

A brief illustrated history of Prometheus

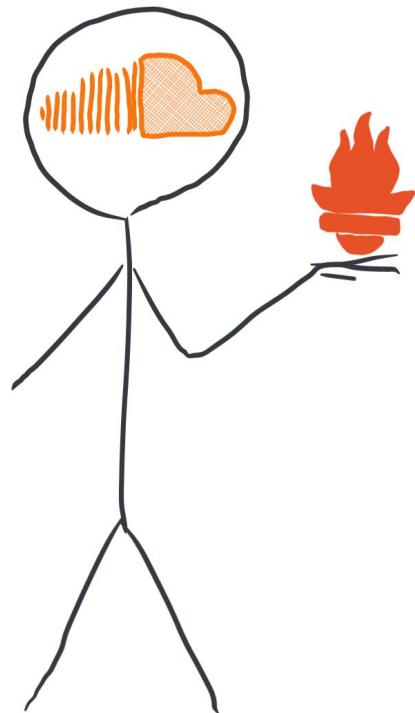
by  FUSAKLA

24. 11. 2012

First commit 734d28

“Bedecke deinen Himmel, Zeus!”

Born at SoundCloud

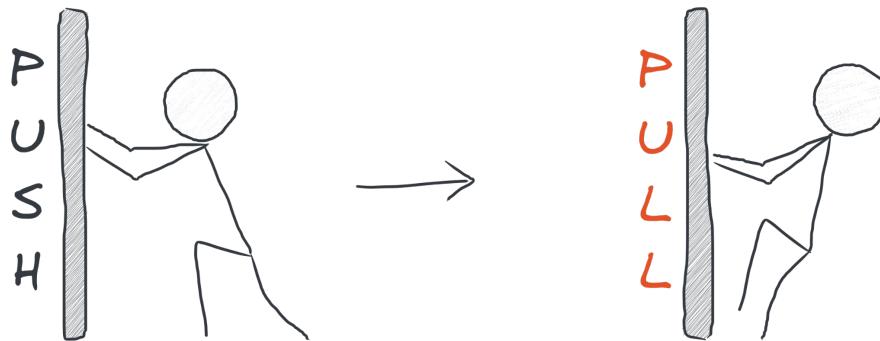


Reminds me of
a Borgman a bit

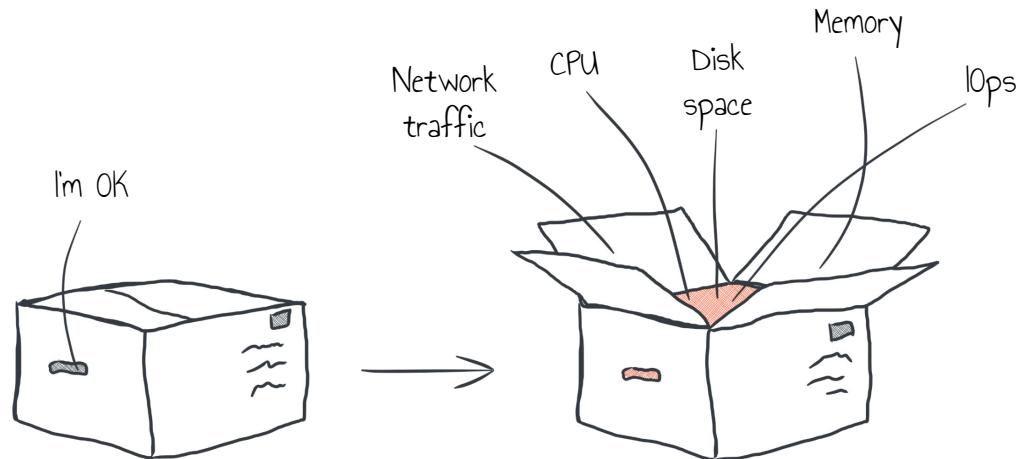


New kid in town

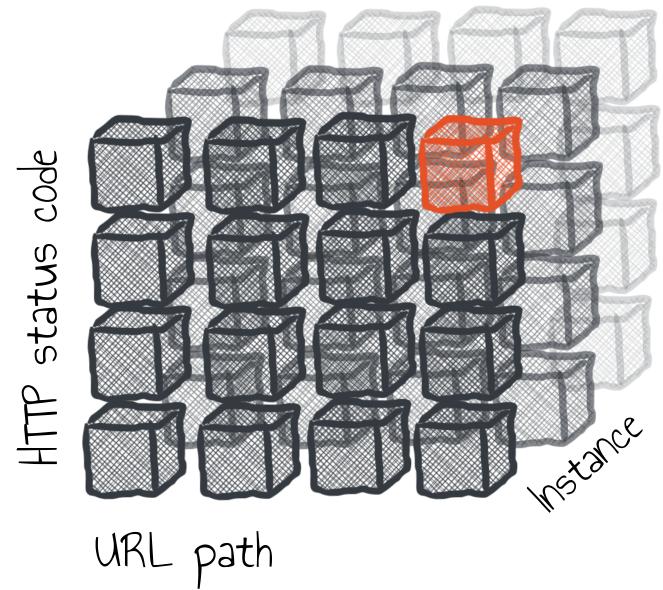
