Disclaimer

Paul is not **employed** by **Tracetest**, nor **Kubeshop**!

He simply ***“nicked”*** some of their slide content.

(he isn’t English either!)

tracetest

Trace-based testing, for a distributed, cloud native world.

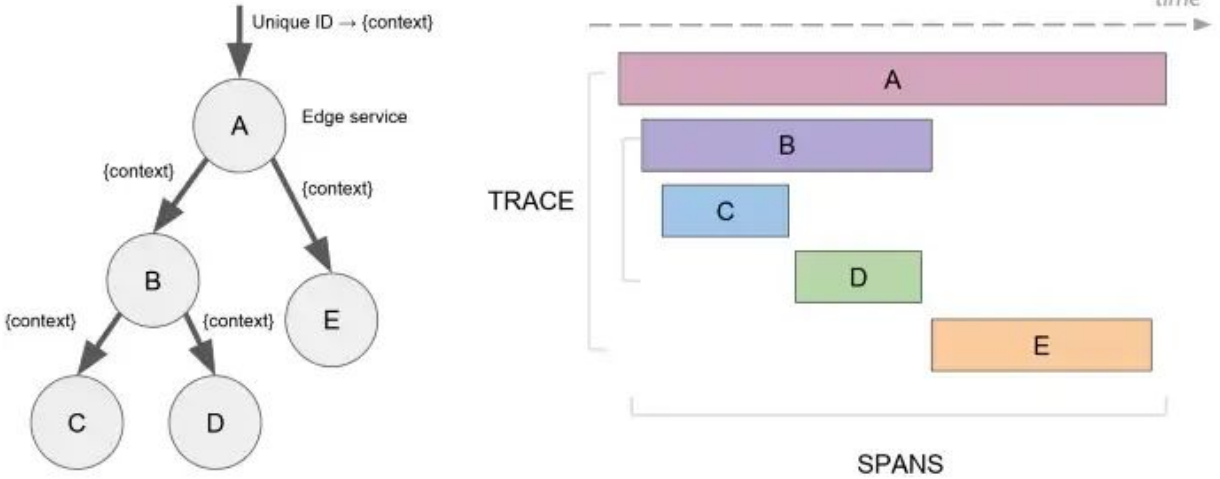
Enables **integration**, **system**, and **e2e tests** to be easily built by relying on the **observability data** contained in a **distributed trace**

- https://github.com/kubeshop/tracetest
- 100% open source, MIT licensed
- Install in docker or kubernetes
- User Interface or Command Line
- Works with **your** tracing solution - Grafana, Jaeger, New Relic, etc

tracetest

What is distributed tracing?

Distributed tracing refers to **methods of observing requests** as they **propagate** through **distributed systems**.



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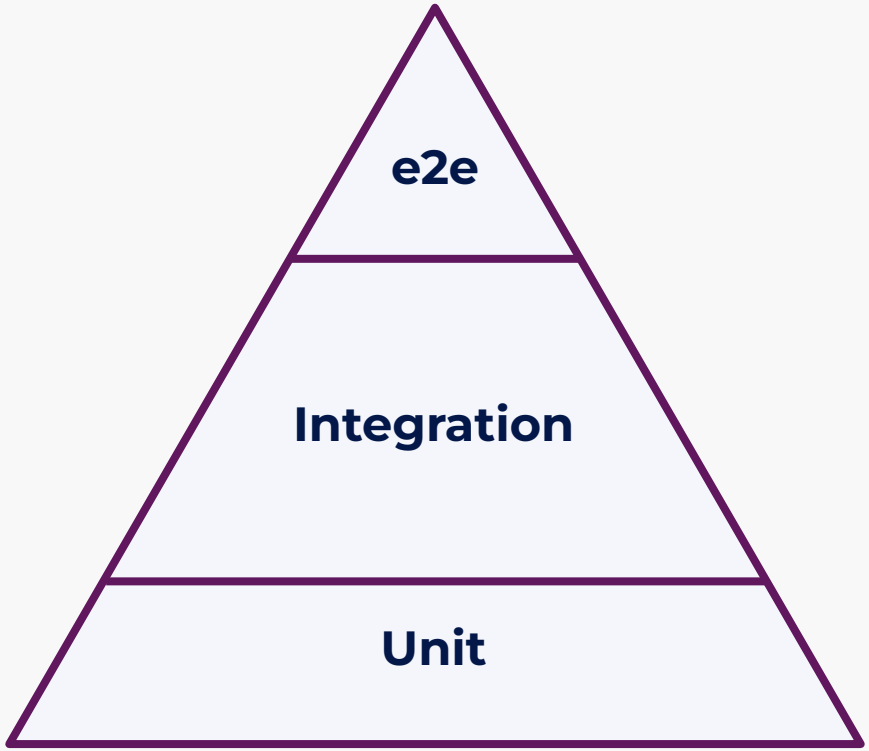
Testing Pyramid



