Adapter-based authentication in native Windows 8 applications

Overview

This tutorial illustrates the native Windows 8 Universal 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 Universal 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["authStatus"] == null || String.Compare(responseJSON["authStatus"].ToStri
ng(), "complete", 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;
  });
}
```

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("NativeAdapterBasedAdapte
r", "submitAuthentication");
   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();
CustomAdapterChallengeHandler ch = new CustomAdapterChallengeHandler();
wlClient.registerChallengeHandler((BaseChallengeHandler<JObject>)ch);
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.

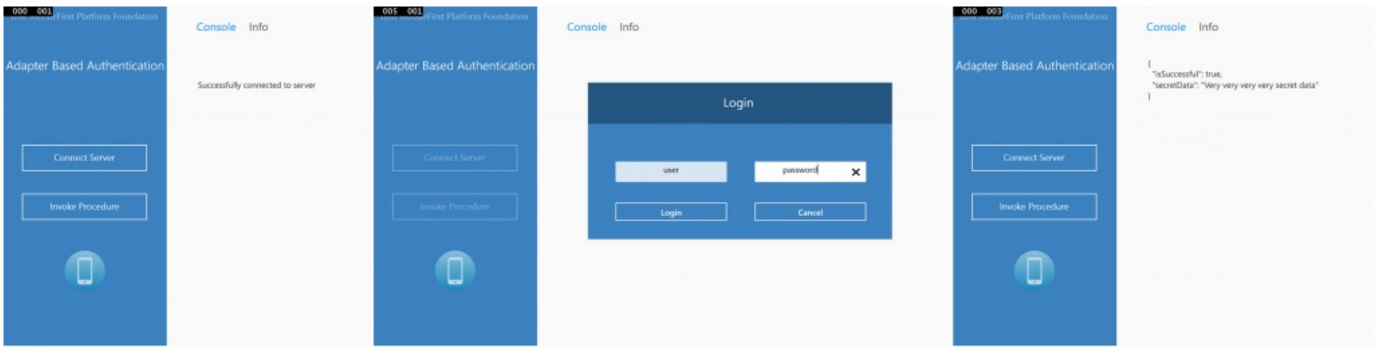
```
WLResourceRequest adapter = new WLResourceRequest("/adapters/AuthAdapter/getSecretData", "GE
T");
MyInvokeListener listener = new MyInvokeListener(this);
adapter.send(listener);
```

Sample application

Click to download (https://github.com/MobileFirst-Platform-Developer-Center/AdapterBasedAuth) the MobileFirst project.

Click to download (https://github.com/MobileFirst-Platform-Developer-Center/AdapterBasedAuthWin8) the Native project.

- The `AdapterBasedAuth` project contains a MobileFirst native API that you can deploy to your MobileFirst server.
- The `AdapterBasedAuthWin8` project contains a native Windows 8 Universal application that uses a MobileFirst native API library.
- Make sure to update the `worklight.plist` file in the native project with the relevant server settings.



```
Successfully connected to server
```

```
{
  "isSuccessful": true,
  "secretData": "Very very very very secret data"
}
```