Different data collection approach



Open-box monitoring

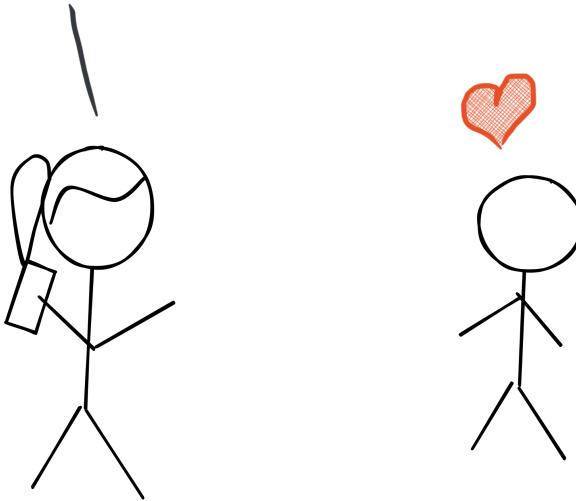


Multidimensional



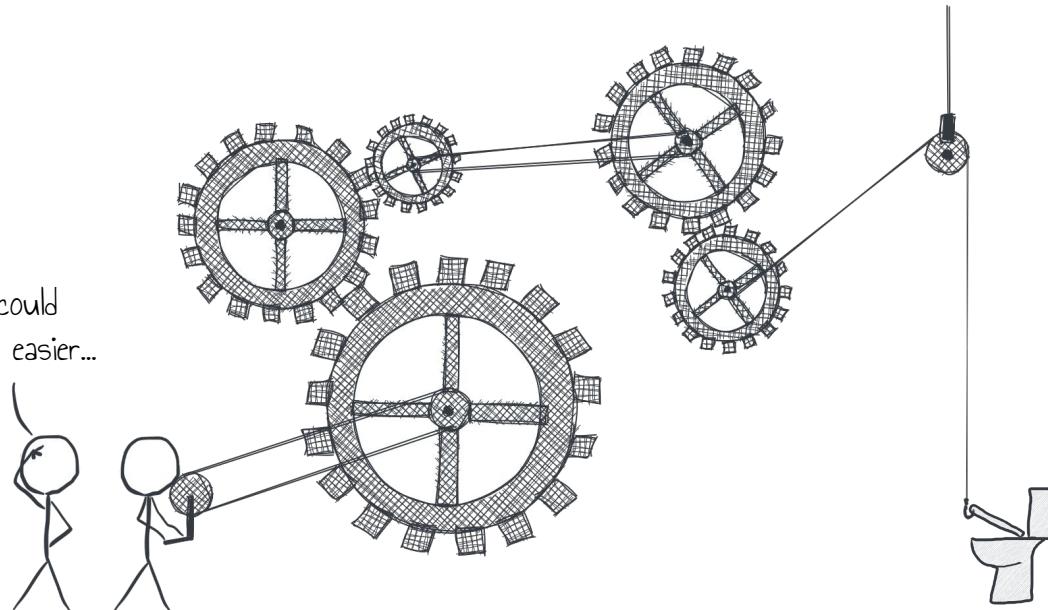
With powerful query language

```
sum(rate(cpu_seconds_total[1m])) by (instance)
```



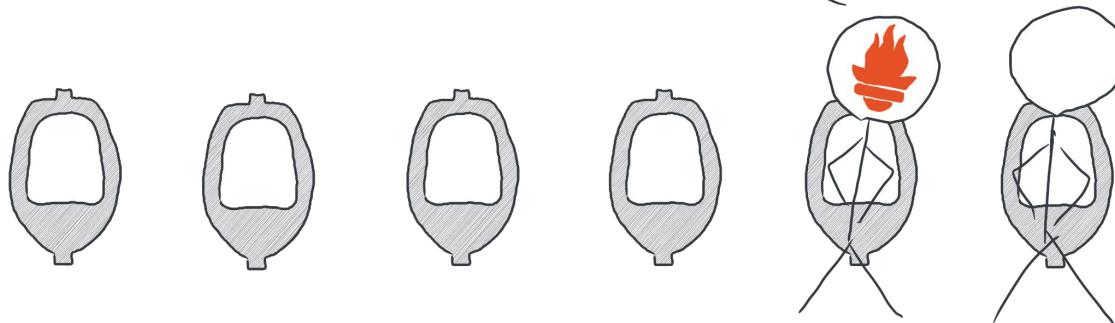
Keeps it **simple** as possible

I still think it could
have been done easier...

