



# How to Set up Microsoft SQL Server for GV-Control Center

**Article ID: V1-23-04-24**

**Release Date: April 24, 2023**

## Applied to

GV-Control Center V4.0 or later

## Summary

In GV-Control Center V4.0 or later, users can choose to run GV-Control Center alongside the Microsoft SQL Server Database, which is suggested to be installed on a separate server. The log data, however, is only available when the SQL server is properly configured and connected to GV-Control Center:

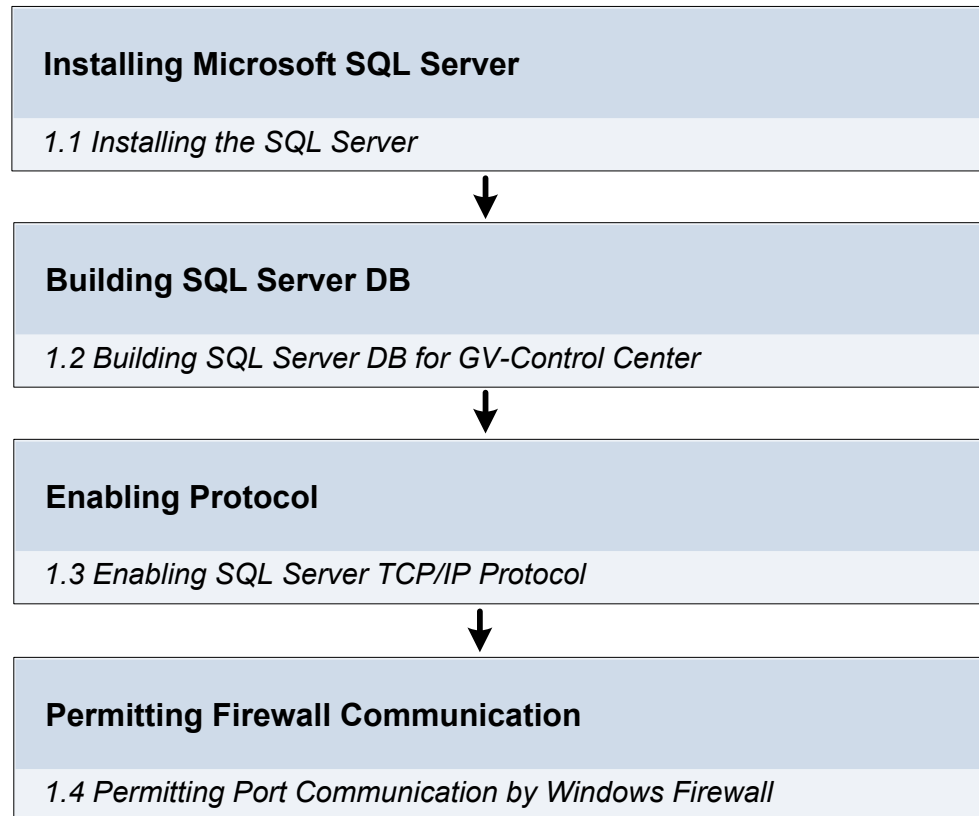
## Table of Contents

Applied to .....	1
Summary .....	1
1. Installing and Setting up the SQL Server .....	2
1.1 Installing the SQL Server .....	3
1.2 Building SQL Server DB for GV-Control Center .....	6
1.3 Enabling SQL Server TCP/IP Protocol .....	8
1.4 Permitting Port Communication by Windows Firewall .....	9
2. Setting up GV-Control Center .....	11



## 1. Installing and Setting up the SQL Server

You must follow the steps below to build the required Microsoft SQL Server database:



---

**IMPORTANT:** The following instructions are exemplified using **Microsoft SQL Server 2014 Express**.

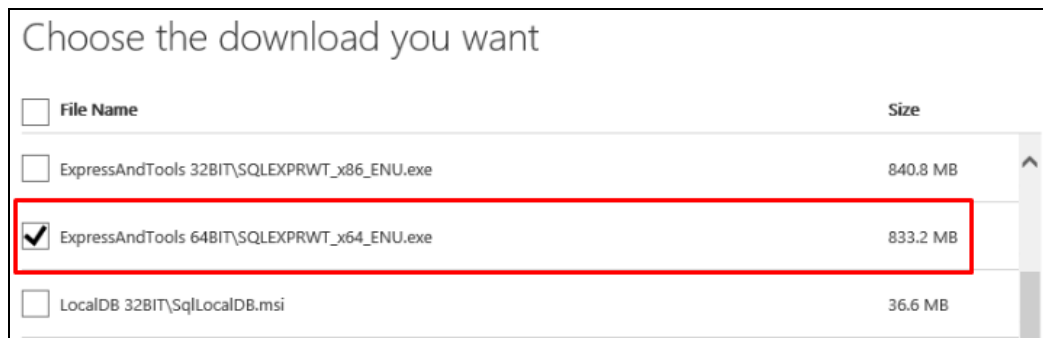
---



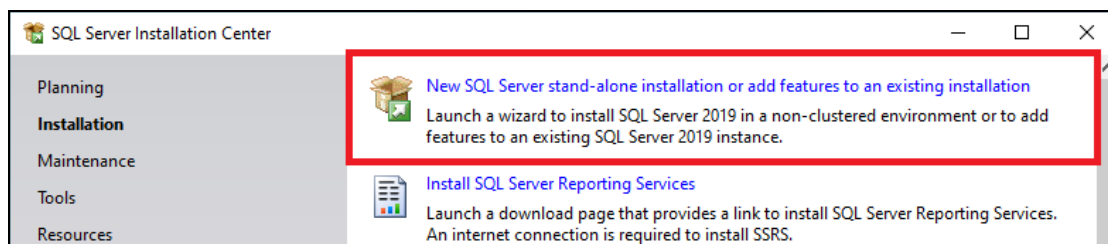
## 1.1 Installing the SQL Server

To download and install the SQL Server, search for it on the Microsoft website (<https://www.microsoft.com>), or download **Microsoft SQL Server 2014 Express** [here](#).

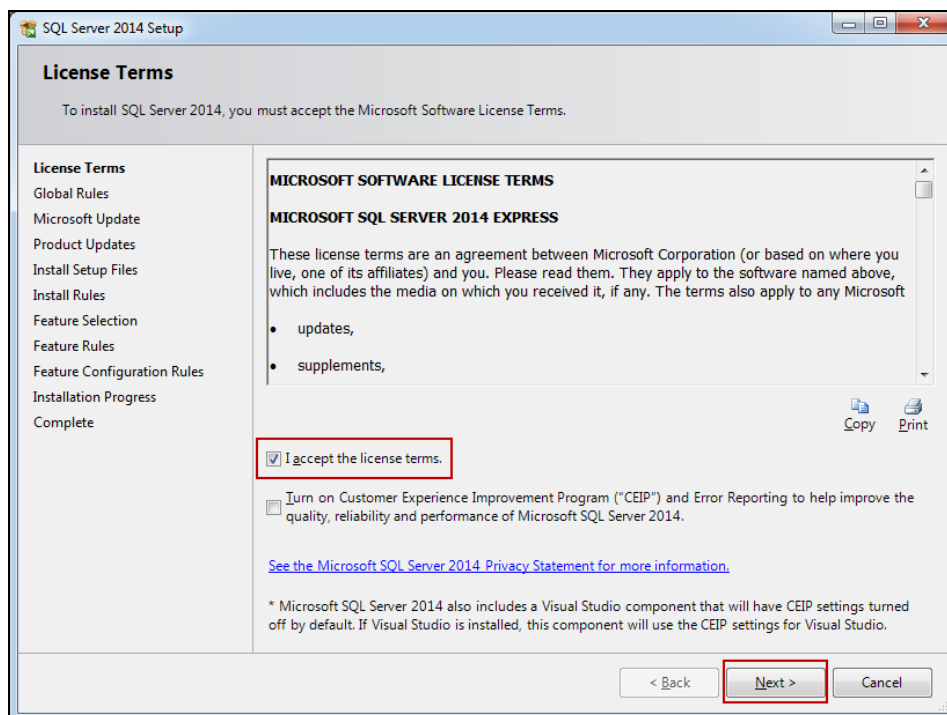
1. When downloading, select the option of **Express And Tools** corresponding to your operating system, **32- or 64-bit**, as exemplified below.



2. To start installing, execute **SQLSERVER\_64\_ENU** to extract the files to a desired folder, run **SETUP** and select **New SQL Server stand-alone installation**.

