

# Custom Authenticator and Login Module in native Windows Phone 8 applications

## Overview

This tutorial illustrates the native Windows Phone 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 Phone 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 == null ||
       response.getResponseJSON() == null)
    {
        return false;
    }
    if(response.ToString().IndexOf("authStatus") > -1)
    {
        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)
{
    Deployment.Current.Dispatcher.BeginInvoke(() =>
    {
        MainPage._this.NavigationService.Navigate(new Uri("/LoginPage.xaml", UriKind.Relative))
    }
    );
}
```

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 submitLogin(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, 10000, "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 client;
client = WLClient.getInstance();
challengeHandler = new WindowsChallengeHandler();
client.registerChallengeHandler((BaseChallengeHandler<JObject>)challengeHandler)
;
client.connect(new MyConnectResponseListener(this));

```

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 invokeData = new WLProcedureInvocationData("DummyAdapter", "getSecretData");
WLRequestOptions options = new WLRequestOptions();
client.invokeProcedure(invokeData, new MyResponseListener(this), options);

```

## 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/WP8NativeCustomLoginModuleProject.zip>)  
the Native project.



```
Connecting...
Connected Successfully
/*-secure-
{"isSuccessful":true,"secretData":"123456","V
Authentication-Success":
{"CustomAuthenticatorRealm":
{"userId":"user","attributes":
{"AuthenticationDate":"Fri Mar 06 19:47:11 IS
2015"},"isUserAuthenticated":1,"displayNam
l,"deviceId":"user"}}*/
```