



Implementing open-source
observability within
Maersk.

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Agenda

Observability challenges

“Maersk Observability Platform”

Read proxy

Write proxy

WIP

Observability challenges

10+ different observability tools

No ownership

Labels & values

Maersk Observability Platform

Open-source



Grafana



Grafana
Loki



Grafana
Faro



Grafana
Mimir



Grafana
Tempo

Maersk Observability Platform

In-house

Read proxy

Write proxy

Alerting (routing & on-call)

Synthetics (API & UI)

Azure metrics exporter (that scales)

Maersk Observability Platform

Numbers



Maersk Observability Platform

Compute

Azure – AKS

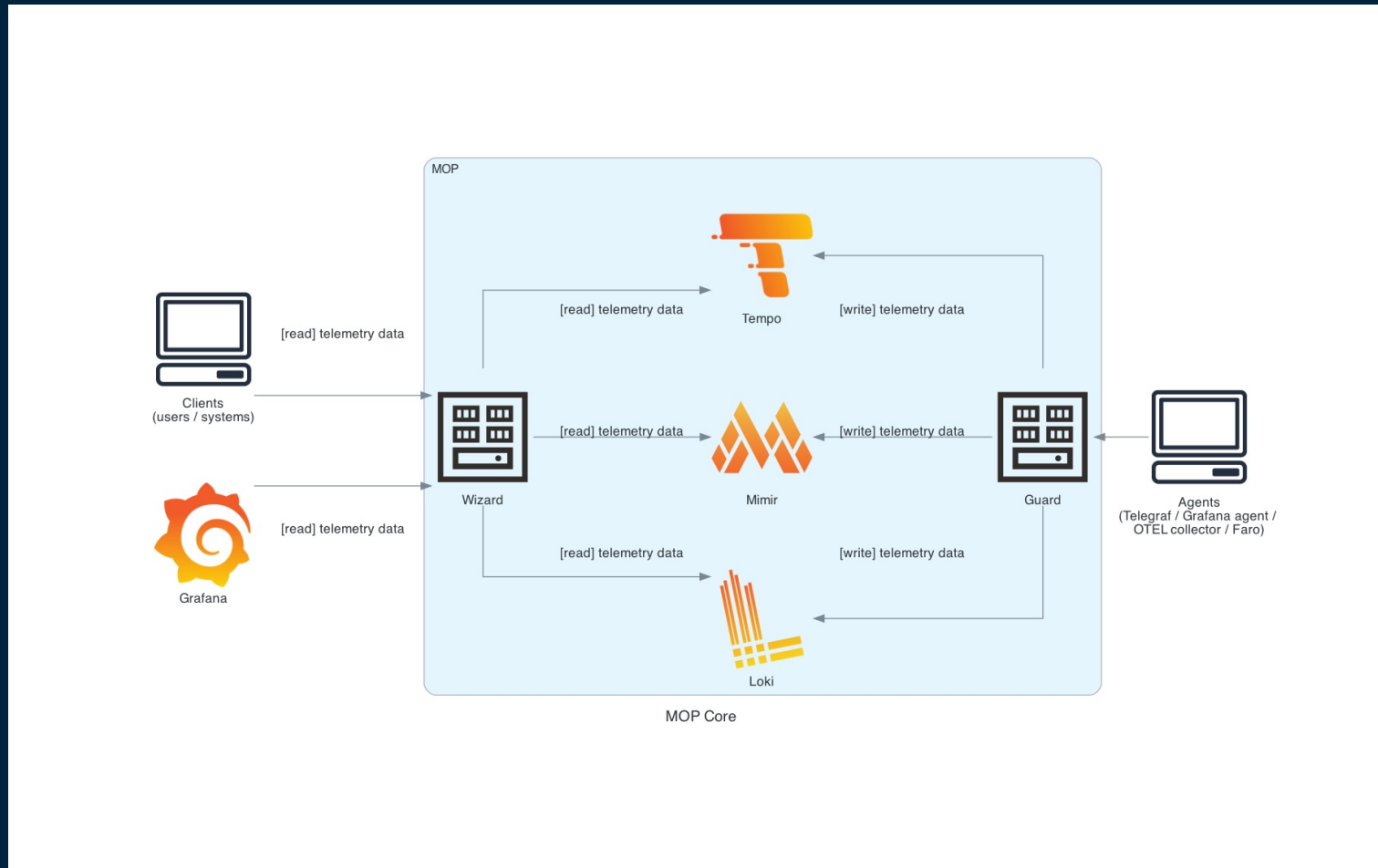
Spot Nodes

Single tenant



Maersk Observability Platform

Overview



IF YOU'RE
READING THIS
IT'S TIME FOR
CHANGE.

