



ARE THEY REALLY USING IT?

MONITORING DIGITAL EXPERIENCE TO DETERMINE FEATURE EFFECTIVENESS

CARLY RICHMOND





RED ALERT!

ONCE UPON A TIME...

ONCE

142 ■ THUNDER MOON

burned us, as the pup begged for a share in vain. We got strength from that meal.

Then I knew that with the spear Meri and I could eat better. I might be able to kill more swans as long as they were sitting on their nests, or to use the spear to drive them off their nests and take the eggs, or to kill fawns hidden at the edges of the plain. I might be able to throw the spear at something.

Very soon the hawks would be running, the eggs would be hatched, and the swans and cygnets would be swimming where I could never catch them. I knew I couldn't wait. Planning to kill the other swan the next night, while the moonlight lasted, I used the morning to look through the grass and low bushes for a hawk.

The thought that one of us should watch the lodge was the wolf's, not mine. Her pup might wander off but Meri wouldn't, and although the wolf might wait for me to get home before going hunting, I saw no reason to wait for her. Feeling much safer, much more dangerous, with the spear than with the axe or the antler pax, I went to the plain, hunting for young animals in every patch of long grass, in every clump of bushes.

In time I heard many hoofbeats and looked up. Two horses and a colt were running towards me, followed eagerly by a wolf - our own long-legged female. Now and then the horses would stop running to glare at the wolf, who held herself back at a distance so she wouldn't scatter them. She dash off again with the wolf alert tracks told clearly - I lay perfectly still, hardly daring to breathe. After a very long wait, during which the mare ran at the wolf several times and ravens set themselves down on the plain around us, the colt died and the mare gave up hope. Then both mares went away. Again I dared to peek, and saw the wolf taking big bites from the colt's hindquarters.

Then the horses would dash off again with the wolf alert behind them, not on their heels but far off, swinging out to the left or out to the right in a way that made the horses run towards me. A stallion driving them would not have moved them better, except that he would have been on their haunches, driving them with shoves and bites. I couldn't at first imagine why she was chasing horses to me. Then I

elastic

pompous, coupling her pronounced safety with her insistence on minutiae like fish for dinner. She speaks insistently about what she knows about. Over time Nina has come to trust her observance, so that when she supervises restaurants when the family dines out, she trusts such places entirely. And when she stays at home and sleep through service, she sets a good example for the children. Morally, Nina is right to insist. If you are going to be religious, you must observe the Sabbath, the holiday and law. They believed in doing things by halves, which was not good enough for Nina.

Soviet delegation on the last
the Message. But south-central
the world's press, and there was
in which they could talk unob-
dinner herself in her modest apart-
quarters at the Argus facility.
about. Sometimes it seemed that,
hanging by a presidential thread,
pation she felt just before Ken's ar-
so they got around to him while load-
“The man is scared stiff,” Ellie said.
He imagines the Message is going to be
egesis or something that shakes his faith.
how a new scientific paradigm subsumes
wants to know what science has done to
supposed to be the voice of reason.”
“Compared to the Doomsday Chiliasts and
Palmer Joss is the soul of moderation,” derided.
“I worry about that a lot these days.
We haven’t explained the methods of science
to be sure that it isn’t a message from—
from God or the Devil? Ken, you can’t be
tall good or evil, who somebody like Joss
uishable from God or the Devil?”
“Whoever those beings are in the Vega system,
create the universe. And they’re nothing
God. Remember, Vega, the Sun, and a
solar neighborhood are in some backwater
in galaxy. Why should I Am That I Am
here must be more pressing things for him
in a bind. You know Joss is very influen-
tial presidents, including the pre-
nclined to make some
k she wants.

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

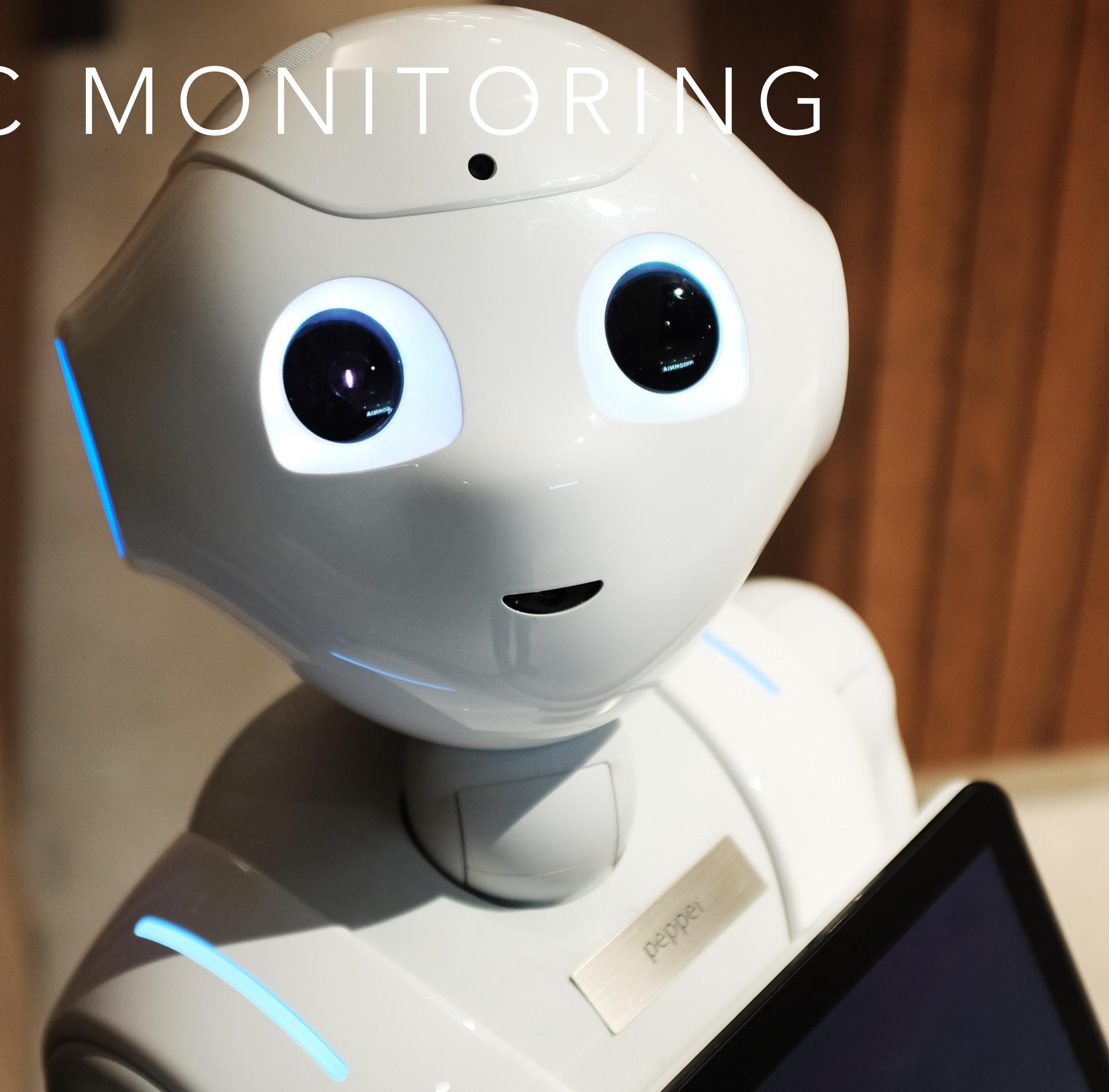
The largest burst of *layout shift scores* for every unexpected layout shift that occurs during the entire lifespan of a page



