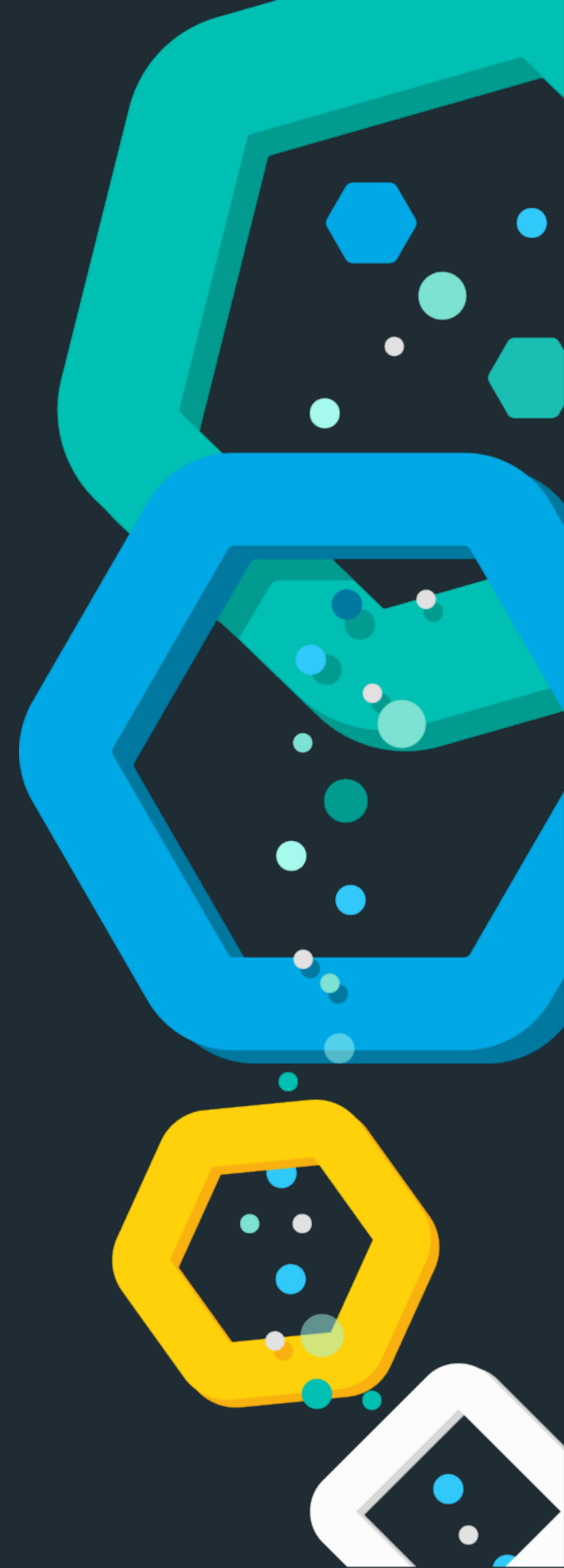




Distributed Tracing


Thomas Watson
@wa7son



Who am I?

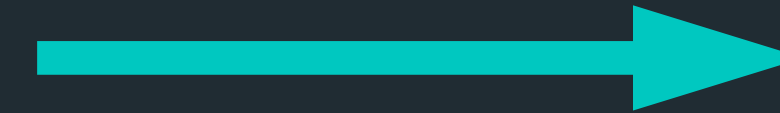
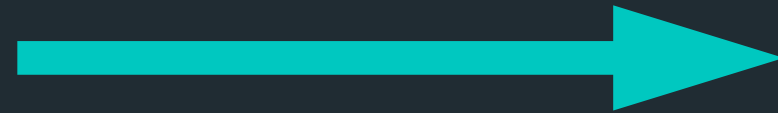
- Thomas Watson
- Open Source developer at github.com/watson
- Software Engineer at Elastic
- Elastic APM - Node.js agent
- Node.js Core Member
- Tweets as @wa7son



