Where **it all begins...**

it all ends...

REWE Digital monitoring solution

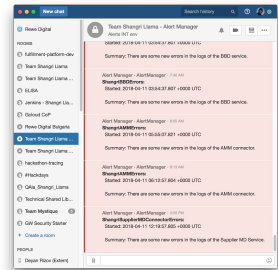## Prometheus, Alert Manager and Grafana

Lachezar Balev

REWE digital

REMOVED DUE TO SOME PRIVACY ISSUES.

In between...

Monitoring solution

- **real (almost) time monitoring in the cloud**

- **various metrics (custom and o-o-b)**

- **custom alerts**

- **visually appealing UI**

- **dashboard design fitting the needs of the team**

- **business metrics**
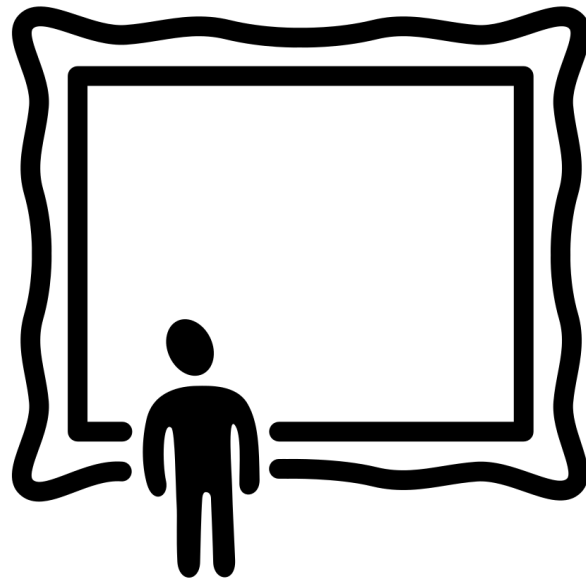
The BIG picture

The BIG picture
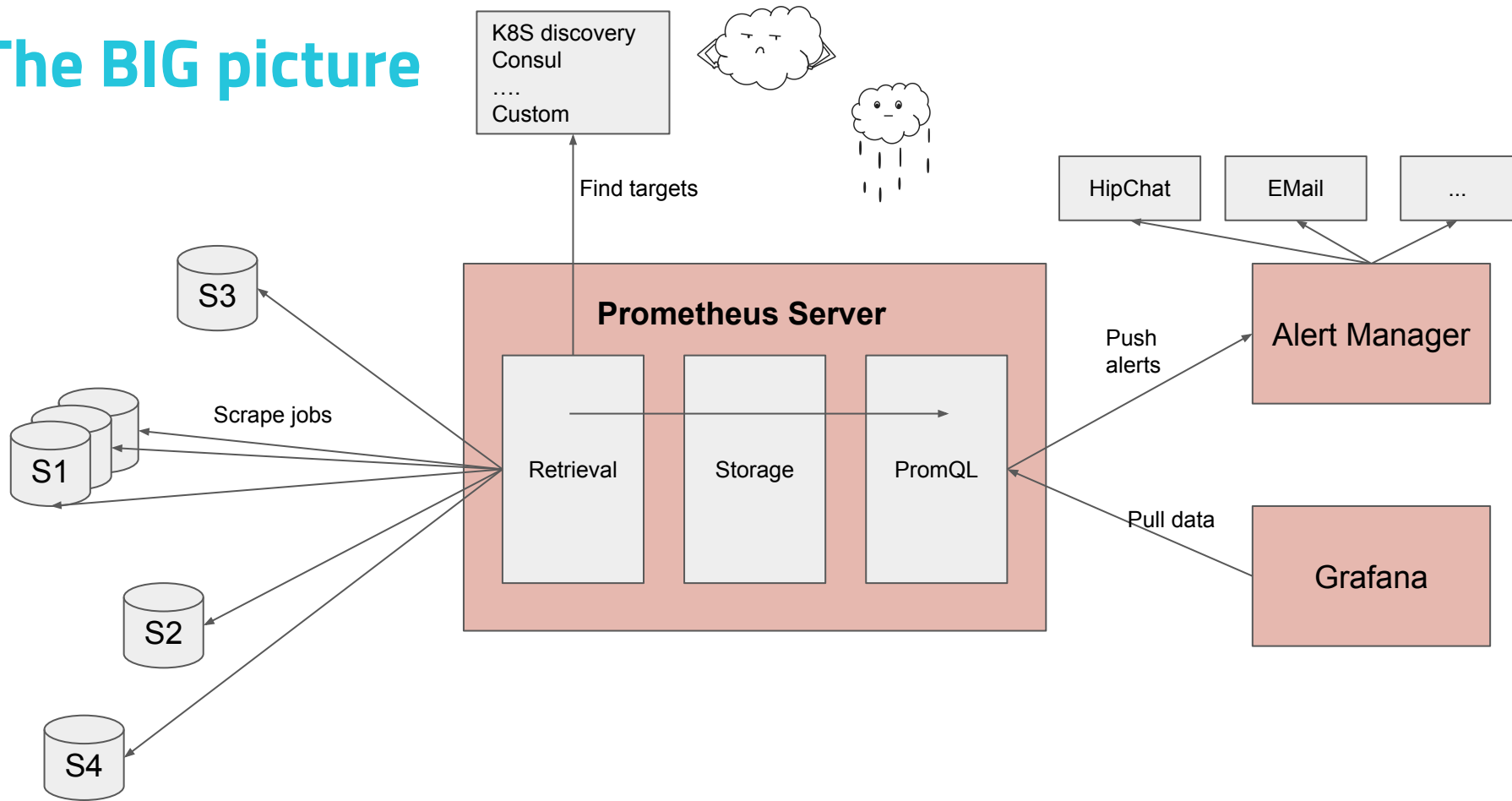
Down to earth – what is collected?

