Hardware and Software Requirements

The SyncStudio Sync Management Console and the custom generate Sync Web Service run on Windows OS systems. We support Windows 7, 8.1, 10 and Windows Server 2012 or 2016. Win XP is not supported. For production environments, we recommend Windows Server. We support both virtual and physical machines.

The machine needs to have IIS 7 or above installed, enabled and with the features/roles as per our quick start guide. .NET Framework 3.5 is the minimum but 4.6 or higher is recommended.

The server database can be either MS SQL SERVER or MS SQL EXPRESS versions 2008, 2010, 2012, 2014, 2016. Version 2014 and above is recommended.

If you don't have MS SQL Server, you can download SQL Server Express from this link:

[MS SQL Server 2016 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've installed a full license of Visual Studio 2010 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 Integration Shell 2010.

Minimum Microsoft Visual Studio 2010 or 2012

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 Integration Shell 2010
- Microsoft Visual Studio Express for Web 2010 or 2012
- Microsoft Visual Studio 2010 or 2012 full license

Windows Firewall -

Turn off firewall or configure pass thru as needed. We recommend the following pass thru settings

Hardware and Software Requirements

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	☐	☐
☐ Netlogon Service	☐	☐

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 one 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.

Hardware and Software Requirements

MS Sync Framework

In order 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 already installed. Or you can download the redistributables from this link:

This download provides the Microsoft Sync Framework 2.1 redistributables that developers can include with applications that use synchronization. The Sync Framework components are provided in three separate redistributable packages, so that installation can be tailored to application requirements. The three redistributables are:

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 also 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 various MS Sync Framework components needed and also a needed 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

Hardware and Software Requirements

Client Device Operating Systems

There are SyncStudio Universal Sync Client class libraries available for Android, Windows CE, Windows Mobile 6.5, Windows Forms and Universal Windows Platform.

For Android, we require Android 2.33 and up (Gingerbread, API Level 10). For WinMo we support version 6.5. For Windows Forms, we support Win 7, 8.1, 10, Win Server 2008, 2012, 2016. For Universal Windows Platform we support Windows 10 and Win Server 2012/2016.

Supported client side databases are SQLite (Android, Win Forms, Win CE, WinMo 6.5 and UWP), SQL Server (Win Forms), SQL LocalDB (Win Forms), SQL Express (Win Forms), SQL Compact (WinCE & WinMo 6.5)

Hardware and Software Requirements

We recommend you turn off user account control
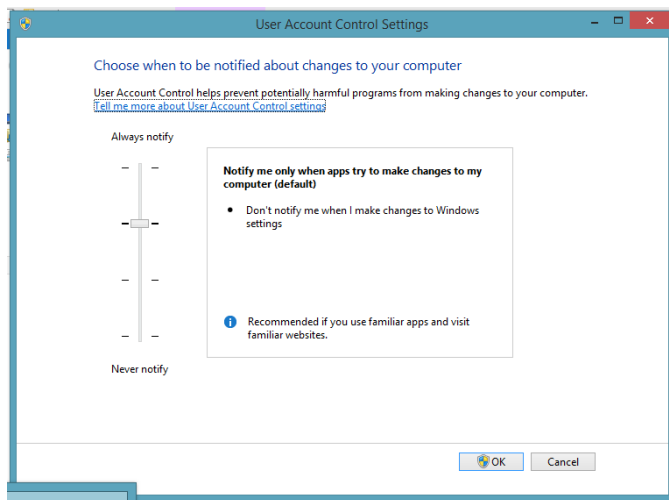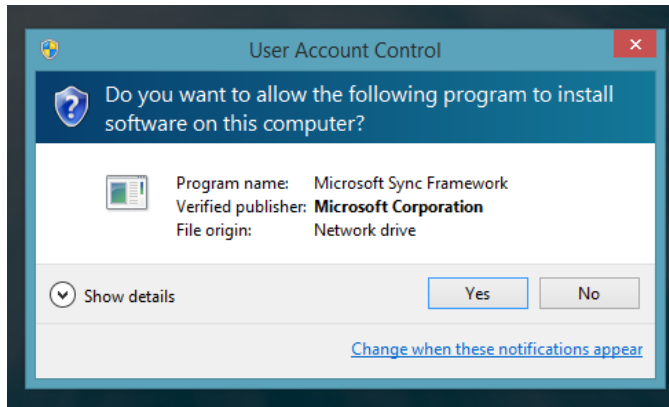

We also recommend you make the following changes

Launch Control Panel and go to System and Security> Administrative Tools > Local Security Policy. On the left side of the Local Security Policy window, find "Security Options" under "Local Policies."