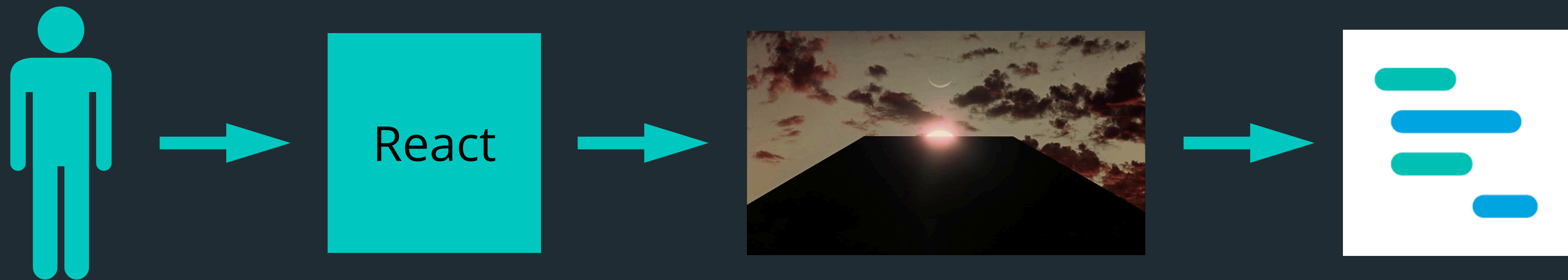


Tracing The Monolith

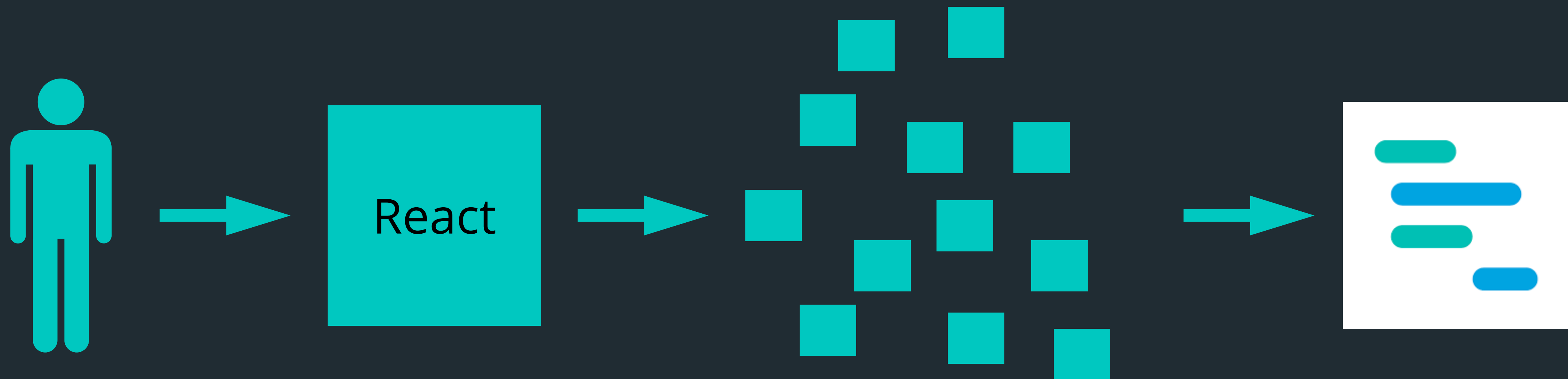
Tracing The Monolith



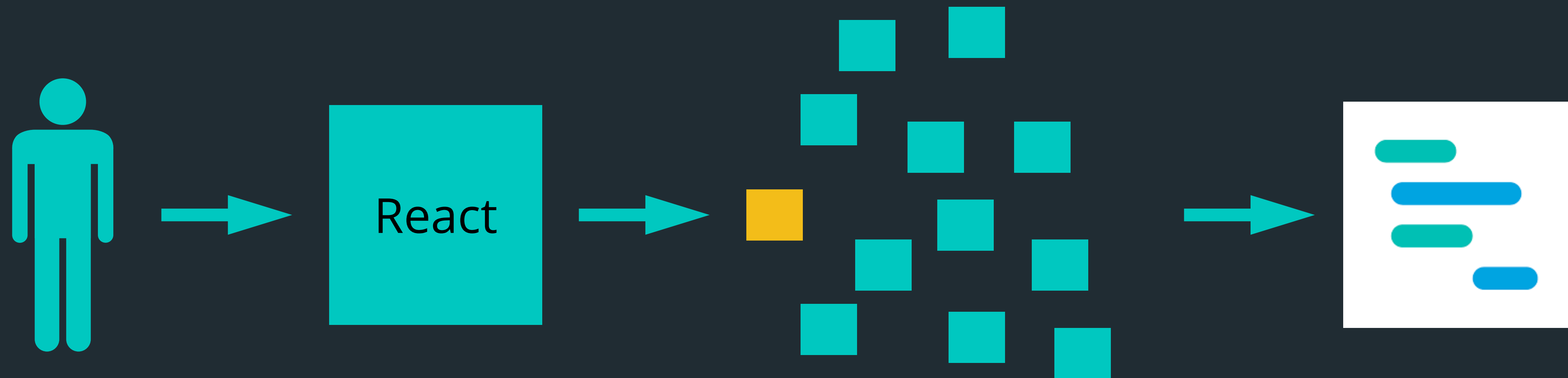
Tracing The Monolith



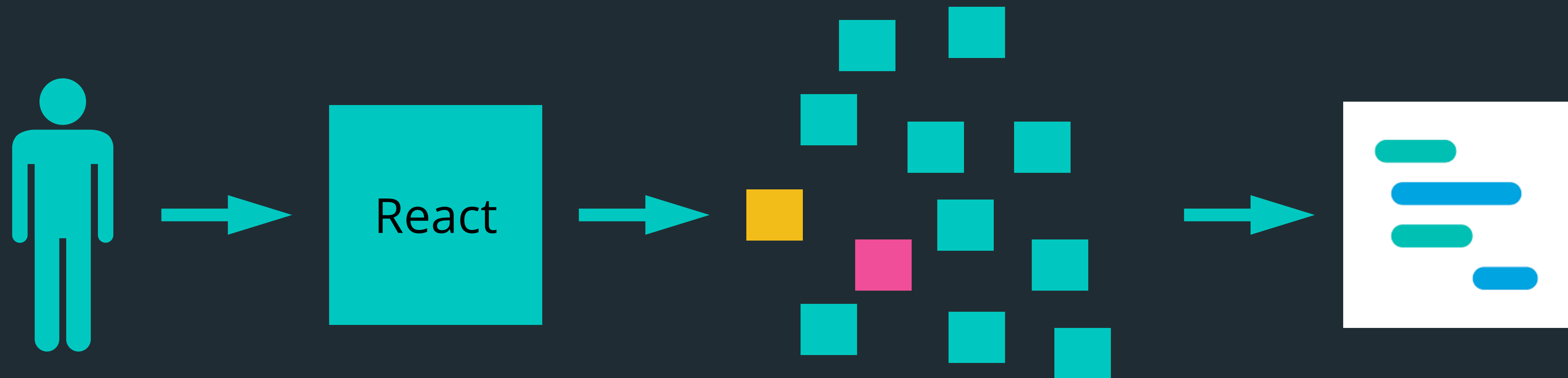
Tracing Microservices



