



ARE THEY REALLY USING IT?

# MONITORING DIGITAL EXPERIENCE TO DETERMINE FEATURE EFFECTIVENESS

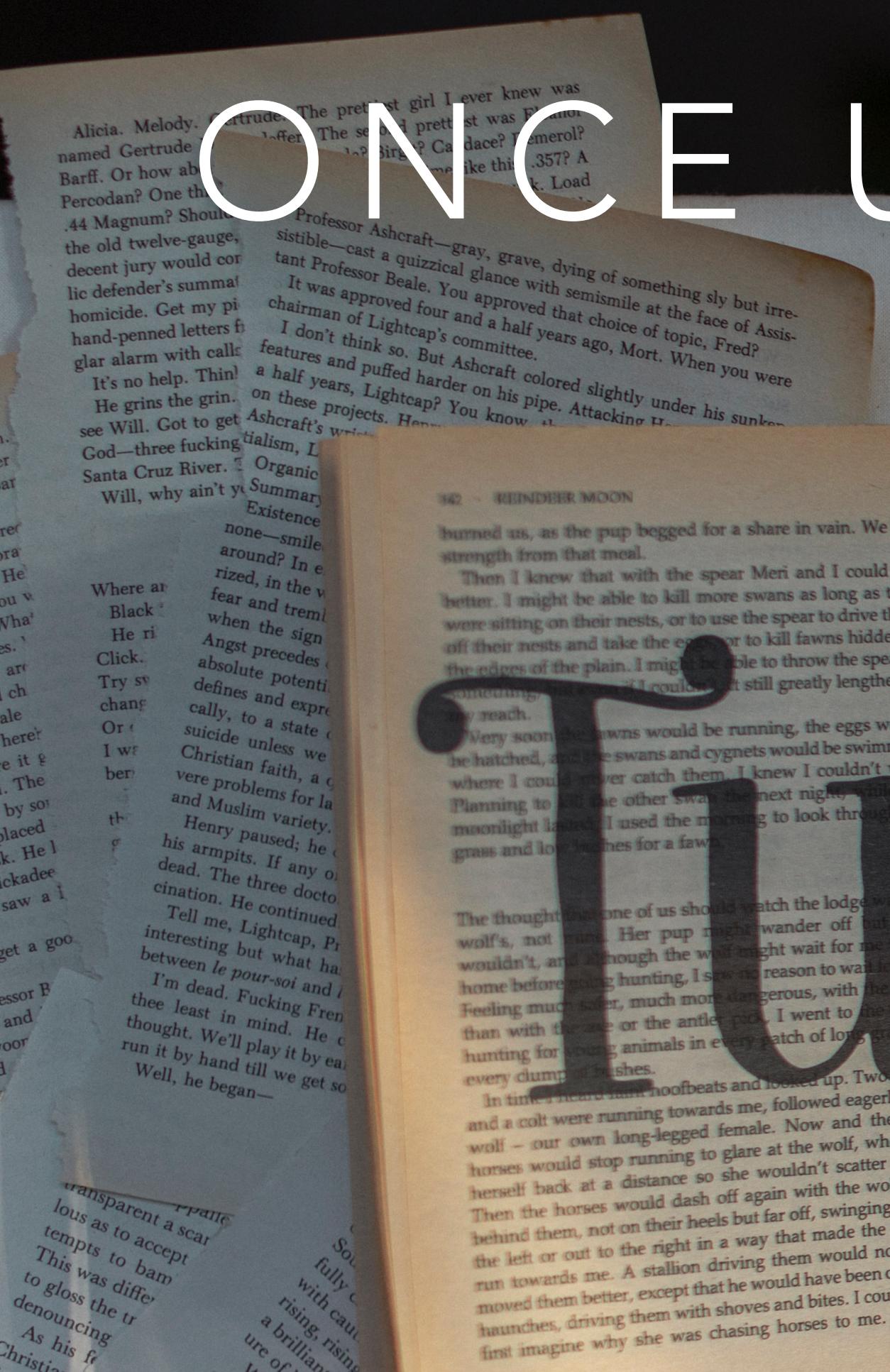
CARLY RICHMOND





# RED ALERT!

# ONCE UPON A TIME...

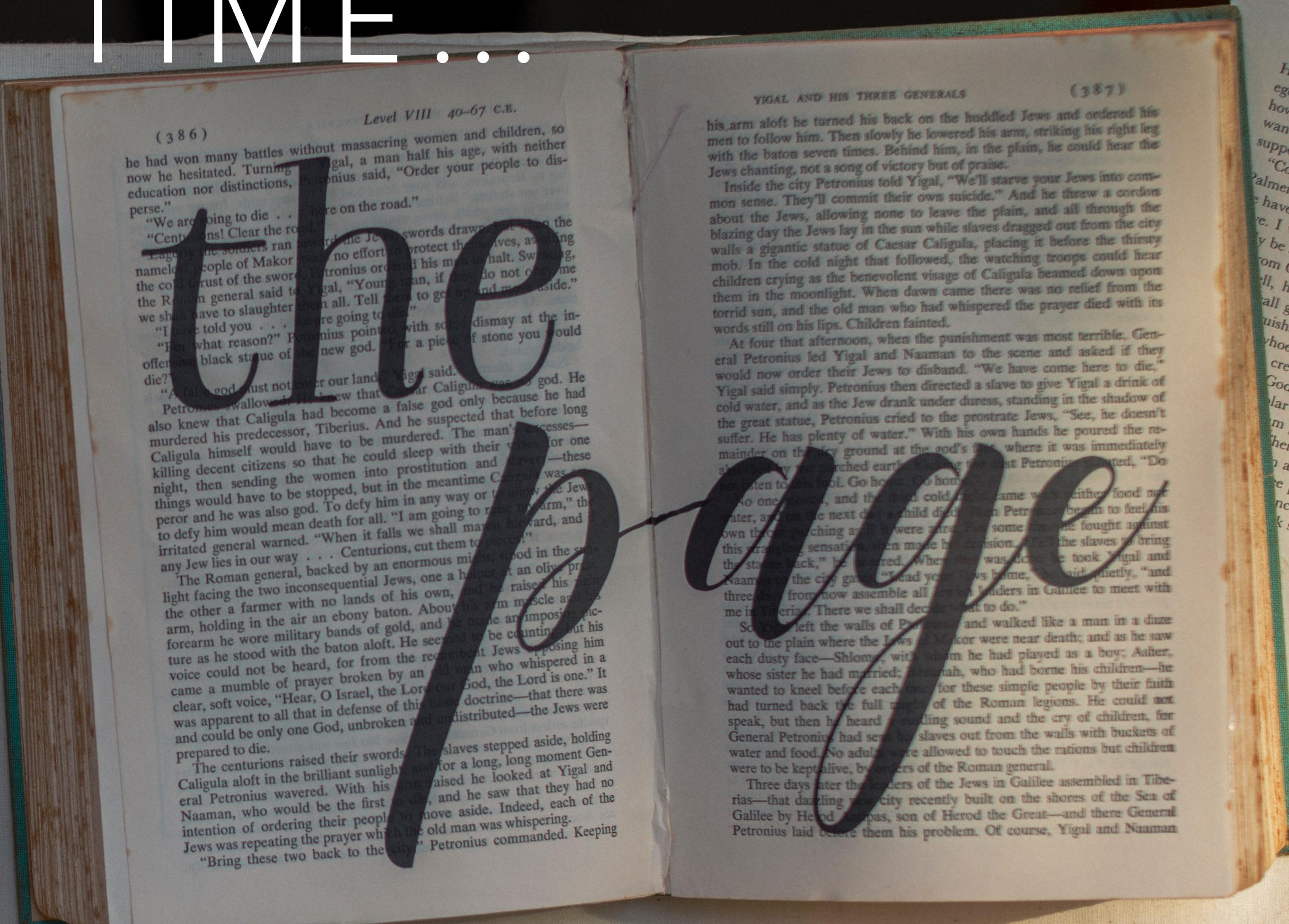


The Pump House Gang  
What is he? What is he?  
What is he? What is he?  
What is he? What is he?

What is he? What is he?  
What is he? What is he?  
What is he? What is he?  
What is he? What is he?

