

# WEBHOOKS

**Who never heard of  
webhooks?**

**Who never used some?**

**Who already implemented webhooks in their application?**

*“A webhook in web development is a method of augmenting or altering the behavior of a web page, or web application, with custom callbacks. These callbacks may be maintained, modified, and managed by third-party users and developers who may not necessarily be affiliated with the originating website or application.”*

[Wikipedia](#)

*“user defined **callback** made with HTTP **POST**”*

“In computer programming, **hooking** is a technique used to alter or augment the behavior of [a program], often without having access to its **source code**.”

1. When something **happens**, perform HTTP POST with relevant data to a **URL** that the user gives you.



# That's all!

*Easy right?*

Google



stripe



MailChimp



**A few examples**

## Google calendar PUSH notifications

```
POST https://www.googleapis.com/calendar/v3/calendars/my_calendar@gmail.com/events/watch
Authorization: Bearer auth_token_for_current_user
Content-Type: application/json
```

```
{
  "id": "01234567-89ab-cdef-0123456789ab", // Your channel ID.
  "type": "web_hook",
  "address": "https://mydomain.com/notifications", // Your receiving URL.
  ...
  "token": "target=myApp-myCalendarChannelDest", // (Optional) Your channel token.
  "expiration": 1426325213000 // (Optional) Your requested channel expiration time.
}
```

## Google calendar PUSH notifications

```
POST https://mydomain.com/notifications // Your receiving URL.  
X-Goog-Channel-ID: channel-ID-value  
X-Goog-Channel-Token: channel-token-value  
X-Goog-Channel-Expiration: expiration-date-and-time // In human-readable format; present only if channel expires.  
X-Goog-Resource-ID: identifier-for-the-watched-resource  
X-Goog-Resource-URI: version-specific-URI-of-the-watched-resource  
X-Goog-Resource-State: sync  
X-Goog-Message-Number: 1
```

## Github webhooks

```
POST https://api.github.com/repos/:owner/:repo/hooks
Content-Type: application/json
```

```
{
  "name": "web",
  "active": true,
  "events": [
    "push",
    "pull_request"
  ],
  "config": {
    "url": "http://example.com/webhook",
    "content_type": "json"
  }
}
```

## Github webhooks

```
POST /payload HTTP/1.1

X-Github-Delivery: 72d3162e-cc78-11e3-81ab-4c9367dc0958
Content-Type: application/json
Content-Length: 6615
X-GitHub-Event: issues

{
  "action": "opened",
  "issue": {
    "url": "https://api.github.com/repos/octocat/Hello-World/issues/1347",
    "number": 1347,
    ...
  },
  "repository" : {
    "id": 1296269,
    "full_name": "octocat/Hello-World",
    "owner": {
      "login": "octocat",
      "id": 1,
      ...
    },
    ...
  },
  "sender": {
    "login": "octocat",
    "id": 1,
    ...
  }
}
```

**Digging deeper**



```
twitter.addListener('newfollower',  
                      eventHandler);
```

```
twitter.addWebHook('newfollower',  
                  'http://example.com/eventhandler');
```