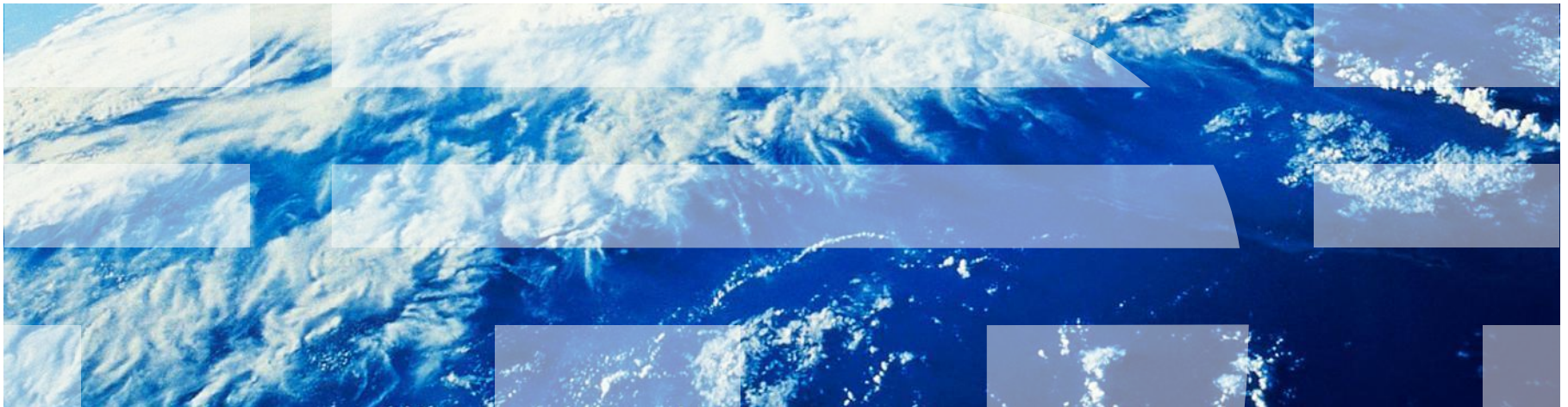


IBM Worklight Foundation V6.2.0 Getting Started

Form-based authentication in native iOS applications



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Agenda

- Introduction to form-based authentication
- Configuring the authenticationConfig.xml file
- Creating the server-side authentication components
- Creating the client-side authentication components
- Examining the result
- Exercise

Introduction to form-based authentication

- In form-based authentication, the HTML code of a login form is returned in the server response when the application tries to access a protected resource.
- Although form-based authentication is best suited for desktop and web environments, where you actually display and use the returned login form, you can also use this authentication mode in mobile applications.
- To use form-based authentication, you must use a login module to validate the received credentials.
- In this module, you implement a simple form-based authentication mechanism that is based on a user name and a password.

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Configuring the authenticationConfig.xml file (1 of 2)

- The default **authenticationConfig.xml** file already contains a sample realm that is configured to use a form-based authenticator.

```
<realm loginModule="StrongDummy" name="SampleAppRealm">  
  <className>com.worklight.core.auth.ext.FormBasedAuthenticator</className>  
</realm>
```

- Notice the **StrongDummy** login module that is used for this realm.

```
<loginModule name="StrongDummy">  
  <className>com.worklight.core.auth.ext.NonValidatingLoginModule</className>  
</loginModule>
```

- **NonValidatingLoginModule** means that the user credentials are not validated: any combination of user name and password is valid.

Configuring the authenticationConfig.xml file (2 of 2)

- Define a security test that uses the **SampleAppRealm**.
- You must use this security test to protect the adapter procedure, so make it a **<customSecurityTest>**.

```
<customSecurityTest name="DummyAdapter-securityTest">  
  <test isInternalUserID="true" realm="SampleAppRealm"/>  
</customSecurityTest>
```

