Web applications

Installation

Version	Author	Changes	Date
1.0	Robert Banasiak		01.02.2021

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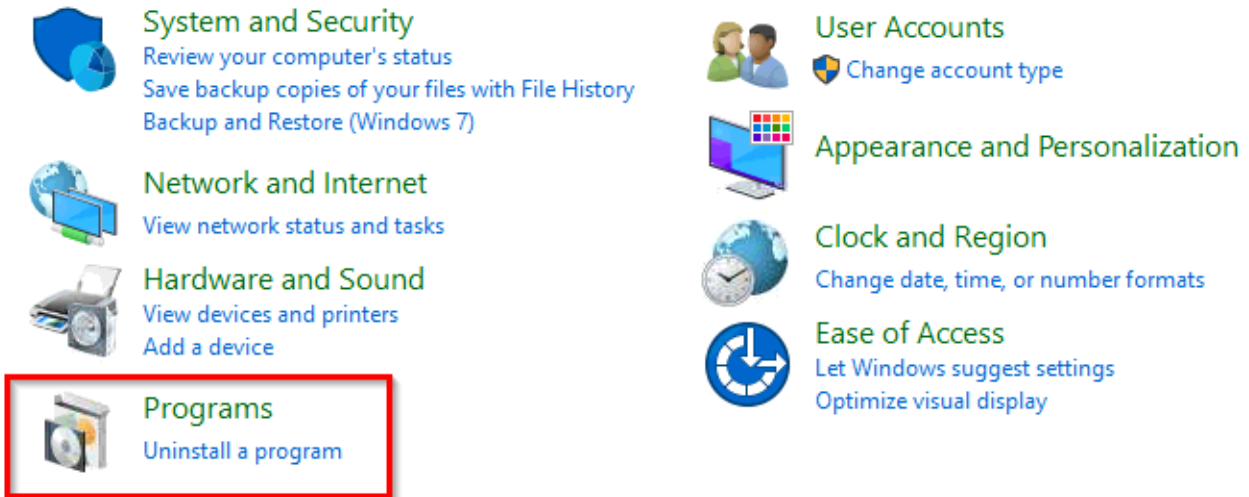
1. Required Windows components

The following Windows components are required to install a web application.
- Serwer IIS (Internet Information Services)
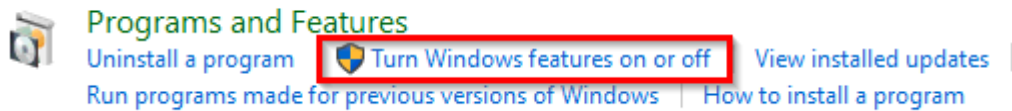- Serwer SQL, if the application uses a separate database

1.1. Serwer IIS (Internet Information Services)

Depending on the type of Windows system, there are different ways to install IIS server. However, the server components required for the application are common. Here I will give an example for Windows 10.
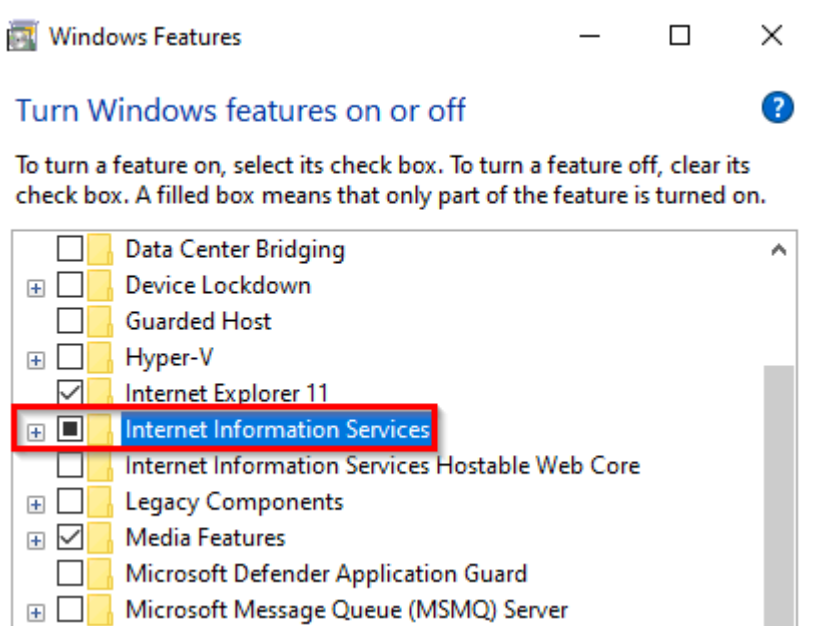
Open the Control Panel and select Programs.

