

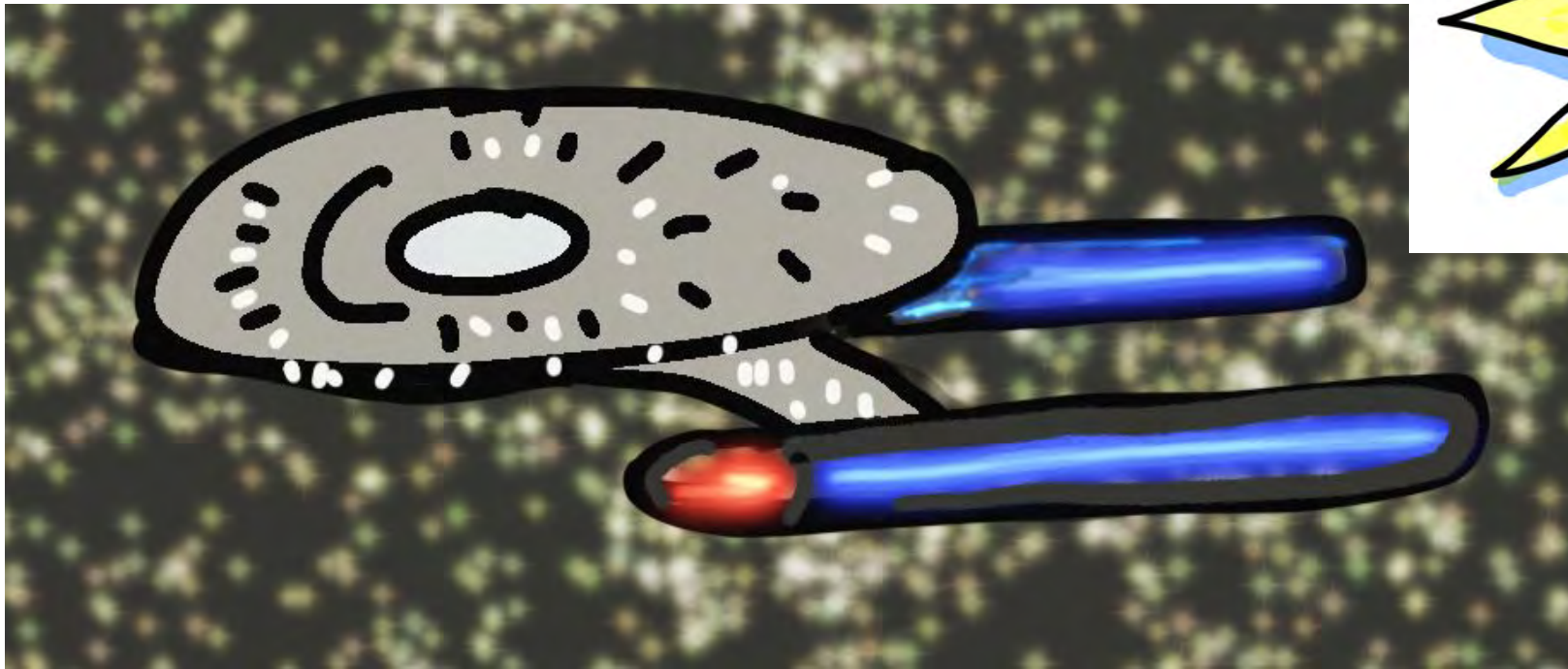
OpenTelemetry

Was macht eigentlich mein verteiltes (AI)
System?

