

**WHO HAS EVER
READ
AN API DOC?**

**WHO HAS EVER
WRITTEN
AN API DOC?**

**WHO HAS EVER
LOVED WRITING
AN API DOC?**

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@mehlah



**NO ONE LOVES WRITING
API DOCS**

**BUT EVERYONE
WANTS GOOD API DOCS**

**REMEMBER WHEN WE
CHALLENGED THE VALUE
OF WRITING TESTS?
AND HOW MUCH TIME IT TAKES?**

THE FIRST TIME
I ASKED A CTO
TO TAKE TIME
FOR TESTS





**TODAY, WE HAVE SOME
DECENT TOOLS FOR
TESTING**

**FOR APIS, THE STORY IS
A BIT DIFFERENT**

**PUBLIC APIS DOCS ARE
A MARKETING TOOL**

AND MARKETING IS

RICH



**MARKETING PEOPLE
INVEST ON IT WITH
TECHNICAL WRITERS,
GREATS DESIGNS AND
CUSTOM TOOLS**

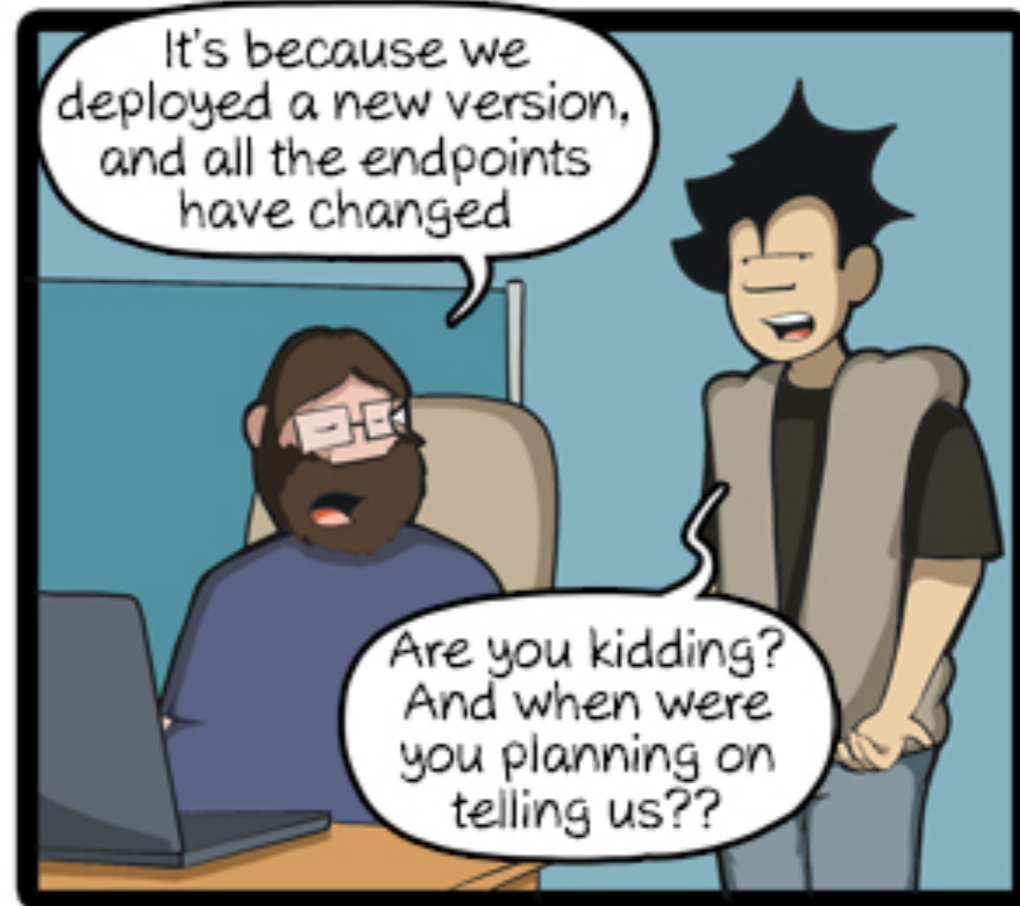
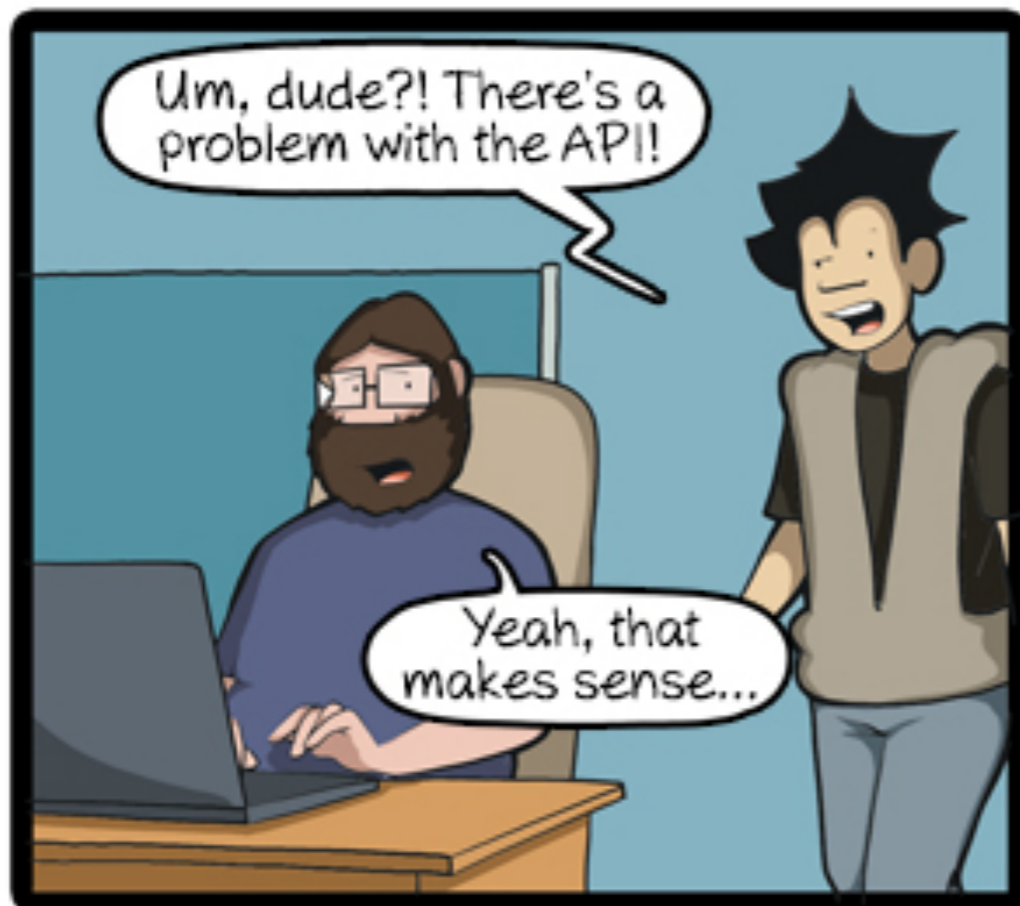
**PRIVATE APIS DOCS
AREN'T A MARKETING
TOOL, BUT A DEV TOOL.**



