



ARE THEY REALLY USING IT?

MONITORING DIGITAL EXPERIENCE TO DETERMINE FEATURE EFFECTIVENESS

CARLY RICHMOND



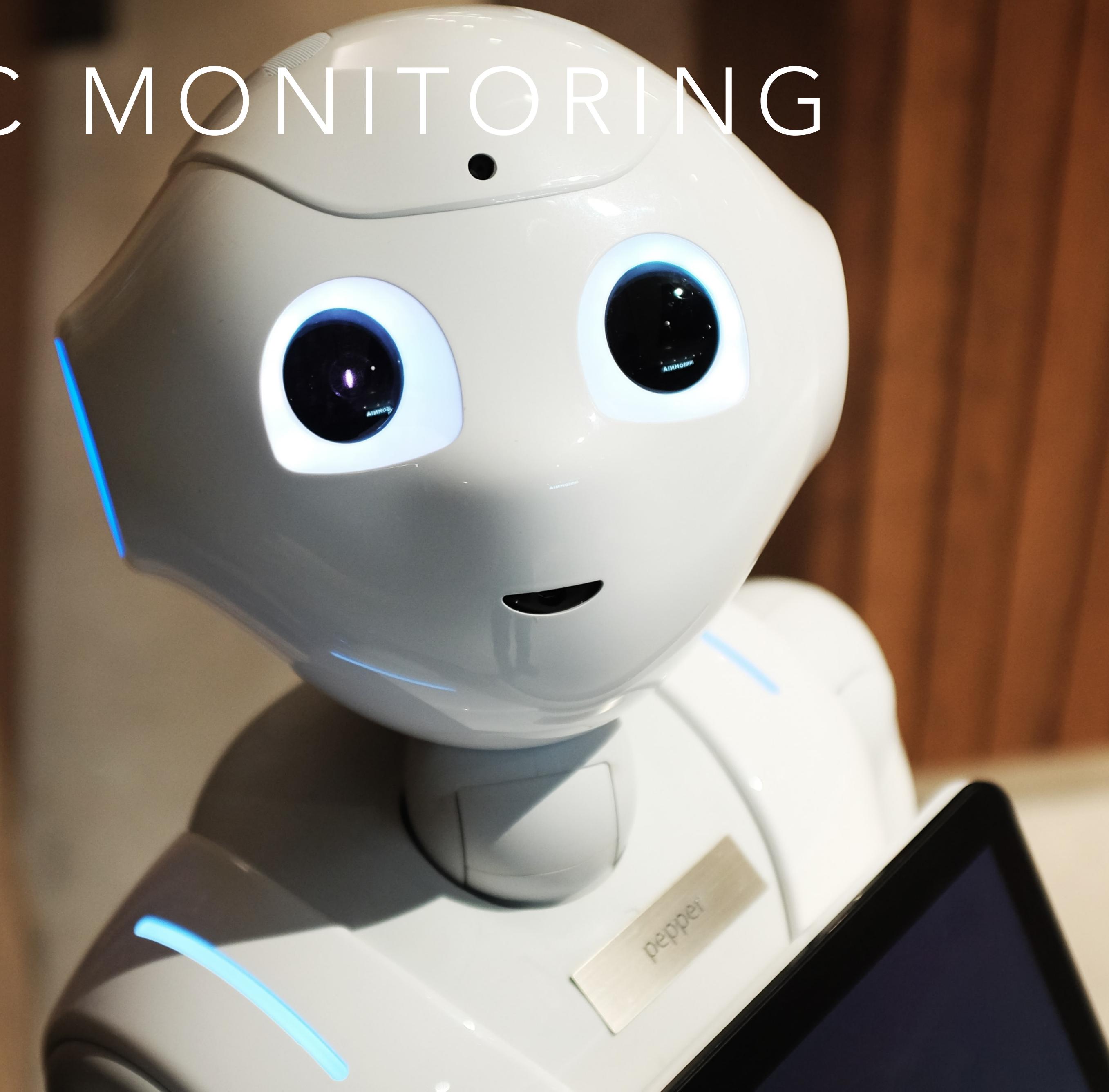


CORE WEB VITALS

GOOGLE LIGHTHOUSE



SYNTHETIC MONITORING



 **Observability**

Overview

Alerts

SLOs

Cases

Logs

Stream

Anomalies

Categories

Infrastructure

Inventory

Metrics Explorer

Hosts 

APM

Services

Traces

Dependencies

Uptime

Uptime Monitors

TLS Certificates

Synthetics

User Experience

Dashboard

Monitors

 Create Monitor Refresh[Overview](#) **Management** Search by name, URL, host, tag, project or location

Up

Down

Disabled

Type

2

Location

1

Tags

0

Frequency

2

Project

1

Current status**3** Up **0** Down **0** Disabled**Last 6 hours****0** Errors**Last 12 hours****0** Alerts

Showing 3 Monitors

Sort by Status

Group by None

Recorded Order journey

Europe - United Kingdom

Duration

3 s**Replicator HTTP ping**

Europe - United Kingdom

Duration

78 ms**Replicator Order Journey**

Europe - United Kingdom

Duration

3 s

Showing all monitors



Test run details

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Location

Europe - United Kingdom

Status

Failed

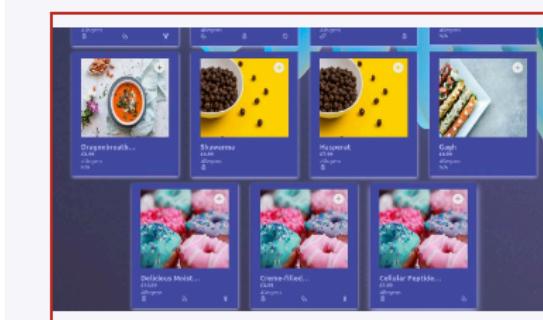
Date

Jun 9, 2023 @ 13:31:27 ▾

⚠ Error running test

error executing step: expect(received).toBe(expected) // Object.is equality Expected: "2" Received: "3"

Step 3 of 3

[◀ Previous](#) 3 / 3 [Next ▶](#)**Step name**

assert adding to order

Failed After 814 ms[⚠ View error details](#)[View performance breakdown](#)[Stacktrace](#)[Code executed](#)[Console](#)

```
Error: expect(received).toBe(expected) // Object.is equality
```

```
Expected: "2"
```

```
Received: "3"
```

