Self hosted monitoring.

With Grafana and Hastic

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I work in a consulting company CorpGlory, where we:

- Develop plugins for Grafana for Grafana New Relic, DataDog and more
- Work on Hastic.io - a tool for monitoring

/jonyrock

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The speech is about...

- Self-hosted monitoring: personal experience & thoughts
- Creating your analytics for your timeseries data with **python** and **grafana** with a **tool.**

Questions time is after the talk

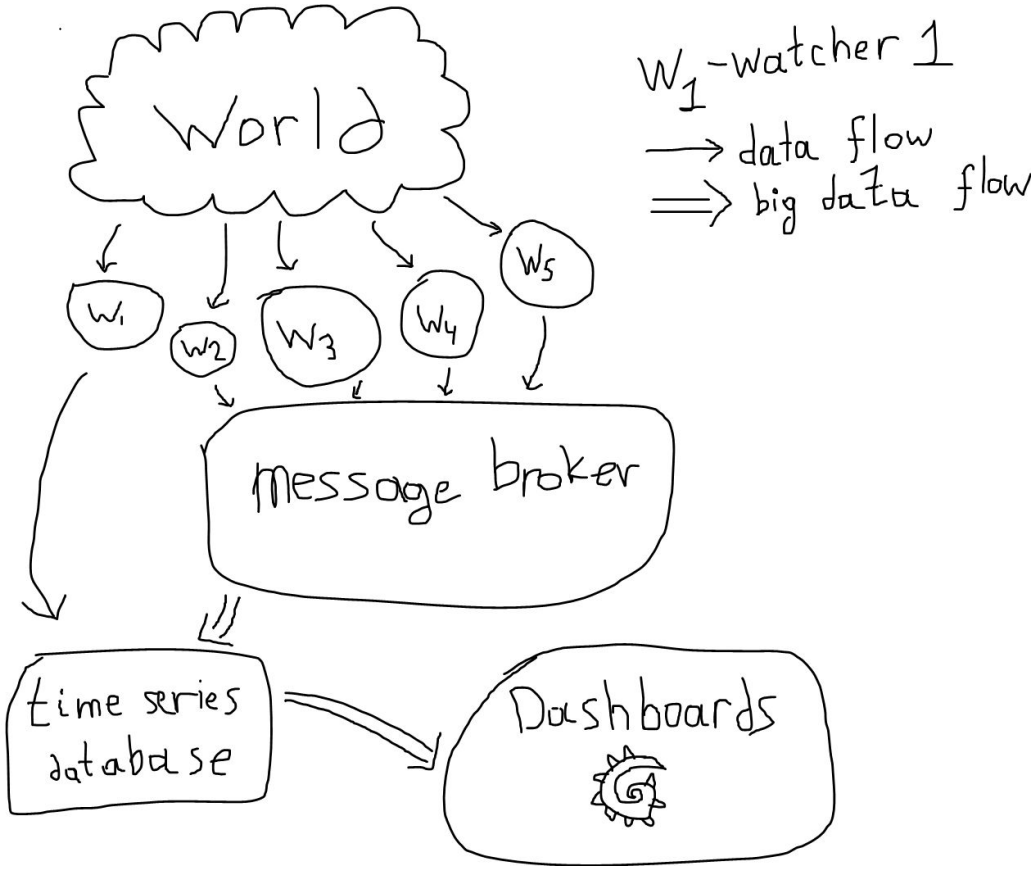