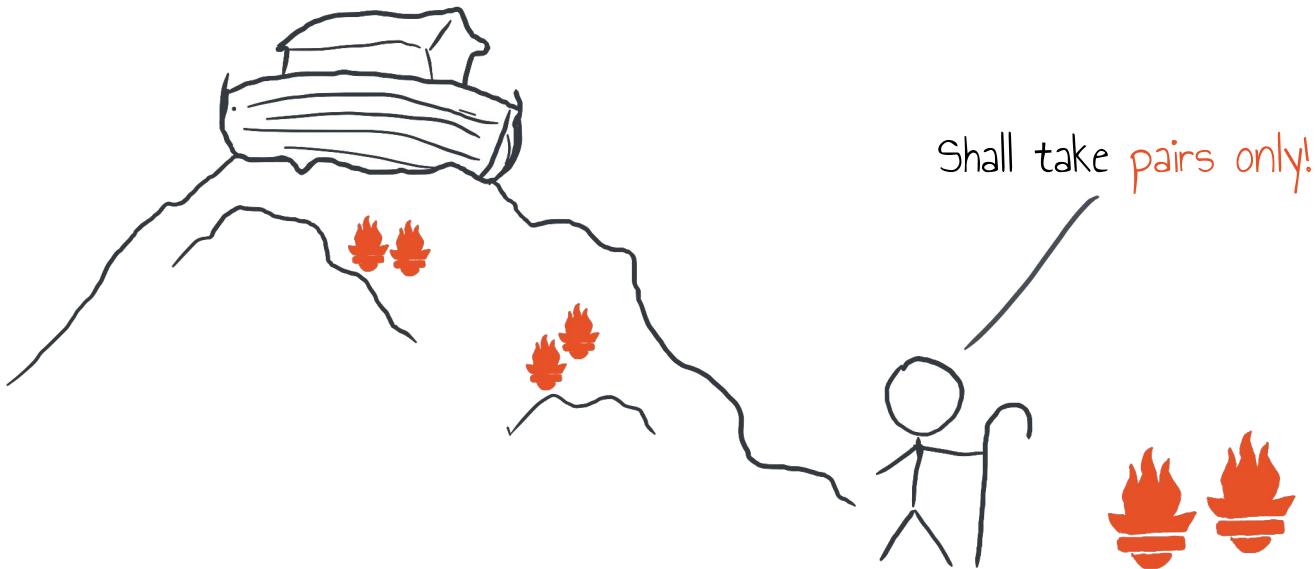


Reliable data collection

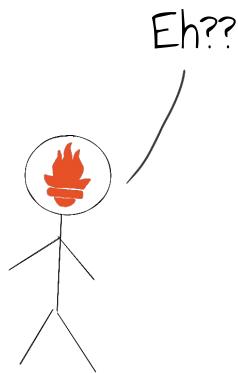
Prometheus should be as close as possible!