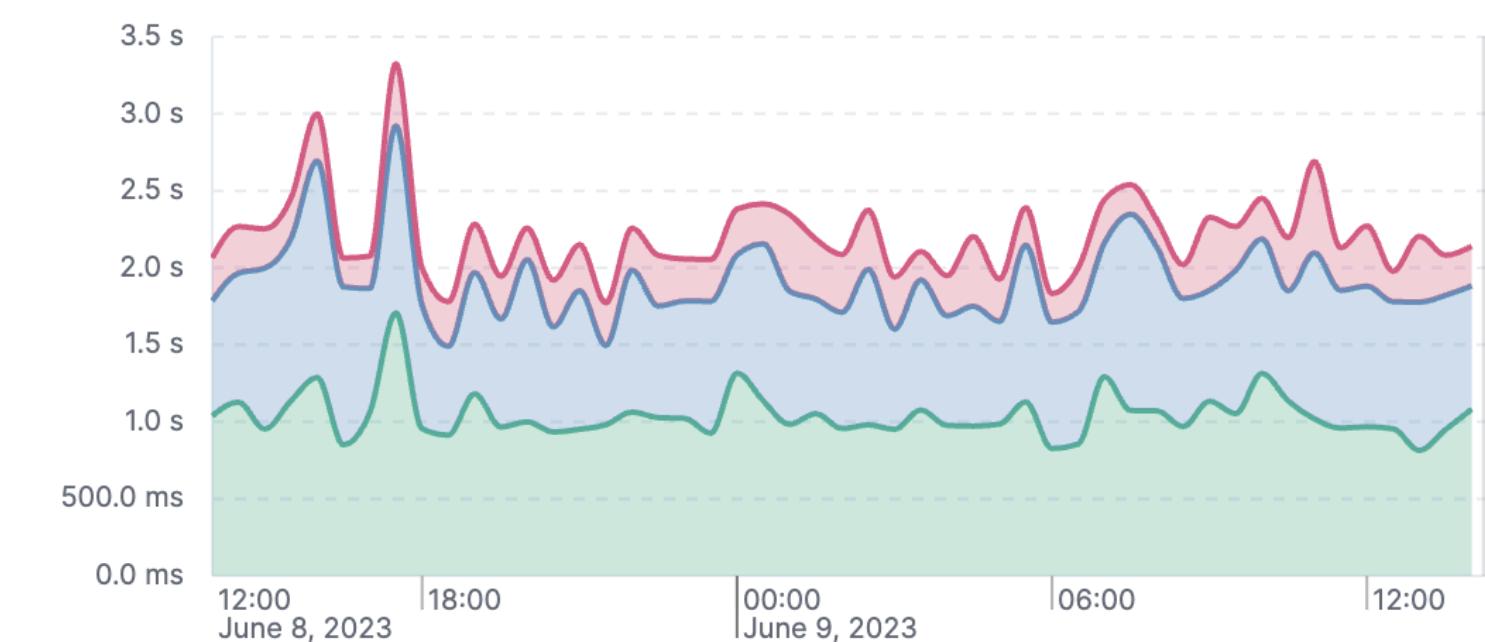
```
at Step.callback (/tmp/elastic-synthetics-unzip-219815308/journeys/journeys/orders.journey.ts:43:41)
at Runner.runStep
(/usr/share/heartbeat/.node/node/lib/node_modules/@elastic/synthetics/src/core/runner.ts:212:7)
at Runner.runSteps
(/usr/share/heartbeat/.node/node/lib/node_modules/@elastic/synthetics/src/core/runner.ts:262:16)
at Runner.runJourney
(/usr/share/heartbeat/.node/node/lib/node_modules/@elastic/synthetics/src/core/runner.ts:352:27)
```

Steps executed

Total duration: 2.2 sec

#	Screenshot	Step name	Result	Last successful	
> 1		assert home page loads	Complete after 489 ms	428 ms	🔗
> 2		assert move to order page	Complete after 867 ms	814 ms	🔗

Duration by step Last 24 hours



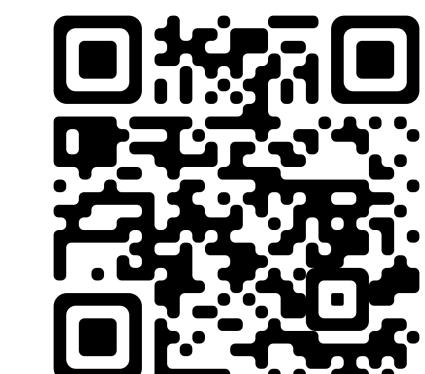
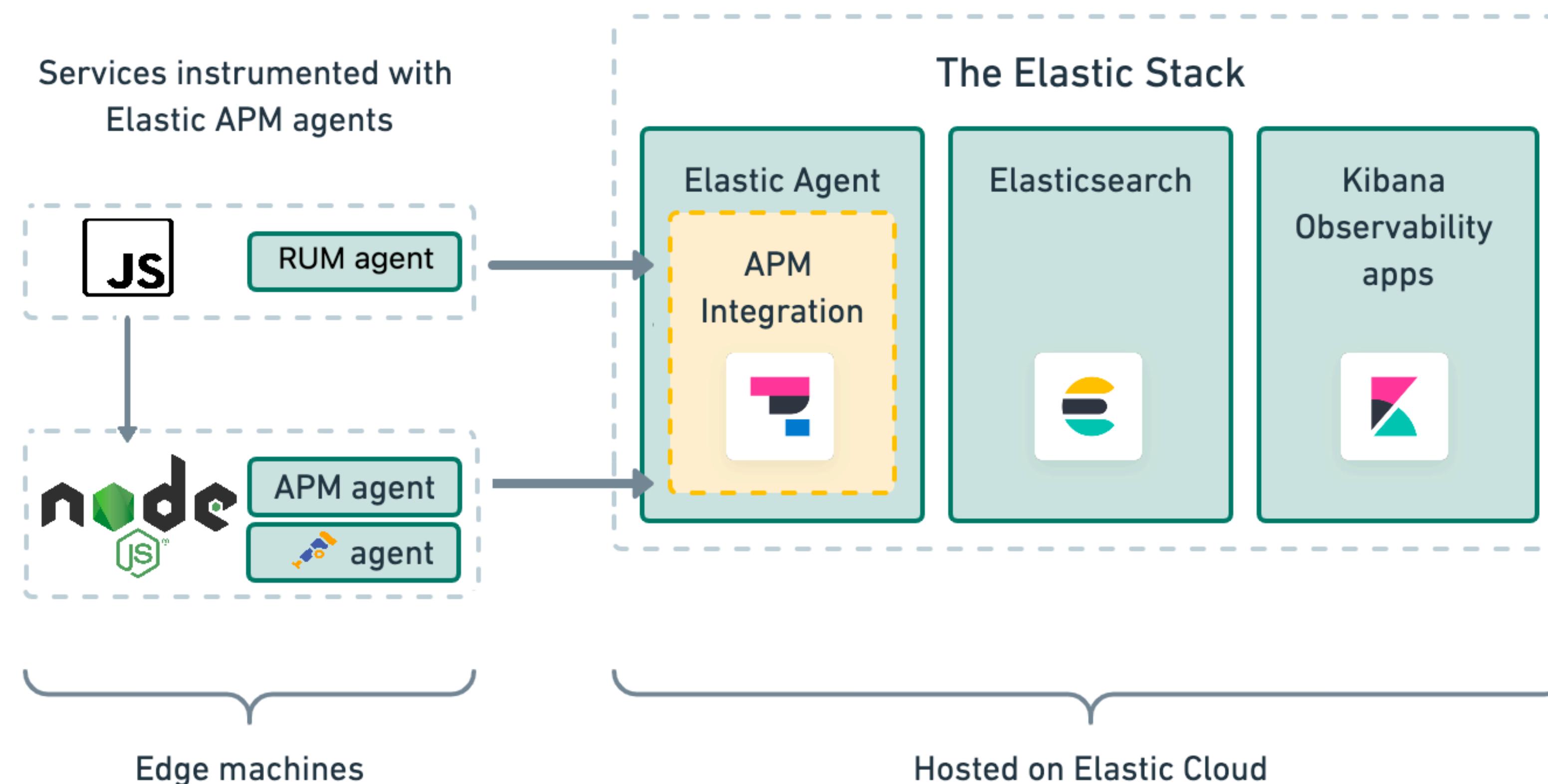
Monitor details

