# Push Notifications Overview

## Overview

IBM MobileFirst Platform Foundation provides a unified set of API methods to send notifications to devices on which MobileFirst applications are installed. Notification can be sent in 2 different ways: based on sources of events or based on tags.

### Agenda

- What is push notification?
- Push notification types
- REST API for Push notifications
- Supported environments

## What is push notification?

Push notifications is the ability of a mobile device to receive messages that are "pushed" from a server.

Notifications are received regardless of whether the application is currently running.
Notifications can take several forms:

- **Alert (all)**: a pop-up text message
- **Badge (iOS), Tile (W8, WP8)**: a graphical representation that allows a short text or image
- **Banner (iOS), Toast (W8, WP8)**: a disappearing pop-up text message at the top of the device display
- **Sound (all)**: a sound file playing when a notification is received
- **Interactive (iOS 8)**: action buttons inside the **Banner** of a received notification

### Device support

Push notifications are supported for the following mobile platforms:

- Android 2.3.5, 4.x, 5.x
- iOS 6, 7, and 8
- Windows Phone 8.x
- Windows 8

## Push notification types

### Event Source notifications

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

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### Tag notifications

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

### Broadcast notifications

Broadcast push notifications are a form of tag push notifications that are targeted to all subscribed devices.

### Unicast notifications

Unicast notifications are targeted to a particular device or a `userID`. Unicast notifications do not require any additional setup and are enabled by default when the MobileFirst application is enabled for push notifications.

> For more information about unicast notifications, see the topic about sending push notifications, in the user documentation.

### Interactive notifications

**iOS 8 and above only**
Interactive push notifications enables action buttons to be added for received notifications.

### Silent notifications

**iOS 7 and above only**
Silent push notifications enables notifications to be sent without disturbing the user.

## REST API for Push notifications

MobileFirst Platform Foundation exposes a REST API endpoint that can be accessed by non-mobile clients. It is another way to use the push service without needing to develop and deploy MobileFirst adapters.

> For more information about the REST API for push notification, see the topic about REST API Runtime Services, in the user documentation.

## Supported environments