Java-Forum-Stuttgart

2025

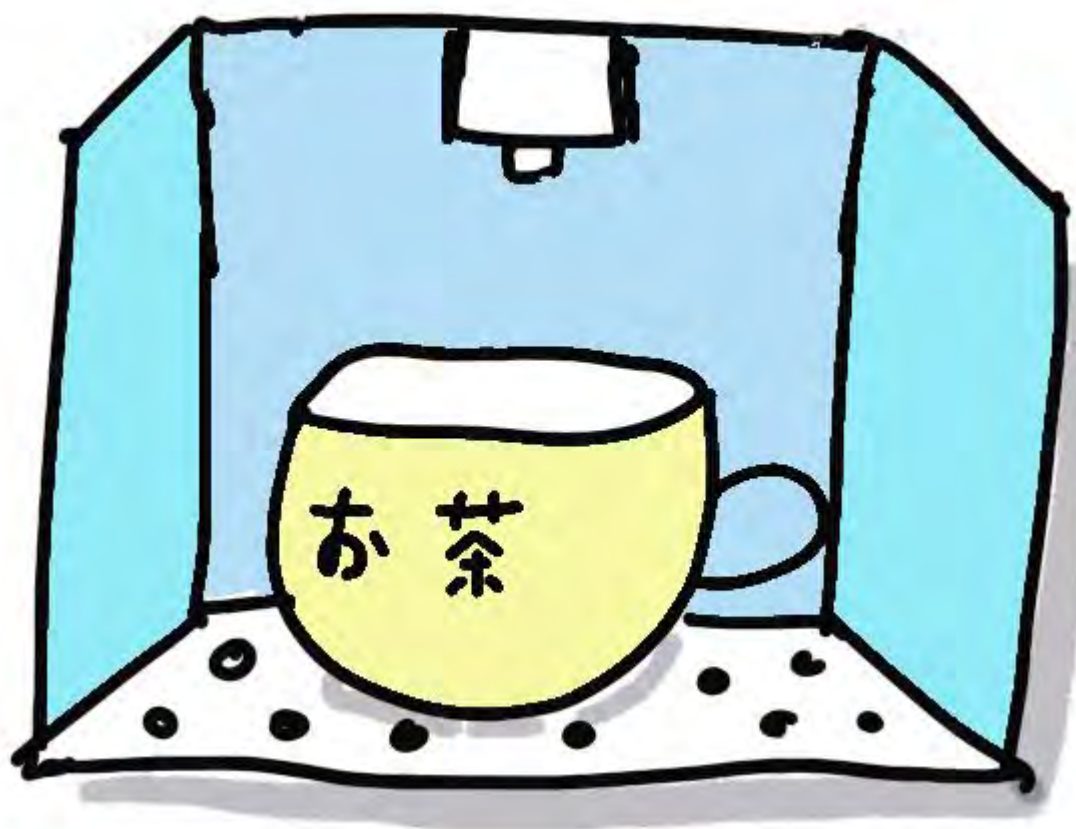
OBSERVABILITY



Jeder kennt es...



Tea! Earl Grey!
Hot







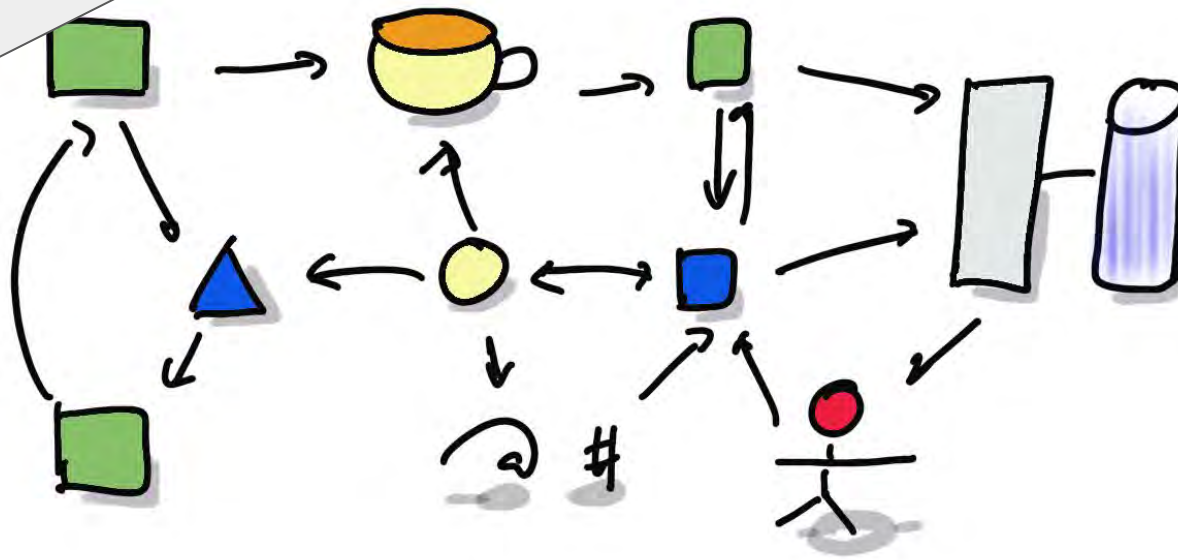


Geordi! Warum ist
der Replikator so
langsam?