URL	https://synthetics-replicator.netlify.app/ ↗
Last run	Jun 9, 2023 @ 14:05:28
Last modified	Jun 9, 2023 @ 13:30:03
Project ID	synthetics-replicator-tests
Monitor ID	synthetics-replicator-monitor-synthetics-replicator-tests-default
Monitor type	Journey
Frequency	Every 10 minutes
Tags	@CarlyLRichmond



MORE REAL USER MONITORING!

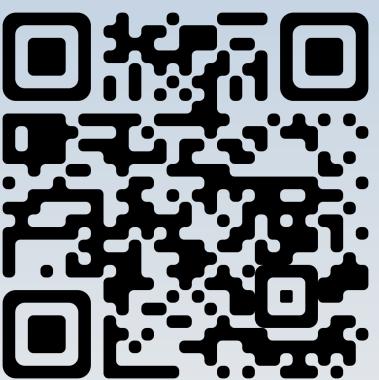
SAMPLE RUM ARCHITECTURE





app.js

```
1 import { init as initApm } from '@elastic/apm-rum';
2
3 const apm = initApm({
4   serviceName: 'rum-records-react-ui',
5   distributedTracingOrigins: ['http://localhost:8080'],
6   serverUrl: 'https://my-elastic-deployment:122',
7   serviceVersion: '1',
8   environment: 'dev'
9 });
```





app.js

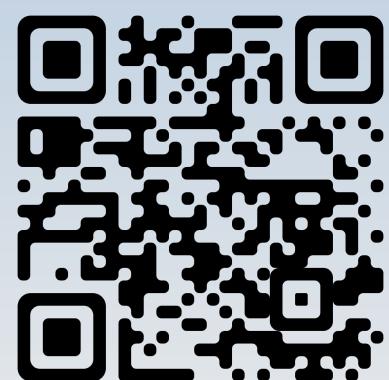
```
import { Route, Outlet } from 'react-router-dom';
import { ApmRoutes } from '@elastic/apm-rum-react';

// Other imports omitted

export function App() {
  // Instrumentation configuration omitted
  return (
    <>
      <ApmRoutes>
        <Route path="/" element={<Layout/>}>
          <Route index element={<MainSplashComponent/>} />
          <Route path="/records" element={<SearchRecordsComponent/>} />
        </Route>
      </ApmRoutes>
    </>
  );
}

function Layout() {
  return (
    <Outlet />
  )
}

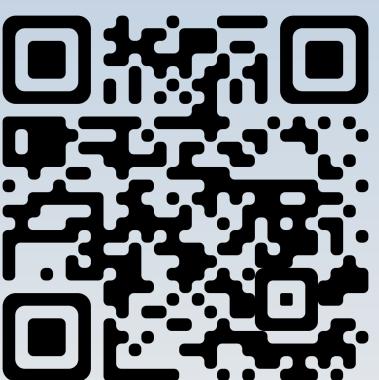
export default App;
```





start-node-server.sh

```
# npm install --save @opentelemetry/instrumentation-grpc  
@opentelemetry/api @opentelemetry/auto-instrumentations-node  
  
export OTEL_TRACES_EXPORTER="otlp"  
export OTEL_METRICS_EXPORTER="otlp"  
export OTEL_EXPORTER_OTLP_ENDPOINT="https://elastic-deployment:122"  
export OTEL_EXPORTER_OTLP_HEADERS="Authorization=Bearer sssshhhhhh"  
export OTEL_NODE_RESOURCE_DETECTORS="env,host,os"  
export OTEL_RESOURCE_ATTRIBUTES="service.name=record-store-server-nodes,service.version=1,deployment.environment=production"  
  
node --require @opentelemetry/auto-instrumentations-node/register  
app.js
```





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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

