

SyncStudio 6.8 · Hardware and Software Requirements

The SyncStudio Sync Management Console and the generated Sync Web Service run on Windows. SyncStudio 6.8 supports Windows 10 or 11 and Windows Server 2019 through 2025. For production environments, we recommend Windows Server 2025. Both virtual and physical machines are supported.

The machine needs IIS 10 or later installed and enabled, with the features and roles listed in the Quick Start guide. .NET Framework 4.0 is the minimum; 4.8 or later is recommended.

The server database can be Microsoft SQL Server or SQL Server Express, version 2019 or 2022.

If needed, you can download SQL Server Express from this link:

[MS SQL Server 2022 Express Edition](#)

In SQL Server, add the login NT AUTHORITY\NETWORK SERVICE and make it a db_owner of the database you will synchronize.

Visual Studio -

SyncStudio uses parts of Visual Studio to perform automated code generation. If you have a full license of Visual Studio 2019 or later installed, you are ready to go. If not, you can use the free Visual Studio Build Tools.

Minimum: Microsoft Visual Studio 2019 or 2022

SyncStudio does not require a full license of Visual Studio. You do need one of the following installed:

- Microsoft Visual Studio Build Tools 2019 or 2022
- Microsoft Visual Studio 2019 or 2022 full license

Windows Firewall -

Configure Windows Firewall to allow the traffic SyncStudio needs. We recommend the following settings.

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Allow programs to communicate through Windows Firewall

To add, change, or remove allowed programs and ports, click Change settings.

What are the risks of allowing a program to communicate?

 Change settings

Allowed programs and features:

Name	Home/Work (Private)	Public
☐ BranchCache - Content Retrieval (Uses HTTP)	☐	☐
☐ BranchCache - Hosted Cache Client (Uses HTTPS)	☐	☐
☐ BranchCache - Hosted Cache Server (Uses HTTPS)	☐	☐
☐ BranchCache - Peer Discovery (Uses WSD)	☐	☐
☐ Connect to a Network Projector	☐	☐
☒ Core Networking	☒	☒
☐ Distributed Transaction Coordinator	☐	☐
☐ File and Printer Sharing	☐	☐
☐ HomeGroup	☐	☐
☐ iSCSI Service	☐	☐
☐ Media Center Extenders	☐	☐
☐ Netloqon Service	☐	☐

Settings -

Core Networking - Enable Private and Public
 Network Discovery - Enable Private
 Remote Assistance - Enable Private
 Remote Desktop - Enable both
 Secure Worldwide Web Services (HTTPS) - Enable both
 SQL Server Windows NT - Enable both*
 Worldwide Web Services (HTTP) - Enable both

*To enable this, you might have to click "Allow another program" and browse to find the executable. For example, C:\Program Files\Microsoft SQL Server\MSSQL16.<instance_name>\MSSQL\Binn, select sqlservr.exe, and then click Open.

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MS Sync Framework

SyncStudio requires the Microsoft Sync Framework 2.1 redistributables. The SyncStudio installer installs the needed components automatically if they are missing.

The Sync Framework components are in three separate redistributable packages:

1) **Synchronization.msi**

Includes managed and native API for the synchronization runtime, core components, and Web synchronization components. This package is a pre-requisite for the other packages and must be installed first.

2) **ProviderServices.msi**

Includes managed and native API for simple custom providers, the file synchronization provider, the metadata storage service, and DLLs for the lightweight database that the storage service uses.

3) **DatabaseProviders.msi**

Includes the managed API for database synchronization providers.

The SyncStudio installer automatically downloads and installs the Microsoft Sync Framework components and the Crystal Reports runtime it needs.

If you install them yourself: install the x86 version even on a 64-bit machine, install all three packages, and install Synchronization first, then ProviderServices, then DatabaseProviders.

Client Device Operating Systems

SyncStudio sync client class libraries are available for Android, iOS, Basic4Android, Xamarin, .NET MAUI and Windows.

Android clients require Android 9 (Pie, API level 28) or later. iOS clients are supported through Xamarin and .NET MAUI. Windows clients are supported on Windows 10 and 11 and Windows Server 2019 and 2022.

Supported client-side databases are SQLite, SQL LocalDB and SQL Server (including SQL Server Express). SQL LocalDB and SQL Server are available on Windows clients.

A Note about SSL -

To use SyncStudio over HTTPS, install an SSL certificate from a recognized certificate authority on the server. Self-signed certificates are rejected by most client operating systems, and the sync will fail.