

Who here has built a Hello World app
with OpenTelemetry?



Photo by [Francisco De Legarreta C.](#) on [Unsplash](#)



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Who has been in this situation?

What OpenTelemetry Users Taught Us About Developer Experience



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CNCF Ambassador

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Engineering Leader
OpenTelemetry Maintainer

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Where we started

What we assumed

Developer experience meant the SDKs

What we assumed

easier
configuration

What we assumed

easier

configuration

clearer

API usage

What we assumed

easier

configuration

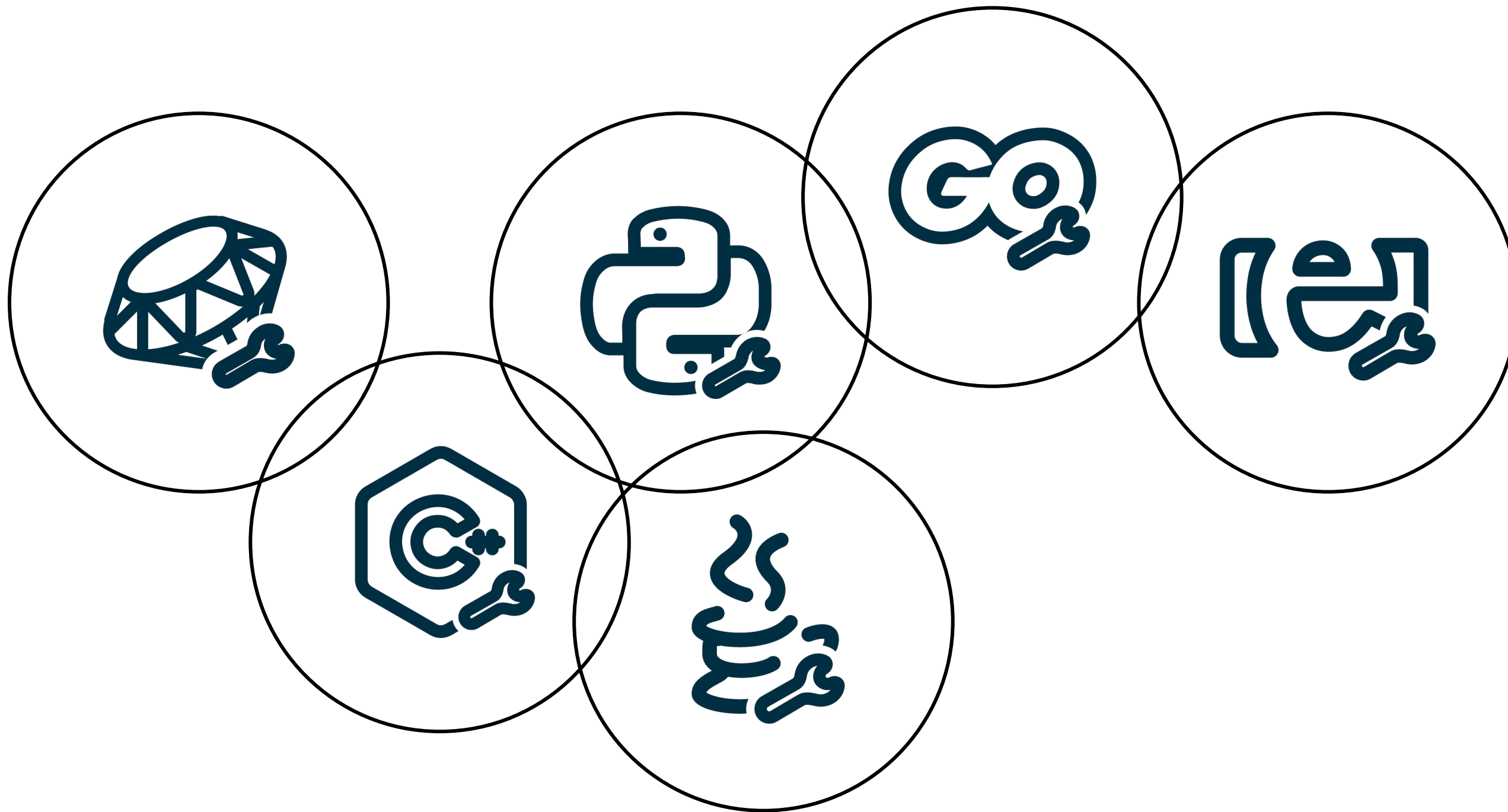
clearer

API usage

smoother

onboarding

What the maintainers told us



What the maintainers told us



brettmc on Oct 2, 2024

- extra convenience
 - "local root span" access (not in spec, but concept borrowed from Java)
 - invented some env vars to control a few core things: batch/simple processor, select resource detectors
 - we generate metrics from our batch span/log processors. I believe Java does also, but I don't think we are consistent in the metric names
 - we implement a Transport concept, which abstracts the sending of telemetry data from the exporters (and the same transport, eg "http", can be used by multiple exporters (eg otlp and zipkin))