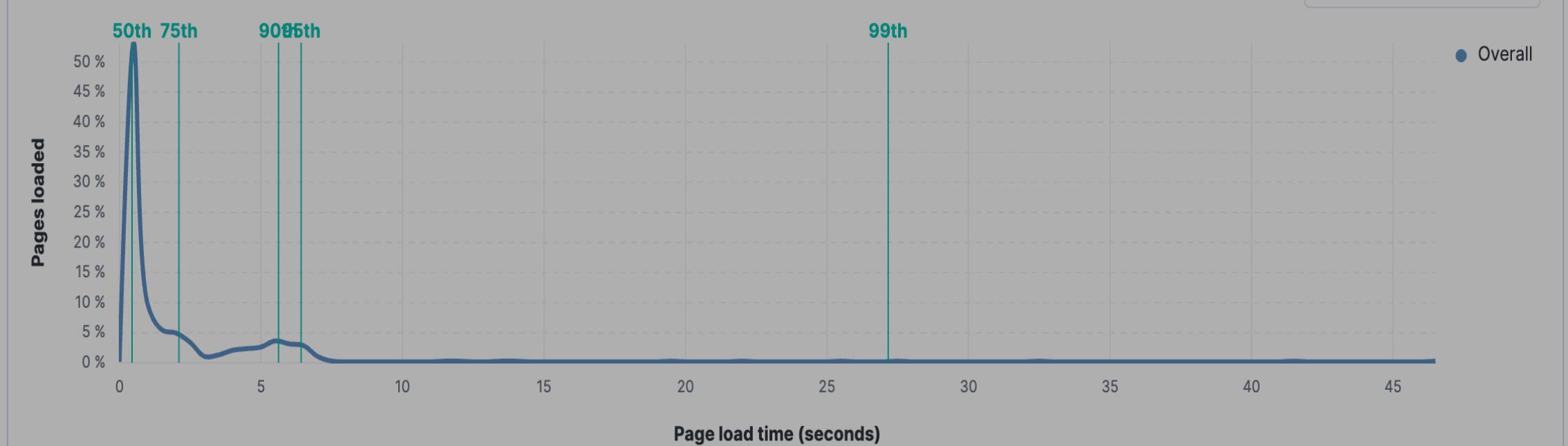
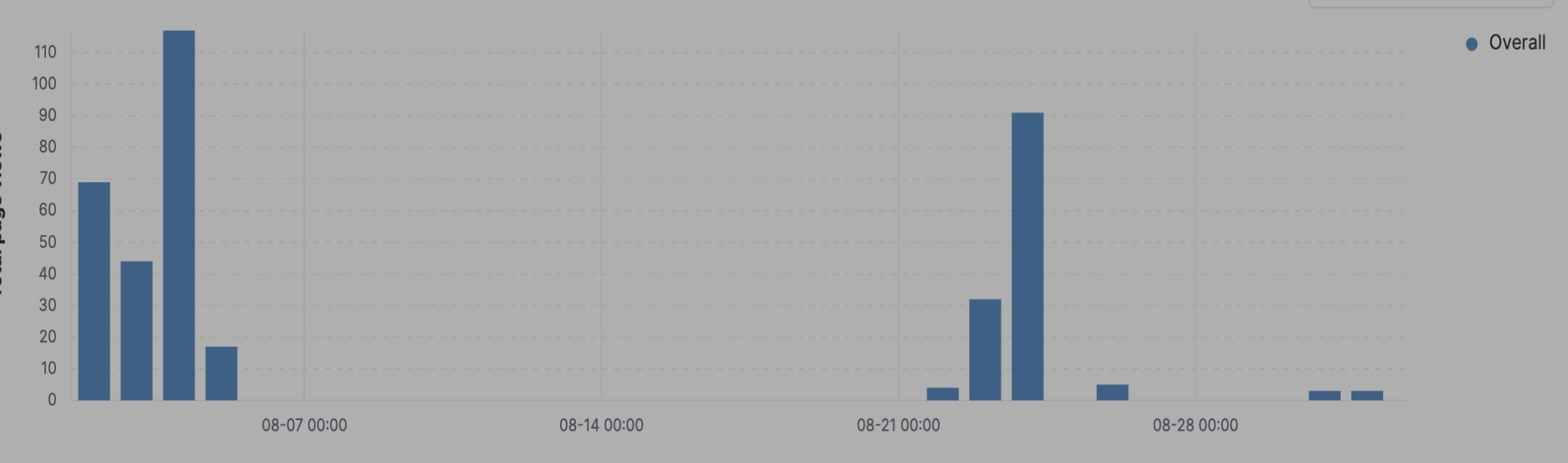
1 ms

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

Cumulative layout shift②

0.008

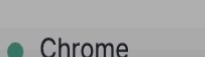
● Good (89%) ● Needs improvement (7%) ● Poor (4%)