Allegro Good  
38  
pompous, coupling her pronoun cars and safety with her insistence on minutiae like fish fo driving up with Isaac. She speaks insisting on minutiae like fish fo know about. Over time Nina has in her observance, so that she pervised restaurants when she trusts such places entirely. And home and sleep through service set a good example for the child morally, Nina is right to insist. They are going to be religious, you holiday and law. They believed do things by halves.

near Albuquerque, New Mexico, where leather-skinned men from the United States undercravats and burnish neurons at exorbitant prices. Commercial relations between tobacco and bubble gum listed men on white-hair gantly coordinated people were people who



@CarlyLRichmond

Soviet delegation on the last Message. But south-central the world's press, and there was in which they could talk unobtrusively. Sometimes it seemed that quarters at the Argus facility. hanging by a presidential thread. Pagan she felt just before Ken's arrival, vaguely aware, by more than that, so they got around to him while loaning him a shirt. Ellie said, "The man is scared stiff," Ellie said, "The Message is going to be egesis or something that shakes his foundations. How a new scientific paradigm has come to be the voice of reason." Compared to the Doomsday Chiliasm Palmer Joss is the soul of moderation," she said. I worry about that a lot these days. Be sure that it isn't a message from God or the Devil? Ken, you can't be all good or evil, who somebody like Joss is. There must be more pressing things for him to do. Create the universe. And they're nothing in the Vega system. Remember, Vega, the Sun, and a solar neighborhood are in some backwater galaxy. Why should I Am That I Am? In a bind. You know Joss is very inclined to make some concession to God. She wants to put him and a bunch of

dinner herself in her modest apartments at the Argus facility. Sometimes it seemed that hanging by a presidential thread. Pagan she felt just before Ken's arrival, vaguely aware, by more than that,

about. So sometimes it seemed that hanging by a presidential thread. Pagan she felt just before Ken's arrival, vaguely aware, by more than that, so they got around to him while loaning him a shirt. Ellie said, "The man is scared stiff," Ellie said, "The Message is going to be egesis or something that shakes his foundations. How a new scientific paradigm has come to be the voice of reason." Compared to the Doomsday Chiliasm Palmer Joss is the soul of moderation," she said. I worry about that a lot these days. Be sure that it isn't a message from God or the Devil? Ken, you can't be all good or evil, who somebody like Joss is. There must be more pressing things for him to do. Create the universe. And they're nothing in the Vega system. Remember, Vega, the Sun, and a solar neighborhood are in some backwater galaxy. Why should I Am That I Am? In a bind. You know Joss is very inclined to make some concession to God. She wants to put him and a bunch of

men to follow him. Then slowly he lowered his arm, striking his right leg with the baton seven times. Behind him, in the plain, he could hear the Jews chanting, not a song of victory but of praise.

Inside the city Petronius told Yigal, "We'll starve your Jews into common sense. They'll commit their own suicide." And he threw a cordon about the Jews, allowing none to leave the plain, and all through the blazing day the Jews lay in the sun while slaves dragged out from the city walls a gigantic statue of Caesar Caligula, placing it before the thirsty mob. In the cold night that followed, the watching troops could hear children crying as the benevolent visage of Caligula beamed down upon them in the moonlight. When dawn came there was no relief from the torrid sun, and the old man who had whispered the prayer died with its words still on his lips. Children fainted.

At four that afternoon, when the punishment was most terrible, General Petronius led Yigal and Naaman to the scene and asked if they would now order their Jews to disband. "We have come here to die," Yigal said simply. Petronius then directed a slave to give Yigal a drink of cold water, and as the Jew drank under duress, standing in the shadow of the great statue, Petronius cried to the prostrate Jews, "See, he doesn't suffer. He has plenty of water." With his own hands he poured the remainder on the sky ground at the god's feet, where it was immediately absorbed. The parched earth drank the last Petronius stated, "Do as I tell you. Go home to your families. No one more, and the dead cold flesh came with neither food nor water, and then the next day a child discovered Petronius beaten to feel his own flesh peeling away. Some time he fought against this straining sensation, then made his decision. "Kill the slaves to bring the statue back," he ordered. When this was done he took Yigal and Naaman to the city gate. "Lead your Jews home," he said, quietly, "and three days from now assemble all Jewish leaders in Galilee to meet with me in Tiberias. There we shall decide what to do."

So they left the walls of Petronius and walked like a man in a daze out to the plain where the Jews of Makor were near death; and as he saw each dusty face—Shlomo, with whom he had played as a boy; Asher, whose sister he had married; Naamah, who had borne his children—he wanted to kneel before each one for these simple people by their faith had turned back the full rage of the Roman legions. He could not speak, but then he heard a rending sound and the cry of children, for General Petronius had sent his slaves out from the walls with buckets of water and food. No adults were allowed to touch the rations but children were to be kept alive, by orders of the Roman general.

Three days later the leaders of the Jews in Galilee assembled in Tiberias—that dazzling new city recently built on the shores of the Sea of Galilee by Herod Antipas, son of Herod the Great—and there General Petronius laid before them his problem. Of course, Yigal and Naaman

# Records

wse our record selection today!

Elements Console Sources Network Performance Memory Application Security Lighthouse » 1 ⚙️ ⋮

+ | 15:24:33 - localhost:4200 ▾

Perform an audit... 4200/records?terms=

20/26 6/7

Performance Best Practices

20/26

Performance

▲ 0–49 ■ 50–89 ● 90–100

METRICS

▲ Total Blocking Time  
400 ms  
Sum of all time periods between FCP and Time to Interactive, when task length exceeded 50ms, expressed in milliseconds. [Learn more](#).

● Interaction to Next Paint  
40 ms  
Interaction to Next Paint measures page responsiveness, how long it takes the page to visibly respond to user input. [Learn more](#).

Collapse view

View Trace View Treemap

SIDE B (STEREO)  
19975883381  
33 1/3 RPM

Show audits relevant to: All TBT CLS INP



CORE WEB VITALS

LCP

# LARGEST CONTENTFUL PAINT

The render time of the largest image or text block visible within the viewport



FID

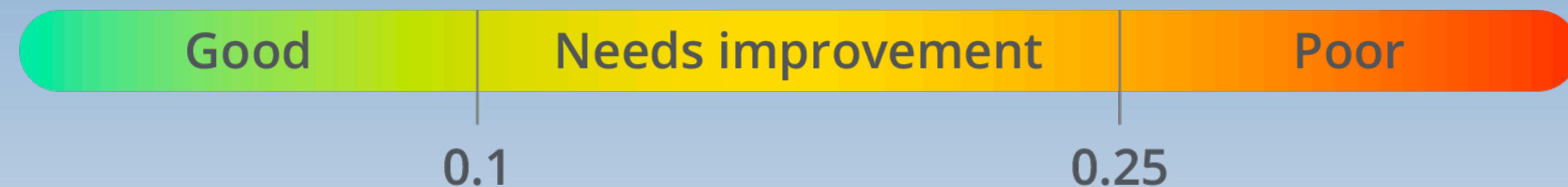
# FIRST INPUT DELAY

The time from when a user inputs an action or command  
and the page executes it



# CUMULATIVE LAYOUT SHIFT

The largest burst of *layout shift scores* for every unexpected layout shift that occurs during the entire lifespan of a page



WEB PROFILING

# LIMITATIONS



# Twitter is testing a status feature that's taking us back to MySpace

Amanda Silberling @asilbwrites 9:31 PM GMT+1 • July 27, 2022

Comment



GoodUI PATTERNS TESTS LEAKS TEMPLATES COACHING BLOG Log In Get Access

## Google Has Been A/B Testing Link Colors (Again) And This Light Blue Didn't Pass

Leak #16 from Google.com | Jul 22, 2019 [Listing](#)

It's been a decade since it was first discovered that [Google has famously tested those 41 shades of blue](#).

Last month I discovered that they began experimenting with link colors on their search results screen - once again. This time Google tested a lighter blue with a lower contrast which turned out that they rejected (most likely due to a negative experiment result).



Published in Netflix TechBlog



Netflix Technology Blog

Sep 7, 2021 • 3 min read • Listen



## Decision Making at Netflix

Martin Tingley with Wenjing Zheng, Simon Ejdemyr, Stephanie Lane, and Colin McFarland

*This introduction is the first in a multi-part series on how Netflix uses A/B tests to make decisions that continuously improve our products, so we can deliver more joy and satisfaction to our members. Subsequent posts will cover the basic statistical concepts underpinning A/B tests, the role of experimentation across Netflix, how Netflix has invested in infrastructure to support and scale experimentation, and the importance of the culture of experimentation within Netflix.*

