

Hardware and Software Requirements

The SyncStudio Sync Management Console and the custom generated Sync Web Service run on Windows OS systems. We support Windows 10 or 11 and Windows Server 2019 or 2022. For production environments, we recommend Windows Server 2022. We support both virtual and physical machines.

The machine needs to have IIS 10 or above installed, enabled and with the features/roles as per our quick start guide. .NET Framework 4.0 is the minimum but using 4.8 or higher is recommended.

The server database can be either MS SQL SERVER or MS SQL EXPRESS versions 2019, 2022.

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

[MS SQL Server 2022 Express Edition](#)

In SQL add login NT AUTHORITY\NETWORK SERVICE and make it a db owner of the selected SQL database.

Visual Studio -

SyncStudio depends on portions of Visual Studio to perform automated code generation. If you have installed a full license of Visual Studio 2022 or above, then you are good to go. If you do not own a full license, then you can use the Free Visual Studio Express or Visual Studio Build Tools.

Minimum Microsoft Visual Studio 2019 or 2022

SyncStudio does not require that you own a full license of Visual Studio. You do however need to have installed one of the following...

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

Windows Firewall -

Turn off Windows Firewall or configure pass through as needed. We recommend the following pass thru 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
<input type="checkbox"/> BranchCache - Content Retrieval (Uses HTTP)	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> BranchCache - Hosted Cache Client (Uses HTTPS)	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> BranchCache - Hosted Cache Server (Uses HTTPS)	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> BranchCache - Peer Discovery (Uses WSD)	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Connect to a Network Projector	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/> Core Networking	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/> Distributed Transaction Coordinator	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> File and Printer Sharing	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> HomeGroup	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> iSCSI Service	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Media Center Extenders	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Netloqon Service	<input type="checkbox"/>	<input type="checkbox"/>

[Details...](#) [Remove](#)

[Allow another program...](#)

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\MSSQL11.<instance_name>\MSSQL\Binn, select sqlservr.exe, and then click Open.

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MS Sync Framework

To use SyncStudio you will need to first install the Microsoft Sync Framework 2.1 redistributables. Our installation package will automatically install the needed components if they are not installed.

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.

Our installation package will automatically download and install the MS Sync Framework components needed and the Crystal Reports runtime.

If you install them yourself then note the following. Install the x86 version even on a 64-bit machine. You must install all three files. Install the Synchronization first then ProviderServices and finally DatabaseProviders

Client Device Operating Systems

There are SyncStudio Sync Client class libraries available for Android, Xamarin and Windows Forms.

For Android, we require Android 9 and up (Pie, API level 28). For Windows Forms, we support Win 10, 11 and Win Server 2019, 2022.

Supported client-side databases are SQLite (Android, Win Forms), SQL Server (Win Forms), SQL LocalDB (Win Forms), SQL Express (Win Forms).

A Note about SSL –

If you want to use SyncStudio with HTTPS, you must install a real SSL certificate on the server side from a legitimate SSL authority. Otherwise, it will not work, and the sync will fail.