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

Browser



Operating system



@CarlyLRichmond

Mac OS X

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Trace sample

< 1 of 6 >

Investigate

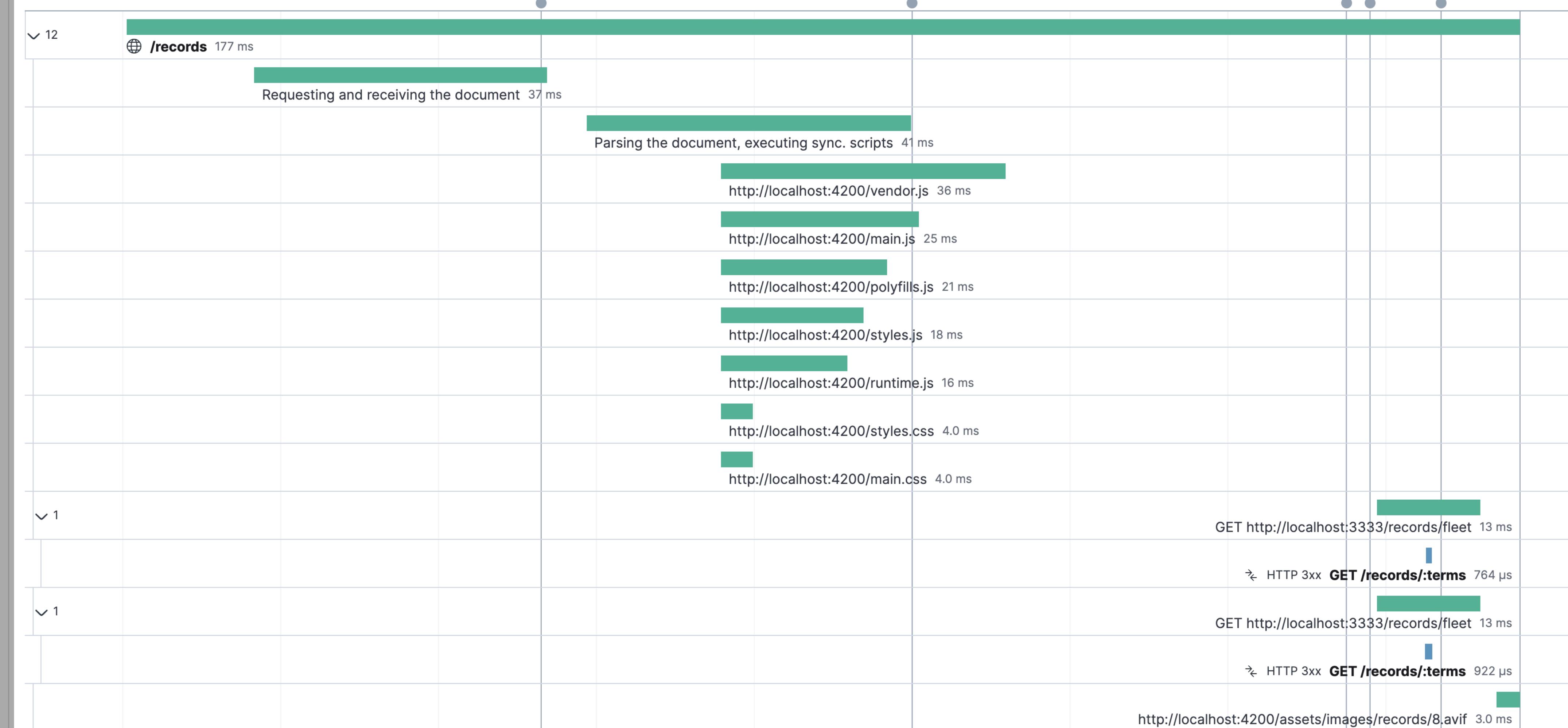
View full trace

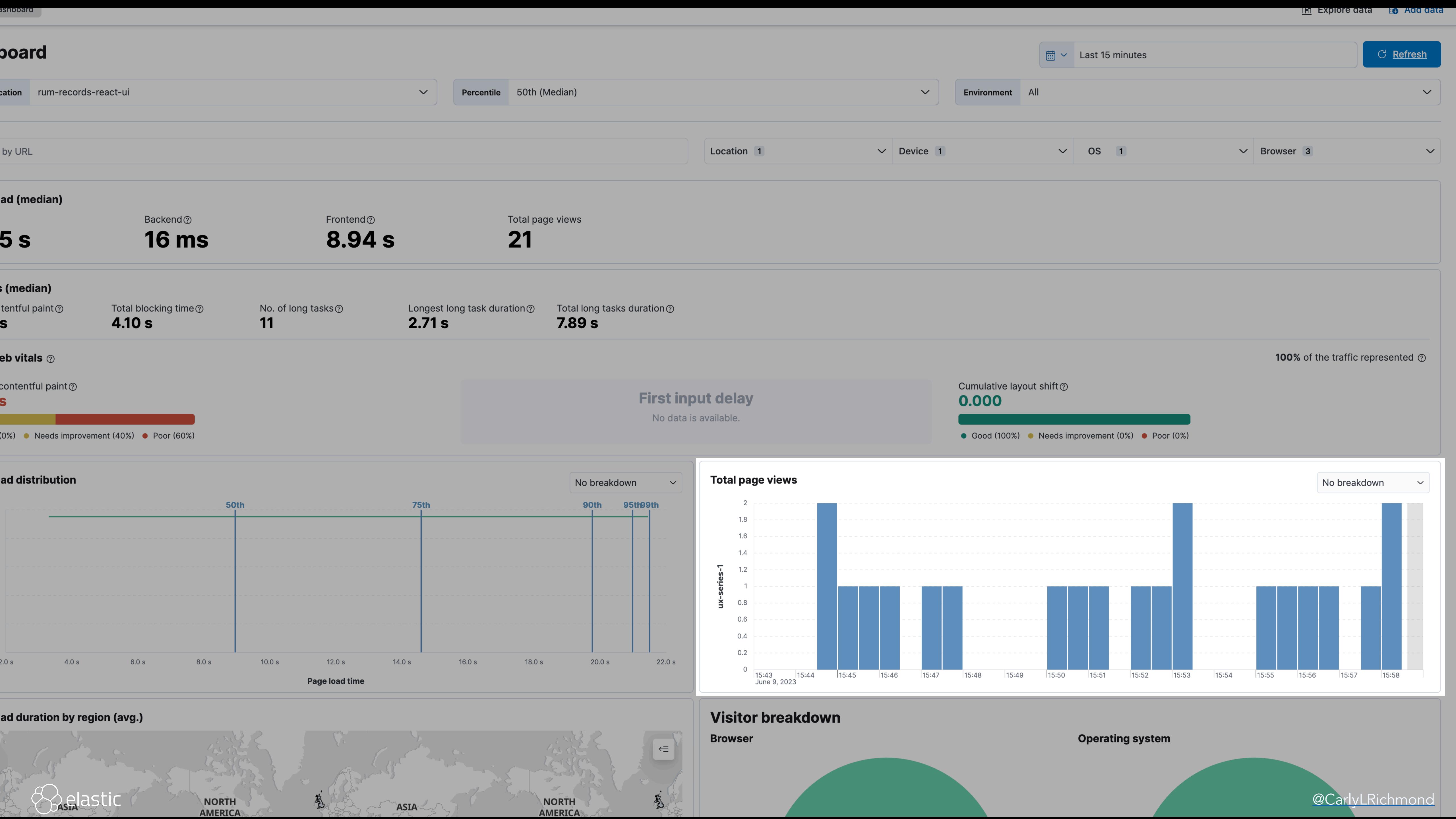
a few seconds ago | 177 ms (100% of trace) | http://localhost:4200/records?terms=fleet | Chrome (107.0.0.0)