Mal sehen, Auf den
Schirm!

Das sieht kompliziert aus!
Geht das nicht besser?





Ja, es geht besser!
Mit OpenTelemetry^{*}

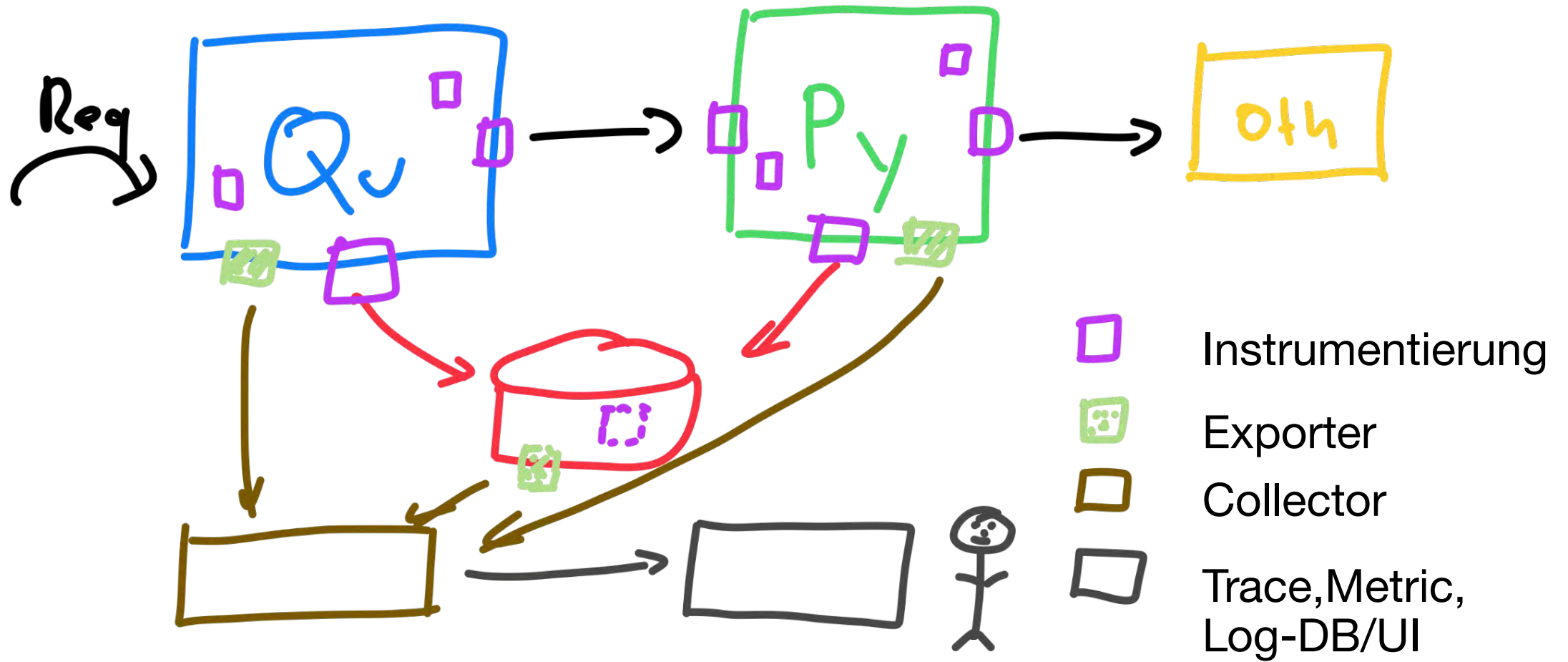


