



# Making Static Sites More Dynamic

## With Serverless

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By Rouven Weißling



# Rouven Weßling

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Web Developer, lover of APIs, cake and whisky

@RouvenWessling



Don't let a CMS get in the way of shipping software.

Contentful provides a content infrastructure that enables teams to power content in any digital product.

# What we'll do today

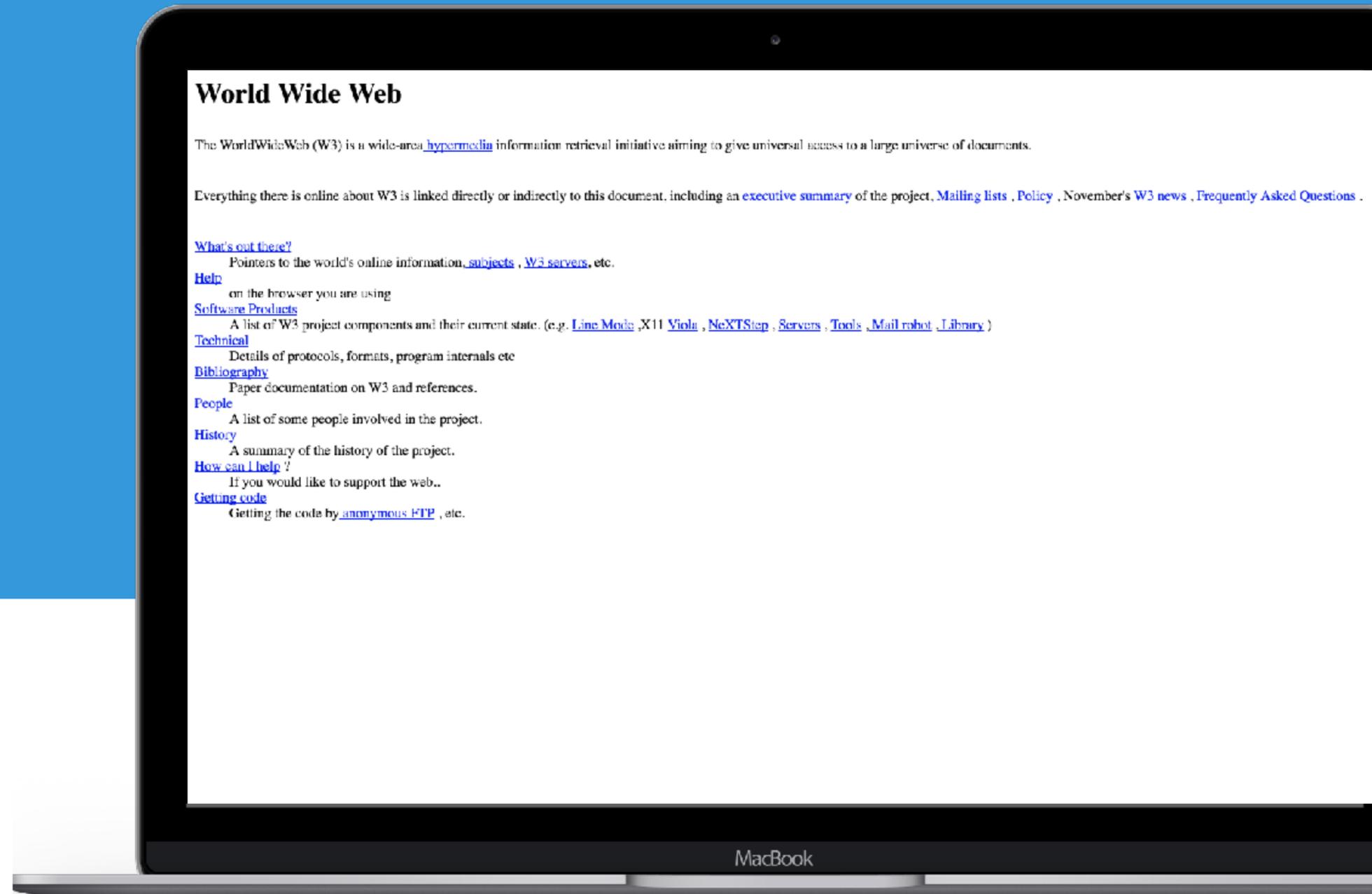
- **A brief history of static website**
- **Why static sites are awesome**
- **Why and how to combine static sites and serverless**

# Static Websites

A brief history

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# THE FIRST WEBSITE WAS A STATIC SITE



## World Wide Web

The WorldWideWeb (W3) is a wide-area [hypermedia](#) information retrieval initiative aiming to give universal access to a large universe of documents.

Everything there is online about W3 is linked directly or indirectly to this document, including an [executive summary](#) of the project, [Mailing lists](#), [Policy](#), [November's W3 news](#), [Frequently Asked Questions](#).

### [What's out there?](#)

Pointers to the world's online information, [subjects](#), [W3 servers](#), etc.

### [Help](#)

on the browser you are using

### [Software Products](#)

A list of W3 project components and their current state. (e.g. [Line Mode](#), [X11 Viola](#), [NeXTStep](#), [Servers](#), [Tools](#), [Mail robot](#), [Library](#))

### [Technical](#)

Details of protocols, formats, program internals etc

### [Bibliography](#)

Paper documentation on W3 and references.

### [People](#)

A list of some people involved in the project.

### [History](#)

A summary of the history of the project.

### [How can I help?](#)

If you would like to support the web..

### [Getting code](#)

Getting the code by [anonymous FTP](#), etc.

MacBook

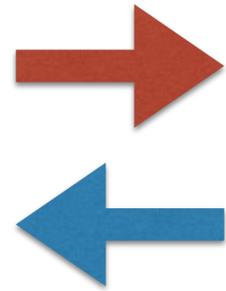


## LET'S DEVELOP LIKE ITS 1991

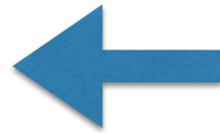
- Every website was static
- Layout wasn't a thing - everything was one vertical flow.
- Link management was manual