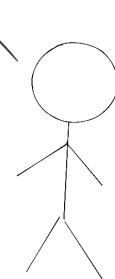
Highly available



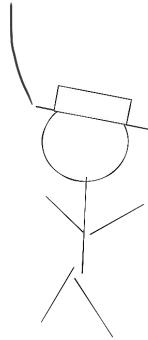
Exporters



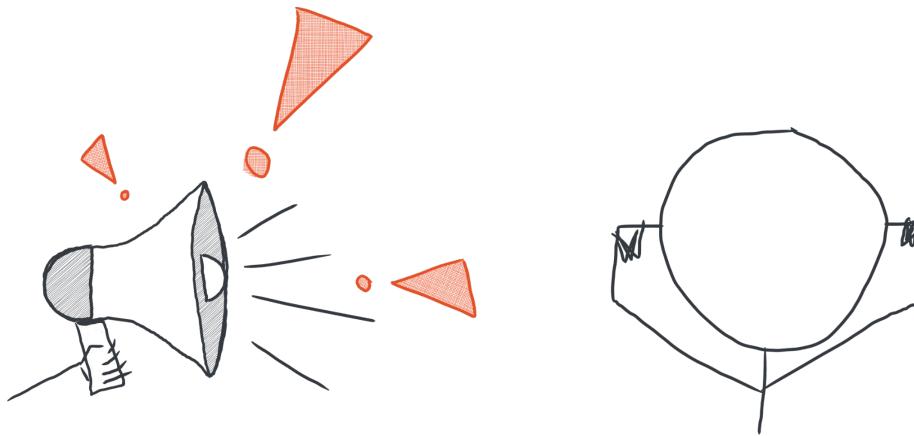
Let me translate
it for you



Kkf646a aýíz 65s s
Hěž ě 63 Wřč 6čř z6 6, 5hk,5ř

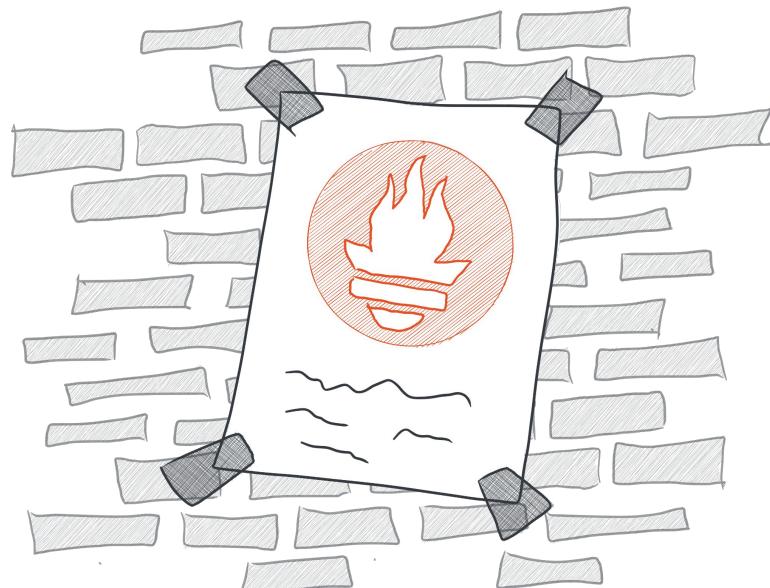


Alertmanager

