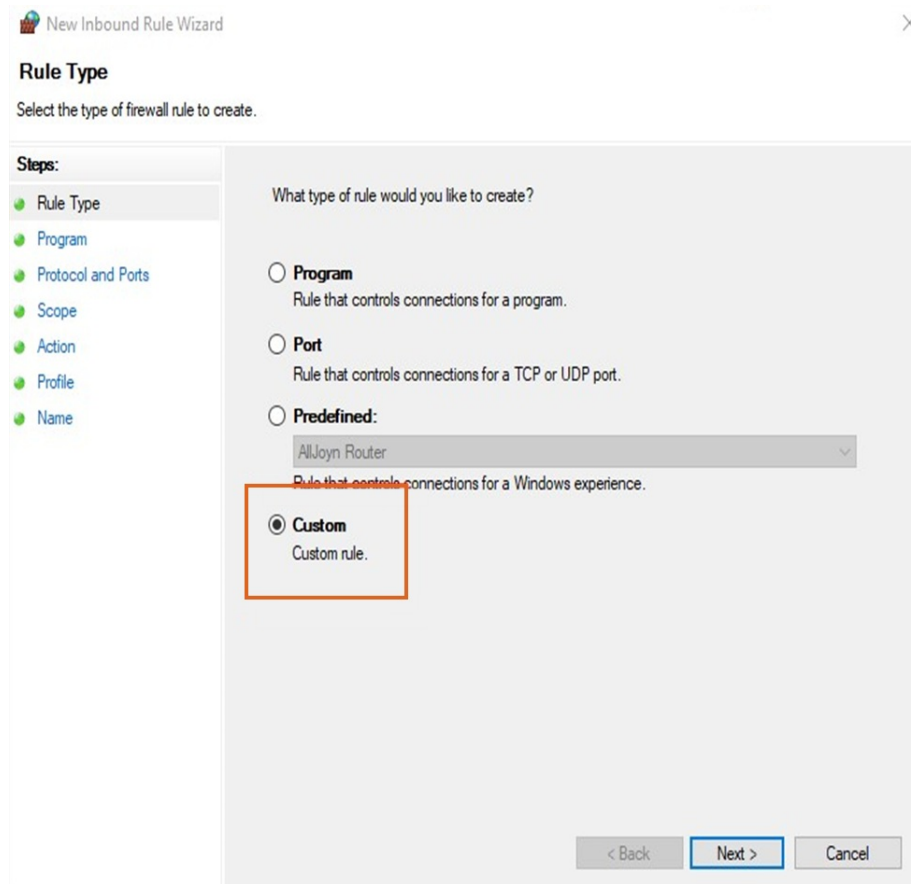
14. Return to the *SQL Server Services* option in the left panel of the *SQL Server Configuration Manager* window. Restart both the SQL Server Service (with the installed instance name) and the SQL Server Browser. This can be done by right-clicking each service and choosing *Restart*.
15. Close the *SQL Server Configuration Manager* and open the machine's Windows Firewall with Advanced Security.
16. On the desktop, in the search box of the Taskbar, type in "firewall". Select *Windows Firewall with Advanced Security*.