Why would go self-hosted

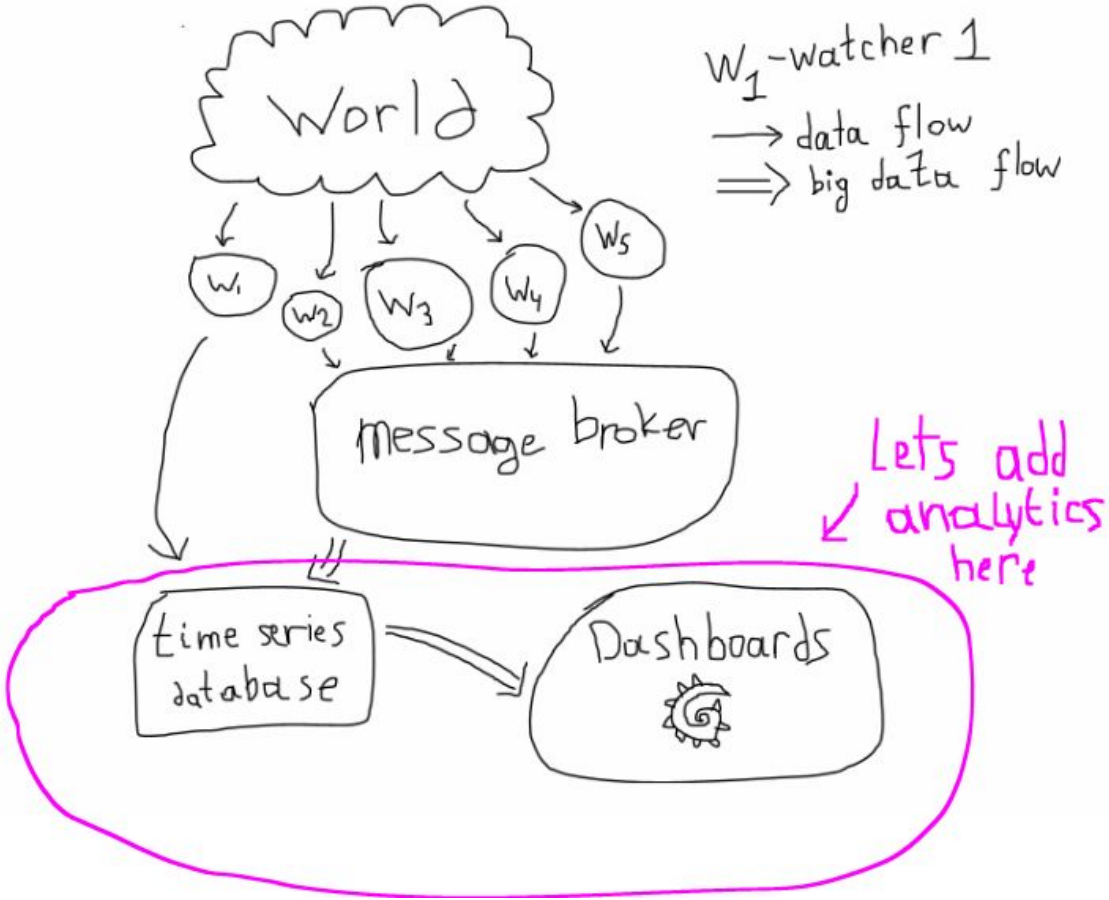
- Speed
- Tailored for your business / tech needs
- Might be cheaper
- Security
- You have no chance :)

My Story

- General software development and datavis
- Grafana plugins
- Grafana development

Broken solar panels problem….


World
W1-watcher 1
→ data flow
⟹ big data flow
W1
W2
W3
W4
W5
message broker
time series database
Dashboards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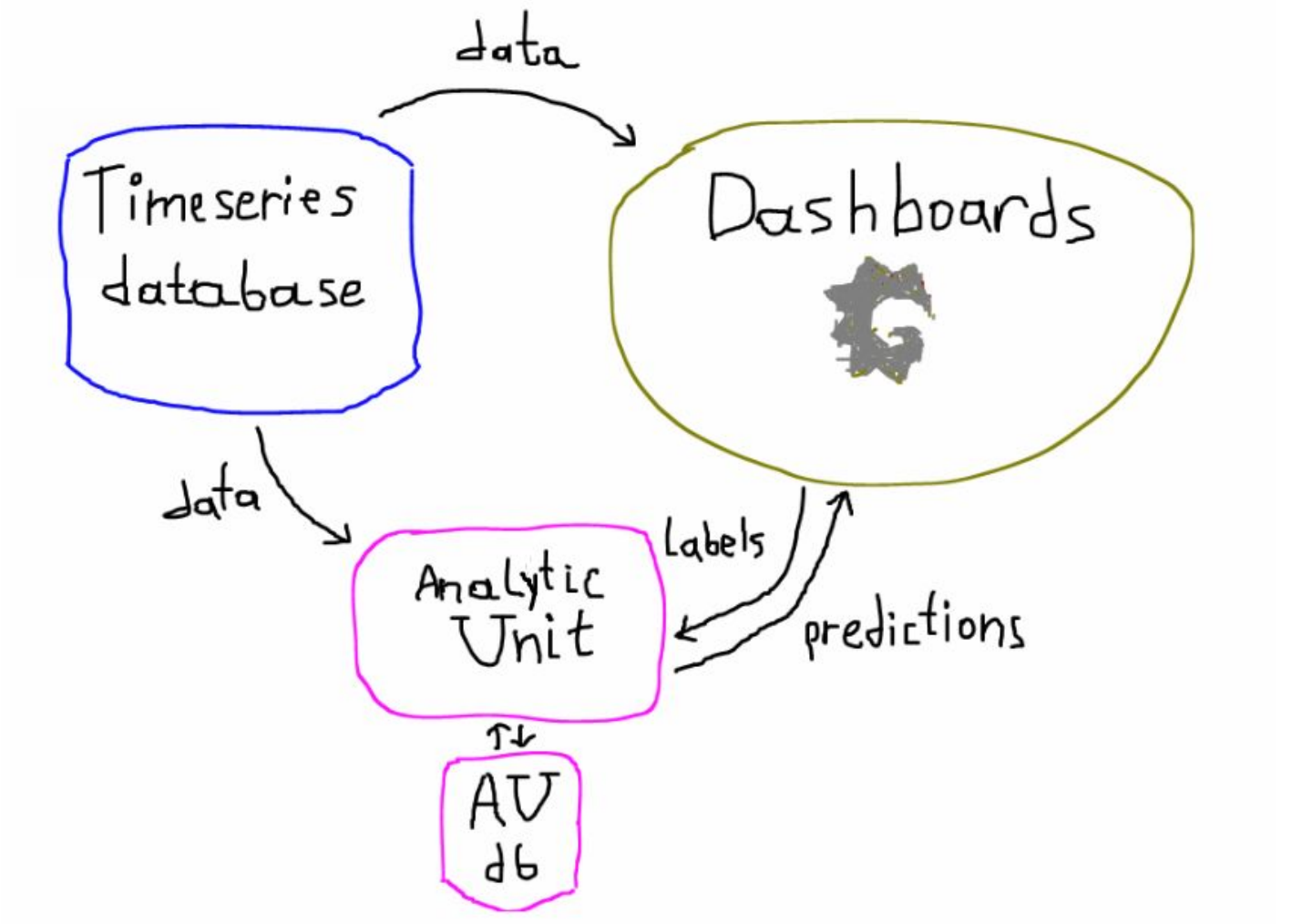
W5
message broker
Lets add analytics here
time series database
Dashboards


