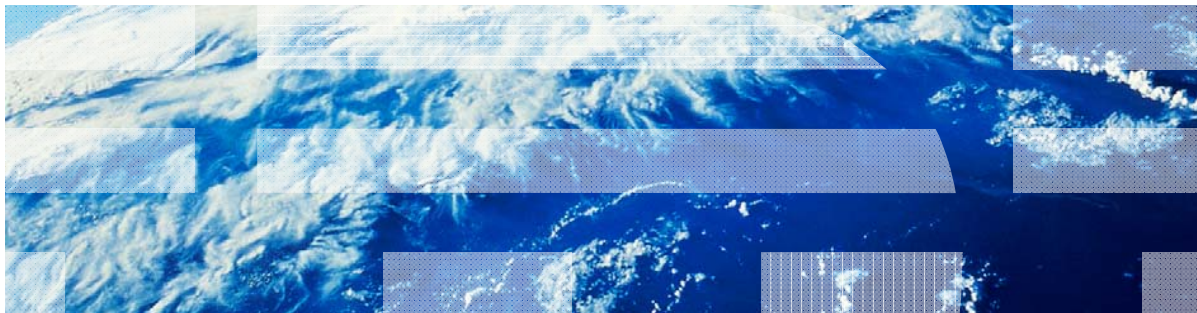


IBM Worklight V6.0.0 Getting Started

Application Authenticity Protection



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Agenda

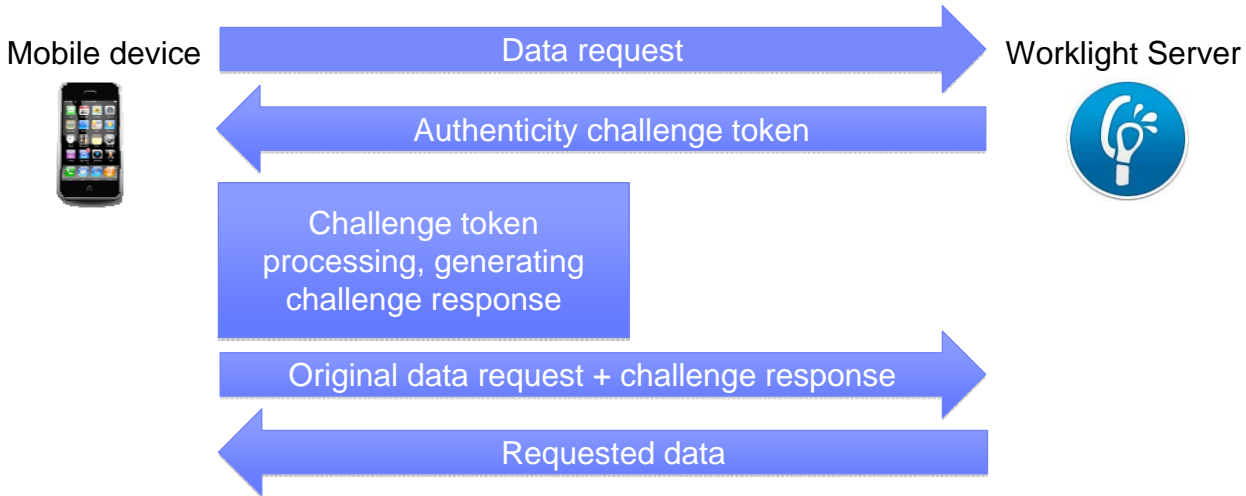
- Overview
- Enabling application authenticity check
- Controlling application authenticity from Worklight Console

Overview

- The HTTP services (APIs) that Worklight® Server offers can be accessed by any entity by issuing an HTTP request.
- As described in previous modules, it is possible to protect relevant services with various security tests.
- The application authenticity check ensures that the application that tries to connect to a Worklight Server is the authentic one and was not tampered with or modified by some third-party attacker.
- Application authenticity is available only with the IBM Worklight Consumer Edition or the IBM Worklight Enterprise Edition. It does not work with the free IBM Worklight Developer Edition.
- Application authenticity is available for iOS and Android platforms.

