

Democratize Metrics

with Grafana

- Metrics everyone can see
- Visualizations anyone can build
- Mix and match data sources
- In an open source platform

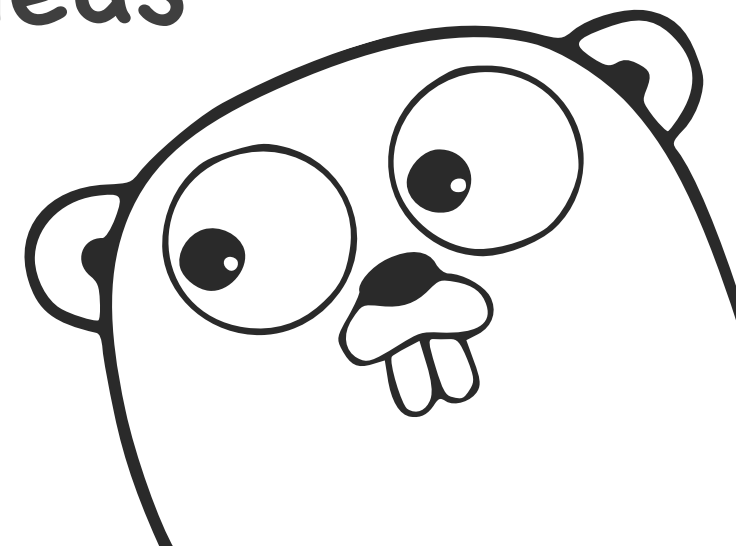


Grafana 1.x

- Front-end application. Stores all dashboards in ES.
- Initially only supported graphite
- Graph and single stat
- Influxdb was added.
- Opentsdb was added

Grafana 2.x

- Backend (Go)
- Store dashboards in DB (sqlite/mysql/postgres)
- User, permissions, orgs
- API
- Elastic, CloudWatch, Prometheus
- Table Panel
- Mixed DS

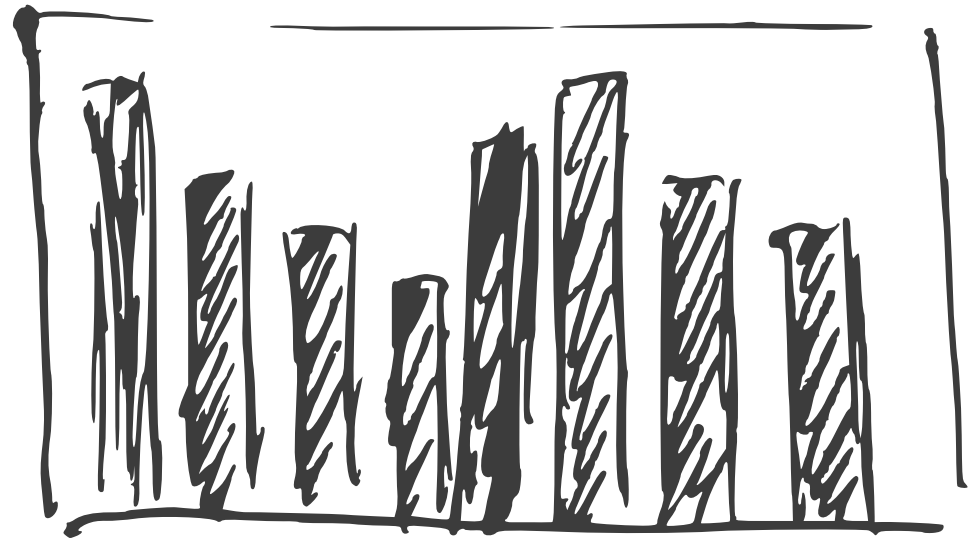
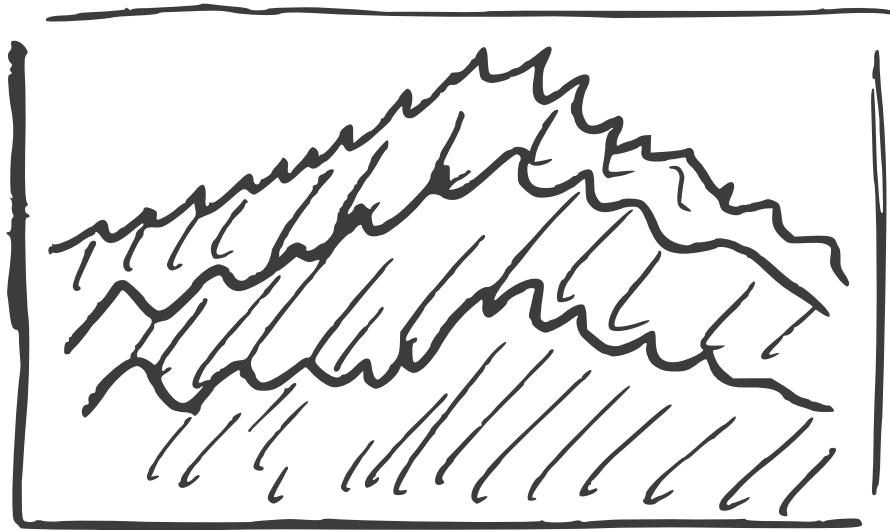


Grafana 3.x

- Improved plugin system
- grafana.net
- grafana-cli
- UX improvements

Grafana 4.x

- Alerting
- Histogram
- Heatmap
- MySQL data source (alpha)