data
Timeseries database
Dashboards
data
Analytic Unit
labels
predictions
AU db

Perfect analytics unit

- Possible to can run isolated - and you control it
- Customizable (hackable)

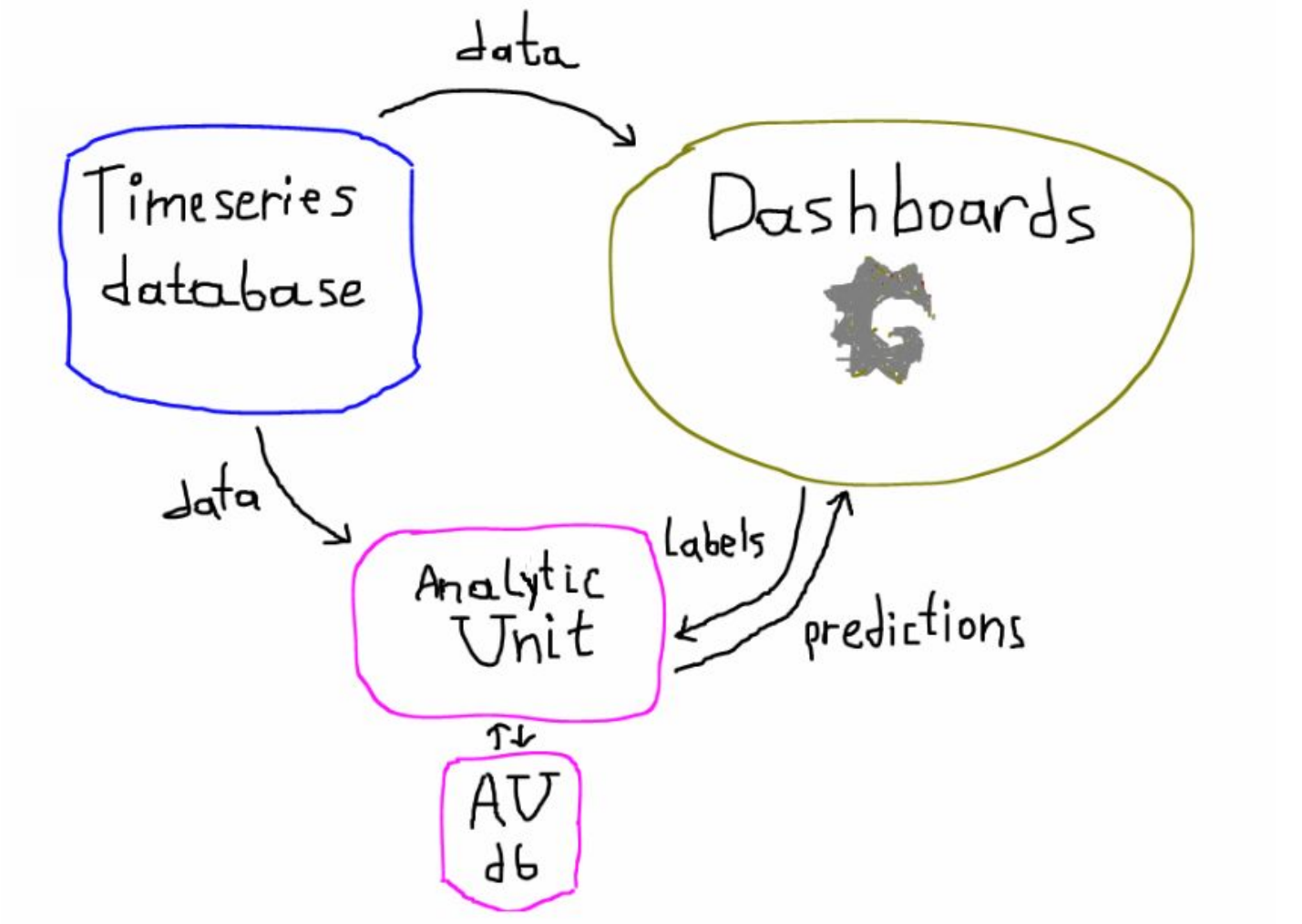
- Has effective DB for analysis data structures
- Can use features from databases