LIMITATIONS



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

Overview

Alerts

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User Experience

Dashboard

Location

Europe - United Kingdom

Status

Failed

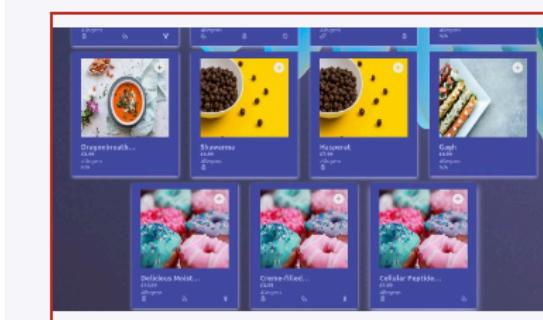
Date

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"
```

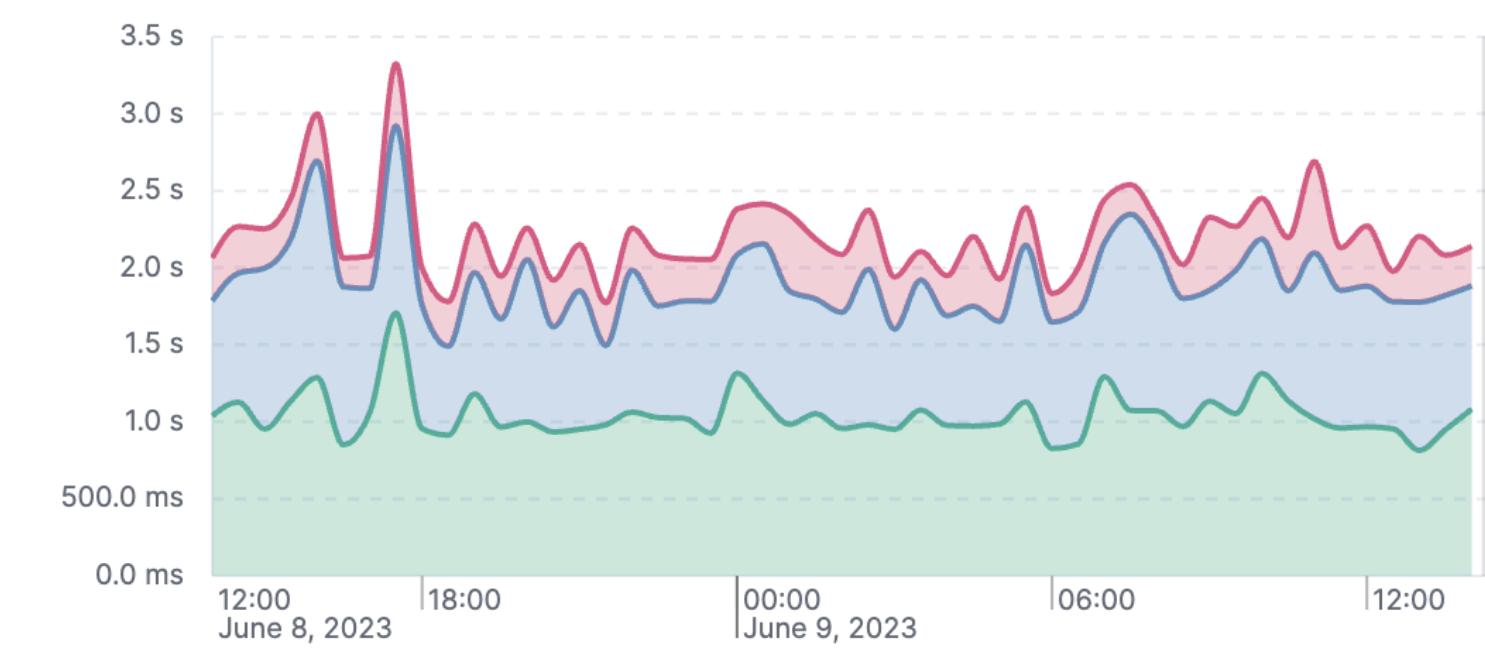
```
at Step.callback (/tmp/elastic-synthetics-unzip-219815308/journeys/journeys/orders.journey.ts:43:41)
at Runner.runStep
(/usr/share/heartbeat/.node/node/lib/node_modules/@elastic/synthetics/src/core/runner.ts:212:7)
at Runner.runSteps
(/usr/share/heartbeat/.node/node/lib/node_modules/@elastic/synthetics/src/core/runner.ts:262:16)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



