WORDCAMP MONTREAL

Joey Kudish
Partnership Engineer at Automattic (we're hiring!)
jkudish.com
@jkudish

WORDPRESS, APIS AND YOU!

THESE SLIDES ARE AT SLIDES.JKUDISH.COM

WORDPRESS AS AN APPLICATION PLATFORM

BUT WHY?

▸ allows you to integrate data + features from WordPress into any application

▸ build static sites/apps that just pull data in via ajax

▸ use WordPress as your data storage

▸ json RESTful API

▸ works with any language/platform as long as it can make HTTP requests

	2012	2013
CMS	68%	69%
Blog/CMS	25%	20%
Blog	7%	6%
App Platform	-	**7%**

What do you use WordPress for?

Hello, Lola

| Home | My Badges | Get Rewards | My Profile |

680 Points   ✕ Log Out

Get Rewards

All | Limited Time | Limited Qty | Bookmarked

❓ How do I claim rewards?

Discount in the Museum Store
Receive a 10% discount on your entire Museum Store purchase.

CLAIM FOR
500 Points

Discount in the DMA Cafe
Receive a 10% discount on your entire DMA Cafe purchase. Excludes alcohol.
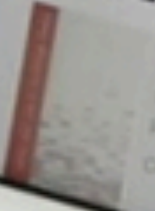
CLAIM FOR
500 Points

Free Parking
Level 1, 2, or 3—How about parking for FREE?

1,000 Points

One Free Ticket to a DMA Lecture or Film
Receive one free admission to a ticketed DMA lecture or film.

2,000 Points

Free Catalogue
Receive a free copy of the DMA's centennial publication, Dallas Museum of Art 100 Years.
Only 483 Left

2,500 Points

Description

It's easy to manage your WordPress blog or site from your iOS device. With WordPress for iOS, you can moderate comments, create or edit posts and pages, view stats, and add images or videos with ease. All you need is a WordPress.com blog or a self-hosted WordPress.org site running 3.6 or higher.

Automattic Web Site ▶   **WordPress Support ▶**   ...More
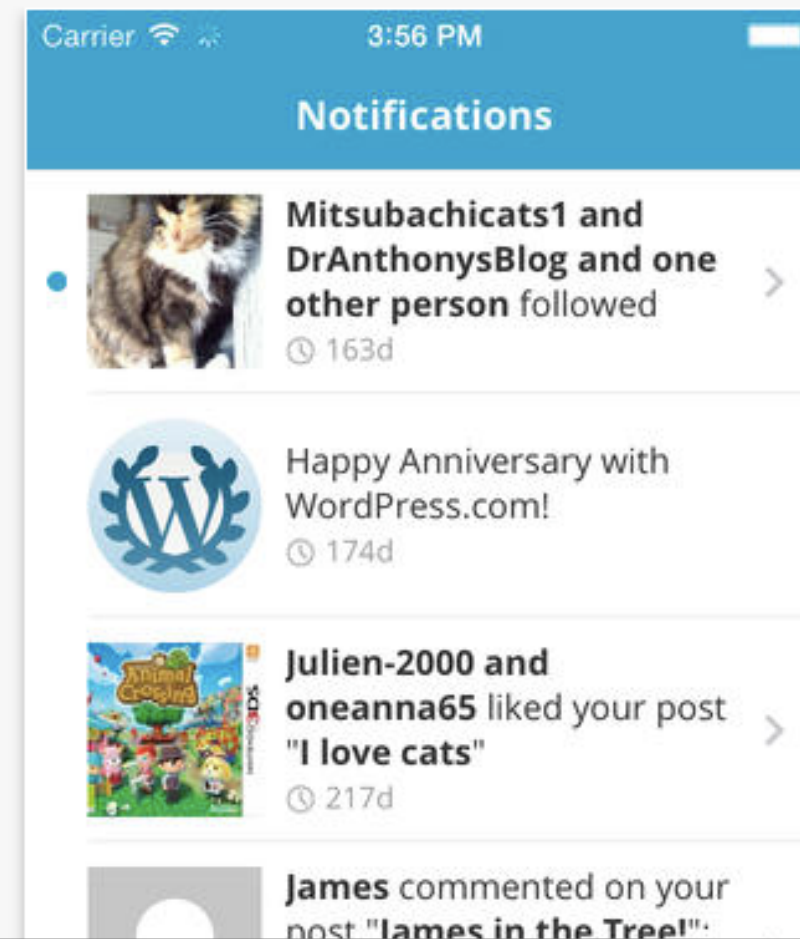
What's New in Version 4.0.2

Fixed a bug where users were unable to schedule posts.

View In iTunes

➕ This app is designed for both iPhone and iPad

Free

Category: Social Networking
Updated: Apr 15, 2014
Version: 4.0.2
Size: 14.4 MB
Languages: English, Bokmål, Norwegian, Croatian, Danish, Dutch, French, German, Hebrew, Hungarian, Indonesian, Italian, Japanese, Korean, Polish, Portuguese, Russian, Simplified Chinese, Spanish, Swedish, Thai, Traditional Chinese, Turkish
Seller: Automattic, Inc.
© Automattic Inc
Rated 4+

Compatibility: Requires iOS 7.0 or later. Compatible with iPhone, iPad, and iPod touch. This app is optimized for iPhone 5.

