We make the web faster.

Slow loads cost money.

Untapped e-commerce revenue due to slow loading in 2018

$ 284 000 000 000*

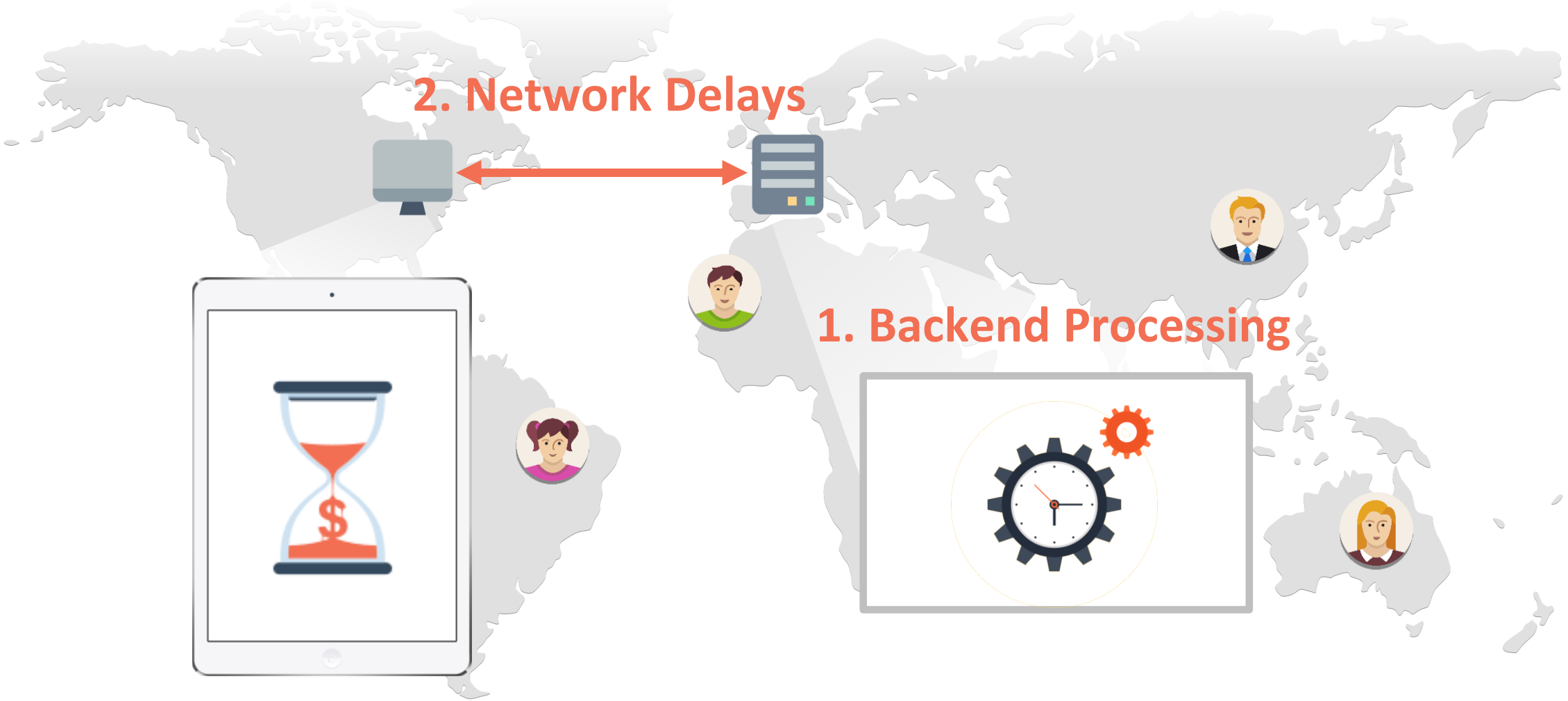
*Global E-Commerce Revenue · 1000 ms · 1% Conversion Uplift per Second

Faster sites make more money.

amazon **100 ms** faster → **+1%** Revenue = **$1.7** Billion

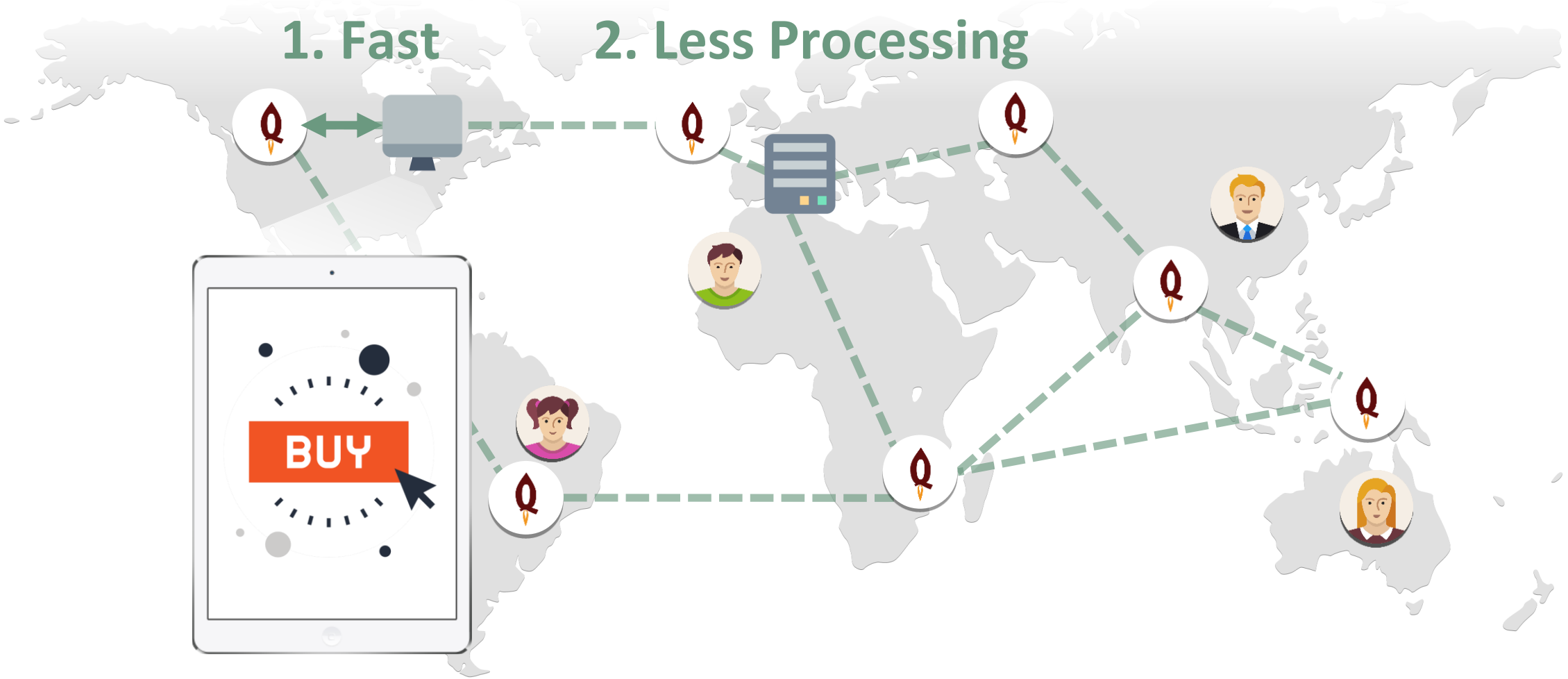
Google **500 ms** faster → **+20%** Ad Sales = **$19** Billion

Two things slow the web down.