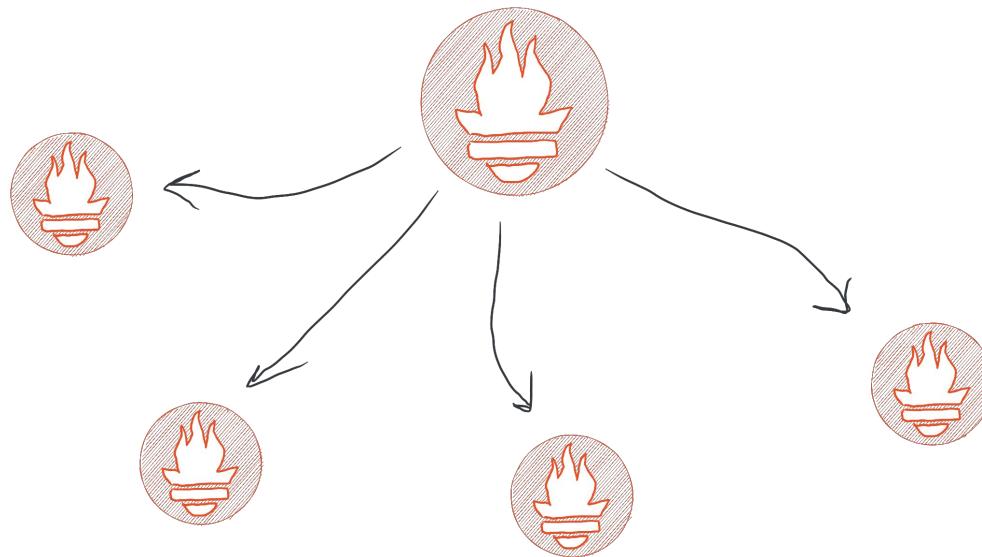


2015

First public release



Federation

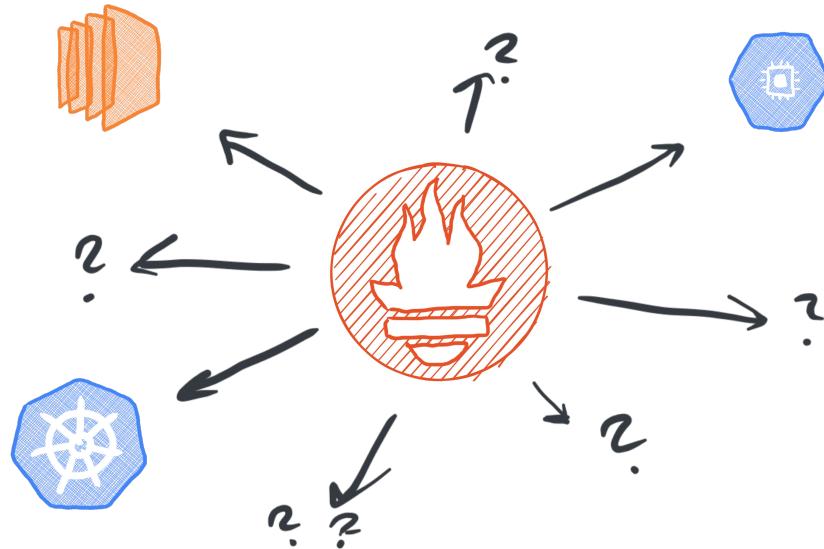


2016

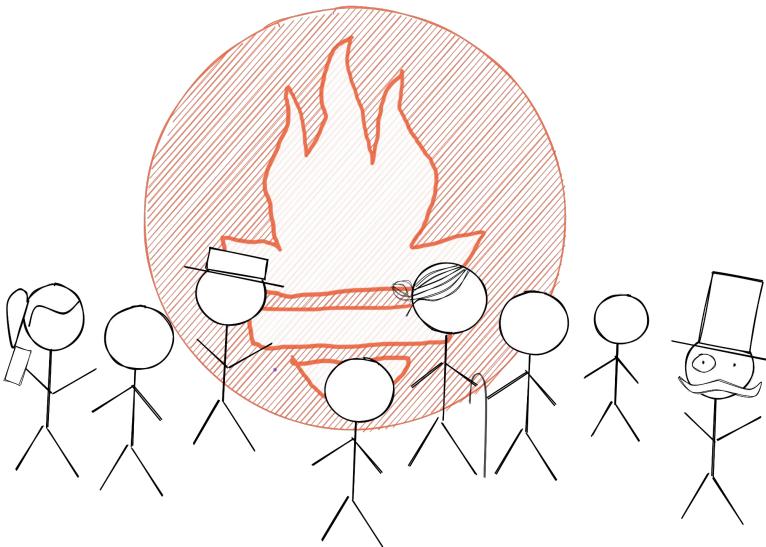
v1.0.0

LEVEL
UP

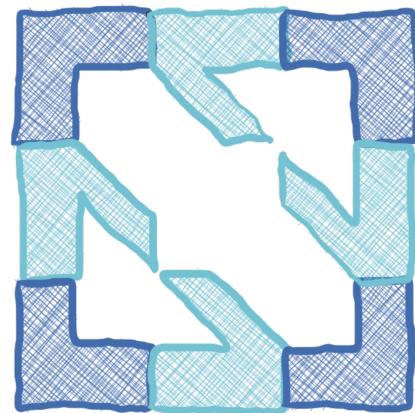
New service discovery



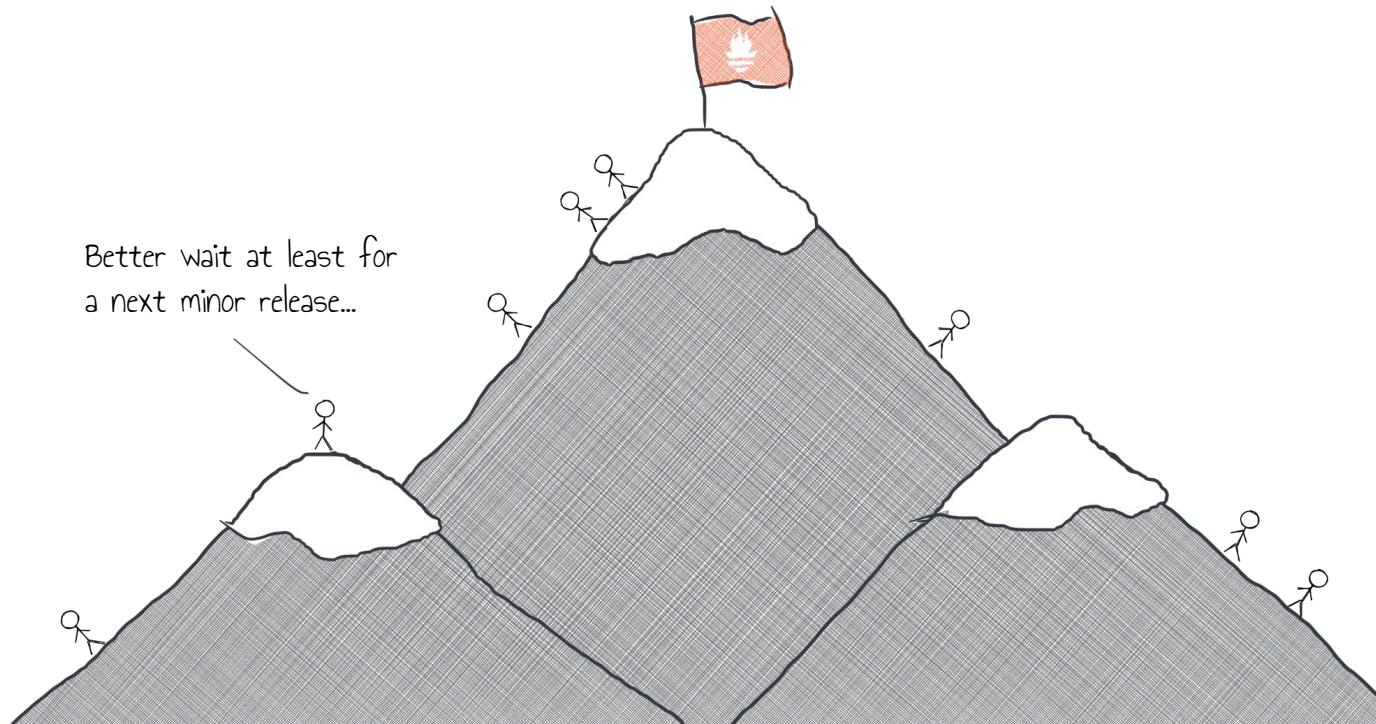
Community grows!