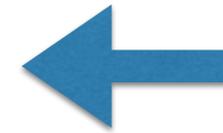
Browser



Webserver



Workstation



Developer

# FIRST WEBSEARCH

<a href="#">AlliLinks - Links to the web's best sites all on one easy to navigate page!</a> <small>The Web9000 Network makes it easy and affordable.</small>	
<b>Computing</b>	
<small>Jump to Section: <a href="#">TOP</a> <a href="#">Computing</a> <a href="#">Entertainment</a> <a href="#">Living</a> <a href="#">Money</a> <a href="#">Newstand</a> <a href="#">Recreation</a> <a href="#">Research</a> <a href="#">Shopping</a> <a href="#">BOTTOM</a></small>	
Browsers Etc.	<a href="#">Amaya</a>   <a href="#">Arachne(dos)</a>   <a href="#">Chrome</a>   <a href="#">Microsoft IE</a>   <a href="#">Firefox &amp; Thunderbird</a>   <a href="#">Flashplayer</a>   <a href="#">Maxthon</a>   <a href="#">Netscape (old)</a>   <a href="#">Opera</a>   <a href="#">PDF Reader</a>   <a href="#">Pegasus Mail</a>   <a href="#">QuickTime</a>   <a href="#">RealPlayer</a>   <a href="#">Safari</a>   <a href="#">Shockwave</a>
CGI/Java	<a href="#">CGI Resource</a>   <a href="#">Extropia</a>   <a href="#">Gamelan</a>   <a href="#">Java Boutique</a>   <a href="#">JavaScript</a>   <a href="#">Matt's</a>   <a href="#">Webscripts</a>
Companies	<a href="#">AMD</a>   <a href="#">Apple</a>   <a href="#">Compaq</a>   <a href="#">Cyril</a>   <a href="#">Dell</a>   <a href="#">Digital</a>   <a href="#">Electro Service</a>   <a href="#">Gateway</a>   <a href="#">HP</a>   <a href="#">Intel</a>   <a href="#">Winchip</a>
Free Services	<b>Announce:</b> <a href="#">Addurl</a>   <a href="#">ATC</a>   <a href="#">Freepromote</a>   <a href="#">Shotgun</a> <b>Banners:</b> <a href="#">Link Exchange</a>   <a href="#">Smartclicks</a> <b>Chat:</b> <a href="#">ActiveWorlds</a>   <a href="#">Chatlist</a>   <a href="#">Globe</a>   <a href="#">Talk City</a>   <a href="#">WBS</a>   <a href="#">Yack!</a> <b>Email:</b> <a href="#">Hotmail</a>   <a href="#">Juno</a>   <a href="#">MailExcite</a> <b>Hosting:</b> <a href="#">Angelfire</a>   <a href="#">Fortune City</a>   <a href="#">Geocities</a>   <a href="#">Trailerpark</a>   <a href="#">Tripod</a>   <a href="#">Web9000</a>   <a href="#">Xoom</a>
Games	<a href="#">A. Vault</a>   <a href="#">Gamecenter</a>   <a href="#">Game Finder</a>   <a href="#">GamePen</a>   <a href="#">GamePower</a>   <a href="#">G. Domain</a>   <a href="#">Games.net</a>   <a href="#">GameSpot</a>   <a href="#">Happy Puppy</a>   <a href="#">OGR</a>
Site Help	<a href="#">Absolute</a>   <a href="#">Builder.com</a>   <a href="#">DJ Quad</a>   <a href="#">developer.com</a>   <a href="#">Dev. Zone</a>   <a href="#">HOME</a>   <a href="#">HTMLgoodies</a>   <a href="#">HTML Guide</a>   <a href="#">WebDeveloper</a>   <a href="#">reallybig.com</a>   <a href="#">Webmonkey</a>   <a href="#">Webreference</a>   <a href="#">Web Review</a>
Site Tools	<a href="#">Color Chart</a>   <a href="#">Cool Tool</a>   <a href="#">Dr. HTML</a>   <a href="#">FreeForm</a>   <a href="#">GIF Wizard</a>   <a href="#">NetMechanic</a>   <a href="#">SBN Gallery</a>   <a href="#">Site Garage</a>
Software	<a href="#">Dave Central</a>   <a href="#">Download</a>   <a href="#">Extreme Mac</a>   <a href="#">Filemine</a>   <a href="#">FilePile</a>   <a href="#">Filez</a>   <a href="#">Freewareplus</a>   <a href="#">Freewareweb</a>   <a href="#">Jumbo</a>   <a href="#">Nonags</a>   <a href="#">Softseek</a>   <a href="#">Stroud's</a>   <a href="#">Tucows</a>   <a href="#">Windrivers</a>   <a href="#">Winfiles</a>   <a href="#">Winsite</a>   <a href="#">ZDnet Hotfiles</a>
Support	<a href="#">Newbie-U</a>   <a href="#">Microsoft</a>   <a href="#">PC-Help</a>   <a href="#">Support Help</a>   <a href="#">Whatis</a>
<b>Entertainment</b>	
<small>Jump to Section: <a href="#">TOP</a> <a href="#">Computing</a> <a href="#">Entertainment</a> <a href="#">Living</a> <a href="#">Money</a> <a href="#">Newstand</a> <a href="#">Recreation</a> <a href="#">Research</a> <a href="#">Shopping</a> <a href="#">BOTTOM</a></small>	
Movies	<a href="#">Boxoffice</a>   <a href="#">Cinemachine</a>   <a href="#">Film.com</a>   <a href="#">Film Scouts</a>   <a href="#">In Theaters</a>   <a href="#">IMDb</a>   <a href="#">Moviefinder</a>   <a href="#">MovieLink</a>   <a href="#">Mr. Cranky</a>   <a href="#">Reel</a>
Movie Studios	<a href="#">Buena Vista</a>   <a href="#">Disney</a>   <a href="#">Dimension</a>   <a href="#">Fox</a>   <a href="#">Fox Searchlight</a>   <a href="#">Hollywood</a>   <a href="#">MGM/UA</a>   <a href="#">Miramax</a>   <a href="#">New Line</a>   <a href="#">October</a>   <a href="#">Paramount</a>   <a href="#">Sony</a>   <a href="#">Universal</a>   <a href="#">Warner Bros</a>
Music Ezines	<a href="#">Allstar</a>   <a href="#">Classical</a>   <a href="#">CMJ Online</a>   <a href="#">Ear 1</a>   <a href="#">MTV</a>   <a href="#">RollingStone</a>   <a href="#">SonicNet</a>   <a href="#">VibeOnline</a>
Music Concerts	<a href="#">LiveConcerts</a>   <a href="#">Live Online</a>   <a href="#">Pollstar</a>   <a href="#">Ticketmaster</a>   <a href="#">WILMA</a>
Music News	<a href="#">Billboard</a>   <a href="#">HitsWorld</a>   <a href="#">imusic</a>   <a href="#">Newswire</a>
Music Search	<a href="#">IUMA</a>   <a href="#">JazzCentral</a>   <a href="#">LyricServer</a>   <a href="#">MusicCentral</a>   <a href="#">MusicSearch</a>   <a href="#">UBL</a>   <a href="#">UnfURLed</a>   <a href="#">WallofSound</a>
Stars	<a href="#">Cybersleaze</a>   <a href="#">eDrive</a>   <a href="#">E! Online</a>   <a href="#">Ent. Asylum</a>   <a href="#">E. Weekly</a>   <a href="#">Enquirer</a>   <a href="#">Hollywood</a>   <a href="#">Mr Showbiz</a>   <a href="#">People</a>   <a href="#">Variety</a>
TV	<a href="#">click TV</a>   <a href="#">GIST</a>   <a href="#">Prevue</a>   <a href="#">Rock on TV</a>   <a href="#">Total TV</a>   <a href="#">TV Guide</a>   <a href="#">UltimateTV</a>
TV Networks	<a href="#">ABC</a>   <a href="#">CBS</a>   <a href="#">Disney</a>   <a href="#">FOX</a>   <a href="#">ESPN</a>   <a href="#">HBO</a>   <a href="#">NBC</a>   <a href="#">PBS</a>   <a href="#">WB</a>   <a href="#">UPN</a>   <a href="#">SciFi</a>
<b>Living</b>	
<small>Jump to Section: <a href="#">TOP</a> <a href="#">Computing</a> <a href="#">Entertainment</a> <a href="#">Living</a> <a href="#">Money</a> <a href="#">Newstand</a> <a href="#">Recreation</a> <a href="#">Research</a> <a href="#">Shopping</a> <a href="#">BOTTOM</a></small>	
Art	<a href="#">A Resource</a>   <a href="#">CultureFinder</a>   <a href="#">Fine Site</a>   <a href="#">The Guide</a>   <a href="#">Playbill</a> <b>Buy/Sell:</b> <a href="#">Doubletake</a>
Education	<a href="#">.edu</a>   <a href="#">A.S.D.</a>   <a href="#">AskERIC</a>   <a href="#">CollegeNet</a>   <a href="#">Petersons</a>   <a href="#">University</a>   <a href="#">Web 66</a>
Family	<a href="#">Family.com</a>   <a href="#">Parenthood</a>   <a href="#">Parent Soup</a>   <a href="#">Parents.com</a>   <a href="#">ParentTime</a>   <a href="#">WholeFamily</a>
Food	<a href="#">BettyCrocker</a>   <a href="#">Digital Chef</a>   <a href="#">DineNet</a>   <a href="#">Epicurious</a>   <a href="#">Food TV</a>   <a href="#">I. Kitchen</a>   <a href="#">Kitchen Link</a>   <a href="#">Meals 4U</a>   <a href="#">PHYS</a>   <a href="#">Star Chefs</a>   <a href="#">Zaqaq</a>

