

# Debezium OpenTelemetry

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# OpenTracing

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- Debezium was integrated with OpenTracing.
- OpenTracing is deprecated now.
- Projects should use OpenTelemetry instead.



# OpenTelemetry (OTel)

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- Observability framework
  - instrument, generate, collect and export telemetry data
  - useful to analyze SW performance and behaviour
  - vendor and tool agnostic
- Incubating project under CNCF



# Debezium OpenTelemetry

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- Switched to OTel in 2.4.0.Alpha2 ([DBZ-2862](#))
  - Documentation still WIP ([PR #4774](#))
- New module `debezium-interceptor`
  - Traces are propagated in Kafka headers
  - Dynamic loading due to OTel versioning issues
  - Implements Kafka's `ProducerInterceptor` and adds an OTel span on message send.

# Installation

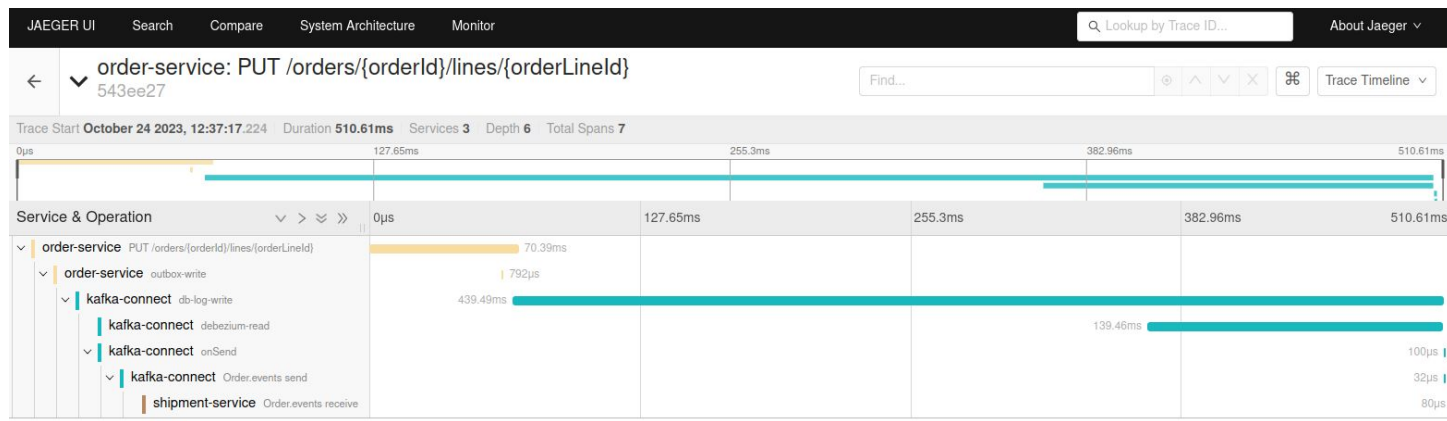
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- Manual installation
- Using Debezium Kafka Connect container, enabled by setting `ENABLE_OTEL=true`
- Using installation/image via Strimzi



# Usage

- Adding spans
  - Custom field using `ActivateTracingSpan` SMT.
  - Kafka headers (must add `debezium-interceptor` jar file into the Kafka pluing dir), see also Debezium [Outbox example](#).



- Some 3rd party libraries may not support OTel yet

# Useful links

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- [OTel Specification](#)
- [Java instrumentation](#)
- [Kafka TracingProducerInterceptor](#) source code
- [Strimzi distributed tracing](#)
- [Strimzi OTel upgrade discussion](#)



# Thank you!



debezium