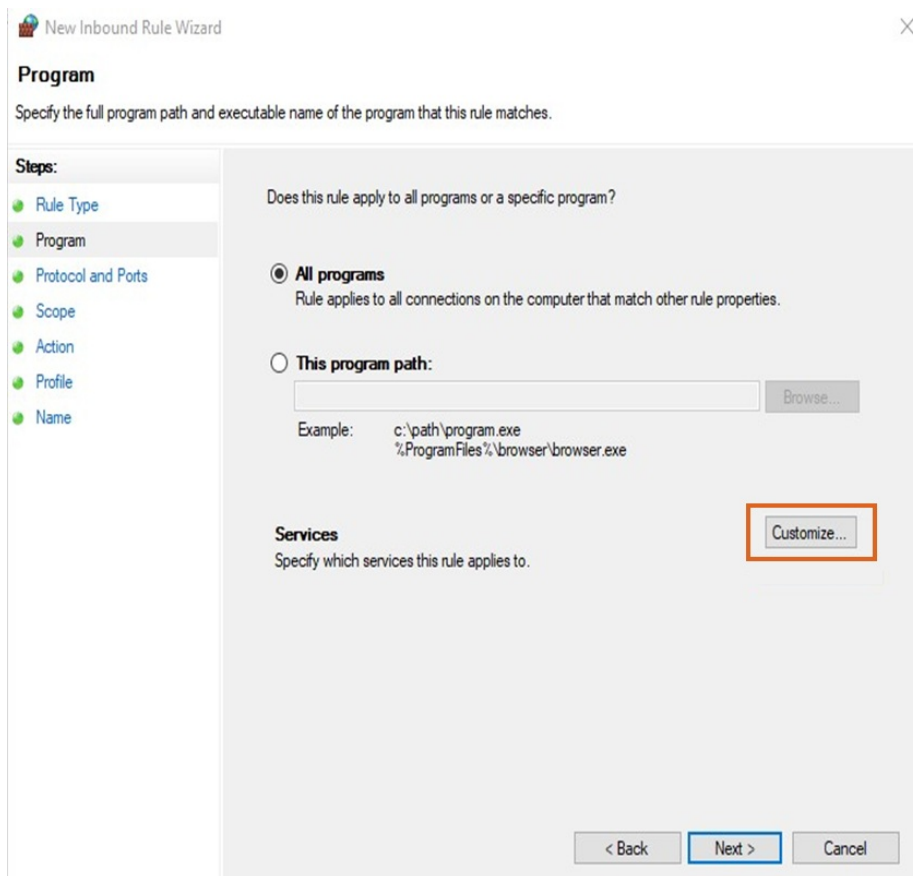
17. Select *Inbound Rules* in the left panel and then select *New Rule* in the right-most panel.



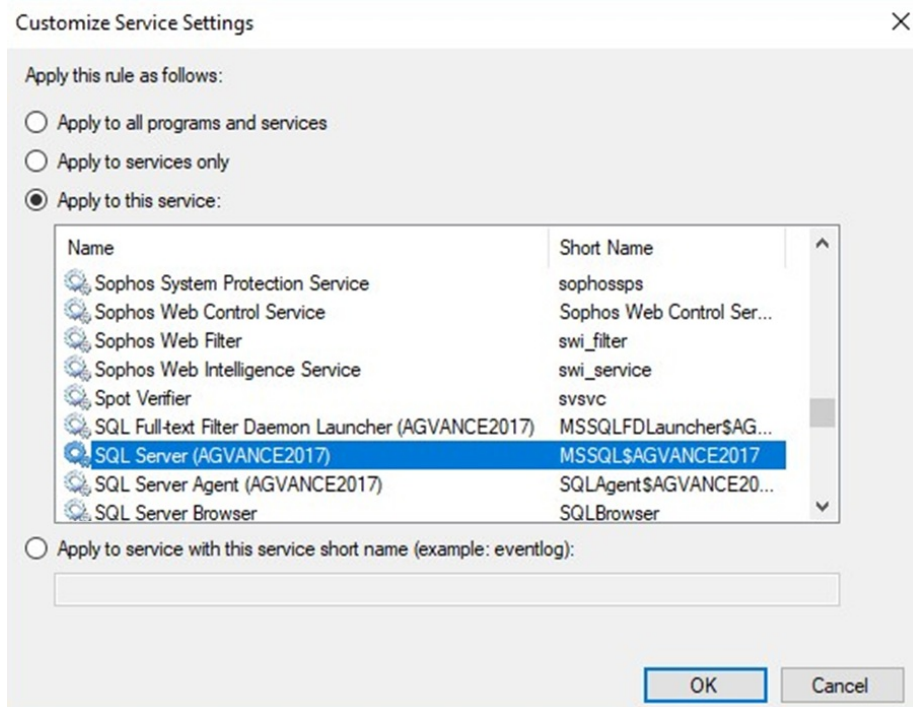
18. In the *New Inbound Rule Wizard* choose *Custom* and then select **Next**.