# FIRST WEBCOMIC

## DOCTOR FUN

12/27/93



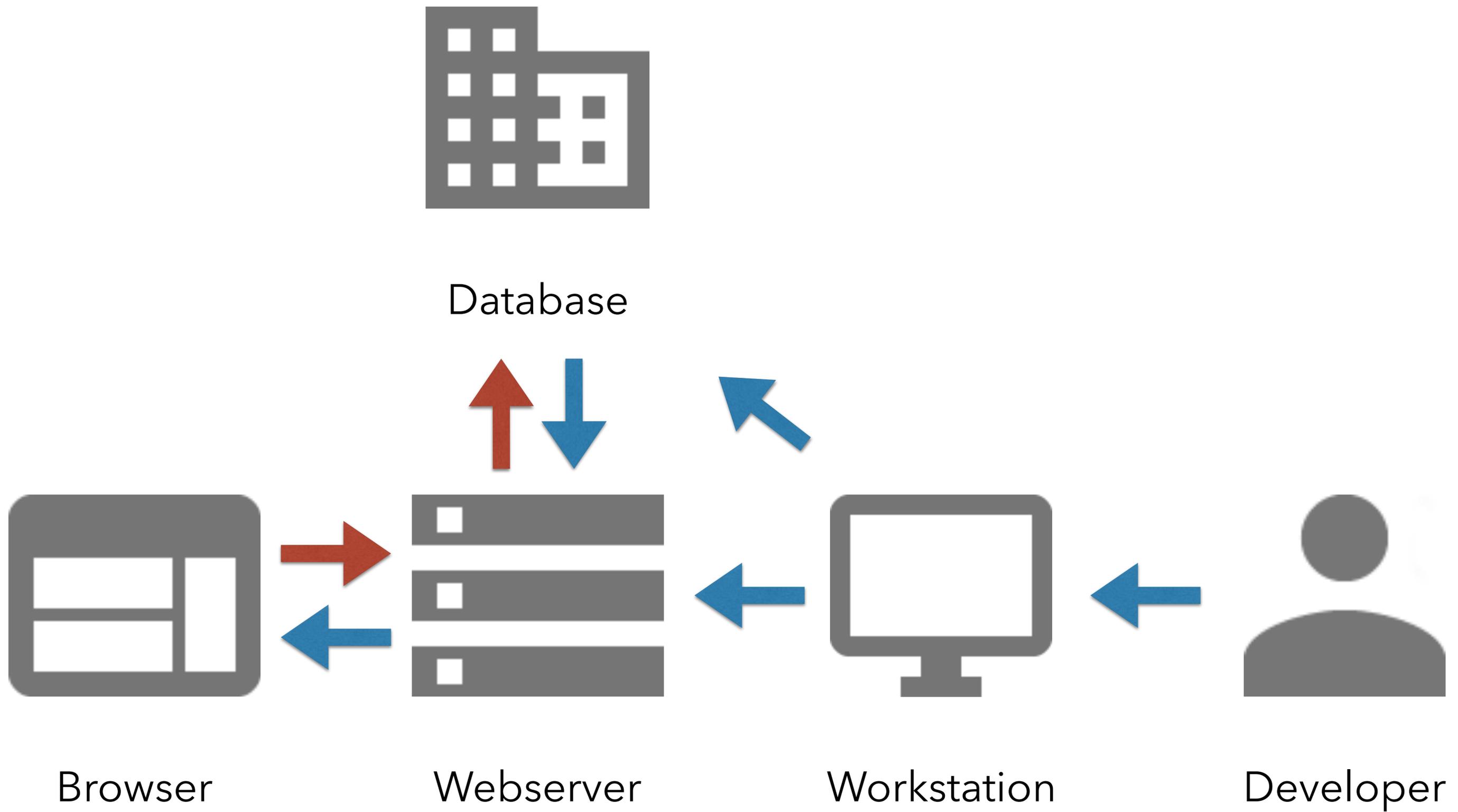
© Copyright 1993 David Farley, World rights reserved.  
This cartoon is made available on Usenet for personal viewing only.  
dgfl@midway.uchicago.edu  
Opinions expressed herein are not those of the University of Chicago.

The Salvation Army introduces its mobile assault vehicle

# THINGS GOT DYNAMIC

- CGI was introduced in 1994
- Rasmus Lerdorf releases his "Personal Home Page Tools" in 1995
- Brendan Eich writes the prototype for JavaScript in 1995

