

## Nearevo API & Webhook Specifications

This document is a guide for developers and other technical staff who wish to use the Nearevo API's and webhooks.

### API's...

- get-device: Get information for specified device (bluetooth beacon or nfc tag)
- set-device: Configure specified device (bluetooth beacon or nfc tag)

### Webhooks...

- receive API calls from Nearevo with data for device observations & taps

## General information

To use the Nearevo API's will require a Nearevo *Starter* or *Managed* account username (email address), plus an API key. To create an API key, login to the dashboard at <https://my.nearevo.com> and go to the *Settings* page. Ensure the key is backed up locally because it will not be displayed again.

The API's require a deviceID parameter. For Bluetooth beacons this will be in the format **Nearevo0000001**, and for NFC tags it will be in the format **NFC0000605**.

The API's are called using a standard HTTPs/POST. The sent parameters are formatted as JSON and the returned parameter are JSON Web Token (JWT). Our sample PHP script (see below) contains code to assist with building the sent parameters and extracting returned parameters.

Note that the signal power & distance a bluetooth beacon transmits is not set using these API's. Such calibration of beacons is done using our Android *Tune* app, downloaded from the *Google Play Store* at [https://play.google.com/store/apps/details?id=com.nearevo.tune&hl=en\\_GB](https://play.google.com/store/apps/details?id=com.nearevo.tune&hl=en_GB).

## Sample PHP scripts

We have created 2 sample PHP scripts to help get started. These can be found at...

- API script: <https://my.nearevo.com/nearevo-sample-api-script.php.txt>
- Webhook script: <https://my.nearevo.com/nearevo-sample-api-hook.php.txt>

## Support

Please contact us at [support@nearevo.com](mailto:support@nearevo.com) for all developer and technical support.

## API: Get information for specified device (bluetooth beacon or nfc tag)

URL: <https://my.nearevo.com/client-api/get-device/>

Method: POST

Input (with example): JSON {

```
"username": "myname@mydomain.com",  
"key": "API_KEY",  
"deviceID": "NFC0000605"}
```

Output (with example): JSON Web Token {

```
"error": "0",  
"devices": [{  
  "deviceID": "NFC0000605",  
  "type": "NFC",  
  "postcode": "w1a1bc",  
  "deviceName": null,  
  "deviceNumber": "605",  
  "description": "My device number 1",  
  "expiryDate": "2020-01-20 13:32:34",  
  "deviceLabel": "NFC0000605",  
  "assignedDate": "2019-01-20 13:32:34",  
  "url": "https://www.bbc.co.uk",  
  "title": "welcome to the BBC",  
  "latitude": "50.9737",  
  "longitude": "0.400153",  
  "status": "ACTIVE",  
  "imgurl": "https://www.bbc.co.uk/nice_thumbnail.png",  
  "sponsor_text": "",  
  "sponsor_url": "",  
  "whurl": "https://www.mydomain.com/my_nearevo_webhook.php",  
  "totalObs": "29",  
  "totalTaps": "27"}]}
```

Output Notes:

- **error** is 0 for a successful API call, or a non zero value if there was an error
- **type** is NFC or BLE (nfc tag; or bluetooth low energy beacon)
- **status** is ACTIVE or INACTIVE. The latter blocks the device from being found
- **description** is an optional friendly name for the device
- **title**, **url** and **imgurl** appear in the Nearevo app and are passed back in the webhook
- **title** maximum length is 200 characters
- **latlng** and **postcode** is the location that the device has been configured with
- **whurl** is an optional webhook URL where we push device interactions in real-time
- **totalObs** is the total historic observations (times a device has been found via a scan)
- **totalTaps** is the total historic clicks (number of clicks on the message URL within the Nearevo app). Note that in this context the word "Taps" refers to the clicking of a hyperlink on a smartphone screen rather than the tapping of an nfc tag

## API: Configure specified device (bluetooth beacon or nfc tag)

URL: <https://my.nearevo.com/client-api/set-device/>

Method: POST

Input (with example): JSON {

```
"username": "myname@mydomain.com",
"key": "API_KEY",
"deviceID": "NFC0000605"
"status": "ACTIVE",
"description": "My device number 1",
"title": "welcome to the BBC",
"url": "https://www.bbc.co.uk",
"imgurl": "https://www.bbc.co.uk/nice_thumbnail.png",
"postcode": "w1a1bc",
"latlng": "50.9737,0.400153",
"whurl": "https://www.mydomain.com/my_nearevo_webhook.php"}
```

Input Notes:

- *username*, *key* and *deviceID* are mandatory, all other parameters are optional
- if a parameter is supplied with a blank value then it will be set to blank. Therefore do not pass any parameters that are not to be set or overridden
- *status* is set to **ACTIVE** or **INACTIVE**. If status is **INACTIVE** then it will no longer be observed (found) when people scan or tap the device
- *description* is an optional friendly name for the device
- *title*, *url* and *imgurl* appear in the Nearevo app when the device is scanned or tapped. They will also be passed back in the device webhook
- *title* maximum length is 200 characters
- a location for where the device resides can optionally be set and this will be passed back in the device webhook. If the *latlng* (*latitude,longitude*) is passed then it will override the *postcode* (which will get set to blank). If just the *postcode* is passed then we will automatically calculate & save the *latlng*
- *whurl* is an optional webhook URL where we push device interactions in real-time

Output (with example): JSON Web Token {

```
"error": "0",
"success": "TRUE",
"updates": 1}
```

Output Notes:

- *error* is **0** for a successful API call, or a non zero value if there was an error
- *success* is **TRUE** or **FALSE**
- *updates* is the number of devices modified, either **0** or **1**

## Webhook: Receive API calls with data for device observations & taps

When a smartphone running the Nearevo app scans a bluetooth beacon or taps an nfc tag device, or when the app user clicks to open a message URL within the app, the Nearevo system can optionally push this activity alert in real-time to a script on an external web server. Setting this up requires 2 quick steps...

### 1. Create external script

Create a script on a publicly accessible web server to receive and process the information we push to it. Please see the sample script as detailed on page 1 to get started.

The script will use a standard POST method to pass the following parameters...

#### Input (with example):

```
"activityType": "obs"  
"title": "welcome to the BBC"  
"imgurl": "https://www.bbc.co.uk/nice_thumbnail.png"  
"url": "https://www.bbc.co.uk"  
"deviceType": "NFC"  
"deviceID": "NFC0000605"  
"postcode": "w1a1bc"  
"latlng": "50.9737,0.400153"
```

#### Input Notes:

- **activityType** is **obs** or **tap** (scanned device found; or message URL opened within the Nearevo app). Note that in this context the word "*tap*" refers to the clicking of a hyperlink on a smartphone screen rather than the tapping of an nfc tag
- **deviceType** is **NFC** or **BLE** (nfc tag; or bluetooth low energy beacon)

### 2. Point devices at external script

Once the script is written, there are 2 ways to point bluetooth beacon or nfc tag devices at the webhook...

- login to the dashboard at <https://my.nearevo.com> and go to the *Devices* page. Set the **Webhook URL** to the web address of where the external script resides
- use the *set-device* API to set the **whurl** parameter