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 || S
tring.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(JObject 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`.

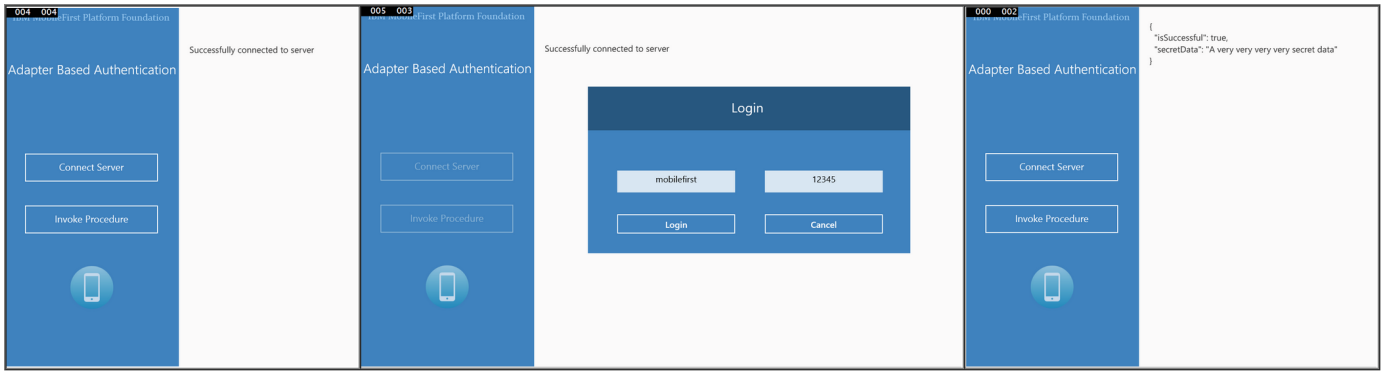
```
WLClient wlClient = WLClient.getInstance();
<p>CustomAdapterChallengeHandler ch = new CustomAdapterChallengeHandler();
wlClient.registerChallengeHandler((BaseChallengeHandler<JObject>)ch);
<p>MyResponseListener mylistener = new MyResponseListener(this);
wlClient.connect(mylistener);
```

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.


First Platform Foundation
Adapter Based Authentication
Connect Server
Invoke Procedure
Successfully connected to server
First Platform Foundation
Adapter Based Authentication
Connect Server
Invoke Procedure
Successfully connected to server
Login
mobilefirst
12345
Login
Cancel
First Platform Foundation
Adapter Based Authentication
Connect Server
Invoke Procedure
{
"isSuccessful": true,
"secretData": "A very very very very secret data"
}