Value (float)

label1=v1
label2=v2

jprime_metric

label1=v1
label3=v3

(v,t)

Time (timestamp)

REWE digital
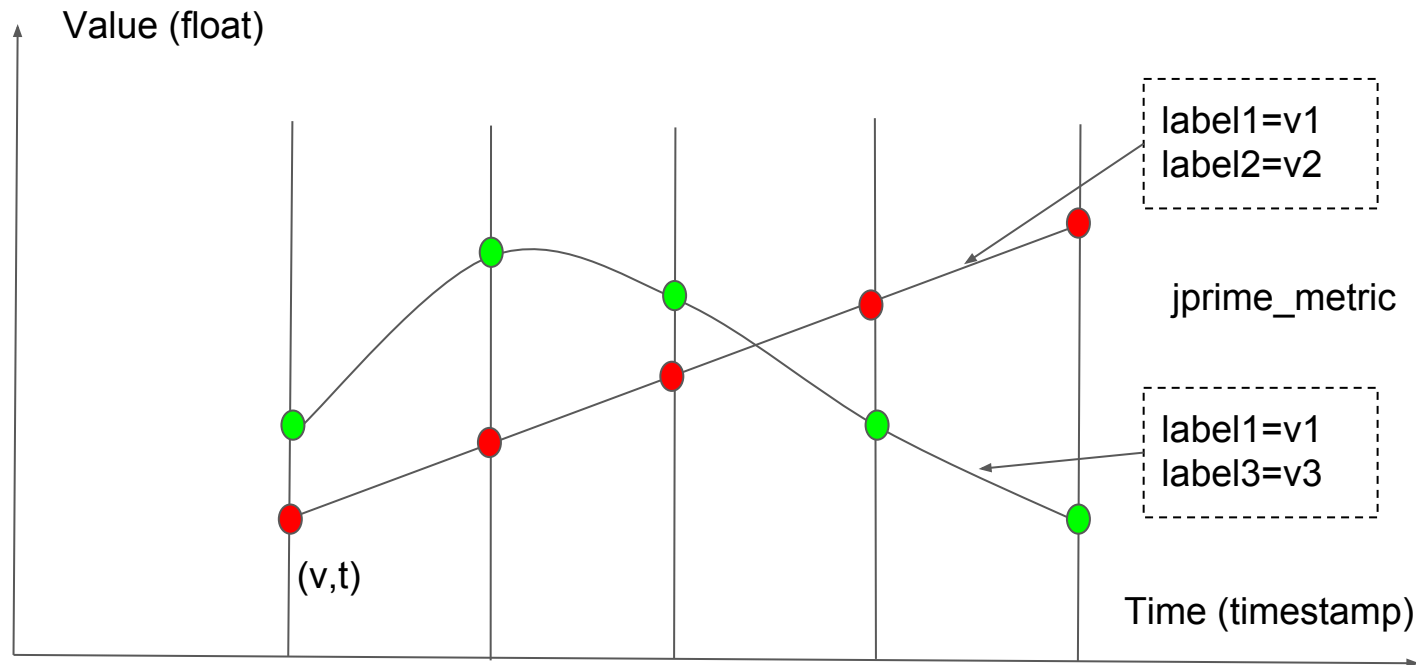
Demo 1 – "Hello, world!"

