# Push notifications in native Windows 8 applications

## Overview

IBM MobileFirst Platform Foundation provides a unified set of API methods to send, or push, notifications to devices where the MobileFirst application is installed. It is possible to send notification in 3 distinct types: event source notification, broadcast notification, or tag-based notification.

This tutorial explains the concept, API, and usage of push notifications in the context of Native Windows 8 applications.
To create and configure a Windows 8 native project, first follow these tutorials:

- Creating your first Native Windows 8 MobileFirst application (../../hello-world/creating-first-native-windows-8-mobilefirst-application/)
- Invoking adapter procedures from native Windows 8 applications (../../server-side-development/invoking-adapter-procedures-native-windows-8-applications/)

The following topics are covered:

- Setting up push notification
- Notification types

## Setting up push notification

### Server side

In the `application-descriptor.xml` file, for *windows8*, set the following attributes to the `pushSender` element.

*packageSID* - Unique identifier of your Windows Store app

*clientSecret* - Secret key

```
<?xml version="1.0" encoding="UTF-8" standalone="no"?>
<nativeWindows8App xmlns="http://www.worklight.com/native-windows8-descriptor" id="Windows8NativePush" platformVersion="7.0.0.00.20150227-0916" securityTest="MySecurityTest" version="1.0">
    <displayName>Windows8NativePush</displayName>
    <description>Windows8NativePush</description>
    <pushSender clientSecret="WNS_SECRET_KEY" packageSID="WNS_UNIQUE_IDENTIFIER"/>
</nativeWindows8App>
```

### Client side

Set the Identity Name and Publisher values manually in the package manifest or associate your native project with the application in the Windows Store by right-clicking the project and selecting **Store->Associate App with the Store**.

If you want your app to support toast notification, add the `ToastCapable="true"` attribute to the `VisualElements` element in the package manifest.

```
<Applications>
   <Application Id="App" ....>
      <VisualElements  .. ... ToastCapable="true"
>
       ....
      </VisualElements>
   </Application><
</Applications>
```

> For more information about setting up your native Windows 8 application for push notification, see the topic about "Setting up push notifications for Windows 8" in the user documentation.

# Notification types

## Event source notification

Event source notifications are notification messages that are targeted to devices with a user subscription.

## Broadcast notification

Broadcast notifications are notification messages that are targeted to all subscribed devices.

## Tag-based notification

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

For more information, select a notification type.