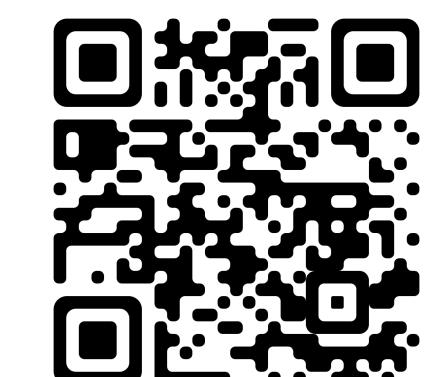
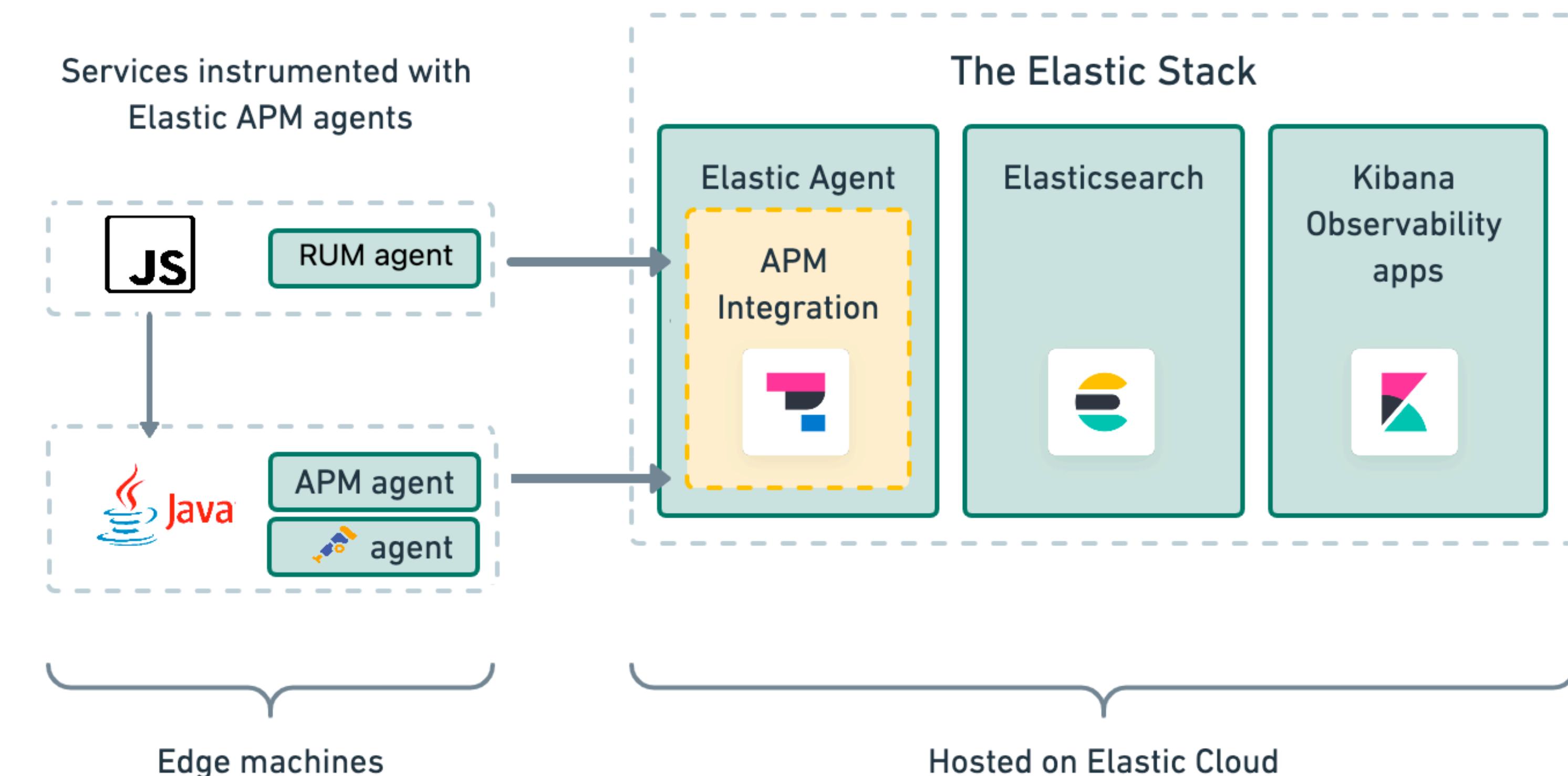
Monitor details

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!

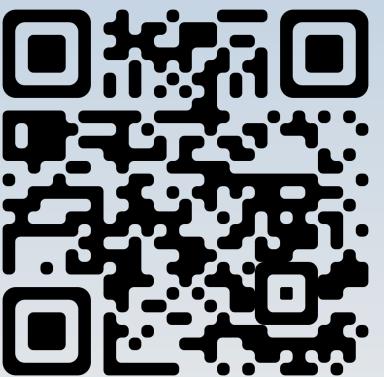
SAMPLE RUM ARCHITECTURE





app.js

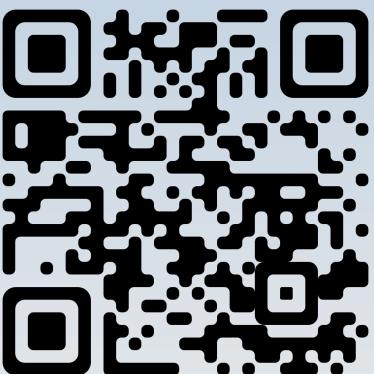
```
1 import { init as initApm } from '@elastic/apm-rum';
2
3 const apm = initApm({
4   serviceName: 'rum-records-react-ui',
5   distributedTracingOrigins: ['http://localhost:8080'],
6   serverUrl: 'https://my-elastic-deployment:122',
7   serviceVersion: '1',
8   environment: 'dev'
9 });
```





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



Dashboard

Last 24 hours

Refre

Web application rum-records-angular-ui

Percentile 50th (Median)

Environment All

Filter by URL

Location 1

Device 1

OS 1

Browser 3

Page load (median)

Total②

717 ms

Backend②

13 ms

Frontend②

704 ms

Total page views

19

Metrics (median)