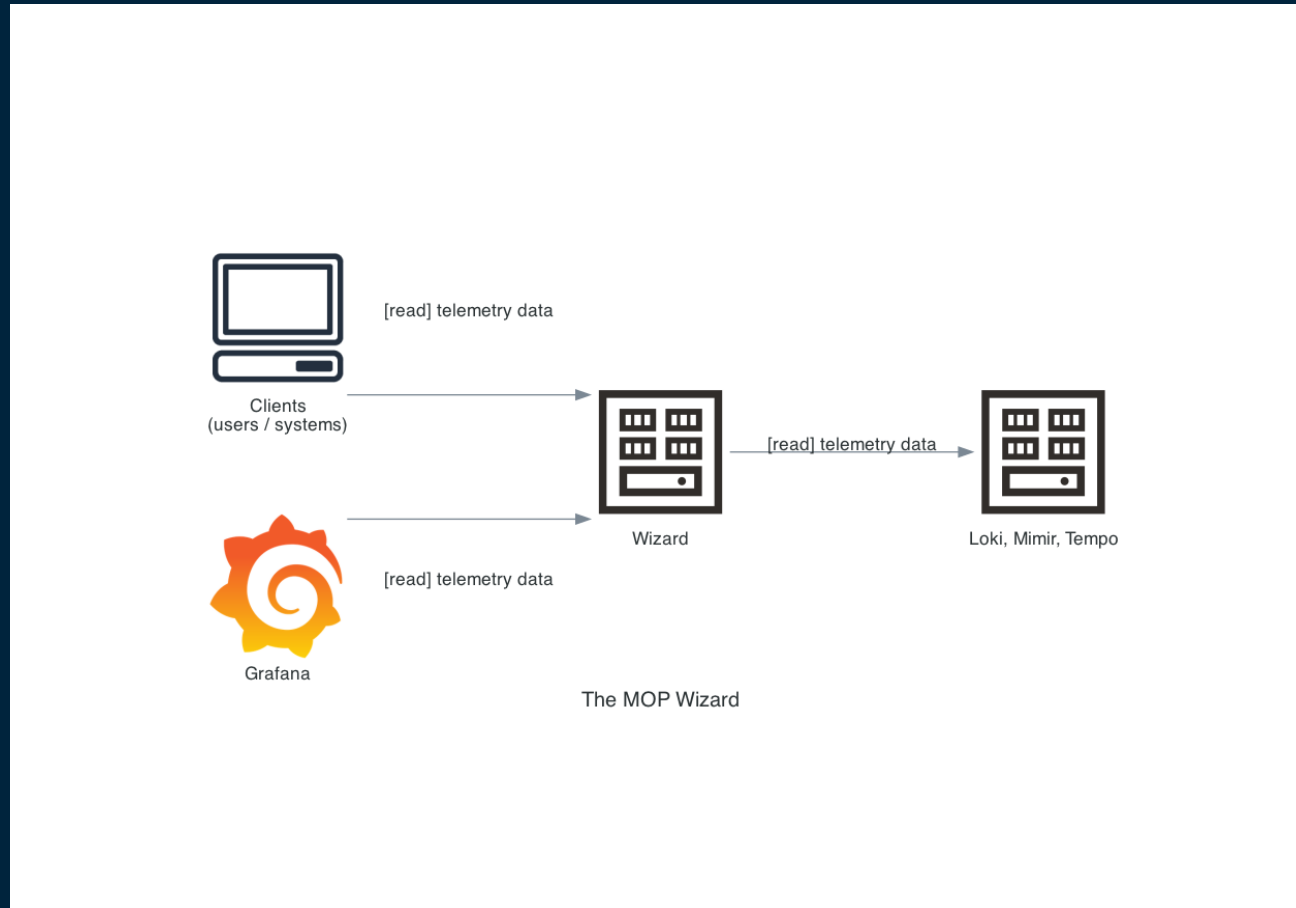
Photo by [hay_leigh](#) on [Unsplash](#)

Wizard



Photo by izzombol on [Unsplash](#)

Read proxy Wizard



Read proxy Wizard

Home > Explore

Prometheus

(Prometheus)

Kick start your query Explain

Metrics browser > `{namespace="grafana",app="grafana"}`

Options Legend: Auto Format: Time series Step: auto Type: Both

bad_data: no metric name in the given query (Trace ID: fc1ff0d55d6d2e019bcb89eb10b001a1)

Home > Explore

Prometheus

(Prometheus)

Kick start your query Explain

Metrics browser > `up{app=~".*"}>`

Options Legend: Auto Format: Time series Step: auto Type: Both Exemplars: false

bad_data: too many wildcard label values, provide non-wildcard value to atleast (2) labels (Trace ID: ca4ef925d6bf94c8239d7722f5cec56e)