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Ways to do integration testing

Black box testing

- Can’t tell where in the system the issue occurred
- Cannot assert deeply

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Ways to do integration testing

Mocking

- Requires setup / extra code
- May not reflect reality - it is not reality

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Ways to do integration testing

Code based e2e tests

- Have to instrument system so you can inspect it
- Lots of code, have to know the system, lots of work

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Ways to do integration testing

Trace-based testing

- If you have distributed tracing, it is...

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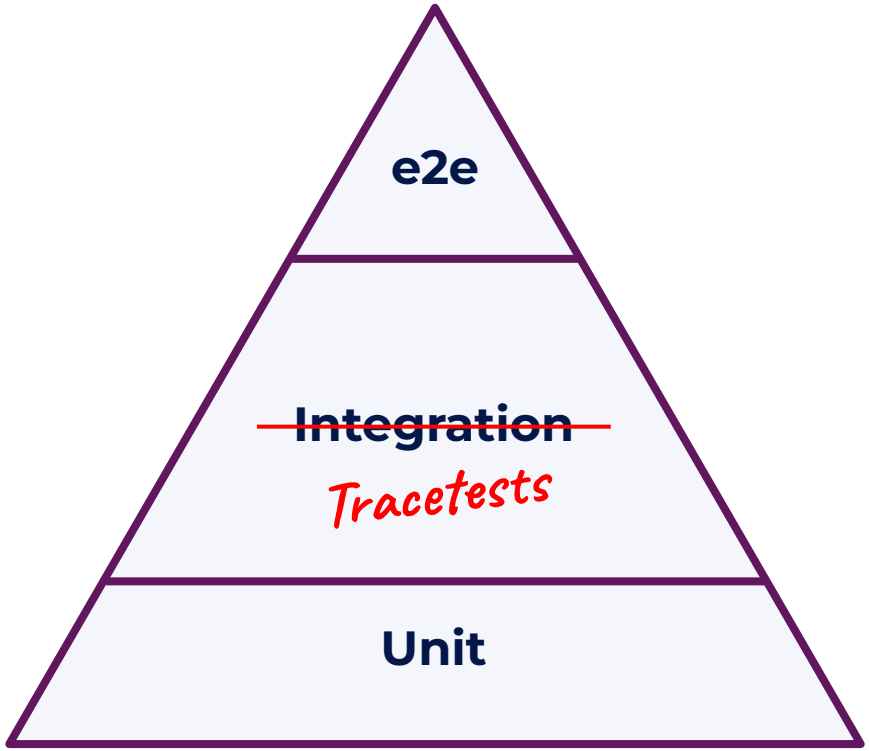
Testing Pyramid



