

Handling Push Notifications in Cordova

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:

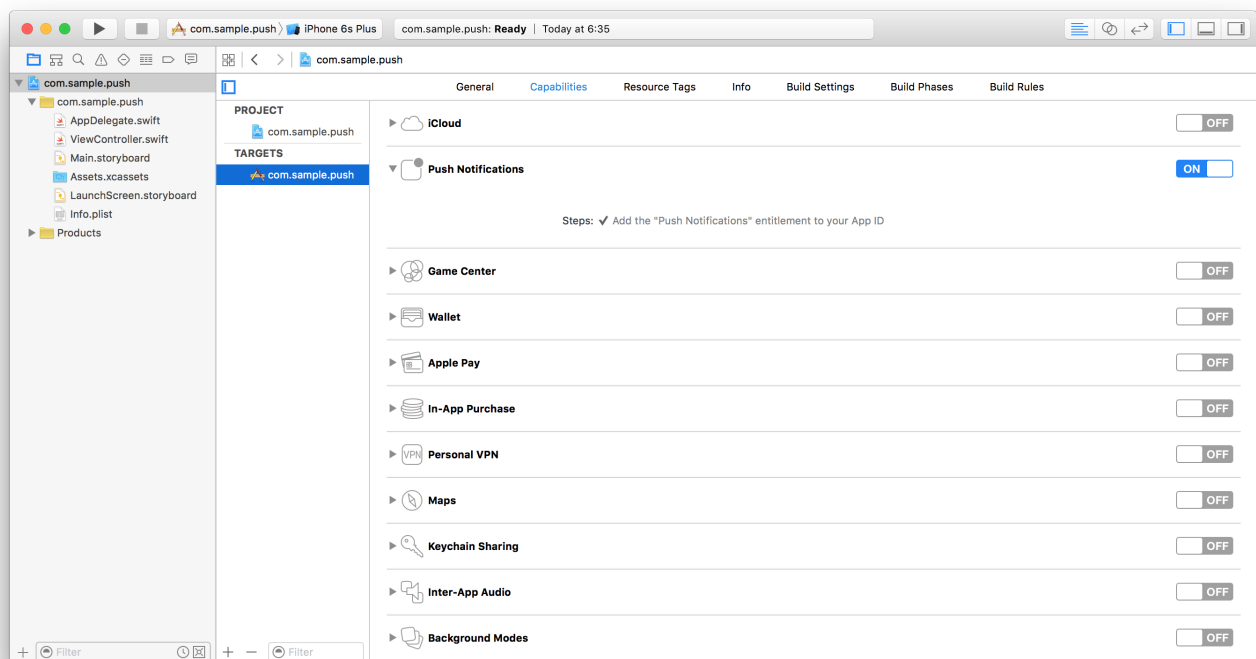
```
cordova build
```

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)

MFPPush.getSubscriptions(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.

Retrieves the tags device is currently subscribed to

Javascript Function

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

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

Description

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 initialized");  
    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.

