Milestone Systems

Setting up the SurveillanceCloudSample

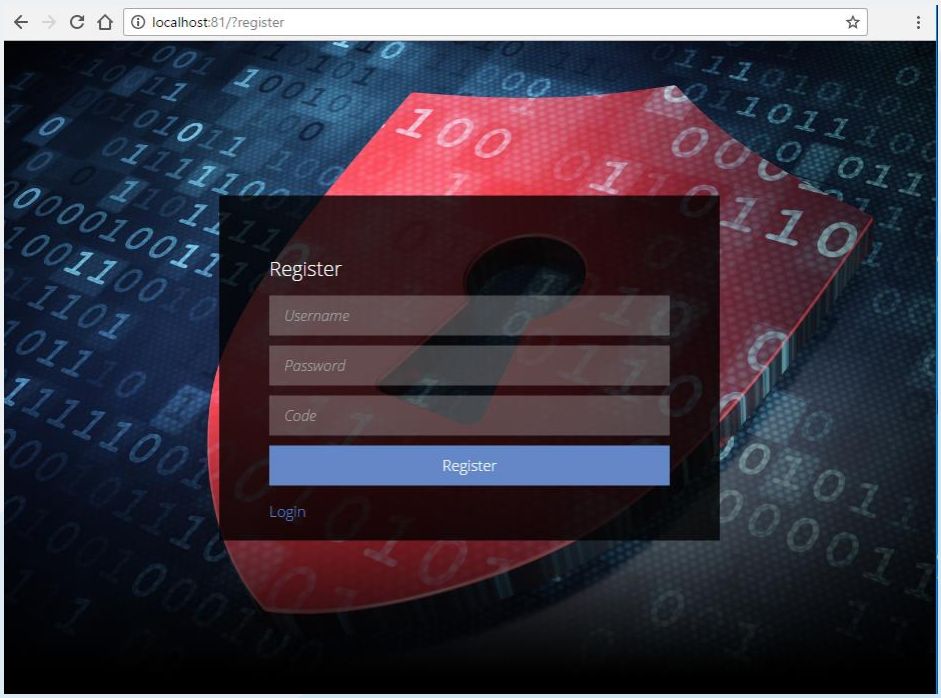
XProtect® MIP SDK

milestone

The open platform company

SurveillanceCloudSample solution

The Surveillance Cloud sample shows how to set up a remote environment, where, from a Web browser, anyone with the right coupon code can register and receive access rights to a predefined number of devices. The users can then access a dashboard view from a Web browser and add devices to their account.



The SurveillanceCloudSample solution has three projects:

- SurveillanceCloudSample (ASP .NET MVC Web Application)
- SurveillanceCloudSampleService (ASP .NET Web API 2 Web Application)
- Surveillance Cloud Sample.SharedObjects (Class Library)

SurveillanceCloudSample

The SurveillanceCloudSample project contains the front-end part of the solution. There are two views – HomeView (Login/Register Page) and DashboardView (Management Page). Each view has its own Model and Controller (as MVC pattern requires).

- HomeView – The HomeView renders the Login form by default. If the request contains the register get parameter, it renders the Register form. When the login form is filled, pressing the Login button calls the Login method from HomeController and all the values filled in the form are passed as POST parameters. This method calls the JSON Service (SurveillanceCloudSampleService) and then it handles the response. If the login is successful, the method sets the returned user ID into the session values, so it can be reached later. This works the same way for the Register button, which calls the Register method from HomeController.
- DashboardView – After successful login, the DashboardView is called. Before rendering, DashboardController calls the service to get the user's data. Depending on how many cameras the user has access to, DashboardView renders the forms. When the Save button is clicked, it calls the AddDevice method from DashboardController and the filled values are

passed as POST parameters. This method calls the JSON Service (SurveillanceCloudSampleService) and then it handles the response.

SurveillanceCloudSampleService

The SurveillanceCloudSampleService project is the service that communicates with the Milestone Configuration API. It uses the Web API 2 Framework. It has only one controller, ValuesController, which is the default controller. The constructor of the ValuesController reads the settings needed for connection to the VMS from the Web.config file and then connects to the VMS. The ValuesController has four methods which can be called by POST request. The methods are: Register, Login, GetUserCameras and AddDevice. It also has a private field codes, which has all the acceptable codes hardcoded for registration. Depending on the code passed to the register method, the newly created user is permitted a different number of cameras to operate with. The field looks like this:

```
private Dictionary<string, int> codes = new Dictionary<string, int> { {
"1cam", 1 }, { "2cams", 2 }, { "3cams", 3 }, { "4cams", 4 } };
```

Here, if the 1cam code is entered, the user will be able to add 1 device, if the 2cams code is entered, the user will be able to add 2 devices, and so forth.

Requirements

This solution requires the following:

- Milestone XProtect Corporate 2016 R1 or higher
- At least one recording server
- At least one device group
- Visual Studio 2015 or higher

Run the sample using Visual Studio

1. To run the sample, you must first configure the connection to the VMS. To do that, open the Web.config file located at SurveillanceCloudSampleService\Web.config and find the VMSSettings configuration group. It looks like this:

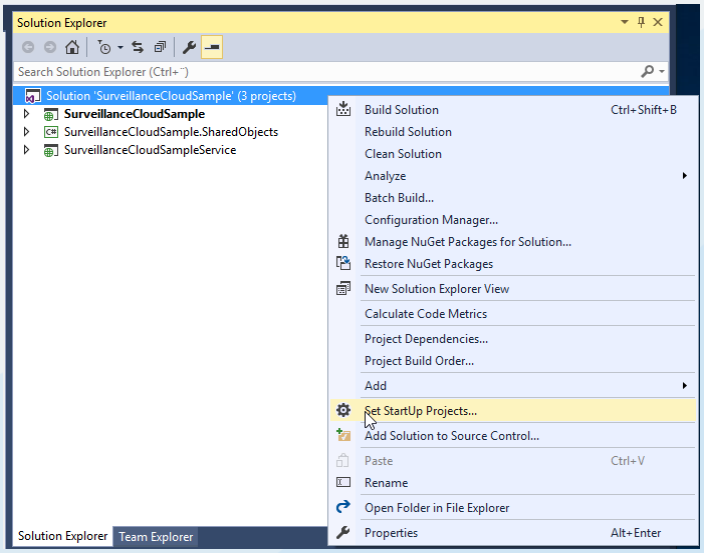
```
<VMSSettings>
    <Address>
      <add key="Ip" value="10.4.15.39"/>
      <add key="Port" value="80"/>
    </Address>
    <Credentials>
      <add key="Username" value="yzp"/>
      <add key="Password" value="yzp"/>
      <add key="Domain" value=""/>
      <add key="Authtype" value="Basic"/>
      <!--add key="Authtype" value="Digest"/>-->
    </Credentials>
  </VMSSettings>
```

Replace the **Ip**, **Port**, **Username**, and **Password** fields. Replace **Domain** and **AuthType** if needed.

The entered user must exist in the VMS and must have rights for creating roles and basic users, assigning users to a role, adding hardware to the recording server and adding cameras to a group.

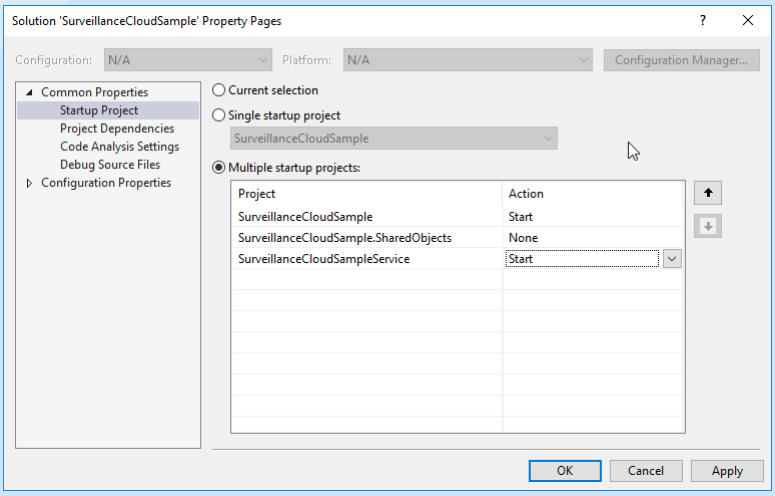
2. Open the SurveillanceCloudSample.sln solution file with Visual Studio.

3. Set the SurveillanceCloudSample and SurveillanceCloudSampleService projects as startup projects. To do this, in the **Solution Explorer** window, right click on the Solution and select **Set StartUp Projects**.



4. Select the **Multiple startup projects** option and set the **Action** of SurveillanceCloudSample and SurveillanceCloudSampleService projects to **Start**.

   Then click **OK**.



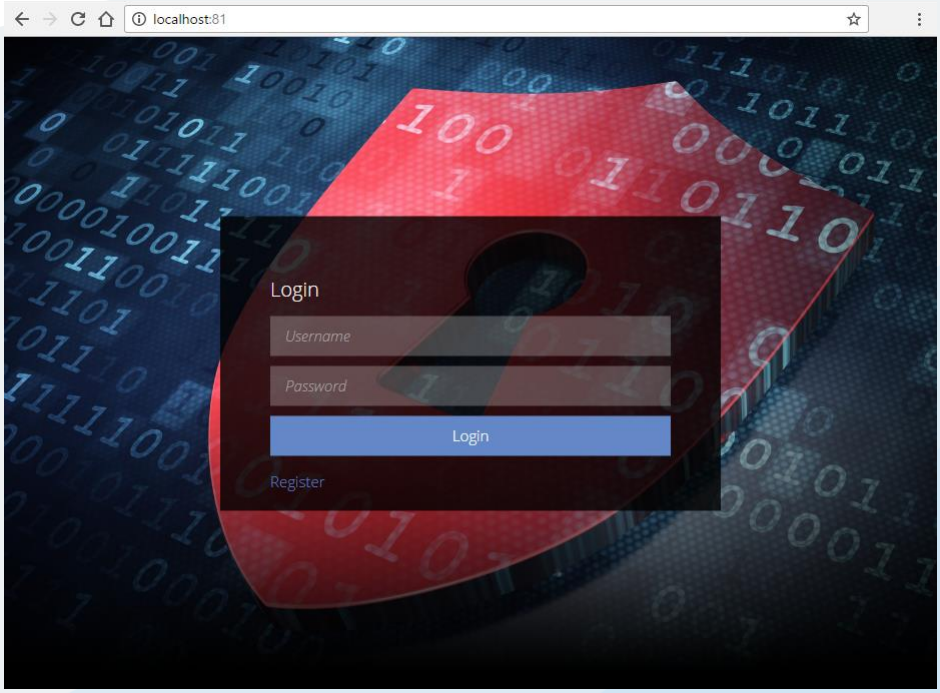
5. Right-click **SurveillanceCloudSampleService** and select **Properties**.

6. In the **SurveillanceCloudSampleService** window, select **Web**. On this page, under **Start Action**, select **Don't open a page. Wait for a request from an external application**.

7. Save.

8. Run the sample using the **Run** button or by pressing F5.

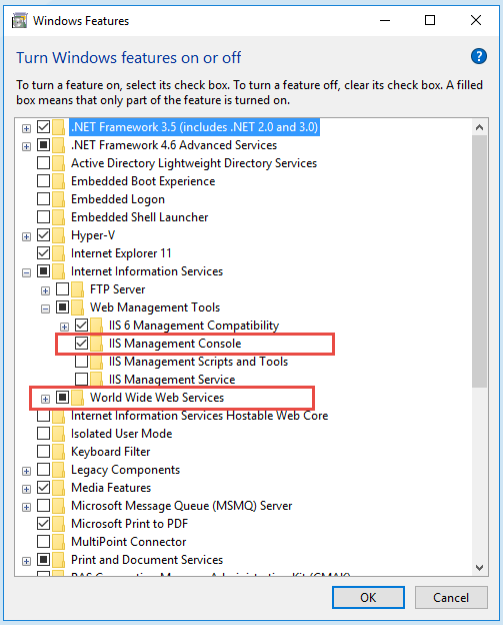
The login page opens in the web browser.



Run the sample without using Visual Studio

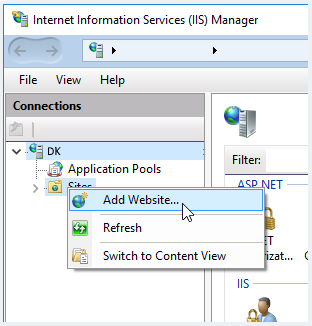
1. To run the sample without using Visual Studio, you need to enable IIS. Open %windir%\System32\OptionalFeatures.exe.

2. Select **Internet Information Services** > **Web Management Tools** > **IIS Management Console** and **World Wide Web Services** and click **OK**. Wait for the features to be enabled.

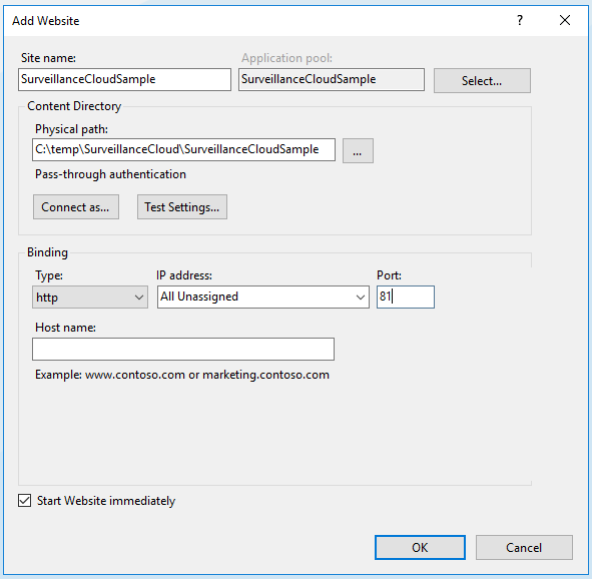


3. Open **Internet Information Services (IIS) Manager** (%windir%\system32\inetsrv\InetMgr.exe).

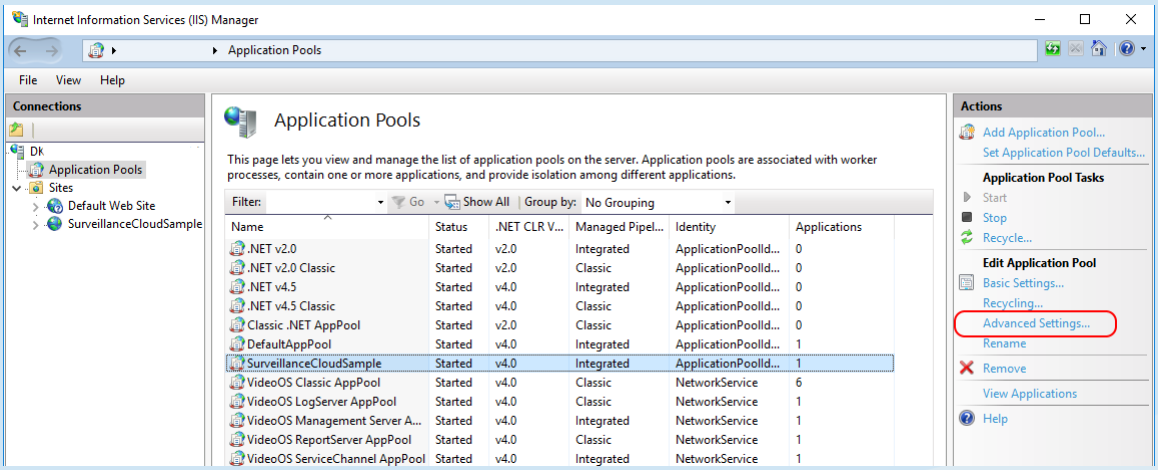
4. Right click on **Sites** and select **Add Website...**



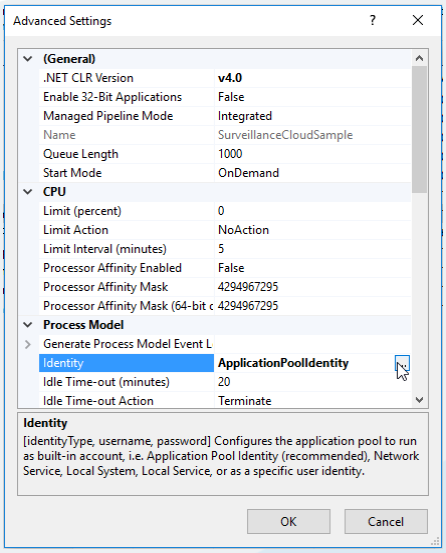
5. In the **Add Website** window, do the following:
   a. In the **Site name** field, enter ***SurveillanceCloudSample***
   b. In the **Port** field, enter ***81***
   c. In the **Physical path** field, enter the path to your SurveillanceCloudSample folder
   d. Click **OK**



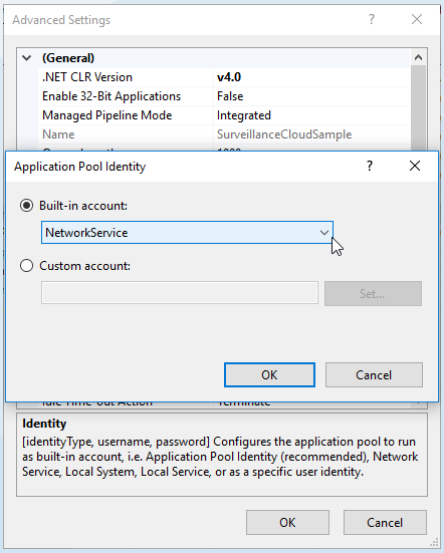
6. In **Application Pools**, select **SurveillanceCloudSample** and click **Advanced Settings**.



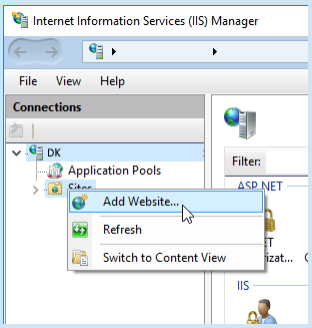
7. In the **Advanced Settings** window, open the **Identity** browser



and select **Network Service** and click **OK**.



8. In the **Internet Information Services (IIS) Manager**, right click on **Sites** and select **Add Website...**



9. In the **Add Website** window, do the following:

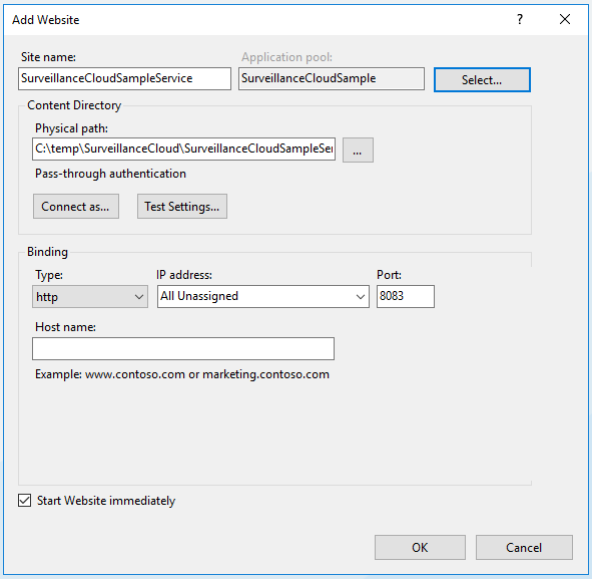
   a. In the **Site name** field, enter ***SurveillanceCloudSampleService***

b. In the **Port** field, enter ***8083***

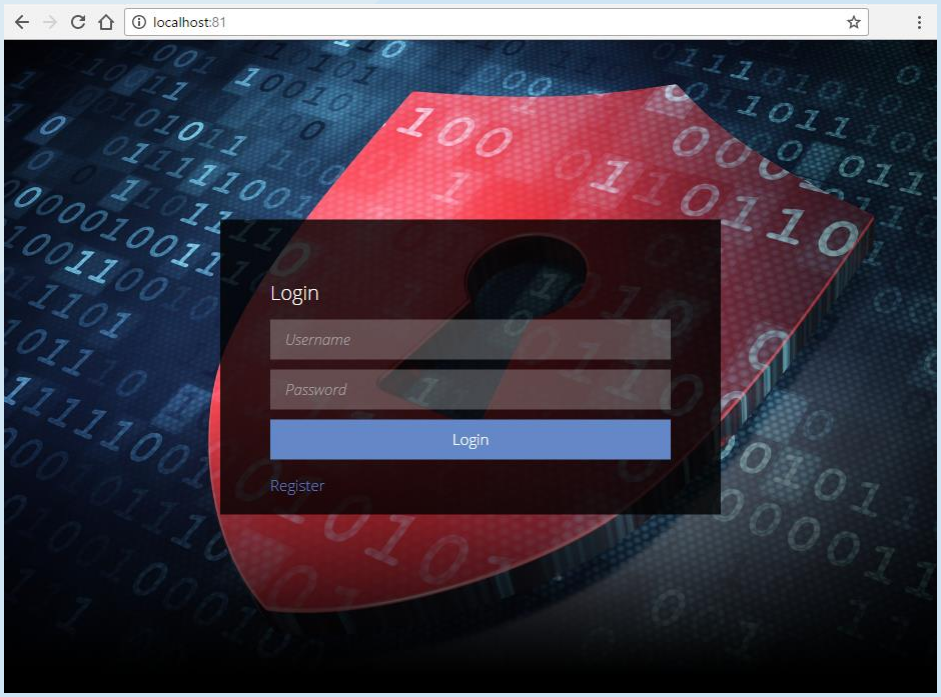
c. In the **Physical path** field, enter the path to your SurveillanceCloudSampleService folder

d. Under the **Application pool** field, click **Select** and select **SurveillanceCloudSample** as the application pool

e. Click **OK**.



Open http://localhost:81/ in your web browser.



About Milestone Systems

Milestone Systems is a leading provider of open platform video management software; technology that helps the world see how to ensure safety, protect assets and increase business efficiency. Milestone enables an open platform community that drives collaboration and innovation in the development and use of network video technology, with reliable and scalable solutions that are proven in more than 150,000 sites worldwide. Founded in 1998, Milestone is a stand-alone company in the Canon Group. For more information, visit: http://www.milestonesys.com.