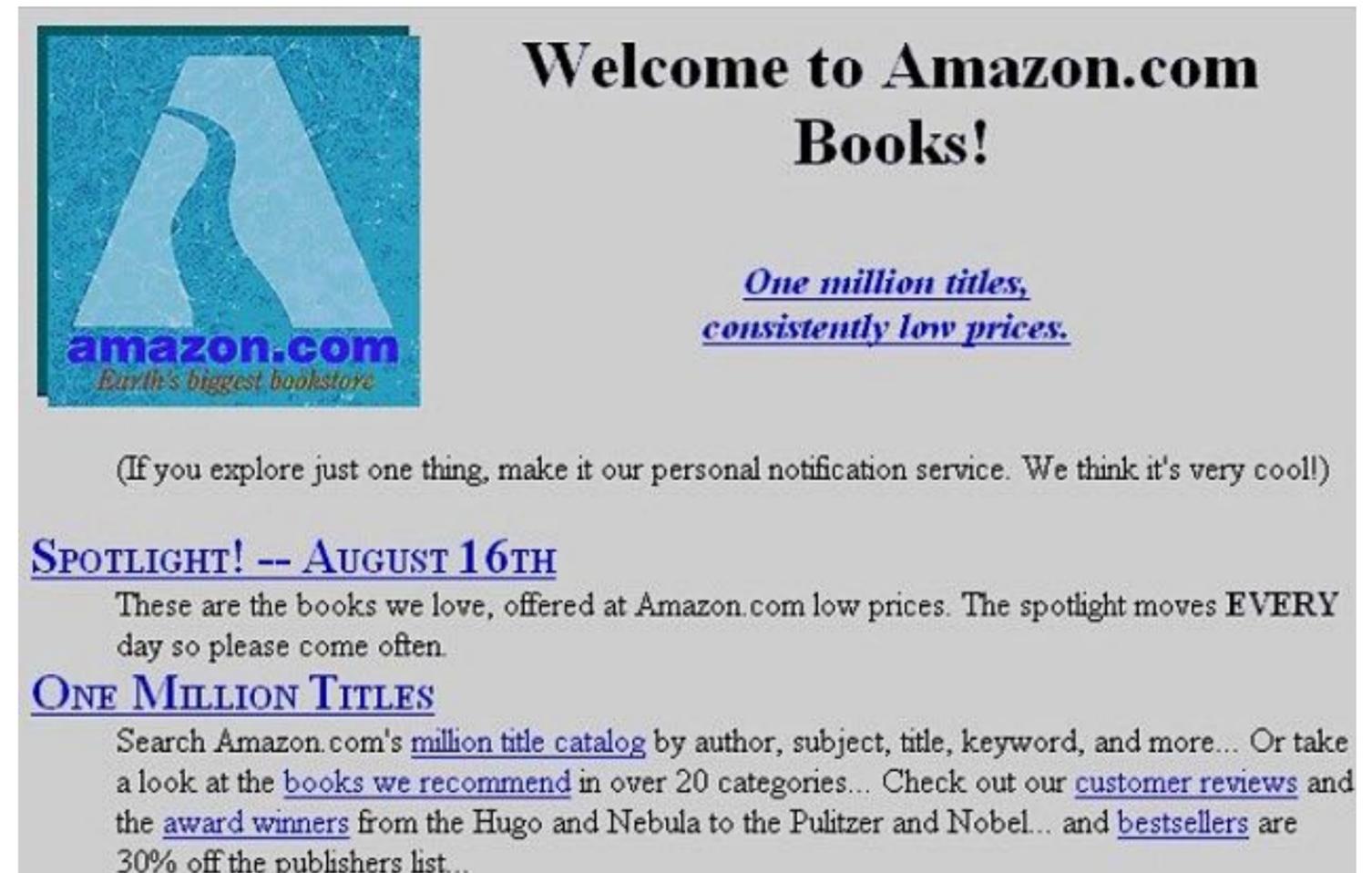




# E-COMMERCE IS TAKING OFF



The screenshot shows the PayPal.com homepage with a green and white color scheme. At the top left is the PayPal logo, followed by the text "PayPal.com" and a "LOG IN" button. Below this is a navigation menu with links for "home", "about", "news", "jobs", "contact", and "sign up". The main content area is framed in blue and features a prominent banner: "New User? Sign up for your FREE PayPal account! >". To the left of this banner is a "SIGN UP BONUS" section with two offers: "Get \$10 for signing up." and "Get \$1,000 for referring your friends." with a "Sign Up!" link. The central part of the page is divided into five service categories, each with an icon and a brief description: "Beam Money" (hand holding a bill), "Request Money" (hand holding a bill), "Group Billing" (hand holding a fan of bills), "Auction Payments" (hand holding a bill), and "Mobile Payments" (Palm organizer). To the right of these categories is a "NEWS & REVIEWS" section with four quotes from various sources: "On the money." from The Wall Street Journal, "Innovative, simple, straightforward." from Gartner Group, "Killer App." from Financial Times, and "Easy as email." from PC World. Below the news section are logos for MasterCard and VISA, with the text "PAYPAL LETS YOU ACCEPT:". At the bottom of the page, under the heading "OUR PARTNERS:", are logos for NOKIA, IDEALAB CAPITAL PARTNERS, Goldman Sachs, and Deutsche Bank. A testimonial box on the left side of the main content area features a photo of James Doohan and the text: "I use PayPal to Beam Money. Now you can too." and "James Doohan Star Trek's 'Scotty'".



The screenshot shows the Amazon.com Books homepage with a grey background. On the left is a large blue Amazon logo with the text "amazon.com" and "Earth's biggest bookstore" below it. To the right of the logo is the heading "Welcome to Amazon.com Books!". Below this is a quote: "One million titles, consistently low prices." in blue italics. Underneath is a note: "(If you explore just one thing, make it our personal notification service. We think it's very cool!)". The next section is "SPOTLIGHT! -- AUGUST 16TH" in blue, followed by the text: "These are the books we love, offered at Amazon.com low prices. The spotlight moves EVERY day so please come often." Below this is another section heading "ONE MILLION TITLES" in blue, followed by the text: "Search Amazon.com's [million title catalog](#) by author, subject, title, keyword, and more... Or take a look at the [books we recommend](#) in over 20 categories... Check out our [customer reviews](#) and the [award winners](#) from the Hugo and Nebula to the Pulitzer and Nobel... and [bestsellers](#) are 30% off the publishers list..."

# YOUR OWN SPACE

## WordPress

[HOME](#) [ABOUT](#) [DOCS](#) [DEV BLOG](#) [UTILITIES](#) [SUPPORT](#) [DOWNLOAD](#)

**WordPress** is a semantic personal publishing platform with a focus on aesthetics, web standards, and usability.

For information about the WordPress project—its philosophy, current features, developers, and future direction—see the About section. For updates on development and announcements, see the [WordBlog](#). If you'd like help with WordPress or have questions, the [support forums](#) are the place for you. If you just want to skip all the formalities and get the product, [download away](#). For major announcements via email, use the signup form at the bottom of every page.

WordPress has also been named the new official branch of [b2](#). We're looking forward to being a part of the community.

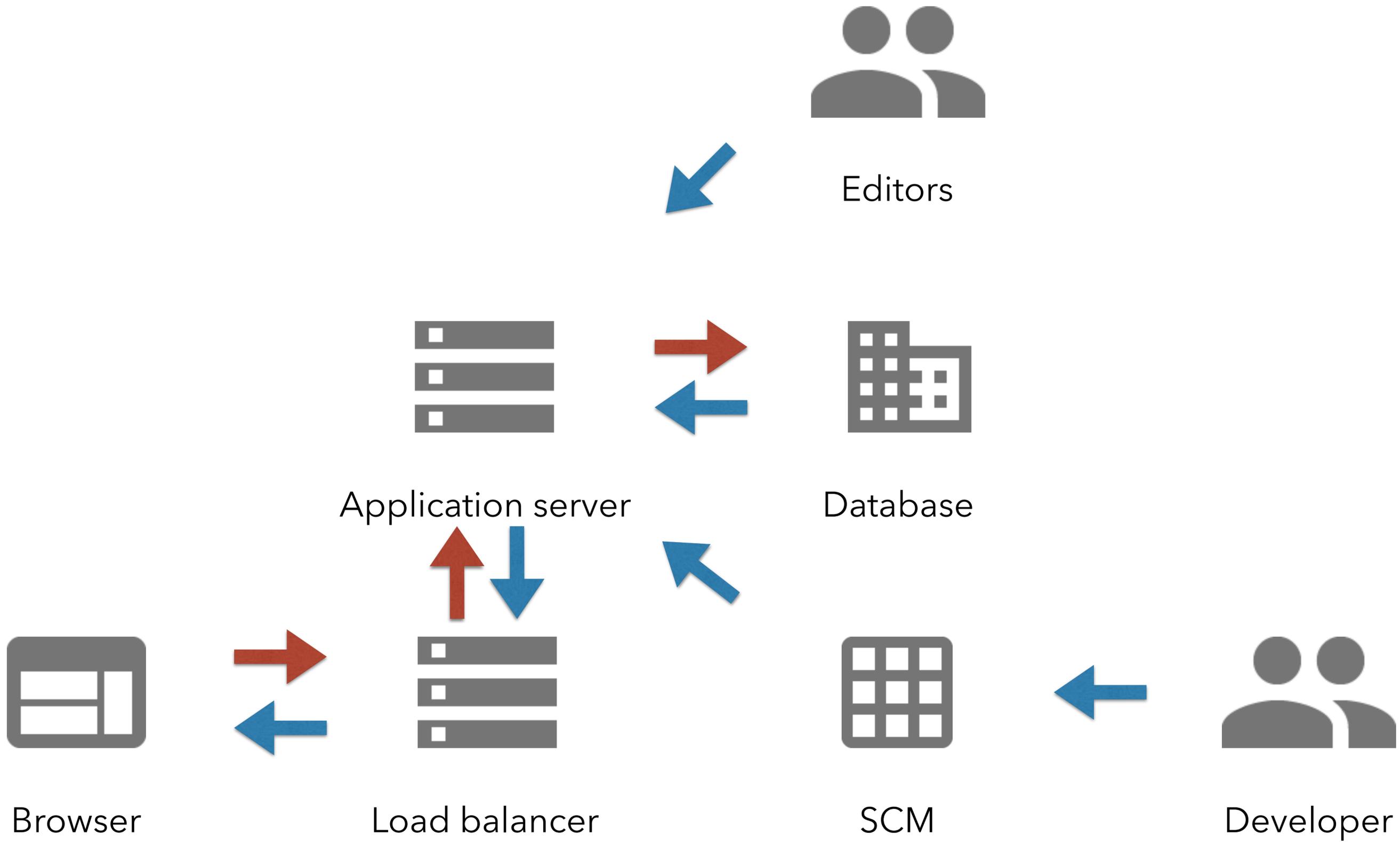
WordPress Announcements:

The screenshot shows the MySpace.com homepage with a blue header and navigation bar. The main content area is divided into several sections: 'Cool New People' featuring Jen and Craig; 'Featured Profile' with a 'VOTE NOW!' poll for 'WHO GETS TO MEET CAMERON?'; 'MySpace Music' featuring 'One of the Loudest Tragedies Ever Heard'; and 'MySpace Specials' featuring 'Gogol Bordello' and 'Gypsies Punks'. On the right side, there is a 'Member Login' form and three advertisements for climbing schools: 'Alpine Ascents Climbing School', 'RMI Climbing School', and 'Mountain Madness Alpine Climbing School'. The footer contains four promotional boxes: 'Get Started On MySpace!', 'Create Your Profile!', 'Browse Through Profiles!', and 'Invite Your Friends!'.