CNCF incubating



Adoption!



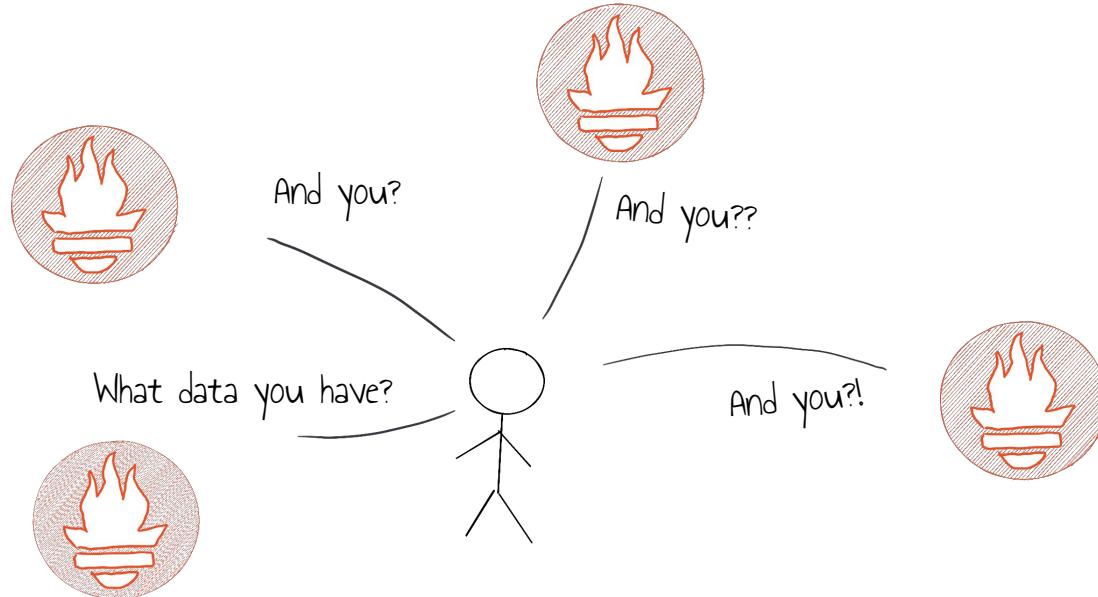
But still, there were some
things missing...

Highly available visualization

Prometheus restarts

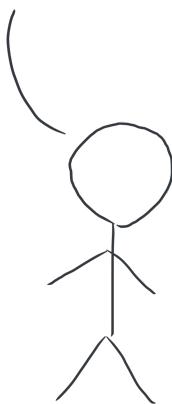


Global data view



Long-term storage

Do you remember anything
from yesterday?



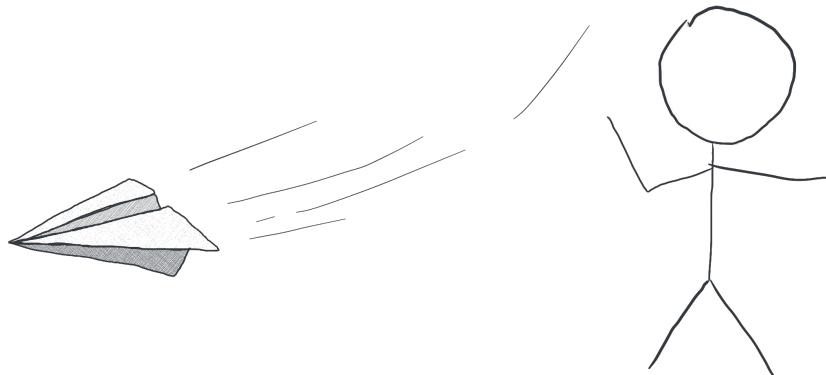
Just last 6 hours,
after that just a blackout...