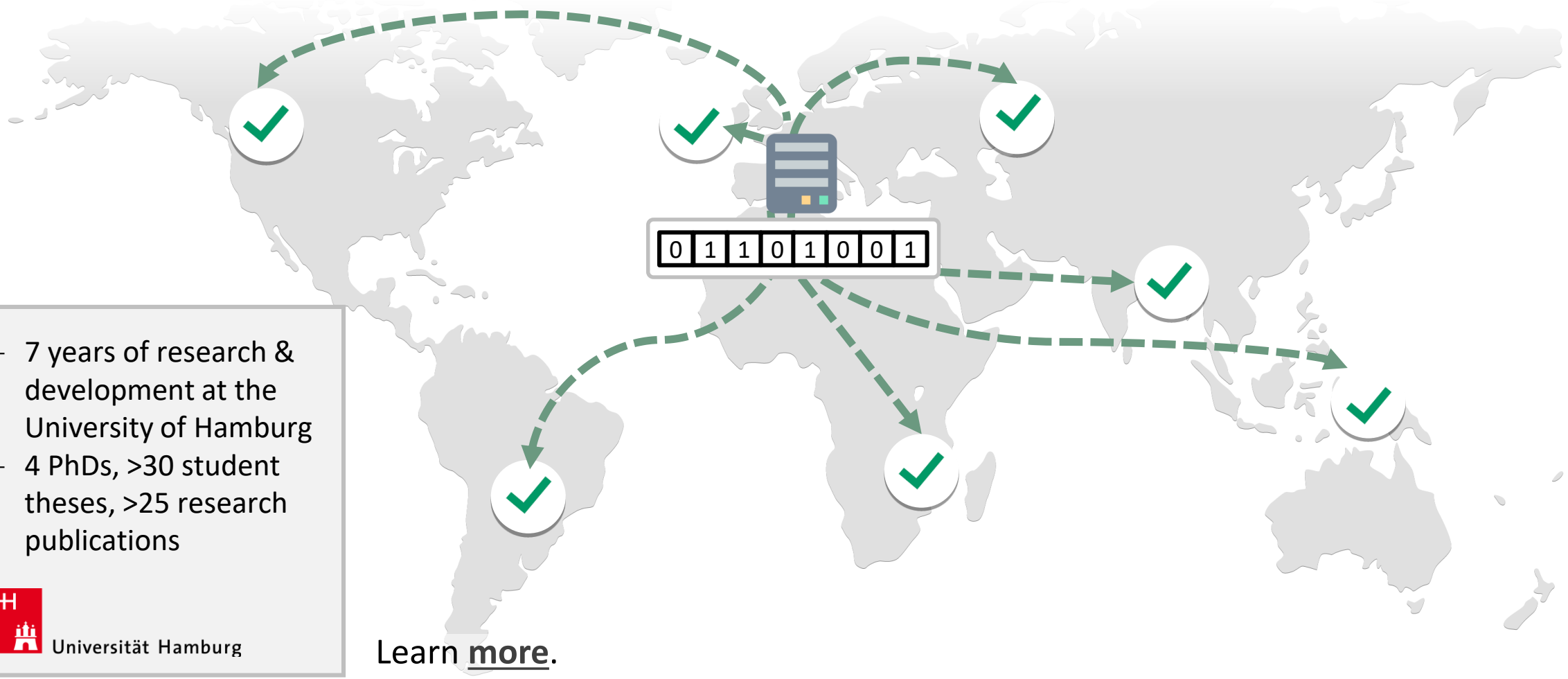
Solution: Speed Kit

Plugin keeps websites **state-of-the-art** in web performance.



The magic: dynamic data is kept up-to-date.

Backed by 30 man-years of research.



- 7 years of research & development at the University of Hamburg
- 4 PhDs, >30 student theses, >25 research publications

Universität Hamburg

Learn more.

What can Speed Kit do for you?

Speed Kit in Summary:

A web performance insurance.

50-300% **Faster Page Loads**

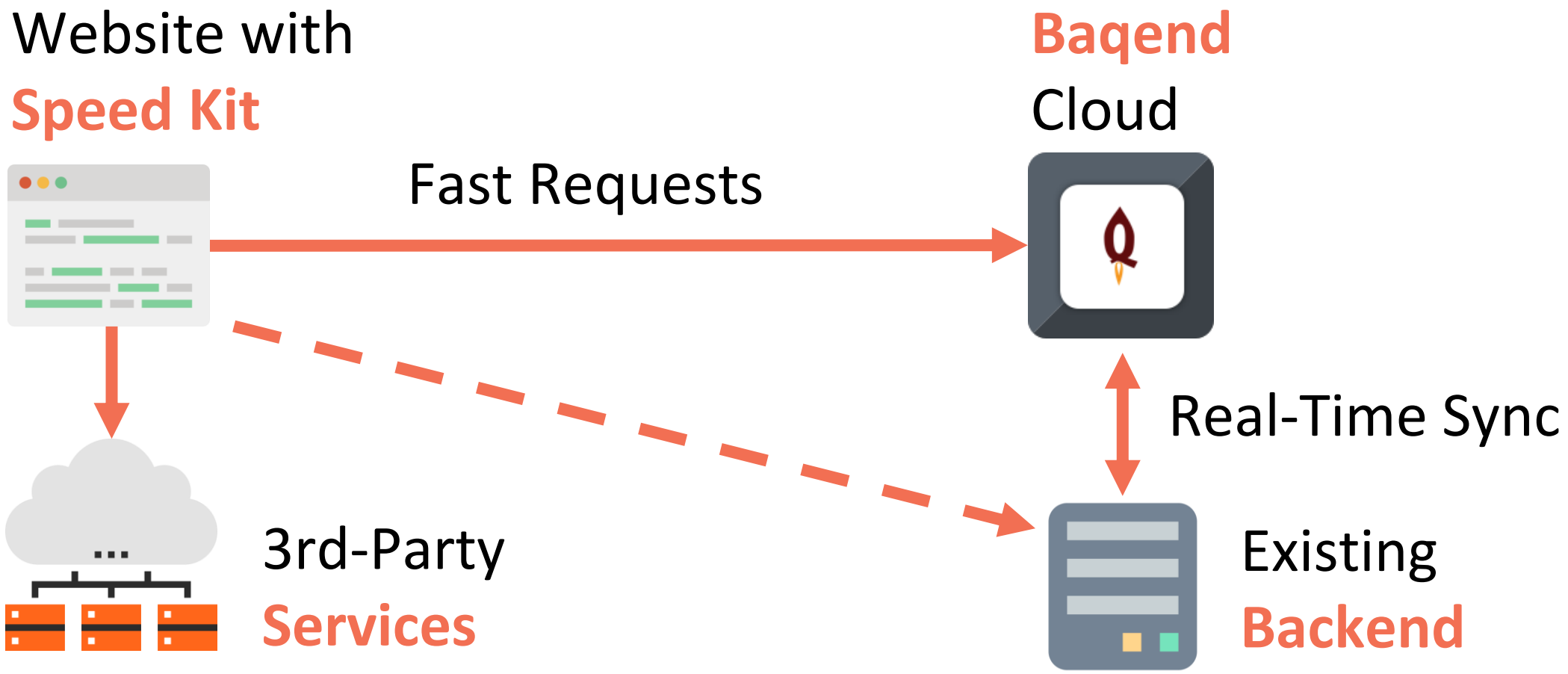
Works with **Current Site**

Gives You **Scalability**

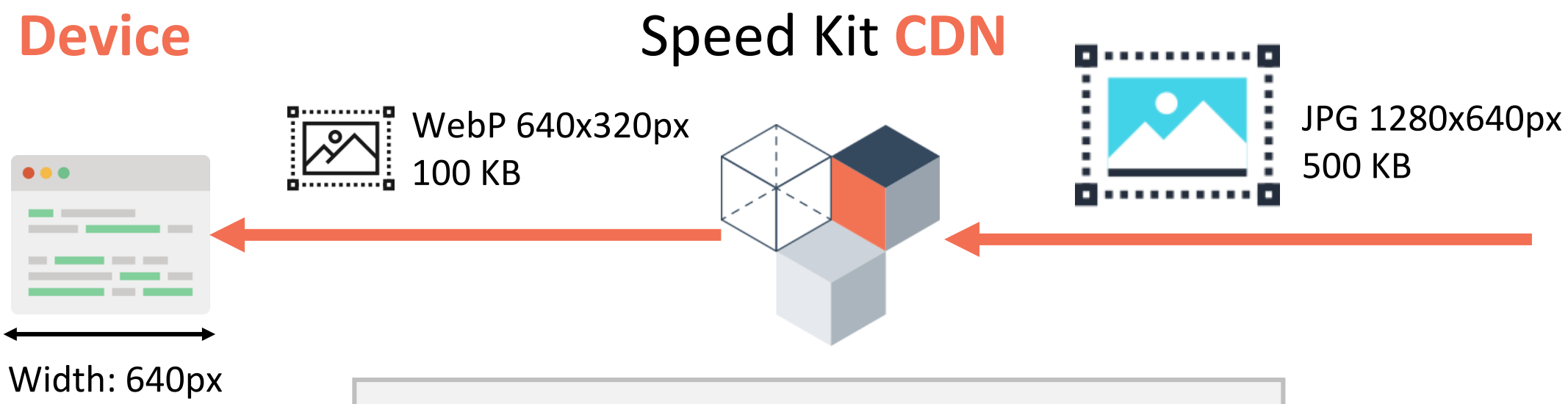
State of the Art **Guaranteed**

Speed Kit reroutes slow requests.

Based on a novel browser technology.



Images are optimized automatically.



