

Installation Guide for SQL Server

1. Introduction

SQL Server supports two types of installation: Standalone and Cluster-based. This guide will walk you through the steps to install SQL Server and provide the necessary information and prerequisites for a successful installation.

2. Pre-installation Checks

Before starting the installation process, perform the following checks:

Ensure you have RDP (Remote Desktop Protocol) access to the server.

Check the operating system (OS) bit, IP address, and domain of the server.

Verify that your account is in the admin group to run the setup.exe file.

Determine the software location where the SQL Server installation files are stored.

3. Requirements

Gather the following information and requirements before starting the installation:

Determine the version, edition, service pack (SP), and any hotfixes required for SQL Server.

Identify the service accounts for the database engine, agent, SSAS (SQL Server Analysis Services), SSIS (SQL Server Integration Services), and SSRS (SQL Server Reporting Services), if applicable.

Specify the named instance name, if any.

Decide on the location for the SQL Server binaries, system databases, and user databases.

Choose the authentication mode (Windows Authentication or Mixed Mode).

Define the collation setting for the SQL Server instance.

Prepare a list of features you want to install with SQL Server.

4. Pre-requisites

Based on the version of SQL Server you are installing, ensure the following pre-requisites are met:

For SQL Server 2005:

Setup support files.

.NET Framework 2.0.

SQL Server Native Client.

For SQL Server 2008 & 2008 R2:

Setup support files.
.NET Framework 3.5 SP1.
SQL Server Native Client.
Windows Installer 4.5 or a later version.
For SQL Server 2012 & 2014:

Setup support files.
.NET Framework 4.0.
SQL Server Native Client.
Windows Installer 4.5 or a later version.
Windows PowerShell 2.0.

5. Installation Process

Follow these steps to install SQL Server:

- Locate the SQL Server installation files and run the setup.exe file.
- Choose the installation type (Standalone or Cluster-based) and proceed.
- Accept the license terms and choose the SQL Server edition, version, and features you want to install.
- Specify the instance name, if applicable.
- Configure the service accounts for the database engine, agent, and other components.
- Define the installation location for the SQL Server binaries, system databases, and user databases.
- Choose the authentication mode and set the collation.
- Complete the installation process by following the prompts.

6. Configuring TCP/IP Port Number

If you want to change the default TCP port for SQL Server, follow these steps:

- Open SQL Server Configuration Manager.
- Expand SQL Server Network Configuration and click on Protocols for MSSQLSERVER (or the instance name).
- Right-click on TCP/IP and select Properties.
- Configure the specific IP address or change the port for all IP addresses under the IP Addresses tab.
- Restart the SQL Server service for the changes to take effect.

7. Opening the SQL Server Instance Port Using Windows Firewall

To allow connections to the SQL Server instance through Windows Firewall, follow these steps:

- Open Windows Firewall settings.
- Go to Advanced Settings.
- Select Inbound Rules and click on New Rule.

Choose the Port rule type and specify the TCP port (default is 1433).
Allow the connection and provide a descriptive name for the rule.
Finish the configuration.