Heiko W. Rupp

Senior Principal Software Engineer
Red Hat

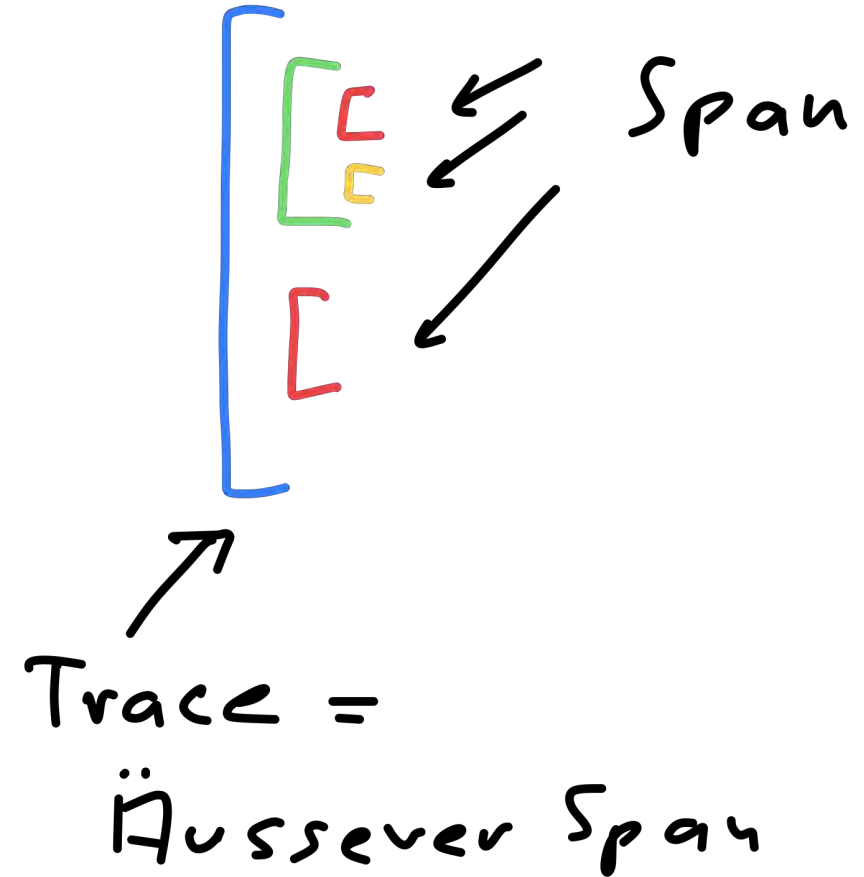
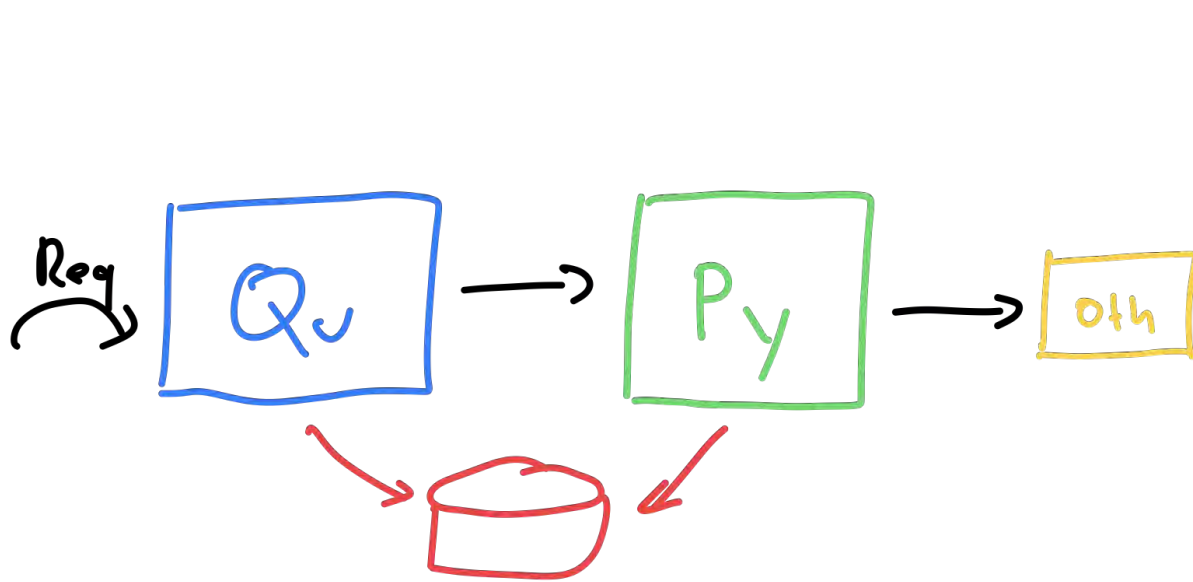
hrupp@redhat.com