6 months ago I had a call...

And now we have it...

hastic

Visual tool with brains for
timeseries analysis at scale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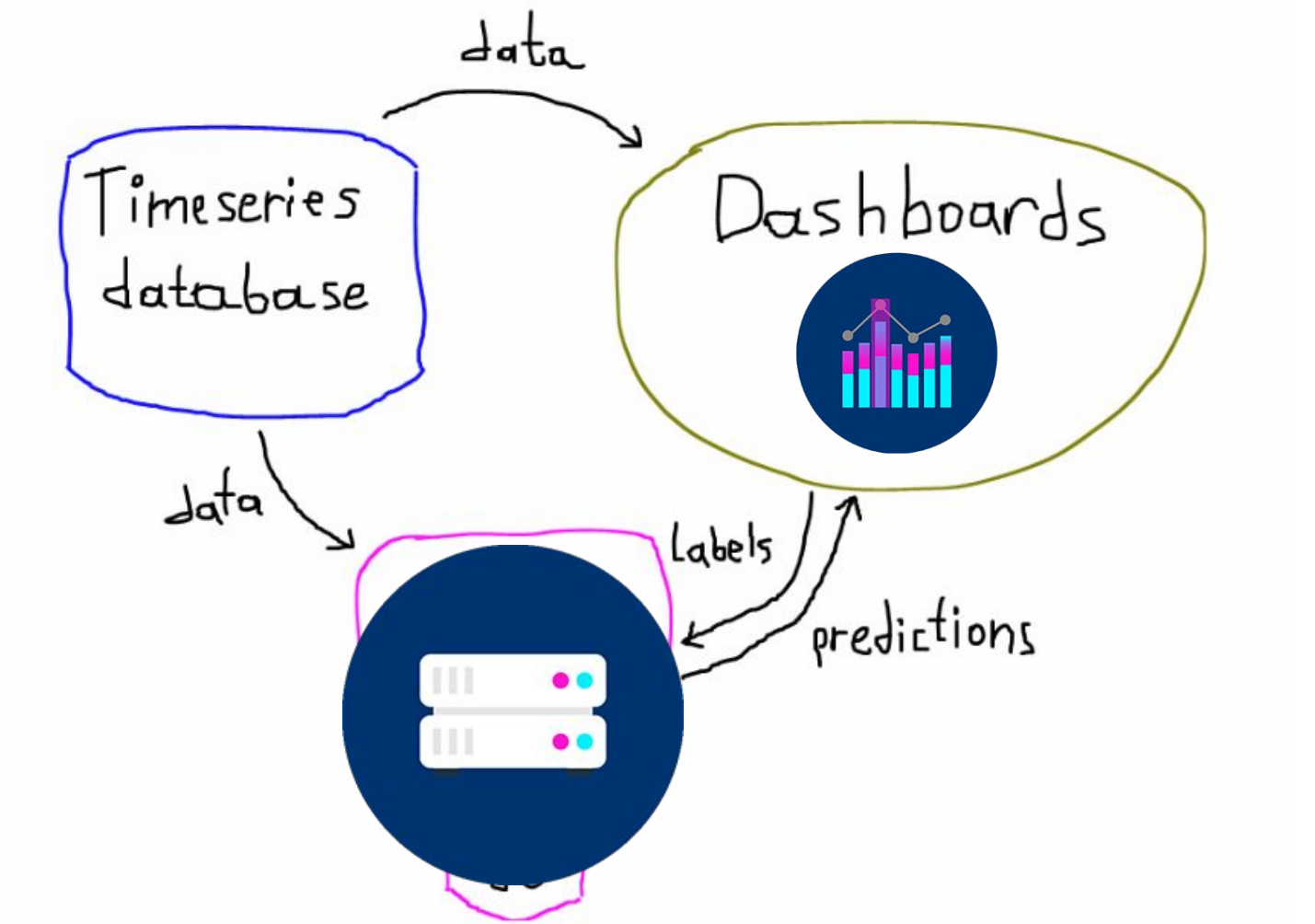
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What is hastic exactly?