WIRED

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FEATURED

HOW TO DIGITIZE OLD PHOTOS

BEREAL BASICS

BEST TABLETS FOR WORK AND PLAY

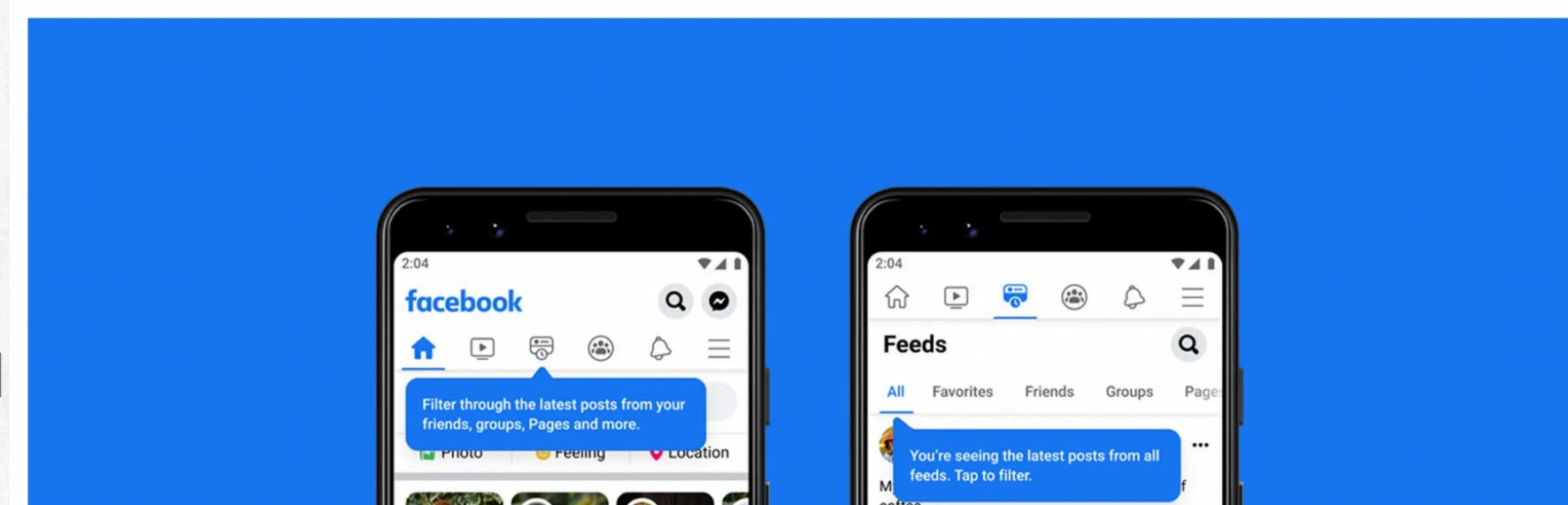
BEST CAMERA BAGS AND ACCESSORIES

BUYING GUIDES

GADGET LAB NEWSLETTER

## As Facebook Becomes TikTok, a New Feeds Tab Ditches the Algorithm

Big changes are coming to the platform.



@CarlyLRichmond

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Instagram

## Instagram rolls back some changes to app after user backlash

**Reversal includes toning down algorithm that resulted in users' feeds being deluged with videos from accounts they do not follow**

Dan Milmo *Global technology editor*

Thu 28 Jul 2022 22.48 BST





# Why CoStar's Alleged Employee Monitoring Program Could Backfire

Tom Spiggle Senior Contributor *I'm an employment lawyer who writes about your workplace rights.*

The New York Times

**Elon Musk intensifies his crackdown on working from home: Tesla is now tracking how frequently staffers swipe into the office and warning them if they don't show up often enough**



# Amazon's AI Cameras Are Punishing Drivers for Mistakes They Didn't Make

Amazon delivery drivers say surveillance cameras installed in their vans have made them lose income for reasons beyond their control.

# Workers Are Using 'Mouse Movers' So They Can Use the Bathroom in Peace

"The tables have turned in favor of the Worker," said one mouse jiggler company. "They are in power today."



# 'Bossware is coming for almost every worker': the software you might not realize is watching you

Computer monitoring software is helping companies spy on their employees to measure their productivity - often without ent

byn

TUC warns against employee monitoring after Post Office scandal

by Jo Faragher | 28 Feb 2022



**JPMorgan Chase staffers complain of being 'watched' all the time as the bank seems to be growing more secretive with its employee-tracking systems**