**WHO
CARES?**

SOME HAVE TRIED

**BLUEPRINT, RAML, PRS,
WIKIS, SLACK DMS, AT
THE COFFEE MACHINE...
OR SOMETIMES NEVER !**



IT'S A GROWING
PROBLEM 🤨

**INSTEAD OF HAVING
ONLY 1 API TO DEAL
WITH, WE INVENTED
MICRO SERVICES™**





**WE ARE
DOOMED**

WHY THEY'VE FAILED?

**IT'S NOT
ONLY ABOUT DOGS**

**IT'S ABOUT
DOCS**

IT'S ABOUT

UPFRONT DESIGN

IT'S ABOUT

CHANGES

COMMUNICATION AND

ANNOUNCEMENTS

**IT'S ABOUT
CHANGES CONTINUOUS
TEST AND VALIDATION**

IT'S ABOUT

API CLIENTS NOT

LAGGING BEHIND

**IT'S ABOUT A WHOLE
ECOSYSTEM OF TOOLS
AROUND THE API**

API SPECIFICATIONS

FTW 🙌

**TONY TAM INVENTED
SWAGGER A LOOOOOONG
TIME AGO***

***2011**

**NOW KNOWN AS
OPENAPI**

<https://spec.openapis.org/oas/v3.0.2>



```
openapi: "3.0.2"
```

```
info:
```

```
  # ...
```

```
servers:
```

```
  # ...
```

```
paths:
```

```
  # ...
```

```
components:
```

```
  # ...
```

```
security:
```

```
  # ...
```

```
tags:
```

```
  # ...
```



info:

version: "1.0"

title: "Not hotdog. Or is it?"