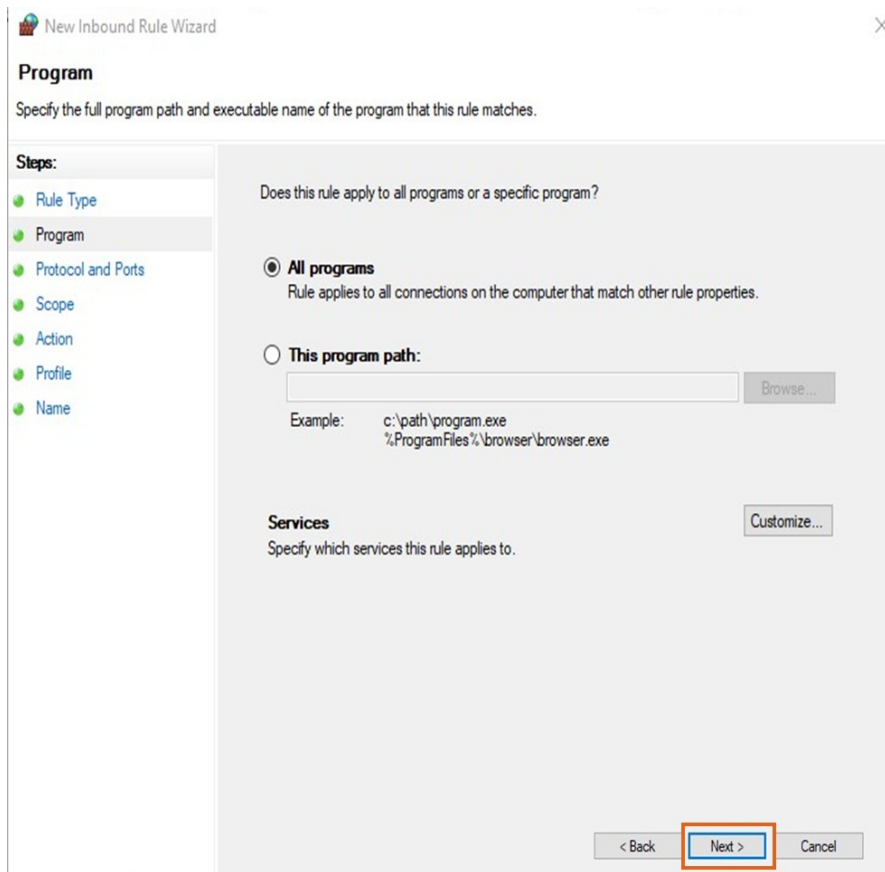
19. Select **Customize**.



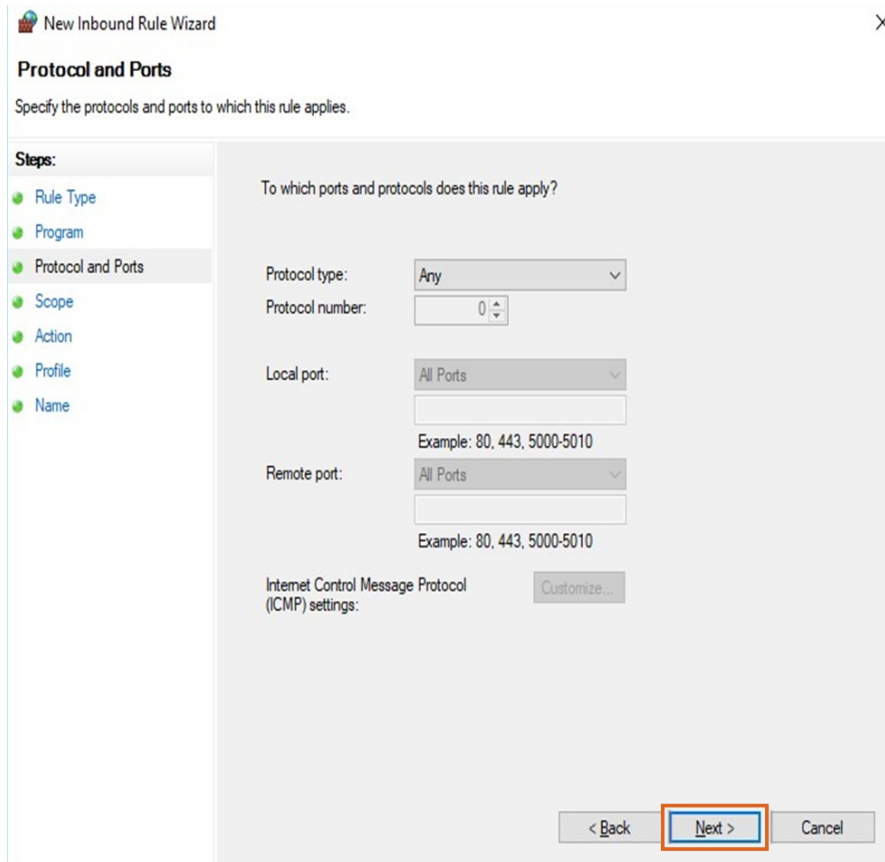
20. Choose *Apply to this service* and scroll down the list of services to select the SQL Server. Choose **OK**.