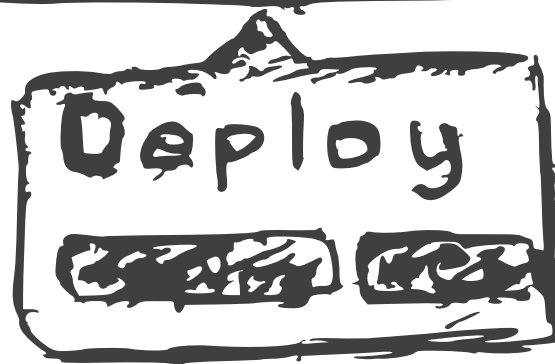
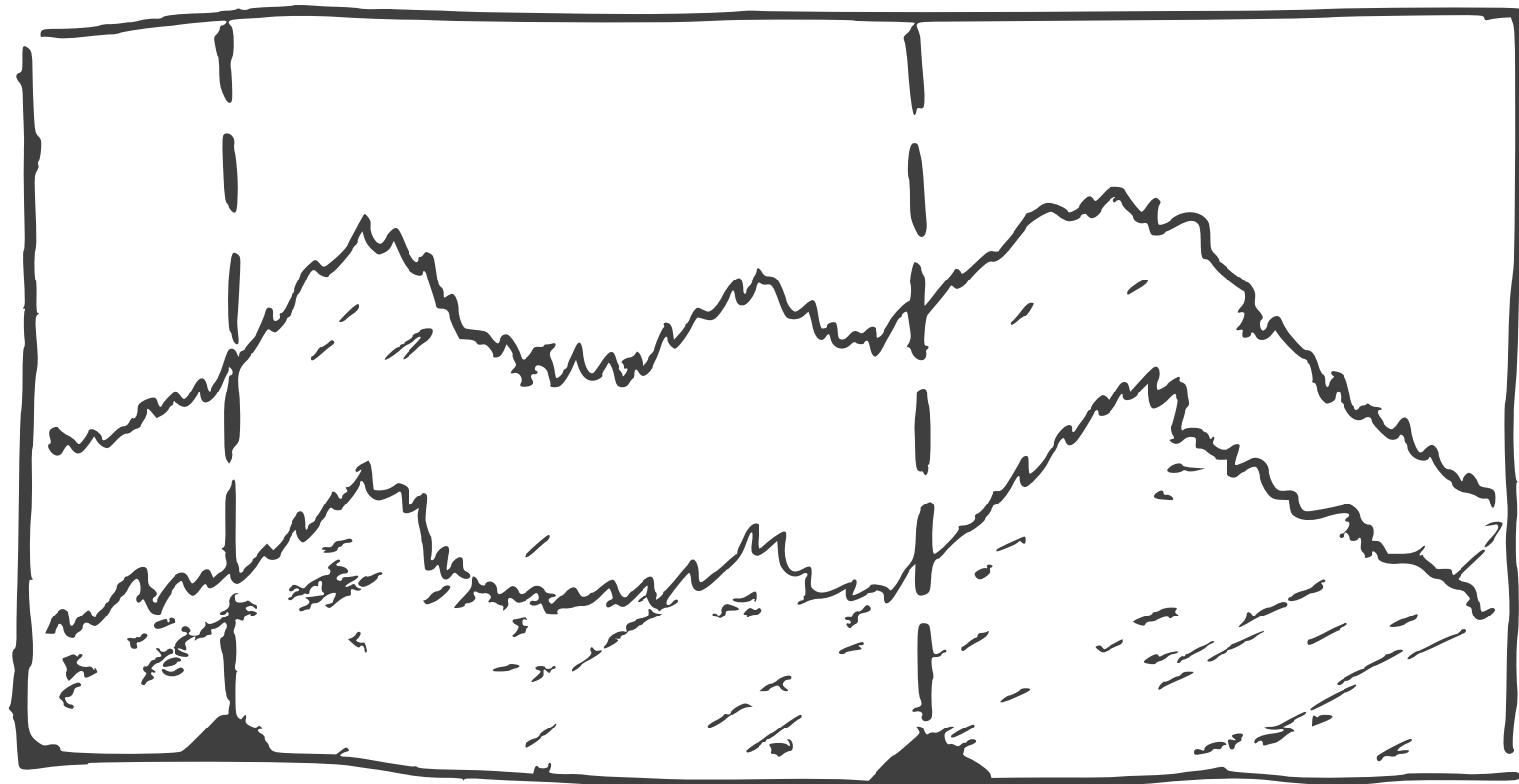


METRIC	Avg	MAX	MIN
1m	100	100	0
4m	45	45	0
16m	16	16	0.1
11m	99	99	0
2m	2	2	0

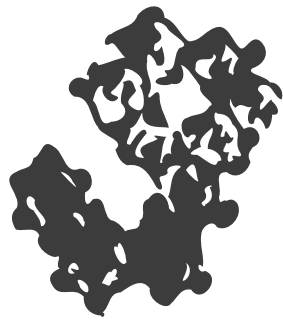
42

160

VISUALIZE



ANNOTATE



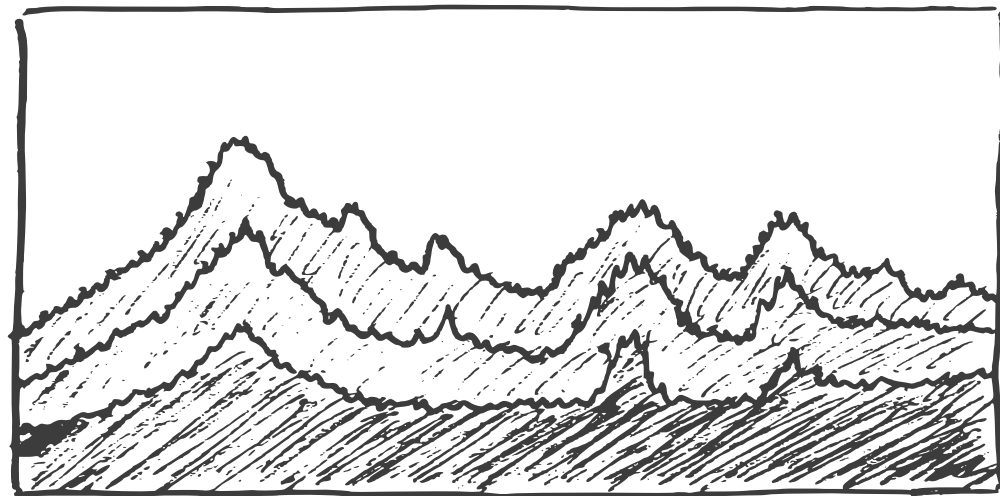
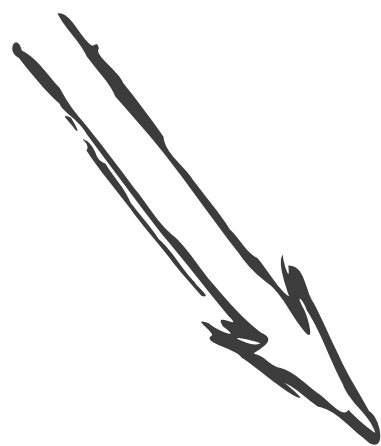
Graphite



