Tag and Broadcast Notifications in Hybrid Applications

 Download MobileFirst project (https://github.com/MobileFirst-Platform-Developer-Center/TagNotifications)

Overview

Prerequisite: Make sure to read the Push Notifications in Hybrid Applications (../) tutorial first.

Tag notifications are notification messages that are targeted to all the devices that are subscribed to a particular tag.

Tags represent topics of interest to the user and provide the ability to receive notifications according to the chosen interest.

Broadcast notifications are a form of tag push notifications that are targeted to all subscribed devices. Broadcast notifications are enabled by default for any push-enabled MobileFirst application by a subscription to a reserved Push.all tag (auto-created for every device). Broadcast notifications can be disabled by by unsubscribing from the reserved Push.all tag.

Agenda

- Notifications configuration
- Notifications API
- Sample application

Notifications configuration

Tag Notifications configuration

Setting up tags

Tags are defined in the application-descriptor.xml file:

[code lang="xml"]<application xmlns="http://www.worklight.com/application-descriptor" id="HybridTagNotifications" platformVersion="7.0.0.00.20150312-0731">

```
...
<tags>
<tags>
<name>my tag 1</name>
<description>About my tag 1</description>
</tag>
<tag>
<name>my tag 2</name>
<description>About my tag 2</description>
</tag>
```

Notifications API

API methods for tag notifications

Client-side API

- WL.Client.Push.subscribeTag(tagName,options) Subscribes the device to the specified tag name.
- WL.Client.Push.unsubscribeTag(tagName,options) Unsubscribes the device from the specified tag name.
- WL.Client.Push.isPushSupported() Returns true if push notifications are supported by the platform, or false otherwise.
- WL.Client.Push.isTagSubscribed(tagName) Returns whether the device is subscribed to a specified tag name.

Common API methods for tag and broadcast notifications

Client-side API

```
WL.Client.Push.onMessage (props, payload)
This method is called when a push notification is received by the device.
[code lang="js"]WL.Client.Push.onMessage = function (props, payload) {
   alert("Provider notification data: " + Object.toJSON(props));
   alert("Application notification data: " + Object.toJSON(payload));
}[/code]
```

- props A JSON block that contains the notification properties of the platform.
- payload A JSON block that contains other data that is sent from MobileFirst Server. The JSON block also contains the tag name for tag-based or broadcast notification. The tag name appears in the "tag" element. For broadcast notification, the default tag name is Push.ALL.

Server-side API

```
WL.Server.sendMessage(applicationId,notificationOptions)
This method submits a notification based on the specified target parameters.

applicationId - (mandatory) The name of the MobileFirst application.

notificationOptions - (mandatory) A JSON block containing message properties.
```

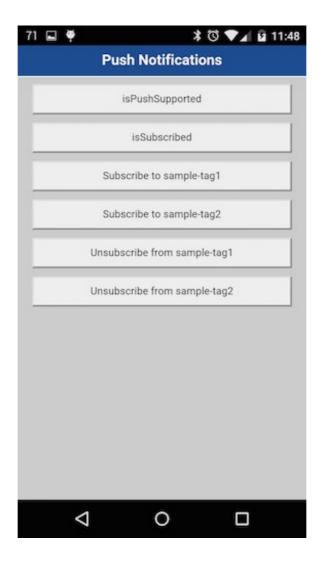
For more information about tag and broadcast notifications, see the "tag-based notification" and "broadcast notification" topics in the user documentation.

Sample application

Click to download (https://github.com/MobileFirst-Platform-Developer-Center/TagNotifications) the MobileFirst project.

The provided sample application demonstrates how to send a broadcast notification to the default autosubscribed push.ALL tag.

The sample also demonstrates how to send notifications to two predefined tags, sample-tag1 and sample-tag2, to which the user can subscribe in the application.



(https://developer.ibm.com/mobilefirstplatform/wp-content/uploads/sites/32/2015/04/Screenshot_2015-08-30-11-48-08.png)

Sending a notification

To test the application is able to receive a push notification you can perform one of the following:

- 1. From MobileFirst Studio, right-click the adapter folder, select **Call MobileFirst Adapter** and:
 - If selecting the "sendBroadcastNotification" procedure, provide the application ID and notification text in quotation marks.
 - If selecting the "sendTagNotification" procedure, provide the application ID, notification text and tag name in quotation marks.
 - The application ID can be determined from the id attribute in applicationdescriptor.xml: [code lang="xml"]<application ... id="HybridTagNotifications" ...>[/code]
- 2. If using the CLI:

[code lang="shell" title="Broadcast language=notification"]\$ mfp adapter call

- [?] Which endpoint do you want to use? PushAdapter/sendBroadcastNotification
- [?] Enter the comma-separated parameters: "HybridTagNotifications", "hello"
- [?] How should the procedure be called? GET[/code]

Or:

[code lang="shell" title="Tag language=notification"]\$ mfp adapter call

[?] Which endpoint do you want to use? PushAdapter/sendTagNotification

- [?] Enter the comma-separated parameters: "HybridTagNotifications", "hello", "sample-tag1, sample-tag2"
- [?] How should the procedure be called? GET [/code]