Samantha Delouya

July 7, 2022 · 2 min read

# Barclays faces \$1.1B fine over alleged monitoring of employees

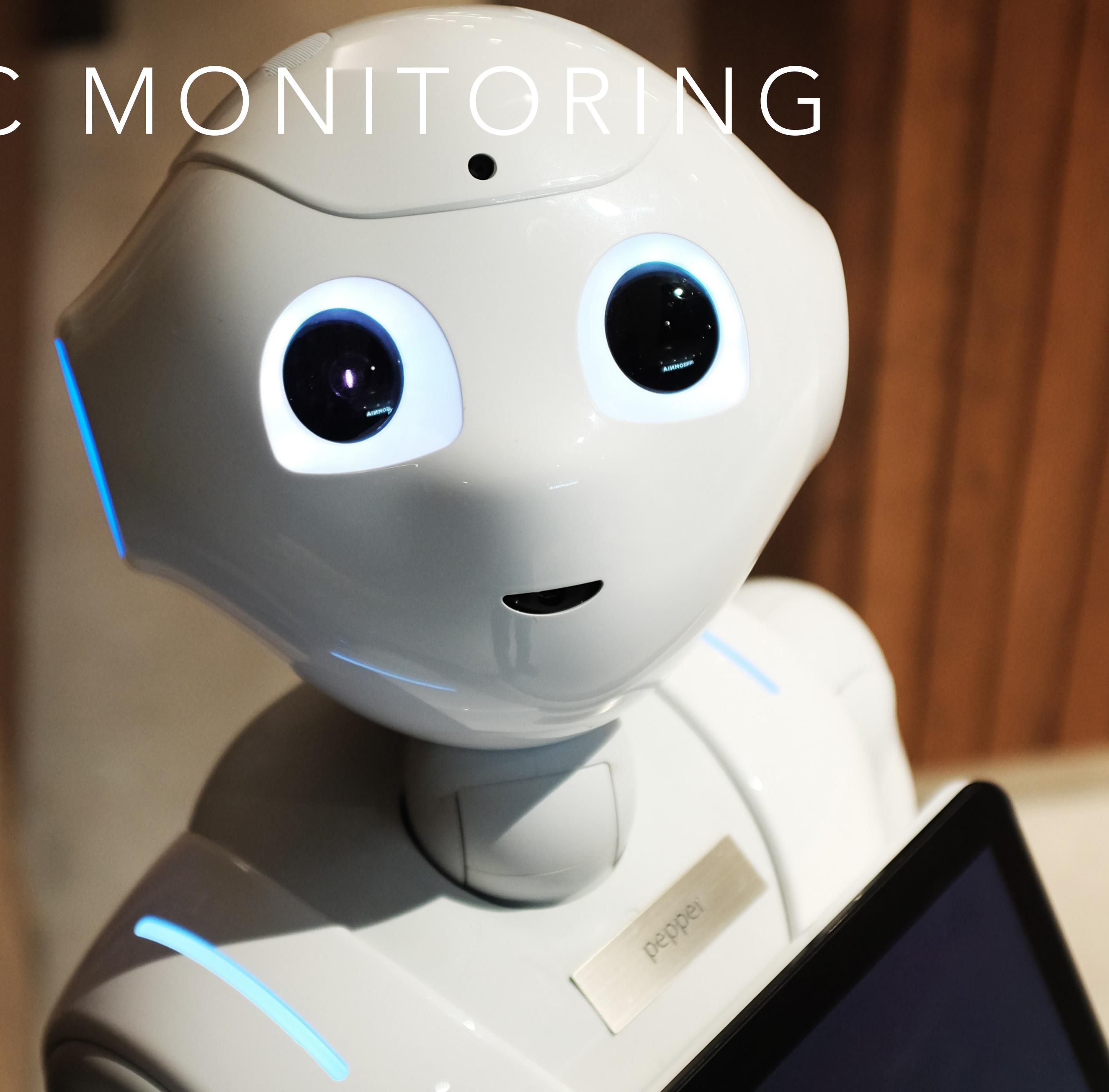
Published Aug. 10, 2020



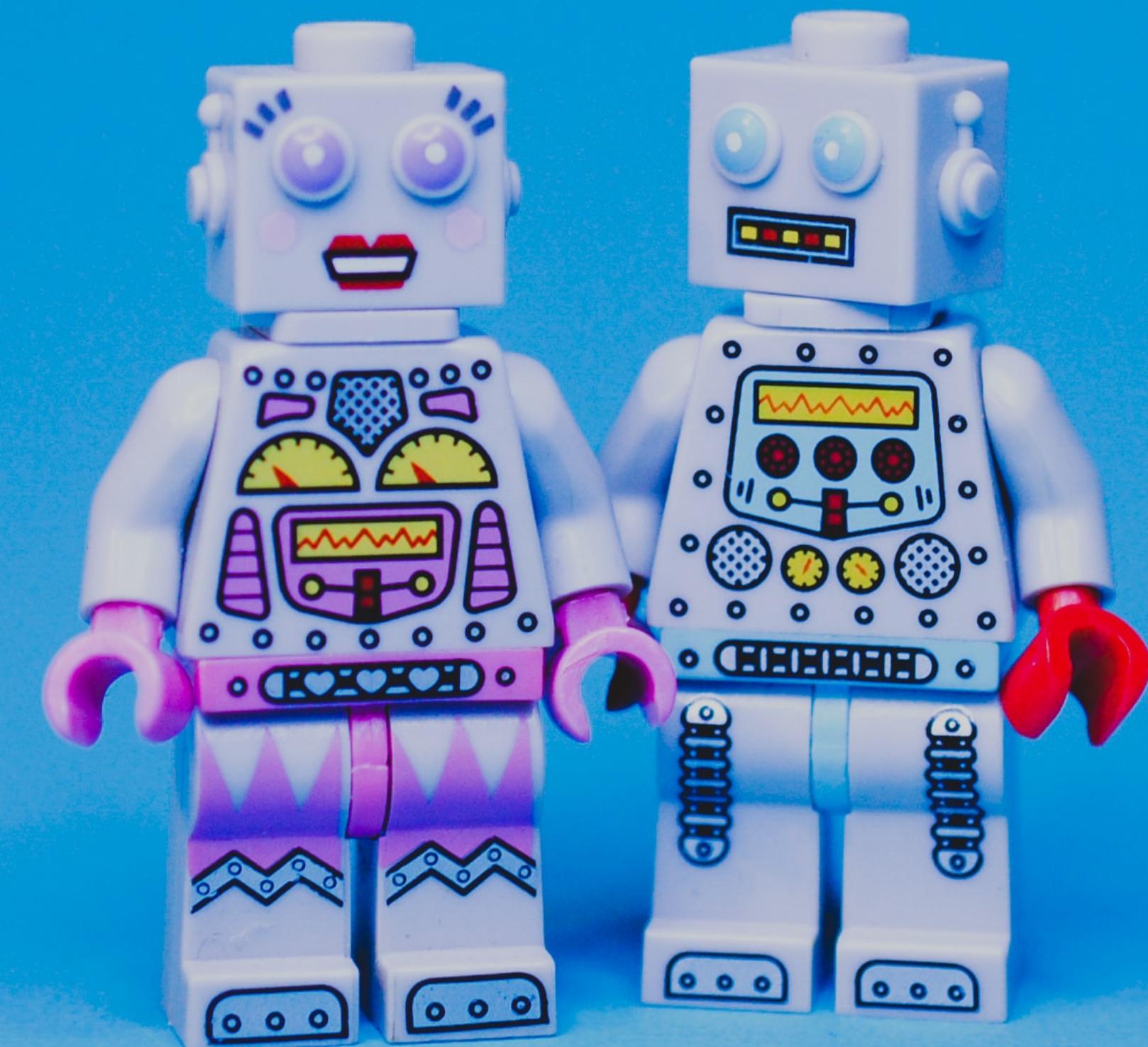
Dan Ennis

Senior Editor

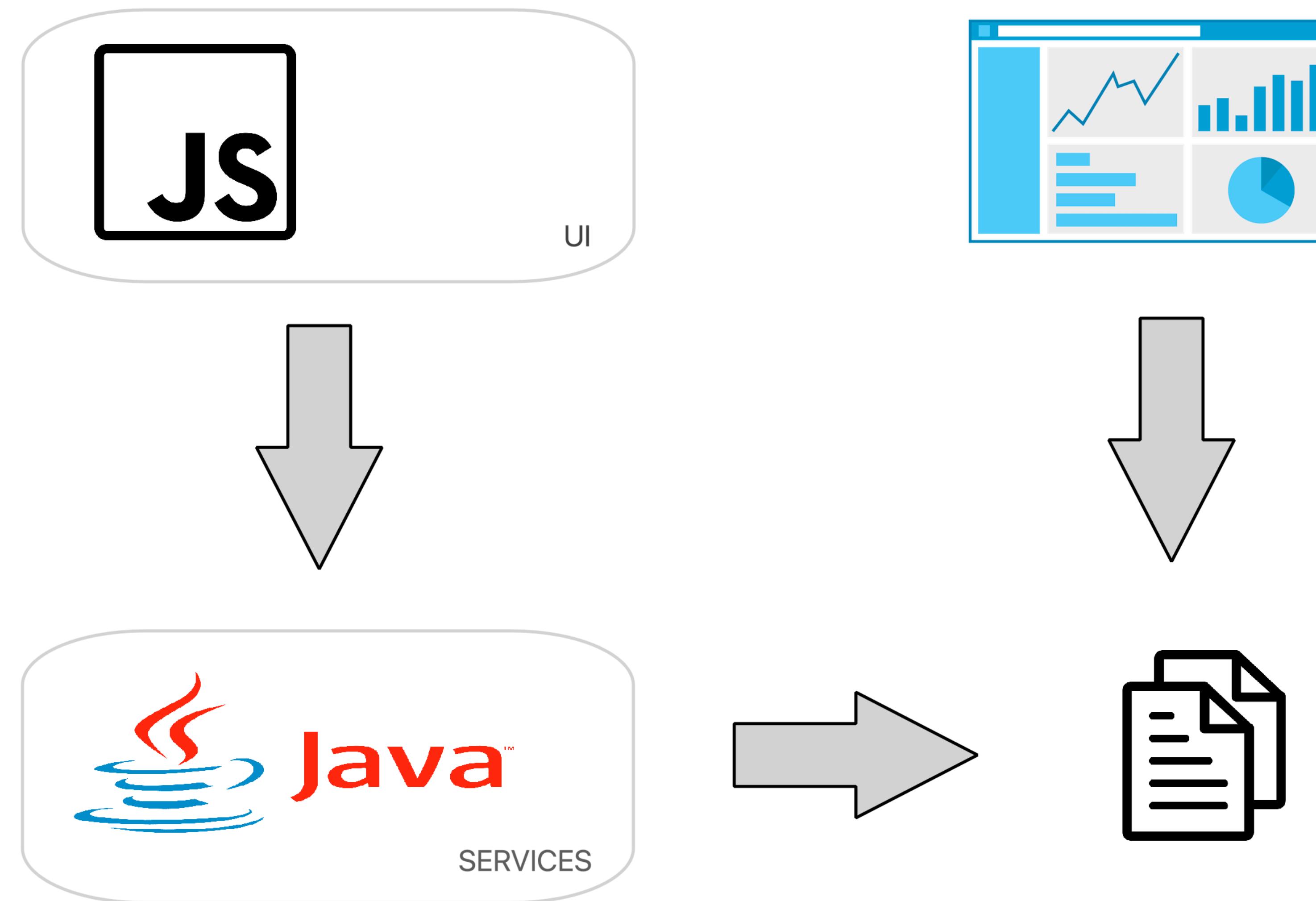
# SYNTHETIC MONITORING



# BUILD YOUR OWN MONITORING



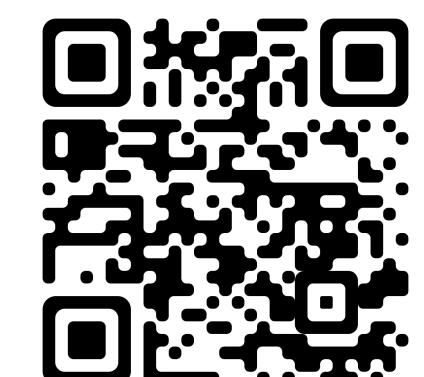
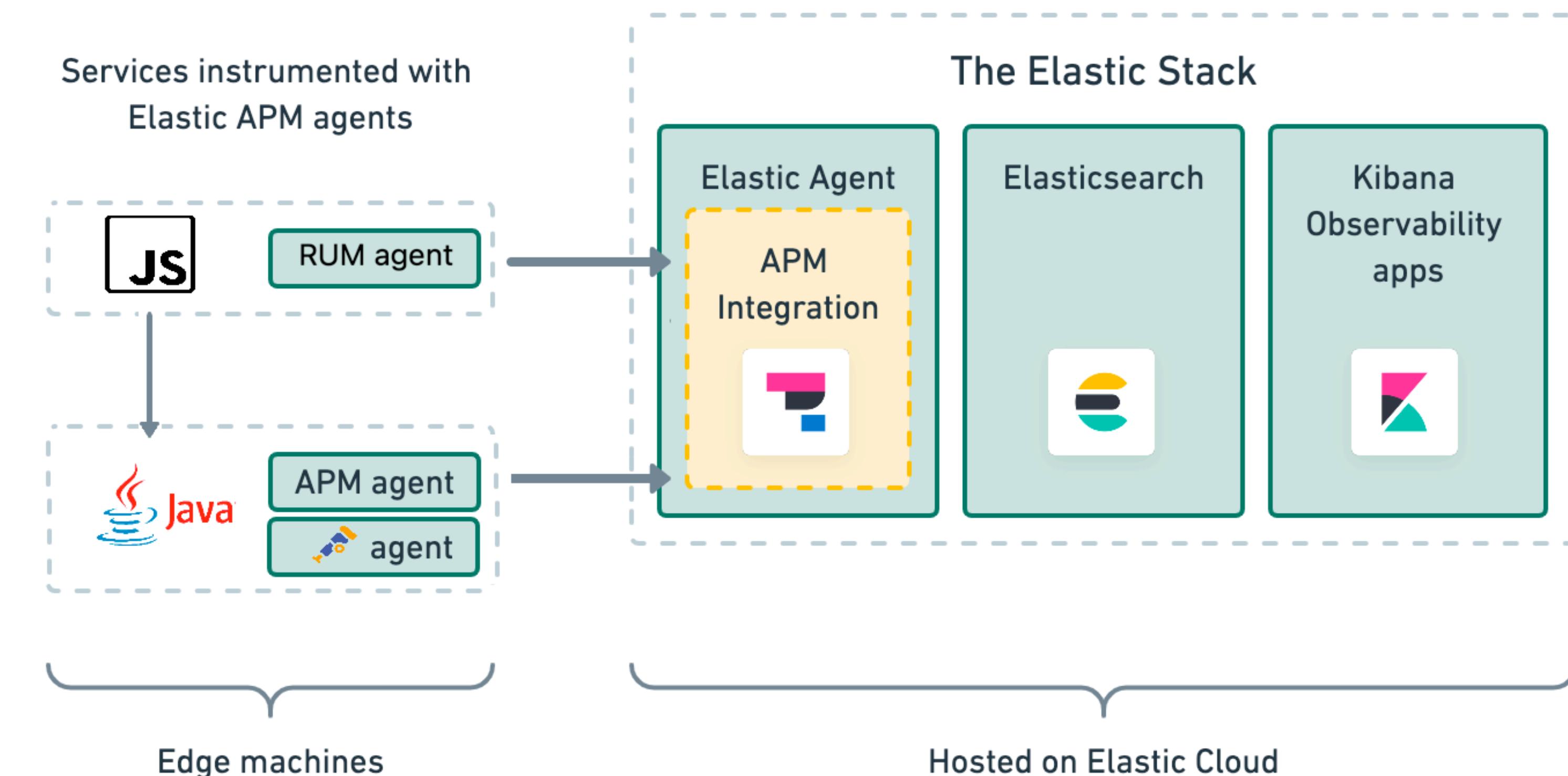
# BYO MONITORING





MORE REAL USER MONITORING!