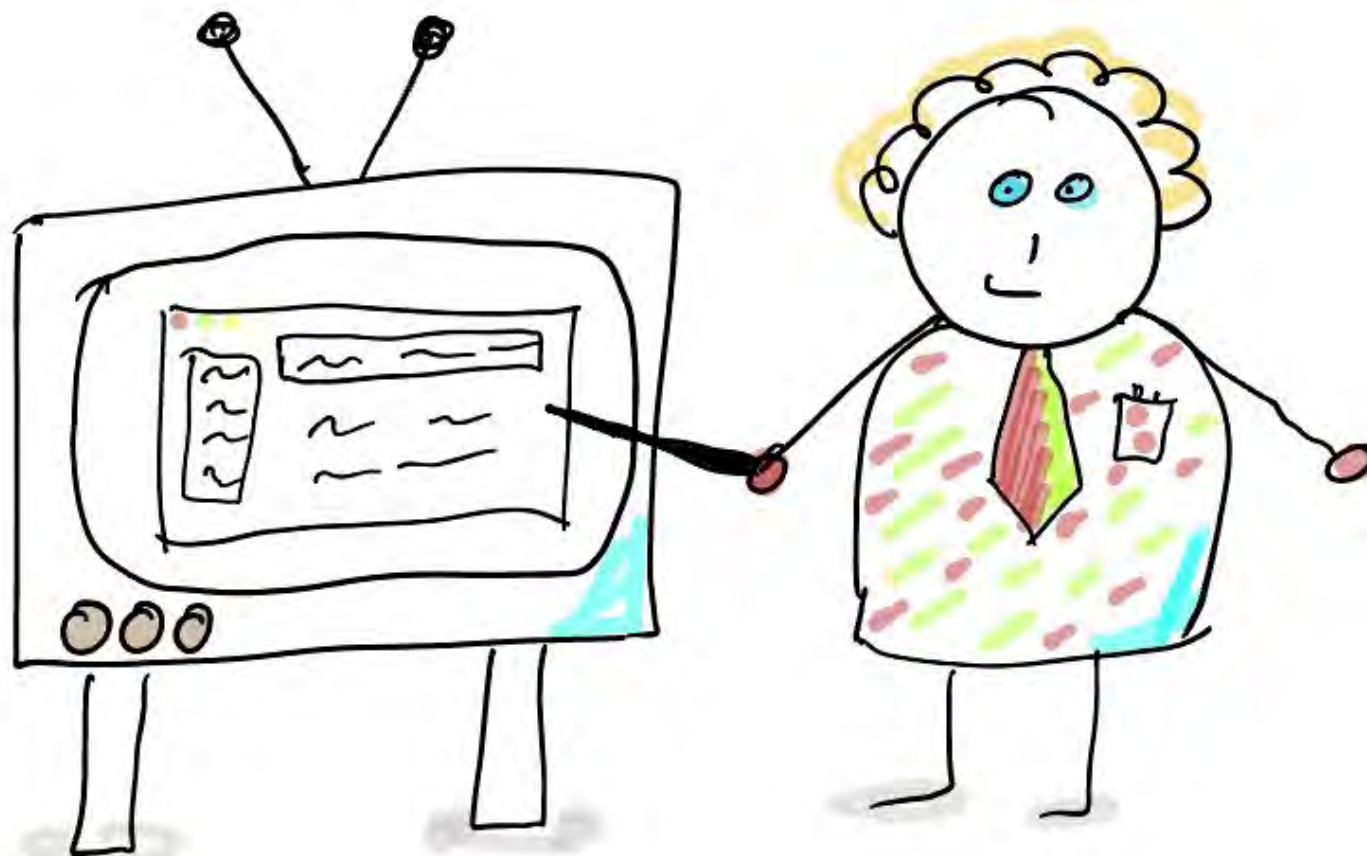
@pilhuhn@mastodon.social



Theorie: Trace / Span - was ist das?

Aufrufe verfolgen...