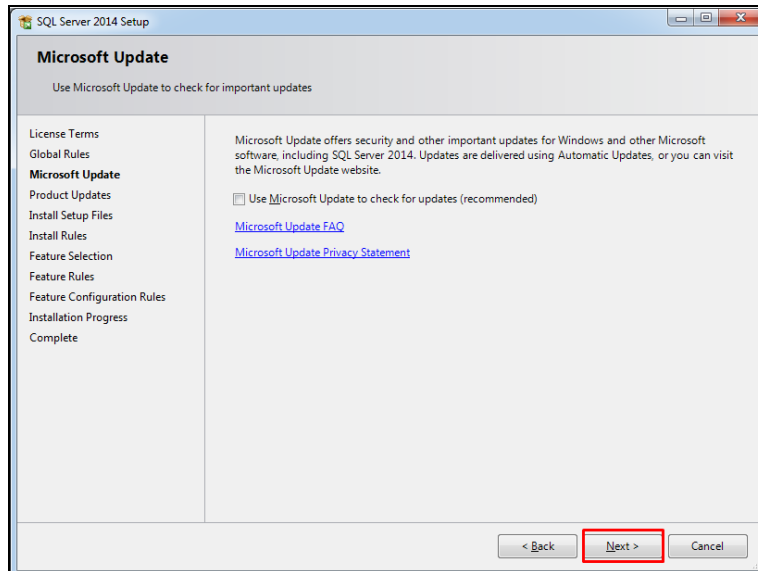


3. Read the license terms and check **I accept the license terms**. Click **Next**.

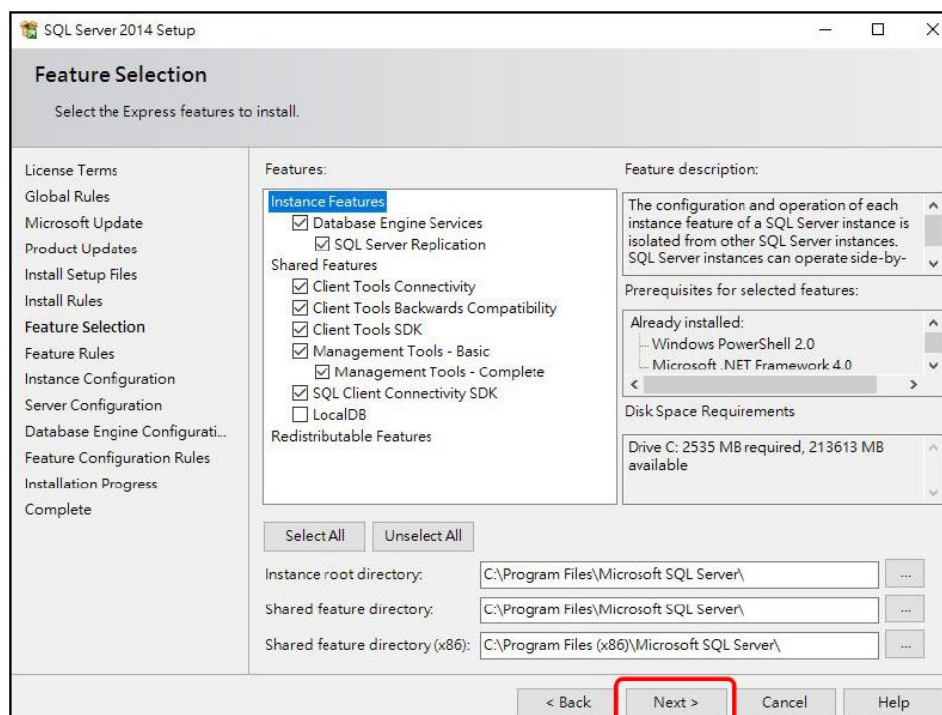




4. The **Global Rules** step scans for the rules that must be met to avoid potential problems during the installation. If all rules are passed, the step is processed and skipped automatically. If any of the rules don't pass, you must correct them before you can continue.
5. For the **Microsoft Update** step, click **Next**.