# IT'S A BUSINESS NOW

- Microsoft ASP was released in 1996, Sun JSP in 1999
- Hosting a dynamic, CMS, based website became easy
- Microsoft FrontPage and Macromedia Dreamweaver released in 1996 and 1997





# APPS ON THE WEB

The screenshot shows the Writely web application interface. At the top left is the Writely logo with "(beta)" above it. Navigation links include "New", "Upload", and "E-mail In". The user is logged in as "Hello Claudia" with links for "Sign Out" and "Help". A search bar is present with a "GO" button. Below the navigation is a document management bar with tabs for "Active Documents", "Starred Documents", "Tagged Documents", "All Documents", and "Trash". A "Beta Meter: 48%" indicator is also visible. A secondary bar contains "Select All", "Select None", "Archive", "Tag", and "Actions" buttons, along with a help link "How do I use this page?". The main content area is divided into three columns: "Active Documents" (listing "About Us" with "Site Content" link), "Changed By / Also Shared With" (listing "Me / Sam, Steve"), and "Changed When" (listing "3 days ago"). Below this is a browser window titled "Writely - About Us - Microsoft Internet Explorer" showing the URL "http://www.writely.com/Doc.aspx?id=n85". The browser displays a rich text editor with a menu bar (Edit, Collaborate, Publish, Blog, Revisions) and a toolbar with various editing tools. The text in the editor is partially obscured by a context menu with options like "Cut", "Copy", "Paste", "Select All", "Insert Image...", "Insert Link...", "Insert Bookmark...", "Insert Comment", "Insert Page break", "Insert Horizontal line", and "Insert Special character...". At the bottom of the editor, a status bar indicates "Sam is also editing this document." and shows the "Document Name: About Us" with a "Done" button.

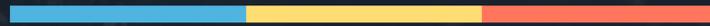
The screenshot shows the Google Maps web application interface. At the top left is the Google logo with "Maps" below it. Navigation links include "Maps", "Local Search", and "Directions". A search bar is present with a "Search" button and a "Help" link. Below the navigation is a yellow header bar with the word "Maps". The main content area is a map of the United States with state abbreviations labeled. A vertical scale bar is on the left side of the map. The map shows the Atlantic Ocean to the east and the Pacific Ocean to the west. The Gulf of Mexico is labeled in the southern part of the map.

# I GOT THE POWER

- XMLHttpRequest was part of IE5 in 1999
- SPA have been discussed since 2003
- jQuery was published in 2006, AngularJS in 2009



# Modern static site builders



# GITHUB

**github**  
SOCIAL CODE HOSTING

 **schacon** [account](#) | [profile](#) | [guides](#) | [log out](#)  
103 repositories: [all](#) | [search](#)

Source | **Commits** | Graphs | Wiki (1) | Watchers (1) | Network (1) | Fork Queue | Admin

master | all branches | all tags | comments

**schacon / kronos** [edit](#) [pull request](#) [unwatch](#) [download](#)

Description: [Click to edit edit](#)  
Homepage: [Click to edit edit](#)  
Public Clone URL: [git://github.com/schacon/kronos.git](https://github.com/schacon/kronos.git)  
Your Clone URL: [git@github.com:schacon/kronos.git](https://github.com:schacon/kronos.git)

## kronos / Commit History

[Invite the other committers to join GitHub!](#)

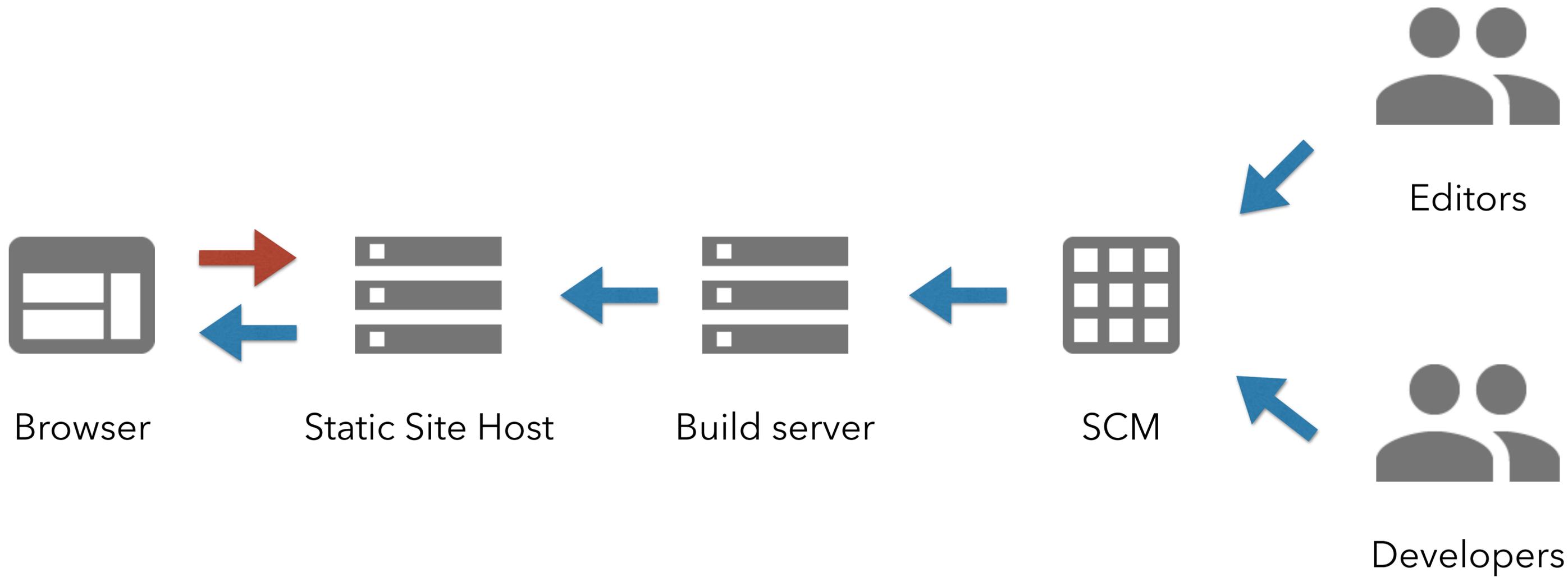
### 12/03/08

v 1.2  <b>schacon</b> (author) December 03, 2008	commit 85516748e2d8948c18827a4085525bf31fe01adf tree 05357b10533ab25057b46cd27333052254862499 parent 00a22b9a197f6974ce230dcd0147bfab4147a82a
changed soemthing  <b>schacon</b> (author) December 03, 2008	commit 00a22b9a197f6974ce230dcd0147bfab4147a82a tree c6862f0788f8be6b40656140316adfd676d5c1b9 parent 9d9ec53062ae7b7ae06458d35afbab405e7ee5dc
kronos v1  <b>schacon</b> (author) December 03, 2008	commit 9d9ec53062ae7b7ae06458d35afbab405e7ee5dc tree b13f8f8718c04b6578c671539fe2a35048bb2e0a parent 5e85652b942b48eb04a4b674ef007b1f9d527351
First commit!	commit 5e85652b942b48eb04a4b674ef007b1f9d527351

# jeekyll

transform your text into a monster

code docs  
install switch





Middleman



**METALSMITH**



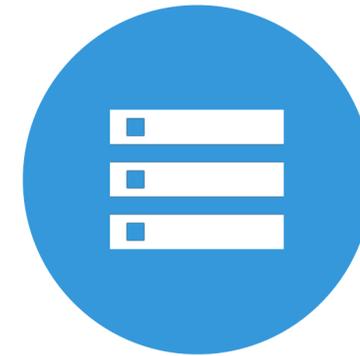
Hexo

# IT JUST MAKES YOUR LIFE EASIER



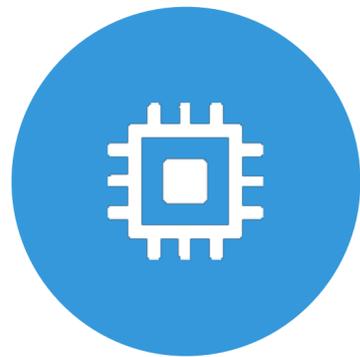
## No Security issues

Without a server-side application or database the attack surface is minimal.