Screenshots

iPhone | iPad

Carrier 🛜   3:56 PM

Blogs I Follow

WordPress.com News
✓ Following

How To Be a WordPress.com Detective

Carrier 🛜   3:56 PM

Notifications

Mitsubachicats1 and **DrAnthonysBlog** and one other person followed
🕐 163d

Happy Anniversary with WordPress.com!
🕐 174d

Julien-2000 and **oneanna65** liked your post "I love cats"
🕐 217d

James commented on your post "James in the Tree!":

https 🔒 **play.google.com**/store/apps/details?id=org.wordpress.android

Google play

Search 🔍

Sign in

Apps

My apps

Shop

Games

Editors' Choice

WordPress

Automattic, Inc - May 1, 2014

Social

Install   ☐ Add to Wishlist

★★★★☆ (👤 36,582)

❖ Top Developer
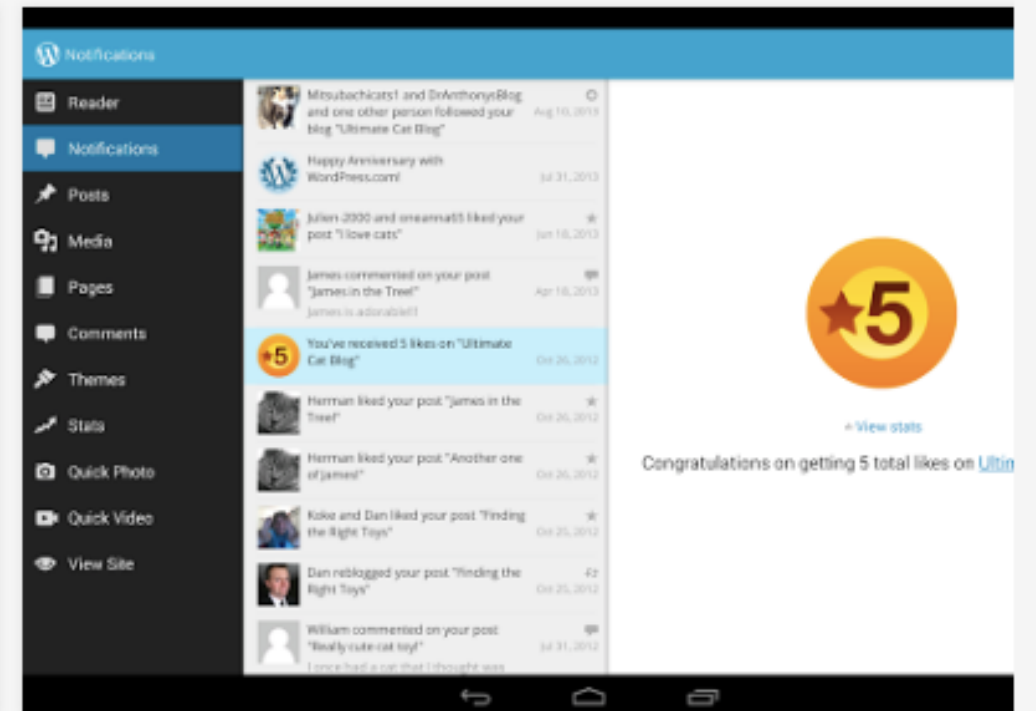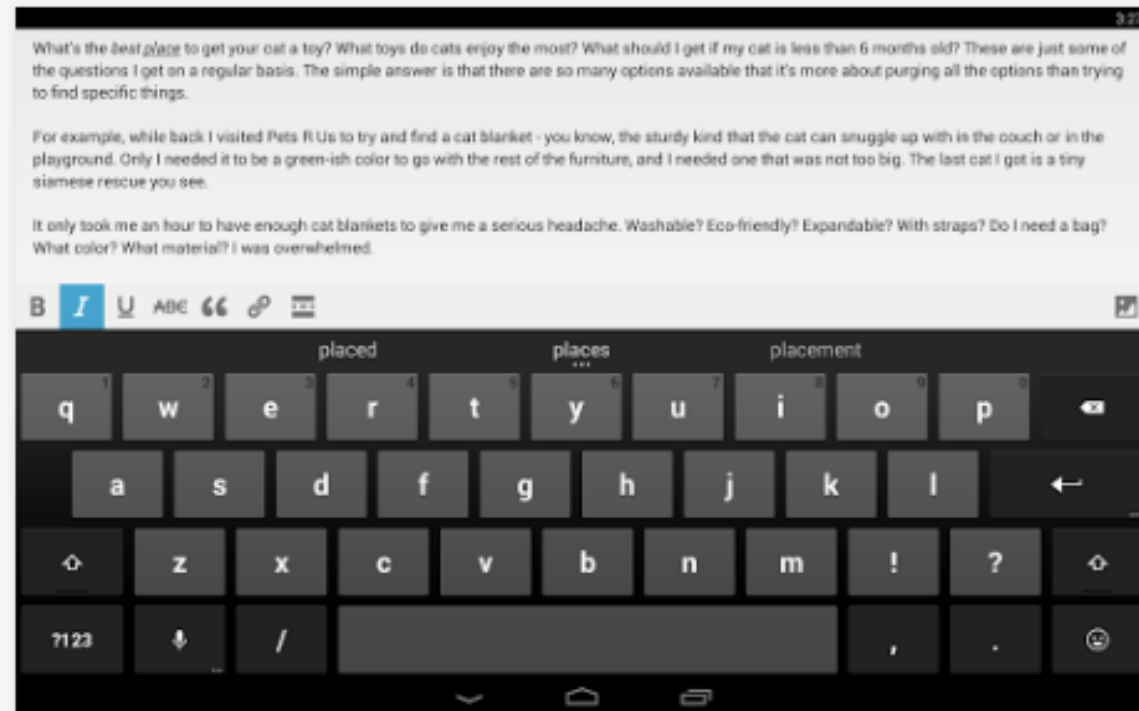
Post Title