First contentful paint②

664 ms

Total blocking time②

61 ms

No. of long tasks②

6

Longest long task duration②

2.79 s

Total long tasks duration②

4.75 s

Core web vitals ②

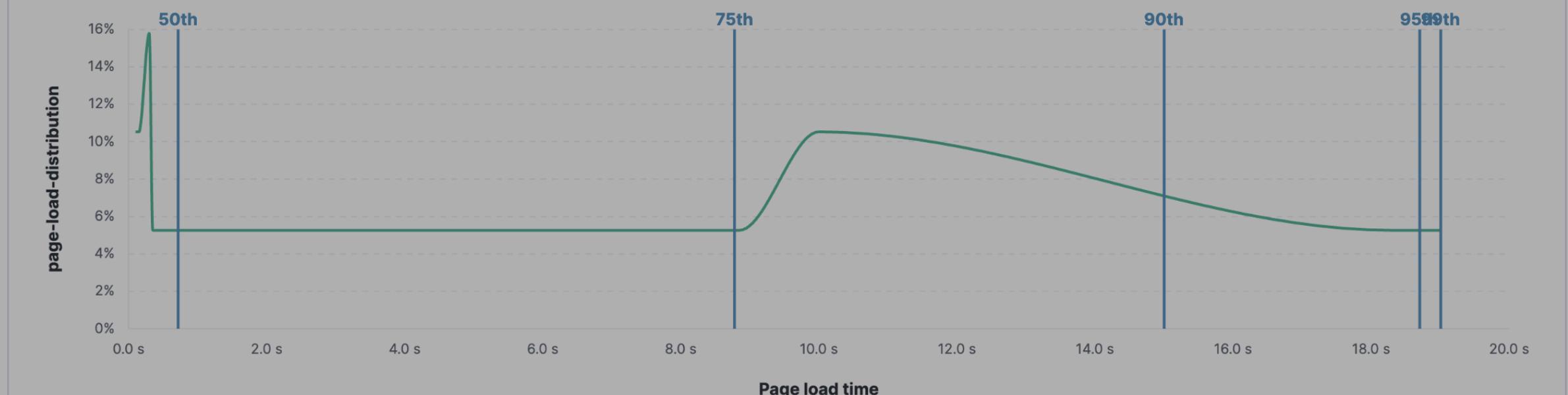
Largest contentful paint②

536 ms

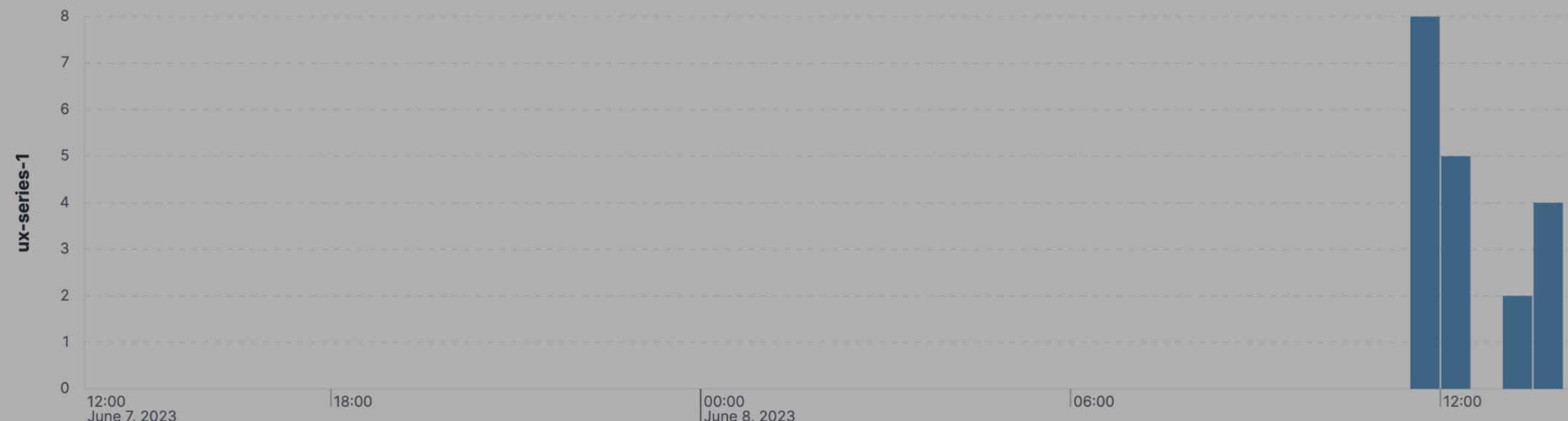
First input delay

No data is available.

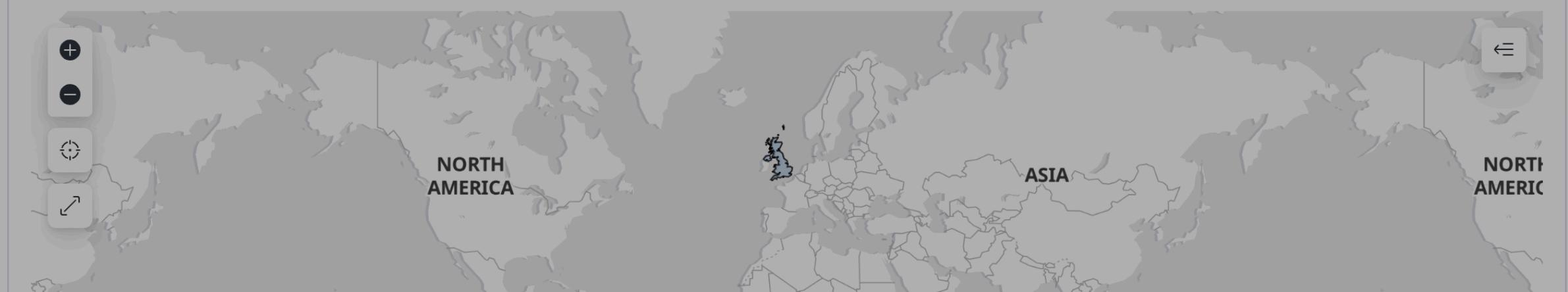
Page load distribution



Total page views

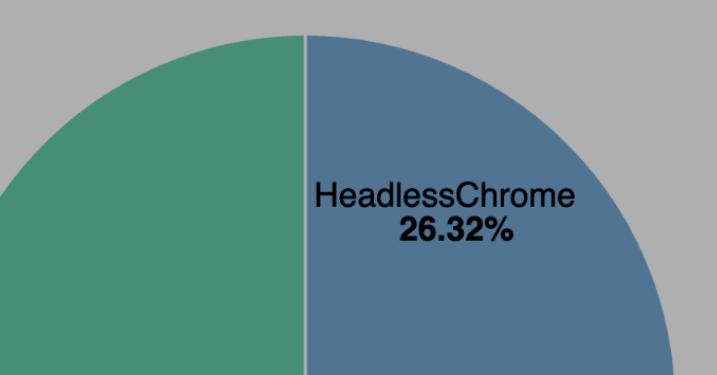


Page load duration by region (avg.)