Hardware and Software Requirements

Below is default Win 7,8 and 8.1 after turning off User Account Control the user.
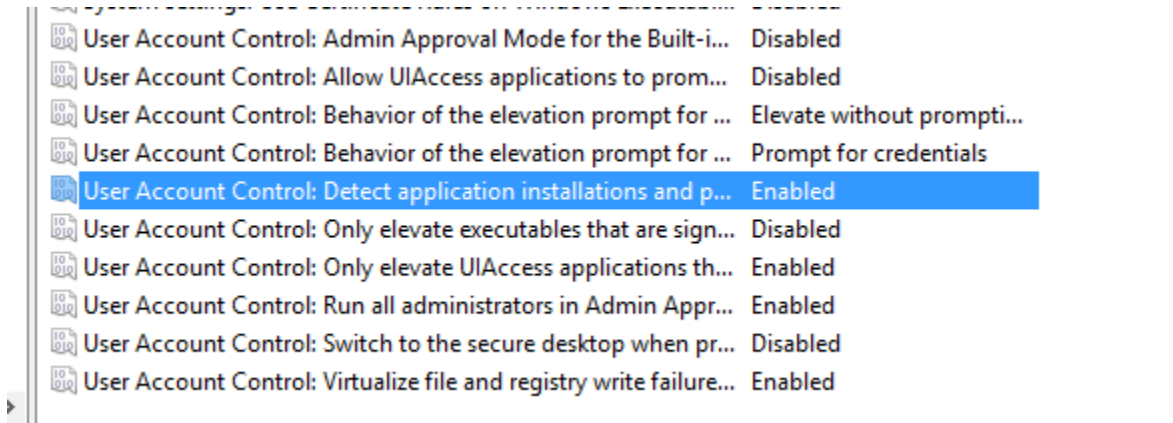
Below is after changes
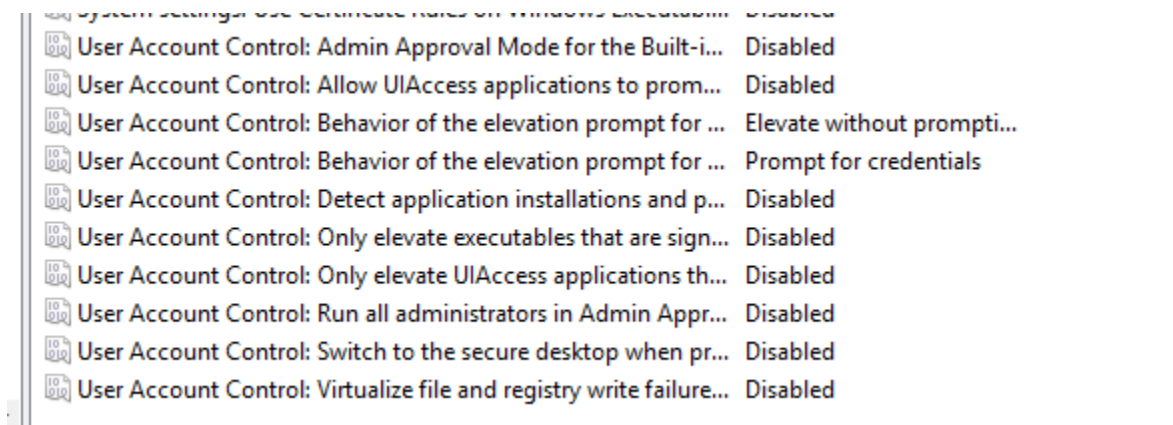
SyncStudio on a Virtual Machine

We have tested SyncStudio with VirtualBox (https://www.virtualbox.org/) but other virtualization environments should also work. For example, you can have your database only hosted in a virtual machine, or you can have the complete SyncStudio synchronization solution including the database hosted in the same virtual machine. If you do this please keep in mind that the virtual machine will have a different Site Code from your physical machine, so you will need a license tied to the Site Code of the Virtual Machine.

Hardware and Software Requirements

A Note about SSL –

Some versions of Android DO NOT support self-Signed SSL certificates. This creates major problems when trying to use SyncStudio with SSL using a certificate from a non-recognized authority.

Therefore, 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. At this time, we have no plans to add support for self-Signed SSL certificates as they are also a security risk.