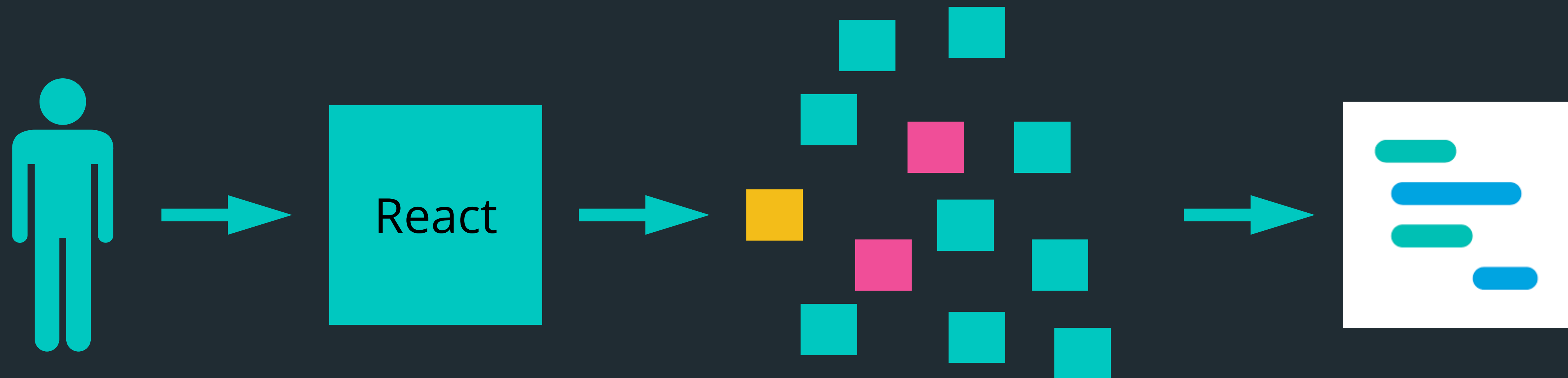
Tracing Microservices



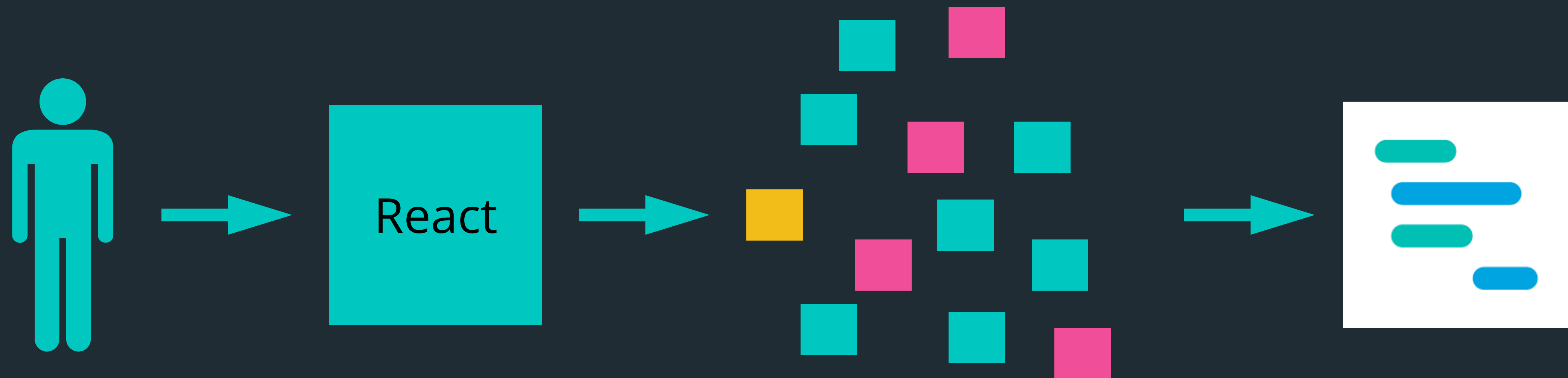
Tracing Microservices



Tracing Microservices



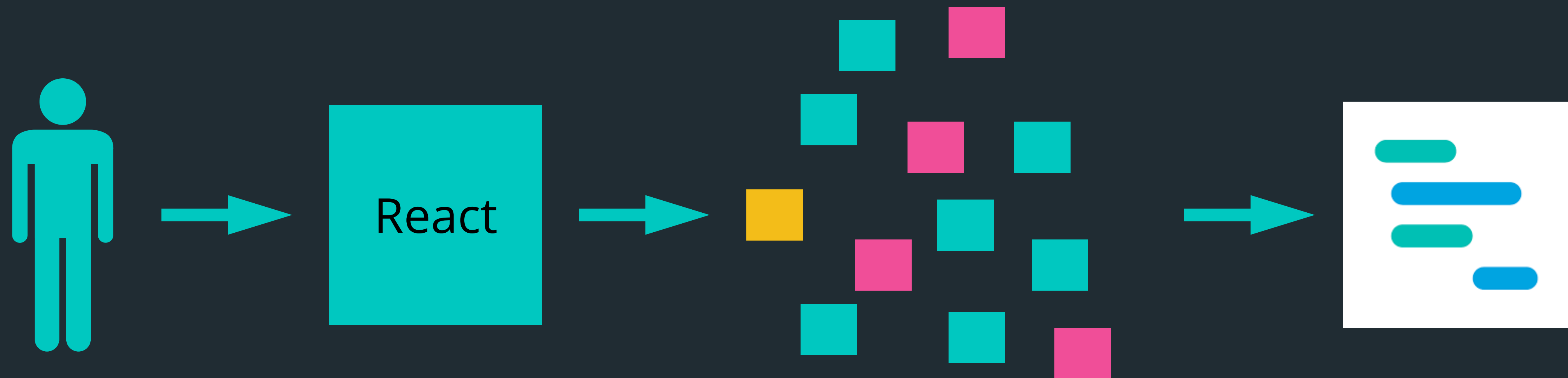
Tracing Microservices



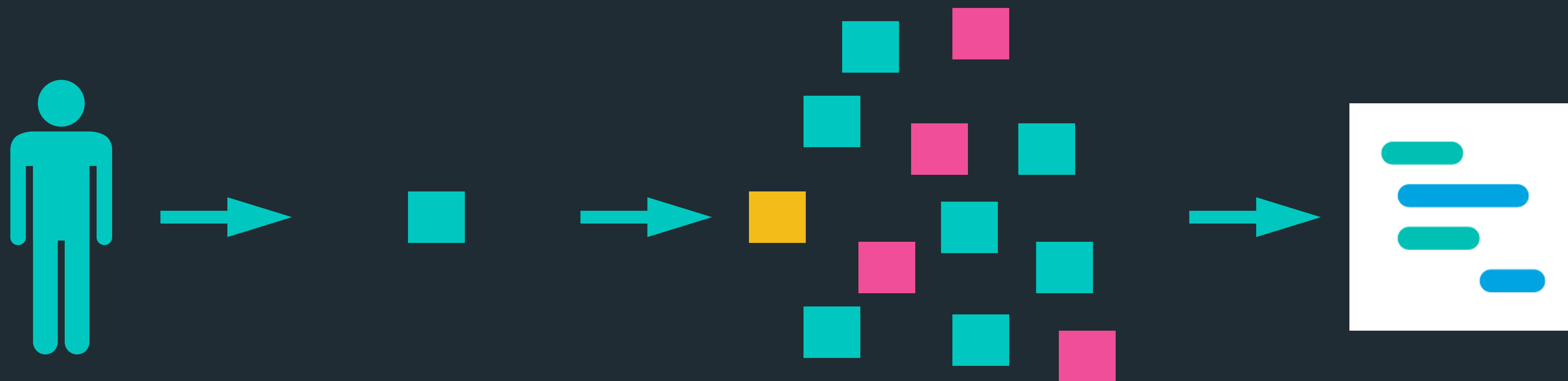
Distributed Tracing

(version 6.5)