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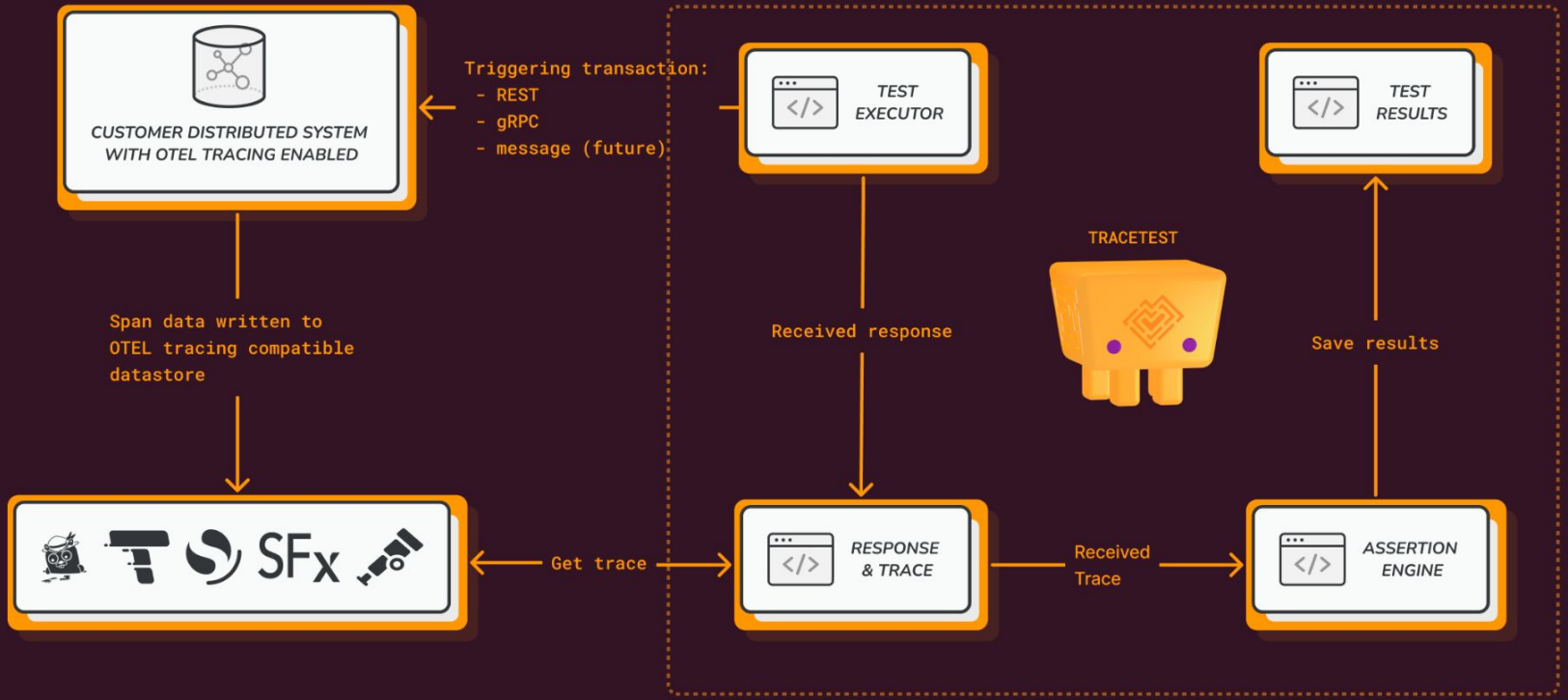
How Tracetest works



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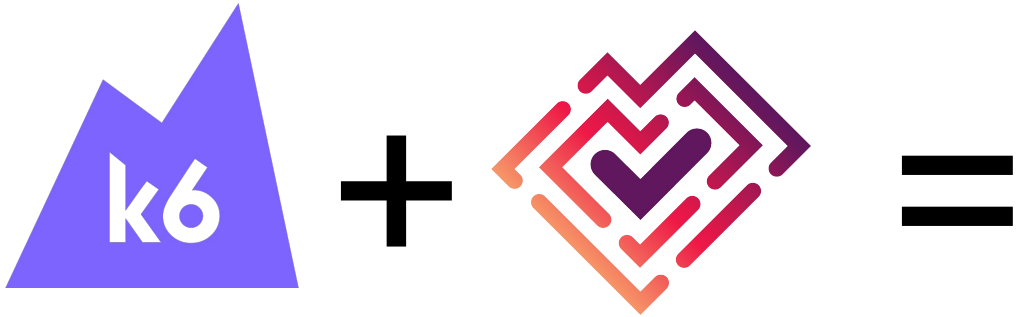
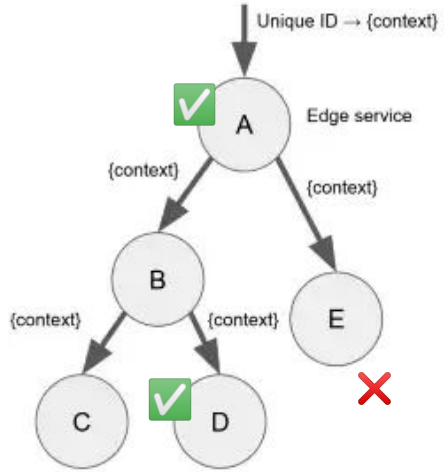
New integration with k6