Add Media

Visual | Text

B *I* ABE

p

Preview   Publish

STATUS
Publish

PUBLISH
Immediately

SHARING
Facebook, Twitter, Path

TAGS & CATEGORIES

LOCATION

FEATURED IMAGE

EXCERPT

ADVANCED SETTINGS

Cancel   **February 10, 2014**   Save
    66 Thought

What's on your mind?

I'm with...   I'm at...

Share on: f   🐦   ✓   t   **W**   ★   🔒

Q W E R T Y U I O P

A S D F G H J K L

⇧ Z X C V B N M ⌫

123 🌐 🎤 space return

	Wordpress.com	Disconnect
	Last.fm	Connect

Close Share

![Evernote icon] Evernote >

![Facebook icon] Facebook >

kippt Kippt >

![LinkedIn icon] LinkedIn >

![Pinboard icon] Pinboard >

![Reddit icon] Reddit >

![StumbleUpon icon] StumbleUpon >

![Tumblr icon] Tumblr >

![Twitter icon] Twitter >

![WordPress icon] WordPress >

APPS

IFTTT

WordPress Channel

IFTTT enables you to connect the WordPress Channel to 100 different Channels. View all Channels

WordPress is an open source blog tool and publishing platform. WordPress.com is a hosted weblog provider brought to you by some of the same folks who work on the open source blogging software.

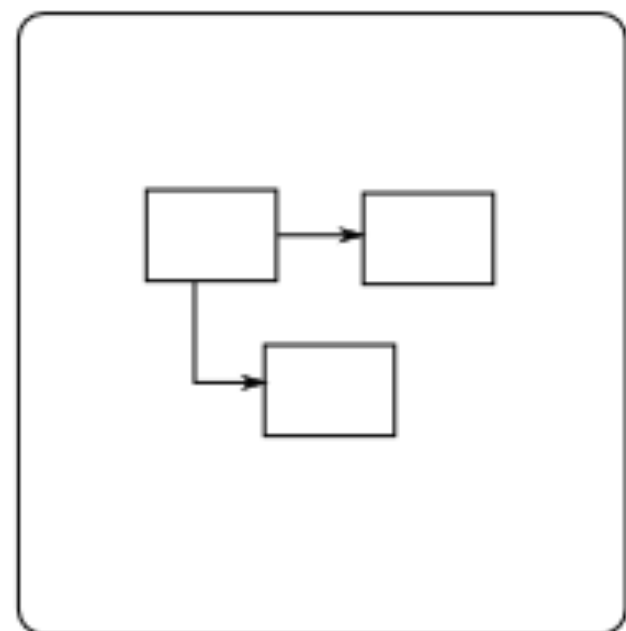## Activate
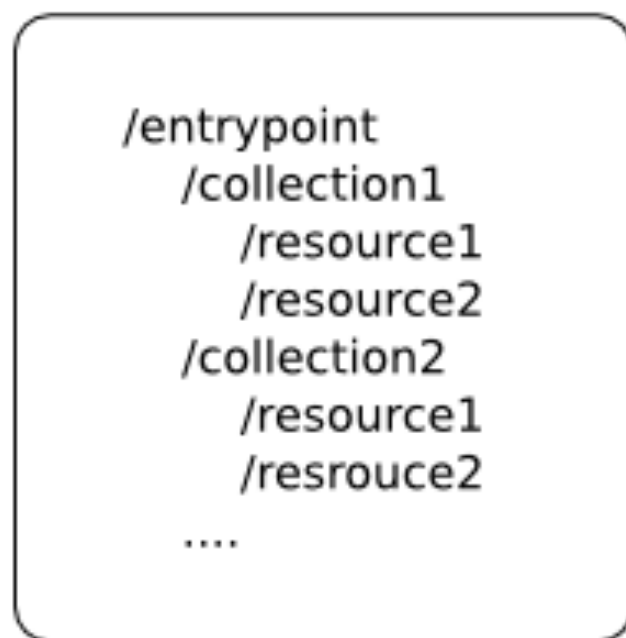
Popular WordPress Recipes

Application

API

Client

Application Interface

HTTP

/entrypoint
  /collection1
    /resource1
    /resource2
  /collection2
    /resource1
    /resrouce2
  ....

to_resource()
from_resource()

application/x-collection
application/x-resource

Client App

REST Library (optional)