Visitor breakdown

Browser



Operating system



Observability

Overview

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Uptime Monitors

TLS Certificates

Synthetics NEW**User Experience**

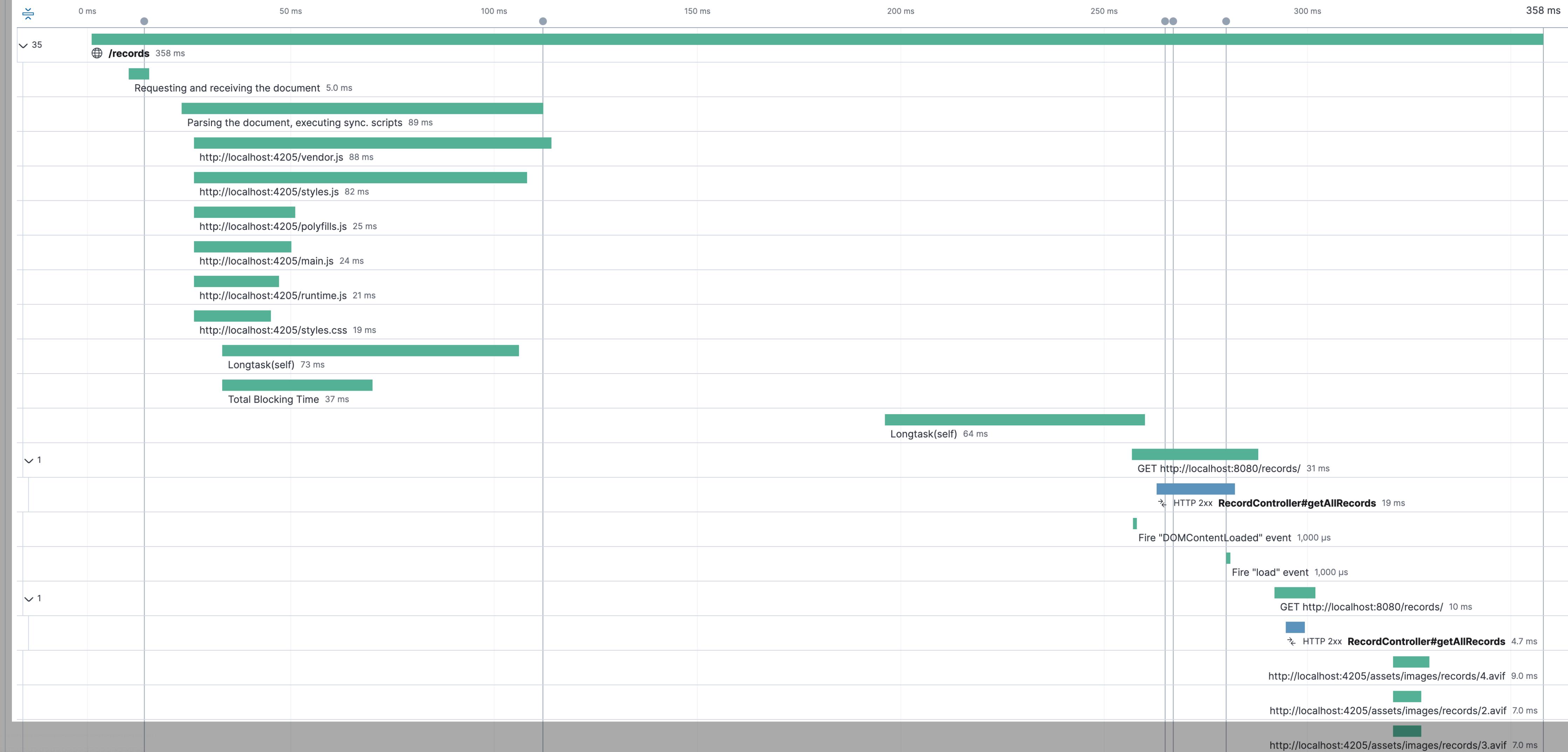
Dashboard

Trace sample

an hour ago | 358 ms (100% of trace) | http://localhost:4205/records | Chrome (114.0.0.0)

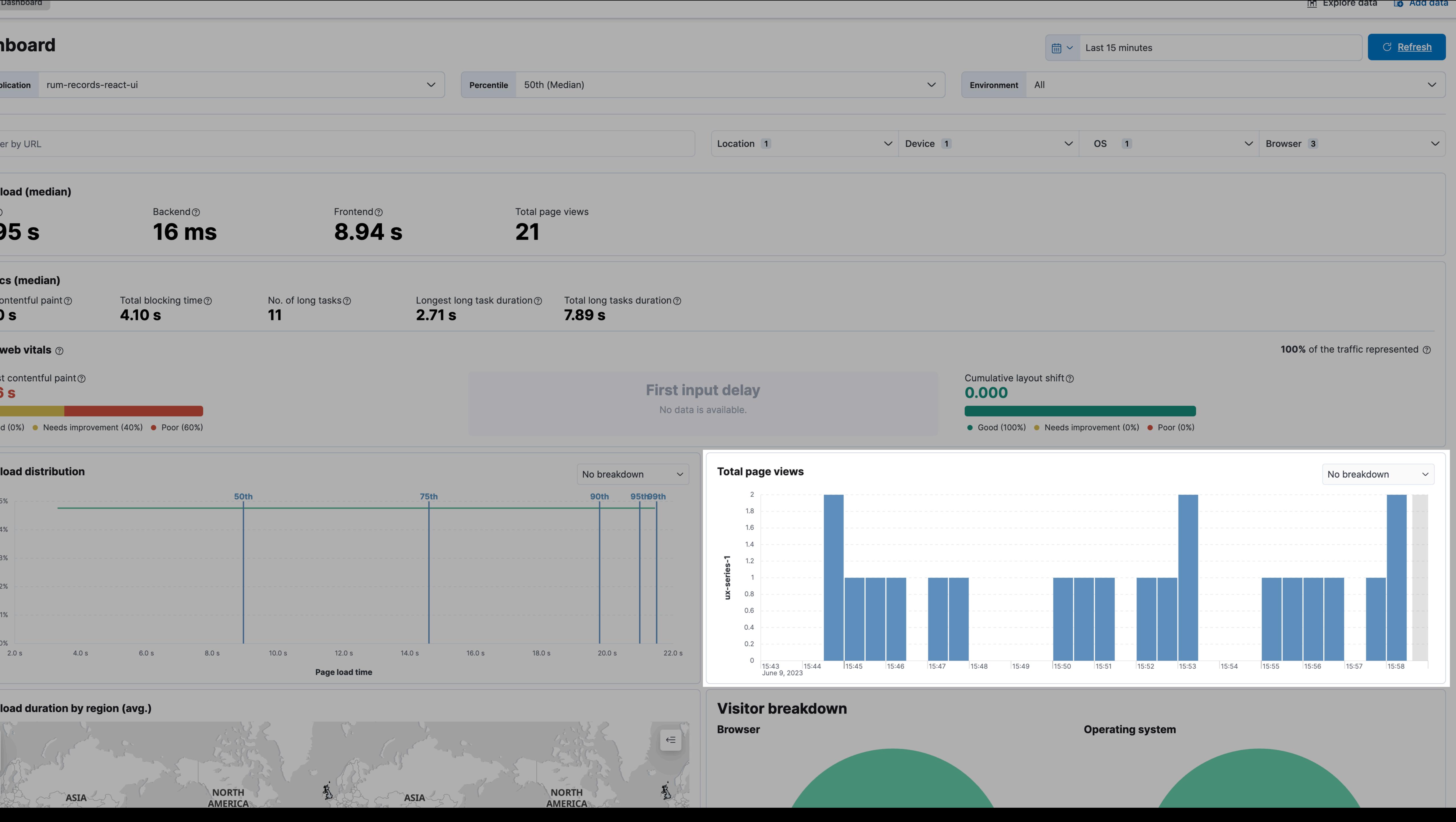
Investigate ▾

View full trace

Timeline **Metadata** **Logs****Services** ● rum-records-angular-ui ● record-store-server-java

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. The background is a plain, light-colored wall.

CONFLICTING ACCOUNTS



IT'S FROZEN! AHHHHHHH!



record-store-server-java



Environment

All

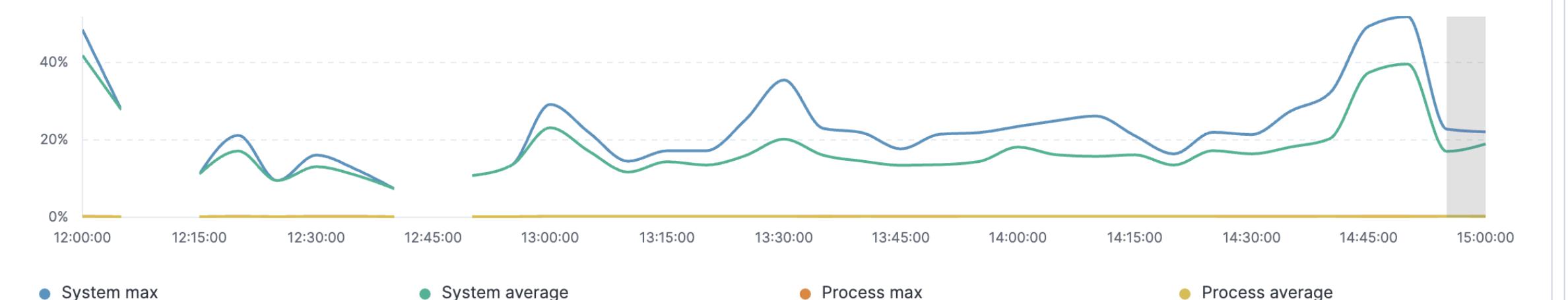
[Overview](#) [Transactions](#) [Dependencies](#) [Errors](#) [Metrics](#) [Infrastructure](#) [Service Map](#) [Logs](#) [Alerts](#) Search metrics (E.g. process.pid = "1234")