Luckily, the solution was right
outside the door

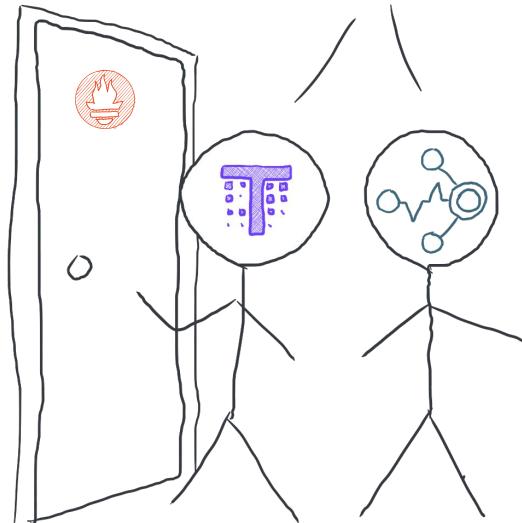
2017

Generic remote **read** and **write API** added

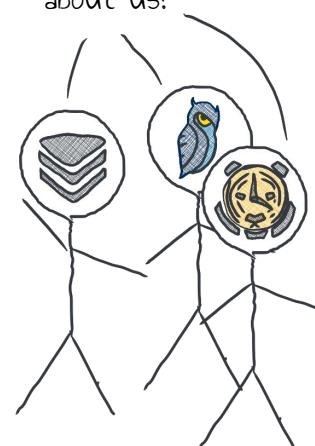


The uprising of remote storages

Hello? We would like to talk with you
about your problems



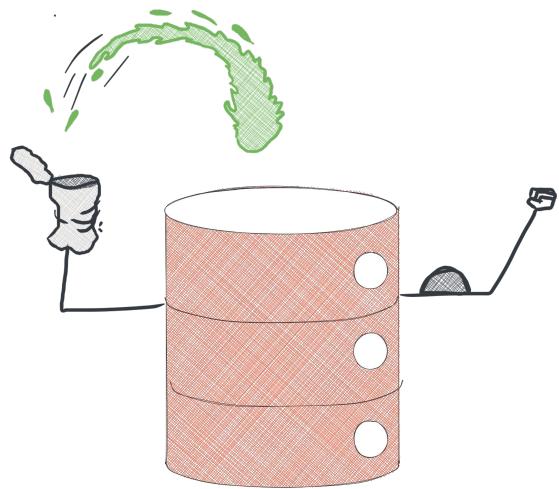
Don't forget
about us!