HTTP Library
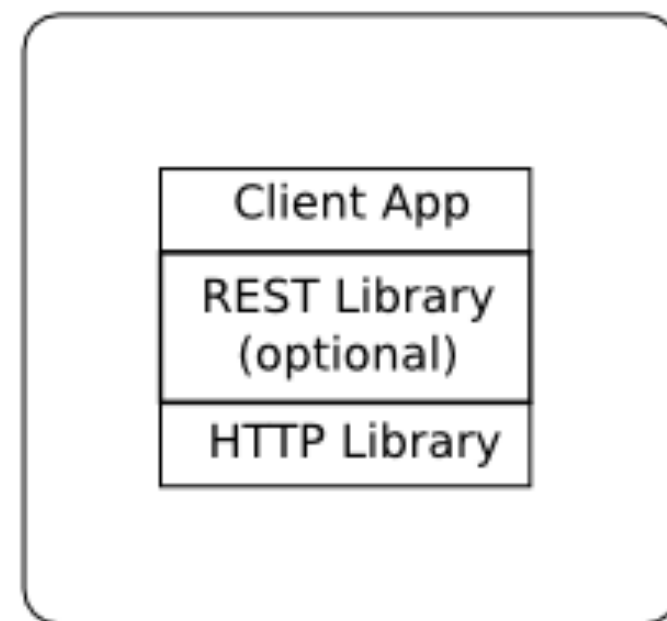
Application Data Model

Resource Model

Server

Client

JAVASCRIPT OBJECT NOTATION INTERCHANGE FORMAT (JSON.ORG)

```json
"posts": [
    {
      "id": 1,
      "type": "post",
      "slug": "hello-world",
      "url": "http:\/\/localhost\/wordpress\/?p=1",
      "title": "Hello world!",
      "content": "...",
      "date": "2009-11-11 12:50:19",
      "modified": "2009-11-11 12:50:19",
      "categories": [],
      "tags": [],
      "author": {
        "id": 1,
        "slug": "jkudish",
        "name": "jkudish",
        "first_name": "Joey",
        "last_name": "Kudish",
      },
      "comments": [],
    }
  ]
```

WHAT ARE MY OPTIONS?

JSON-API PLUGIN

▸ Established the longest amount of time

▸ Well maintained but just a single plugin author

▸ Relies on a plugin

▸ Easiest to setup for basic requests

▸ No authentication provided, relies on login cookies

WHAT CAN YOU DO WITH THE JSON-API?

▸ Add along `?json=1` to any URL to obtain the results in JSON

▸ GET site info, posts, taxonomies, authors, comments, widgets,

▸ Expandable via hooks and filters

IMPLICIT MODE EXAMPLE:

HTTP://WWW.EXAMPLE.ORG/?JSON=1

```json
{
    "status": "ok",
    "count": 1,
    "count_total": 1,
    "pages": 1,
    "posts": [
        {
            "id": 1,
            "type": "post",
            "slug": "hello-world",
            "url": "http:\/\/localhost\/wordpress\/?p=1",
            "title": "Hello world!",
            "title_plain": "Hello world!",
            "content": "<p>Welcome to WordPress. This is your first post. Edit or delete it, then start blogging!<\/p>\n",
            "excerpt": "Welcome to WordPress. This is your first post. Edit or delete it, then start blogging!\n",
            "date": "2009-11-11 12:50:19",
            "modified": "2009-11-11 12:50:19",
            "categories": [],
            "tags": [],
            "author": {
                "id": 1,
                "slug": "admin",
                "name": "admin",
                "first_name": "",
                "last_name": "",
                "nickname": "",
                "url": "",
                "description": ""
            },
            "comments": [
                {
                    "id": 1,
                    "name": "Mr WordPress",
                    "url": "http:\/\/wordpress.org\/",
                    "date": "2009-11-11 12:50:19",
                    "content": "<p>Hi, this is a comment.<br \/>To delete a comment, just log in and view the post's comments. There you will have the option to edit or delete them.<\/p>\n",
                    "parent": 0
                }
            ],
            "comment_count": 1,
            "comment_status": "open"
        }
    ]
}
```

OTHER POSSIBLE REQUESTS

http://www.example.org/?json=get_recent_posts

http://www.example.org/?json=get_post&post_id=47

http://www.example.org/api/get_recent_posts/

http://www.example.org/api/get_tag_posts/?tag_slug=banana

WP-API

▸ Backed by the core team

▸ Scheduled for release in core in WordPress 4.1

▸ Great infrastructure already

▸ WP CLI

▸ No real world/large scale implementations yet

▸ Uses cookies or oauth1 for authentication

WHAT CAN YOU DO WITH THE WP-API?

▸ **Retrieve and create/update site info, posts, users, taxonomies, comments, post meta, revisions, media**

▸ **Truly restful (uses `GET`, `POST`, `PUT`, `DELETE`)**

▸ **Typical route is `/wp-json/**object**/**id**`**

▸ **Expandable via hooks and filters**

GET /wp-json/posts

```
[{
"ID": 110,
"title": "Testing sticky",
"status": "publish",
"type": "post",
"author": {},
"content": "<p>this should be stuck as a post. Stuck on you.</p>\n",
"link": "http://local.wpapi.dev/testing-sticky/",
"date": "2014-06-02T10:47:39-05:00",
"modified": "2014-06-02T10:47:39-05:00",
"format": "standard",
"slug": "testing-sticky-2",
"guid": "http://local.wpapi.dev/testing-sticky-2/",
"excerpt": "<p>this should be stuck as a post. Stuck on you.</p>\n",
"comment_status": "open",
"sticky": true,
"meta": {},
"featured_image": null,
"terms": {}
}]
```

