

# Handling Push Notifications in Cordova

fork and edit tutorial (<https://github.ibm.com/MFPSamples/DevCenter/tree/master/tutorials/en/foundation/8.0/notifications/handling-push-notifications-in-cordova/index.md>) | report issue (<https://github.ibm.com/MFPSamples/DevCenter/issues/new>)

## Overview

Before iOS and Android Cordova applications are able to receive and display push notifications, the **cordova-plugin-mfp-push** Cordova plug-in needs to be added to the Cordova project. Once an application has been configured, MobileFirst-provided Notifications API can be used in order to register & unregister devices, subscribe & unsubscribe tags and handle notifications. In this tutorial, you will learn how to handle push notification in Cordova applications.

**Note:** In the release, authenticated notifications are **not supported** in Cordova applications due to a defect. However a workaround is provided: each `MFPPush` API call can be wrapped by `WLAAuthorizationManager.obtainAccessToken("push.mobileclient").then( ... );`. The provided sample application uses this workaround.

### Prerequisites:

- Make sure you have read the following tutorials:
  - Setting up your MobileFirst development environment ([../setting-up-your-development-environment/](#))
  - Adding the MobileFirst Foundation SDK to Android applications ([../adding-the-mfpf-sdk/cordova](#))
  - Push Notifications Overview ([../push-notifications-overview](#))
- MobileFirst Server to run locally, or a remotely running MobileFirst Server
- MobileFirst CLI installed on the developer workstation
- Cordova CLI installed on the developer workstation

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## Notifications Configuration

Create a new Cordova project or use an existing one, and add one or more of the supported platforms: iOS, Android.

If the MobileFirst Cordova SDK is not already present in the project, follow the instructions in the Adding the MobileFirst Foundation SDK to Cordova applications ([../adding-the-mfpf-sdk/cordova](#)) tutorial.

## Adding the Push plug-in

1. From a **command-line** window, navigate to the root of the Cordova project.

2. Add the push plug-in to the iOS and/or Android platform by running the command:

```
cordova plugin add cordova-plugin-mfp-push
```

3. Build the Cordova project by running the command:

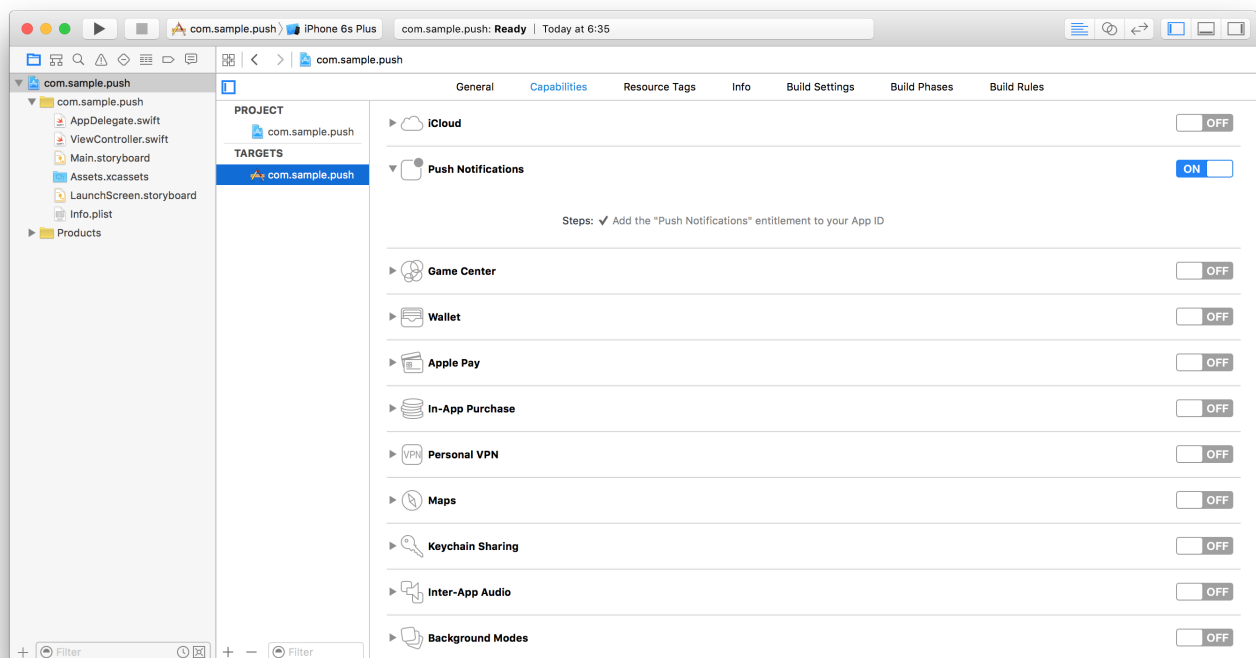
```
cordova build
```

## iOS platform

The iOS platform requires an additional step.

In Xcode, enable push notifications for your application in the **Capabilities** screen.