Last 3 hours

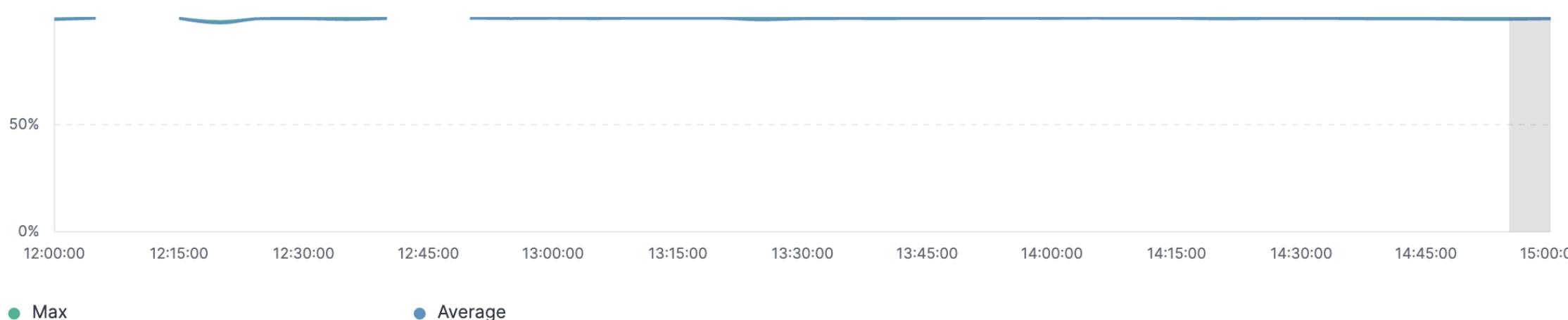
Refresh

Service name **record-store-se...** Host **Carlys-MBP** Container ID **N/A**

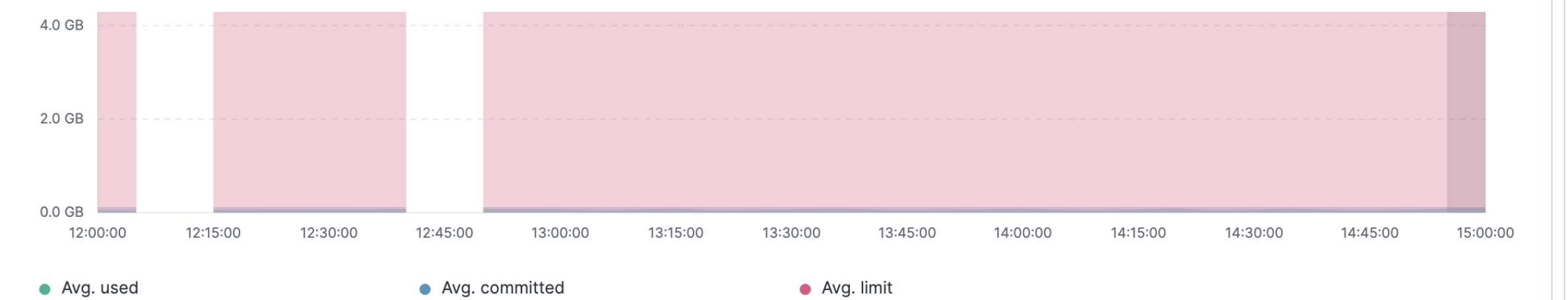
CPU usage



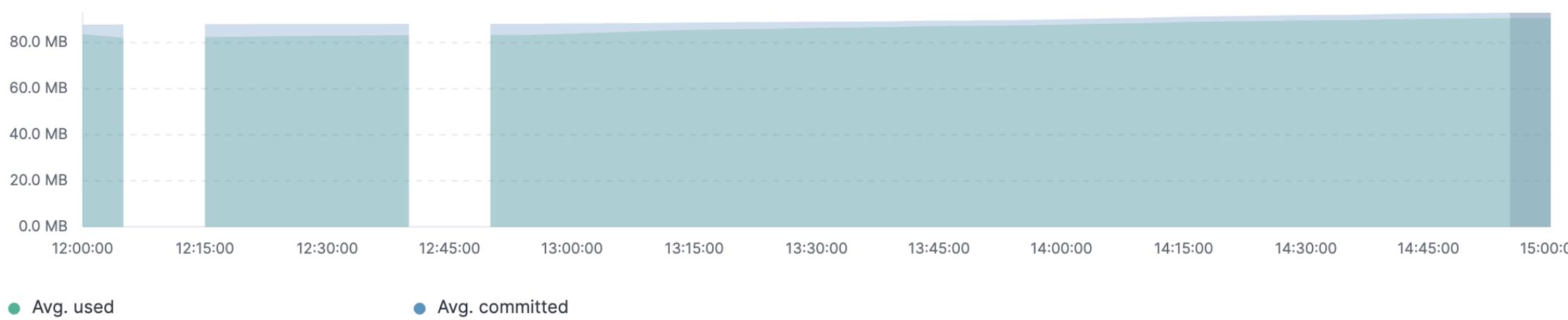
System memory usage