ROLL YOUR OWN

▸ By far the most flexible, but likely the most work

▸ Probably not re-usable and will require maintenance

▸ WordPress has a ton of helper functions to make this easy

▸ Authentication may or may not be straightfoward

▸ You can run any query/any functions

```php
// this is a really basic JSON API
// it's not really RESTful though...

// this action will only run for logged-in users
// use wp_ajax_nopriv for logged out users
add_action( 'wp_ajax_wordcamp_montreal', function(){
    $args = json_decode( $_POST['args'] );
    // don't forget to validate/sanitize

    $result = new WP_Query( $args );
    if ( is_wp_error( $result ) ) {
        wp_send_json_error( $result );
        exit;
    }

    wp_send_json_success( $result );
});
```

WORDPRESS.COM / JETPACK API

▸ works with WordPress.com and Jetpack-enabled WP.org blogs (since 1.9+! now at 3.1.1)

▸ uses oauth2 for authentication

▸ insights/stats into your own app usage

▸ many real world implementations out there

▸ most mature and complete API

WHAT CAN YOU DO WITH THE JETPACK API?

▶ user info, site info

▶ create, edit, delete, find, reblog, and view posts (includes CPTs, post meta & media)

▶ create, edit, delete, find, and view comments

▶ search & related posts

▶ taxonomies (categories/tags & custom ones too)

WHAT CAN YOU DO WITH THE JETPACK API?

▶ likes & following/subscribing to a blog

▶ WordPress.com Freshly Pressed content

▶ notifications

▶ stats

▶ WordPress.com reader

▶ your own app's insights

MANAGE YOUR APPS AT DEVELOPER.WORDPRESS.COM/APPS/

My Applications

Create New Application

WordPress.com Test Application

The best app you will ever use.

View Insights | Manage Application

BASIC EXAMPLE: GET THE CURRENT USER

`https://public-api.wordpress.com/rest/v1/me`

```php
// PHP example
$options = array(
    'http' =>
    array(
        'ignore_errors' => true,
        'header' => array(
            'authorization: Bearer ' . **$access_token**,
        ),
    ),
);

$context = stream_context_create( $options );
$response = file_get_contents( 'https://public-api.wordpress.com/rest/v1/me', false, $context );

$reponse = json_decode( $response );
```

GET https://public-api.wordpress.com/rest/v1/me

```json
{
    "ID": 10916751,
    "display_name": "Joey Kudish",
    "username": "jkudish",
    "email": "jkudish@automattic.com",
    "primary_blog": 21221610,
    "token_site_id": false,
    "avatar_URL": "https://2.gravatar.com/avatar/e3b86944dc95b3f722798bc3a74fe11d?s=96&d=identicon",
    "profile_URL": "http://en.gravatar.com/jkudish",
    "verified": true,
    "meta": {
        "links": {
            "self": "https://public-api.wordpress.com/rest/v1/me",
            "help": "https://public-api.wordpress.com/rest/v1/me/help",
            "site": "https://public-api.wordpress.com/rest/v1/sites/5836086"
        }
    }
}
```

Ⓦ Developers　　Documentation　　Blog　　My Apps　　Contact

Search …

Documentation

Getting started with WordPress.com development is easy. Our data is exposed via a REST Application Programming Interface (API) and uses the OAuth2 protocol for authentication.

Ready to start developing your application? Great! Create a new application; you'll need to provide some basic information about your application and then you'll receive an OAuth2 token for use in your application.

In addition to the REST API, we also support additional integrations & partnerships. Take a look at our documentation!

Browse by Topic

API

- REST API
- OAuth Authentication
- Developer Console
- oEmbed Provider API

Ⓦ Follow　2,209

Recent Posts: Developer Resources

A brand new Developer Site

Introducing WordPress.com Insights

An efficient alternative to paging with SQL OFFSETs

Top Posts & Pages

Home

REST API Resources

⊕ Follow

https 🔒 developer.wordpress.com/docs/api/console/

REFERENCE

SITES

GET /sites/$site
Information about a site ID/domain

POSTS

GET /sites/$site/posts/
Return matching Posts

GET /sites/$site/posts/$post_ID
Return a single Post (by ID)