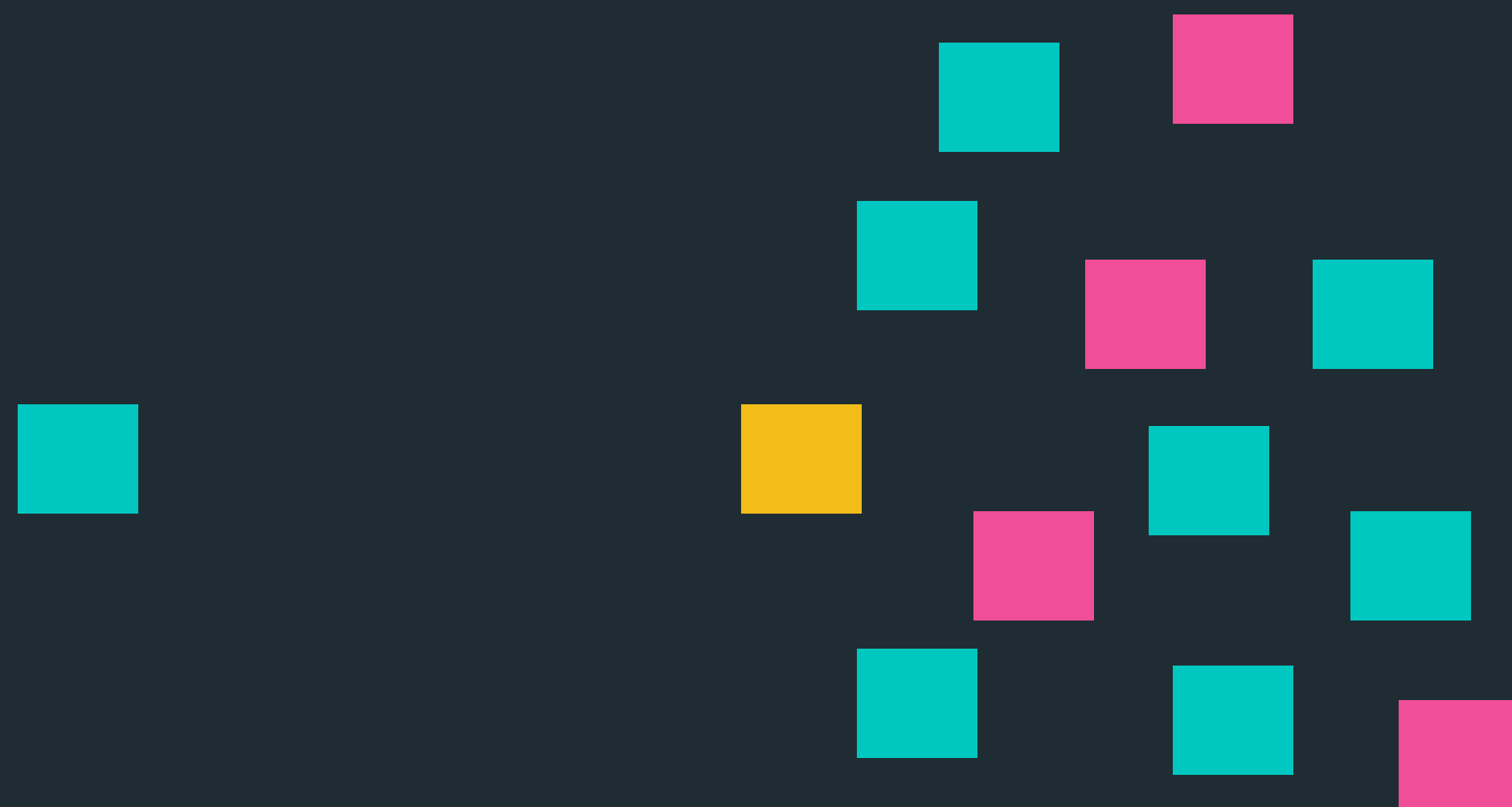
Tracing Microservices



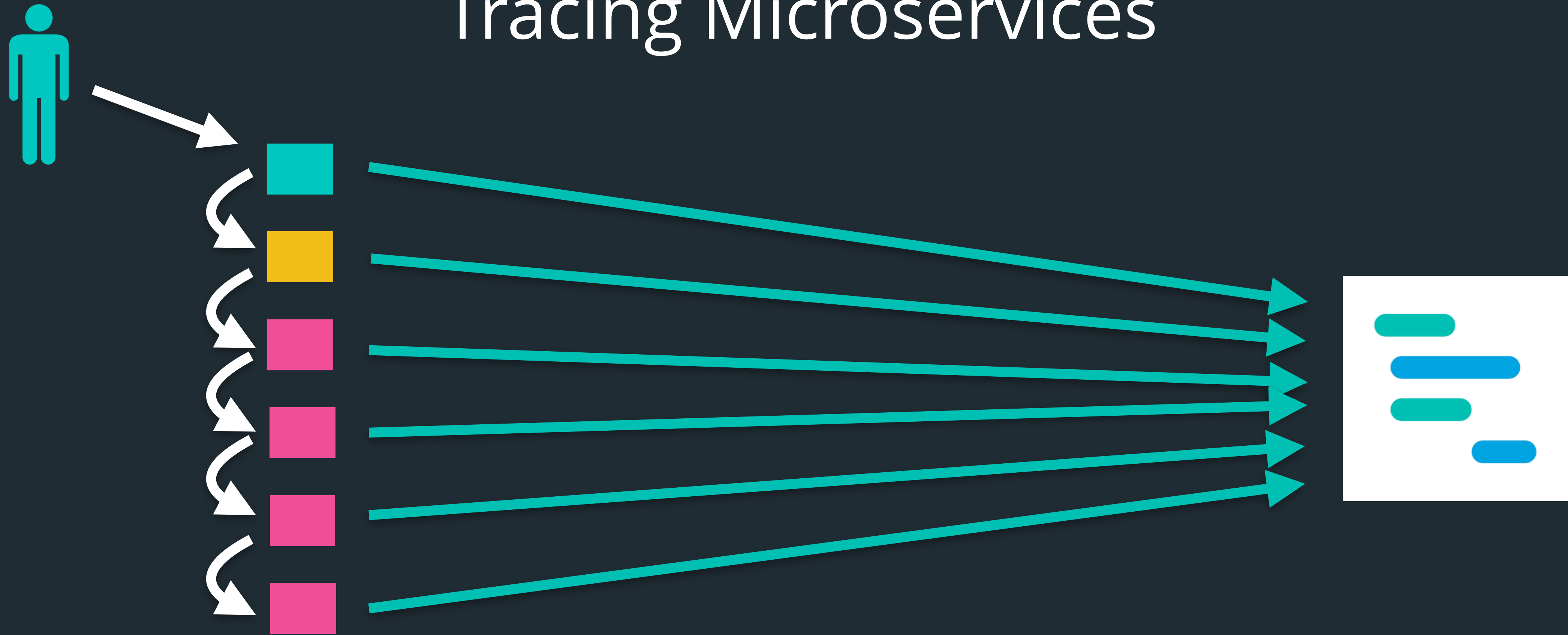
Tracing Microservices



Tracing Microservices



Tracing Microservices