System and Security
Review your computer's status
Save backup copies of your files with File History
Backup and Restore (Windows 7)

Network and Internet
View network status and tasks

Hardware and Sound
View devices and printers
Add a device

Programs
Uninstall a program

User Accounts
Change account type

Appearance and Personalization

Clock and Region
Change date, time, or number formats

Ease of Access
Let Windows suggest settings
Optimize visual display

Then select Windows Features.

Programs and Features
Uninstall a program   Turn Windows features on or off   View installed updates
Run programs made for previous versions of Windows   How to install a program

Find Internet Information Services

Windows Features   —   □   ✕

Turn Windows features on or off   ?

To turn a feature on, select its check box. To turn a feature off, clear its check box. A filled box means that only part of the feature is turned on.

- Data Center Bridging
- Device Lockdown
- Guarded Host
- Hyper-V
- ☑ Internet Explorer 11
- ■ Internet Information Services
- Internet Information Services Hostable Web Core
- Legacy Components
- ☑ Media Features
- Microsoft Defender Application Guard
- Microsoft Message Queue (MSMQ) Server

Expand **Internet Information Services** and activate the following functions:

Internet Information Service
- Web Management Tools
  - IIS Management Console
- World Wide Web Services
  - Application Development Features
    - ✓ .NET Extensibility 4.8
    - ✓ ASP.NET 4.8
    - ✓ ISAPI Extensions
    - ✓ ISAPI Filters
  - Common HTTP Features
    - ✓ Default Document
    - ✓ Directory Browsing
    - ✓ HTTP Errors
    - ✓ Static Content
  - Health and Diagnostics
    - ✓ Custom Logging
    - ✓ HHTP Logging
    - ✓ Tracing
  - Performance Features
    - ✓ Dynamic Content Compression
    - ✓ Static Content Compression
  - Security
    - ✓ Basic Authentication
    - ✓ Request Filtering
    - ✓ Windows Authentication

1.2. Server SQL, SQL Management Studio

Serwer SQL z SQL Management Studio (optional depending on which database the application uses).

SQL Server Std/Ent SQL Server 2014 or later
SQL Server Express SQL Server 2014 or later

2. Application installation

In the **C:\inetpub** directory, create a subdirectory for the application to be installed and copy all directory files to it. Alternatively, you can choose another location that is accessible to the IIS server.

Then start Internet Information Services (IIS) Manager and follow the next steps:

- If only one application will be installed on the IIS server, you can expand the Sites list and remove the Default site
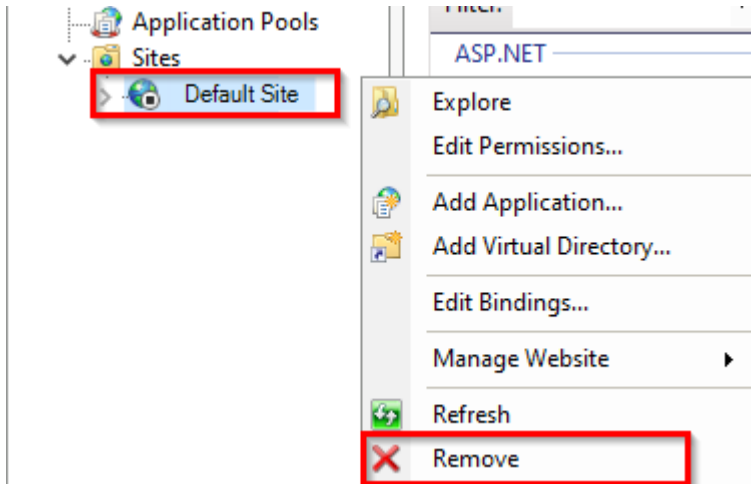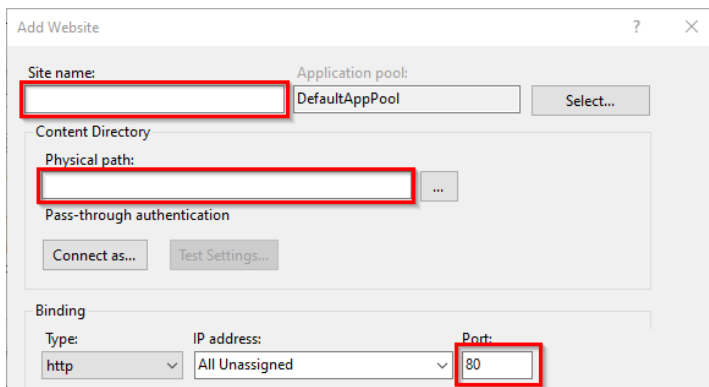