## Trivial caching

CDNs are trivial to set up. Since every file gets delivered to every user as-is, no complex logic is necessary.



## Great performance

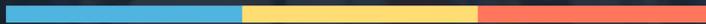
Shuffling bytes from storage to the network is what servers are great at.



## Easy maintenance

No random 500 errors, no dropped database connections.

**“This project is too complex.  
A static site won’t do.”**





# Common requirements

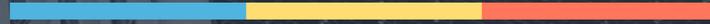
- 01** "Our editors don't know git, they need a GUI."
- 02** "We have a lot of content, we need full-text search."
- 03** "Our contact forms needs to send an email."
- 04** "We're running an online shop. You can't do that with a static site."

# A CLOUD AND AN API WALK INTO A BAR

- AWS got started in 2002, Lambda added in 2014
- Roy Fielding defines REST in his 2000 PhD dissertation
- Twilio was founded in 2007; Stripe in 2011



# Serverless Architectures





# A NEW BREED OF STATIC SITE GENERATORS

Seamlessly combining static sites and single page applications



**Gatsby**

Blazing-fast static site  
generator for React



**NUXT**

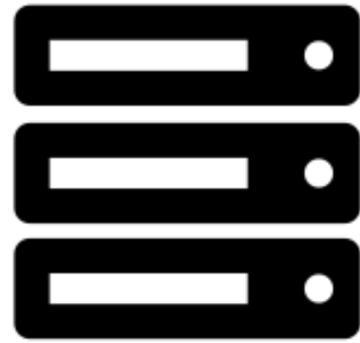
Universal Vue.js Applications

**How does that solve anything?**

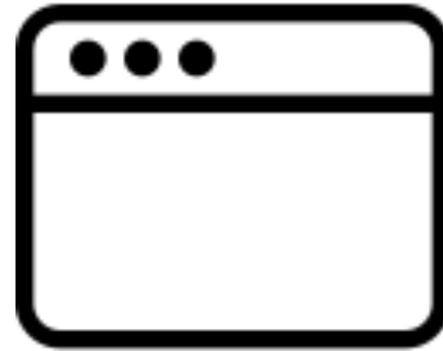


**With great services**

# 3 WAYS OF ACCESSING A SERVICE



Build



Browser



Function

01

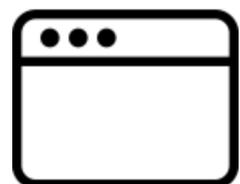
“Our editors don’t know git,  
they need a GUI.”



A content infrastructure service - or a headless CMS - gives editors the graphical interface they need. Your content becomes just an API.



Build



Browser



Function

Blog demo

in Rouven Weißling



Space home

Cont



Seven Tips From Ernest Hemingway

Title (required)

Seven Tips From Ernest Hemingway on How to Write

56 characters

Slug

seven-tips-from-ernest-hemingway-on-how-to-write-t

*The slug is auto-generated based on the entry title*

Author (required)



Mike Springer

Auth

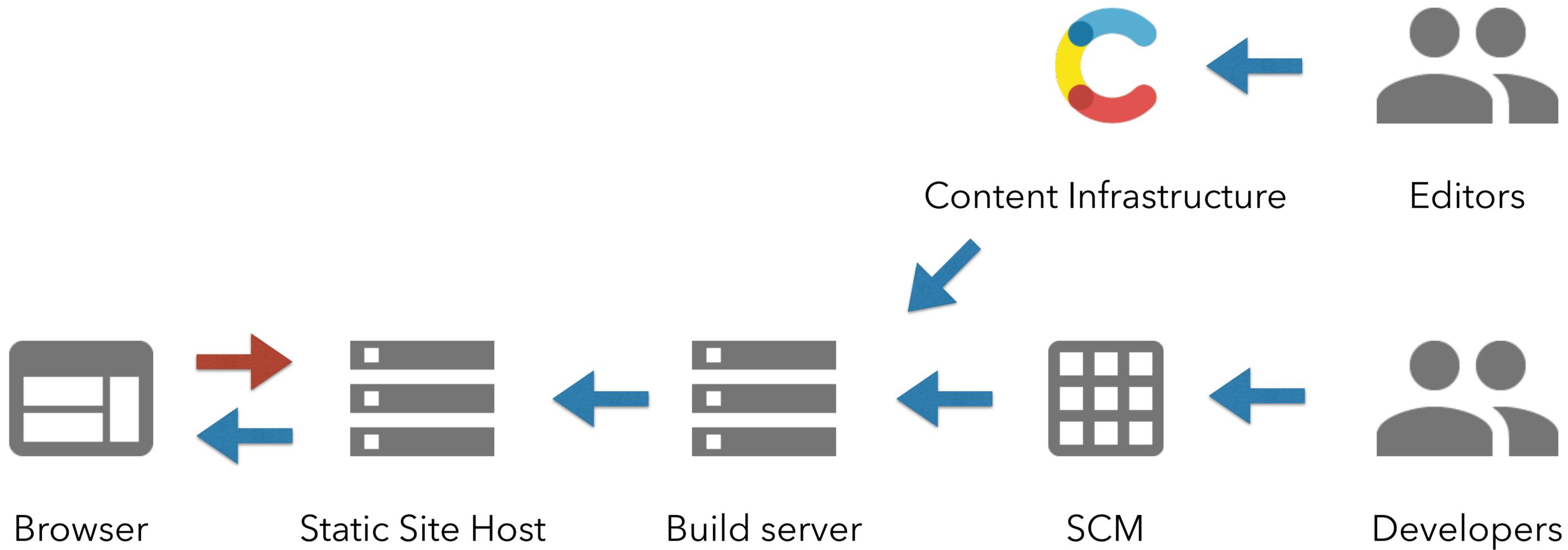
<https://plus.google.com/+opencult>

Create Author and link

Link existing entries

Body

Edit



# Dashboard

OVERVIEW RECORDS & OPERATIONS PERFORMANCE

The Community (free) plan requires you to display the Algolia

## Search Performance

LAST 24H  
QUERIES

0

LAST 24H  
90% OF QUERIES

Under 0 ms

LAST 30 DAYS 90% OF QUERIES



LAST 30 DAYS 99% OF QUERIES

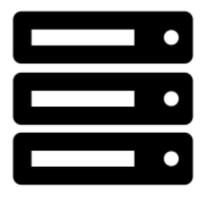


# 02

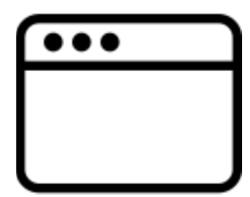
“We have a lot of content, we need full-text search.”



Using a Search-as-a-Service provider not only saves you from running your own search infrastructure but also allows integrating multiple content providers into one search.