GET /products HTTP/1.1

Host: www.example.com

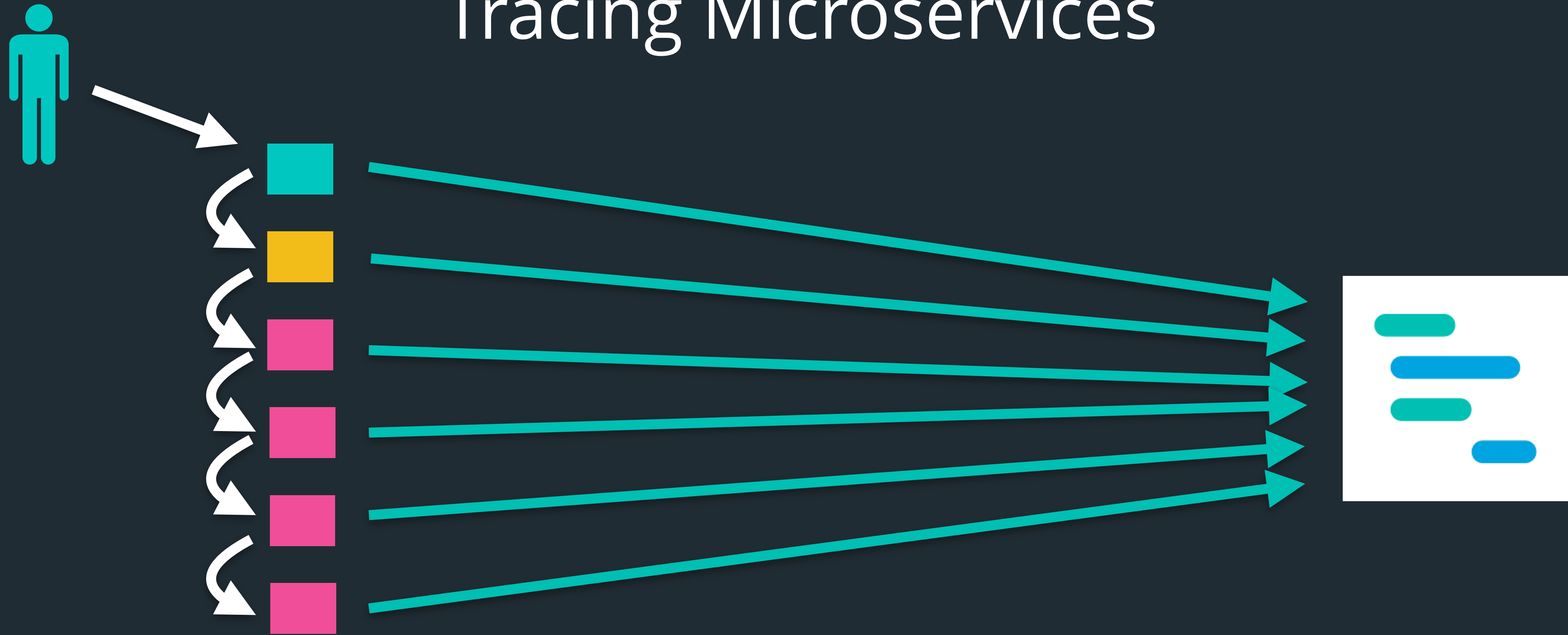
traceparent: 00-82c5500f40667e5500e9ae8e9711553c-992631f881f78c3b-01