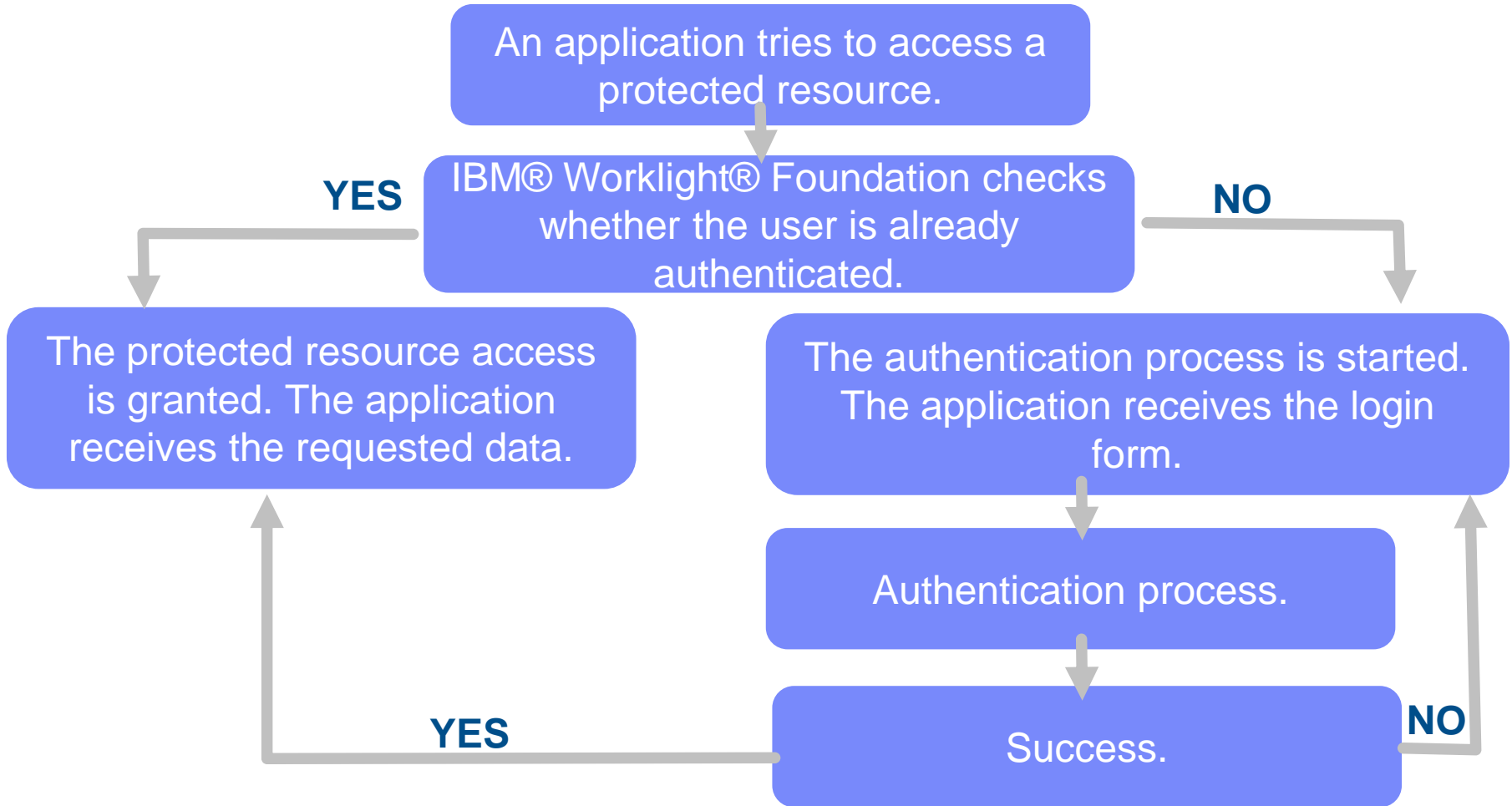
- Remember the security test name; you use it in the subsequent steps.

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Creating the server-side authentication components (1 of 2)

- The following diagram illustrates the form-based authentication process.



Creating the server-side authentication components (2 of 2)

- Create an adapter and name it **DummyAdapter**.
- Add a **getSecretData** procedure and protect it with the security test that you created in previous slides.

```
<procedure name="getSecretData" securityTest="DummyAdapter-securityTest"/>
```

- In this module, the **getSecretData** procedure returns some hardcoded value:

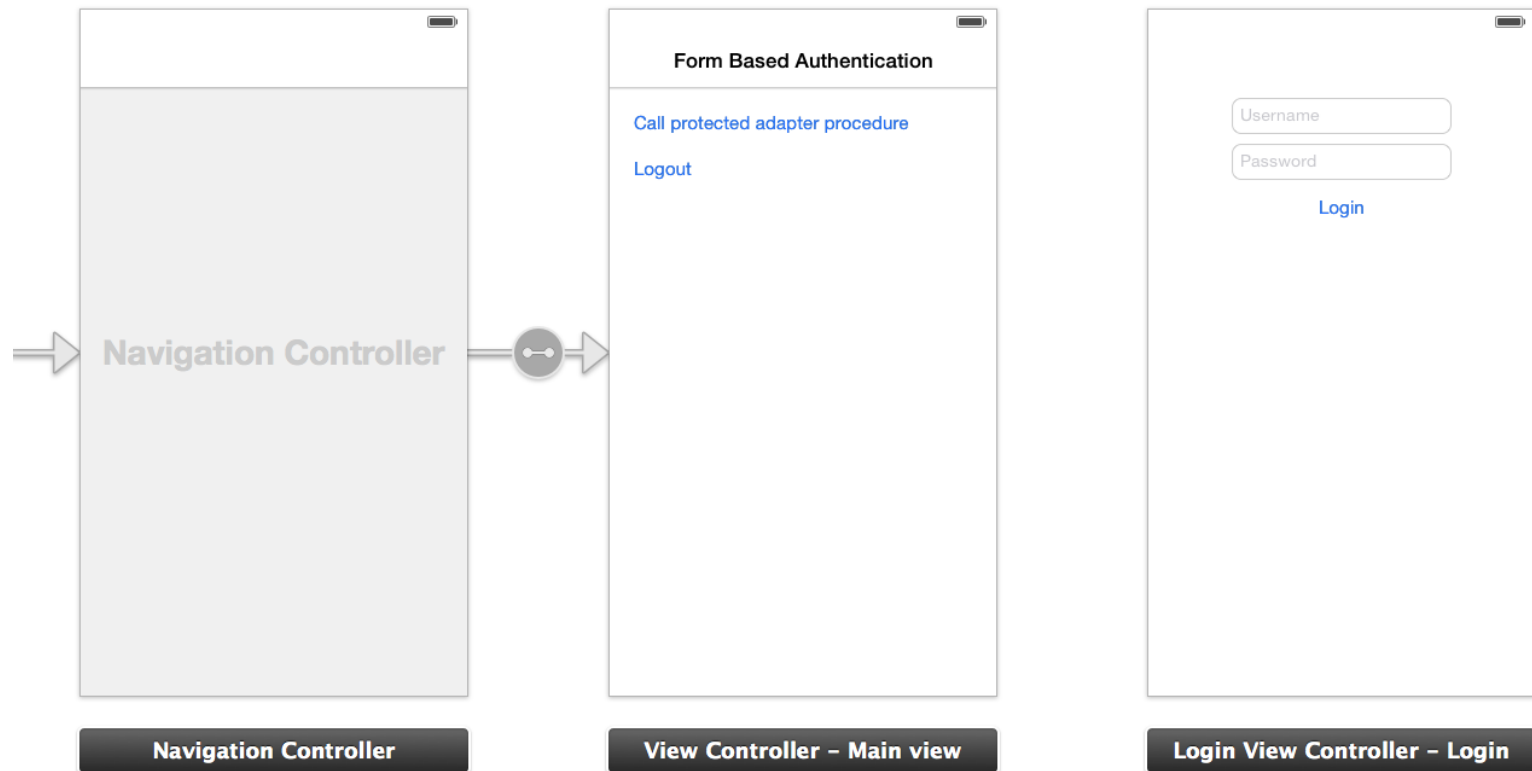
```
function getSecretData(){  
    return {  
        secretData: '123456'  
    };  
}
```

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Creating the client-side authentication components (1 of 7)

- Create a native iOS application and add the Worklight native APIs by following the documentation
- In your storyboard, add a ViewController containing a login form.



