

# Form-based authentication in native Windows 8 applications

## Overview

This tutorial illustrates the native Windows 8 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 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)
{<br />
    Dictionary<String, String> parms = new Dictionary<String, String>()
;
    parms.Add("_username", username);
    parms.Add("_password", password);
    submitLoginForm("_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`.

```
WLProcedureInvocationData invocationData = new WLProcedureInvocationData("DummyAdapter", "getSecretD
ata");
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/NativeFormBasedAuthProject.zip>)  
the Studio project.

Click to download

(<http://public.dhe.ibm.com/software/products/en/MobileFirstPlatform/docs/v700/Win8NativeFormBasedAuthProject.zip>)  
the Native project.

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| <div><div>000002First Platform Foundation</div><div>Form Based Authentication</div><div><div>Connect Server</div><div>Invoke Procedure</div><div></div></div></div>   | <div>Successfully connected to server</div>  |
| <div><div>000003First Platform Foundation</div><div>Form Based Authentication</div><div><div>Connect Server</div><div>Invoke Procedure</div><div></div></div></div>   | <div>Successfully connected to server</div> <div><div>Login</div><div><div>username</div><div>password</div><div><div>Login</div><div>Cancel</div></div></div></div>   |
| <div><div>007000First Platform Foundation</div><div>Form Based Authentication</div><div><div>Connect Server</div><div>Invoke Procedure</div><div></div></div></div> | <div><pre>{   "WE-Authentication-Success": {     "SampleAppRealm": {       "userId": "user",       "attributes": {},       "isUserAuthenticated": 1,       "displayName": "user",       "deviceId": "user"     }   },   "isSuccessful": true,   "secretData": "123456" }</pre></div> |