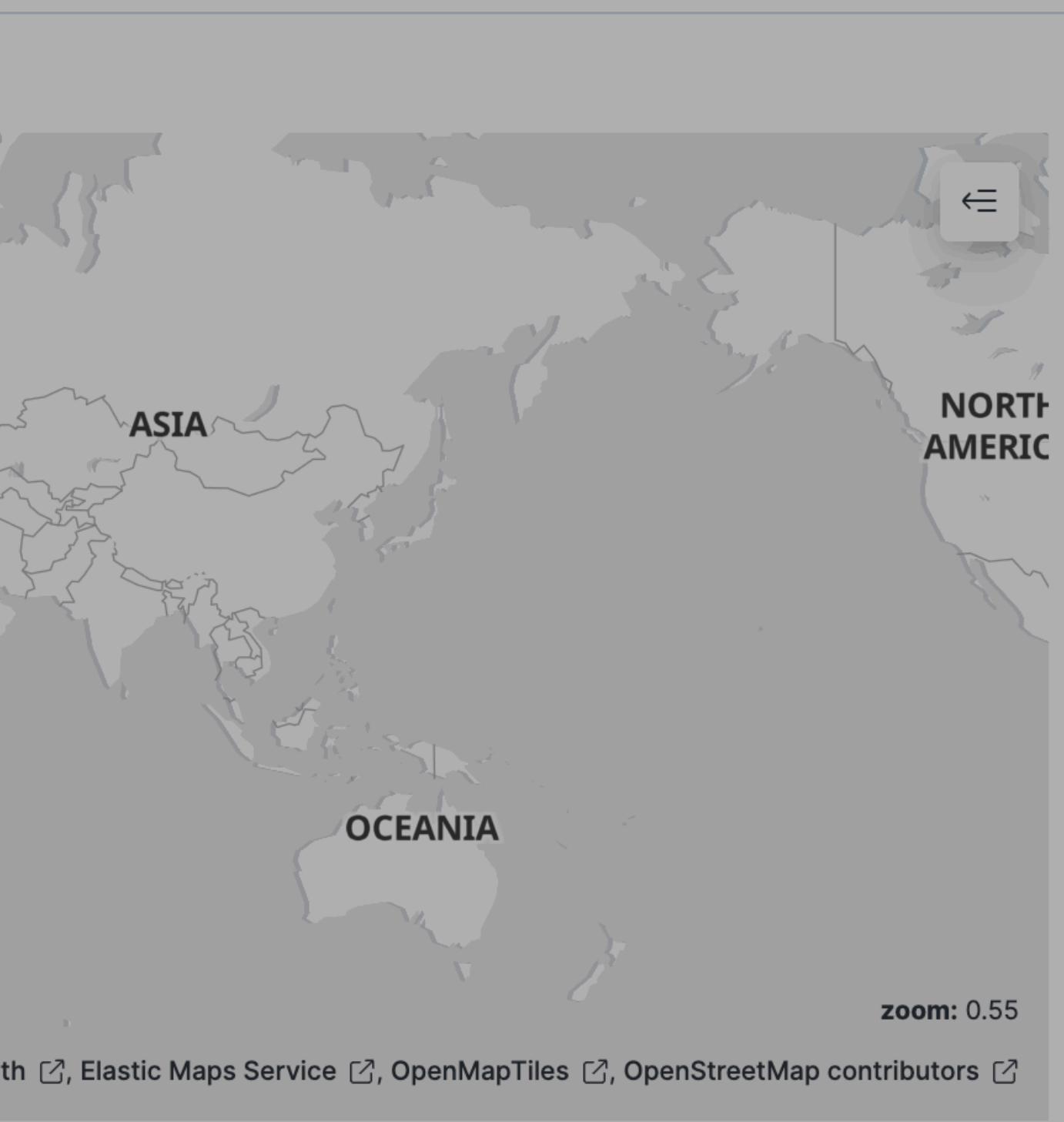
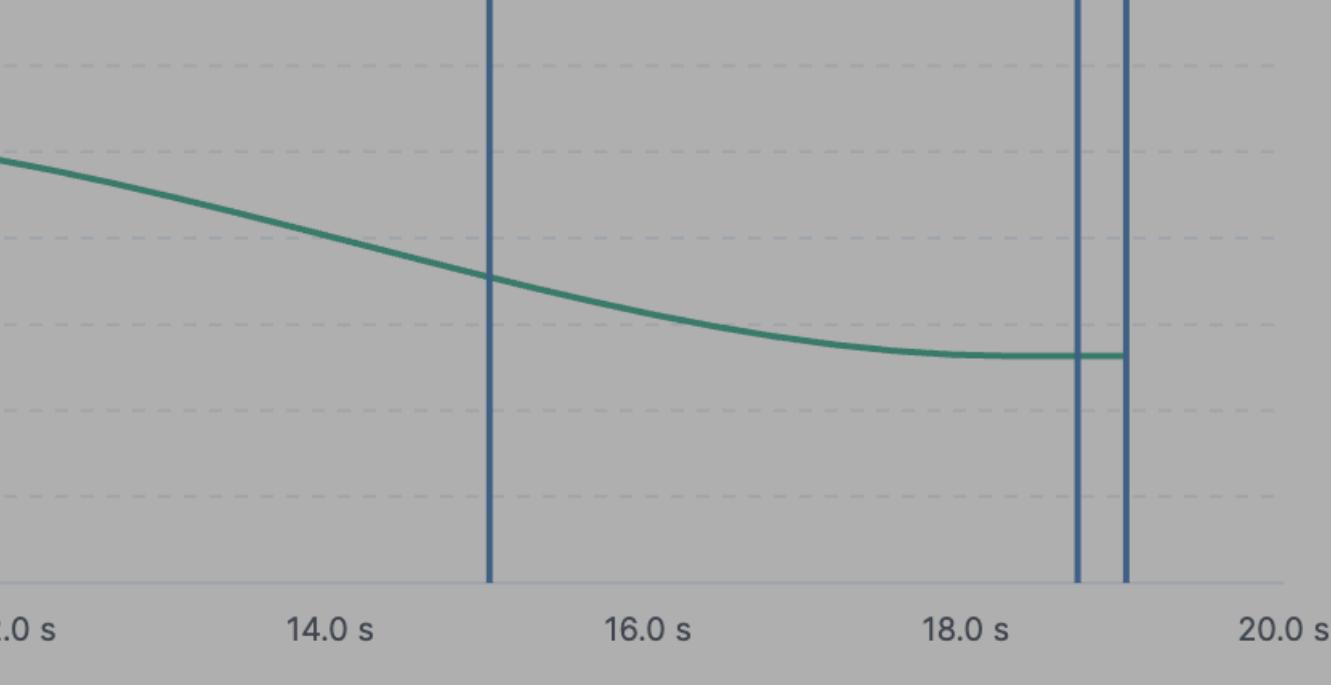
Timeline Metadata Logs