Load Testing

Trace-based Testing

Distributed System Load Testing

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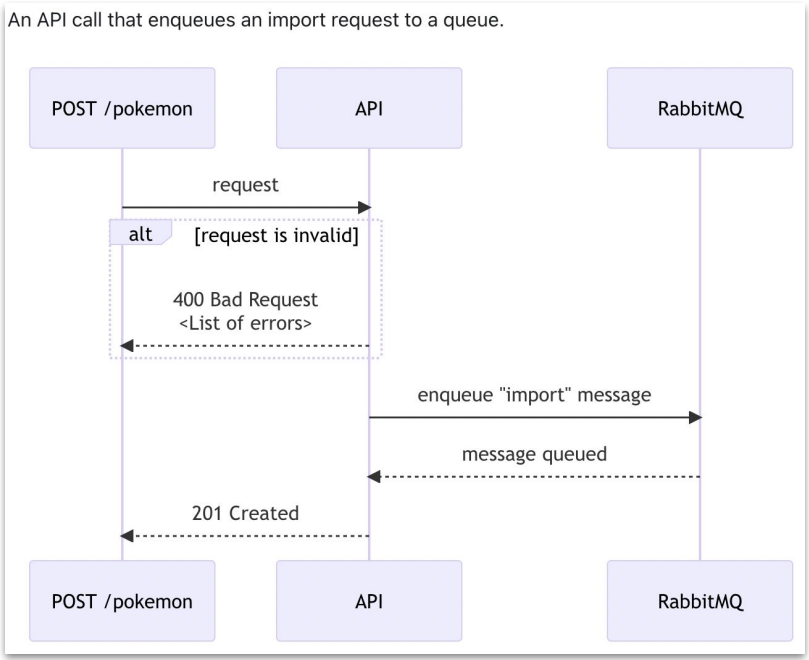
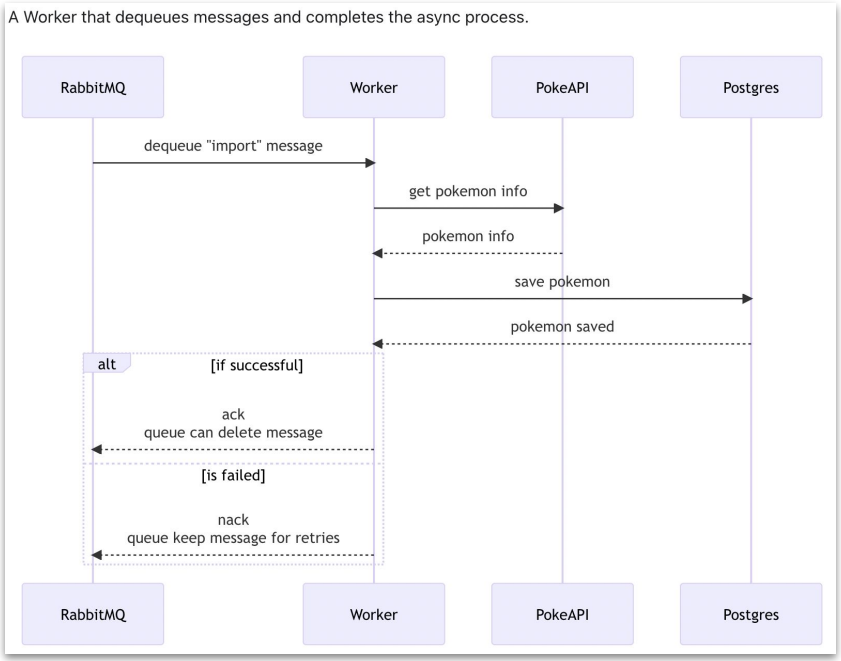
Pokéshop Microservices - Import

Service 1: API



Service 2: Worker



https://github.com/kubeshop/pokeshop

Demo

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Benefits

- Easy to write deep tests - visual, you have a map
- Can be less familiar with all technologies & systems involved in the flow
- Awesome for testing async processes
- Increases the value derived by introducing distributed tracing
- Enables **Observability Driven Development (ODD)**, resulting in better observability in prod
- All failed tests have a trace attached

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github.com/kubeshop/tracetest

bit.ly/kubeshop-discord

tracetest.io

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