# SAMPLE RUM ARCHITECTURE





## app.js

```
1 const apm = initApm({  
2   serviceName: 'rum-records-ui',  
3   distributedTracingOrigins: ['http://localhost:8080'],  
4   serverUrl: 'https://my-elastic-deployment:122',  
5   serviceVersion: '1',  
6   environment: 'dev',  
7 });
```



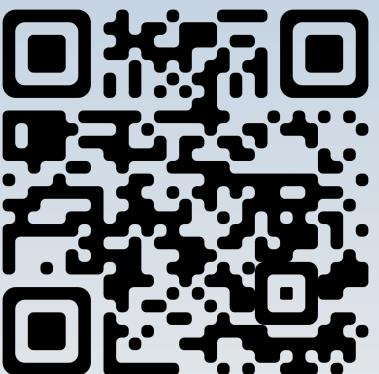
## RumRecordsServerApplication.java

```
1 package com.rum.records.store.server;  
2  
3 import org.springframework.boot.SpringApplication;  
4 import org.springframework.boot.autoconfigure.SpringBootApplication;  
5  
6 import co.elastic.apm.attach.ElasticApmAttacher;  
7  
8 @SpringBootApplication  
9 public class RumRecordsServerApplication {  
10  
11     public static void main(String[] args) {  
12         ElasticApmAttacher.attach();  
13         SpringApplication.run(RumRecordsServerApplication.class, args);  
14     }  
15 }
```



## elasticapm.properties

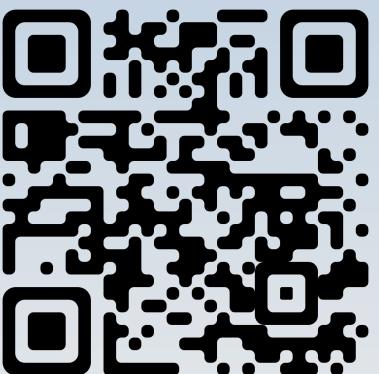
```
1 service_name=rum-records-server
2 server_urls=https://my-elastic-deployment:122
3 secret_token=sssssshhhhhhhhh
4 environment=dev
5 application_packages=com.rum.records.store.server
```





## run-my-java-app.sh

```
1 export OTEL_RESOURCE_ATTRIBUTES=
2   service.name=rum-records-server,
3   service.version=1,
4   deployment.environment=dev
5 export OTEL_EXPORTER_OTLP_ENDPOINT=https://my-elastic-deployment:122
6 export OTEL_EXPORTER_OTLP_HEADERS=Authorization=Bearer sssssssshhhhhhhhhh
7 export OTEL_METRICS_EXPORTER=otlp
8 export OTEL_LOGS_EXPORTER=otlp
9 export OTEL_TRACES_EXPORTER=otlp
10
11 java -javaagent:/path/to/opentelemetry-javaagent.jar
12   com.rum.records.store.server.RumRecordsServerApplication
```





# IT'S SO SLOW



**Observability**

Overview

Alerts

Cases

Logs

Stream

Anomalies

Categories

Metrics

Inventory

Metrics Explorer

APM

Services

Traces

Dependencies

Service Map

Uptime

Monitors

TLS Certificates

User Experience

Dashboard**Dashboard**

Last 30 days

Refresh

Web application rum-records-react-ui

Percentile 50th (Median)

Environment All

Filter by URL

Location 1

Device 1

OS 1

Browser 5

▼

▼

**Page load (median)**

Total②

**439 ms**

Backend②

**13 ms**

Frontend②

**426 ms**

Total page views

**385****Metrics (median)**

First contentful paint②

**300 ms**

Total blocking time②

**15 ms**

No. of long tasks②

**2**

Longest long task duration②

**101 ms**

Total long tasks duration②

**137 ms****Core web vitals ②**

88% of the traffic represented ②

Largest contentful paint②

**324 ms**

● Good (80%) ● Needs improvement (10%) ● Poor (10%)

First input delay②

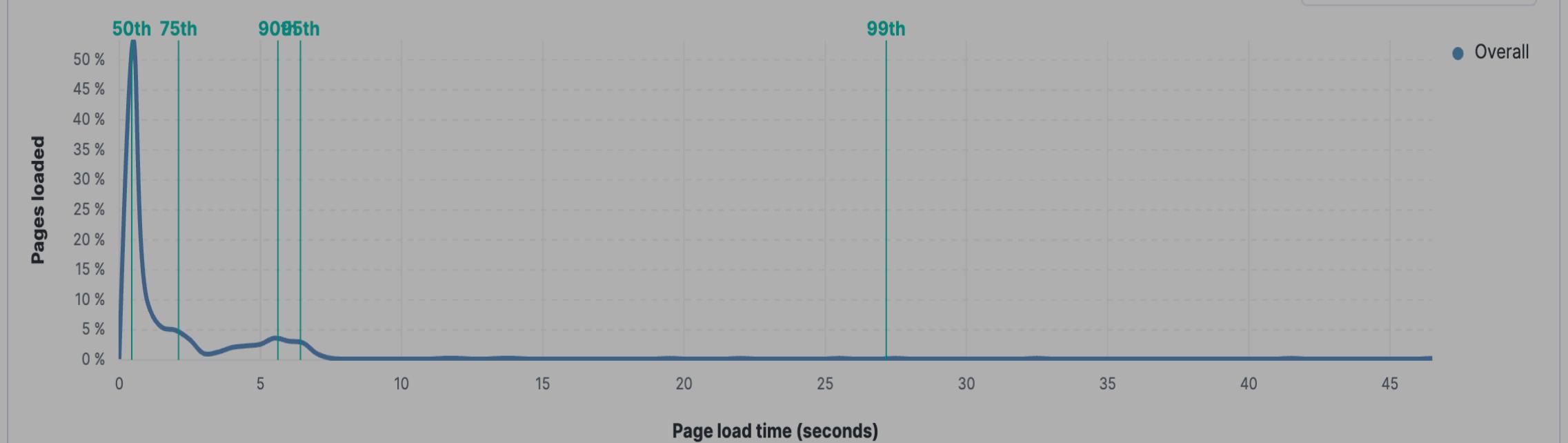
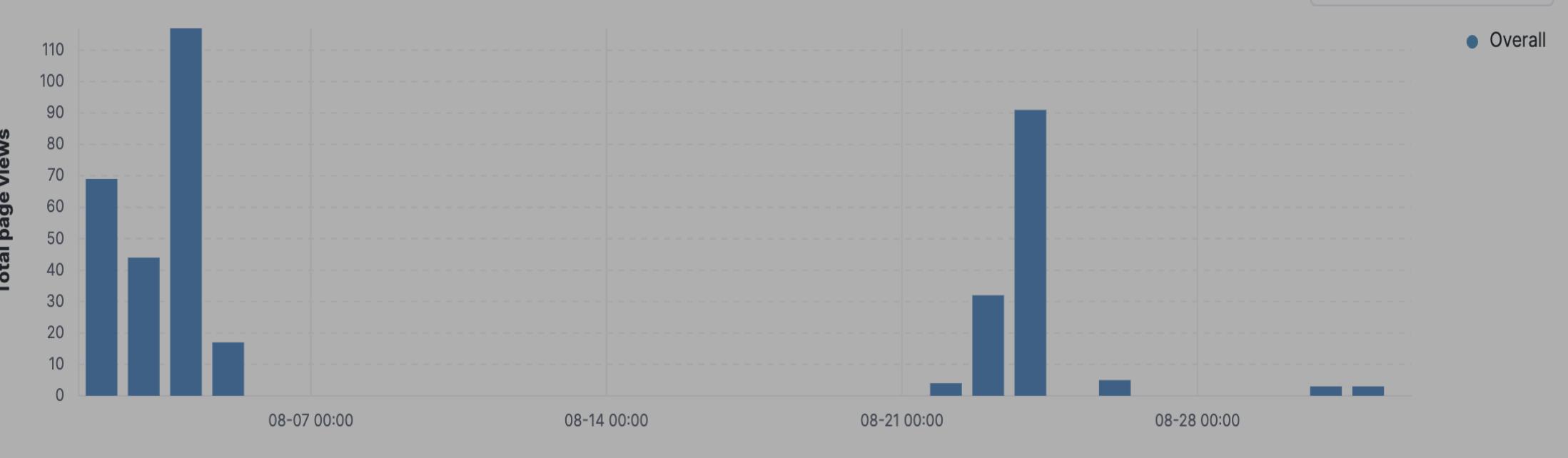
**1 ms**