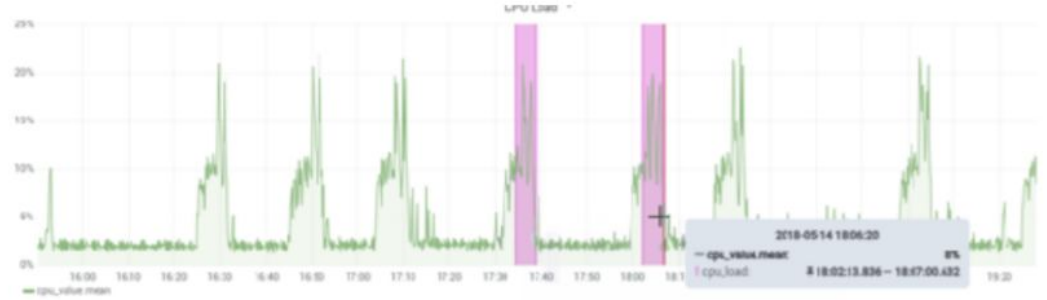
- A node.js \ python app for processing timeseries data
- A plugin for Grafana with UI for labeling and rendering predictions
- You only need a laptop to make it run

It is in **alpha** now.

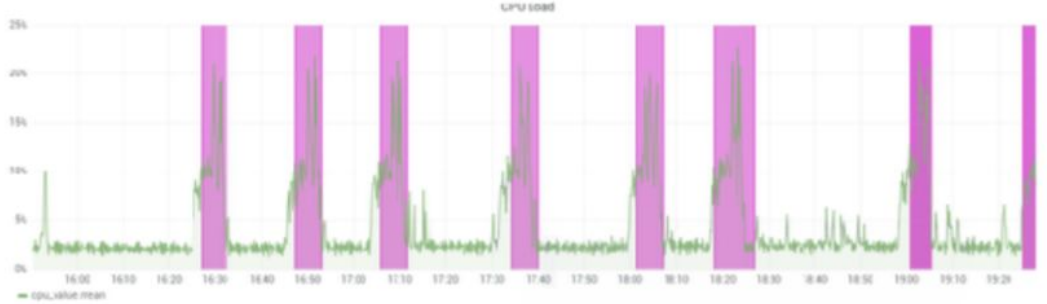
How UI looks like

Get timeseries data

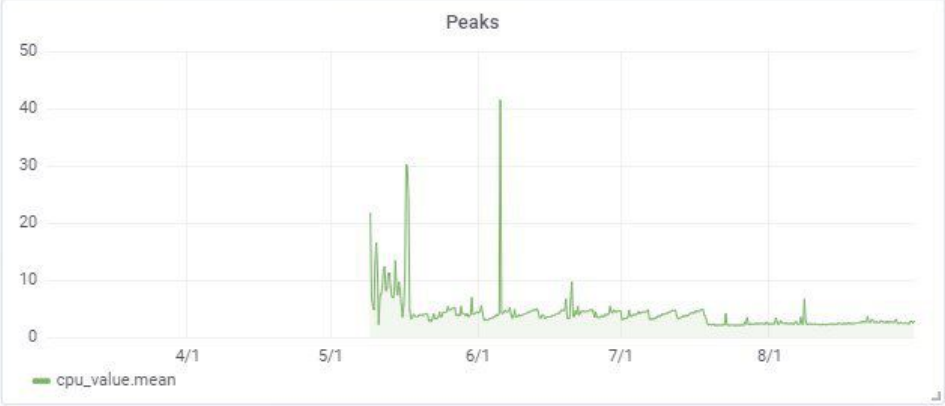
Label patterns