- Images transcoded to **WebP**
- Rescaled to match **Screen Size**
- JPG and PNG **Recompression**

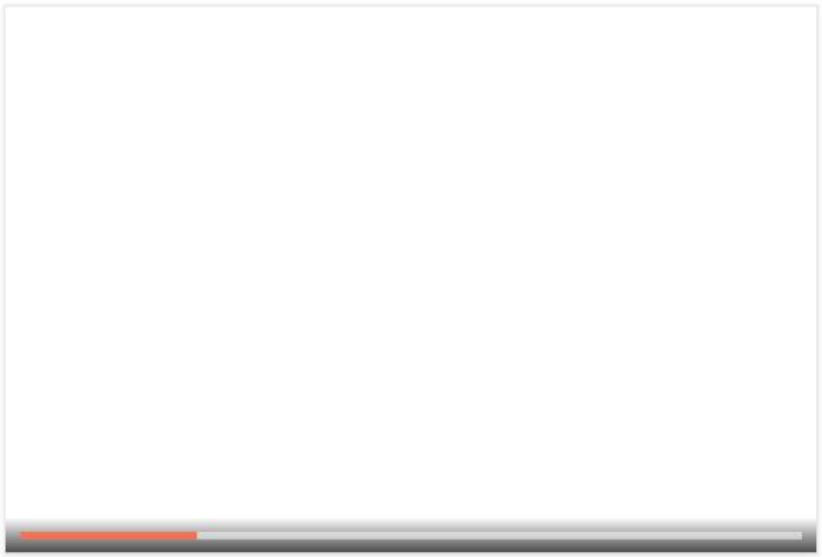
It works with your infrastructure.

Measure the potential speedup.

Your Website
3700ms

5.3x
Faster

With Speed Kit
700ms



With Speed Kit
0.7s

Your Website
3.7s

Excellent

Poor

Measure your performance!

test.speed-kit.com

Speed Kit helps scale backend and business.

Build features, let Speed Kit handle performance.

Only **~20% of requests** reach your backend.

Optimized **network** (H2, TLS, TCP).

Speed Kit will not interfere with your **frontend**.

Speed Kit keeps sites state of the art.

Latest standards & optimizations automatically added.

Which business & performance impact will Speed Kit have?

What being 2.2 s faster is worth.

Calculate your revenue uplift.

+16% Ad Revenue

Publisher Study

+22% Sales Revenue

E-Commerce Study

E-Commerce
Example

:

€ 50 Million
Yearly Sales

X

22%
Increase

=

€ 11 Million
Sales Uplift

How we measure your performance.

Real browser behavior with WebPagetest.

Website **URL**

Enter your URL here..

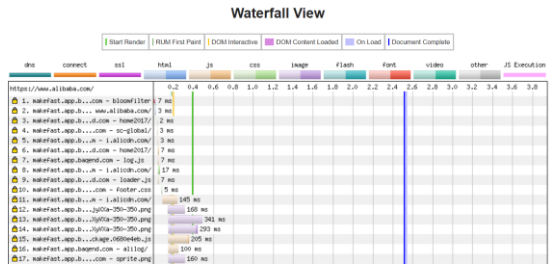
Go

Page Speed **Analyzer**

Chrome **Browser** (WebPagetest)

Original

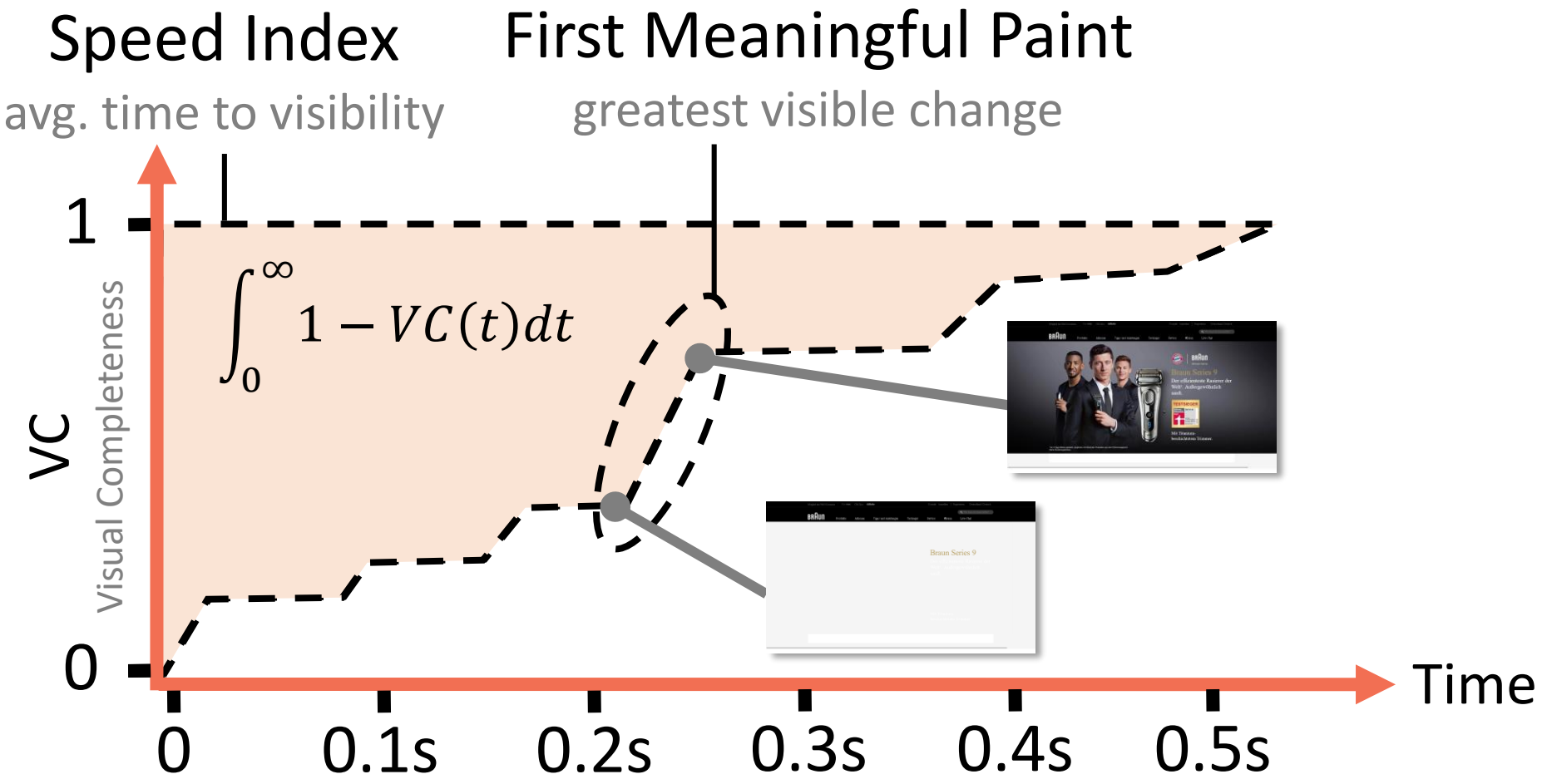
Analysis



Speed Kit Injected

What we measure.

User-perceived performance.



The Analyzer finds what needs to be done.

HTTP/2
Your website uses HTTP/2.

Image Optimization
By resizing (*responsiveness*) and encoding (*WebP* & *Progessive JPEG*) **images**, Speed Kit will save **95 KB** of data.

HTTP Caching
Currently, **74%** of resources are served with correct **caching headers**. Speed Kit will cache **84%** and keep the cache fresh.

Client Caching
Speed Kit will serve data from fast caches and *make sure you never see stale content* (Bloom filter-based cache coherence).

Request Latency
Speed Kit will cache your HTML in a CDN and thereby reduce the **time-to-first-byte** (*TTFB*) from **590 ms** to **18 ms**.

Compression
By compressing text resources with GZip, Speed Kit will reduce page weight by **729 KB**.

Progressive Web App
Without Internet connection, users cannot open your website, whereas Speed Kit will show the last-seen version (*offline mode*).

User-Perceived Performance
Speed Kit will improve **Speed Index** by **54%** and **First Meaningful Paint** by **57%**.

Speed Kit does it.

HTTP/2
Your website uses HTTP/2.

Image Optimization
By resizing (*responsiveness*) and encoding (*WebP* & *Progessive JPEG*) **images**, Speed Kit saves **95 KB** of data.

HTTP Caching
Speed Kit takes care of correct **caching headers**. In total, it caches **84%** and keeps the cache fresh.

Client Caching
Speed Kit serves data from fast caches and *makes sure you never see stale content* (Bloom filter-based cache coherence).