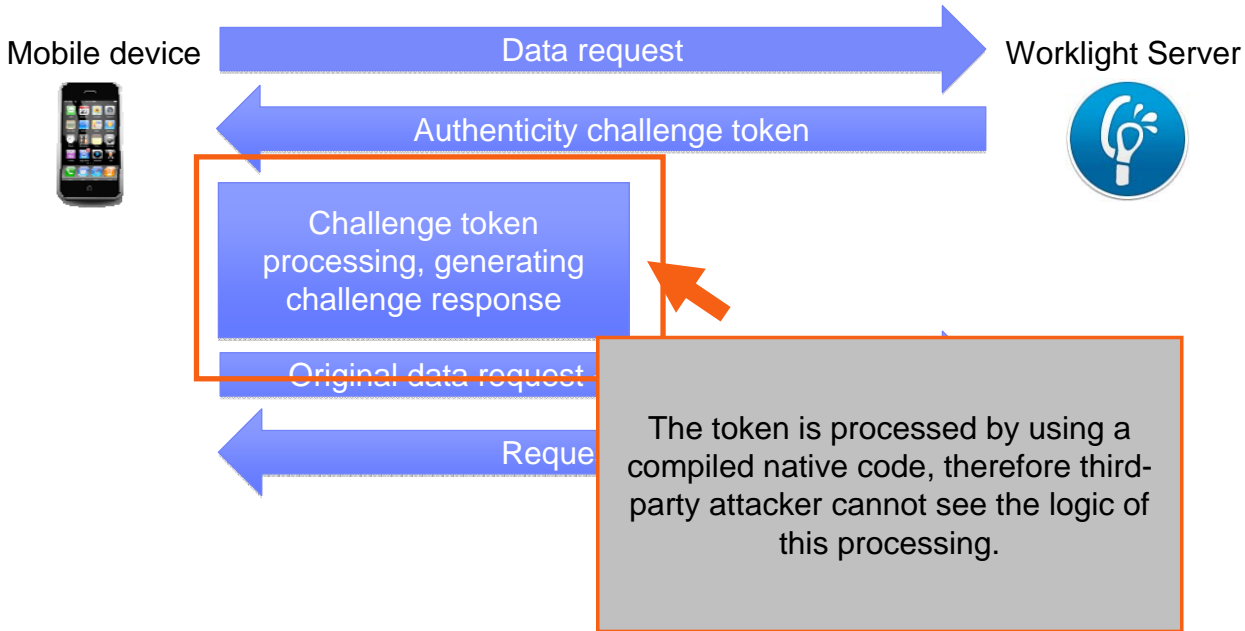
Overview

- Authenticity check flow



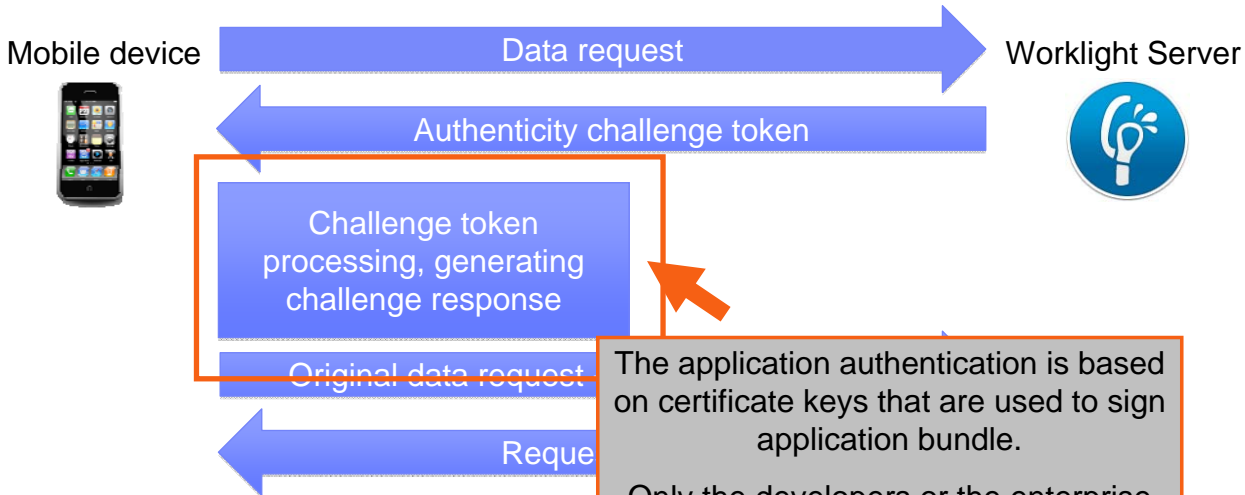
Overview

- Authenticity check flow



Overview

- Authenticity check flow



The application authentication is based on certificate keys that are used to sign application bundle.