● Good (100%) ● Needs improvement (0%) ● Poor (0%)

Cumulative layout shift②

**0.008**

● Good (89%) ● Needs improvement (7%) ● Poor (4%)

**Page load distribution****Total page views****Page load duration by region (avg.)****Visitor breakdown**

Browser



Mac OS X

Operating system

@CarlyLRichmond

Mac OS X

## Observability

Overview

Alerts

Cases

## Logs

Stream

Anomalies

Categories

## Infrastructure

Inventory

Metrics Explorer

## APM

### Services

Traces

Dependencies

Service Map

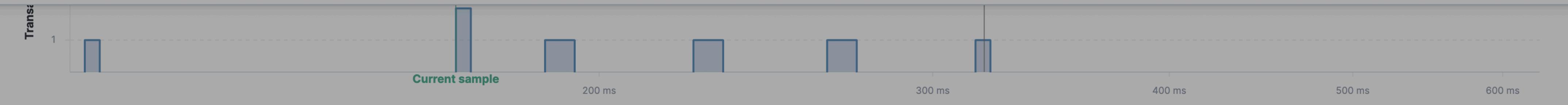
## Uptime

Monitors

TLS Certificates

## User Experience

Dashboard



Trace sample &lt; &lt; 1 of 10 &gt; &gt;

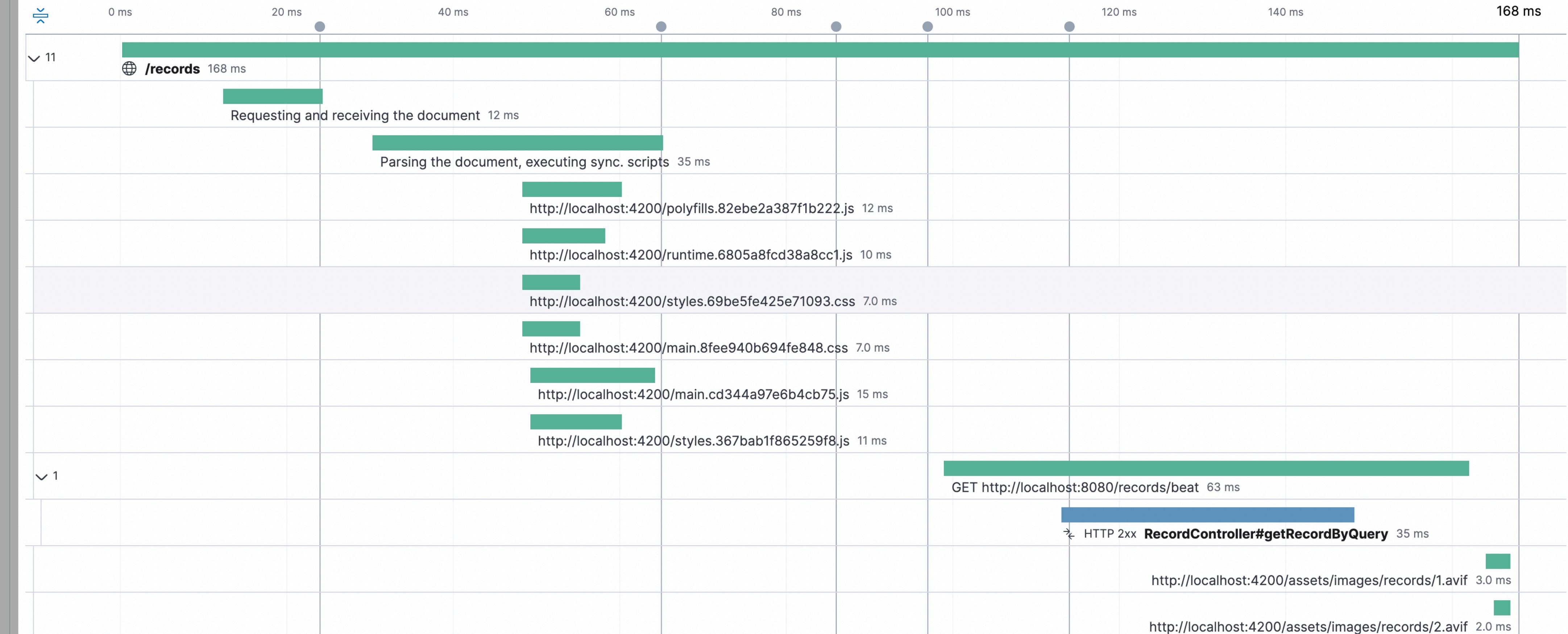
Investigate ▾

View full trace

2 hours ago | 168 ms (100% of trace) | http://localhost:4200/records?terms=beat | Chrome (105.0.0.0)

Timeline Metadata Logs

Services rum-records-react-ui rum-records-server



A photograph of a man and a woman in profile, facing each other. They are both wearing dark grey t-shirts and have their mouths open as if they are shouting or arguing. The man's right hand is pointing towards the woman, and the woman's left hand is pointing towards the man. They appear to be in a room with white walls.

CONFLICTING ACCOUNTS

Contentful paint

ms

Good (80%) Needs improvement (10%) Poor (10%)

First input delay

ms

Good (100%) Needs improvement (0%) Poor (0%)

Cumulative layout shift

0.008

Good (89%) Needs improvement (7%) Poor (4%)

**Load distribution****Load duration by region (avg.)****Script errors**

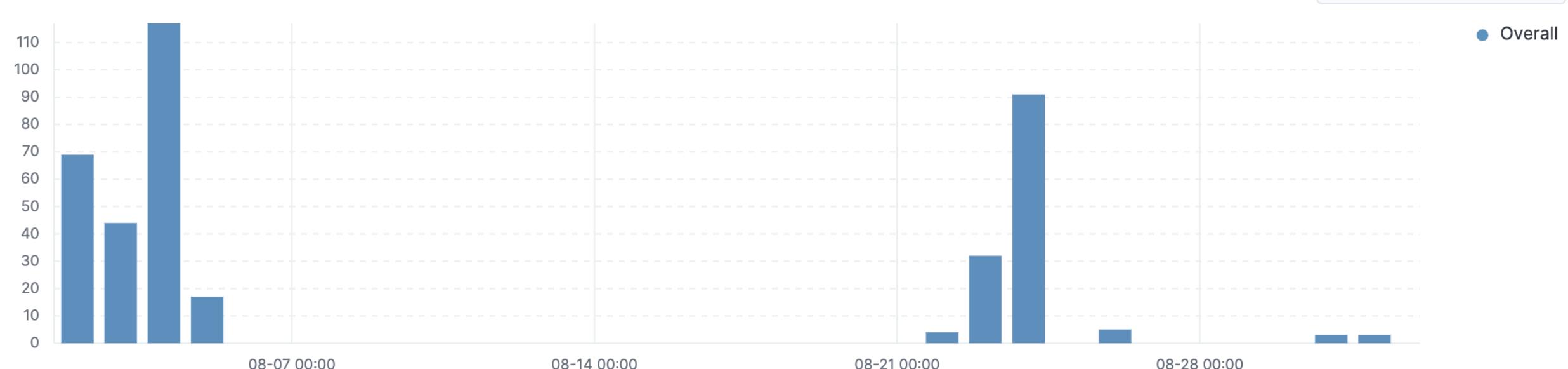
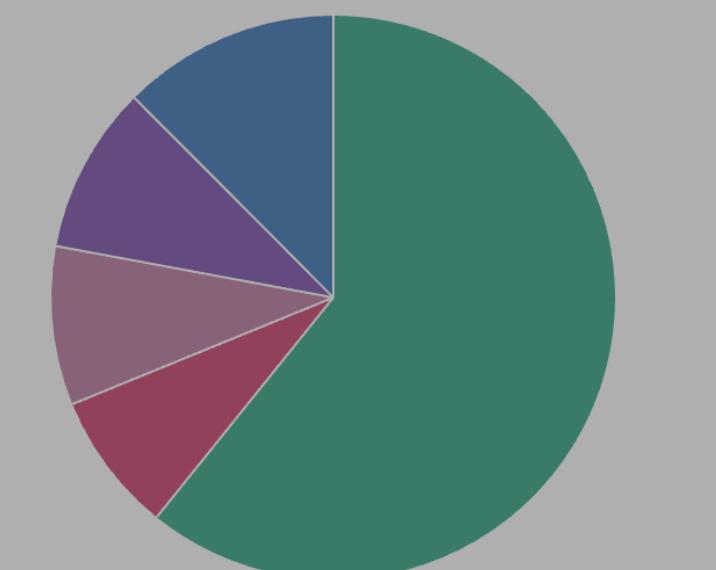
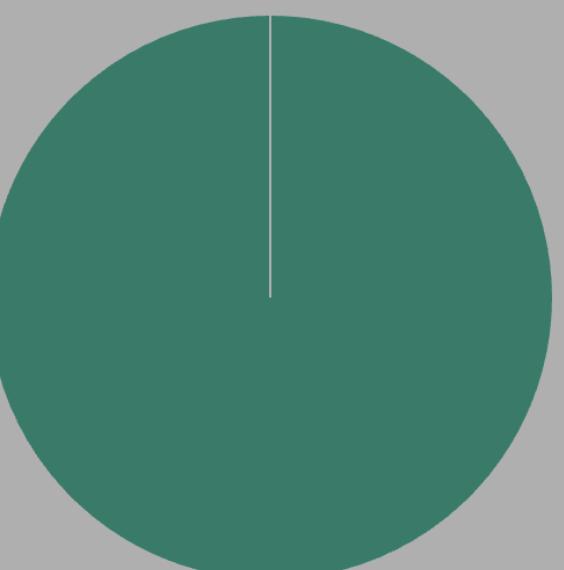
errors