Date: Mon, 29 Oct 2018 16:11:05 GMT

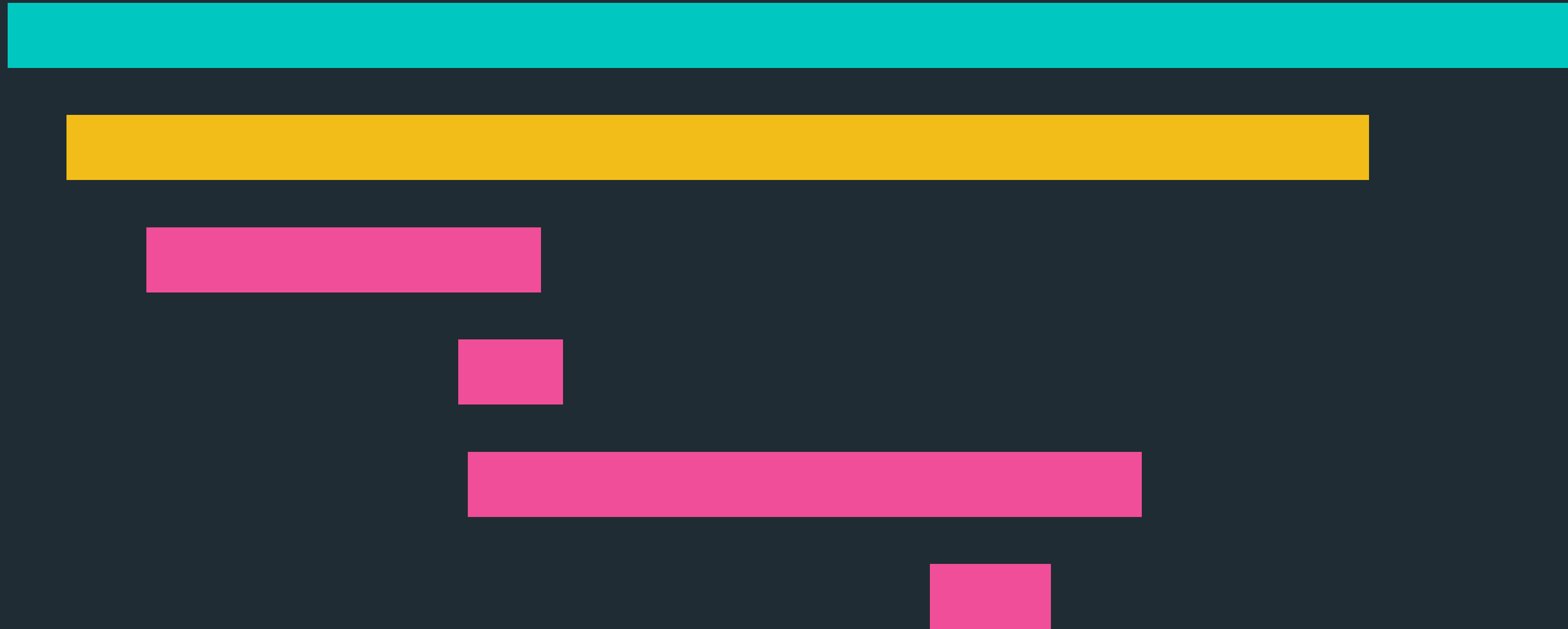
Connection: keep-alive

Content-Length: 0

Tracing Microservices



Tracing Microservices



Distributed Tracing in Elastic APM 6.5

- Supported languages
 - Node.js
 - Python
 - Ruby
 - Java
 - Go
 - RUM JavaScript (frontend)
- Transports
 - HTTP

Distributed Tracing in Elastic APM 6.5

- Supported languages
 - Node.js
 - Python
 - Ruby
 - Java
 - Go
 - RUM JavaScript (frontend)
 - **Coming: .NET**
- Transports
 - HTTP

Standards

within Distributed Tracing



OPENTRACING



OpenCensus



Trace Context Working Group

Demo

How to upgrade

elastic.co/products/upgrade_guide

Roadmap

.NET Agent

Logging vs APM

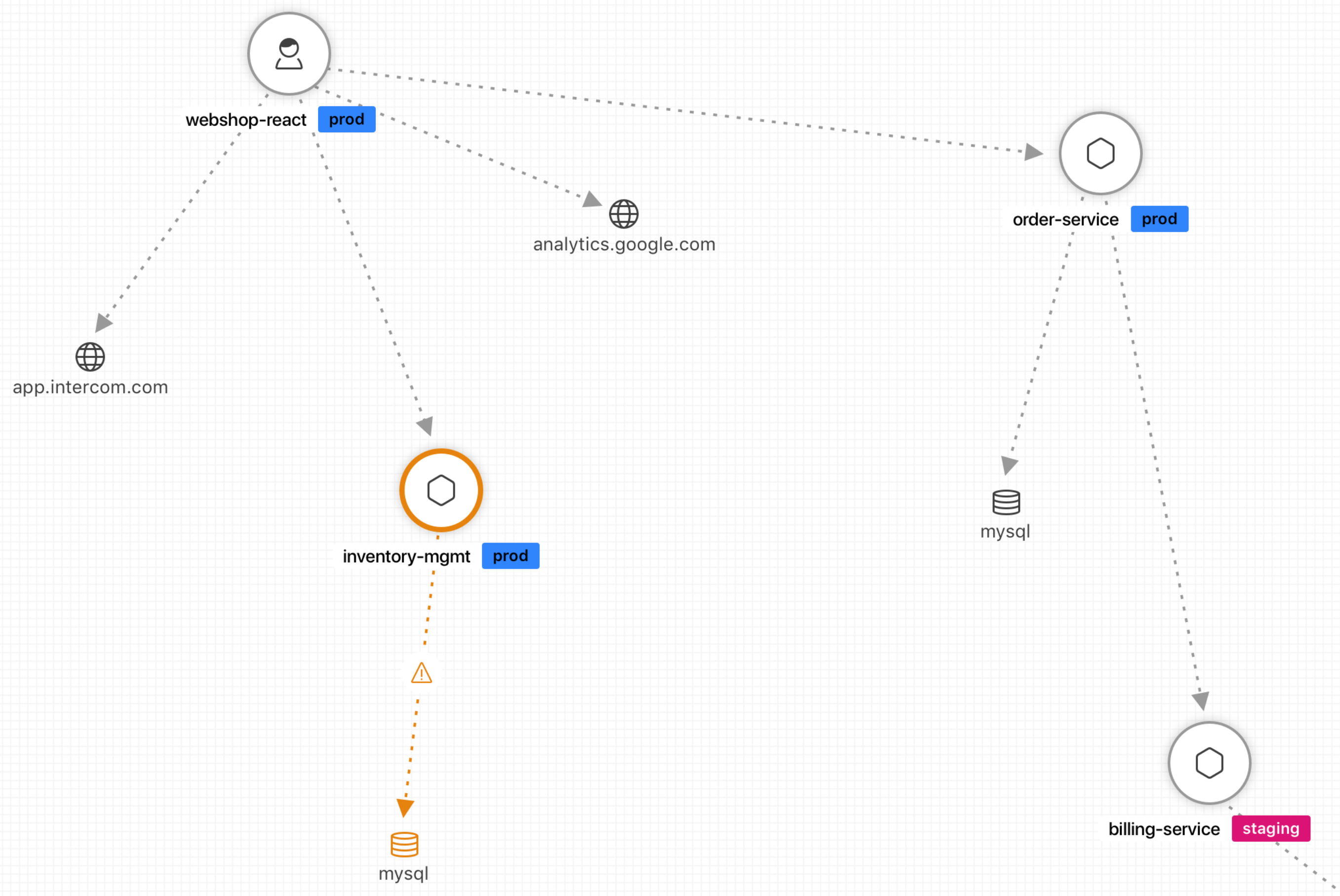
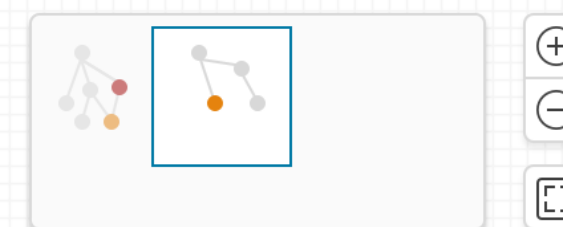


Services

Last 24h Mar 26 2018 11:00 – Mar 27 2018 11:00

Search transactions and errors... (E.g. transaction.duration.us > 300000 AND context.response.status_code >= 400)

Filter





log-server

Last 24h Mar 26 2018 11:00 – Mar 27 2018 11:00

Search transactions and errors...