**❗ Important:** the bundleId selected for the application must match the AppId that you have previously created in the Apple Developer site. See the [Push Notifications Overview] tutorial.



## Notifications API

### Client-side

#### Javascript Function

MFPPush.initialize(success, failure)

MFPPush.isPushSupported(success, failure)

MFPPush.registerDevice(success, failure)

MFPPush.getTags(success, failure)

MFPPush.subscribe(tag, success, failure)

#### Description

Initialize the MFPPush instance.

Does the device support push notifications.

Registers the device with the Push Notifications Service.

Retrieves all the tags available in a push notification service instance.

Subscribes to a particular tag.

## Javascript Function

```
MFPPush.getSubscriptions(success,  
failure)
```

```
MFPPush.unsubscribe(tag, success,  
failure)
```

```
MFPPush.unregisterDevice(success,  
failure)
```

## Description

Retrieves the tags device is currently subscribed to

Unsubscribes from a particular tag.

Unregisters the device from the Push Notifications Service

## API implementation

### Initialization

Initialize the **MFPPush** instance.

- Required for the client application to connect to MFPPush service with the right application context.
- The API method should be called first before using any other MFPPush APIs.
- Registers the callback function to handle received push notifications.

```
MFPPush.initialize (  
  function(successResponse) {  
    alert("Successfully intialized");  
    MFPPush.registerNotificationsCallback(notificationReceived);  
  },  
  function(failureResponse) {  
    alert("Failed to initialize");  
  }  
);
```

### Is push supported

Check if the device supports push notifications.

```
MFPPush.isPushSupported (  
  function(successResponse) {  
    alert("Push Supported: " + successResponse);  
  },  
  function(failureResponse) {  
    alert("Failed to get push support status");  
  }  
);
```

### Register device

Register the device to the push notifications service.

```
var options = { };  
MFPPush.registerDevice(  
  options,  
  function(successResponse) {  
    alert("Successfully registered");  
  },  
  function(failureResponse) {  
    alert("Failed to register");  
  }  
);
```

**Note:** Due to a defect, the `options` object for **Cordova-based Android** apps must currently contain an empty value as follows: `"phoneNumber": ""`. Read more about the the `available options in the user documentation.

## Get tags

Retrieve all the available tags from the push notification service.

```
MFPPush.getTags (
  function(tags) {
    alert(JSON.stringify(tags));
  },
  function() {
    alert("Failed to get tags");
  }
);
```

## Subscribe

Subscribe to desired tags.

```
var tags = ['sample-tag1','sample-tag2'];

MFPPush.subscribe(
  tags,
  function(tags) {
    alert("Subscribed successfully");
  },
  function() {
    alert("Failed to subscribe");
  }
);
```

## Get subscriptions

Retrieve tags the device is currently subscribed to.

```
MFPPush.getSubscriptions (
  function(subscriptions) {
    alert(JSON.stringify(subscriptions));
  },
  function() {
    alert("Failed to get subscriptions");
  }
);
```

## Unsubscribe

Unsubscribe from tags.

```
var tags = ['sample-tag1','sample-tag2'];
```

```
MFPPush.unsubscribe(  
  tags,  
  function(tags) {  
    alert("Unsubscribed successfully");  
  },  
  function() {  
    alert("Failed to unsubscribe");  
  }  
);
```

## Unregister

Unregister the device from push notification service instance.

```
MFPPush.unregisterDevice(  
  function(successResponse) {  
    alert("Unregistered successfully");  
  },  
  function() {  
    alert("Failed to unregister");  
  }  
);
```

## Handling a push notification

You can handle a received push notification by operating on its response object in the registered callback function.

```
var notificationReceived = function(message) {  
  alert(JSON.stringify(message));  
};
```

# Sample application

Click to download (<https://github.com/MobileFirst-Platform-Developer-Center/PushNotificationsCordova/tree/release80>) the Cordova project.

**Note:** The latest version of Google Play Services is required to be installed on any Android device for the sample to run.

## Sample usage

1. From a **Command-line**, navigate to the project's root folder.
2. Add a platform using the `cordova platform add` command.
3. Register the application by running the command: `mfpdev app register`.
4. In the MobileFirst Operations Console
  - Setup the MobileFirst Server with either GCM details or APNS certificate, and define tags.
  - Under **Applications** → **PushNotificationsAndroid** → **Security** → **Map scope elements to security checks**, add a mapping for `push.mobileclient`.
5. Run the application by running the `cordova run` command.

## Sending a notification (../sending-push-notifications):

- Tag notification
  - Use the **MobileFirst Operations Console** → **[your application]** → **Push** → **Send Push tab**.
- Authenticated notification:
  - Deploy the **UserLogin** Security Check (../authentication-and-security/user-authentication/security-check).
  - In **MobileFirst Operations Console** → **[your application]** → **Security tab**, map the **push.mobileclient** scope to the **UserLogin** Security Check.
  - Use either the REST APIs (../sending-push-notifications#rest-apis) to send the notification, or send to a userId from the Push section in the MobileFirst Operations Console.