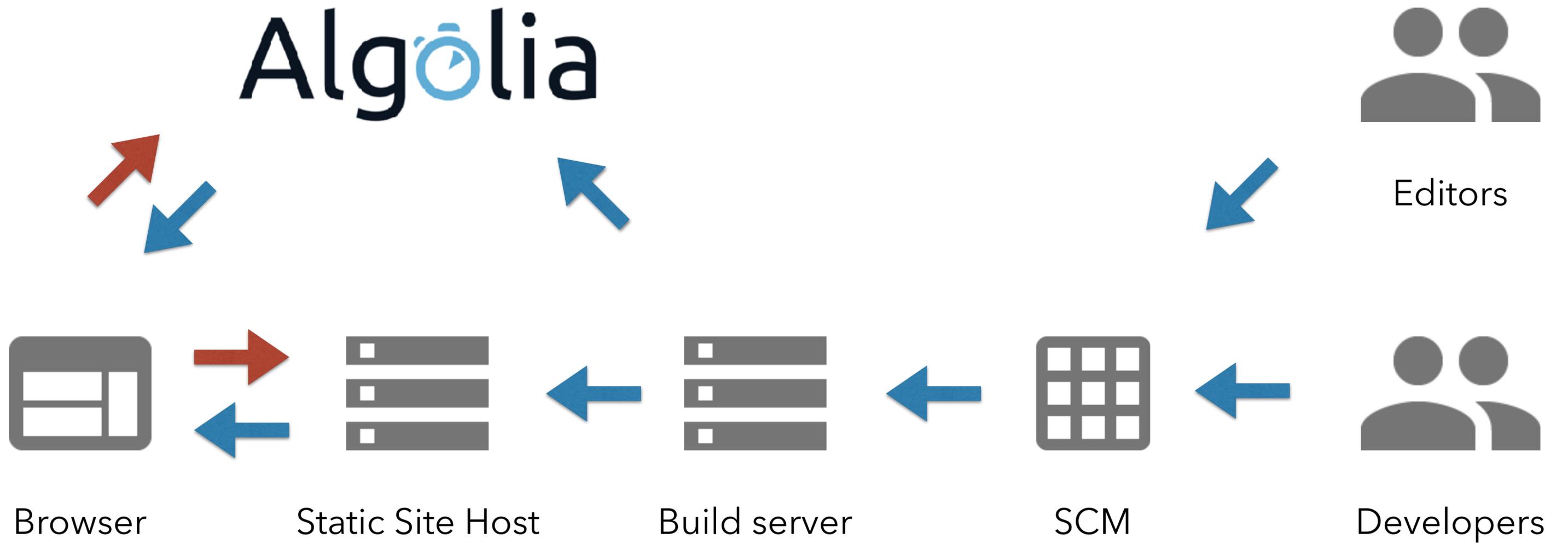


Build



Browser

# Algolia

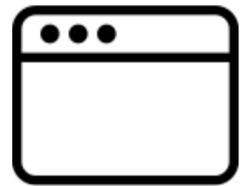


03

“Our contact forms needs to send an email.”



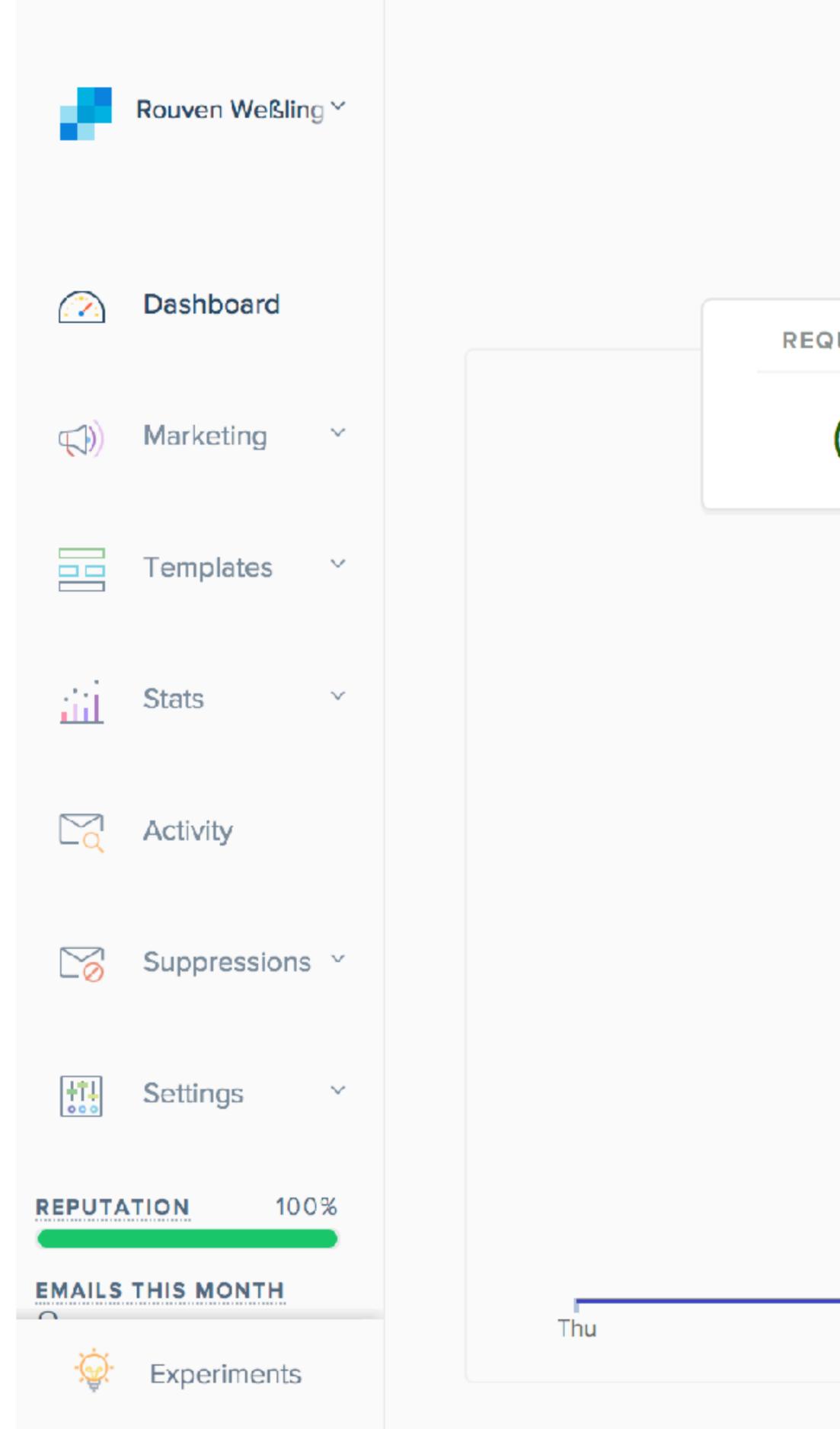
Cloud email services are a de facto standard in modern architectures but they're not accessible from the client. A tiny bit of glue code hosted on a FaaS platform bridges the gap.



Browser



Function



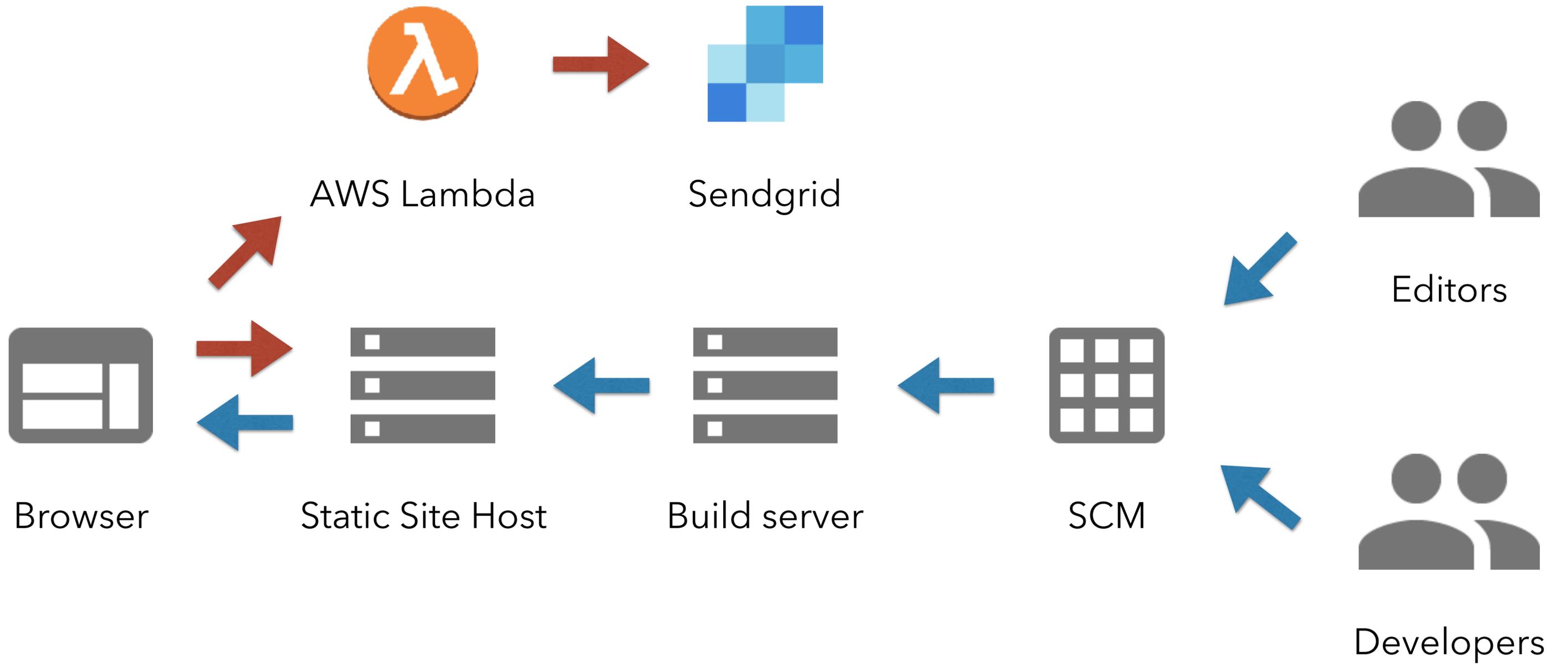
# HOW TINY?

```
const sendGridConfig = {api_user: 'SENDGRID_USERNAME', api_key: 'SENDGRID_PASSWORD'};
const transporter = nodemailer.createTransport(sgTransport({auth: sendGridConfig}));
const sendMail = pify(transporter.sendMail);

exports.handler = function(event, context) {
  const templateDir = path.join(__dirname, 'templates', event.template);
  const template = new EmailTemplate(templateDir);
  const render = pify(template.render);

  template.render(event.context)
    .then(result => {
      event.text = result.text;
      event.html = result.html;

      return sendMailAsync(event);
    })
    .then(() => context.done(null, {message: 'Yaay success'}))
    .catch(() => context.done(new Error('Something went wrong!')));
};
```