Demo project

- https://github.com/luchob/monitoring-poc
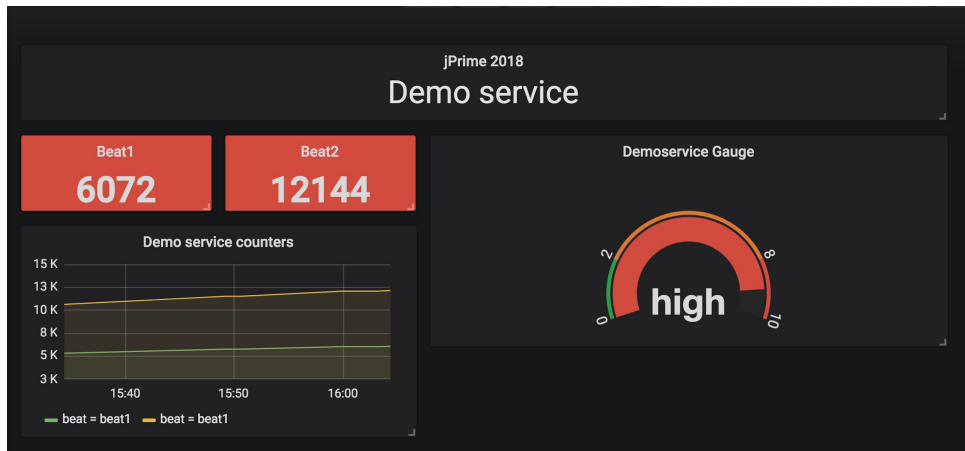- Demo service - sample counters, gauge, API-s, Prometheus endpoint
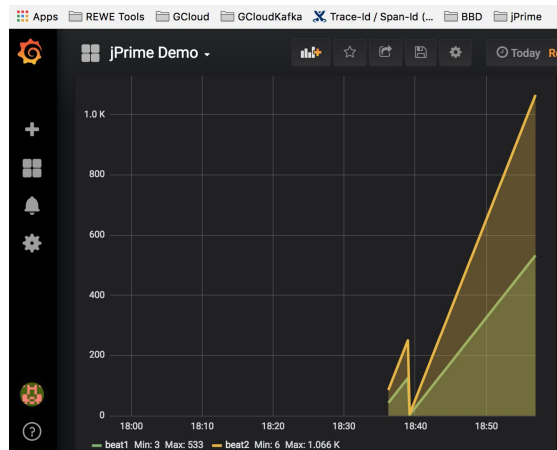- Toolbox
- Documentation

Demo

- A peek at Prometheus console
- A peek at Grafana
- First visualizations

Demo 1 - Recap

- Spring Boot 2 plus micrometer
- Metrics endpoint
- Prometheus scrape at certain interval
- Grafana dashboard with prometheus datasource