Instrumentierung Quarkus

Vieles geht automatisch

```
<dependency>
```

```
  <groupId>io.quarkus</groupId>
```

```
  <artifactId>quarkus-opentelemetry</artifactId>
```

```
</dependency>
```

```
<dependency>
```

```
  <groupId>io.opentelemetry.instrumentation</..
```

```
  <artifactId>opentelemetry-jdbc</artifactId>
```

```
</dependency>
```

Instrumentierung Quarkus

Explizit von Hand

```
@ApplicationScoped
```

```
public class Brewery {
```

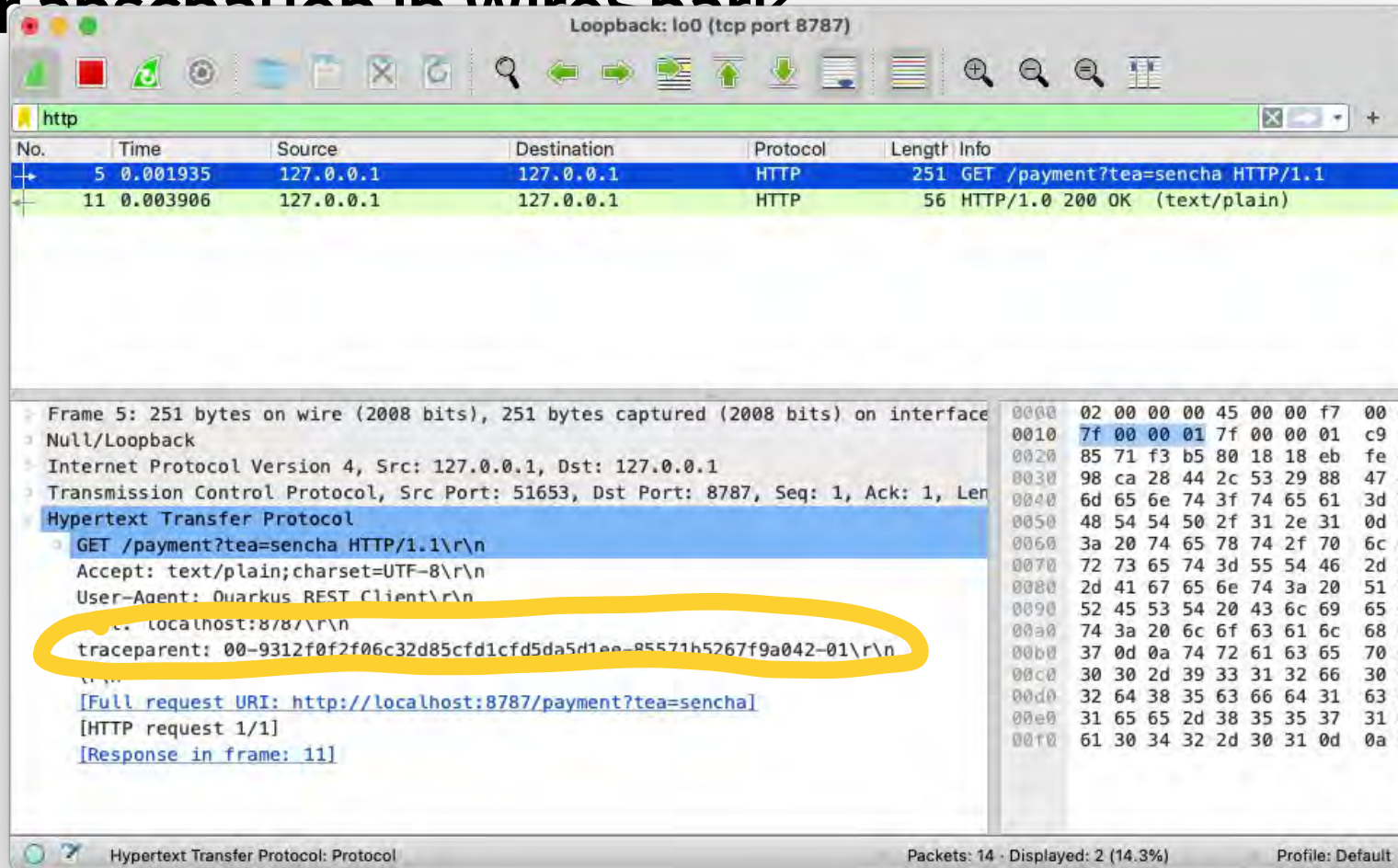
```
    @WithSpan()
```

```
    void brewTea(@SpanAttribute(value = "kind-of-tea")
```

```
        String kind) tea) { ...
```

