Notification Methods

WSO2 EMM uses various notification methods to send the device its corresponding list of pending operations. The notification method will vary based on the type of the mobile OS.

- Android notification methods
- iOS notification method
- Windows notification method

Android notification methods

WSO2 EMM uses the following notification methods for devices that use the Android mobile OS:

- GCM
- Local

GCM

The Google Cloud Messaging (GCM) notification method uses the GCM server to wake-up the Android device. If the notification type (The Android Agent within the Android device will trigger a wake-up command) is set to GCM, when there are pending operations that need to be enforced on a device, WSO2 EMM server will send a push notification to the GCM server and the GCM server will in-turn send the message to the respective Android Agent that is within the Android device. When the Android Agent receives the push notification, it will communicate with WSO2 EMM server and receive the list of pending operations that need to be enforced on the Android device.

Local

The local notification method will not use Google Cloud Messaging (GCM), but it will use its own local push notification service. The Android Agent within the Android device will trigger a wake-up command every one minute. The wake-up command will be triggered periodically based on the notifier frequency, which determines the time period after which the wake-up command will be automatically triggered by the Android Agent. The notifier frequency needs to be specified in milliseconds (ms) when configuring Android tenant-based settings. The default notifier frequency is 60000ms, which translates to one minute.

⚠️ Note

From Android 4.4 (KitKat) onwards the OS does not allow applications to trigger wake-up commands when the trigger period is set to less than a minute. Therefore, make sure to set the notifier frequency to 60000ms or more.
When the wake-up command is triggered the Android Agent will communicate with WSO2 EMM server and receive the list of pending operations that need to be executed on the respective device.

Setting the notification type

The following variations can be used when setting the notification type:

- **GCM**
- **Local**

**GCM**

If you wish to enable the GCM notification method, you need to select GCM as the notification type, and set the GCM API key and sender ID.

**Local**

If you wish to enable the Local notification method, you need to select Local as the notification type and set the notifier frequency to a value greater than or equal to 60000ms.

For more information on setting the Android configurations, see the Android Platform Configurations.

**iOS notification method**

WSO2 EMM only uses the Apple Push Notification Service (APNS) notification method for devices that use the iOS mobile OS.

**APNS**

The APNS notification method uses the APNS server to wake-up the iOS device. When there are pending operations that need to be enforced on a device, WSO2 EMM server will send a push notification to the APNS server and the APNS server will in-turn send the message to the respective iOS client that is within the iOS device. When the iOS client receives the push notification, it will communicate with WSO2 EMM server and receive the list of pending operations that need to be enforced on the iOS device.
For more information on setting the iOS configurations, see the iOS Platform Configurations.

**Windows notification method**

WSO2 EMM only uses the Local notification method for devices that use the Windows mobile OS.

**Local**

The local notification method only works with the client side polling mechanism. Therefore the device will connect as scheduled and defined in the bootstrap message. The EMM retry interval for client renewal, and the regular client polling schedule for device management needs to be configured via the device management session.

The wake-up command triggers periodically based on the notifier frequency. When the wake-up command is triggered the MDM client communicates with the WSO2 EMM server and receives the list of pending operations that need to be executed on a respective device.

The time period for the wake-up command to automatically trigger the EMM client needs to be specified as the notifier frequency, and it needs to be specified in minutes when configuring the Windows tenant based settings (the default notifier frequency is 8 minutes).

**Setting the notification type**

**Local**

If you wish to enable the Local notification method, you need to select Local as the notification type and set the notifier frequency to a value greater than zero.

For more information on setting the Windows configurations, see the Windows Platform Configurations.