- Add new Website
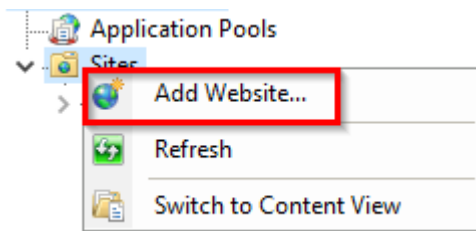
And complete the fields:
- o Site name
- o Physical path, that is, the place where the application directory was created earlier
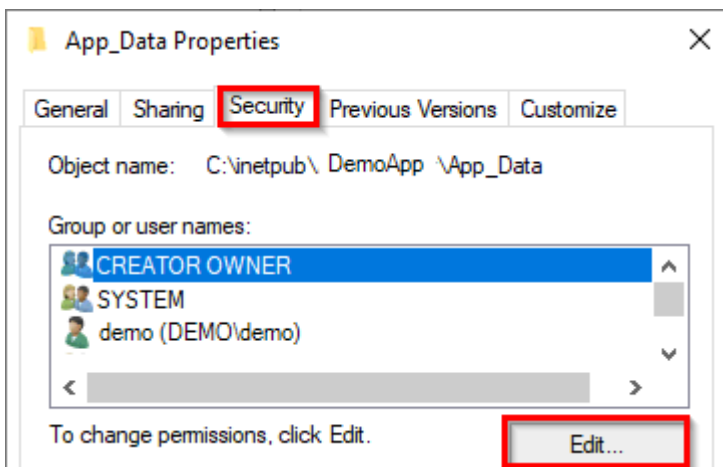- o Port.
  Port number 80 is a standard number and if there is only this one site on the server then you don't need to change it, if there are several sites then each site must have a different port number.

- Add write permissions to the App_Data (if exists) and Logs directories for the IIS_IUSRS group.
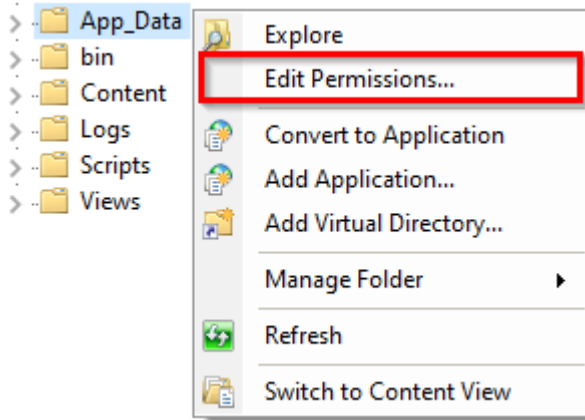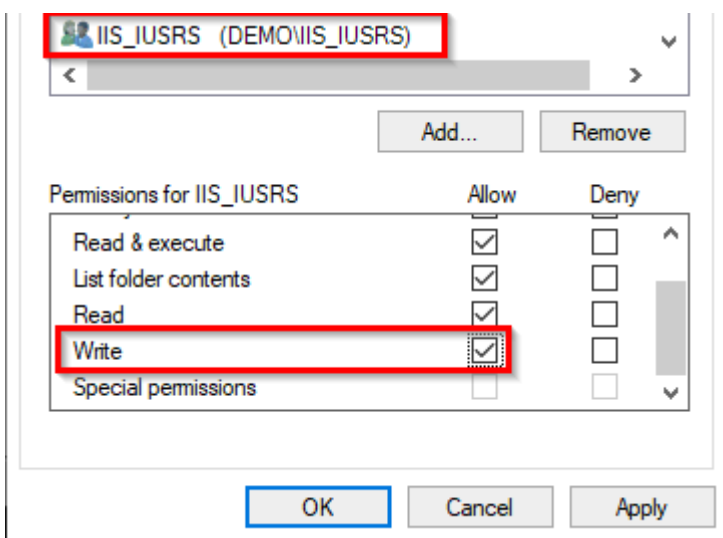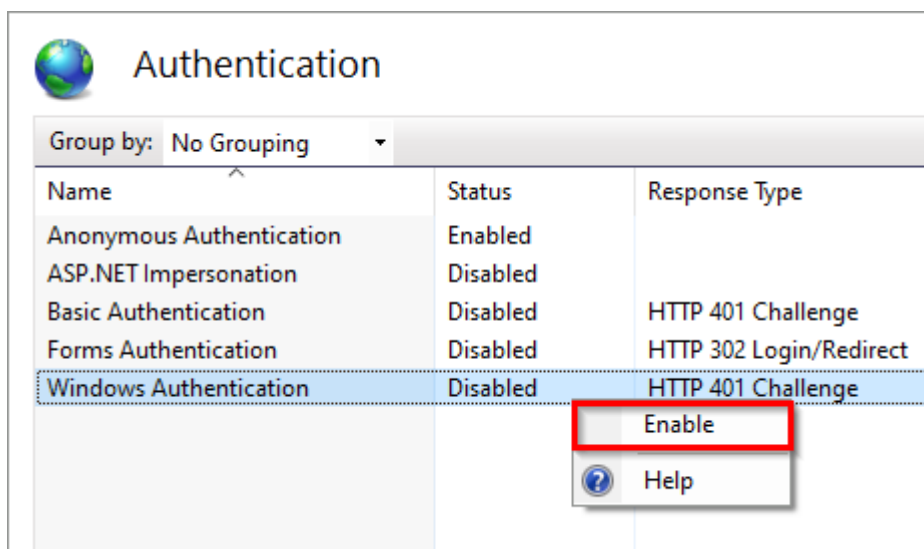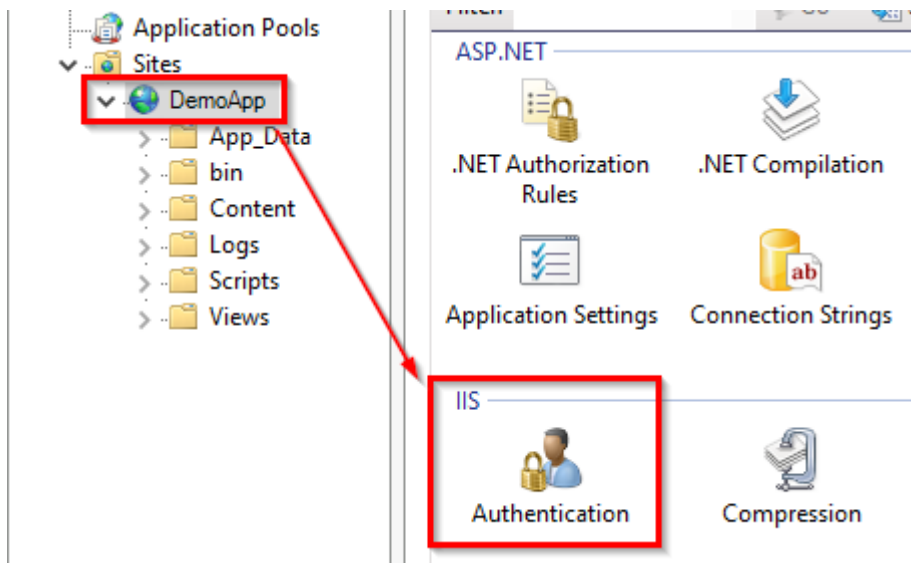

Select Security

Find group IIS_IUSRS.

If such a group is not on the list, add it and set write permissions.

- Activate the correct authorization type

  Select the application page and from the available options select under IIS, Authentication.

3. Other application-specific settings

3.1.   SIMSAlert

3.1.1 Web client

A license is required to run the application!

In the **Web.config** file, set the parameter C**onnectionString**:

data source= *SQL server name*
initial catalog= *SIMS database name (default NOX)*
Integrated security= *False*
User Id= *SQL user*
Password= *SQL user password*

Example: connectionString="data source=DEMOPC\SQLEXPRESS;initial catalog=NOX;Integrated security=False;User Id=demo;Password=demo;

3.1.2 Windows application SIMSAlert server

A license is required to run the application!

In the **ArasAlarmServer.exe.config** file, in the **applicationSettings** section, set the following parameters:

```
<setting name="Server" serializeAs="String">
        <value>127.0.0.1</value>          SIMS server IP address
    </setting>
    <setting name="Port" serializeAs="String">
      <value>2010</value>                Server IP port from SIMS Config
    </setting>
    <setting name="User" serializeAs="String">
      <value>234511wqer</value>          Encryption key for Client from SIMS Config
    </setting>
    <setting name="Operator" serializeAs="String">
      <value>demo</value>                SIMS operator name
    </setting>
    <setting name="Password" serializeAs="String">
      <value>demo</value>                SIMS operator password
    </setting>
    <setting name="ConnectionString" serializeAs="String">          Connection string to SQL server
      <value>
            data source=DemoPC\SQLEXPRESS;
            initial catalog=NOX;
            Integrated security=False;
            User Id=demo;
            Password=demo;
            </value>
    </setting>
    <setting name="SmsSecret" serializeAs="String">
      <value>er4tAW657df=!0923</value>          SMS service provider license key
    </setting>
```
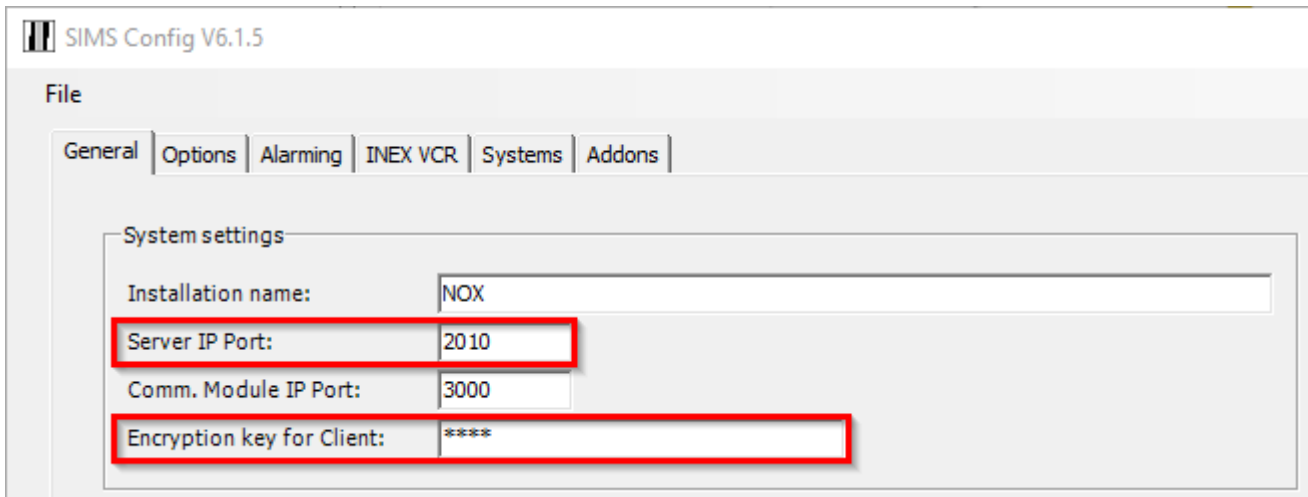
Add the following tables to the SIMS database using the attached SQL script *DbStruct.sql*:

- CnDefs
- CnSettings
- CnSmsList
- CnUserDef
- CnUsers

3.2. OneCode

A license is required to run the application!

In the *Web.config* file, in the *application* section, set the following parameters:

```
<!--application -->
   <add key="SimsConnectorServer" value="127.0.0.1" />   SIMS server IP address
   <add key="SimsConnectorPort" value="2010" />          Server IP port from SIMS Config
   <add key="SimsConnectorUser" value="demo" />          Encryption key for Client from SIMS Config
   <add key="PinLength" value="5" />                     Random code length
   <add key="Lang" value="" />                           Optionally if you want to set the application language permanently
```