Services ● rum-records-react-ui ● record-store-server-node-js

0 ms 20 ms 40 ms 60 ms 80 ms 100 ms 120 ms 140 ms 160 ms 177 ms

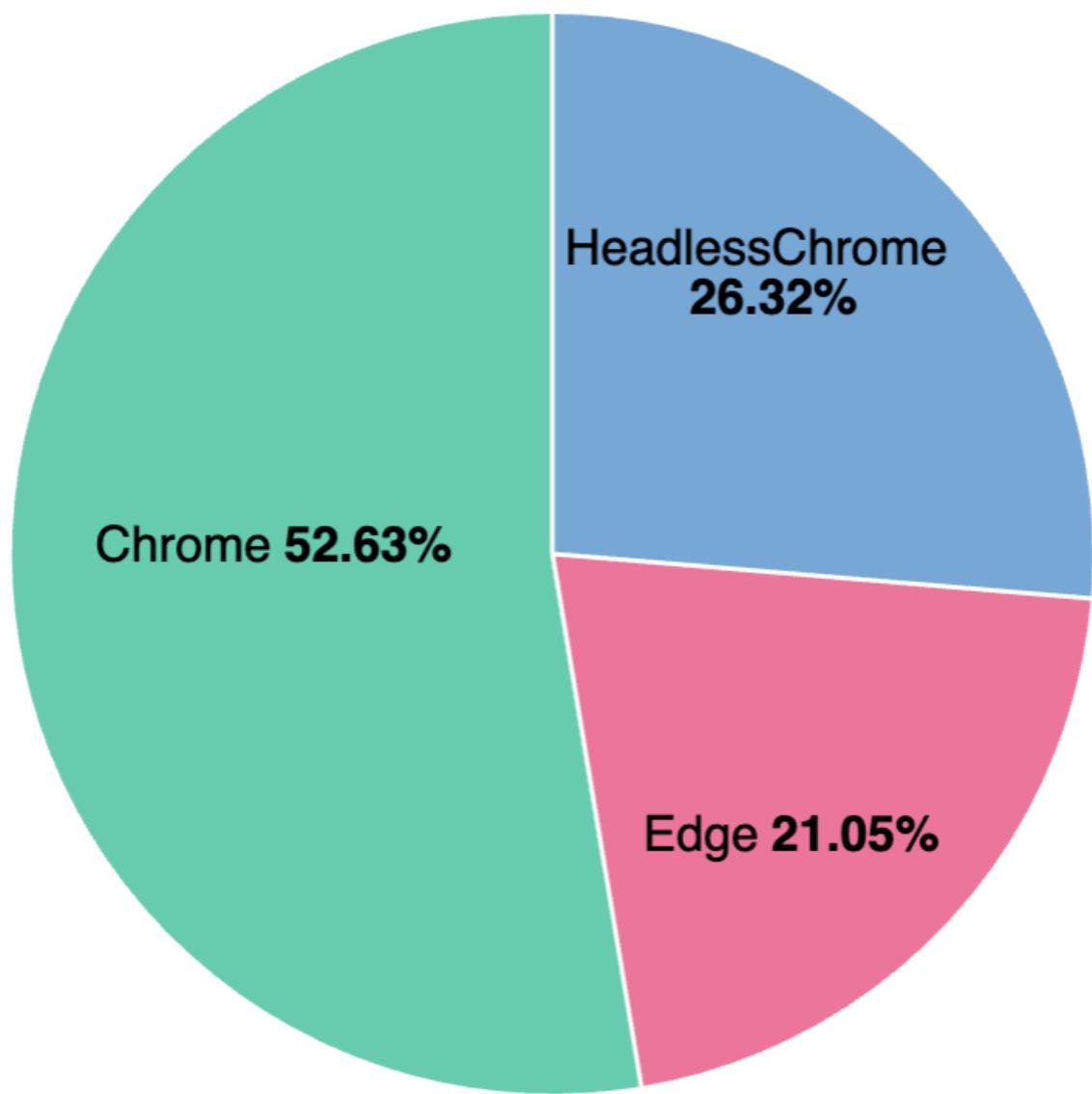




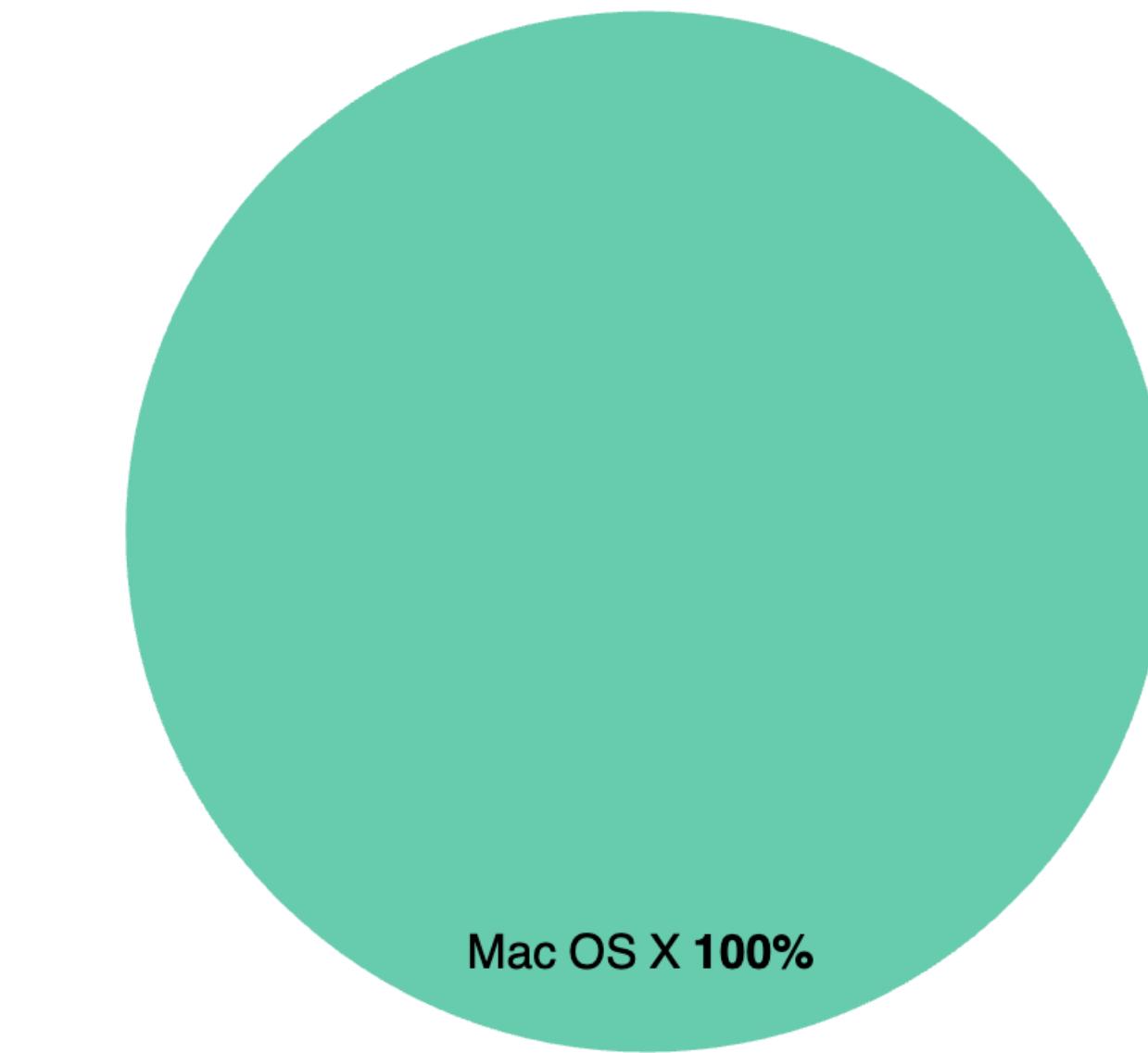


Visitor breakdown

Browser



Operating system



Impacted page loads

[@CarlyLRichmond](#) 15.8 %

Search errors (E.g. http.response.status_code >= 400)

Last 2 hours

Refresh

Comparison

Day before

Error group 24d3c

Error occurrences



Top 5 affected transactions

Transaction name

Error occurrence

No errors found associated with transactions

Error sample

K < 1 of 7 >

View 7 occurrences in Discover

2 hours ago | Chrome (114.0.0.0) | ↵ /news | dev | 1

Exception message

No news available



Culprit

vendor.js

[Exception stack trace](#) [Metadata](#)

Error: No news available

```
at ngOnInit (main.js:223:15)
at callHook (vendor.js:28966:14)
at callHooks (vendor.js:28939:9)
at executeInitAndCheckHooks (vendor.js:28896:5)
at refreshView (vendor.js:37932:11)
at refreshEmbeddedViews (vendor.js:39001:9)
at refreshView (vendor.js:37941:5)
at refreshComponent (vendor.js:39046:7)
at refreshChildComponents (vendor.js:37716:5)
at refreshView (vendor.js:37968:7)
```