6. The steps of **Install Setup Files** and **Install Rules** are again processed automatically and skipped unless certain software requirements are not met, as identified by **Install Rules**. If a **Windows Firewall** warning appears, you can resolve it by referring to *1.4 Permitting Port Communication by Windows Firewall*.
7. For **Feature Selection**, install all features that are already selected by default and click **Next**.





8. The **Features Rules** step is again processed automatically and skipped unless certain rules are not met.
9. During **Instance Configuration**, define a desired **Name** and **ID** for the Instance and click **Next**.

### Instance Configuration

Specify the name and instance ID for the instance of SQL Server. Instance ID becomes part of the installation path.

License Terms

Global Rules

Microsoft Update

Product Updates

Install Setup Files

Install Rules

Feature Selection

Feature Rules

**Instance Configuration**

Server Configuration

Database Engine Configurati...

Feature Configuration Rules

Installation Progress

Complete

Default instance

**Named instance:**

---

**Instance ID:**

SQL Server directory: C:\Program Files\Microsoft SQL Server\MSSQL12.SQLEXPRESS

Installed instances:

Instance Name	Instance ID	Features	Edition	Version

10. Skip **Server Configuration**, and click **Next**.
11. Select **Mixed Mode** as the Authentication mode, define a desired **Password** for the SQL Server system administrator account **sa** and click **Next**.

### Database Engine Configuration

Specify Database Engine authentication security mode, administrators and data directories.

License Terms

Global Rules

Microsoft Update

Product Updates

Install Setup Files

Install Rules

Feature Selection

Feature Rules

Instance Configuration

Server Configuration

**Database Engine Configura...**

Feature Configuration Rules

Installation Progress

Complete

Server Configuration | Data Directories | User Instances | FILESTREAM

Specify the authentication mode and administrators for the Database Engine.

Authentication Mode

Windows authentication mode

**Mixed Mode (SQL Server authentication and Windows authentication)**

Specify the password for the SQL Server system administrator (sa) account:

**Enter password:**

**Confirm password:**

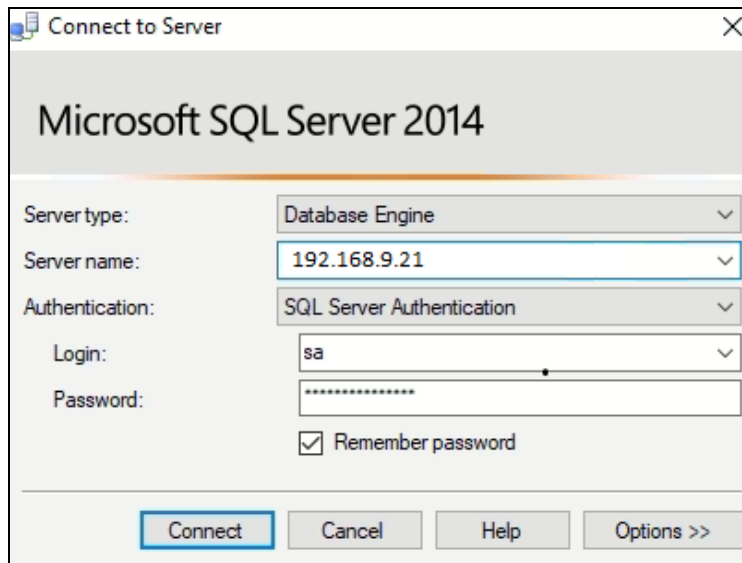
Specify SQL Server administrators

SQL Server administrators have unrestricted access to the Database Engine.