message

Unhandled promise rejection: AxiosError: Network Error

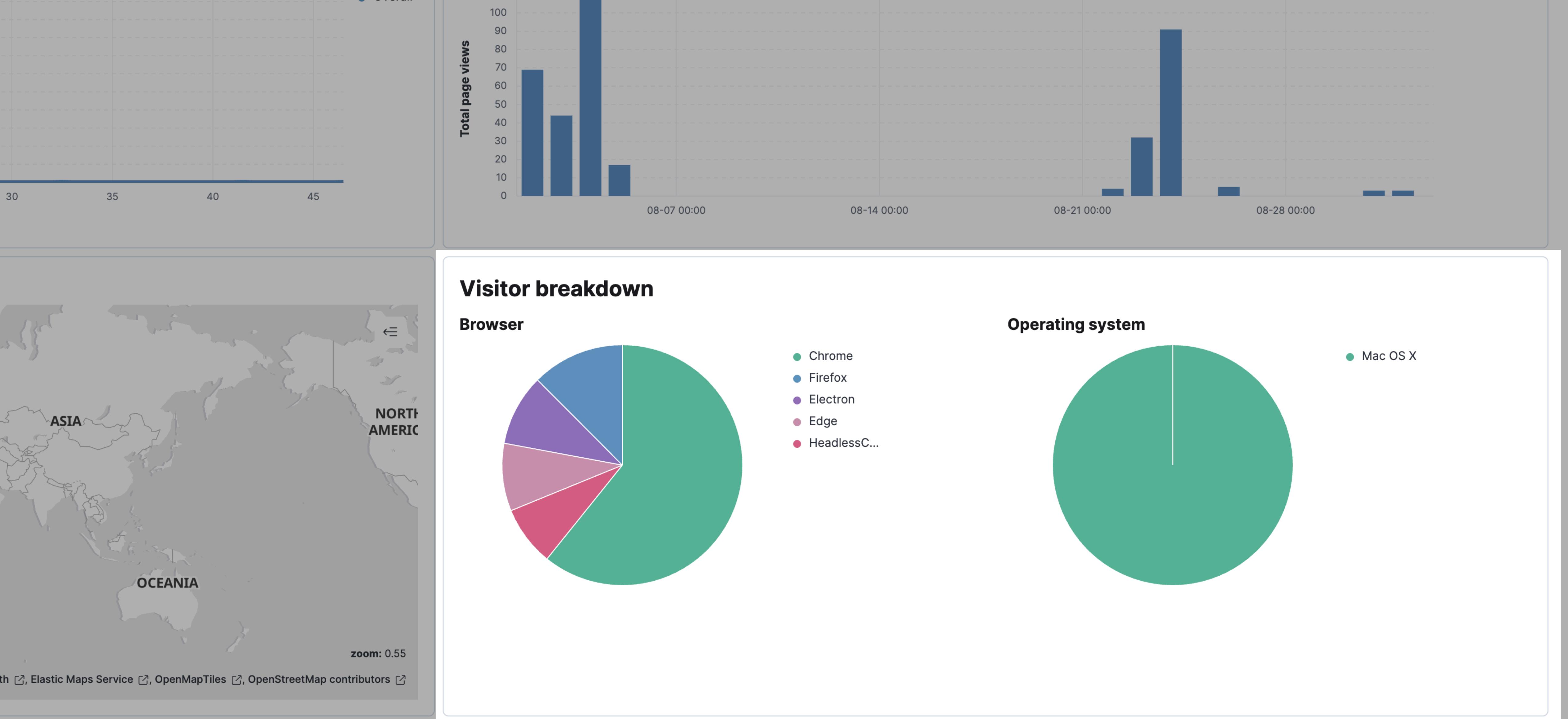
Impacted page loads

0.5 %

**Total page views****Visitor breakdown****Browser****Operating system**

NOT WORKING FOR A PARTICULAR USER





 Observability

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Dashboard

## rum-records-react-ui

JS

Explore data

Environment All

▼

Overview Transactions Errors Service Map

Search errors (E.g. http.response.status\_code &gt;= 400)

Comparison 02/07 09:27 - 02/08 00:00

Last 30 days

Refresh

## Error group Ob4a4

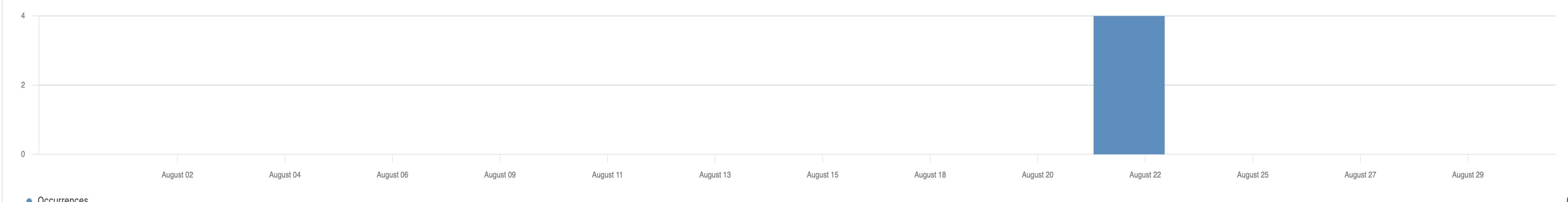
Exception message

**Unhandled promise rejection: AxiosError: Network Error**

Culprit

(inline script)

## Occurrences



## Error occurrence

View 4 occurrences in Discover

9 days ago | Edge (104.0.1293.63) | Click - input

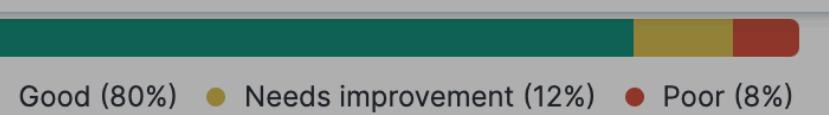
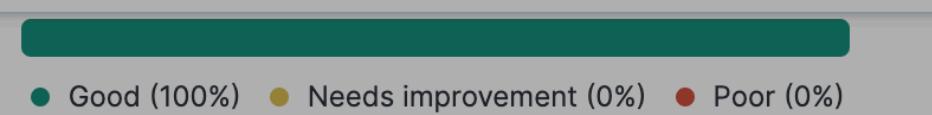
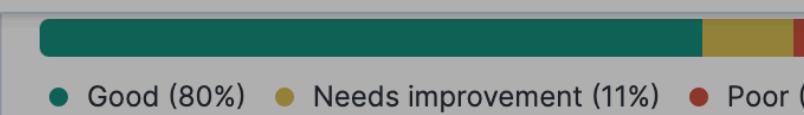
Exception stack trace Metadata

**Unhandled promise rejection: AxiosError: Network Error**

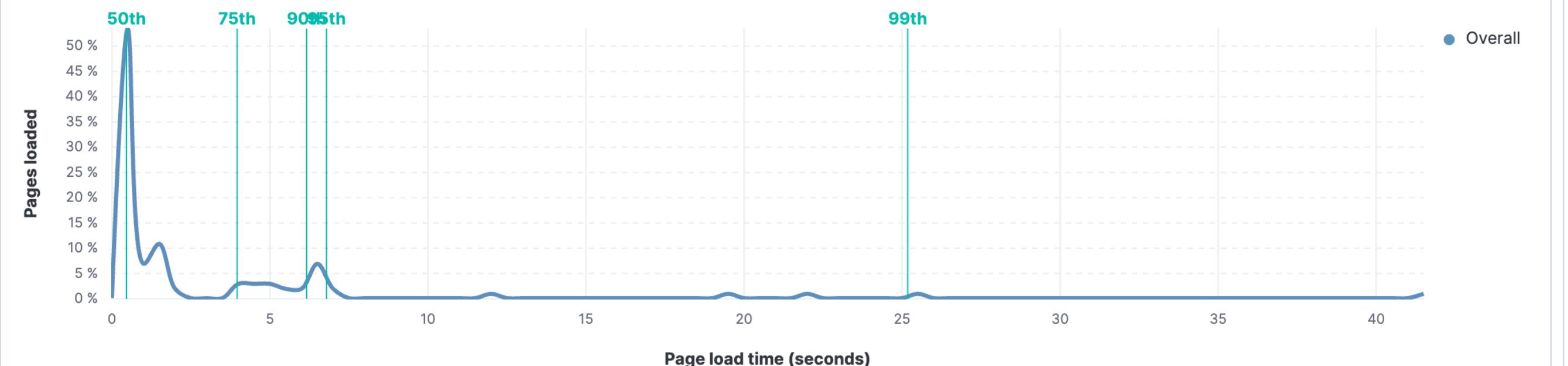
No stack trace available.