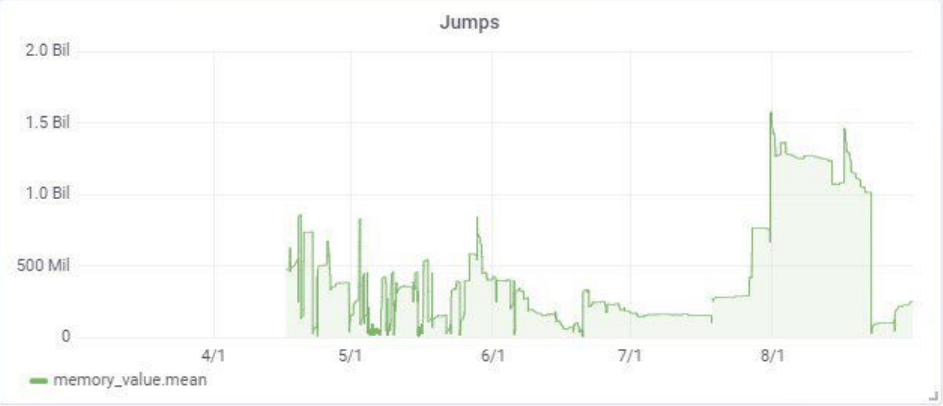


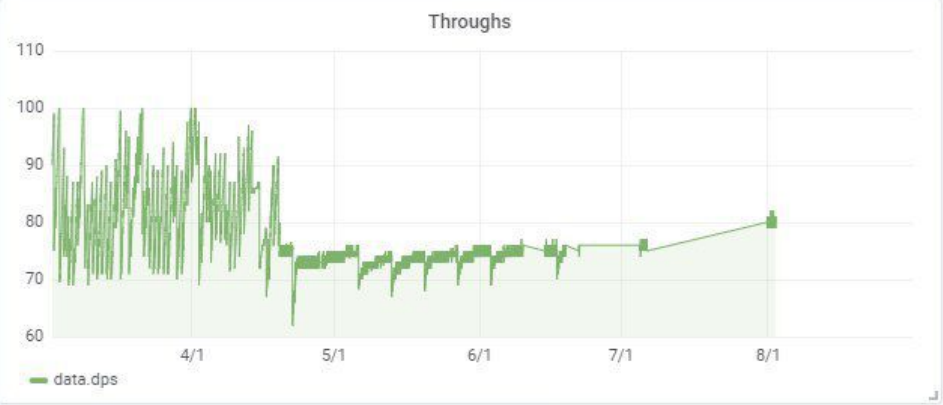
See detections



Data might be different... We have basic patterns

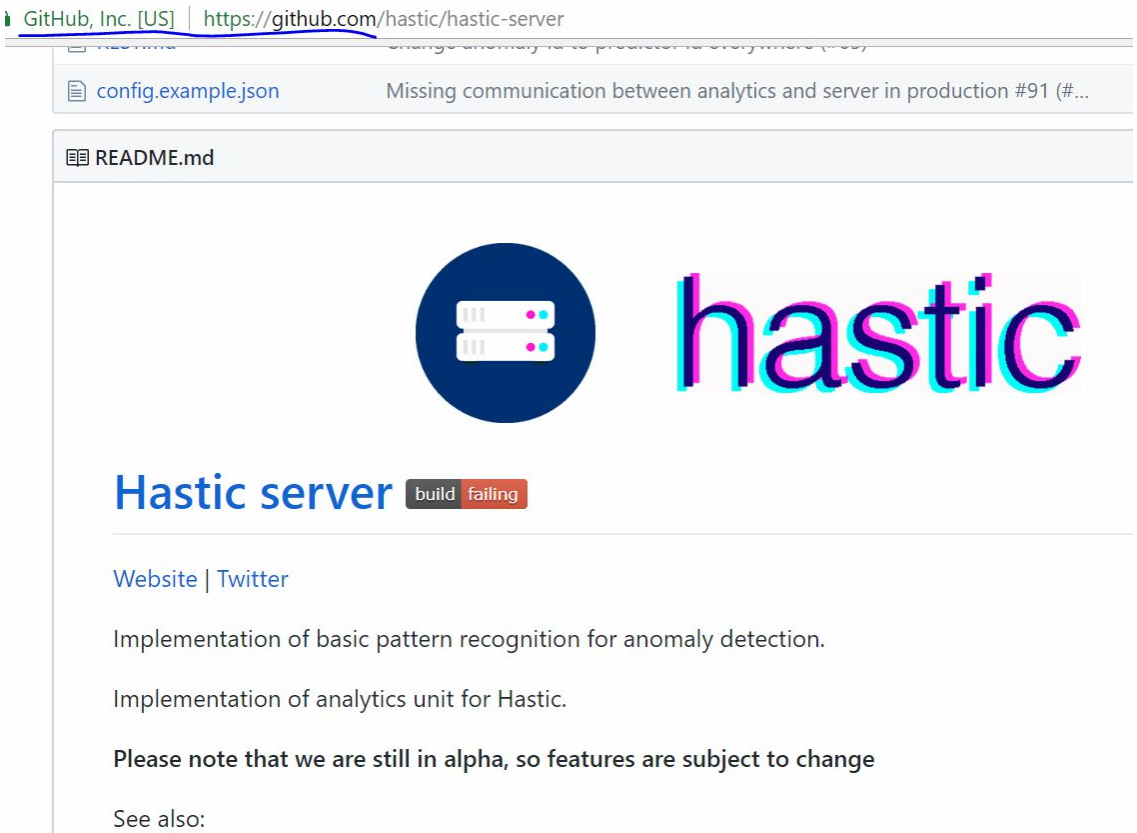




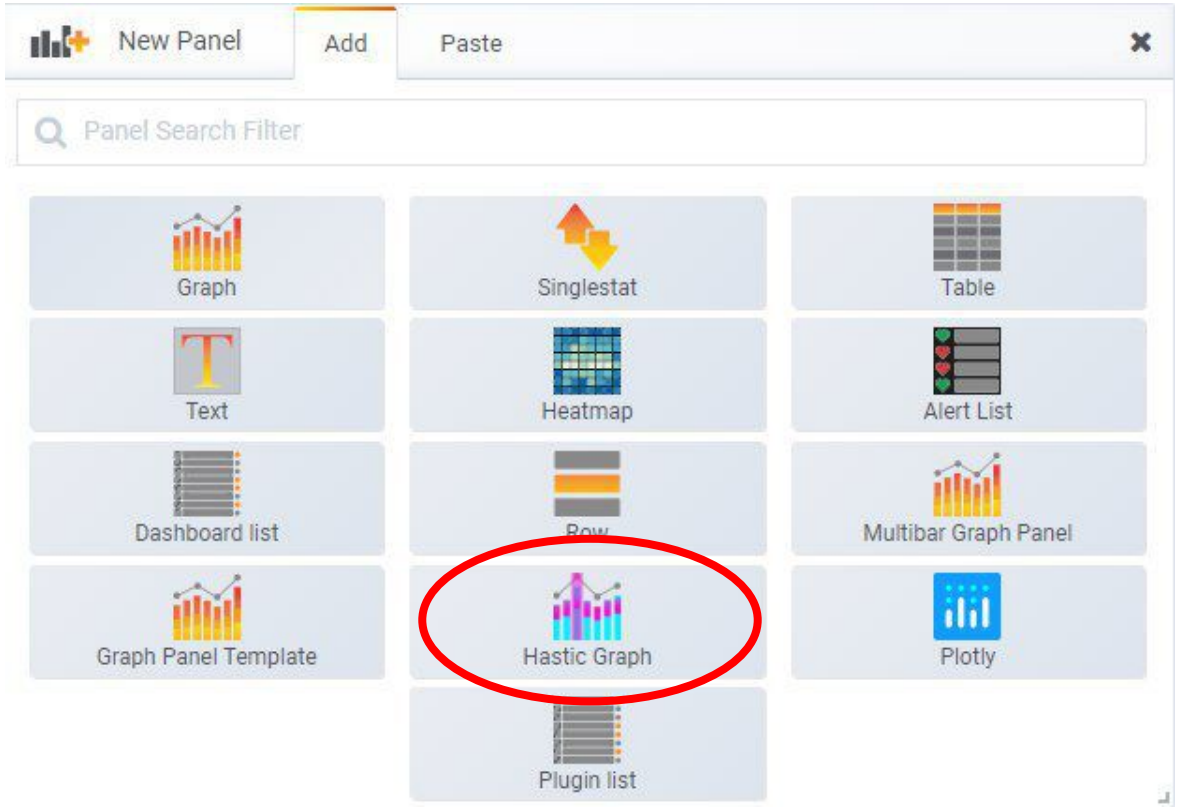


Patterns available (play.hastic.io)

```
docker pull hastic/server
```

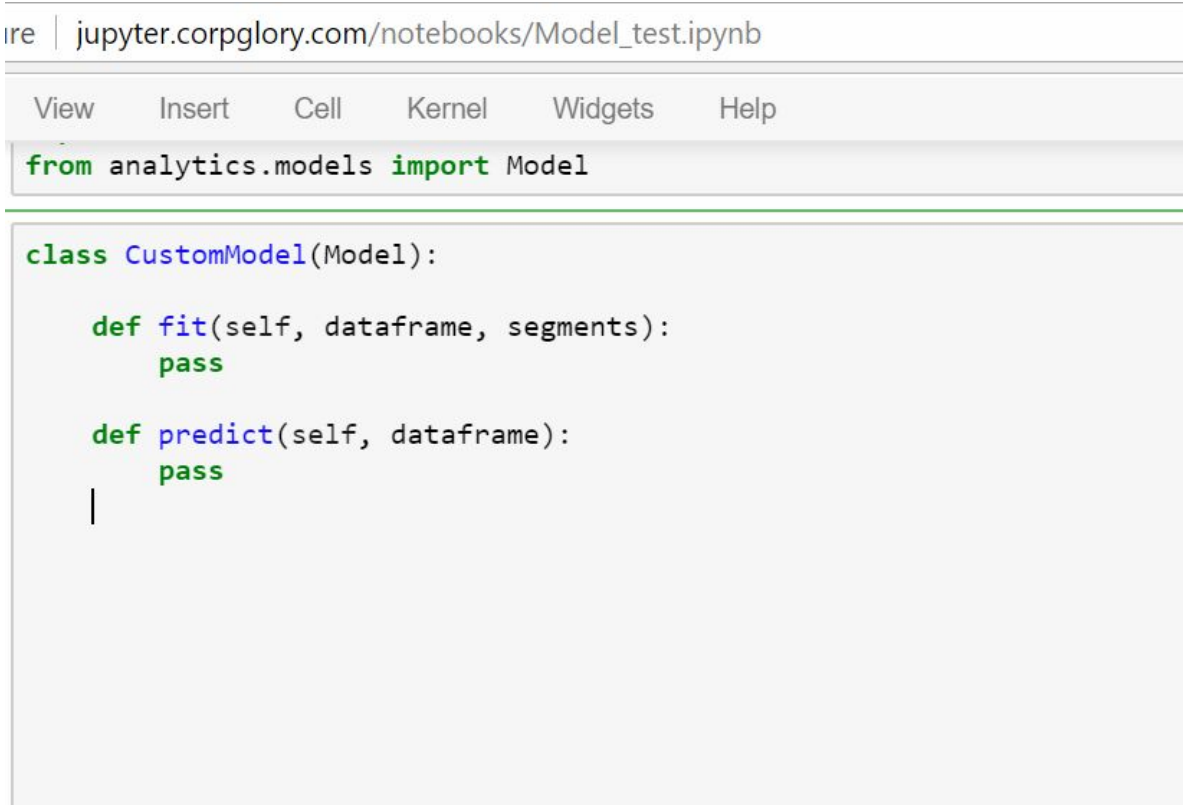


And Grafana panel...