POST /sites/$site/posts/$post_ID
Edit a Post

PATH   Raw ⬤

$site	3584907

QUERY   Raw ⬤

http_envelope	
pretty	
meta	
fields	
callback	

Reset   **Submit**

GET /sites/3584907   142 ms 200

Structured | Pretty | Raw

ID : 3584907
name : "WordPress.com News"
description : "The latest news on WordPress.com and the WordPress community."
URL : "http://en.blog.wordpress.com"
jetpack :
post_count : 1088
subscribers_count : 11057944
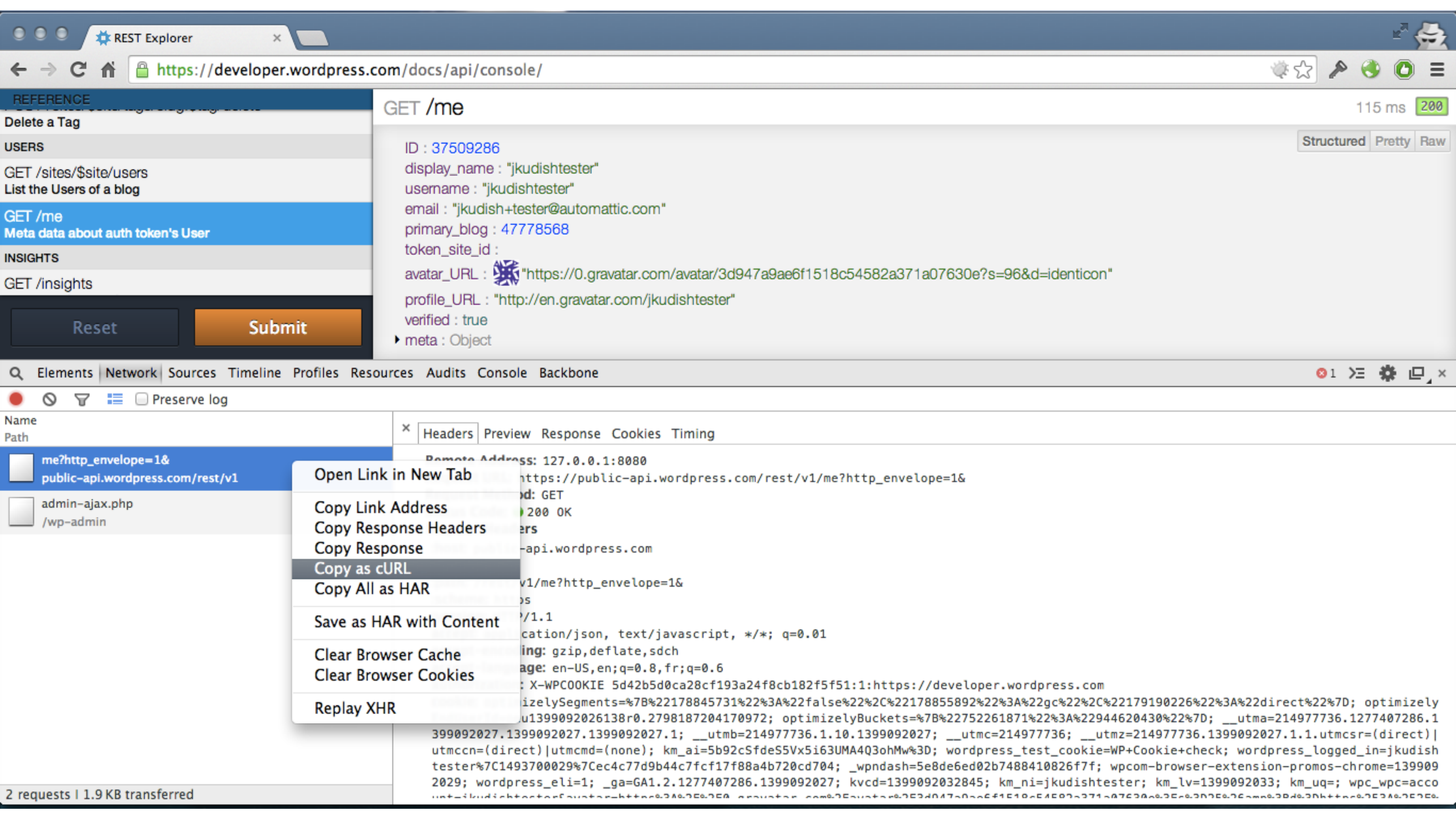lang : "en"
visible : true
is_private :
is_following :
▸ meta : Object

REST Explorer

https://developer.wordpress.com/docs/api/console/

REFERENCE

Delete a Tag

USERS

GET /sites/$site/users
List the Users of a blog

GET /me
Meta data about auth token's User

INSIGHTS

GET /insights

Reset   Submit

GET /me   115 ms 200

Structured Pretty Raw

ID : 37509286
display_name : "jkudishtester"
username : "jkudishtester"
email : "jkudish+tester@automattic.com"
primary_blog : 47778568
token_site_id :
avatar_URL : "https://0.gravatar.com/avatar/3d947a9ae6f1518c54582a371a07630e?s=96&d=identicon"
profile_URL : "http://en.gravatar.com/jkudishtester"
verified : true
meta : Object

Elements Network Sources Timeline Profiles Resources Audits Console Backbone

Preserve log

Name
Path

me?http_envelope=1&
public-api.wordpress.com/rest/v1

admin-ajax.php
/wp-admin

Headers Preview Response Cookies Timing

Open Link in New Tab

Copy Link Address
Copy Response Headers
Copy Response
Copy as cURL
Copy All as HAR

Save as HAR with Content

Clear Browser Cache
Clear Browser Cookies

Replay XHR

2 requests | 1.9 KB transferred

🔒 GitHub, Inc. [US] https://github.com/Automattic/rest-api-console

GitHub | This repository ▾ | Search or type a command ⑦ | **Explore** **Features** **Enterprise** **Blog** | **Sign up** **Sign in**

PUBLIC **Automattic** / **rest-api-console** ★ Star 5 ⑂ Fork 4

WordPress.com REST API Developer Console

| ⑤ **6** commits | ⑂ **1** branch | ⊘ **0** releases | 👥 **2** contributors |

⇅ ⑂ branch: **master** ▾ **rest-api-console** / + ☰

Typo fix

👤 **codebykat** authored 18 days ago   latest commit **604fe21e01** 📋

📁 css	initial commit of a console that works with CORS	a month ago
📁 js	initial commit of a console that works with CORS	a month ago
📄 README.md	Typo fix	18 days ago
📄 config.sample.json	initial commit of a console that works with CORS	a month ago
📄 index.html	initial commit of a console that works with CORS	a month ago