Prometheus

(Prometheus)

Kick start your query Explain

Metrics browser > `up`

Options Legend: Auto Format: Time series Step: auto Type: Both Exemplars: false

bad_data: query does not have minimum labels, provide atleast (1) labels (Trace ID: f42cc013e9678e19a0063a5bfd43edba)

Home > Explore

Loki

(Loki)

Kick start your query Label browser Explain query

`{namespace="grafana"}`

Options Type: Range Line limit: 1000

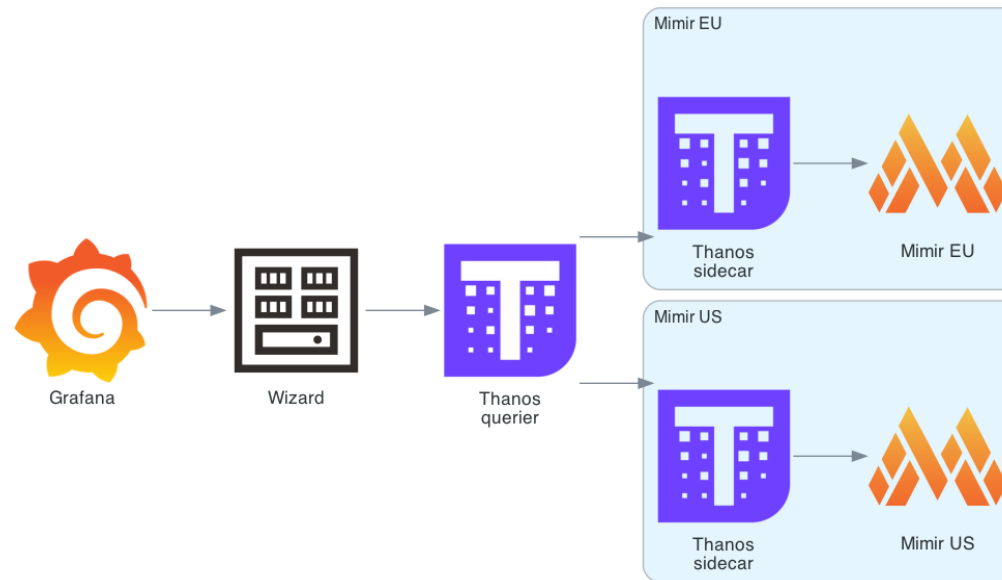
query does not have minimum labels, provide atleast (2) labels (Trace ID: 84b7e6b155455a81f6fcf9d894914dd8)

Read proxy Wizard



Read proxy

Wizard - WIP



~~Can you please
onboard my app?~~

Just send it

~~Please approve~~

100% self service

No self service



Photo by [charlesdeluvio](#) on [Unsplash](#)

100% self service



Photo by [Alvan Nee](#) on [Unsplash](#)

Guard



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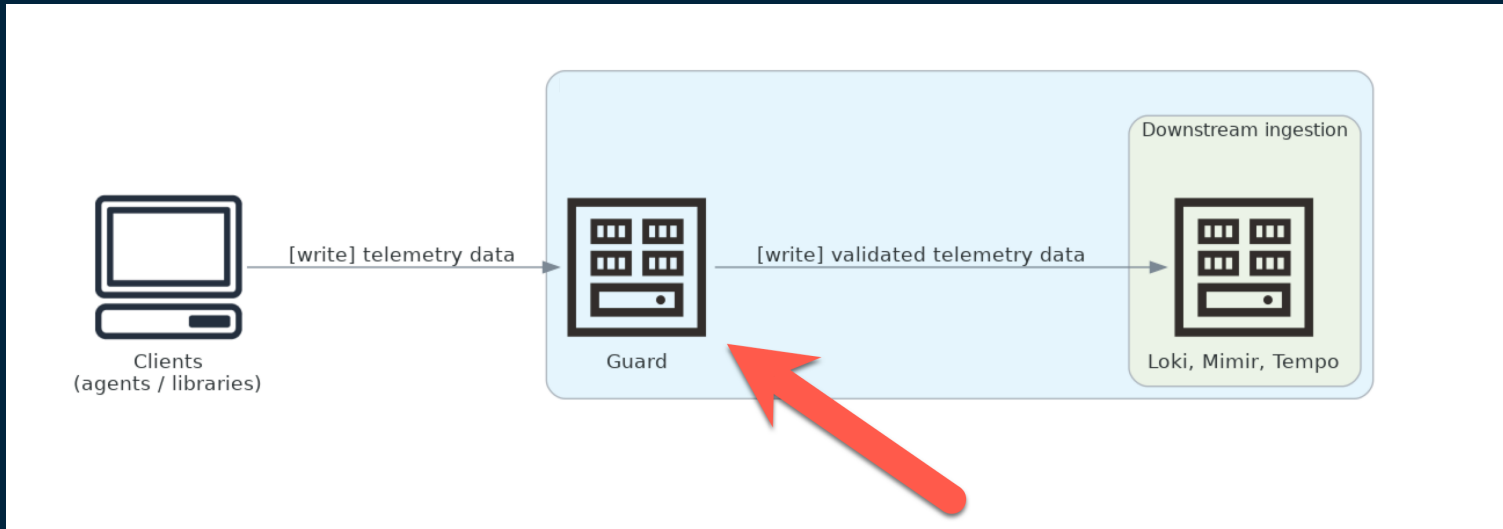
Photo by [Kristijan Arsov](#) on [Unsplash](#)