What the maintainers told us



brettmc on Oct 2, 2024

2. Most requested features

- API
- SDK
 - async exporting
 - a way to auto-close "dangling spans"
- Instrumentations/semantic conventions
 - the moratorium on SemConv is really painful. A lot of our -contrib CI is red because packages are using since-deprecated semconvs, and we have a few user issues complaining about this

What we did

We stopped guessing and asked the end users

The survey

We asked the community

218

community members responded

83%

run OpenTelemetry in production

77%

work for an end-user organization

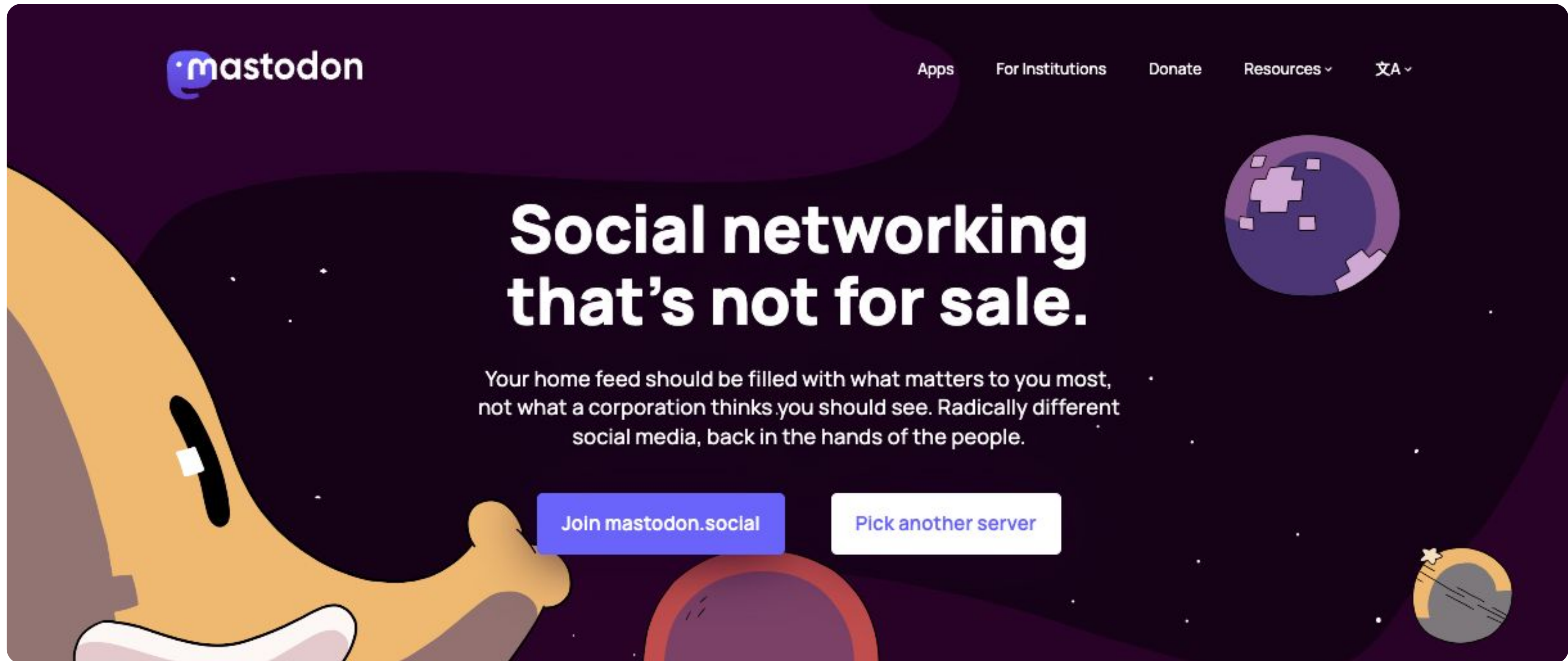
What users actually asked for

Users already knew how to get started. What they needed was help getting to production.