Observability

Core web vitals ?Largest contentful paint ?**536 ms**● Good (59%) ● Needs improvement (6%) ● Poor (35%)

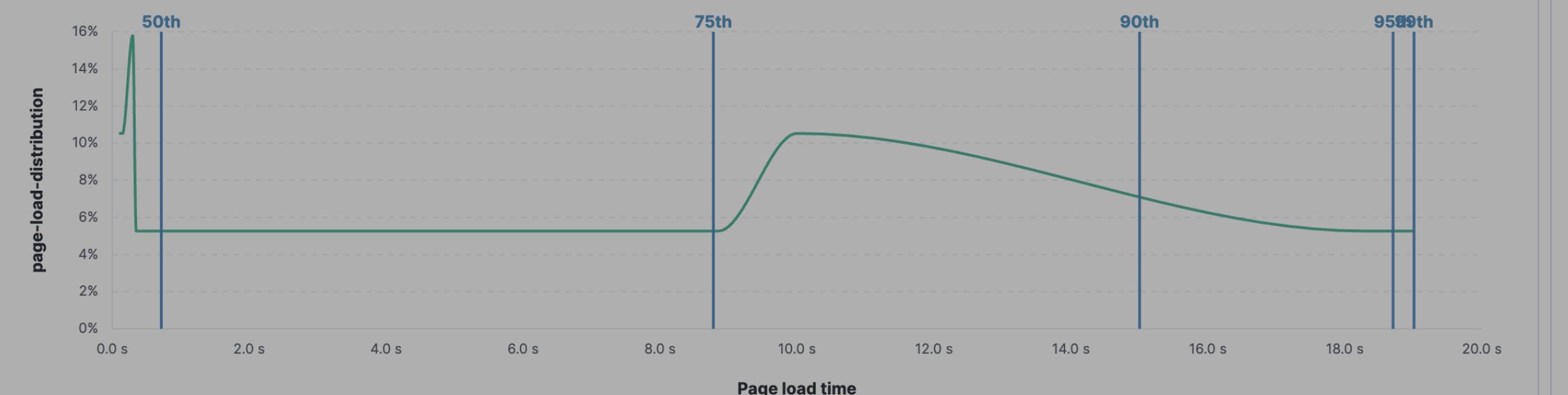
First input delay

No data is available.

Cumulative layout shift ?**0.000**● Good (100%) ● Needs improvement (0%) ● Poor (0%)

100% of the traffic represented

Page load distribution



Total page views

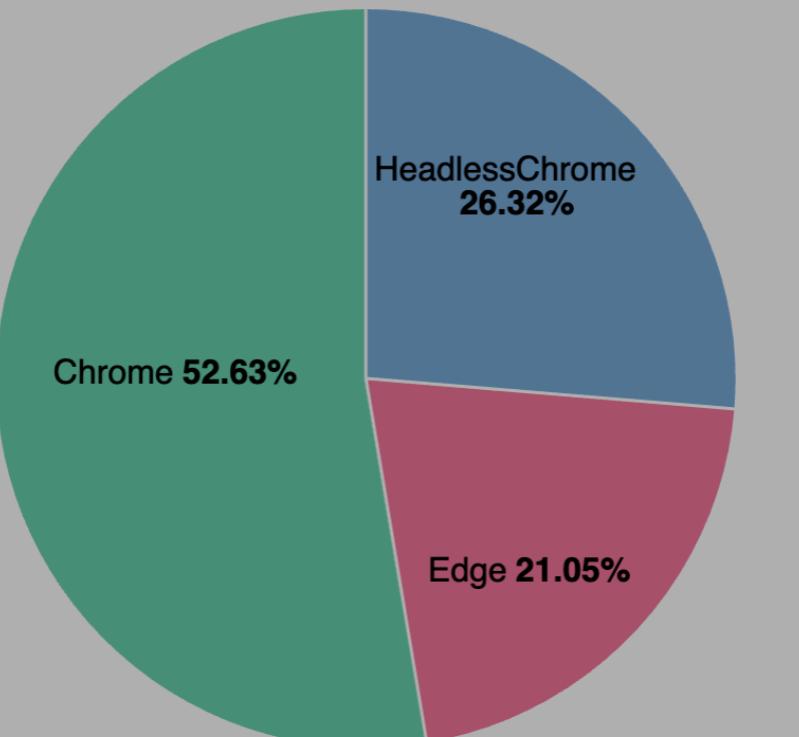


Page load duration by region (avg.)

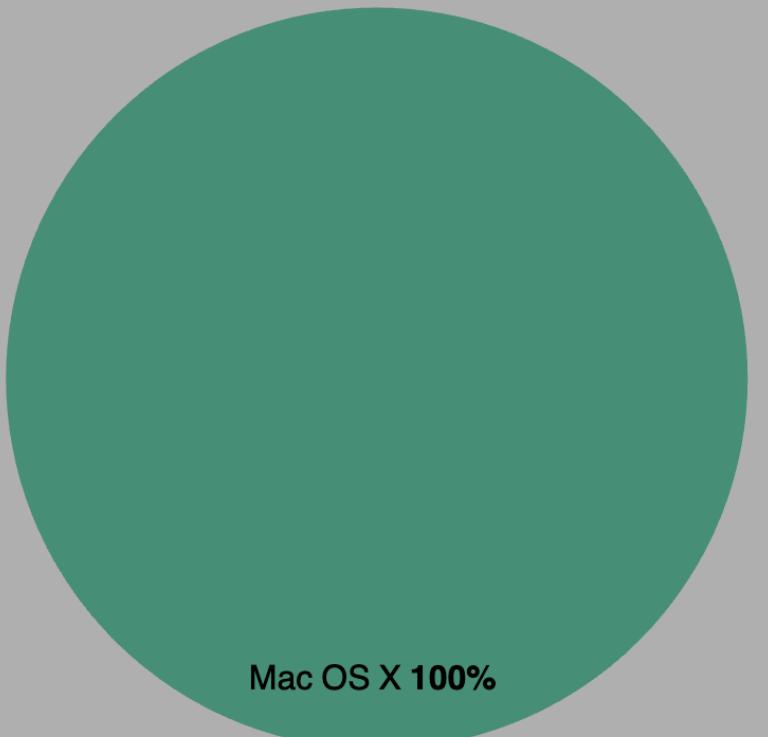


Visitor breakdown

Browser



Operating system



JavaScript errors

Total errors

3

Error message

No news available

Impacted page load

15.8

Rows per page: 5

1

TRY YOUR LIPS OUT

DANKE !

THANK YOU !

MERCI !

GRAZIE !

GRACIAS !

DANK JE WEL !

• • • • • • •