Environment

Hosts

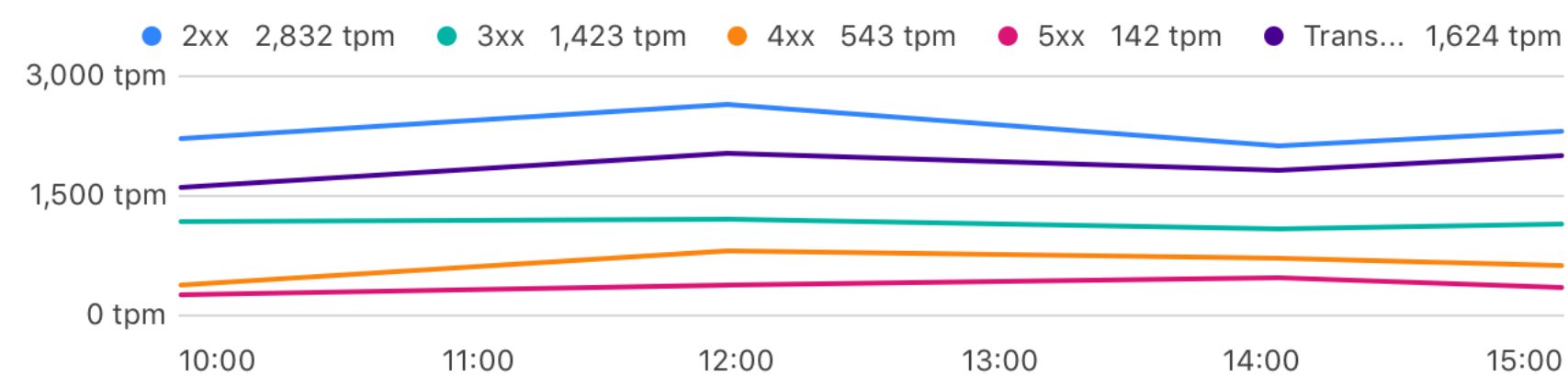
Requests

Workers

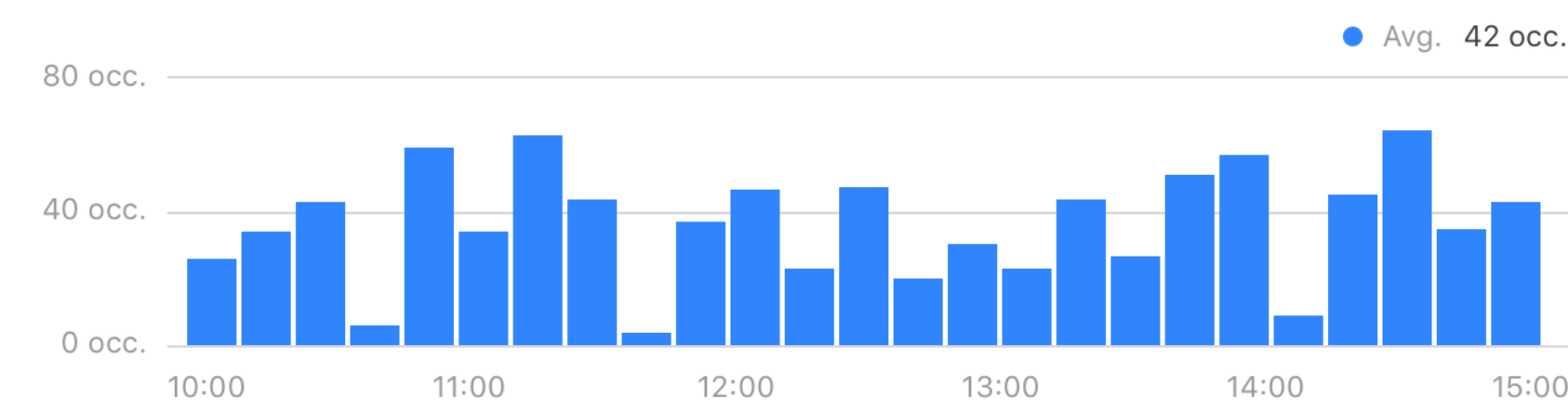
Errors

Metrics

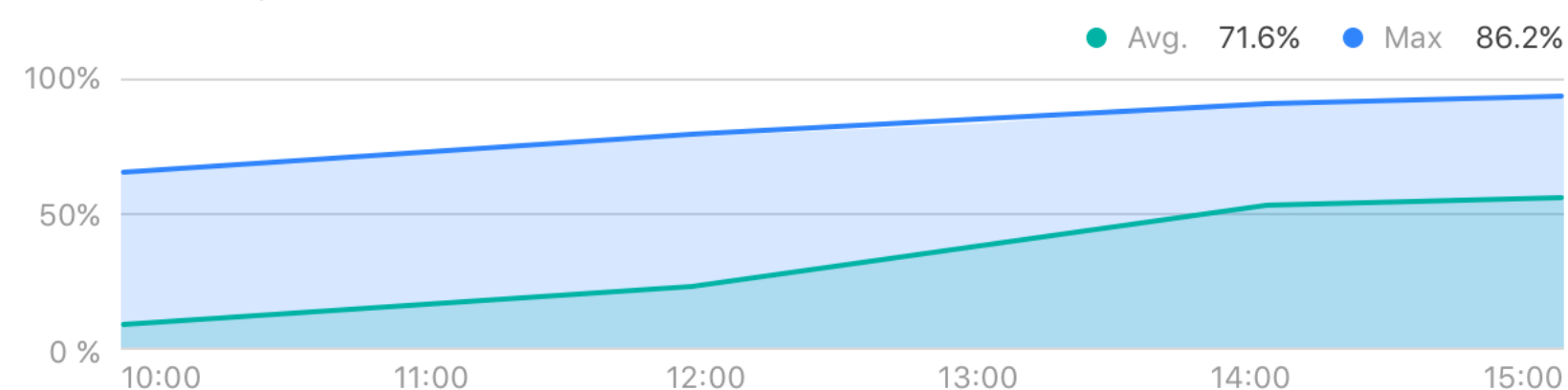
Transactions per minute



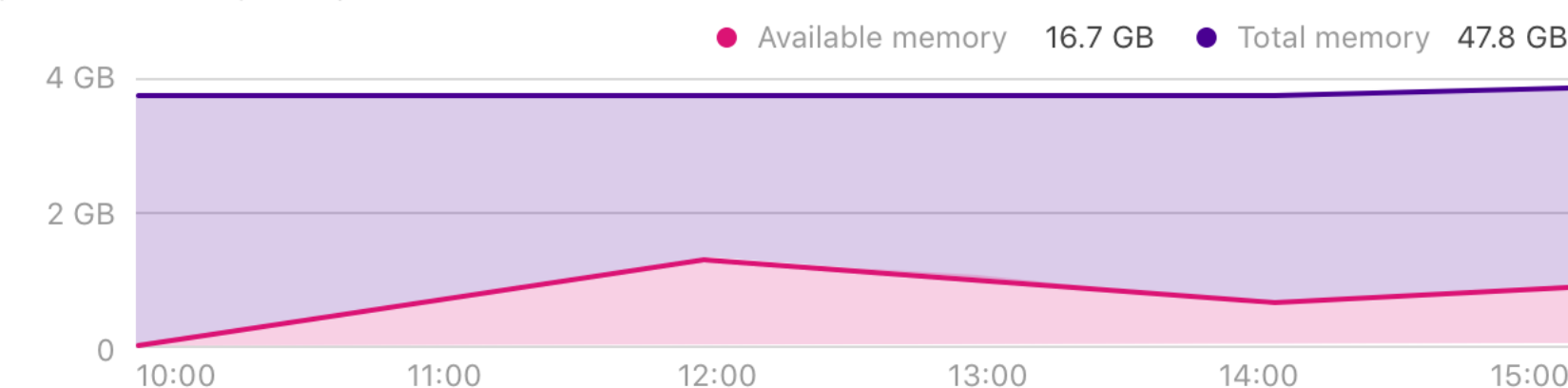
Error occurrences



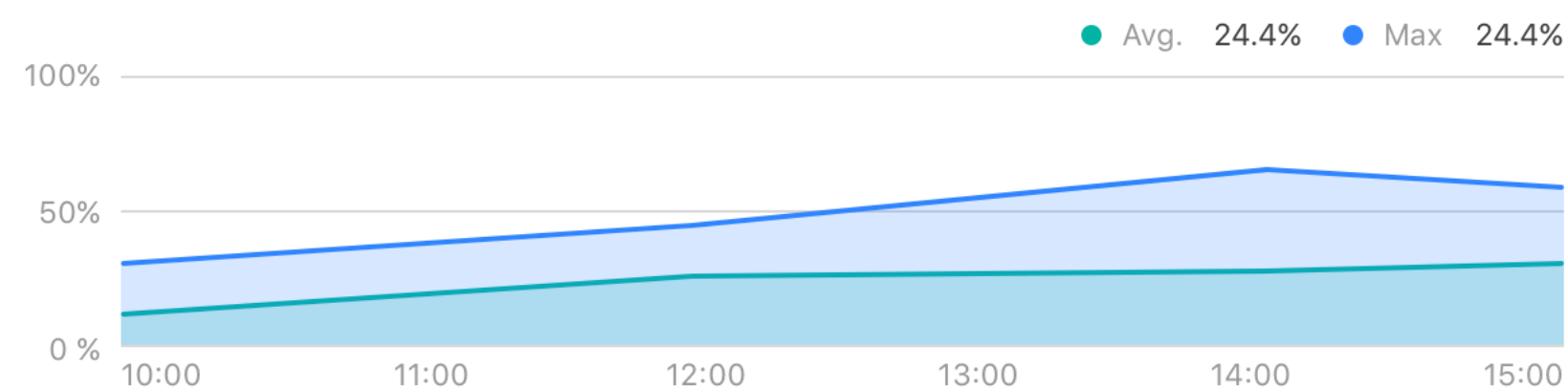