Einschub: Kontext weiterleiten

Header anschauen in Wireshark



traceparent-http—header

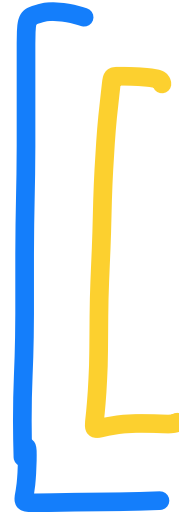
traceparent: 00-9312f0f2f06c32d85cfd1cfd5da5d1ee-85571b5267f9a042-01

Version

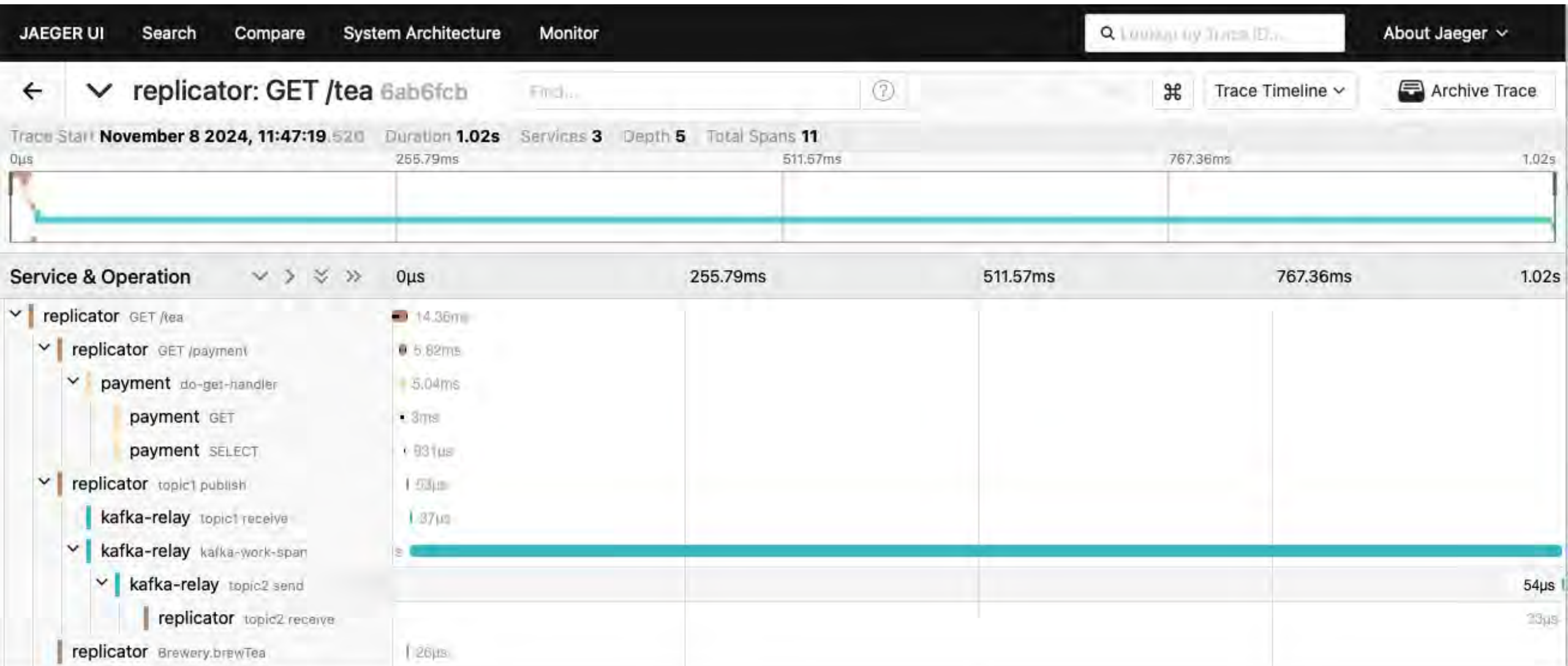
TraceId

SpanId

Flags



Trace-View in Jaeger

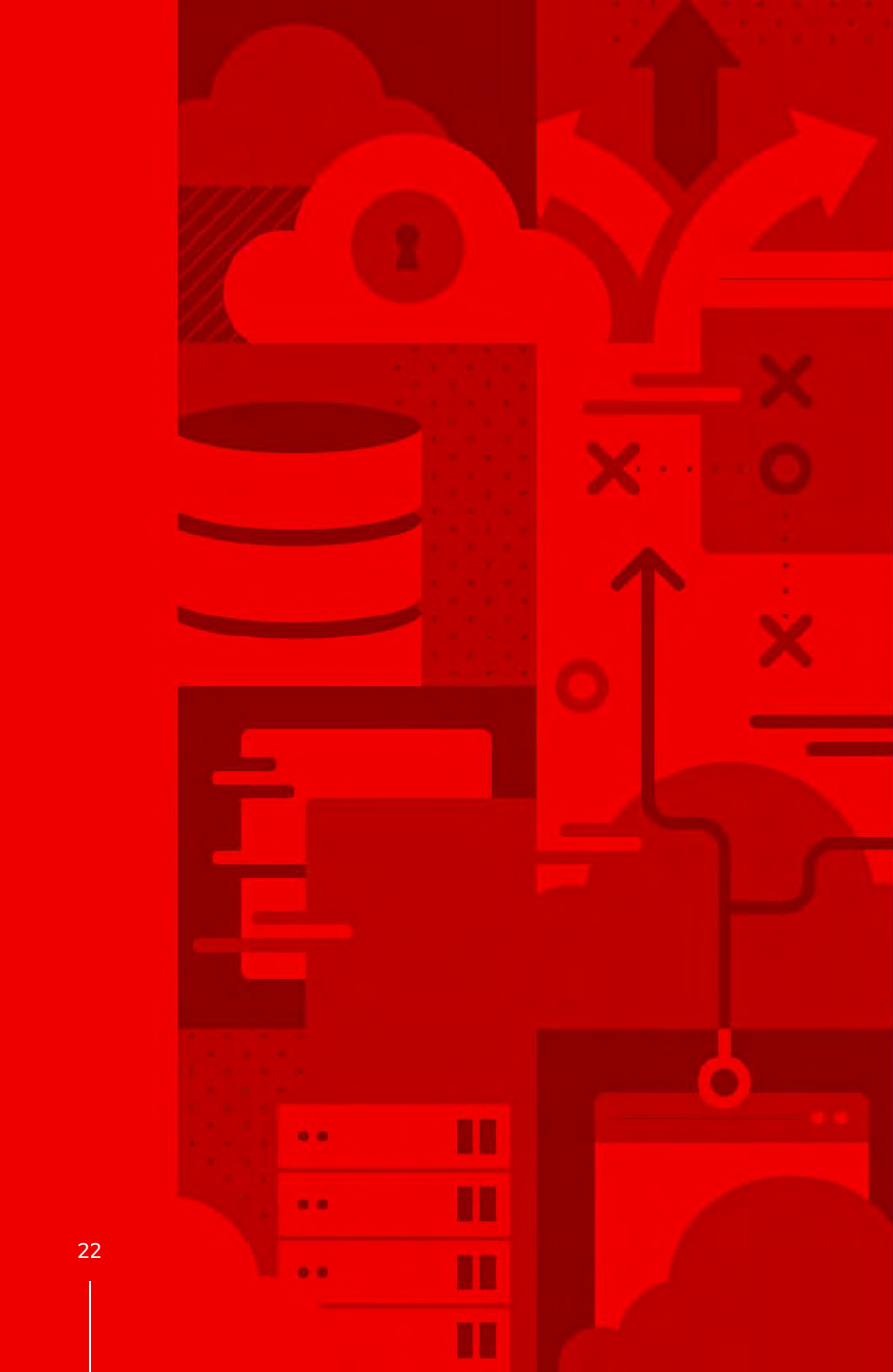


tl;dr



Ein paar Links...

- [OpenTelemetry.io](https://opentelemetry.io)
- Repository mit dem Beispielcode: <https://github.com/pilhuhn/observability-talk>
- Jaeger: <https://www.jaegertracing.io/>

A vertical red bar on the left side of the slide contains a complex, stylized graphic. It features various icons: a cloud with a keyhole, a database cylinder, a server rack, a computer monitor, and several arrows pointing in different directions. Some arrows are solid, while others are dashed. There are also 'X' and 'O' symbols scattered throughout the graphic.

Fragen?



[linkedin.com/company/red-hat](https://www.linkedin.com/company/red-hat)



[facebook.com/redhatinc](https://www.facebook.com/redhatinc)



[youtube.com/user/RedHatVideos](https://www.youtube.com/user/RedHatVideos)



twitter.com/RedHat