📖 **README.md**

WordPress.com REST API Developer

<> **Code**

⑦ **Issues** 0

⑂ **Pull Requests** 0

⚡ **Pulse**

📊 **Graphs**

⑂ **Network**

HTTPS clone URL

https://github.con 📋

You can clone with HTTPS or
Subversion. ⑦

💻 **Clone in Desktop**

☁ **Download ZIP**

Overview	API	Posts	Connections

API Overview

reads   writes   errors
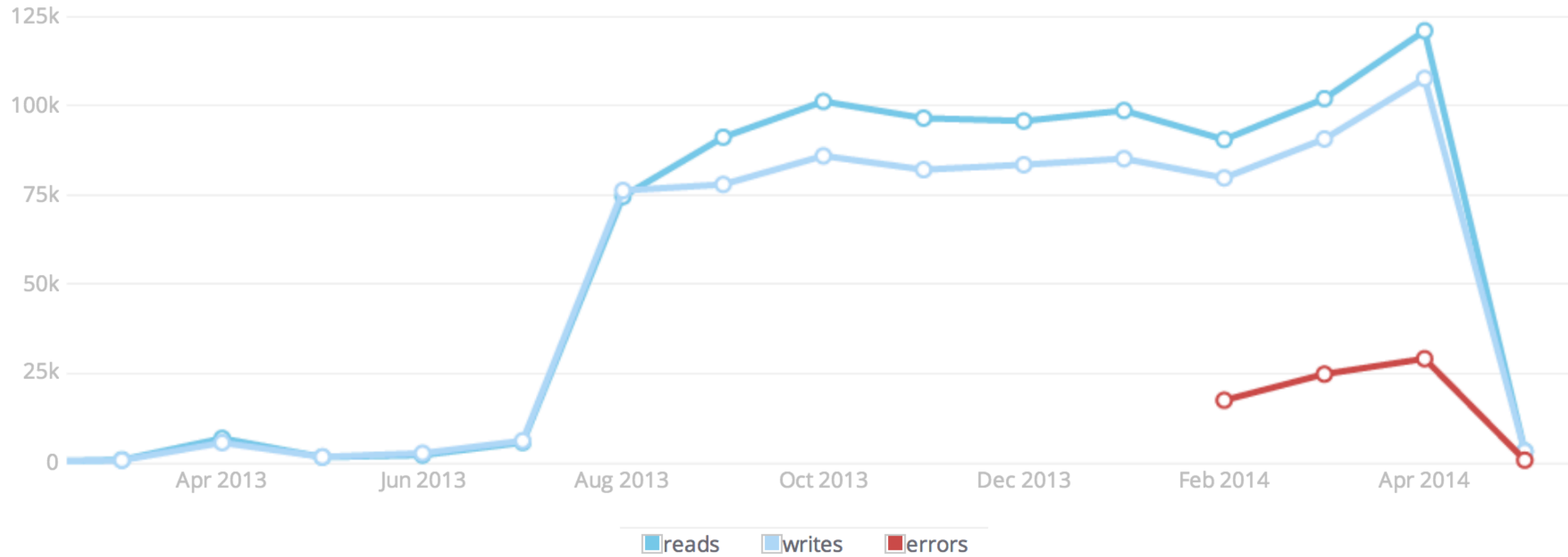
Today's API Numbers

API Calls	Posts	Likes On Published Posts
▲5% 10,323	▲14.5% 1,053	▲0% 93

Tools

- ▢ Developer Console
- ⊕ Create New App
- ⇆ Share
- ▭ Documentation
- ⍰ Insights Help

Calls

Export

70k											
60k											
50k											
40k											
30k											
20k											
10k											
0											

3/25/13   4/29/13   6/3/13   7/8/13   8/12/13   9/16/13   10/21/13   11/25/13   12/30/13   2/3/14   3/10/14   4/14/14
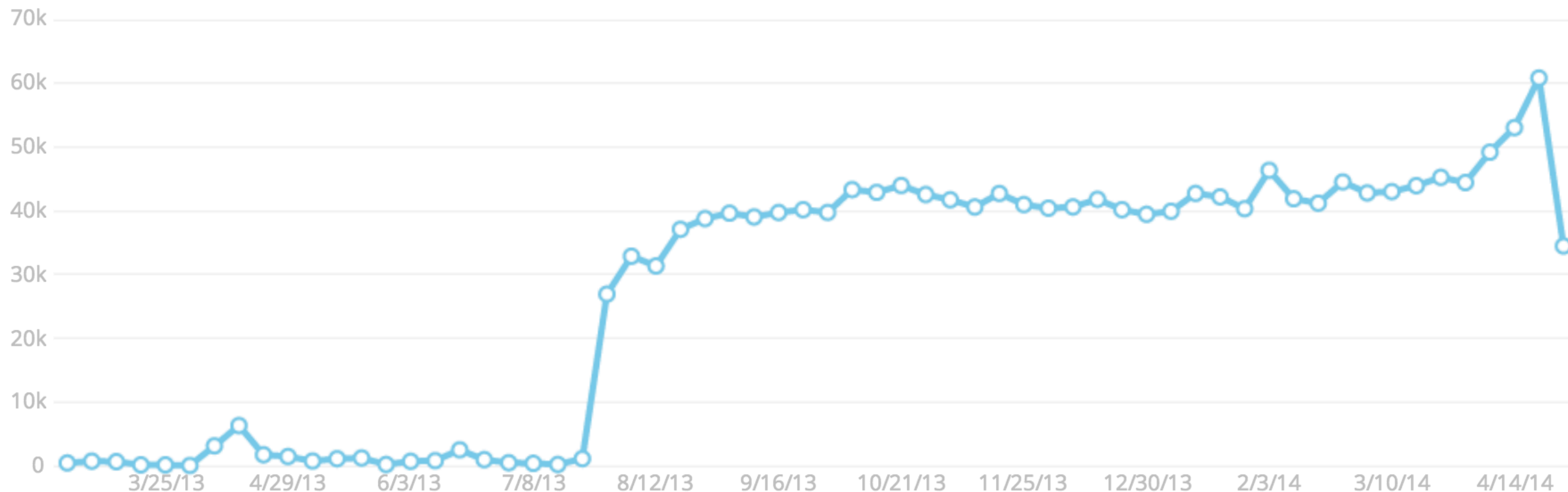
10,323 Daily