Creating the client-side authentication components (2 of 7)

- Create a MyChallengeHandler class as a subclass of ChallengeHandler
- The next step is to implement some of the ChallengeHandler methods to respond to the form-based challenge.

```
@interface MyChallengeHandler : ChallengeHandler
@property ViewController* vc;

//A convenient way of updating the View
-(id)initWithViewController: (ViewController*) vc;
@end
```

Creating the client-side authentication components (3 of 7)

- Before calling your protected adapter, make sure to register your challenge handler by a call to the `registerChallengeHandler` method on the `WLClient` instance.

```
[[WLClient sharedInstance] registerChallengeHandler:[MyChallengeHandler  
alloc] initWithViewController:self] ];
```

Creating the client-side authentication components (4 of 7)

- The `isCustomResponse` method of the challenge handler is invoked each time that a response is received from the server. It is used to detect whether the response contains data that is related to this challenge handler. It must return either `true` or `false`.
- The default login form that is returned from the Worklight Server contains the `j_security_check` string. If the challenge handler detects it in the response, the method returns `true`.

```
@implementation MyChallengeHandler
//...
-(BOOL) isCustomResponse:(WLResponse *)response {
    if(response && response.responseText){
        if ([response.responseText rangeOfString:@"j_security_check"
options:NSCaseInsensitiveSearch].location != NSNotFound) {
            NSLog(@"Detected login form - return true");
            return true;
        }
    }
    return false;
}
@end
```

Creating the client-side authentication components (5 of 7)

- If `isCustomResponse` returns `true`, the framework calls the `handleChallenge` method. This function is used to perform required actions, such as hiding the application screen and showing the login screen.

```
@implementation MyChallengeHandler
//...
-(void) handleChallenge:(WLResponse *)response {
    NSLog(@"Inside handleChallenge - need to show form on the screen");
    LoginViewController* loginController = [self.vc.storyboard
instantiateViewControllerWithIdentifier:@"LoginViewController"];
    loginController.challengeHandler = self;
    [self.vc.navigationController pushViewController:loginController
animated:YES];
}
@end
```


Creating the client-side authentication components (6 of 7)

- onSuccess and onFailure get triggers when the authentication ends.
- You need to call submitSuccess to inform the framework that the authentication process is over and to allow the invocation's success handler to be called.

```
@implementation MyChallengeHandler
```

```
//...
```

```
-(void) onSuccess:(WLResponse *)response {  
    NSLog(@"inside challenge success");  
    [self.vc.navigationController pushViewControllerAnimated:YES];  
    [self submitSuccess:response];  
}
```

```
-(void) onFailure:(WLFailResponse *)response {  
    NSLog(@"inside challenge failure");  
    [self submitFailure:response];  
}
```

Creating the client-side authentication components (7 of 7)