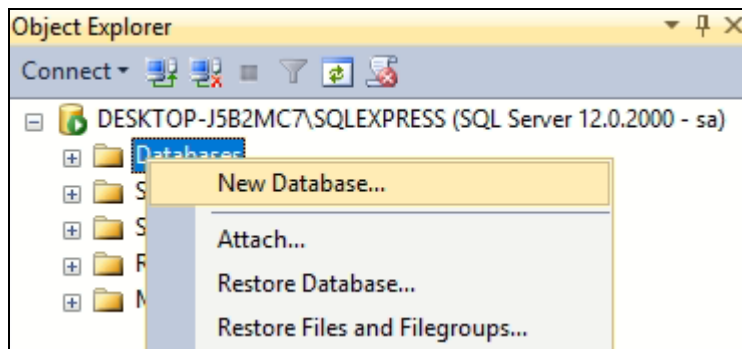




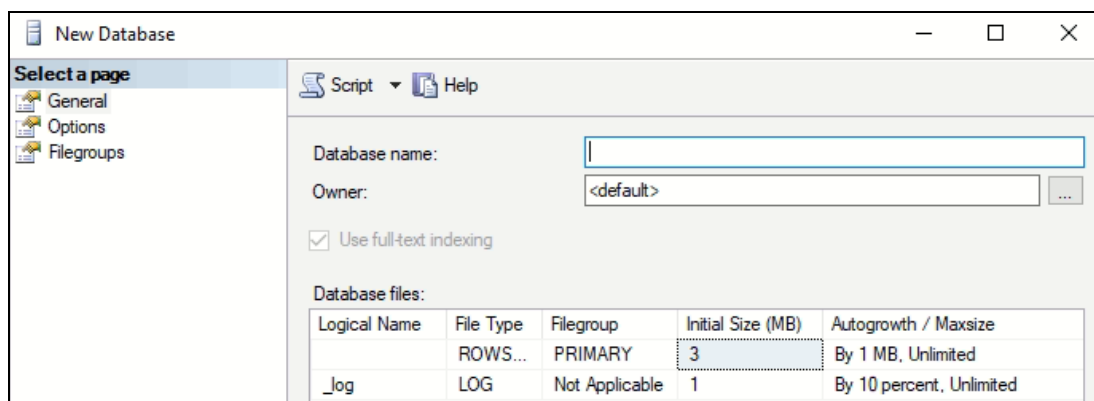
2. Select **SQL Server Authentication** from the **Authentication** dropdown list, type the Login ID (sa) and Password of the server, as set by Step 11, *1.1 Installing the SQL Server*, and click **Connect**.



3. Right-click **Databases** > **New Database**.



4. Type a desired name for the database and click **OK**.



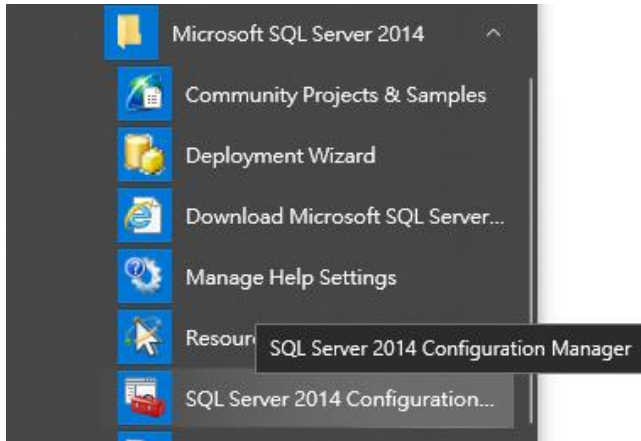
**IMPORTANT:** Note down the name of the database created because you will use it in the latter settings.



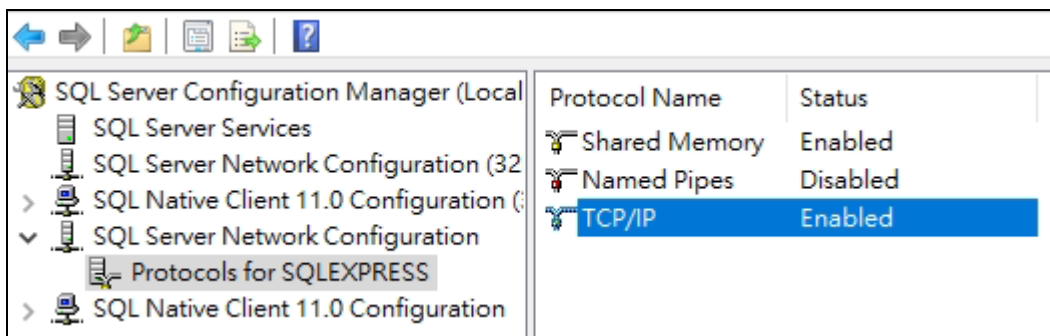
### 1.3 Enabling SQL Server TCP/IP Protocol

For the SQL Server to communicate with other applications, its TCP/IP protocol must be enabled.