Only the developers or the enterprise who have the original private key that was used to create the application are able to modify, repack, and re-sign the bundle.

Agenda

- Overview
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Enabling application authenticity check

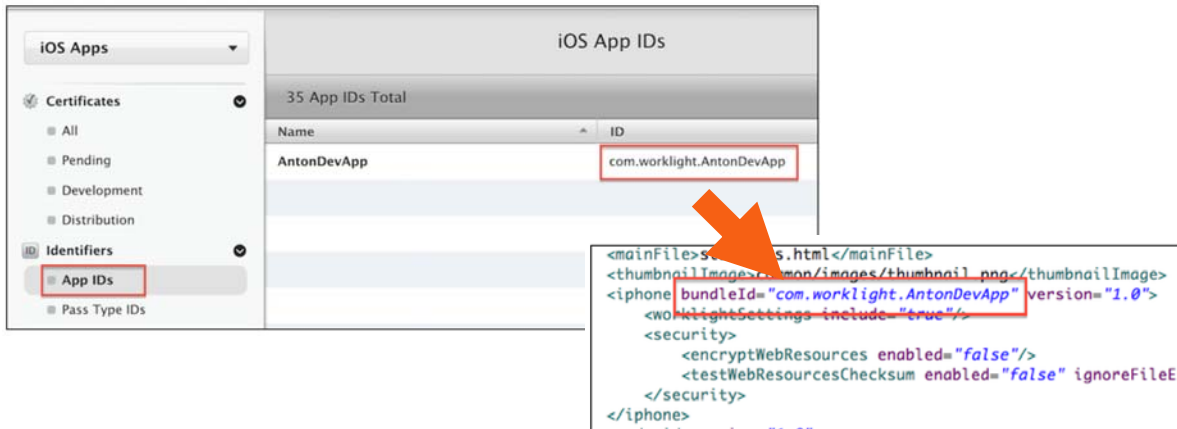
- First step in enabling application authenticity is to modify your **authenticationConfig.xml** file by adding the relevant authentication realm to your security tests.
- If you use **<mobileSecurityTest>**, you must add the **<testAppAuthenticity/>** child-element to it.
- If you use **<customSecurityTest>**, you must add the **<test realm="wl_authenticityRealm"/>** child-element to it.

```
<mobileSecurityTest name="mobileTest">  
  <testAppAuthenticity/>  
  <testUser realm="MyUserAuthRealm"/>  
  <testDeviceId provisioningType="auto" />  
</mobileSecurityTest>  
==  
<customSecurityTest name="mobileTest">  
  <test realm="wl_authenticityRealm" step="1"/>  
  <test realm="wl_antixsrfRealm" step="1"/>  
  <test realm="wl_remoteDisableRealm" step="1"/>  
  <test realm="MyUserAuthRealm" isInternalUserID="t">  
  <test realm="wl_deviceAutoProvisioningRealm" isIn  
</customSecurityTest>
```

Enabling application authenticity check

- Second step is to modify the **application-descriptor.xml** file of your application.
- To enable application authenticity check for iOS environment, you must specify the **bundleId** of your application exactly as you defined it in Apple Developer portal.

For example:



The screenshot displays the Apple Developer portal interface. On the left, the 'Identifiers' section is expanded, and 'App IDs' is selected. The main area shows a table of 'iOS App IDs' with 35 total. The first entry, 'AntonDevApp', has a 'com.worklight.AntonDevApp' ID highlighted with a red box. An orange arrow points from this box to the 'bundleId' attribute in the XML code below, which is also highlighted with a red box.