description: # ...

contact: # ...

license: # ...

termsOfService: # ...



servers:

- url: `https://api.nothotdog.com/v1/`
description: "HotDogOrNot production API"
- url: `# ...`
description: `# ...`



```
paths:
```

```
  /hotdog_or_not:
```

```
    # ...
```

```
  /another_path{id}:
```

```
    # ...
```



```
paths:  
  /hotdog_or_not:  
    post:  
      summary: Is that a hotdog?  
      description: Is the given picture is a hotdog?  
      parameters:  
        # ...  
      requestBody:  
        # ...  
      responses:  
        # ...
```



```
responses:  
  "200":  
    description: "Success"  
    content:  
      "application/json":  
        schema:  
          $ref: "#components/schemas/Hotdog"  
  "422":  
    description: "Invalid request. You must provide a  
picture."  
  "500":  
    description: "Oven is burning, call 911."
```

I STILL HAVE TO WRITE

IT



I CAN DO SO MUCH
WITH IT



TOOLS!

EDITORS

Vim, VSCode, Atom, <your favorite one> extensions for validation, linting, intellisense, ...

OPENAPI-GUI

OpenAPI-GUI v3

[↑ Top](#) [⚙ Settings](#) [💾 Save](#) [↶ Undo](#) [🐦 Follow](#) [🔗 GitHub](#)

[i About](#) [📁 Upload](#) [H Header](#) [☰ Servers](#) [🔒 Security](#) [🏷 Tags](#) [📄 Main](#) [</> Schemas](#) [🔮 Wizards](#) [📄 Export JSON](#) [📄 Export YAML](#)

/pet

post
put

/pet/findByStatus

get

/pet/findByTags

get

/pet/{petId}

get
post
delete

/pet/{petId}/uploadImage

post

/store/inventory

get

/store/order

post

/store/order/{orderId}

get
delete

/user

post

/user/createWithArray

post

/user/createWithList

post

/user/login

get

/user/logout

[+](#) [📄](#) [📄](#) [🗑](#) Path:

☰ Operation: [+](#) [📄](#) [🗑](#) POST addPet

☰ Operation: [+](#) [📄](#) [🗑](#) PUT updatePet

[+](#) [📄](#) [📄](#) [🗑](#) Path:

☰ Operation: [+](#) [📄](#) [🗑](#) GET findPetsByStatus

[+](#) [📄](#) [📄](#) [🗑](#) Path:

☰ Operation: [+](#) [📄](#) [🗑](#) GET findPetsByTags

SPOTLIGHT STUDIO

studio-demo + Commit Todos Operation

APIs Docs Files

Swagger Petstore

- Paths
- Models
- Embedded Models

To-dos

- Paths
 - /todos/{todoid} GET PUT DELETE
 - /todos GET POST
- Models

Common

- Models

Get Todo

http://todos.stopligh.io /todos/{todoid}

GET POST PUT PATCH DELETE HEAD OPTIONS TRACE

Endpoint description...

+ Security + Header + Query Param

JSON Request Body Form Data

+ Response 200 404 500 200

Response description...