# NO LONGER USING IT (PROMISE)

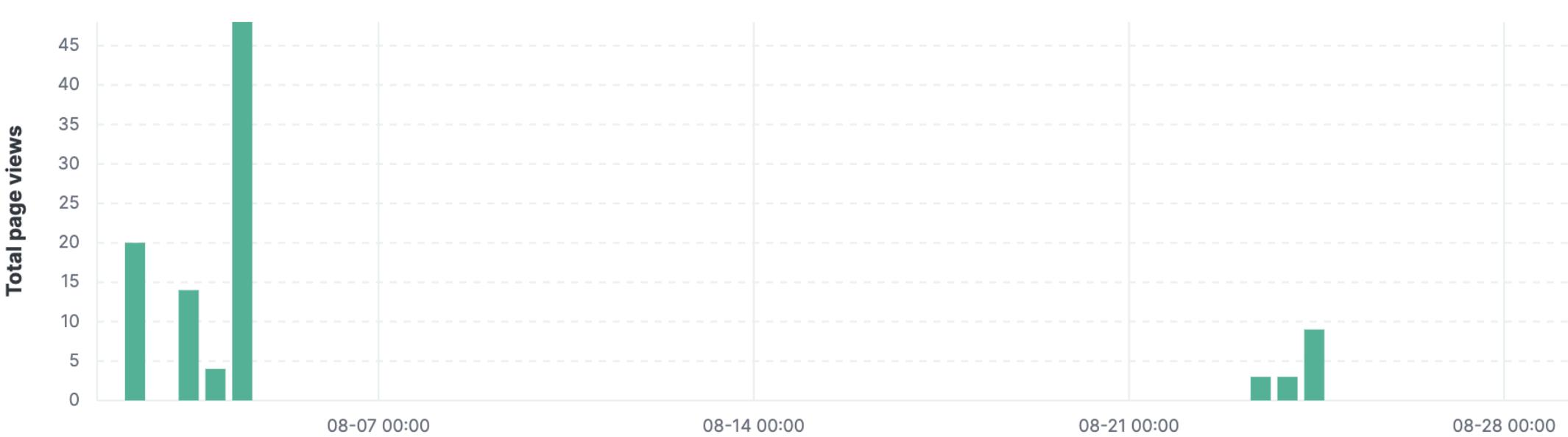




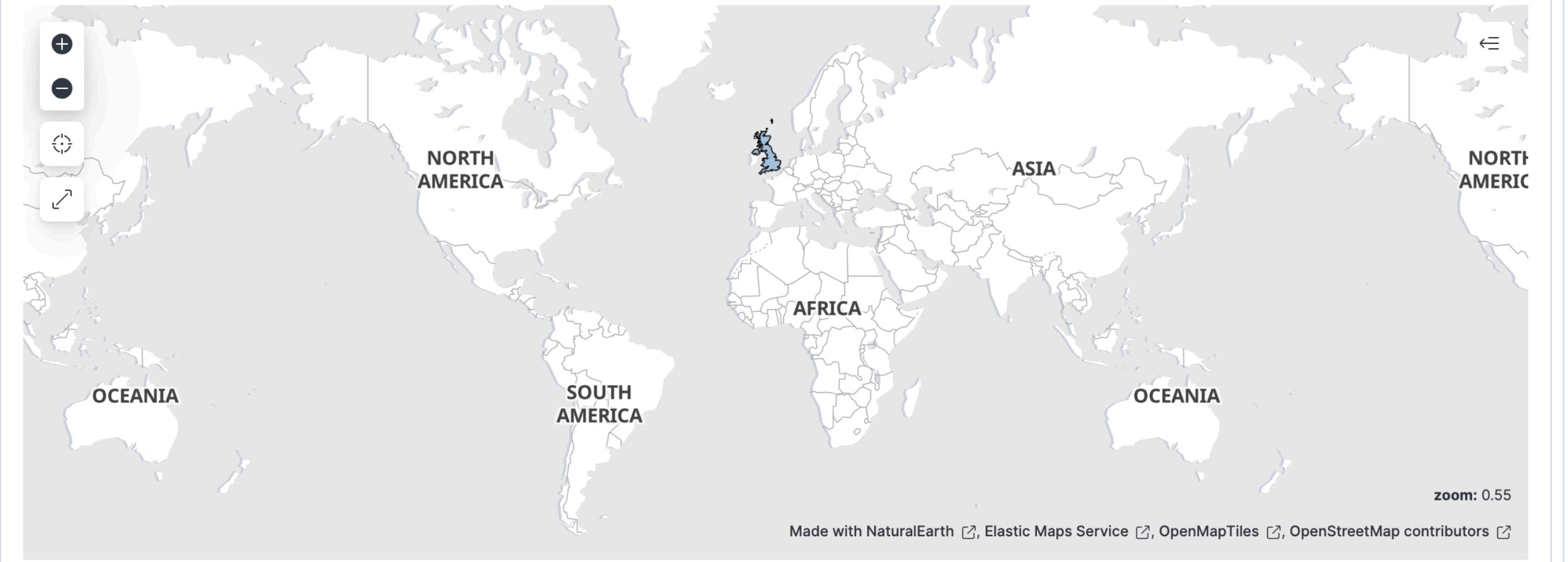
### Page load distribution



### Total page views

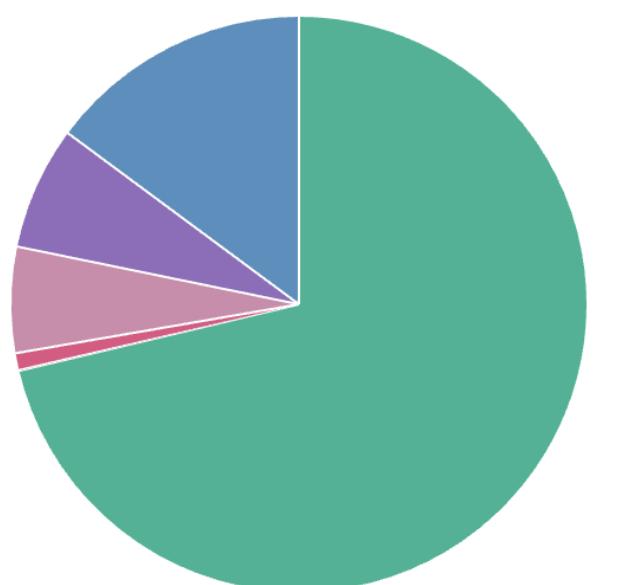


### Page load duration by region (avg.)

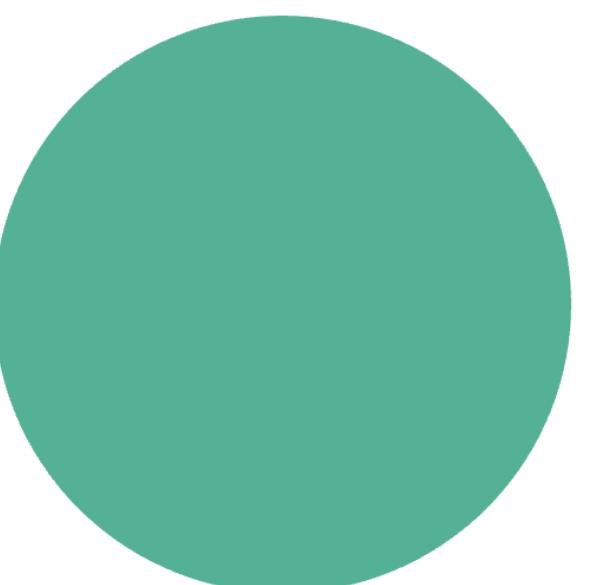


### Visitor breakdown

#### Browser



#### Operating system



### JavaScript errors

Total errors

**2**

#### Error message

Unhandled promise rejection: AxiosError: Network Error

TRY YOUR LIPS OUT

DANKE !

THANK YOU !

MERCI !

GRAZIE !

GRACIAS !

DANK JE WEL !

• • • • • • •