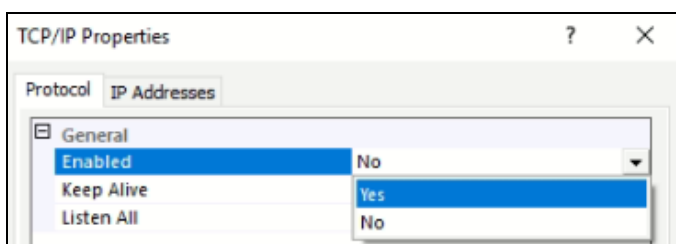
1. Launch **SQL Server Configuration Manager** from the **Start Menu**.



2. Click **SQL Server Network Configuration > Protocols for SQLEXPRESS** (the name of the instance is the same as the one defined by Step 9, *1.1 Installing the SQL Server*). Double-click **TCP/IP**.

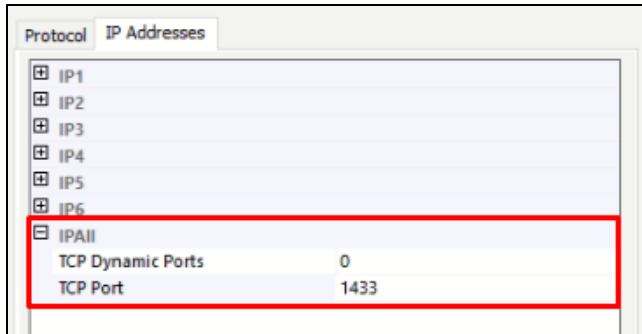


3. Select **Yes** from the **Enabled** dropdown list and click **OK**.

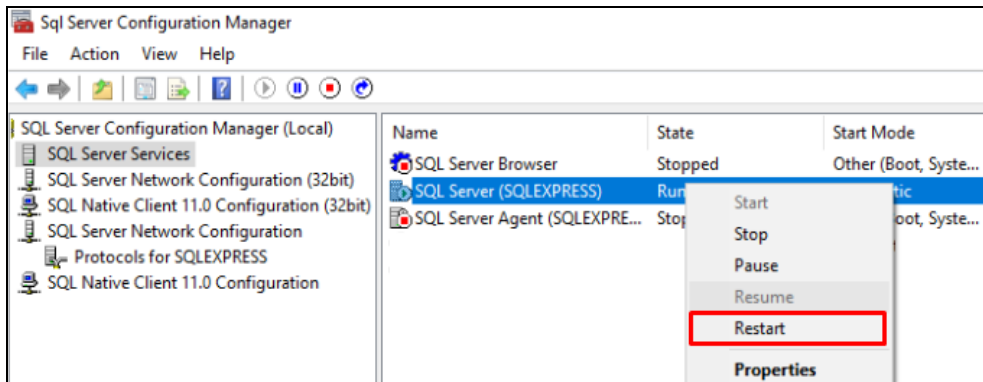




- In the **IP Addresses** tab, expand **IPAll** and set its **TCP Port** as **1433** and click **OK**.



- After enabling TCP/IP protocol and port, restart the **SQL Server** to complete.



## 1.4 Permitting Port Communication by Windows Firewall

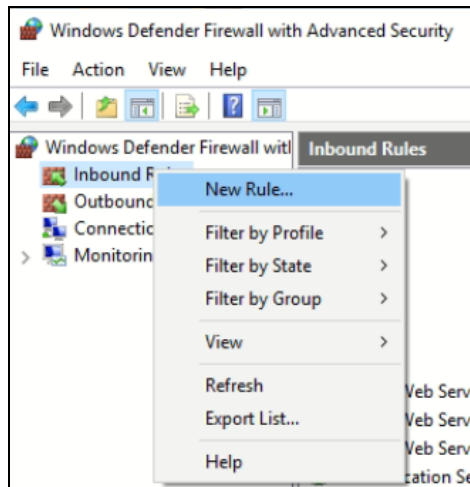
For the SQL Server to retrieve and save data, its TCP/IP port must be permitted by the Windows Firewall.

- Open Windows Firewall on your PC and click **Advanced settings**.