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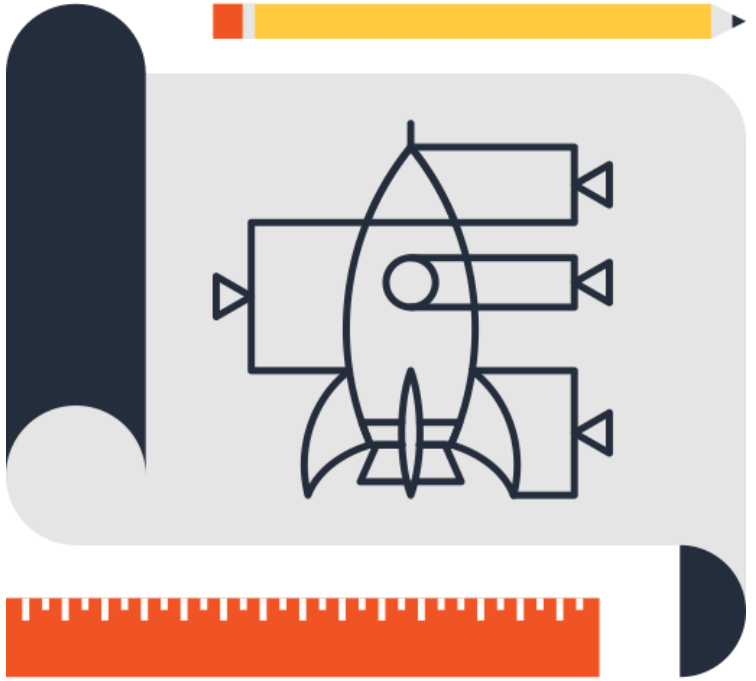
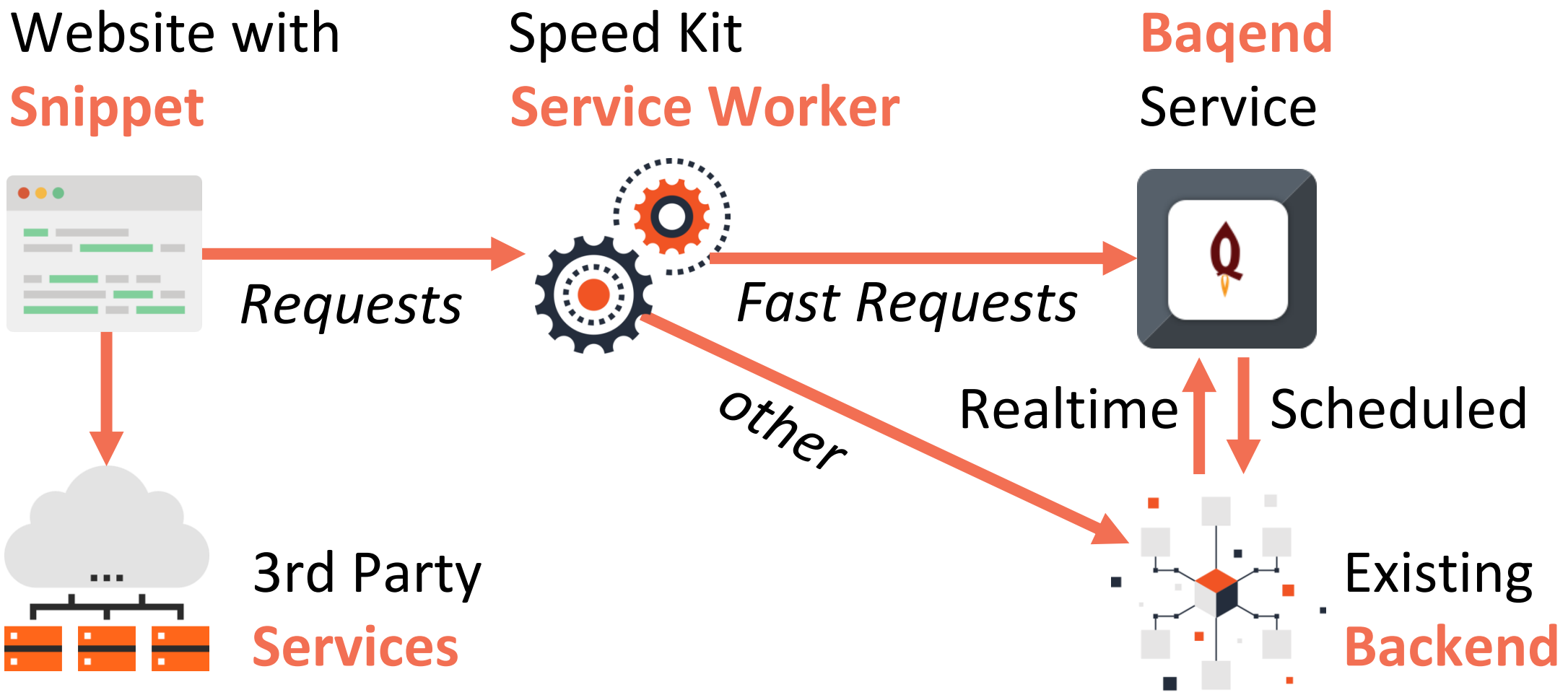
How Speed Kit works.

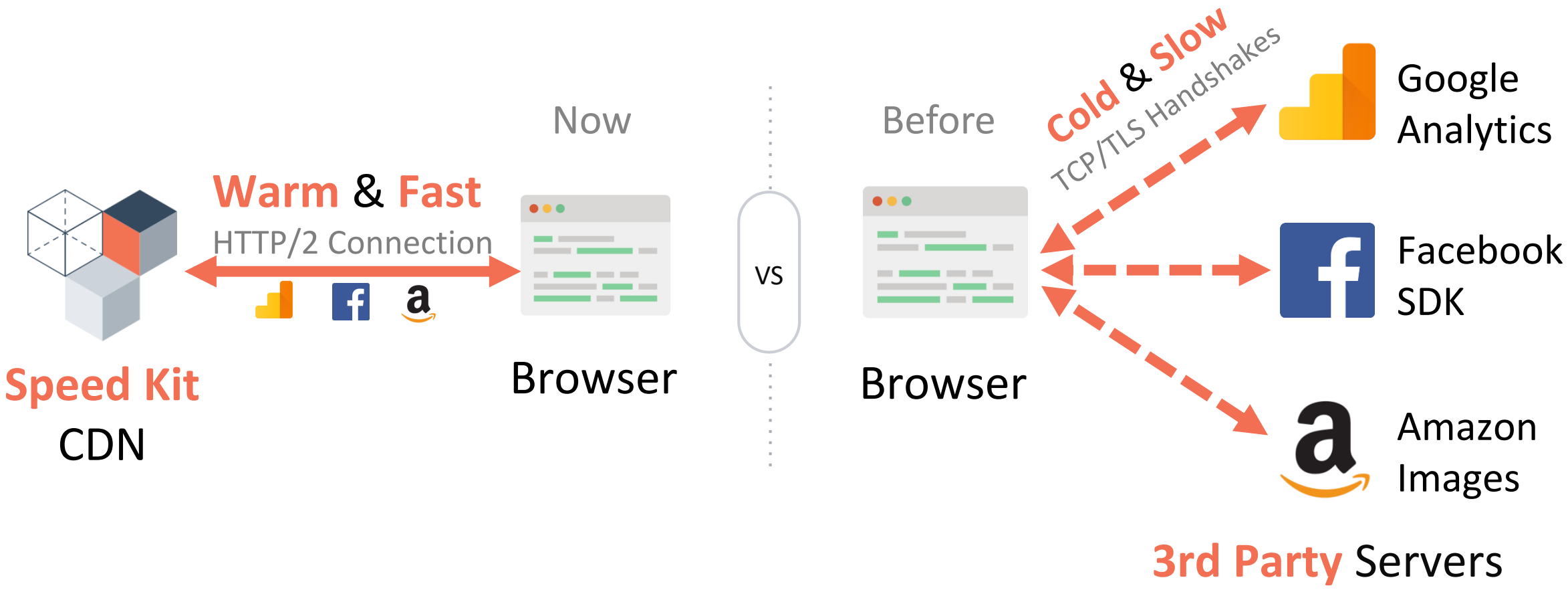


How it works under the hood.



Accelerate third-party dependencies.

You can even speed up requests out of your control.



Your site becomes a Progressive Web App.

The offline mode comes for free.

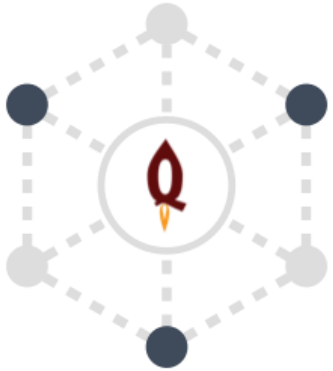
→ Speed Kit sites are **offline-capable** with automatic **synchronisation**.

Focus on functionality – not performance.

Speed Kit is your new web performance team.