Elastic



Prometheus



UNIFY

UNIFY

- 30+ data sources
- Mixed data sources

Native Support



Native Support





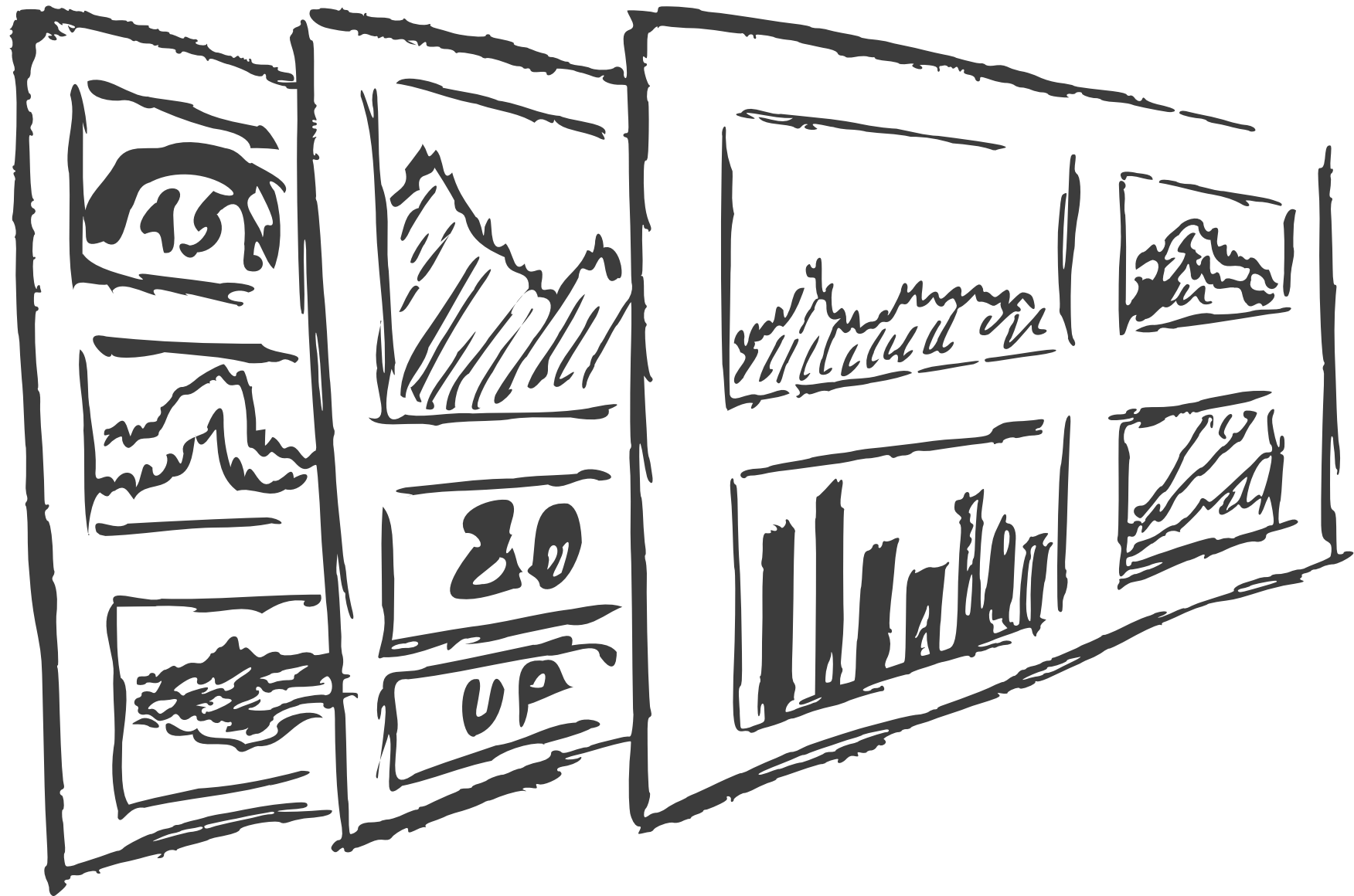
Server

- ☒ SRV01
- ☒ SRV02
- ☐ SRV03

DYNAMIC

DYNAMIC

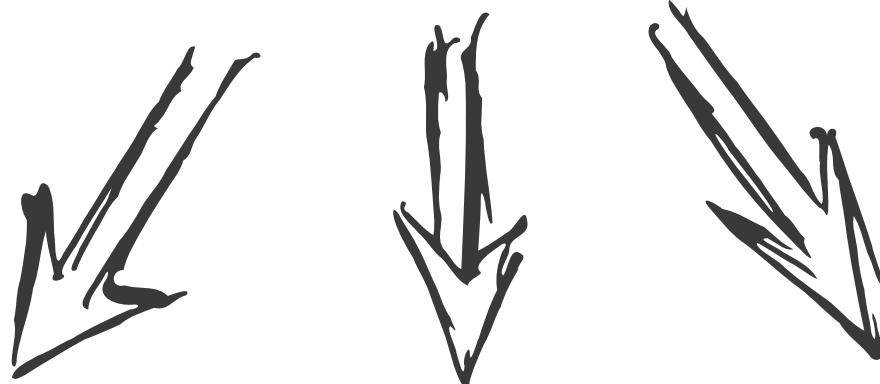
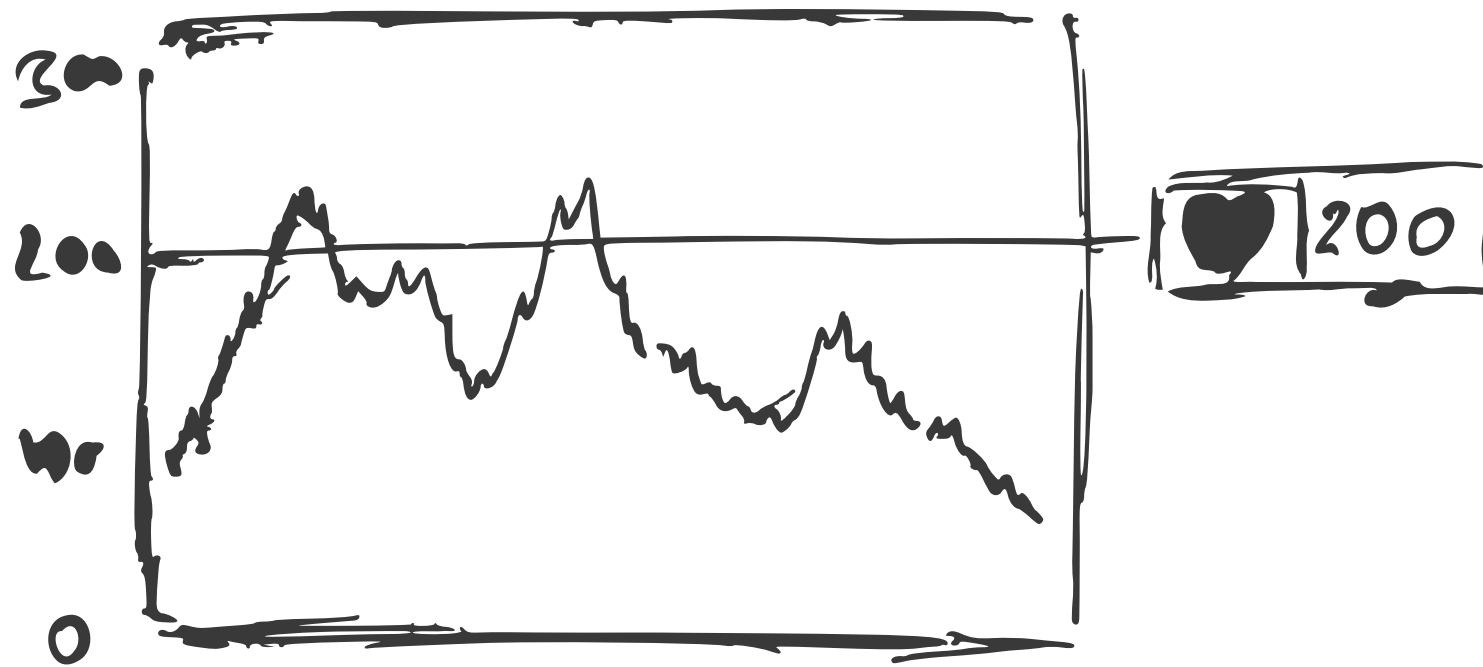
- Template Variables
- Ad hoc filters
- Scripted dashboards