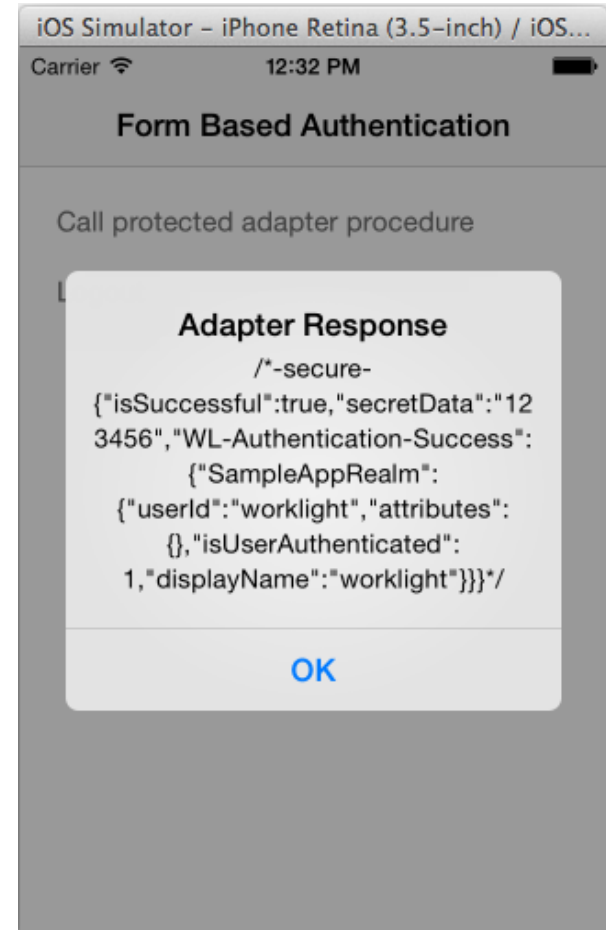
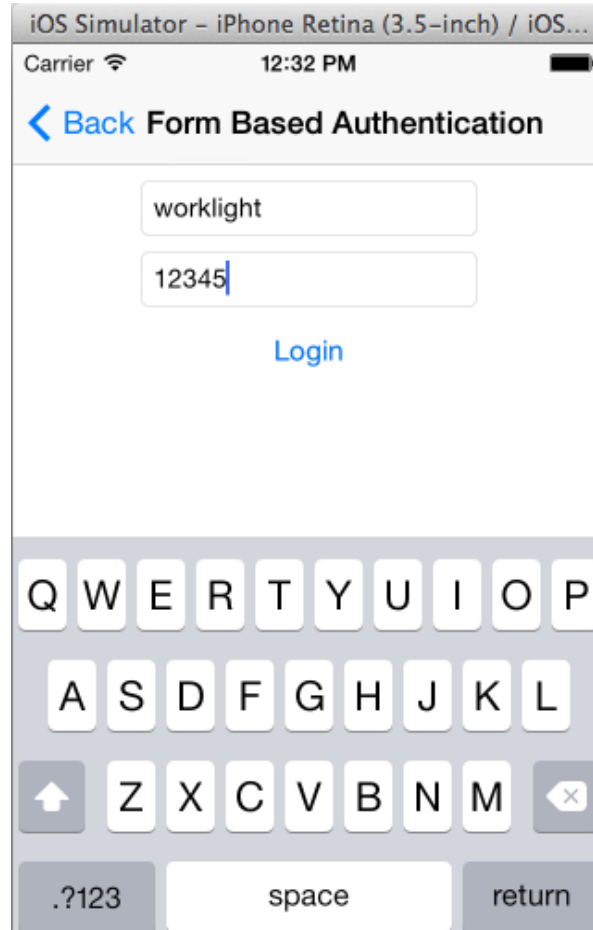
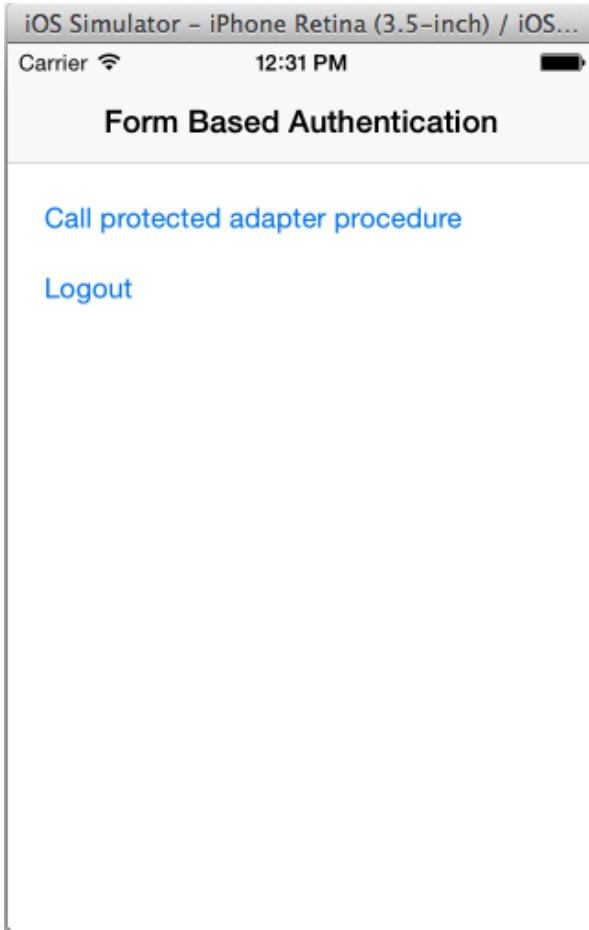
- In your LoginViewController, when users click to submit their credentials, you need to call `submitLoginForm` to send the credentials to the Worklight Server.

```
@implementation LoginViewController
/**
- (IBAction)login:(id)sender {
    [self.challengeHandler submitLoginForm:@"j_security_check"
        requestParameters:@{@"j_username": self.username.text,
@"j_password": self.password.text}
        requestHeaders:nil
        requestTimeoutInMilliseconds:0
        requestMethod:@"POST"];
}
```

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Examining the result



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Exercise

- Implement the form-based authentication that is described in this module.
- You can find the sample for this training module in the Getting Started page of the documentation website at <http://www.ibm.com/mobile-docs>

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