21. Select **Next**.



22. Select Next.



23. Select **Next** again.

New Inbound Rule Wizard

Scope

Specify the local and remote IP addresses to which this rule applies.

Steps:

- Rule Type
- Program
- Protocol and Ports
- **Scope**
- Action
- Profile
- Name

Which local IP addresses does this rule apply to?

Any IP address

These IP addresses:

Add...
Edit...
Remove

Customize the interface types to which this rule applies: Customize...

Which remote IP addresses does this rule apply to?

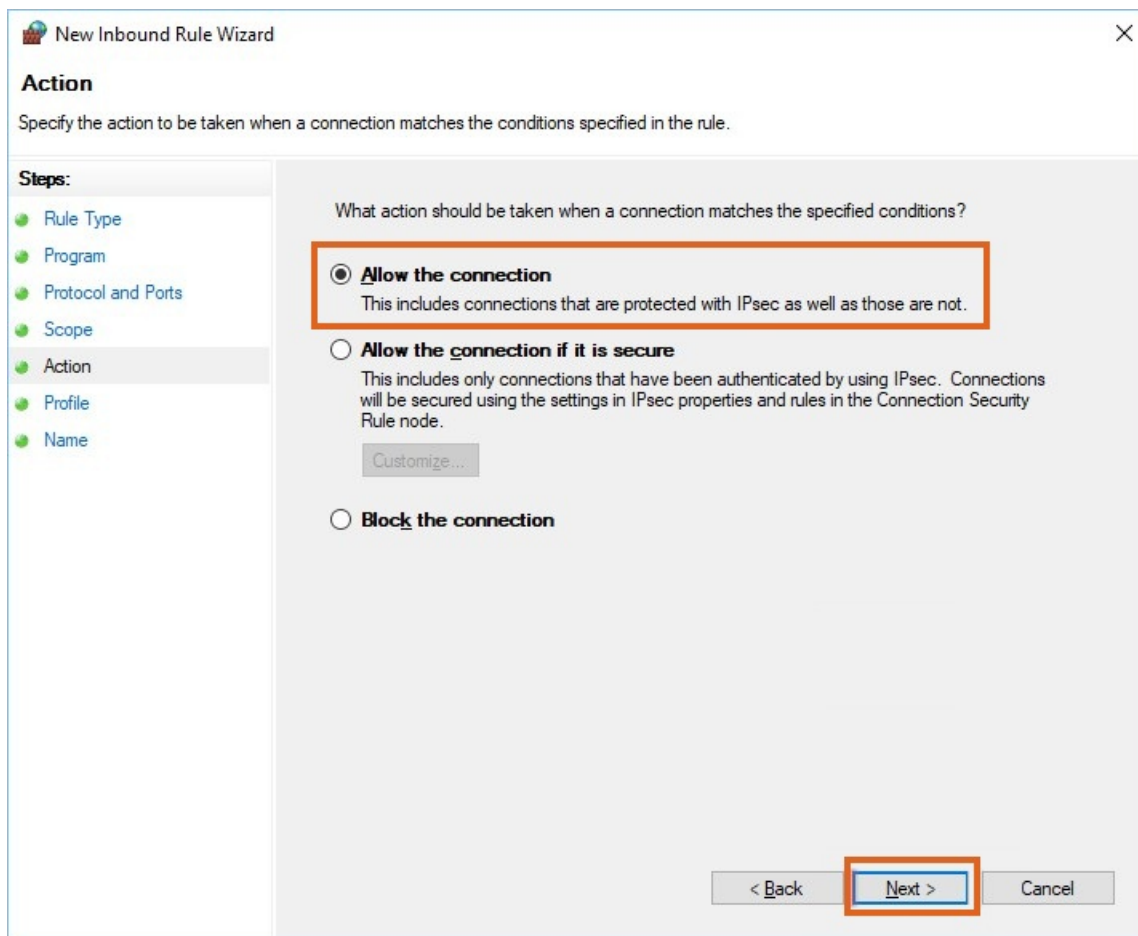
Any IP address

These IP addresses:

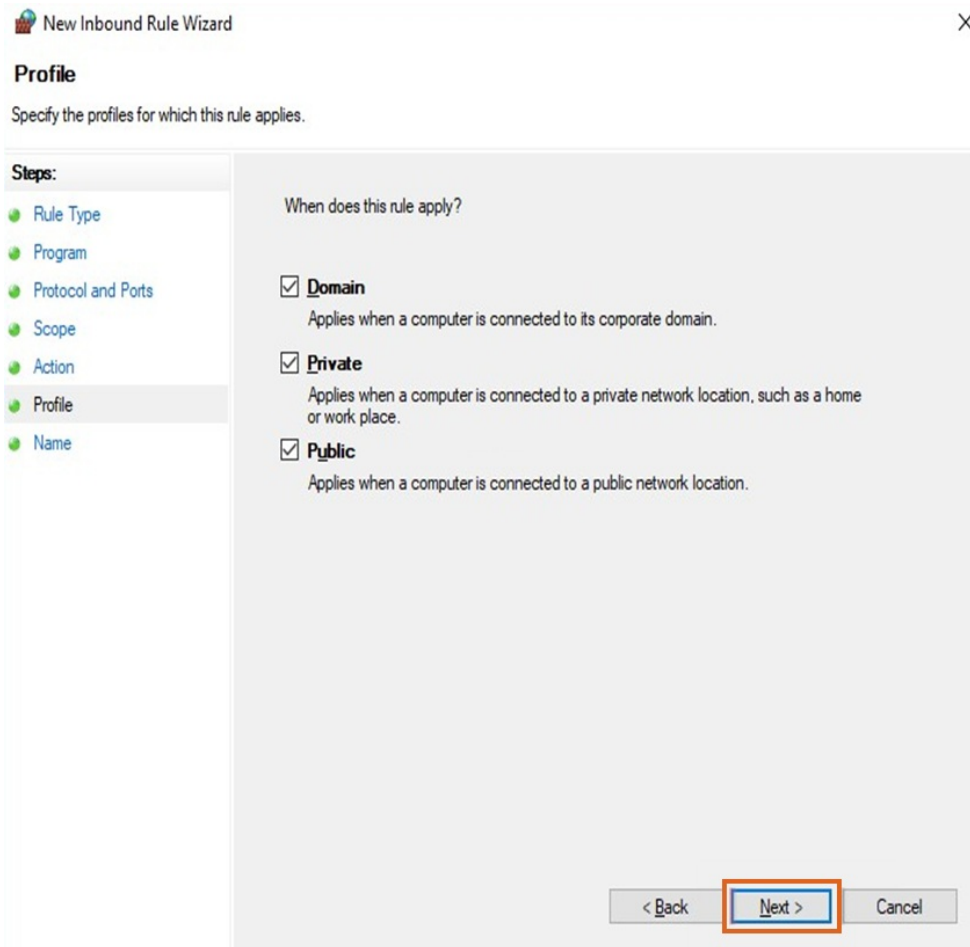
Add...
Edit...
Remove

< Back Next > Cancel

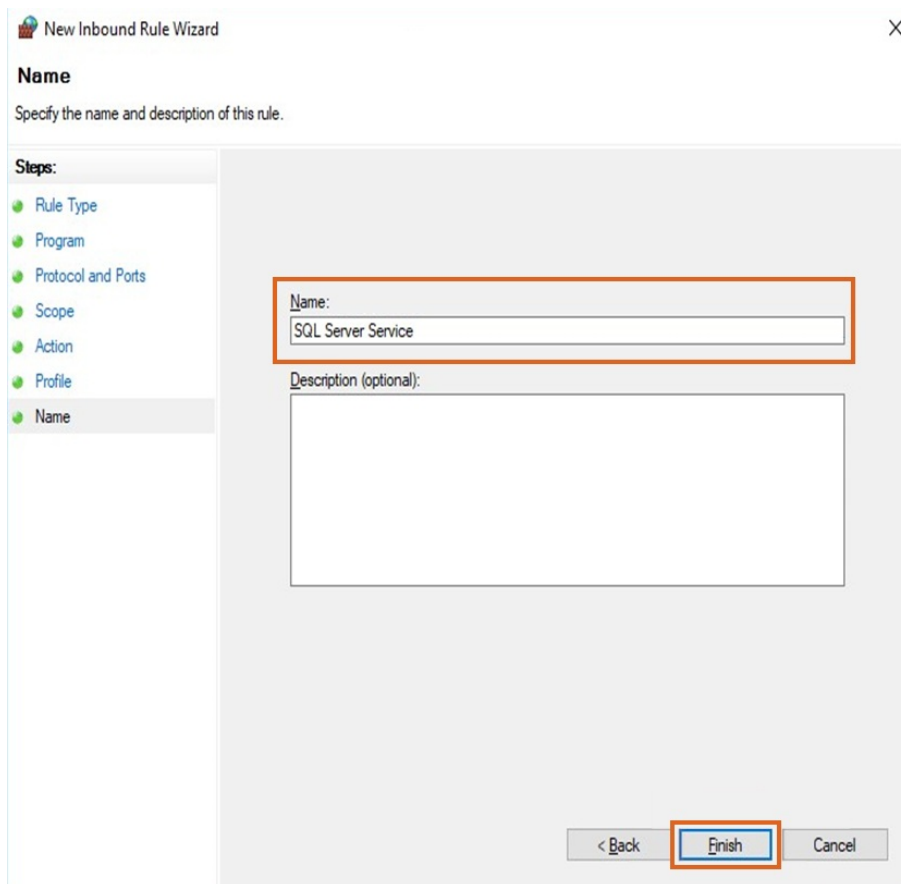
24. Select *Allow the connection* then choose **Next**.



