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

- **Summary**
  - Metrics ingested per sec: 11.7 Mil
  - Volume of metrics ingested: 7.63 GiB
  - Average metric size: 699 B
  - Number of active series: 120 Mil

**Metrics**
- Logs ingested per sec: 319 K
- Volume of logs ingested per sec: 152 MiB
- Average log size: 501 B

**Logs**

**Traces**
- Spans ingested per sec: 52.7 K
Maersk Observability Platform

Compute

Azure – AKS
Spot Nodes
Single tenant

![Total Core Count](image1.png) ![Total Memory (GB)](image2.png)

11.2k 41.9k
Maersk Observability Platform

Overview
If you're reading this, it's time for change.

Photo by hayleigh on Unsplash
Wizard

Photo by izzombol on Unsplash
Wizard

[Diagram showing the process of read telemetry data from Clients to the MOP Wizard, then to Loki, Mimir, Tempo.]
Read proxy
Wizard
Read proxy

Wizard

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MAERSK
Read proxy
Wizard - WIP
Can you please onboard my app?

Just send it

Please approve
100% self service

No self service

100% self service

Photo by charlesdeluvio on Unsplash

Photo by Alvan Nee on Unsplash
Write proxy

Guard

Prometheus remote write
OTEL trace receiver
Loki push
Write proxy

Labels

Retention
Usage tracking
Cardinality tracking
Traffic routing

Photo by Brett Jordan on Unsplash
Write proxy

Required labels

```yaml
common:
  labels:
    env:
      required: true
      inform_only: false
      validValues:
        - dev
        - test
        - preprod
        - prod
    app:
      required: true
      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?

Active users

2.29K

Alerting Teams and Scopes

Scopes: 591
Teams: 358

Discussions daily contributors

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Continue the journey

Open-sourcing – “do you need it?”

Edge observability
WIP
700+ vessels
WIP

60+ terminals
WIP
450+ warehouse facilities
Q&A
and thank you for joining!

https://gist.github.com/martinjaegerdk