System CPU usage



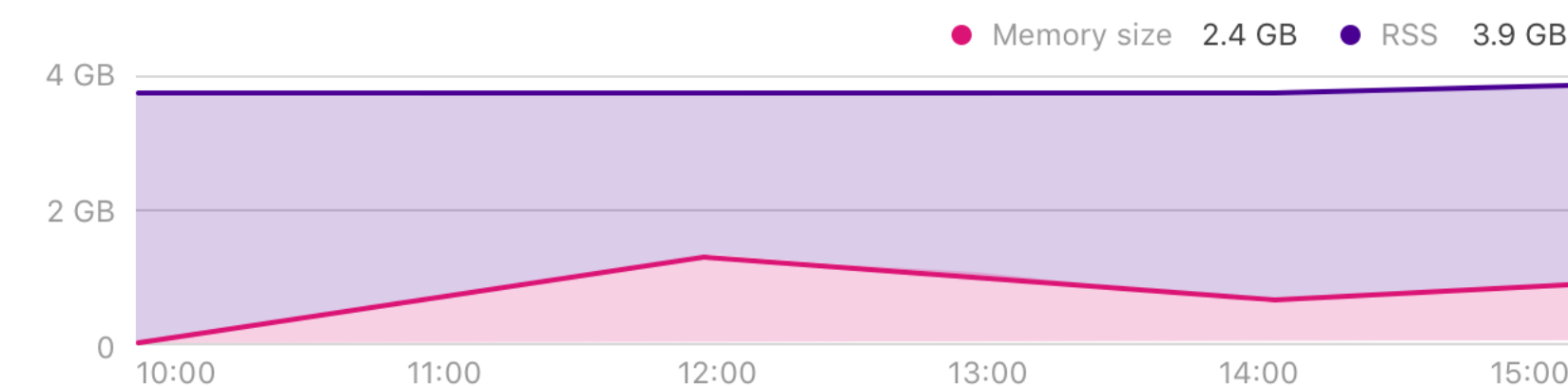
System Memory usage



Process CPU usage



Process Memory usage





More information

elastic.co/guide/en/apm/get-started

`discuss.elastic.co`



Getting involved





[github.com / elastic / apm](https://github.com/elastic/apm)

Thank you



Q&A