25. Select Next.

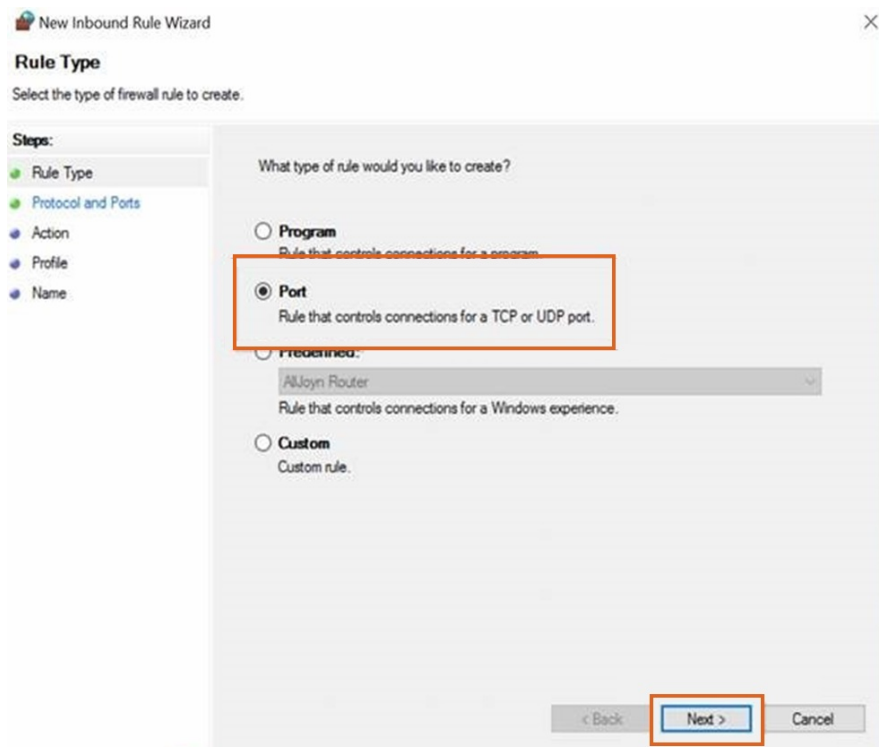


26. Name the rule. For example, the *Name* below is *SQL Server Service*. Select **Finish**.



27. Repeat Steps 17-26 of this section, but this time, create the rule for the SQL Server Browser Service. Choose the *SQL Server Browser* in Step 20.

28. Choose to create another rule and select the *Port* option. Select **Next**.



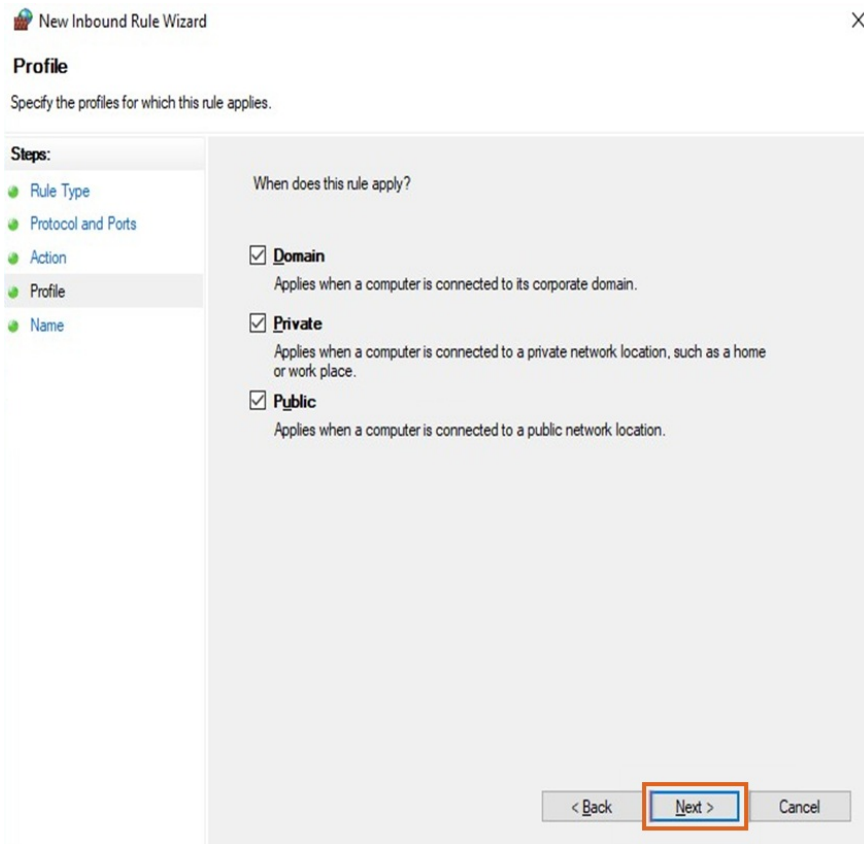
29. Enter the port number configured for the SQL instance (1433 in this example). Select **Next**.

The screenshot shows the 'New Inbound Rule Wizard' dialog box, specifically the 'Protocol and Ports' step. The title bar reads 'New Inbound Rule Wizard' with a close button (X) on the right. Below the title bar, the section is titled 'Protocol and Ports' with the instruction 'Specify the protocols and ports to which this rule applies.' On the left, a 'Steps:' sidebar lists 'Rule Type', 'Protocol and Ports', 'Action', 'Profile', and 'Name', with 'Protocol and Ports' selected. The main area contains two questions: 'Does this rule apply to TCP or UDP?' with radio buttons for 'TCP' (selected) and 'UDP'; and 'Does this rule apply to all local ports or specific local ports?' with radio buttons for 'All local ports' and 'Specific local ports:' (selected). The 'Specific local ports:' option is highlighted with a red box, and its text input field contains '1433'. Below the input field is a small example text: 'Example: 00, 143, 5000-5010'. At the bottom, there are three buttons: '< Back', 'Next >' (highlighted with a blue box), and 'Cancel'.