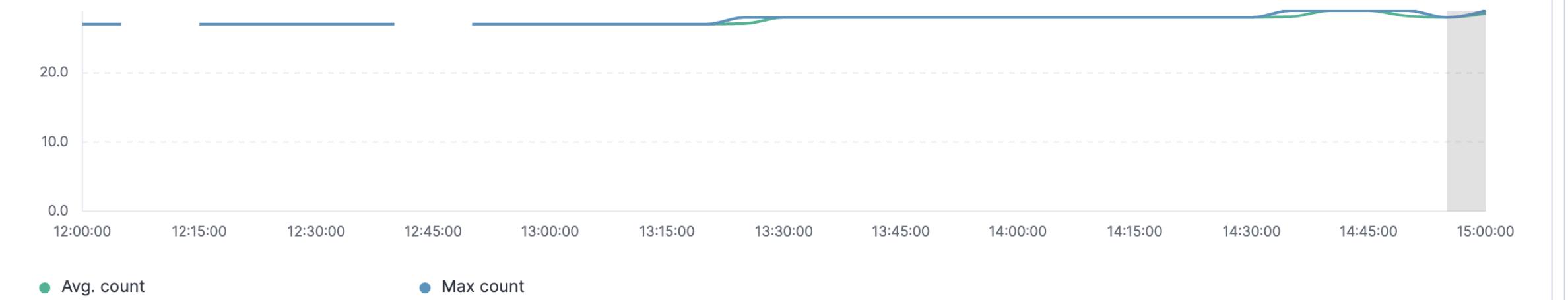
Heap Memory



Non-Heap Memory



Thread Count



Garbage collection per minute



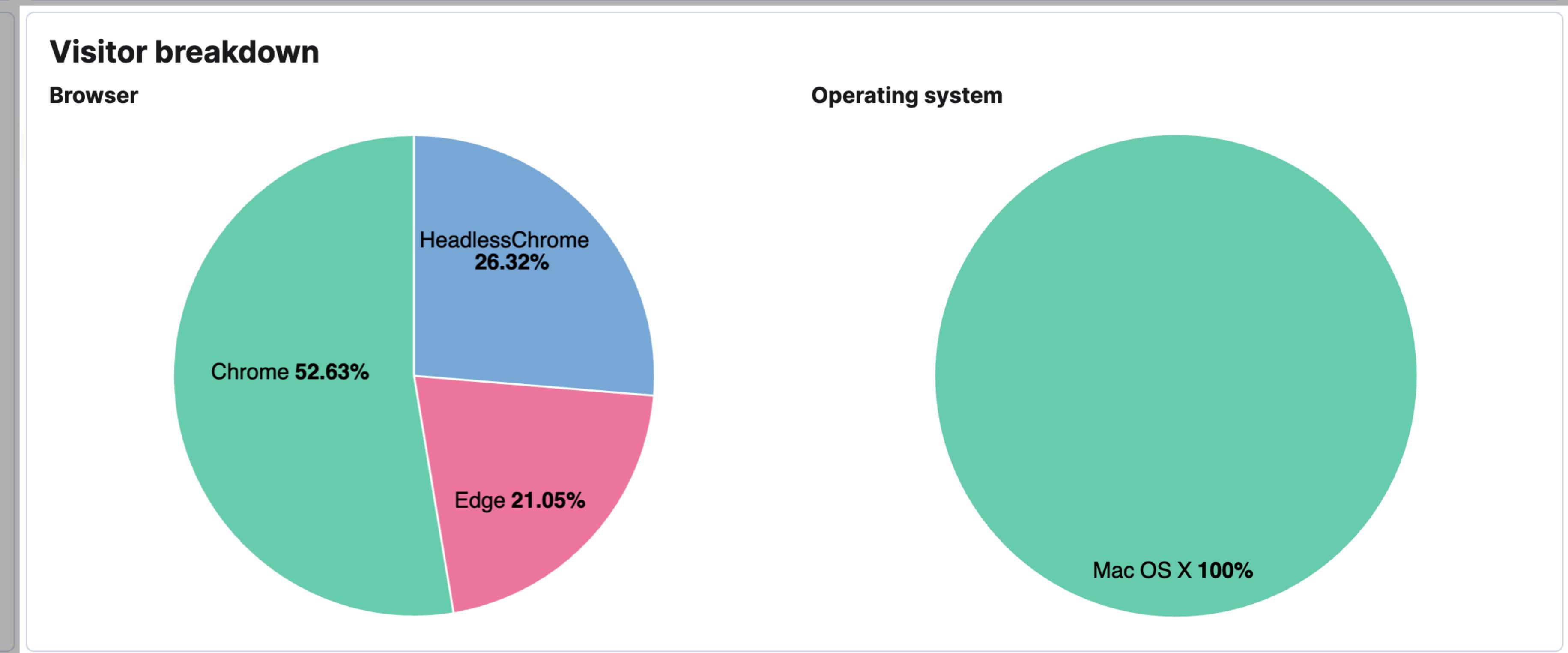
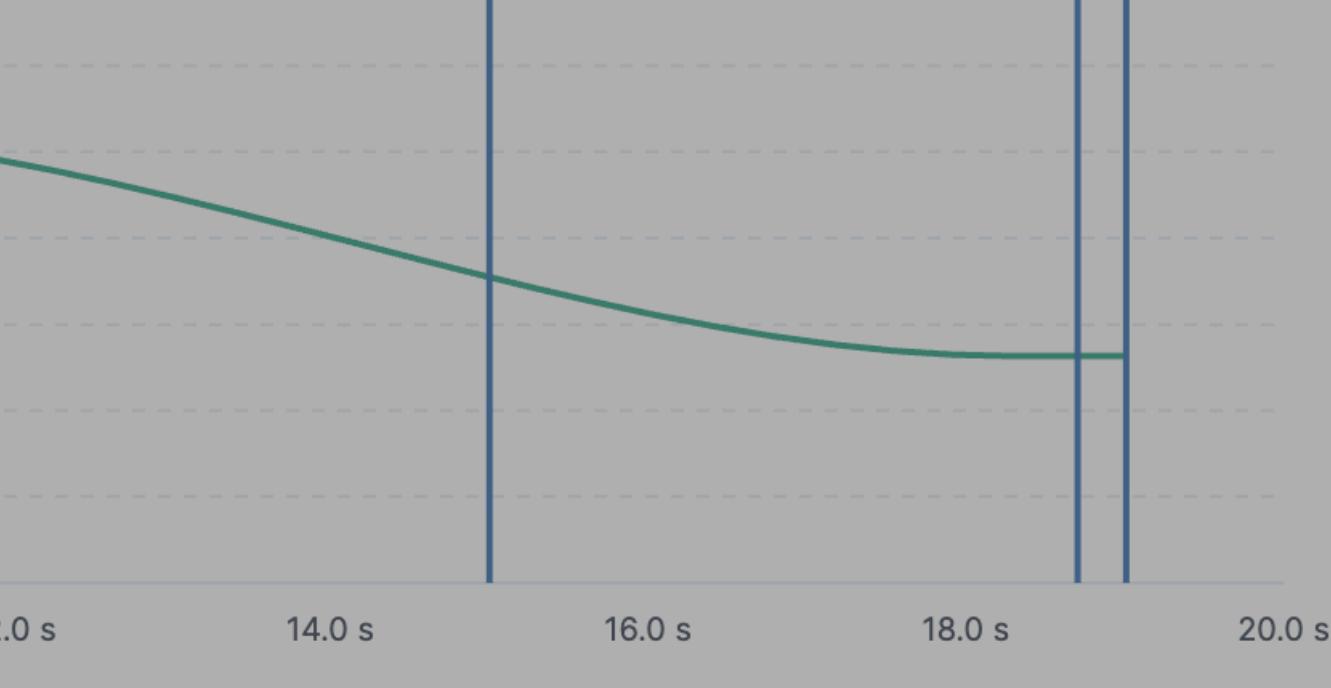
Garbage collection time spent per minute

