

# Custom Authenticator and Login Module in native Windows 8 applications

## Overview

This tutorial illustrates the native Windows 8 client-side authentication components for custom authentication. Make sure you read Custom Authenticator and Login Module (../) first.

## Creating the client-side authentication components

Create a native Windows 8 application and add the MobileFirst native APIs following the documentation.

### CustomChallengeHandler

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

`CustomChallengeHandler` should implement

- `isCustomResponse`
- `handleChallenge`

`isCustomResponse` checks every custom response received from MobileFirst Server to see if this is the challenge we are expecting.

```
public override bool isCustomResponse(WLResponse response)
{
    if (!(response.getResponseJSON()["authStatus"] == null) && response.getResponseJSON()["authStatus"].ToString().CompareTo("required") == 0)
    {
        return true;
    }
    else
    {
        return false;
    }
}
```

`handleChallenge` method, is called after the `isCustomResponse` method returned true.

Within this method we present our login form. Different approaches may be adopted to present the login form.

```
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 `CustomChallengeHandler` class. The `submitLoginForm()` method is used to send our input data to the authenticator.

```

public void sendResponse(String username, String password)
{
    Dictionary<String, String> parms = new Dictionary<String, String>();
    parms.Add("username", username);
    parms.Add("password", password);
    submitLoginForm("/my_custom_auth_request_url", 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 will trigger MobileFirst server to send a challenge that will trigger our `challengeHandler`.

```

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

```

Since the native API not protected by a defined security test, there is no login form presented during server connection. Invoke the protected adapter procedure and the login form is presented by the `challengeHandler`.

```

WLProcedureInvocationData invocationData = new WLProcedureInvocationData("DummyAdapter", "getSecretData");
Object[] parameters = { 0 };
invocationData.setParameters(parameters);
MyInvokeListener listener = new MyInvokeListener(this);
WLClient.getInstance().invokeProcedure(invocationData, listener, new WLRequestOptions());

```

## Sample application

Click to download

(<http://public.dhe.ibm.com/software/products/en/MobileFirstPlatform/docs/v700/NativeCustomLoginModuleProject.zip>)  
the Studio project.

Click to download

(<http://public.dhe.ibm.com/software/products/en/MobileFirstPlatform/docs/v700/Win8NativeCustomLoginModuleProject.zip>)  
the Native project.