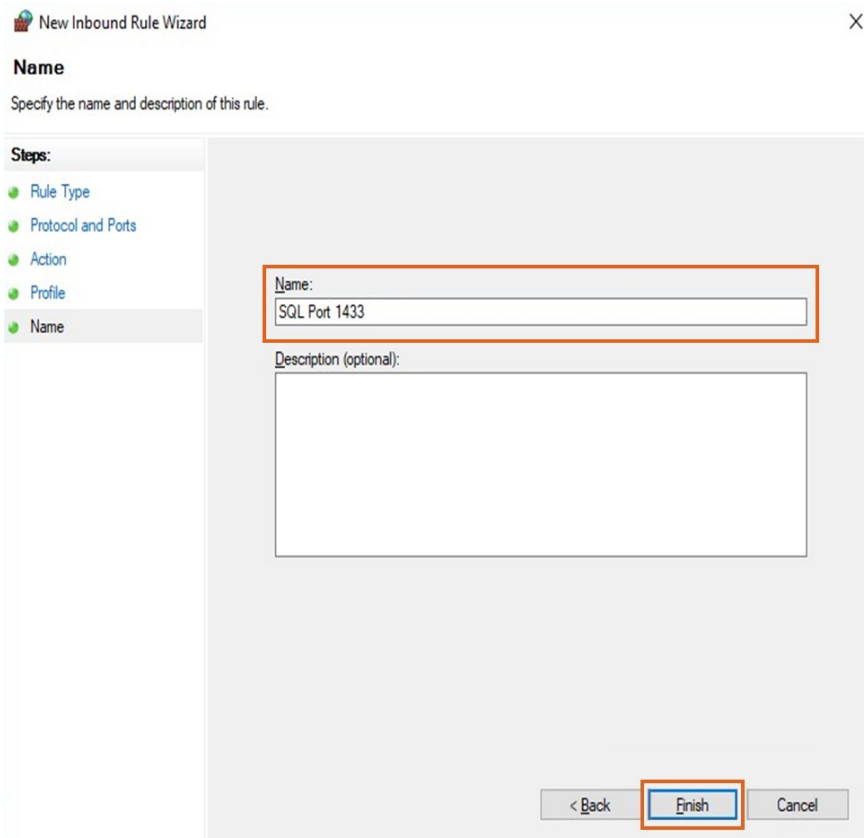
30. Select the *Allow the connection* option and select **Next**.

The screenshot shows the 'New Inbound Rule Wizard' dialog box, specifically the 'Action' step. The title bar reads 'New Inbound Rule Wizard' with a close button (X) on the right. Below the title bar, the section is titled 'Action' with the instruction 'Specify the action to be taken when a connection matches the conditions specified in the rule.' On the left, a 'Steps:' sidebar lists 'Rule Type', 'Protocol and Ports', 'Action', 'Profile', and 'Name', with 'Action' selected. The main area contains the question 'What action should be taken when a connection matches the specified conditions?' with three radio button options: 'Allow the connection' (selected and highlighted with a red box), 'Allow the connection if it is secure', and 'Block the connection'. The 'Allow the connection' option has a sub-description: 'This includes connections that are protected with IPsec as well as those are not.' The 'Allow the connection if it is secure' option has a sub-description: 'This includes only connections that have been authenticated by using IPsec. Connections will be secured using the settings in IPsec properties and rules in the Connection Security Rule node.' Below this description is a 'Customize...' button. At the bottom, there are three buttons: '< Back', 'Next >' (highlighted with a blue box), and 'Cancel'.

31. Select **Next**.



32. Enter a *Name* for the SQL port rule and select **Finish**.



SQL Express 2019 should now be installed and configured.