@Carlyl Richmond



NOT WORKING FOR A PARTICULAR USER





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

Last 2 hours

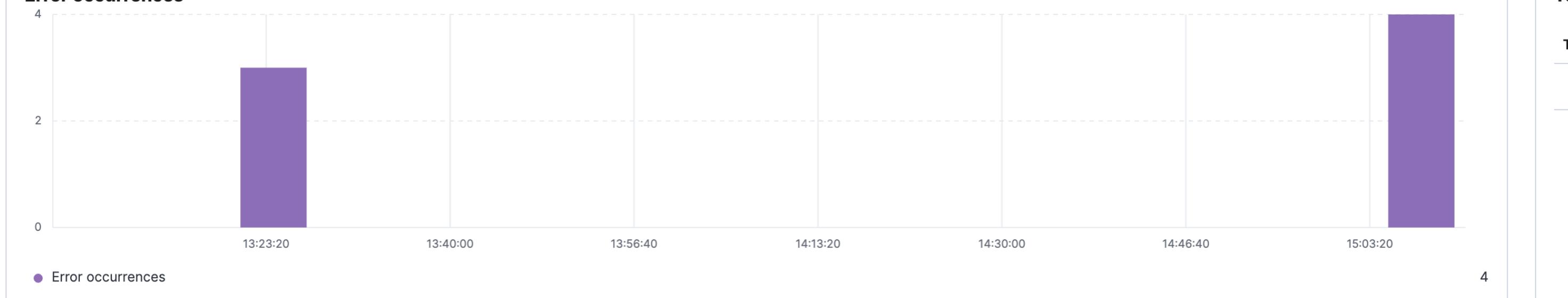
Refresh

Comparison

Day before

Error group 24d3c 7 occ

Error occurrences



Top 5 affected transactions

Transaction name

Error occurrence

No errors found associated with transactions

Error sample

◀ < 1 of 7 > ▶View 7 occurrences in Discover2 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)
```



NO LONGER USING IT (PROMISE)



Observability

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

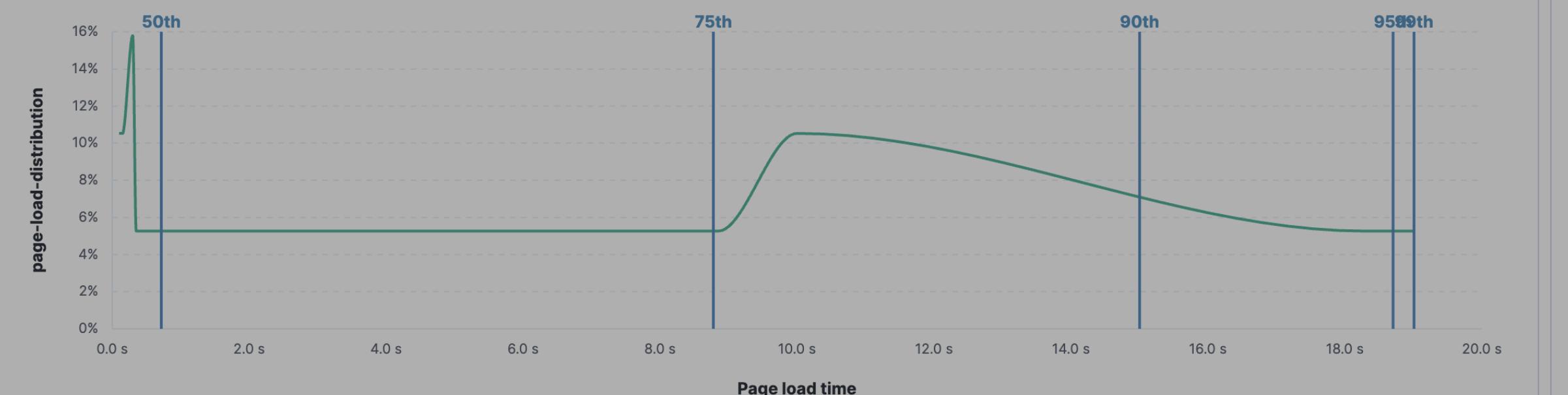
First input delay

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

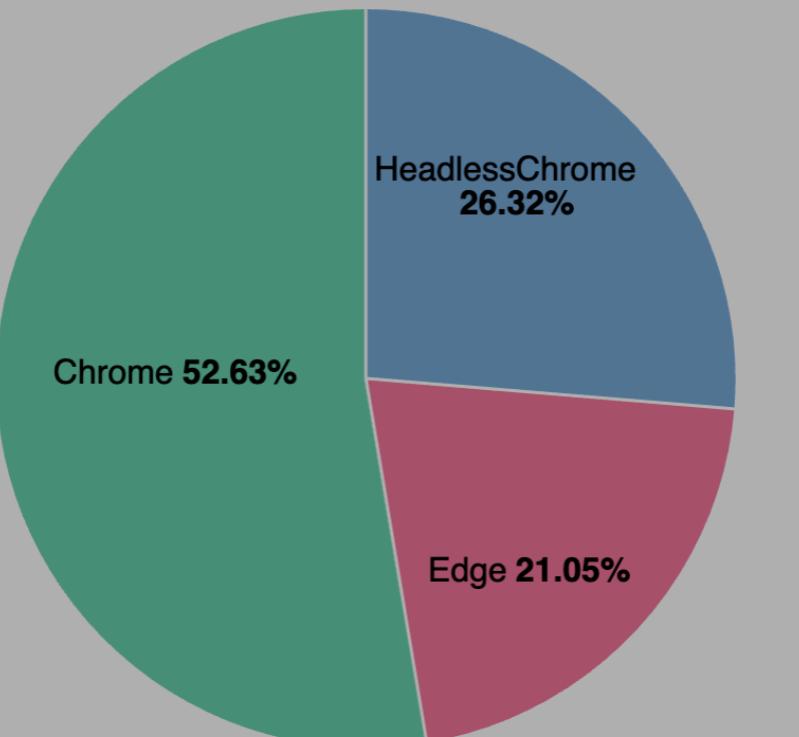


Page load duration by region (avg.)

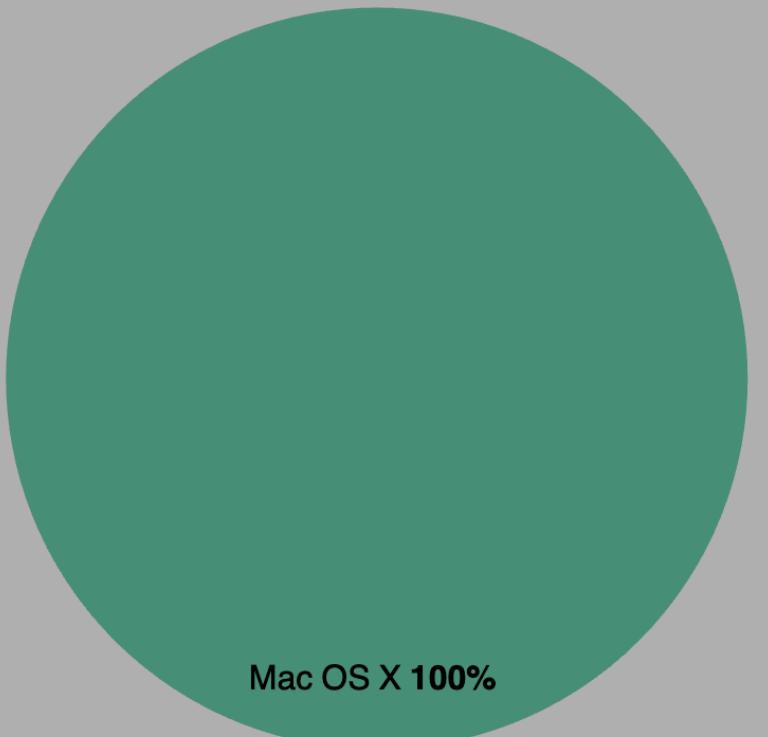


Visitor breakdown

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 !

• • • • • • •