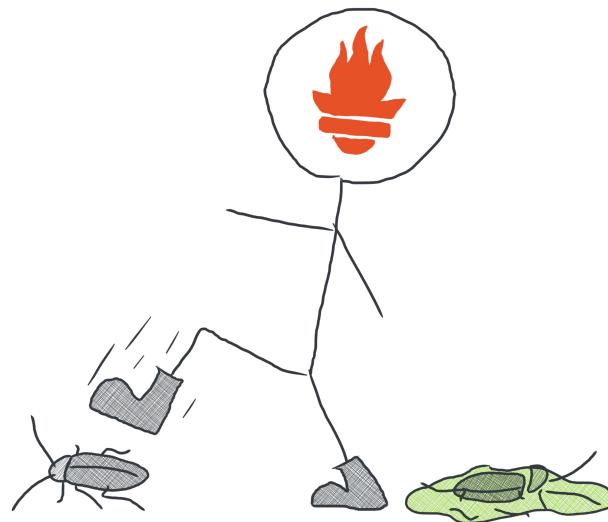
v2.0.0

LEVEL
UP

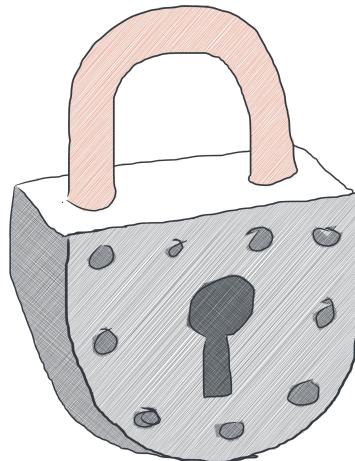
New TSDB



Just catch a few bugs

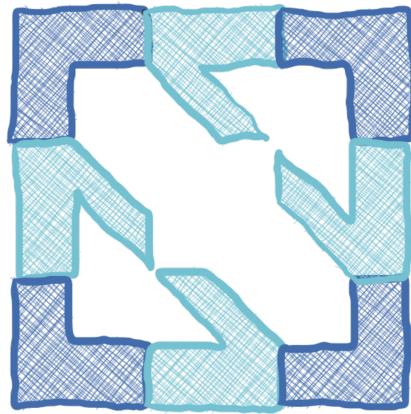


Service discovery **Moratorium**



2018

CNCF graduation



20+ maintainers 1,000+ contributors a 13,000+ commits

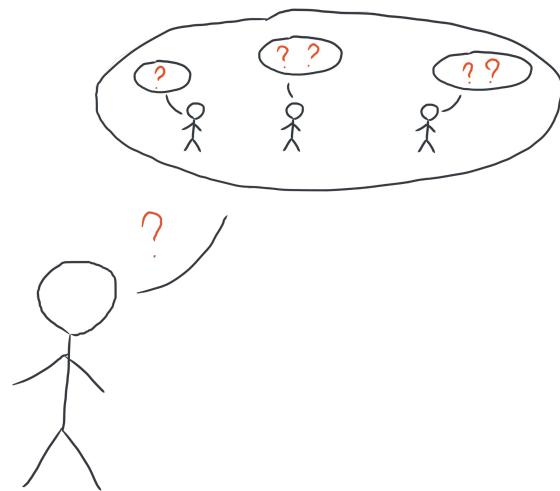
Open Metrics

This standard will be
the last one for sure

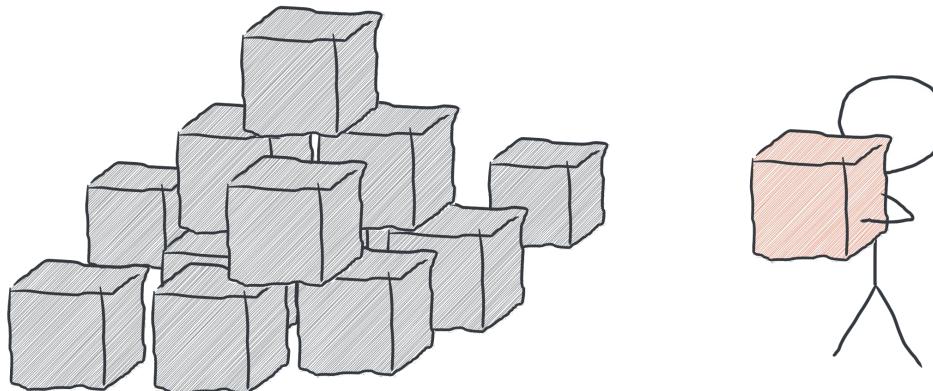


2019

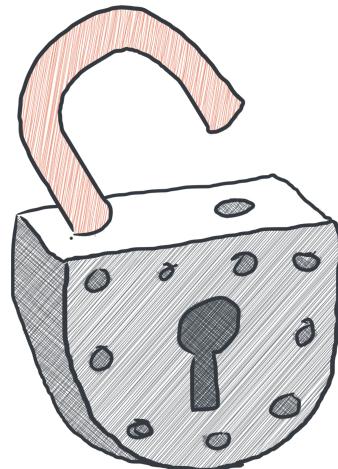
Subqueries



Vertical compaction (Backfilling)



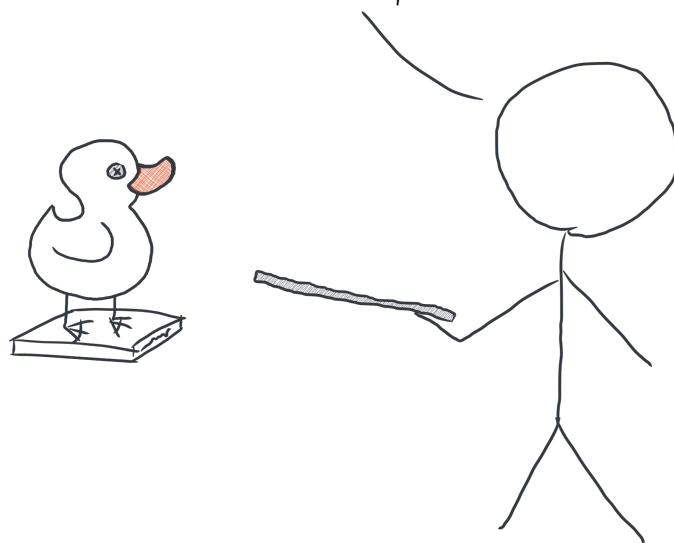
Service discovery moratorium
has been **lifted**



2021

Exemplars

Take a look at **this** exemplar



Agent mode



The Future



Sparse bucket histograms





That's all folks!