Adapter-based authentication in native Windows 8 applications

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());
}
```

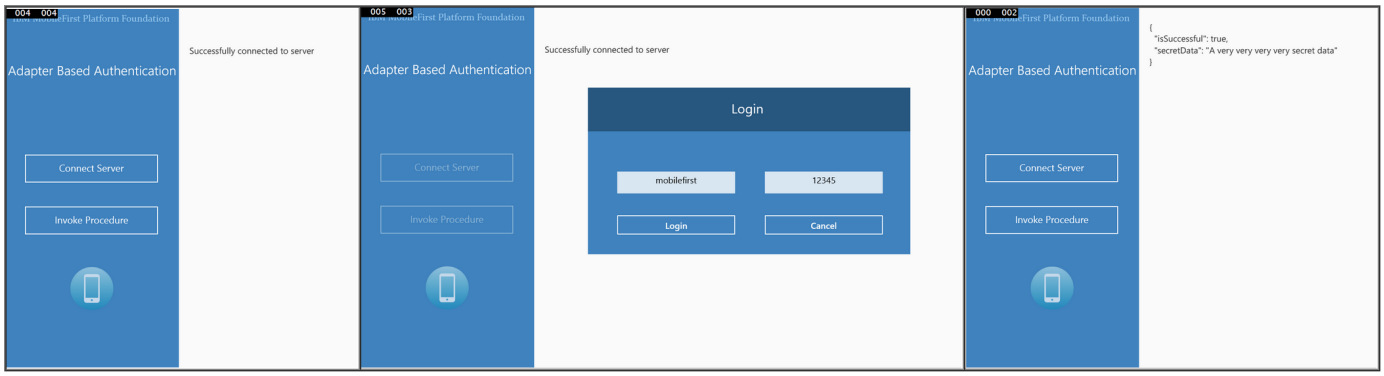
MainPage

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.