Production stories

Mastodon · Adobe · Skyscanner · And more

Mastodon



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Mastodon: Scale

1

engineer



Mastodon: Scale

1

engineer

~300K

active users a day



Mastodon: Scale

1

engineer

~300K

active users a day

~0.1%

tail sampling for
successful traces



Mastodon: Scale

1

engineer

~300K

active users a day

~0.1%

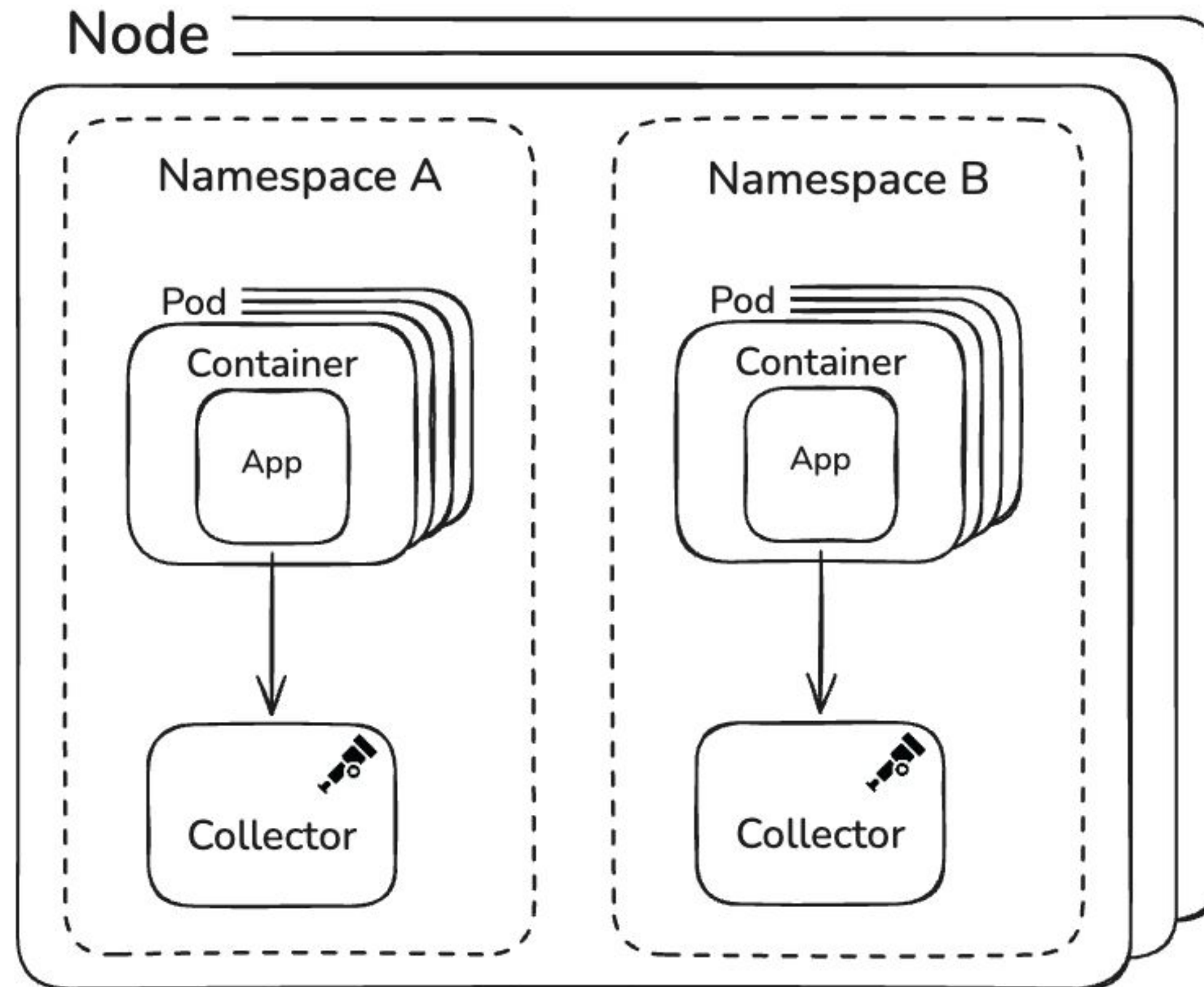
tail sampling for
successful traces

100 %

error traces



Mastodon: One Collector per namespace

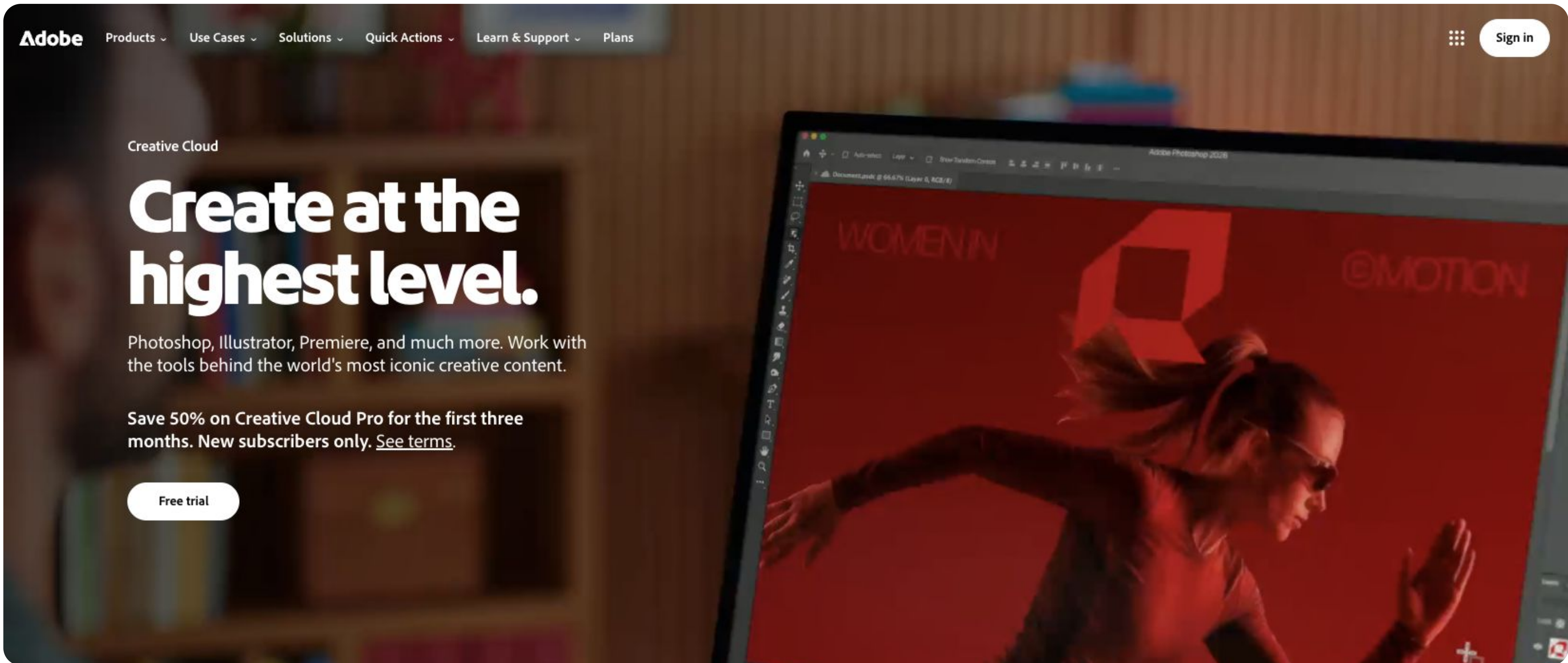


Mastodon: What a team of one learned

**“To my surprise, to my very pleasant surprise,
I haven't run into a single issue.”**

Tim Campbell, Software Engineer at Mastodon, on two years of running the Collector

Adobe

The background of the banner is a blurred image of a person's hands and arms in motion, overlaid with a semi-transparent red layer. On the right side, a computer monitor is visible, displaying the Adobe Photoshop 2021 interface. The Photoshop window shows a document titled 'Document1.psd' at 65.67% zoom, featuring a red background with the text 'WOMEN IN' and '@MOTION' in a stylized font. The Adobe logo is also visible on the screen. The overall aesthetic is modern and creative, emphasizing the power of Adobe's design tools.