▲5% since yesterday

64,760 Weekly

▲19.2% since last week

235,581 Monthly

▲22.1% since last month

1,666,541 Yearly

▲11338.2% since last year

Using the REST API from JavaScript & the Browser (CORS)

Documentation → Using the REST API from JavaScript & the Browser (CORS)

The REST API can be used directly from the browser using Javascript. If you whitelist the domains you want to use for your application, we will send the correct CORS headers, both authenticated and unauthenticated calls are supported. To make authenticated requests allow the implementation of the OAuth documentation to get user tokens.

All examples use jQuery.

Unauthenticated Requests

You can make unauthenticated GET requests with no additional work. Just make a simple HTTP request:

On this page:

Receiving an Access Token

Making an API Call

Authentication

- OAuth2 Authentication

Users

- List the Users of a blog
- Meta data about auth token's User

https://developer.wordpress.com   pi.wordpress.com/rest/v1/sites/en.blog.word

HTTPS://DEVELOPER.WORDPRESS.COM/DOCS/REST-API-JAVASCRIPT/

GitHub, Inc. [US] https://github.com/automattic/sulfur

GitHub   This repository ▾   Search or type a command   ⑦   Explore   Features   Enterprise   Blog   **Sign up**   **Sign in**

PUBLIC   **Automattic** / **sulfur**   ★ Star   22   ⑂ Fork   4

Media manager written for the WordPress.com & Jetpack REST API.

⊙ **172** commits	⑂ **2** branches	⬨ **0** releases	⑂ **7** contributors

⇅   ⑂ branch: **master** ▾   **sulfur** / +   ☰

safari bug

👤 **kellychoffman** authored 10 days ago   latest commit 7f2c37a116 ⎘

📁 app	safari bug	10 days ago
📁 css	Safari bug fix	a month ago
📁 fonts	Add JS files needed, and bootstrap.	a month ago
📁 images	New auth page	a month ago
📁 js	add momentjs for formatting the date	a month ago
📄 .gitignore	safari bug	10 days ago
📄 README.md	Update README.md	a month ago
📄 index.html	New auth page	a month ago

📖 **README.md**

<> **Code**

⊙ **Issues**   1

⑂ **Pull Requests**   1

⋀ **Pulse**

▮▮ **Graphs**

⑂ **Network**

HTTPS clone URL

https://github.con   ⎘

You can clone with HTTPS or Subversion. ⑦

🖥 **Clone in Desktop**

☁ **Download ZIP**

WordPress JSON API Comparison

The purpose of this document is to compare the WordPress JSON REST API (WP API) to the other WordPress JSON API projects. Included in this comparison are the WordPress.com JSON REST API that is availble as part of JetPack, and the XML-RPC API, which is built into WordPress Core.

Functionality

Key

https://github.com/WP-API/WP-API/blob/master/docs/comparison.md

- **M:** Multisite only
- **P:** Available via (official) plugin
- **~:** Partially available

Authentication

Feature	WP API	WP.com JSON API	XML-RPC API
Cookie-based	X		
Basic authentication	P		X
OAuth1	X		
OAuth2		X	

THE FUTURE IS LOOKING BRIGHT

▸ moar endpoints. Everything you can do in wp-admin should be do-able from the WP.com API

▸ more how-to's and sample apps on the developer site (tell us what you want to see!)

▸ WP-API to be released in core (probably 4.1)

▸ wp-admin as a JavaScript app?

I'M LOST, WHAT ARE MY RESOURCES?

▶ WP.com resources at developer.wordpress.com

▶ WP-API resources at wp-api.org

▶ Tweet us @AutomatticEng.

▶ Contact form (we reply within a day usually) developer.wordpress.com/contact.

▶ Email me directly: jkudish@automattic.com.

ASK ME ANYTHING + DISCUSSION

▸ REST API/Developer resources

▸ WordPress.com/Jetpack

▸ WordPress development at large

▸ Working remotely (and travelling while doing it!)

▸ Automattic

▸ Beagles