

Application Authenticity

fork and edit tutorial (<https://github.ibm.com/MFPSamples/DevCenter/tree/master/tutorials/en/foundation/8.0/authentication-and-security/application-authenticity/index.md>) | report issue (<https://github.ibm.com/MFPSamples/DevCenter/issues/new>)

Overview

By issuing an HTTP request, an entity can access to corporate HTTP services (APIs) IBM MobileFirst Platform Foundation Server provides access to. The predefined application-authenticity security check (../authentication-concepts/) ensures that an application that tries to connect to a MobileFirst Server instance is the authentic one and was not tampered with or modified by a third-party attacker.

To enable Application Authenticity you can either follow the on-screen instructions in the **MobileFirst Operations Console** → **[your-application]** → **Authenticity**, or review the information below.

Availability

- Application Authenticity is available in all supported platforms (iOS, Android, Windows 8.1 Universal, Windows 10 UWP) in both Cordova and Native applications.

Limitations

- Application Authenticity is **not available** in the MobileFirst Development Server. To test, use a remote application server such as a QA, UAT or Production server.
- Application Authenticity does not support **Bitcode** in iOS. If using Application Authenticity, disable Bitcode in the Xcode project properties.

Jump to:

- Authenticity flow (authenticity-flow)
- Enabling authenticity (enabling-application-authenticity)
- Disabling authenticity (disabling-application-authenticity)
- Configuring authenticity (configuring-application-authenticity)

Application Authenticity Flow

By default, the application-authenticity security check is run during the application's runtime registration with MobileFirst Server, which occurs the first time an instance of the application attempts to connect to the server.

Once an application has passed the authenticity challenge, an authenticity scope is granted. For as long as the token is valid, the authenticity challenge will not occur again. See [Configuring authenticity \(configuring-authenticity\)](#) to learn how this can be customized.



The challenge token in the diagram is processed by compiled native code, so that third-party attackers cannot see the logic of this processing.

Enabling Application Authenticity

To enable Application Authenticity in your Cordova or Native application, the application's binary file needs to be signed using the application-authenticity tool. Eligible binary files are: `ipa` for iOS, `apk` for Android and `appx` for Windows 8.1 Universal & Windows 10 UWP.

1. Open a **Command-line** window and run the command: `java -jar path-to-application-authenticity-tool.jar path-to-binary-file`

For example:

```
java -jar /Users/your-username/Desktop/application-authenticity-tool.jar /Users/your-username/Desktop/MyBankApp.ipa
```

The result of the command above is an `.authenticity_data` file generated next to the `MyBankApp.ipa` file, called `MyBankApp.authenticity_data`.

2. Open the MobileFirst Operations Console in your browser of choice.
3. Select your application from the navigation sidebar and click on the Authenticity menu item.
4. Click on "Upload Authenticity File" to upload the `.authenticity_data` file.

When the `.authenticity_data` file is uploaded, Application Authenticity is enabled.

Disabling Application Authenticity

To disable Application Authenticity, click the "Delete Authenticity File" button.

Configuring Application Authenticity

The predefined application-authenticity security check can be configured with the following property:

- `expirationInSec`: Defaults to 3600 seconds / 1 hour. Defines the duration until the Authenticity token expires.

Once an authenticity check has been performed, it will not be performed again until the token has expired based on the set value.

To configure the `expirationInSec` property:

1. Load the MobileFirst Operations Console and navigate to **[your application] → Security → Security Check Configurations** and click on **Create New**.
2. Search for the "appAuthenticity" scope element.

3. Set a new value in seconds.

The screenshot displays the MobileFirst Operations Console interface. The top navigation bar includes the 'MobileFirst Operations Console' title, an 'Analytics Console' link, a user profile 'Hello, demo', and an information icon. The main content area shows the breadcrumb 'Home > mfp > com.worklight.MyBankApp > iOS 1.0' and a 'Delete version' button. The left sidebar lists the application 'mfp', its version 'com.worklight.MyBankApp', the platform 'iOS', and the version '1.0'. A 'Create new' button is visible next to the application name. The main content area displays the title 'com.worklight.MyBankApp iOS v 1.0' and a 'Configure Security Check Parameters' dialog box. The dialog box has a 'Scope element' field with the value 'appAuthenticity' and an 'Expiration (seconds)' field with the value '5000'. Below the expiration field, it shows 'Expiration (seconds)' and 'Default Value: 3600'. There are 'Add' and 'Cancel' buttons at the bottom of the dialog. The background of the main content area shows a 'Security Check Configurations' section with a 'Create New' button and a message: 'You didn't create security check configuration yet. Get started by clicking "Create New"'. There are also icons for a smartphone and a server with a lock.

MobileFirst Operations Console

Analytics Console Hello, demo

Home > mfp > com.worklight.MyBankApp > iOS 1.0

Delete version

mfp

Applications Create new

com.worklight.MyBankApp

Platform

^ iOS 1

1.0

Push

com.worklight.MyBankApp iOS v 1.0

Delete version

out-of-the-box security checks or Create New

Expiration (seconds) *

5000

Expiration (seconds)

Default Value: 3600

Add Cancel

Security Check Configurations

Manage and update parameters of out-of-the-box and custom authentications.

Create New

You didn't create security check configuration yet

Get started by clicking "Create New"