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Adobe: Scale

1

central observability team



Adobe: Scale

1

central observability team

N

acquisitions



Adobe: Scale

1

central observability team

N

acquisitions

1 000s

of Collectors



Adobe: Scale

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central observability team

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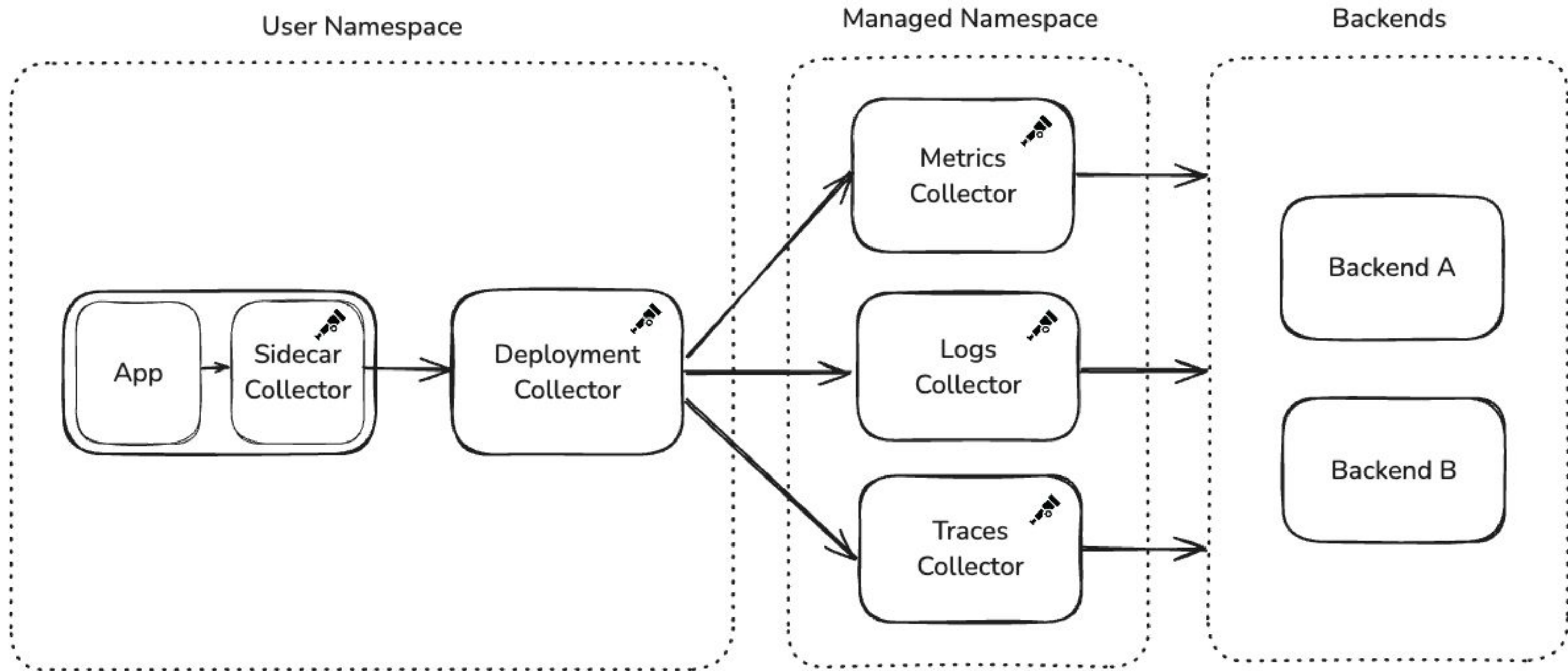
of Collectors

3

tiers



Adobe: Three tiers deployment



Adobe: Making observability simple

**“People add two lines in their deployment.
And it just works.”**

Bogdan Stancu, Senior Software Engineer at Adobe, on enabling auto-instrumentation with the OpenTelemetry Operator