Caching the Uncacheable

Global cache updates in 150 ms



Optimized Protocol Stack

Tuned HTTP/2, TLS, and TCP

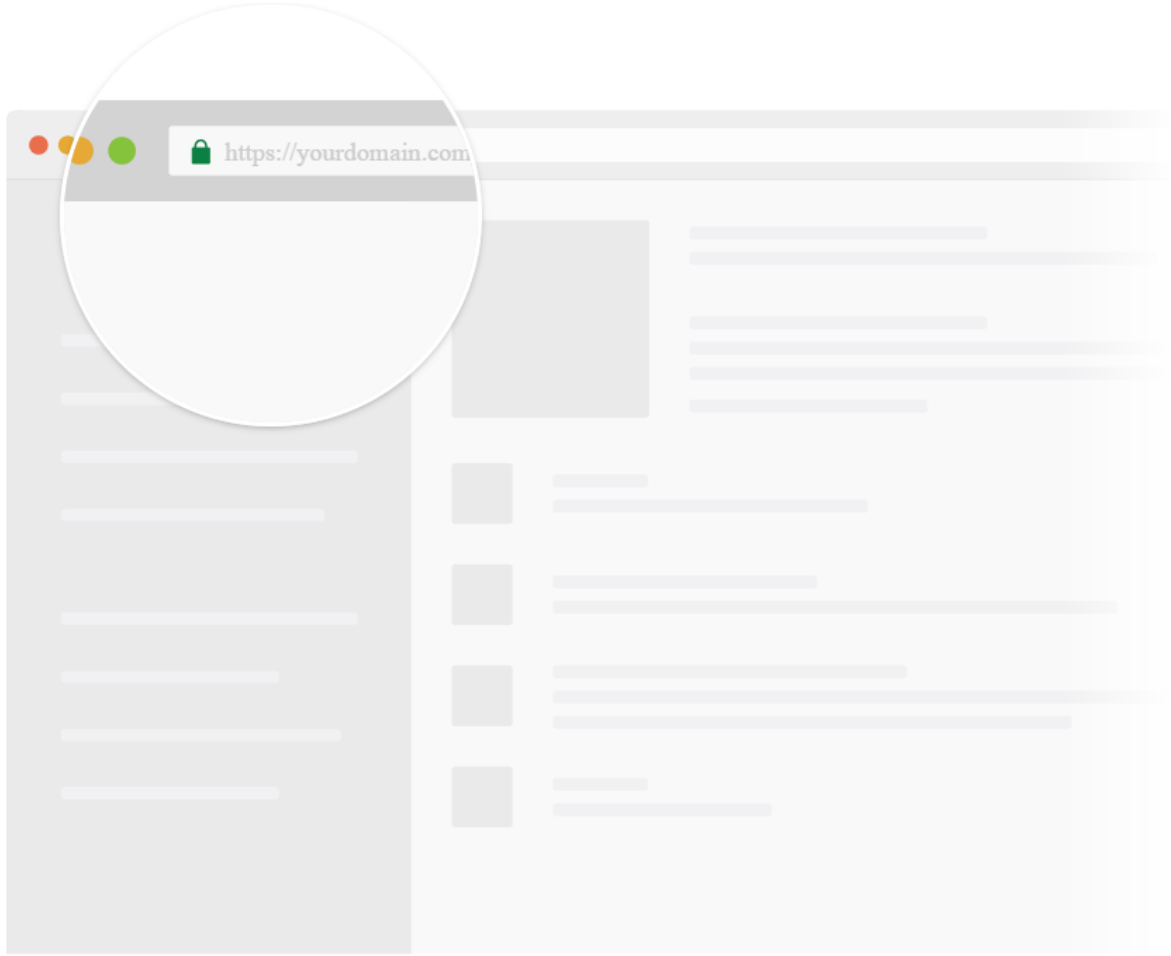
Compression & Best Formats

Re-compressed text and image files

Adding Speed Kit to your site.

1. Configure Domain

Set which pages/URLs Speed Kit should accelerate (white- and blacklist, dynamic blocks).



Or contact us, and we will **prepare a tested config**.

2. Include Code Snippet

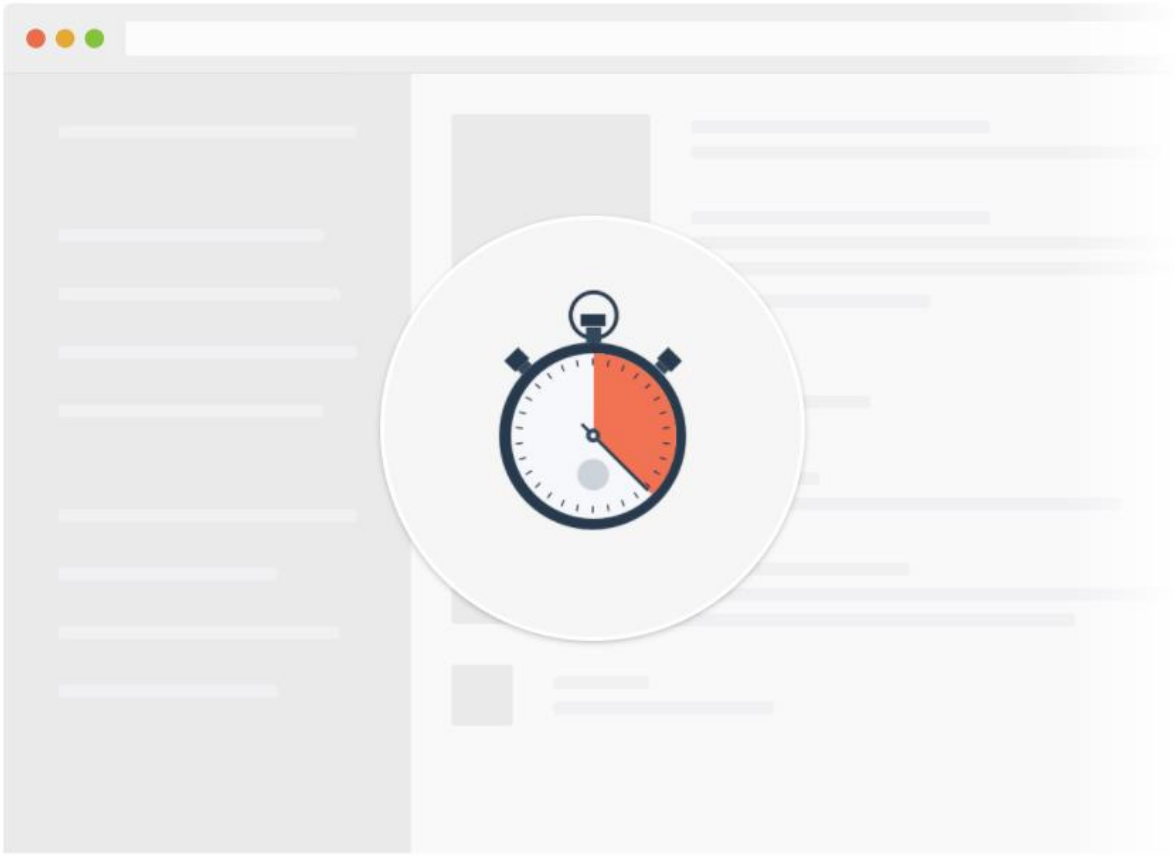
Add Speed Kit to your website's HTML and upload the Service Worker.

3. Add Refresh Policy

Configure how often Speed Kit automatically checks your site (e.g. every 5 min).

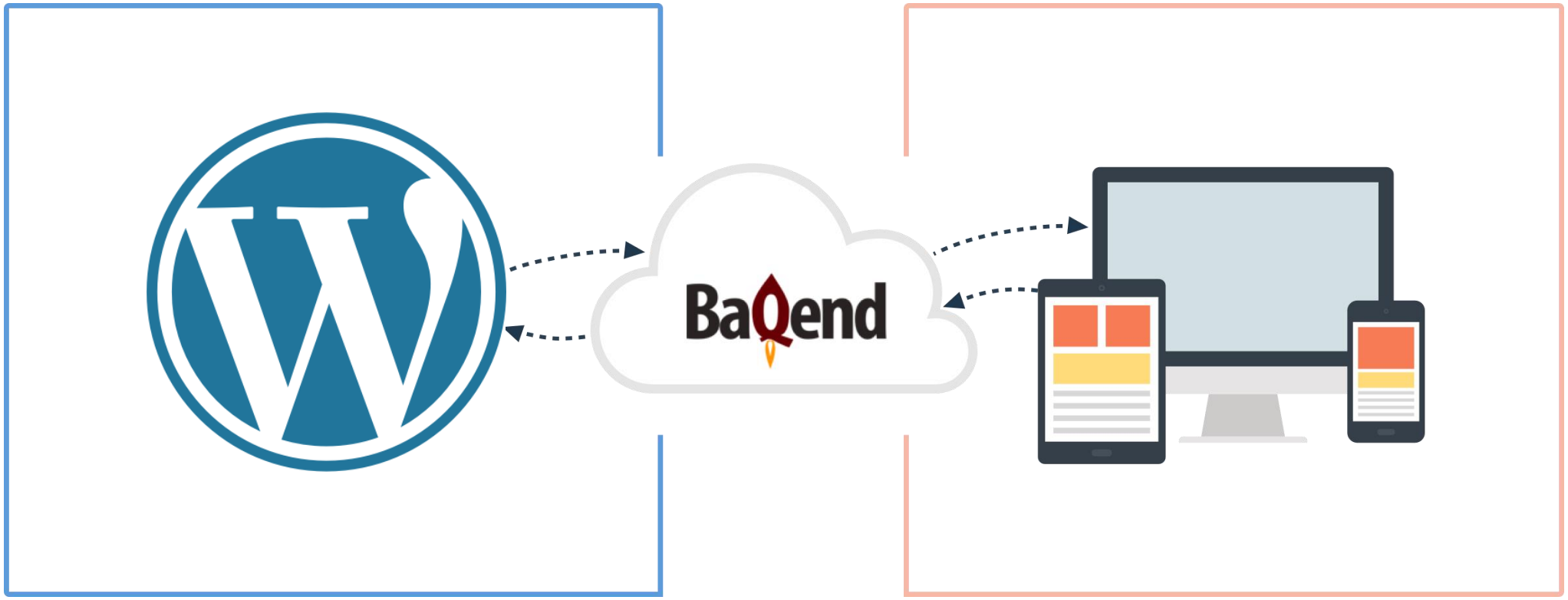
4. Speed Kit is Active

Speed Kit intercepts requests and serves them through Baqend's infrastructure.