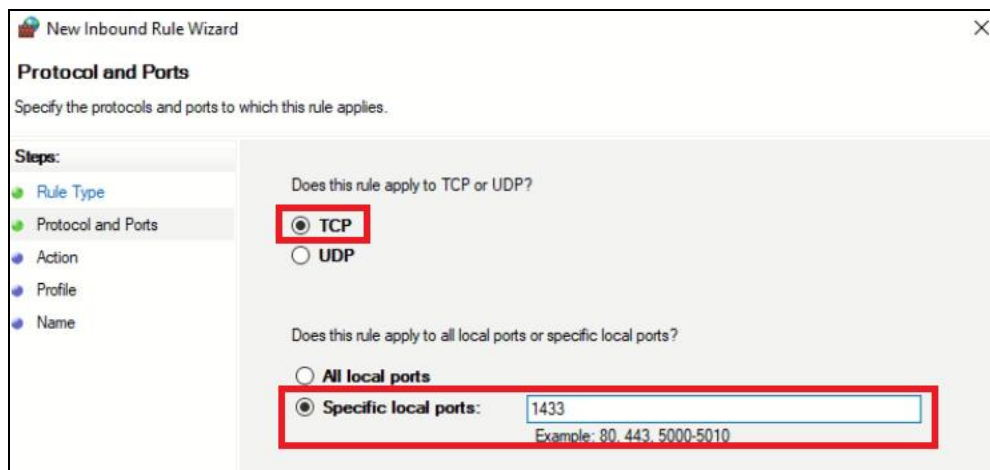




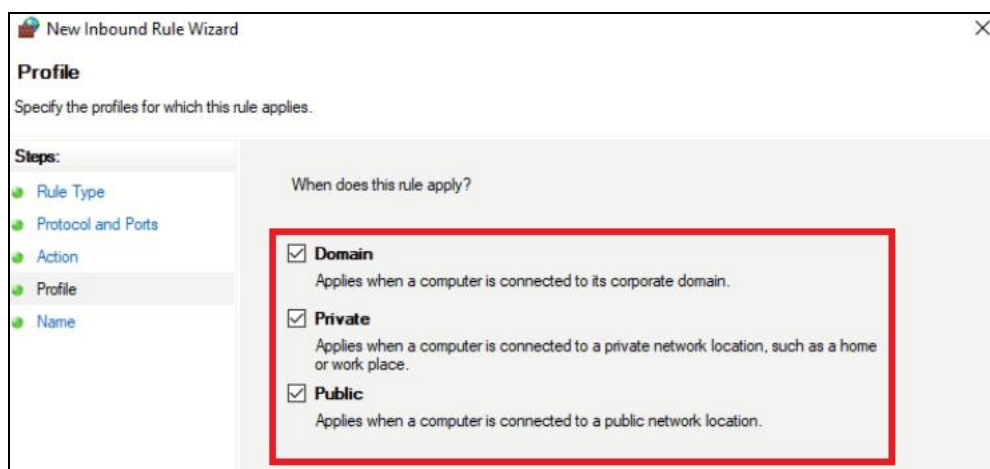
2. Right-click **Inbound Rules** > **New Rule**.



3. Select **Port** > **Next** > **TCP**, and type the same port value of **1433** as set by Step 4, 1.3 *Enabling SQL Server TCP/IP Protocol* and click **Next**.



4. Select **Allow the connection** > **Next**, select **Domain**, **Private** & **Public** and click **Next**.




5. Define a desired name for the rule established and click **Finish**.



## 2. Setting up GV-Control Center

To set up a SQL server account on GV-Control Center, follow the steps below.

1. Click **Configure**  (top right of the main screen) > **Setup** > **System Configure**, and click the **System Log** tab. The following dialog box appears.

**System Configure**

General Live View Startup Config **System Log**

ODBC Service Settings

Connection Information

Activation: Enable

Address: 192.168.9.21

Name: 123

Account: sa

Password: .....

OK Cancel

2. Configure the following settings.
  - **Activation:** Select **Enable** to enable the SQL Server connection.
  - **Address:** Type the IP address of the SQL Server.
  - **Name:** Type the name of the SQL Server database, as set by Step 4, *1.2 Building SQL Server DB for GV-Control Center*.
  - **Account:** Type the SQL Server system administration account *sa*.
  - **Password:** Type the password of the SQL server, as set by Step 11, *1.1 Installing the SQL Server*,
3. Click **OK**.

When the SQL Server is connected, the green status icon appears at the top of the main screen, as shown below:

