

# Form-based authentication in native Windows 8 applications

## Overview

This tutorial illustrates the native Windows 8 Universal client-side authentication components for form-based authentication.

**Prerequisite:** Make sure that you read Form-based authentication (../) first.

This tutorial covers the following topics:

- Creating the client-side authentication components
- Sample application

## Creating the client-side authentication components

Create a native Windows 8 Universal application and add the MobileFirst native APIs as explained in the documentation.

### FormChallengeHandler

Create a `FormChallengeHandler` class as a subclass of `ChallengeHandler`.

Your `FormChallengeHandler` class must implement the `isCustomResponse` and `handleChallenge` methods.

The `isCustomResponse` method checks every custom response received from MobileFirst Server to verify whether this is the expected challenge.

```
public override bool isCustomResponse(WLResponse response)
{
    if (response == null || response.GetResponseText() == null || !response.GetResponseText().Contains("_security_check"))
    {
        return false;
    }
    else
    {
        return true;
    }
}
```

The `handleChallenge` method is called after the `isCustomResponse` method returns `true`. Within this method, present your login form. Different approaches are available.

```

public override void handleChallenge(JObject response)
{
    CoreApplication.MainView.CoreWindow.Dispatcher.RunAsync(CoreDispatcherPriority.Normal
,
async () =>
    {
        MainPage._this.LoginGrid.Visibility = Visibility.Visible;
    });
}

```

From the login form , credentials are passed to the `FormChallengeHandler` class. Use the `submitLoginForm()` method to send input data to the authenticator.

```

public void sendResponse(String username, String password)
{
    Dictionary<String, String> parms = new Dictionary<String, String>()
;
    parms.Add("j_username", username);
    parms.Add("j_password", password);
    submitLoginForm("j_security_check", parms, null, 0, "post");
}

```

## MainPage

Within the `MainPage` class, connect to MobileFirst Server, register your `challengeHandler` and invoke the protected adapter procedure.

The procedure invocation triggers MobileFirst Server to send a challenge that will trigger our challenge handler.

```

WLClient wlClient = WLClient.getInstance();
FormChallengeHandler ch = new FormChallengeHandler();
wlClient.registerChallengeHandler((BaseChallengeHandler<JObject>)ch);
MyResponseListener mylistener = new MyResponseListener(this);
wlClient.connect(mylistener);

```

Because the native API not protected by a defined security test, no login form is presented during server connection.

Invoke the protected adapter procedure. The login form is presented by the `challengeHandler`.

```

WLResourceRequest adapter = new WLResourceRequest("/adapters/AuthAdapter/getSecretData", "GET");
MyInvokeListener listener = new MyInvokeListener(this);
adapter.send(listener);

```

## Sample application

Click to download (<https://github.com/MobileFirst-Platform-Developer-Center/FormBasedAuth>) the MobileFirst project.

Click to download (<https://github.com/MobileFirst-Platform-Developer-Center/FormBasedAuthWin8>) the Native project.

- The FormBasedAuth project contains a MobileFirst native API that you can deploy to your MobileFirst server.
- The FormBasedAuthWin8 project contains a native Windows 8 Universal application that uses a MobileFirst native API library.
- Make sure to update the `wlclient.properties` file in the native project with the relevant server settings.