MAERSK

Write proxy

Guard



Prometheus remote write

OTEL trace receiver

Loki push

Write proxy Labels



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Retention

Usage tracking

Cardinality tracking

Traffic routing

Write proxy

Required labels

```
1  common:
2  |  labels:
3  |  |  env: ←
4  |  |  |  required: true
5  |  |  |  inform_only: false
6  |  |  |  validValues:
7  |  |  |  |  - dev
8  |  |  |  |  - test
9  |  |  |  |  - preprod
10 |  |  |  |  - prod
11 |  |  app: ←
12 |  |  |  required: true
13 |  |  |  inform_only: false
```

Write proxy

Why so picky?!

preproduction

preprod

pre-prod

pre-production

pp

p-production

Write proxy

Drop it!



Photo by [Gary Chan](#) on [Unsplash](#)

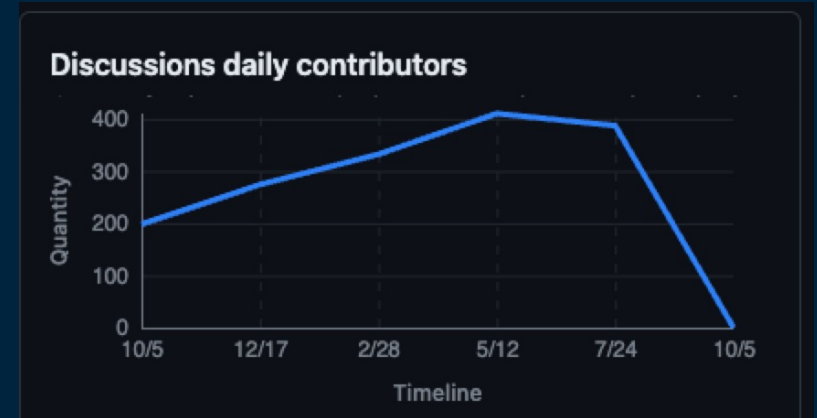
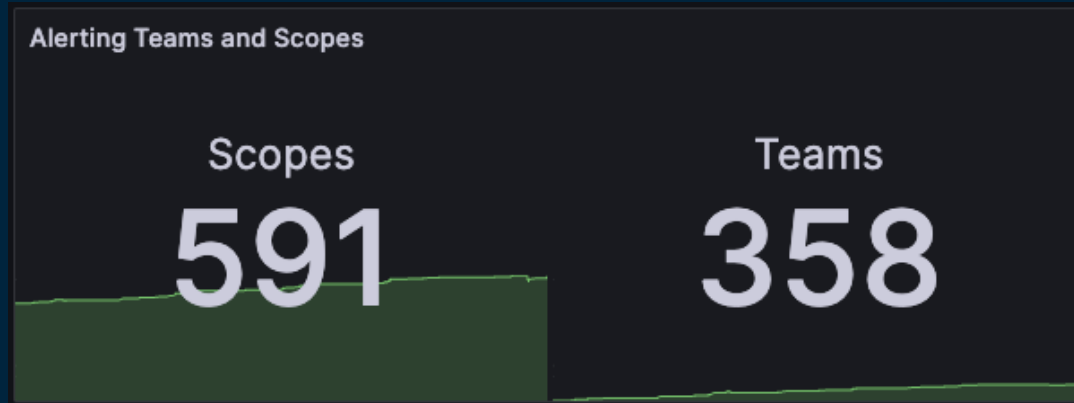
Write proxy

Is my data being dropped?



How are we doing?

Are we successful?



WIP

Continue the journey

Open-sourcing – “do you need it?”

Edge observability

WIP

700+ vessels



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MAERSK

WIP

60+ terminals



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Martin Jaeger



WIP

450+ warehouse facilities



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Martin Jaeger



MAERSK

Q&A
and thank you for joining!



<https://gist.github.com/martinjaegerdk>