Metric types

- Counter

- Gauge

- Histogram

- Summary

```
demoservice_distribution_bucket{le="1.0",} 533.0
demoservice_distribution_bucket{le="2.0",} 935.0
demoservice_distribution_bucket{le="3.0",} 1288.0
….
demoservice_distribution_bucket{le="36.0",} 7234.0
demoservice_distribution_bucket{le="40.0",} 7303.0
demoservice_distribution_count 7351.0
demoservice_distribution_sum 88913.0
demoservice_distribution_max 45.0
```
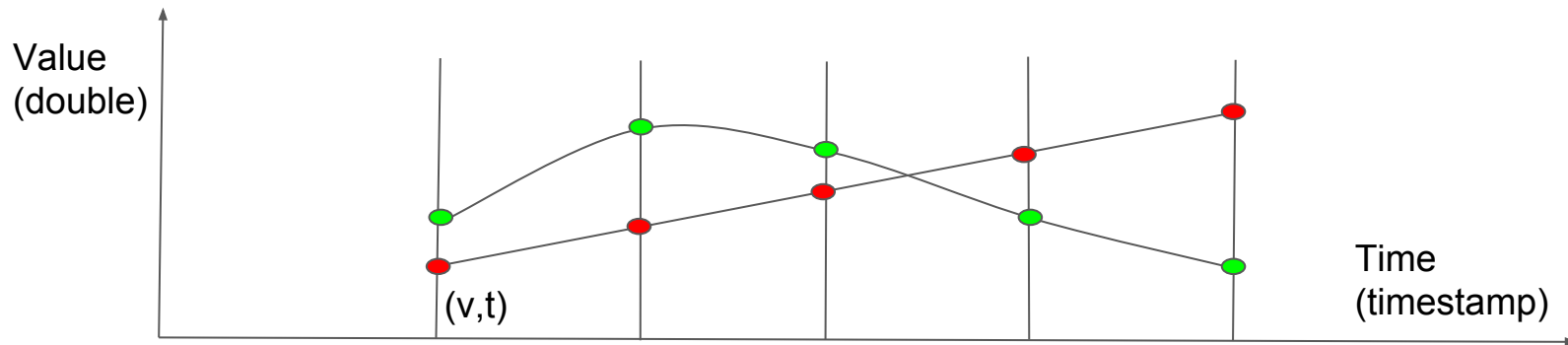
PromQL

- PromQL expressions
- PromQL expressions evaluate to:
  - scalar
  - string
  - instant vector
  - range vector

Value
(double)

(v,t)

Time
(timestamp)

Demo 2 – "Hello world, 2!"

Demo

- Table panel
- Additional graph
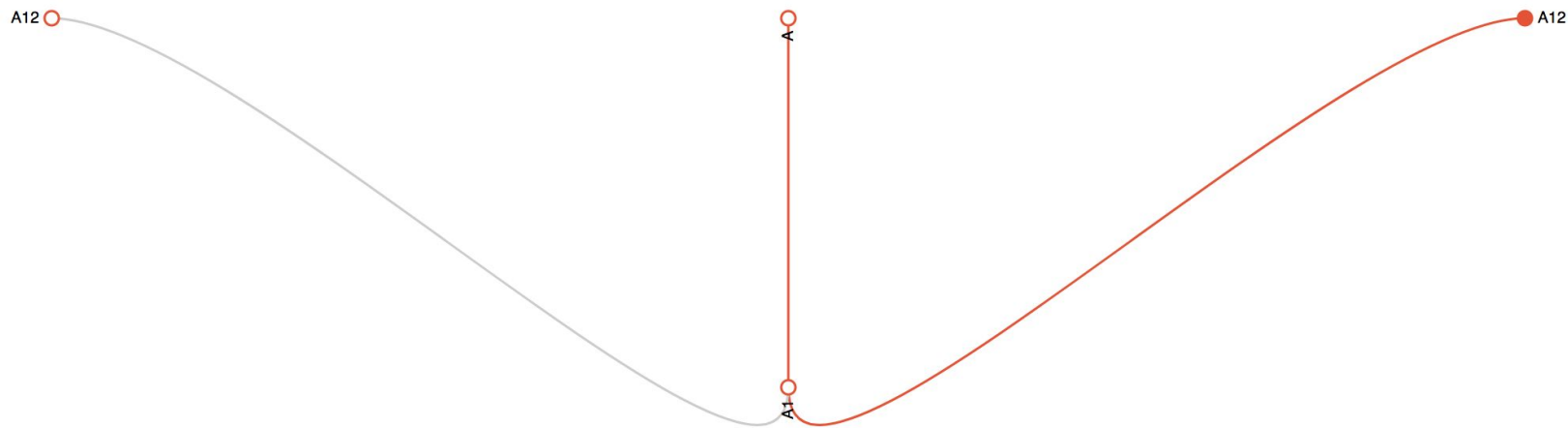- Heatmap?

Alerting - rules

Alerts

☐ Show annotations

DemoServiceErrors (1 active)

```
alert: DemoServiceErrors
expr: sum(increase(logback_events_total{level="error"}[1m]))
  > 0
labels:
  recover: "false"
  service: demo_service
annotations:
  summary: There are some new errors in the logs of the demo service!
```

Labels	State	Active Since
alertname="DemoServiceErrors" recover="false" service="demo_service"	FIRING	2018-05-25 05:31:35.1020253 +0000 UTC

REWE digital

Alerting – routes

Routing editor:

https://prometheus.io/webtools/alerting/routing-tree-editor/

REWE digital

Thank you

REWE digital