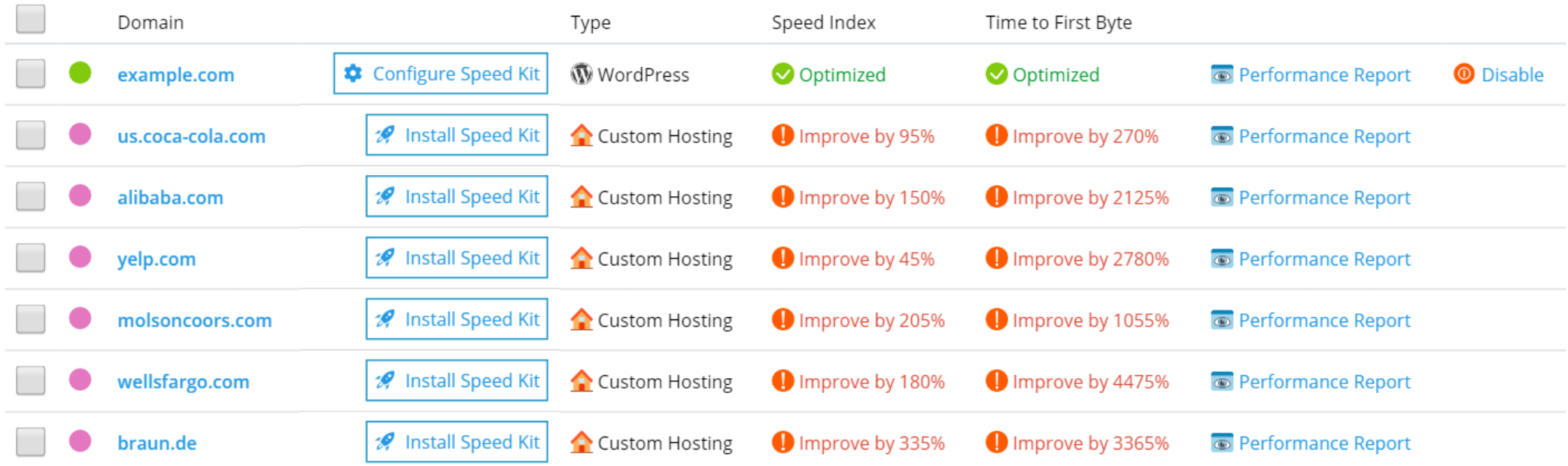
WordPress too slow?

Install the official Speed Kit **plugin**.



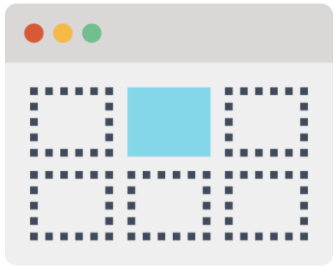
Using Plesk for administration?

Add the 1-Click **Speed Kit Extension**.



Test & Deploy Speed Kit

Try it with minimal effort.

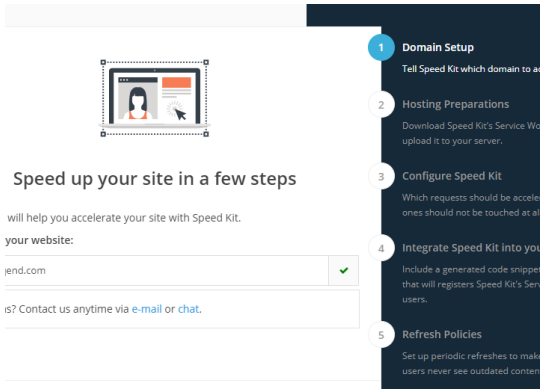


Enable for **Parts of Your Site**
Example: `/shop/en` & `/blog`

Enable and **Disable** in the Dashboard
Instant (De-)Activation of Speed Kit

How to get started.

Here are some helpful resources.



Sign up & walk through the wizard.

Documentation

- Getting Started
- Analyze Performance
- Speedup Policies
- Refresh Policies
- All Guides

Let us build a configuration for you!
support@baqend.com

Dead Simple Pricing.

#Requests + #Bytes

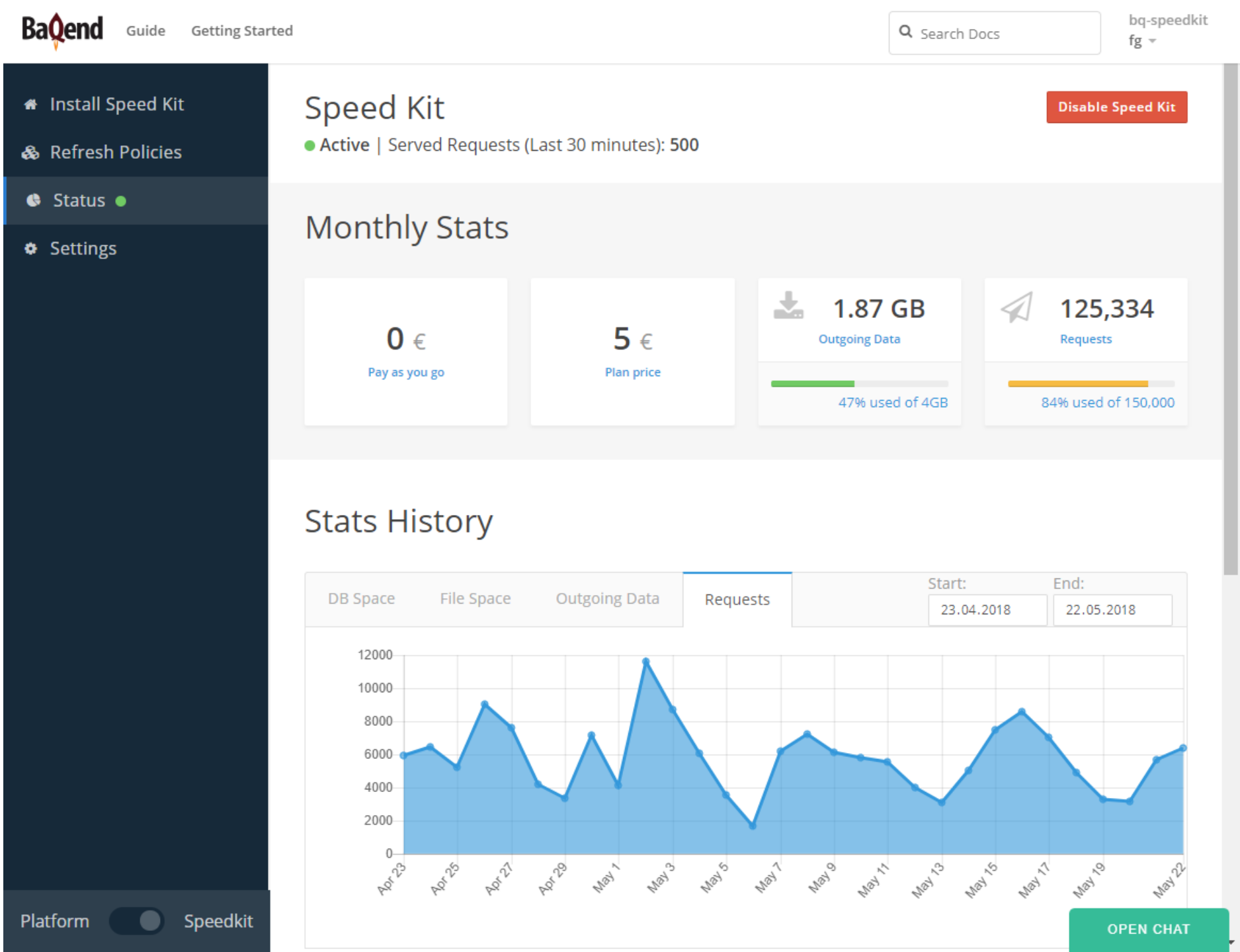
= Pay-as-you-go

Calculate your usage.

