

# Adapter-based authentication in native Windows 8 applications

fork and edit tutorial (<https://github.ibm.com/MFPSamples/DevCenter/tree/master/tutorials/en/foundation/7.0/authentication-security/adapter-based-authentication/adapter-based-authentication-native-windows-8-applications.html>) | report issue (<https://github.ibm.com/MFPSamples/DevCenter/issues/new>)

## Overview

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

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

## Creating the client-side authentication components

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

### CustomAdapterChallengeHandler

Create a `CustomAdapterChallengeHandler` class as a subclass of `ChallengeHandler`. Your `CustomAdapterChallengeHandler` 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)
{
    JObject responseJSON = response.getResponseJSON();
    if (response == null || response.getResponseText() == null || responseJSON["authRequired"] == null || String.Compare(responseJSON["authRequired"].ToString(), "false", StringComparison.OrdinalIgnoreCase) == 0)
    {
        return false;
    }
    else
    {
        return true;
    }
}
```

- The `handleChallenge` method is called after the `isCustomResponse` method returns `true`. Use this method to present the login form. Different approaches are available.

```

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

```

From the login form, credentials are passed to the `CustomAdapterChallengeHandler` class. The `submitAdapterAuthentication()` method is used to send input data to the authenticator.

```

public void sendResponse(String username, String password) {
    WLProcedureInvocationData invData = new WLProcedureInvocationData("NativeAdapterBasedAdapter", "submit
Authentication");
    invData.setParameters(new Object[] { username, password });
    submitAdapterAuthentication(invData, new WLRequestOptions());
}

```

## MainPage

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

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

```

WLClient wClient = WLClient.getInstance();
<p>CustomAdapterChallengeHandler ch = new CustomAdapterChallengeHandler();
wClient.registerChallengeHandler((BaseChallengeHandler<JSONObject>)ch);
<p>MyResponseListener mylistener = new MyResponseListener(this);
wClient.connect(mylistener);

```

Because the native API is 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 challenge handler.

```

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/NativeAdapterBasedAuthProject.zip>)  
the Studio project.

Click to download

(<http://public.dhe.ibm.com/software/products/en/MobileFirstPlatform/docs/v700/Win8NativeAdapterBasedAuthProject.zip>)  
the Native project.

<div>004004First Platform Foundation</div> <div>Adapter Based Authentication</div> <div>Connect Server</div> <div>Invoke Procedure</div> <div></div>	Successfully connected to server
<div>005003First Platform Foundation</div> <div>Adapter Based Authentication</div> <div>Connect Server</div> <div>Invoke Procedure</div> <div></div>	Successfully connected to server
<div>000002First Platform Foundation</div> <div>Adapter Based Authentication</div> <div>Connect Server</div> <div>Invoke Procedure</div> <div></div>	<div>Login</div> <div>mobilefirst12345</div> <div>LoginCancel</div> <div><pre>{   "isSuccessful": true,   "secretData": "A very very very secret data" }</pre></div>