Headers +

my-sug remove tags

7 Issues

SWAGGER EDITOR

Swagger Editor File Edit Generate Server Generate Client [Switch back to previous editor](#)

```
1 swagger: "2.0"
2 info:
3   description: "This is a sample server Petstore server. You can find
4     out more about Swagger at [http://swagger.io](http://swagger.io)
5     or on [irc.freenode.net, #swagger](http://swagger.io/irc/). For
6     this sample, you can use the api key `special-key` to test the
7     authorization filters."
8   version: "1.0.0"
9   title: "Swagger Petstore"
10  termsOfService: "http://swagger.io/terms/"
11  contact:
12    email: "apiteam@swagger.io"
13  license:
14    name: "Apache 2.0"
15    url: "http://www.apache.org/licenses/LICENSE-2.0.html"
16 host: "petstore.swagger.io"
17 basePath: "/v2"
18 tags:
19 - name: "pet"
20   description: "Everything about your Pets"
21   externalDocs:
22     description: "Find out more"
23     url: "http://swagger.io"
24 - name: "store"
25   description: "Access to Petstore orders"
26   externalDocs:
27     description: "Find out more about our store"
28     url: "http://swagger.io"
29 schemes:
30 - "http"
31 paths:
32 /pet:
33   post:
34     tags:
35     - "pet"
36     summary: "Add a new pet to the store"
37     description: ""
```

Swagger Petstore 1.0.0

[Base URL: petstore.swagger.io/v2]

This is a sample server Petstore server. You can find out more about Swagger at <http://swagger.io> or on irc.freenode.net, [#swagger](http://irc.freenode.net). For this sample, you can use the api key **special-key** to test the authorization filters.

[Terms of service](#)
[Contact the developer](#)
[Apache 2.0](#)
[Find out more about Swagger](#)

Schemes

HTTP Authorize

pet Everything about your Pets Find out more: <http://swagger.io>

POST /pet Add a new pet to the store

PUT /pet Update an existing pet

LINTERS

Speccy, github.com/wework/speccy

Spectral, github.com/stoplightio/spectral

DOCS

Swagger UI

Widdershins + Slate or Shins.js

ReDoc

Bump, bump.sh

Not hotdog

TOPICS

Introduction

ENDPOINTS

Hotdog or not

Changes history

Not hotdog. Or is it?

This is the documentation for version **1.0** of the API. This documentation has been updated on Dec 9, 2019.

BASE URL

`https://api.nothotdog.com/v1`

Hotdog or not

Is that a hotdog?

Is the given picture containing a hotdog?

BODY

picture STRING(BINARY)

Picture you want to test in `png` or `jpg` format.

RESPONSES

• **200** OBJECT

DEFINITION

POST `https://api.nothotdog.com/v1/hotdog_or_not`

EXAMPLE REQUEST

```
$ curl \  
-X POST https://api.nothotdog.com/v1/hotdog_or_not \  
-H "Content-Type: application/json" \  
-d '{"picture":"string"}'
```

MOCK SERVERS

Mock HTTP server and respond realistically

Server validation

Validation proxy

 **SOON** Recording / "Learning" mode to create spec files

 **SOON** Data Persistence (aka sandbox mode)

MOCK SERVERS

Prism, github.com/stoplightio/prism

APISprout, github.com/danielgtaylor/apisprout

TESTING

Postman

OpenAPI  JSON Schema conversion



```
it 'successfully gets a device' do
  device = create(:device)

  get("/devices/#{device.id}")

  expect(response).to have_http_status(:ok)
  expect(response).to match_response_schema('device')
end
```



```
{  
  "type": "object",  
  "properties": {  
    "id" : { "type" : "integer" },  
    "fcm_token" : { "type": "string" },  
    "user_id" : { "type" : "integer" }  
  }  
}
```

CLIENTS GENERATION

OpenAPI Generator



OPENAPI.TOOLS

120+ curated tools thanks to
Phil Sturgeon and Matthew Trask

**WHAT ABOUT NON
RESTFUL APIS?**

**FRAN MENDEZ TO THE
RESCUE WITH
ASYNCAPI***

***2016**

**BASED ON OPENAPI
IDEAS,
BUT FOR EVENT-BASED
APIS**



```
asynccapi: '2.0.0'
```

```
info:
```

```
  # ..
```

```
servers:
```

```
  # ...
```

```
channels:
```

```
  # ...
```

```
components:
```

```
  # ...
```

```
tags:
```

```
  # ...
```



```
servers:  
  production:  
    url: broker.nothotdog.com:{port}  
    protocol: mqtt  
    description: Live broker  
    variables:  
      port:  
        description: Secure connection (TLS)  
        default: '1883'  
        enum:  
          - '1883'  
          - '8883'  
    security:  
      - apiKey: []  
      - openIdConnectWellKnown: []
```



```
channels:  
  hotdogs/{location_id}:  
    parameters:  
      location_id:  
        description: The ID of the location.  
        schema:  
          type: string  
    subscribe:  
      summary: A hot dog has been found by the system.  
      operationId: hotdogFound  
      message:  
        $ref: '#/components/messages/hotdogFound'
```



```
components:
  messages:
    hotdogFound:
      name: hotdogFound
      title: "Message: a hot dog has been found"
      summary: Inform the whole system a hot dog has been found.
      contentType: application/json
      payload:
        type: object
        properties:
          picture_url:
            type: string
            description: Picture url.
            example: "https://example.com/hotdog.png"
          location_id:
            type: string
            description: Location of the found hot dog.
            example: "jyan-bed-room"
          found_at:
            type: string
            format: date-time
            description: When the message was sent.
            example: "2019-12-11 10:03:00"
```