COLLABORATE

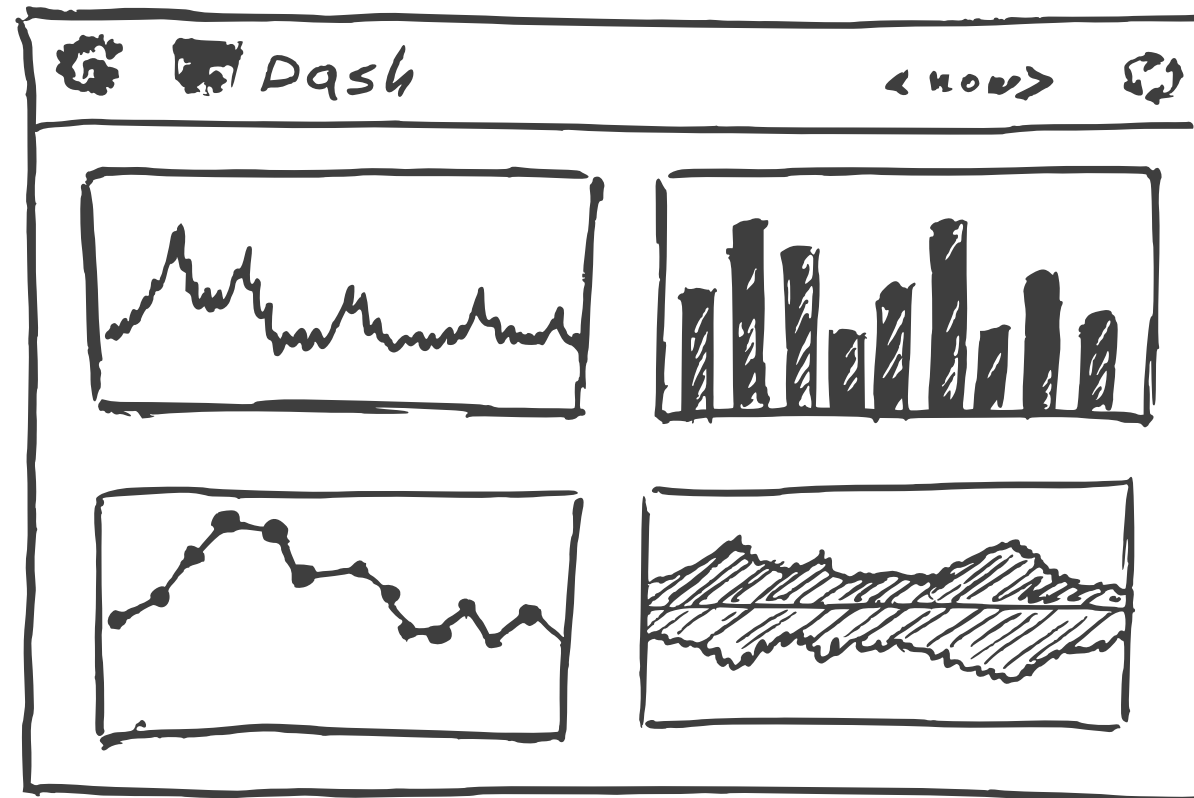
COLLABORATE

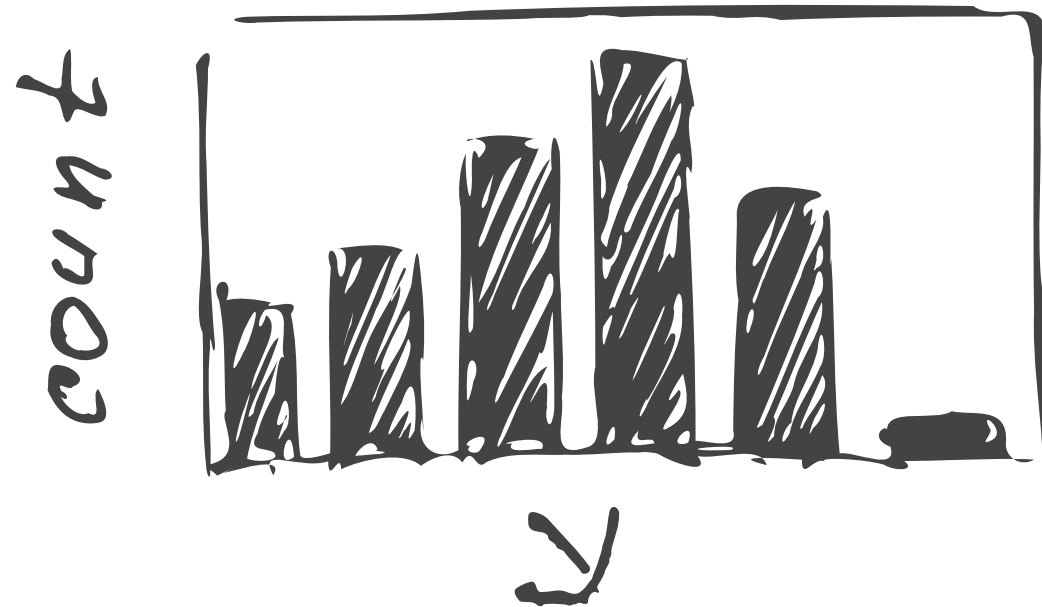
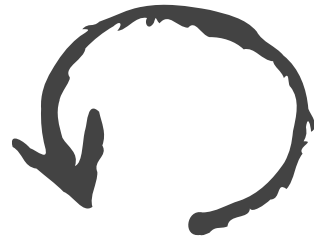
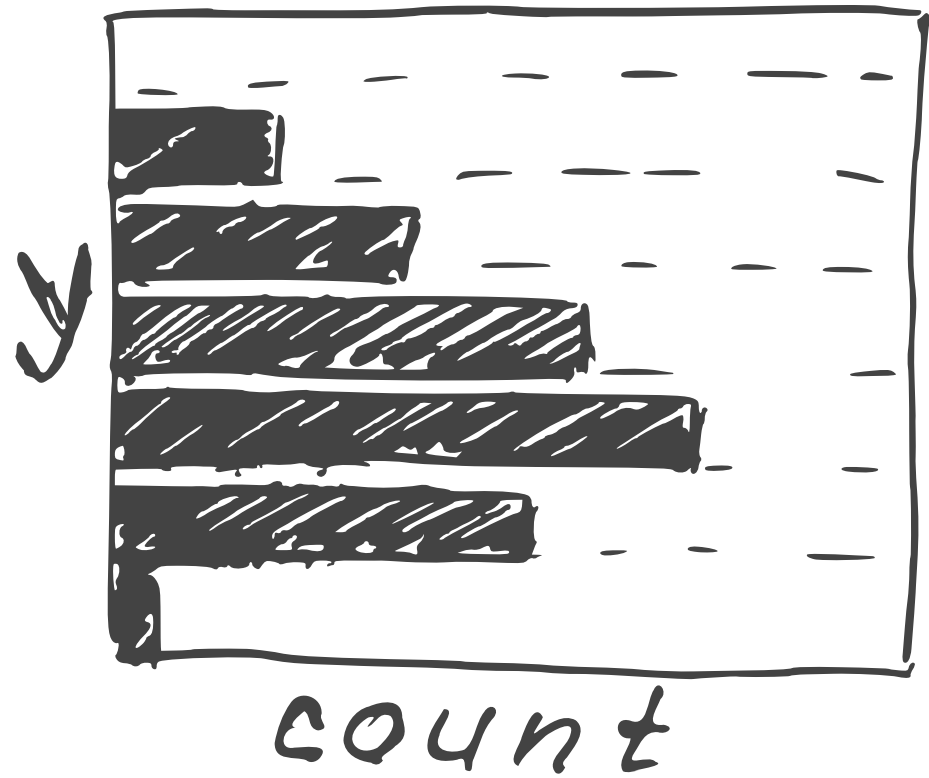
