End User Dashboards with Prometheus

Julien Pivotto (@roidelapluie)

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Status Pages

Status pages matter because they can tell your users if the problems they see is on their end of yours

But how can you make an honest status page?

Prometheus

With prometheus, we collect lots of data, business and technical, that enables us to assess the status of our infrastructure.

What the end users needs to know?

- RED -- Rate Errors Duration
- We group R and E together and call it "availability"
- That gives us 2 metrics: availability and response time

What are the possible status?

- 3 critical -- it does not work!
- 2 degraded -- it kinda works
- 1 we do not know -- monitoring is dead
- 0 it works

In practice

For each service, we define metrics:

```
public_dashboard{
kind="availability",
name="x"
 }
```

Where X can be .. frontend-rate, db-error-rate,... And value is from 0 to 3 , that is computed by recording rules

determining the status

We run the following query:

```
 abs(min_over_time(public_dashboard{service="
y",kind="availability"}[5m]) % 10 or
absent(public_dashboard{service="y",kind="ava
ilability"))
```

Putting that together with prometheus

- Prometheus instance "statuspage" scrapes `public_dashboard` metrics from actual prometheus servers; to limit exposition and speedup
- It uses prometheus consoles to render the dashboard
- We use a CDN to server css files

Overriding

We have a website that is actually an exporter
Upon a form used by non tech department, that website will expose public_dashboard metrics on demand, but with values:

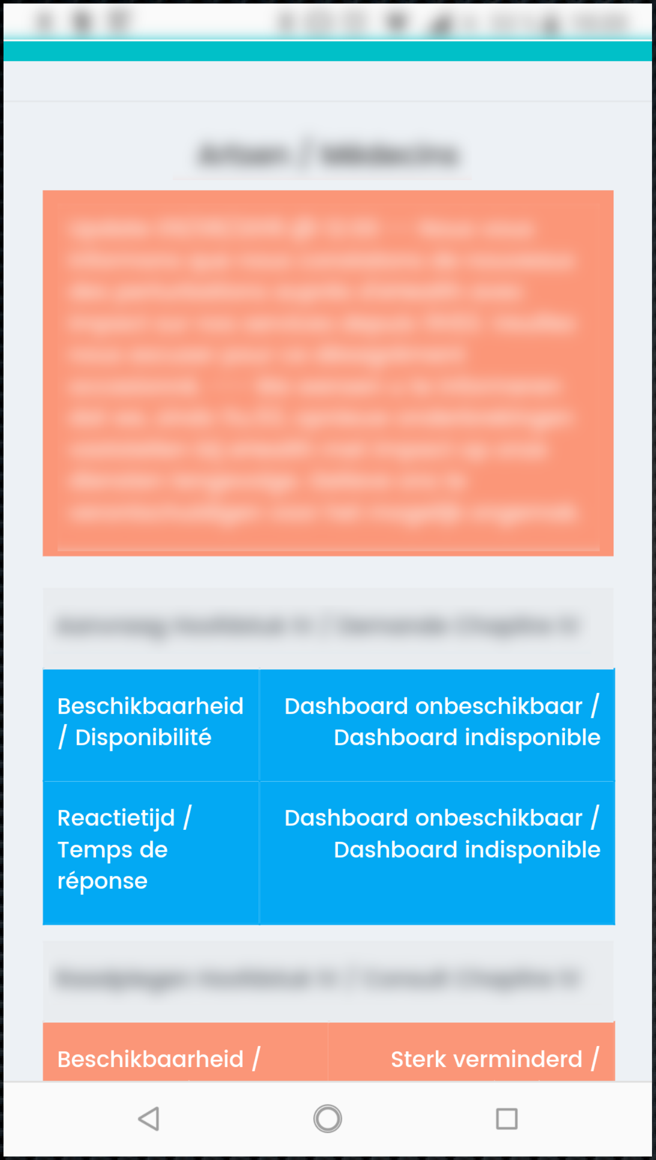
-4 -3 -2 -1 -10

(we use `abs()%10` in our query)

Code

Mostly for inspiration:

https://gist.github.com/roidelapluie/bd97820af671da44b994a09be06b08a0



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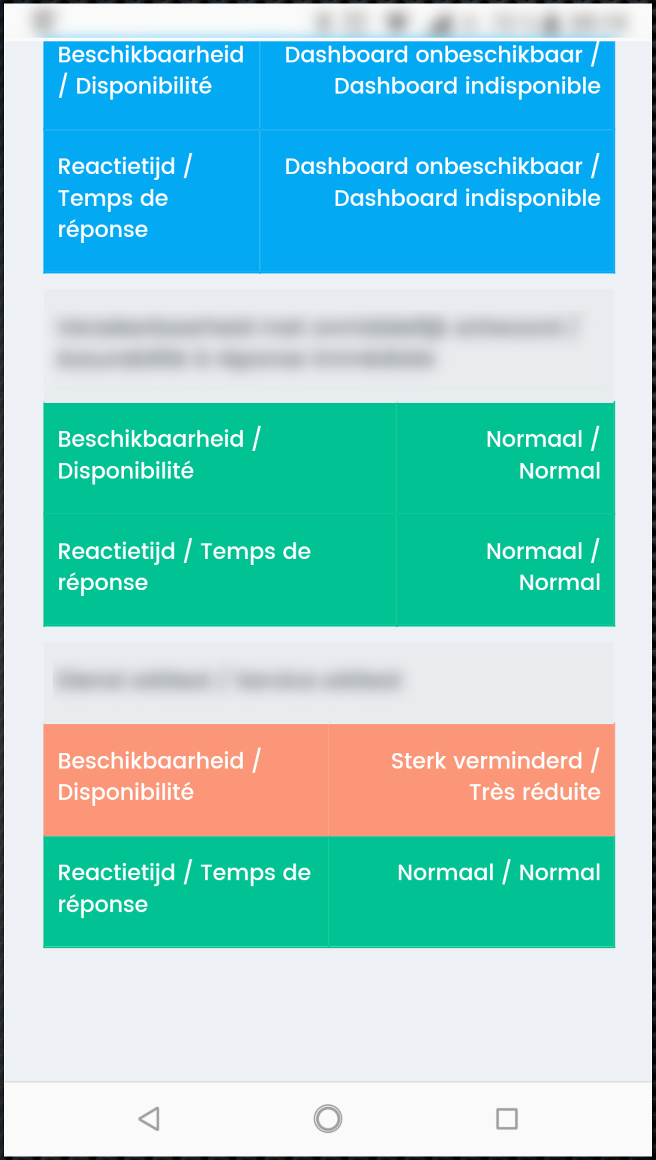
Beschikbaarheid / Disponibilité	Dashboard onbeschikbaar / Dashboard indisponible
Reactietijd / Temps de réponse	Dashboard onbeschikbaar / Dashboard indisponible

[redacted]

Beschikbaarheid /	Sterk verminderd /



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[redacted]

Beschikbaarheid / Disponibilité	Normaal / Normal
Reactietijd / Temps de réponse	Normaal / Normal

[redacted]

Beschikbaarheid / Disponibilité	Sterk verminderd / Très réduite
Reactietijd / Temps de réponse	Normaal / Normal

Contact

Julien Pivotto

roidelapluie

roidelapluie@inuits.eu

Inuits

https://inuits.eu

info@inuits.eu