Skyscanner



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From

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To

Country, city or airport

Depart

Add date

Return

Add date

Travelers and cabin class

1 Adult, Economy

Search

☐ Add nearby airports

☐ Add nearby airports

☒ Add a place to stay

☐ Direct flights

 All search

 Stays

 Cars

 Explore everywhere

Skyscanner: Scale

6

platform engineers



Skyscanner: Scale

6

platform engineers

> 1K

microservices



Skyscanner: Scale

6

platform engineers

> 1K

microservices

24

prod clusters



Skyscanner: Scale

6

platform engineers

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microservices

24

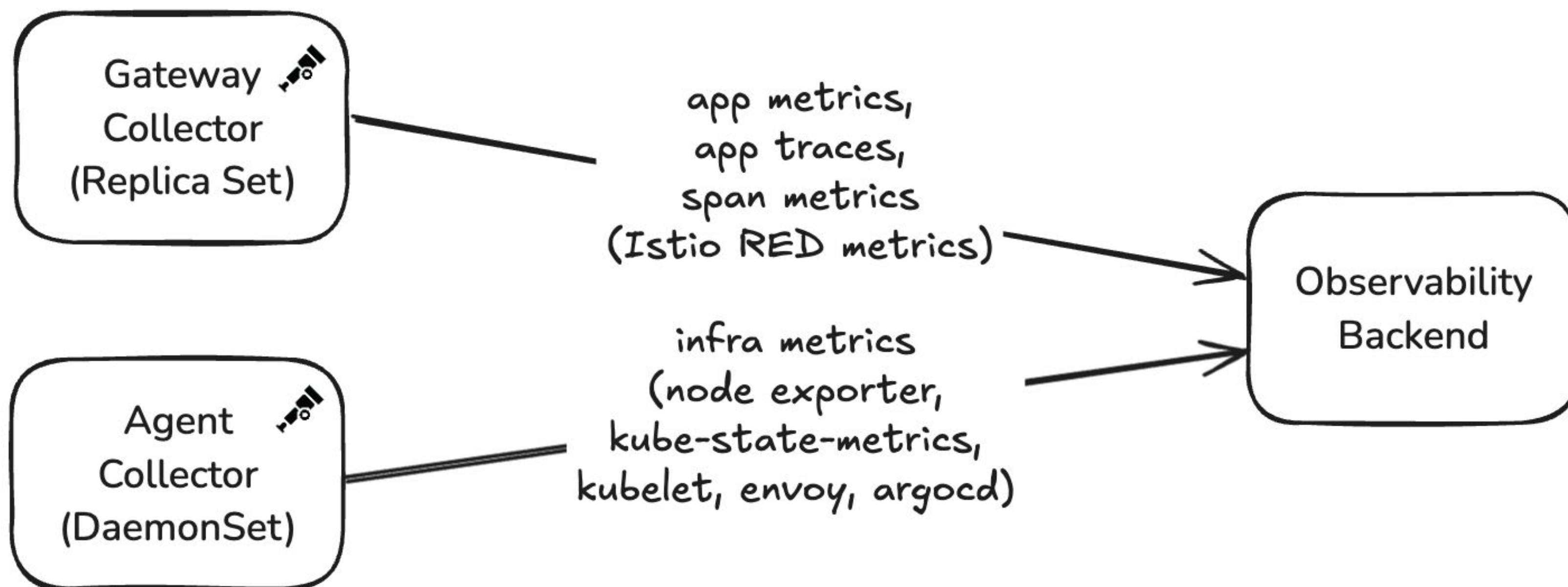
prod clusters

1

DNS endpoint



Skyscanner: Two Collector types



Skyscanner: Auto-instrumentation disabled

“We disable everything, then enable what we need.”

Neil Fordyce, Software Engineer at Skyscanner, on disabling auto-instrumentation by default

What we learned

Where teams still struggle

1st Collector

is the steepest part of the climb

Where teams still struggle

1st Collector

is the steepest part of the climb

Deprecations

can break older Collectors

Where teams still struggle

1st Collector

is the steepest part of the climb

Deprecations

can break older Collectors

Upgrades

is a common burden

What teams are doing well

Platform

teams own the Collector

What teams are doing well

Platform

teams own the Collector

Volume

is controlled on purpose

What teams are doing well

Platform

teams own the Collector

Volume

is controlled on purpose

Declarative

configuration everywhere

What running the series taught us

Ask your users. Do not assume.

What running the series taught us

Ask your users. Do not assume.

Approval takes longer than the interview.

What running the series taught us

Ask your users. Do not assume.

Approval takes longer than the interview.

People want to share. Genuinely.

What's next

Blueprints and reference implementations

[Blog](#) / [2026](#) / Blueprints and Reference Implementations

Introducing OTel Blueprints and Reference Implementations

By [Dan Gomez Blanco](#) [↗] (New Relic) | Tuesday, May 12, 2026

It's not uncommon for end users adopting OpenTelemetry to, at some point in their journey, ask themselves: *"Why is this stuff so complex?"*. Full adoption normally requires understanding the different ways of configuring SDKs, multiple Collector deployments, data pipelines, instrumentation libraries, semantic convention registries, APIs for manual instrumentation across many different programming languages, and many other moving pieces.



Join the DevEx SIG

| There is still plenty of work



Join the DevEx SIG

There is still plenty of work

Say hello #otel-devex



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Join the SIG meeting



Thank you



What OpenTelemetry Users Taught Us About Developer Experience

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