TOOLS!

ASYNCAPI.COM/DOCS/
TOOLING/

VALIDATION

You'd like to validate in real-time your Kafka messages?

[asynccapi.stream](#) got you covered!

Dashboard

Errors

On Kafka > Streetlights API > smartylighting.streetlights.1.0.event.lighting.measured

Error:

```
[{"code": "OBJECT_ADDITIONAL_PROPERTIES", "path": "#/", "params": [{"luments"}], "message": "Additional properties not allowed: luments"}]
```

Message:

```
{"luments": 5, "sentAt": "2019-01-10T12:00:00.00Z"}
```

Proxies

TITLE

URL

STATUS

Kafka

https://kafka-proxy.my-company.com

Enabled

APIs

**THAT'S NICE,
NOW HOW TO MAKE IT
EVEN NICER?**

**SPECIFICATIONS AS
CONTRACTS** 🤝

A SPEC FIRST WORKFLOW

1. DISCUSS THE DESIGN

2. WRITE THE SPEC

3. GENERATE DOCS AND MOCK API

4. REFINE THE SPEC

5. USE IT IN TESTS

**6. WRITE THE ACTUAL
CODE 🤪**

GI



ALL THE THINGS

7. PUSH THE CODE

8. CI RUNS

8. CI RUNS

VALIDATE THE SPEC,

8. CI RUNS

VALIDATE THE SPEC, UPDATE
DOCS,

8. CI RUNS

VALIDATE THE SPEC, UPDATE
DOCS, UPDATE CLIENTS

8. CI RUNS

VALIDATE THE SPEC, UPDATE
DOCS, UPDATE CLIENTS AND
NOTIFY ABOUT THE CHANGES



BUMP

TOPICS

- Introduction
- Authentication

ENDPOINTS

- Docs
- Previews

Changes history

Bump Api

This is the official Bump API documentation that this is an experimental API on which e

This is the documentation for version 1.0 updated on Mar 1, 2019.

- API structure has changed on [Nov 29, 2018](#)
Endpoint updated : Docs
Endpoint updated : Previews
- API structure has changed on [Mar 27, 2018](#)
Endpoint updated : Docs
Endpoint updated : Previews
- API structure has changed on [Mar 15, 2018](#)
Endpoint updated : Docs
Endpoint updated : Previews
- API structure has changed on [Mar 14, 2018](#)
Endpoint updated : Docs
Endpoint updated : Previews
- API structure has changed on [Dec 13, 2017](#)
Endpoint updated : Previews

Create a new version

Create a new version for a given documentation, which

Definition:

```
POST https://bump.sh/api/v1/docs/{:id}/versions
```

Url parameters:

	id	Documentation's i
	REQUIRED / STRING	

Body:

-	format	Format of the defir
	STRING	Values are <code>yaml</code> a

	definition	Serialized defini
	REQUIRED / STRING	

+	specification	Specification
	REQUIRED / STRING	Values are

Responses:



Bump APP 10:55 AM

Sandbox API documentation has changed:

- Endpoint updated: Docs
- Endpoint removed: Previews

[View diff](#) | [View doc](#)

100

BENEFITS

**SINGLE SOURCE OF
TRUTH**

**DOCUMENTATION AND
TESTS ALWAYS UP TO
DATE**

**BETTER WORKFLOWS
BETWEEN THE BACKEND
AND THE CLIENTS**

**BACKEND IS AGAIN THE
FRONTEND FRIEND 🤗**

THANKS