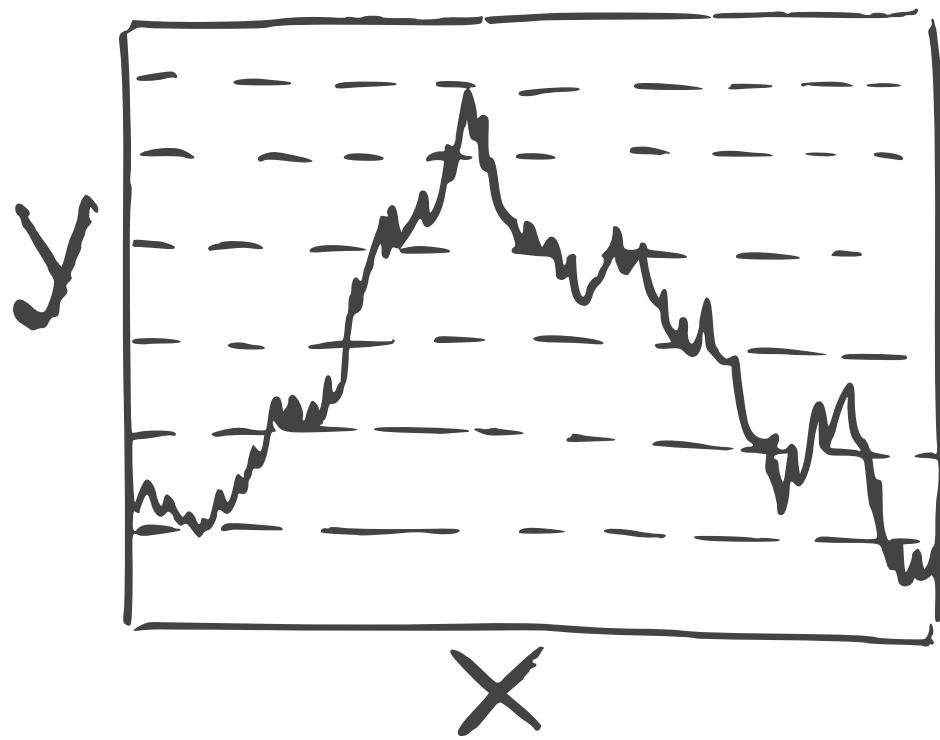
- Share dashboard snapshots
- Share dashboard on grafana.com
- Contribute to Grafana
- Open issue on github
- Write your own plugin