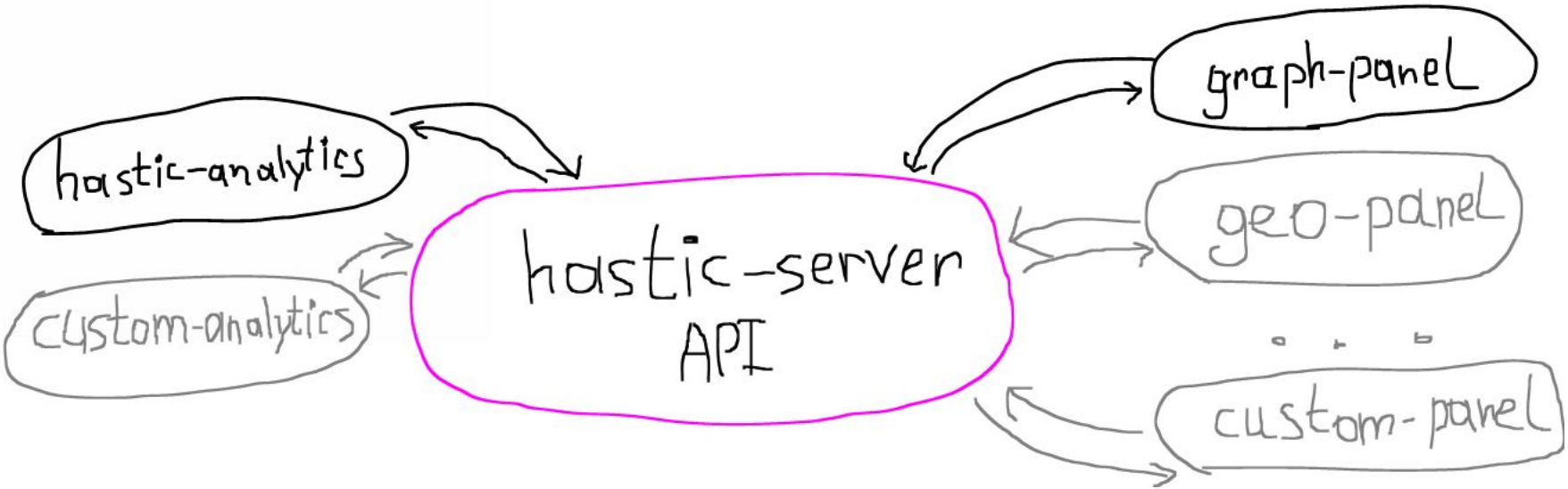


Lets do deeper

Custom model



A bigger hack...



Features

- Self-hosted
- You control how algorithms work (resources and performance)
- You can make your visualisation for grafana
- Open source

Plans for Future

- Multiple metrics patterns
- Algorithms for overlapping predictions (clustering?)
- Improve architecture
- … but keep the API & the idea
- Better integration with Grafana: better graph panel & new plugins
- Optimisation for databases

We have released v0.2.1 yesterday

https://github.com/hastic

Special thanks to CorpGlory Dev Team

Dmitriy Rodin, Alexander Velikiy and Egor Tiukin

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The story is happening right now. Come and take part