Name	ID
AntonDevApp	com.worklight.AntonDevApp

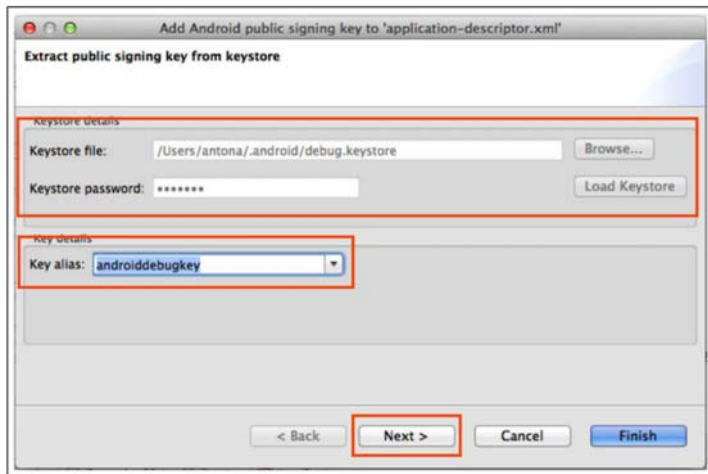
```
<mainFile>S...S.html</mainFile>
<thumbnailImage>Common/images/thumbnail.png</thumbnailImage>
<iphone bundleId="com.worklight.AntonDevApp" version="1.0">
  <worklightSettings include="true"/>
  <security>
    <encryptWebResources enabled="false"/>
    <testWebResourcesChecksum enabled="false" ignoreFileE
  </security>
</iphone>
```

Enabling application authenticity check

- To enable application authenticity check for Android environment, you must extract the public signing key of the certificate that is used to sign application bundle (. apk file).
- Worklight Studio provides tooling to simplify this process.
- If you are building an application for distribution (production), you must extract the public key from the certificate that you are using to sign your production ready application.
- If you are building an application in the development environment, you might use the public key from a default development certificate that is supplied by the Android SDK.
- The development certificate can be found in a keystore that is in a **{user-home}/.android/debug.keystore** file.

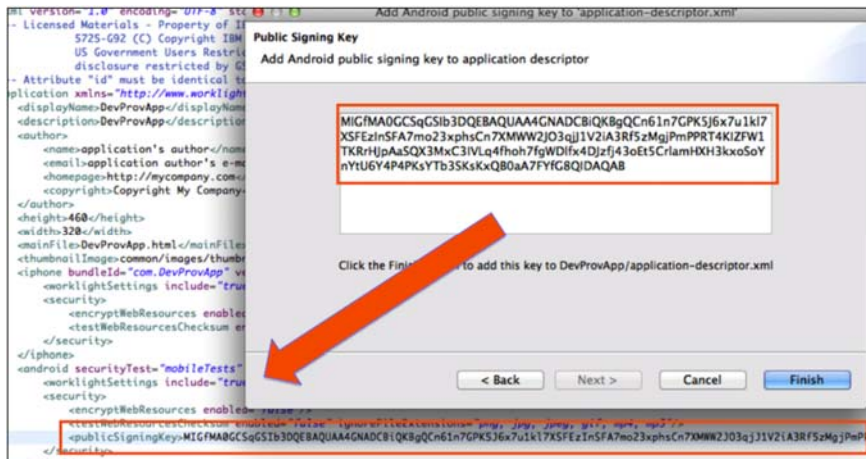
Enabling application authenticity check

- You can either extract the public key manually or use the wizard that is Worklight Studio provides.
- To use the wizard:
 1. Right-click your Android environment and select **Extract public signing key**.
 2. Specify the location and the password of a keystore file, and click **Load Keystore**.
 3. The default password for **debug.keystore** is “android”.
 4. Set the **Key alias** and click **Next**.



Enabling application authenticity check

- A dialog opens that displays the public key.
- After you click **Finish**, the public key is automatically pasted to the relevant section of the **application-descriptor.xml** file.
- After you updated the required elements, rebuild and redeploy your application to a Worklight Server.



Agenda

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Controlling Application Authenticity from Worklight Console

- Worklight Console provides means for enabling and disabling application authenticity realm.
- This feature might be useful for example for development and QA environments.
- You can set three modes:
 - **Enabled, blocking** – This mode means that the application authenticity check is enabled. If the application fails the check, it will not be served by a Worklight Server.
 - **Enabled, serving** – This mode means that the application authenticity check is enabled. If the application fails the check, it will still be served by a Worklight Server.
 - **Disabled** – This mode means that application authenticity check is disabled.


Controlling Application Authenticity from Worklight Console




IBM Worklight Console

Catalog **Push Notifications**

Deploy application or adapter: No file chosen

DemoApp

 DemoApp
Last updated at: 2013-05-02 08:24

	Version 1.0 Active	Security Test: Default
<input type="checkbox"/> Lock this version		App Authentication: Disabled
	Version 1.0 Active	Security Test: Mobile-security-test
<input type="checkbox"/> Lock this version		App Authentication: Enabled, blocking
	Version 1.0 Active	Security Test: Mobile-security-test
<input type="checkbox"/> Lock this version		App Authentication: Disabled

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