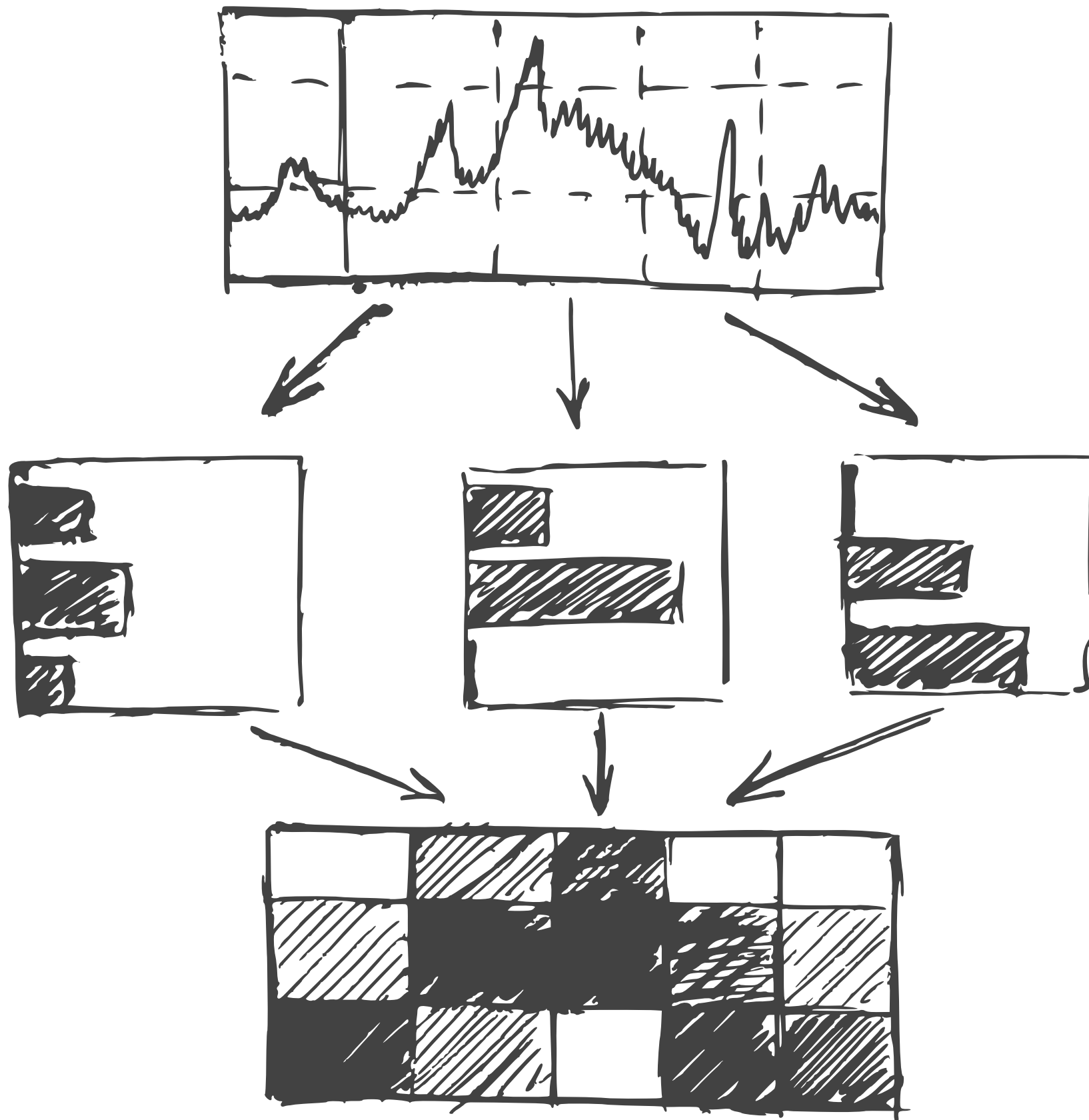
ALERT

VISUALIZE





Histogram



Heatmap

ES heatmap

- Built on ES backend
- 1 Series for each bucket

- Prometheus histogram ?
- StatsD ?

TEMPLATING



TEMPLATING

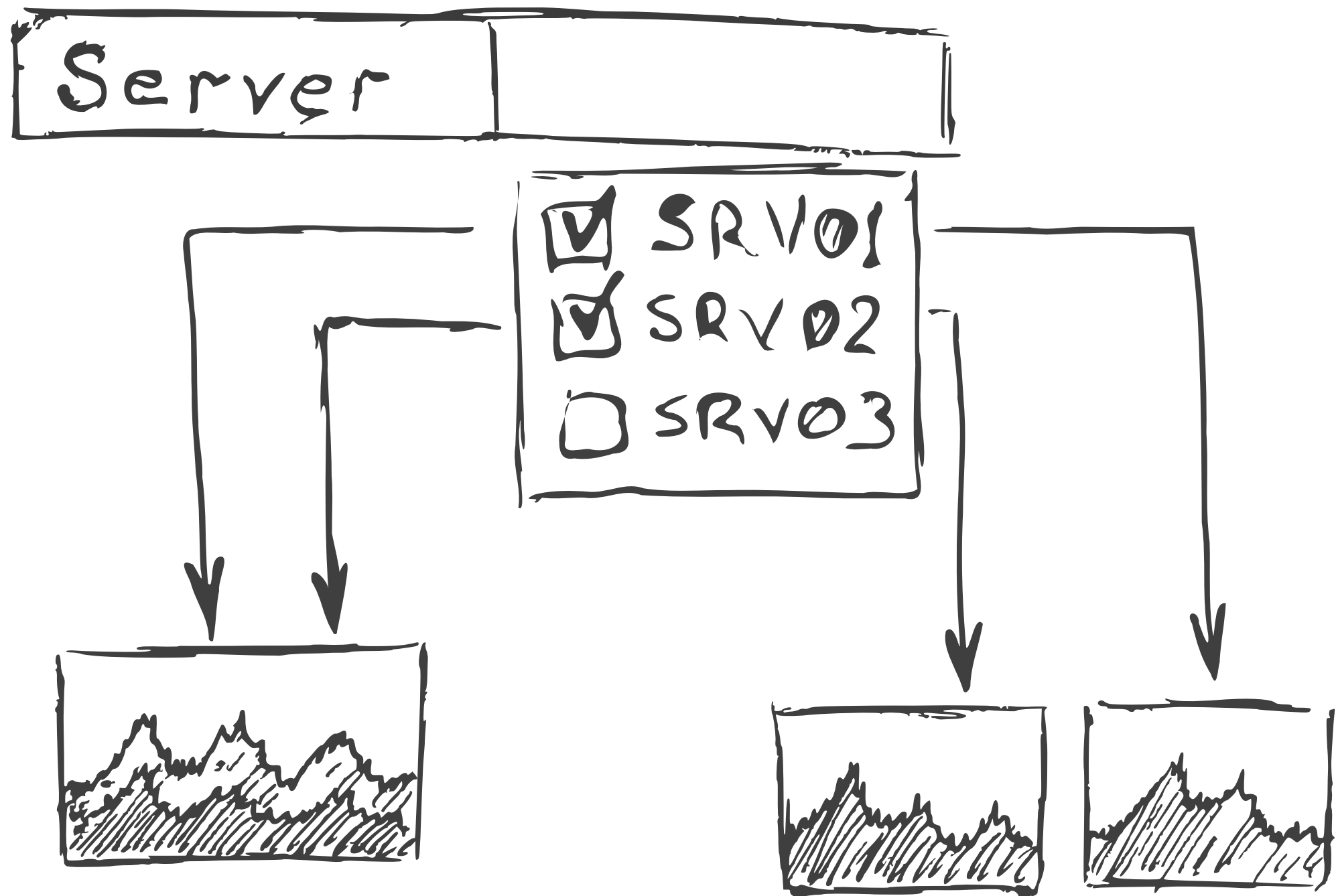
```
node_load1{instance="host1"}
```

\$host

```
node_load1{instance="$host"}
```


Template Variables

- Query
- Data Source
- Interval
- Custom
- Constant
- Ad hoc (Influx, ES)