MANAGE STORE

DASHBOARD

ORDERS

SUBSCRIPTIONS

ABANDONED CARTS

RECOVERY CAMPAIGNS

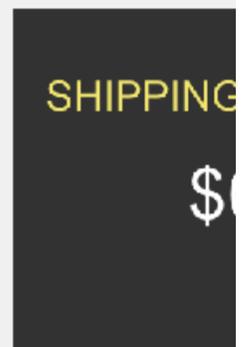
CUSTOMERS

DISCOUNTS

PRODUCTS

DIGITAL GOODS

DASHBOARD



SALES



04

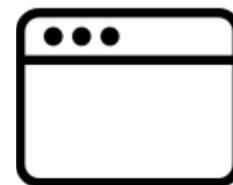
"We're running an online shop. You can't do that with a static site."



Combing a payment processing service and a shopping cart platform allows you to run your entire business off a static site.



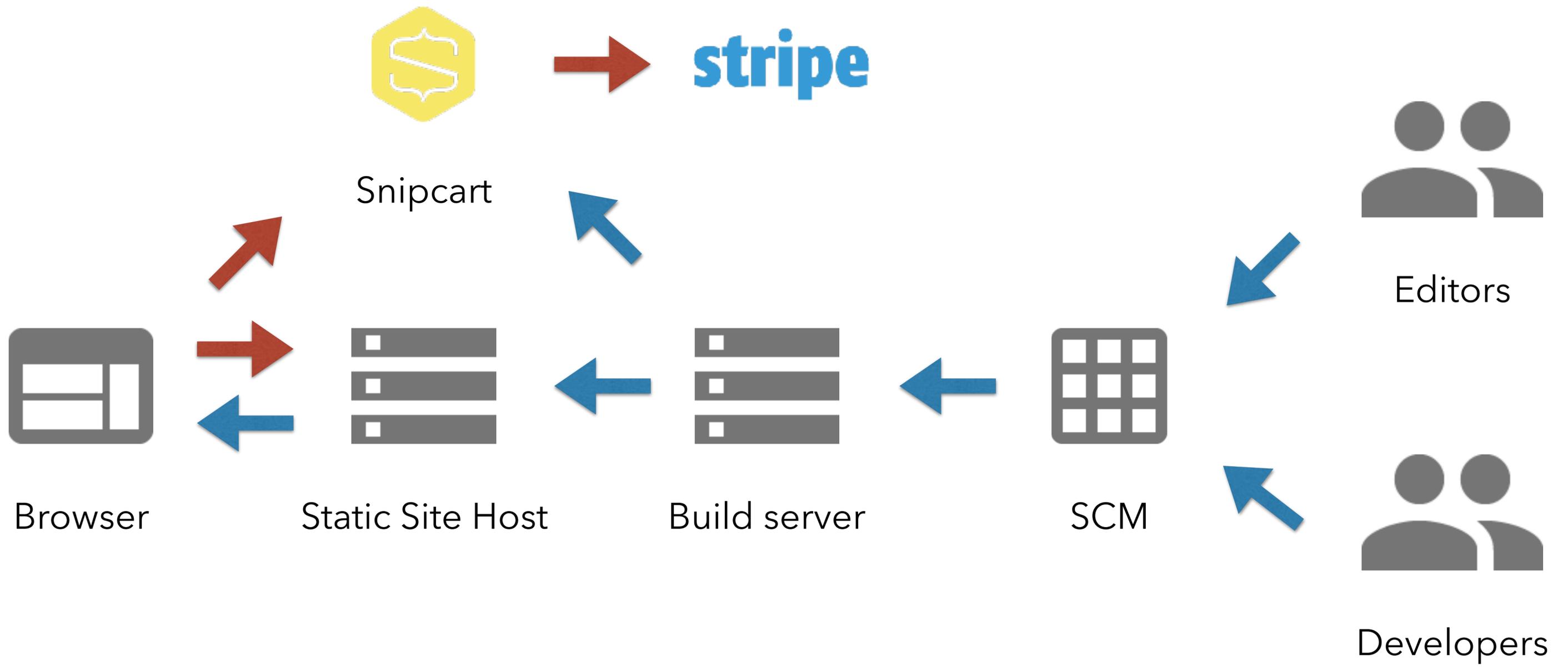
Build



Browser



Function



# Bringing it all together



```
    count < 2) {  
      outerHeight : data.$image.outerHeight()  
      outerWidth  : data.$image.outerWidth()  
    }  
  }  
}
```

```
    width: imageWidth;  
    height: imageHeight;  
    left: imageLeft;  
    top: imageTop;  
  }  
}
```

# Algolia



Editors

Content Infrastructure



Build server



SCM



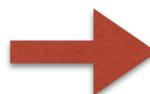
Developers



Static Site Host



Snipcart



stripe



Browser



AWS Lambda



Sendgrid

**AND MANY MORE**



**TIMEKIT**



**Auth0**



**FormKeep**



**Firebase**



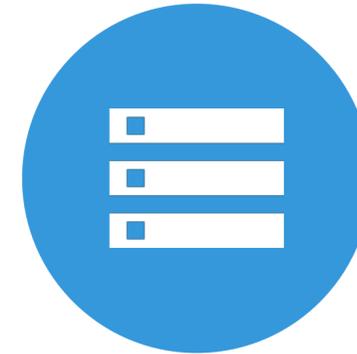
**netlify**

# COMBINING STATIC SITES AND SERVERLESS



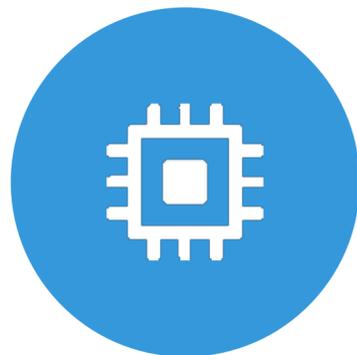
## Isolated services improve security

Every dynamic function is a limited service with only the necessary permissions.



## Easy caching

Dynamic resources are hidden behind APIs and well defined routes - everything else can be cached.



## Great performance

Static things are instant; dynamic things are fast.



## Easy maintenance

Most services can be handled by 3rd parties requiring no maintenance.



**Visit our booth and win**



Daily



End-of-show



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