Simply enter your page impressions.

Page Impressions		69,662	
Requests		2,194,353	69.51€
Traffic		62.039 GB	19.73€
Total			89.24€

Manage
Speed Kit



In which browsers is Speed Kit available?

>85% of users will have it by default.

In older browsers (and upon errors)
your original site is loaded.

Built-in privacy & GDPR-compliance.

No external processing of sensitive user information.

Privacy by default

No cookies leaked &
only public data cached

Full Control

Decision what to handle
made in client (whitelist)

It works for them.

Speed Kit not only makes page loads for Fussballdaten.de **twice as fast**. Our servers could also handle the notorious end-of-season **load peaks** with ease. Through the Dynamic Blocks feature, our live tickers are further **always up-to-date** – it's the best of caching, but without staleness!

fussballdaten

How is Speed Kit different from CDNs?

Better
Performance

Dynamic Data &
Browser Caching

Simpler
Integration

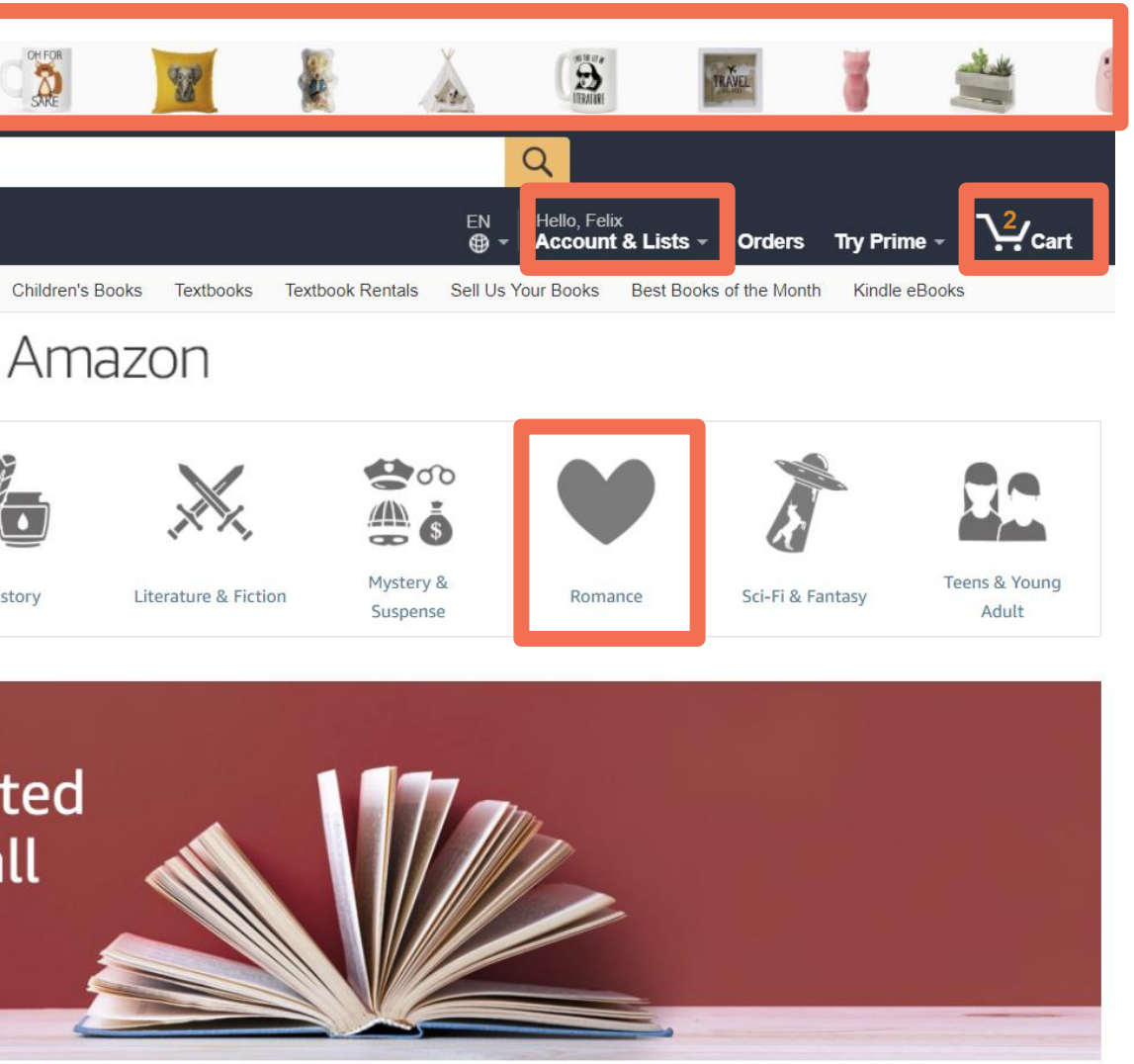
Speed Kit
Code Snippet

No Technical
Lock-in

Speed Kit
on/off Toggle

Advanced Use Cases & Details.

Handle personalized content.

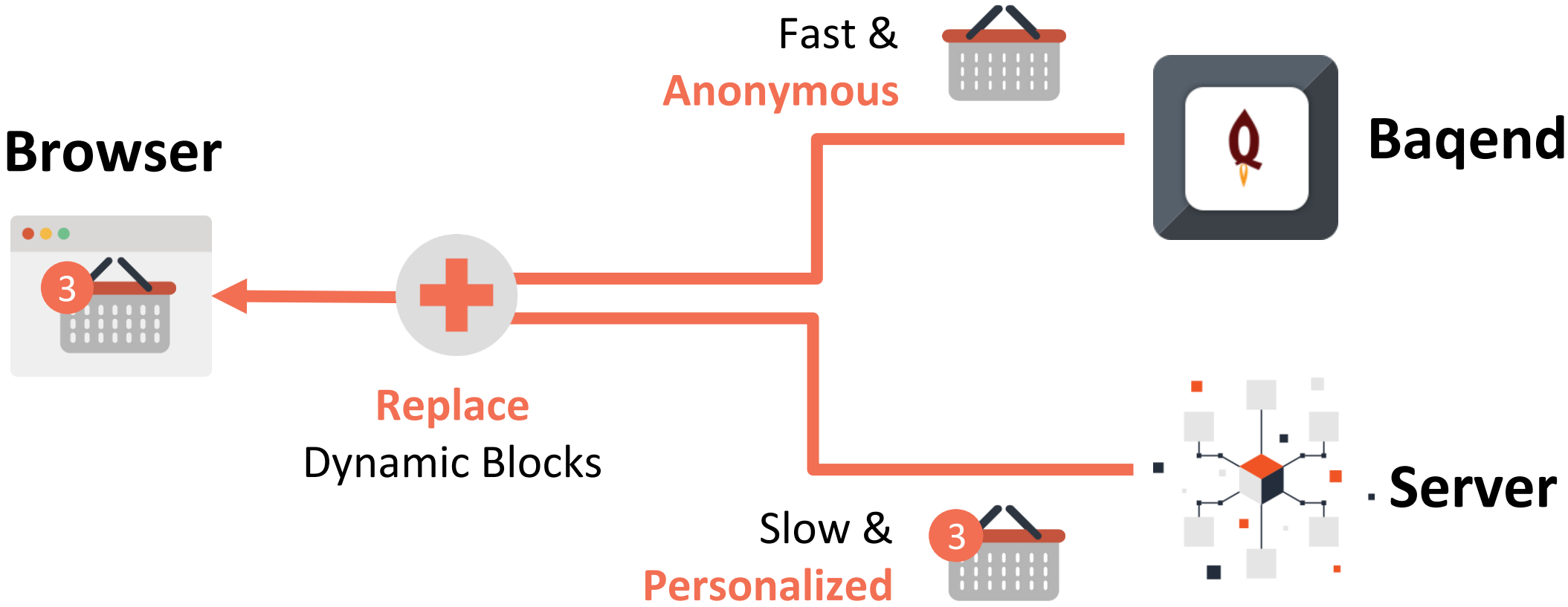


Speed Kit's **Dynamic Blocks** for shops, A/B tests, etc.:

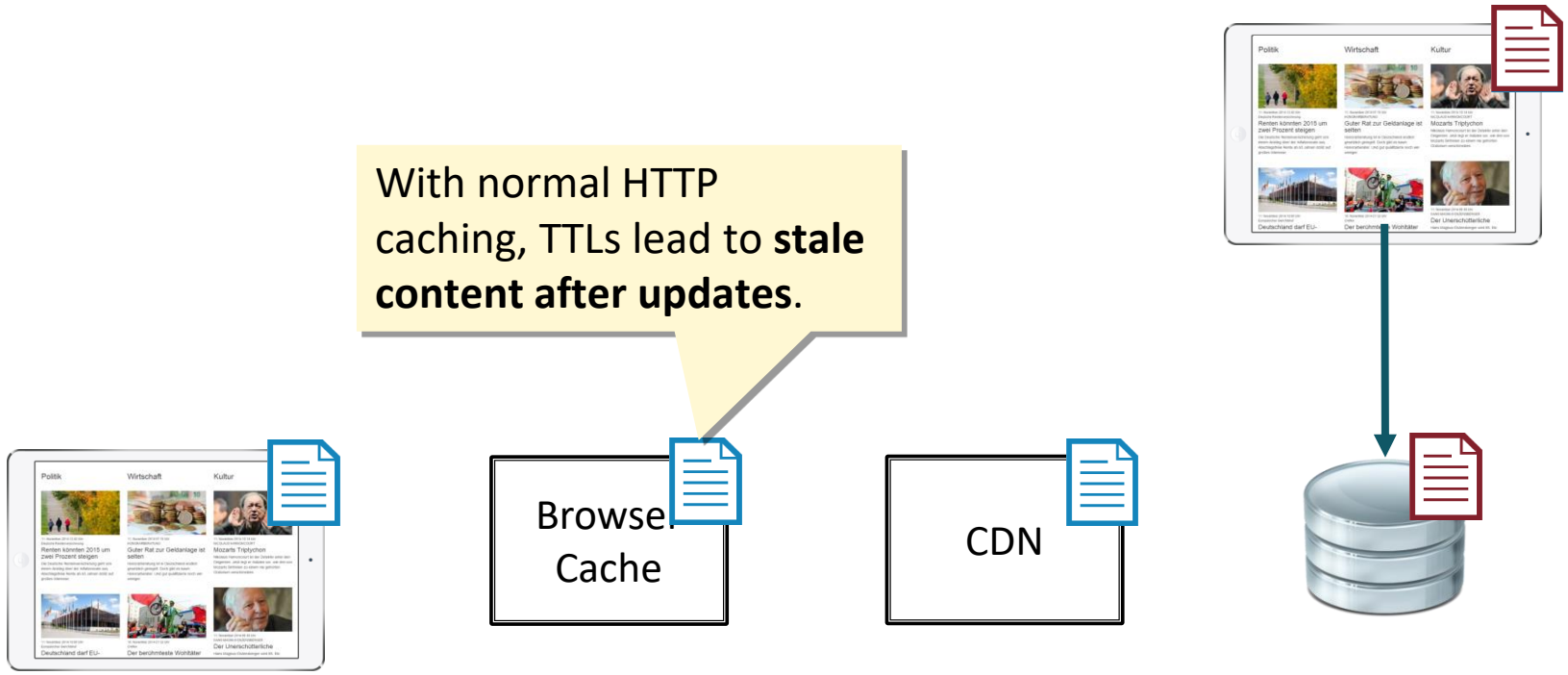
1. Blocks **defined** by selector.
2. Speed Kit loads a fast anonymous & the personalized view in **parallel**.
3. Dynamic blocks are **replaced**.

Solution: Dynamic Blocks

Accelerates even highly personalized sites.



How Baqend solves cache coherence.



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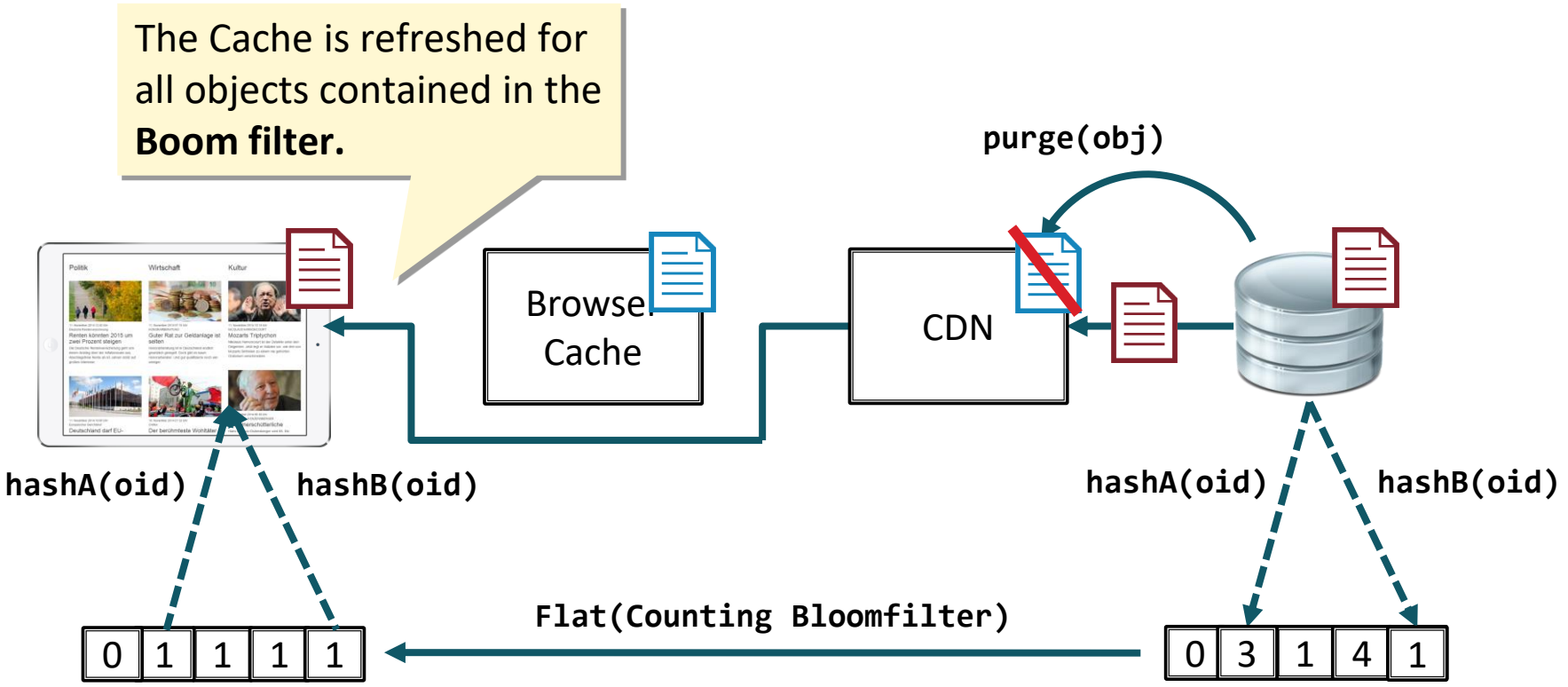
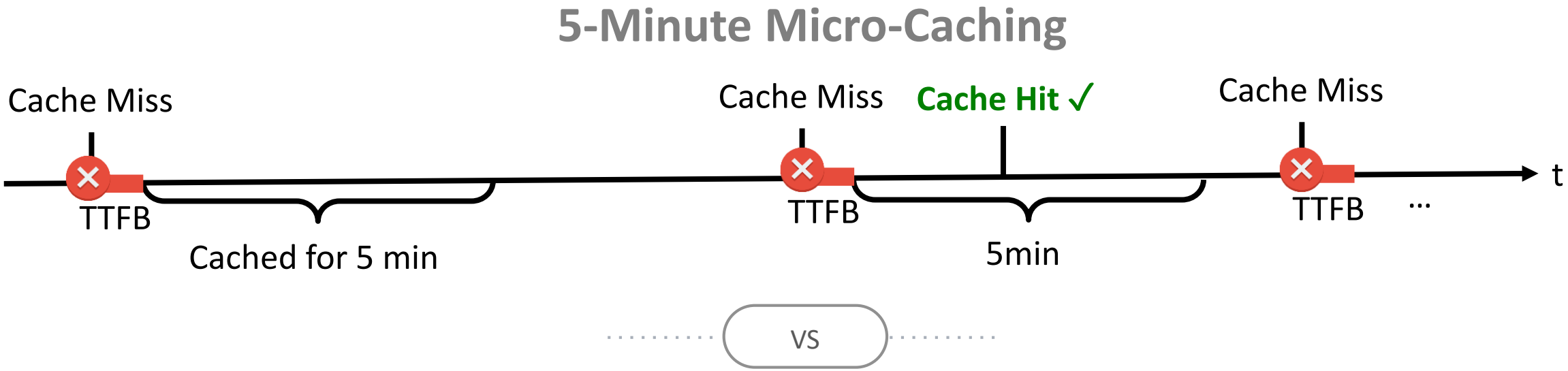


Learn more in our research papers and our blog: blog.baqend.com

Why is Speed Kit better than micro-caching?



Make page speed your competitive advantage.

www.baqend.com