Repeat panel

Multi-value variables

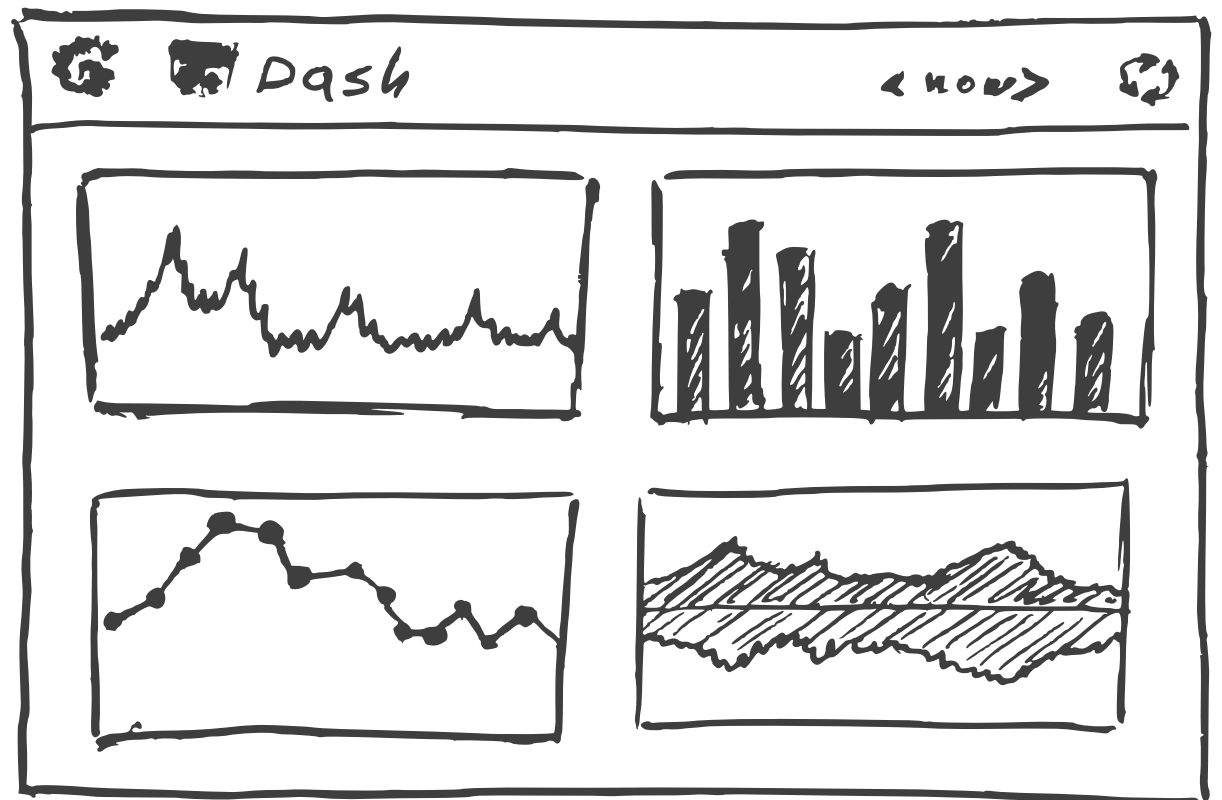
Variable interpolation

host1, host2, host3

- `{host1,host2,host3}`
- `(host1|host2|host3)`
- `("host1" OR "host2" OR "host3")`

Scripted Dashboard

{js} =>



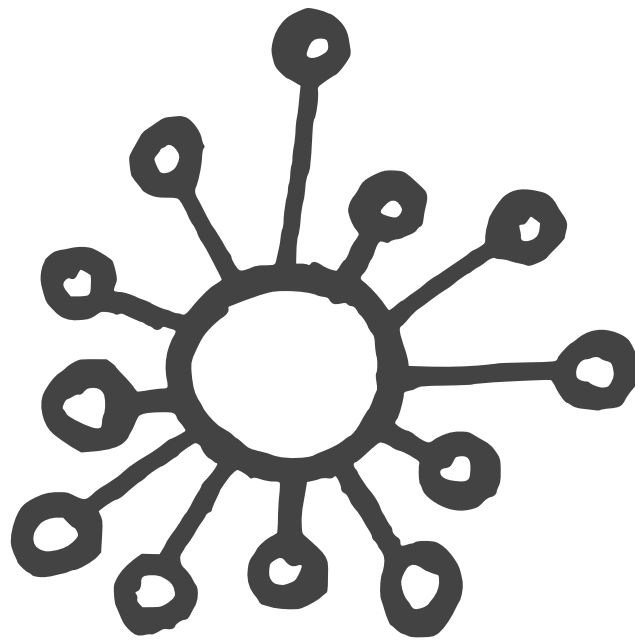
Scripted Dashboard

```
var ARGS,  
    $, jQuery, _,  
window, document,  
moment, kbn, dateMath,  
services = {  
    dashboardSrv,  
    datasourceSrv,  
    $q  
};
```

Scripted Dashboard

```
console.log(services)
```

PLUGINS



Data
Source

Panel

Application



Dashboards



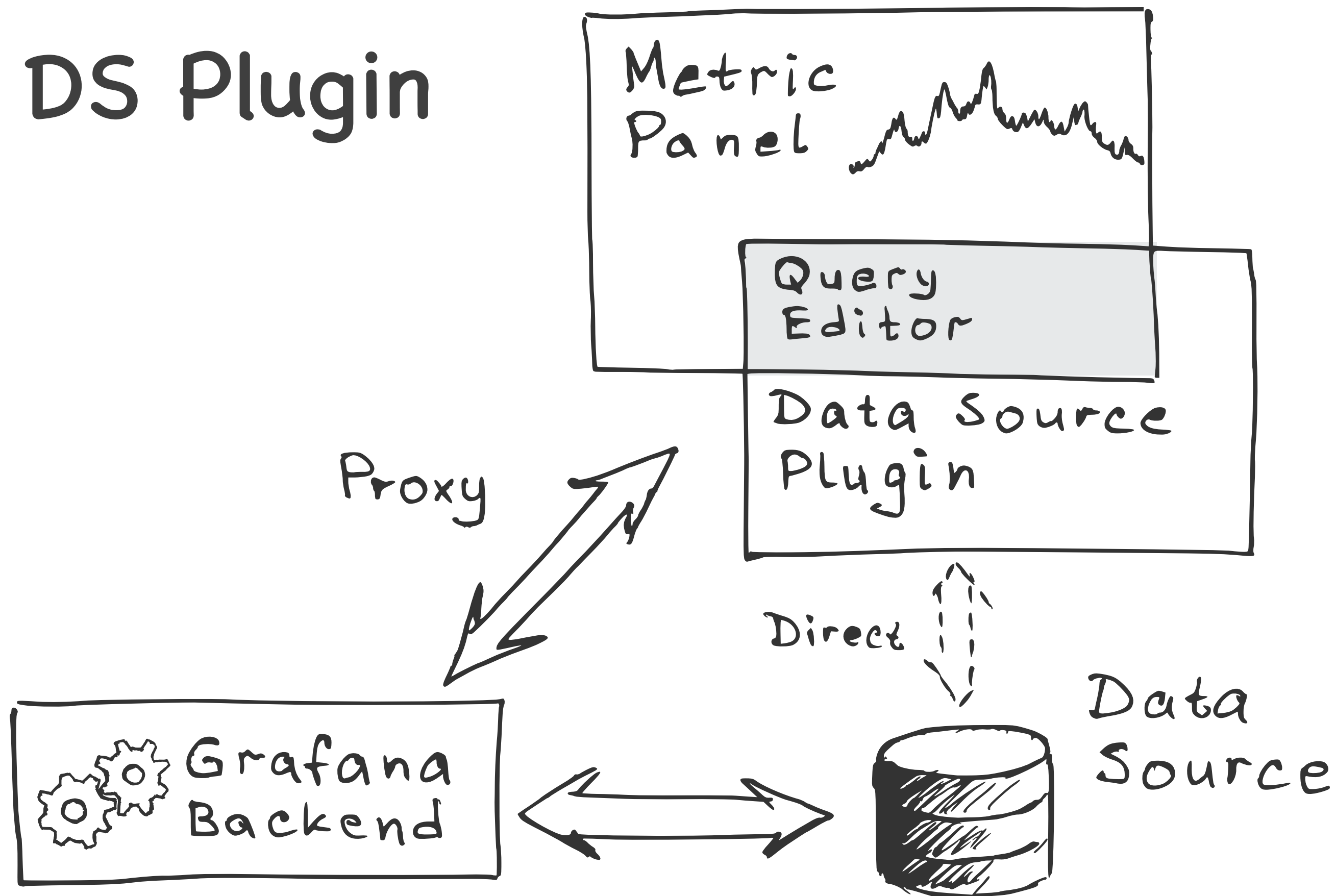
Custom pages



Proxy

PLUGINS

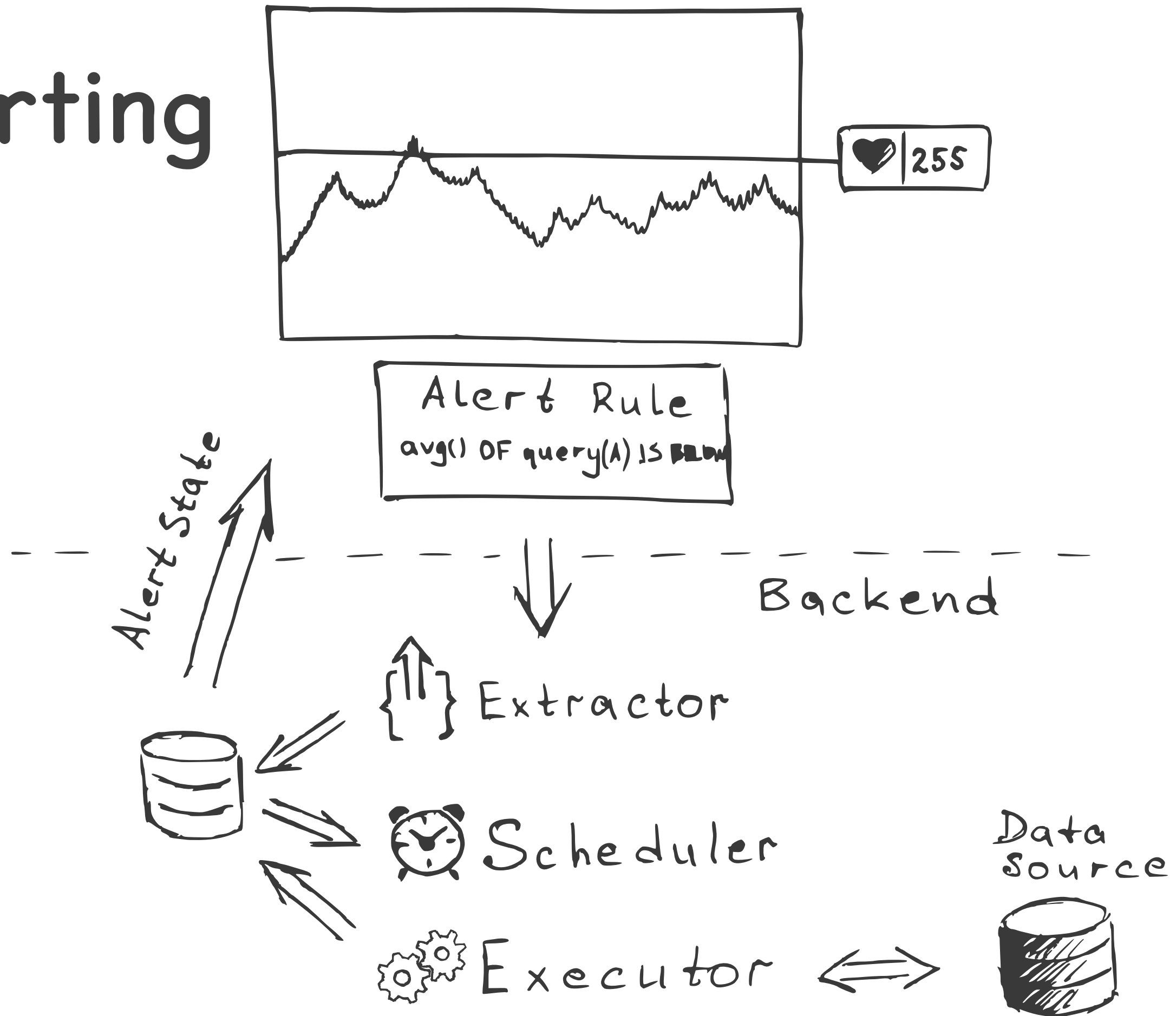
DS Plugin



ALERTING



Alerting



Alerting Problems

- Alerts with template vars (#6557)
- Alert per series (#7832)
- Multiple alert generation (#6685)
- Clustering support (#6957)
- More data sources

COLLABORATE



Roadmap (WIP)

- Support for MySQL & Postgres
- User Groups & Dashboard folders
- Docs!
- Graph annotations

Roadmap

- Improved panel layout
- Backend plugins
- Time series transformations
- Reporting
- Web socket & live data streams
- Migrate to Angular2

Roadmap

- Dashboard revisions (done!)
- Clustering for alert engine (WIP)

timeShift

- Weekly
- Articles, links
- Plugins and Dashboards updates
- This week's Most Valuable Contributor

Александр Зобнин

alexanderzobnin@gmail.com

github.com/alexanderzobnin

grafana.com