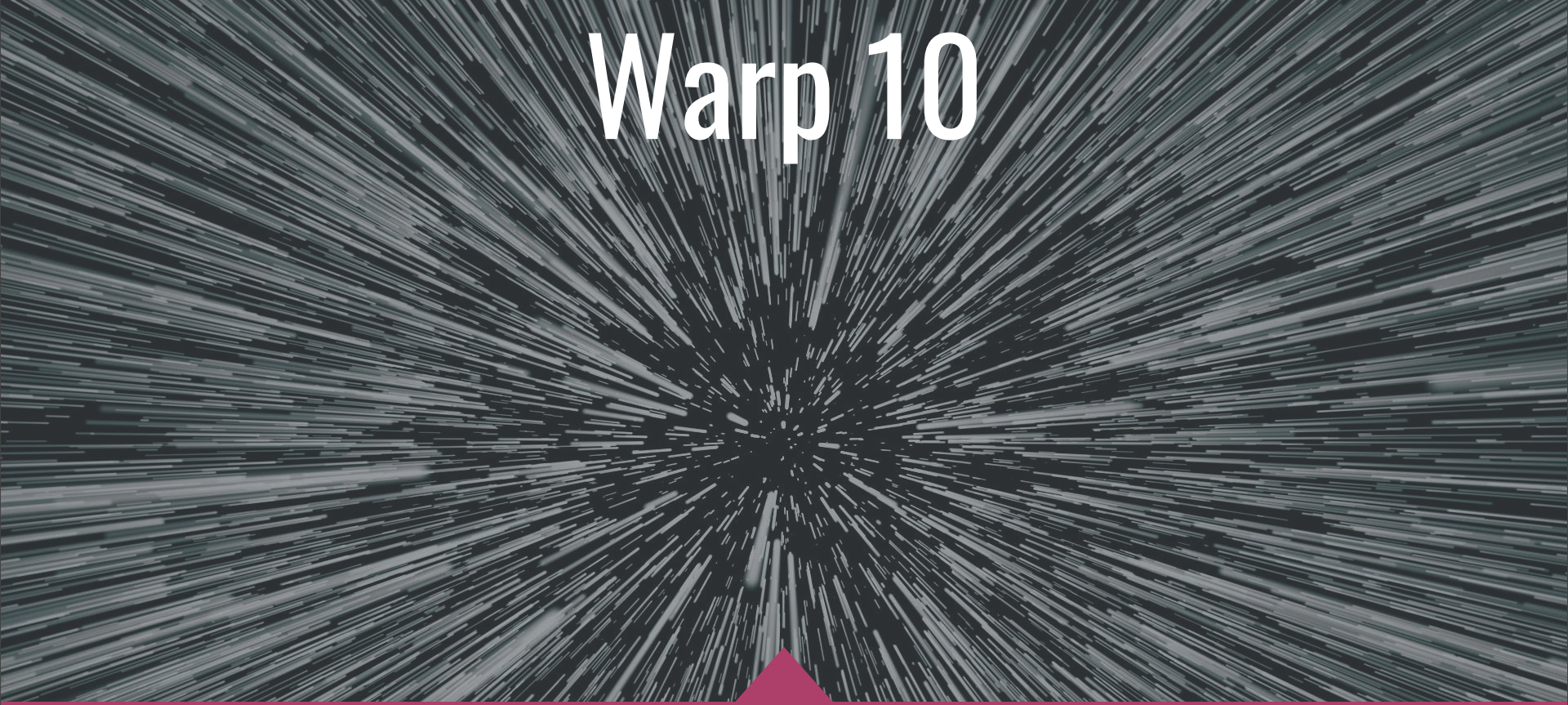


Another data story

Pierre Zemb

Software Engineer @OVH

https://pierrezemb.fr

Metrics Data Platform

Aurélien Hébert

Software Engineer @CityzenData

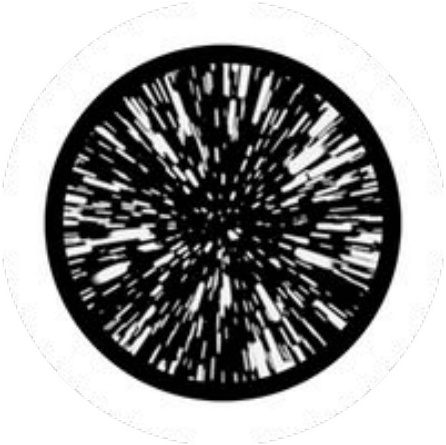
@AurrelH95

Cityzen Data

What is Warp 10 ?

WARP 10

open source

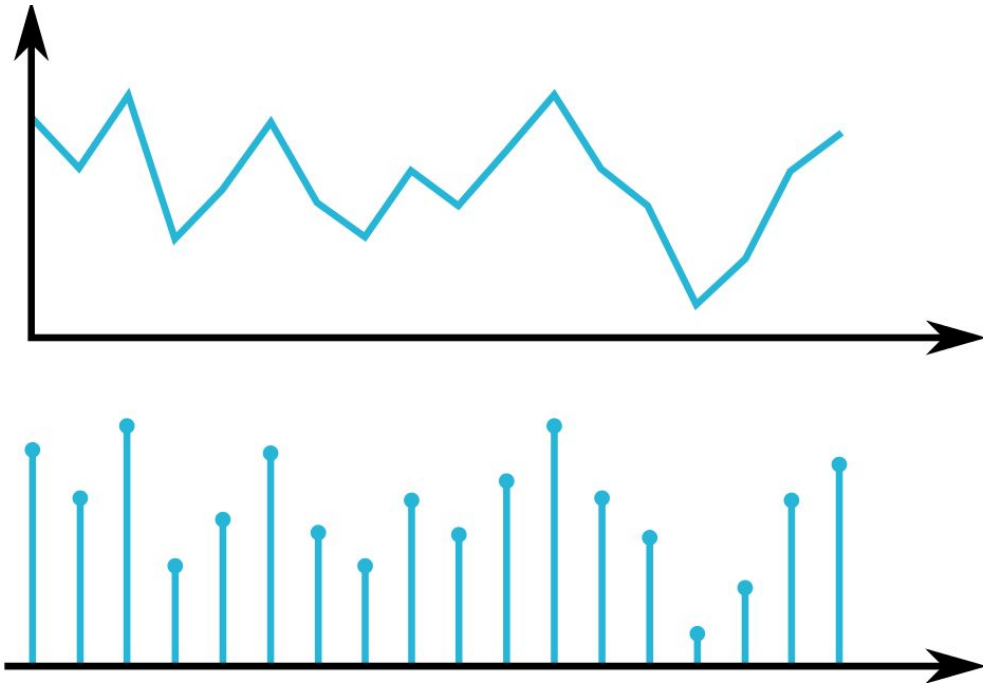


“The Warp 10 Platform is designed to collect, store, manipulate and visualize time series”

http://www.warp10.io/

Time series ?

Concept



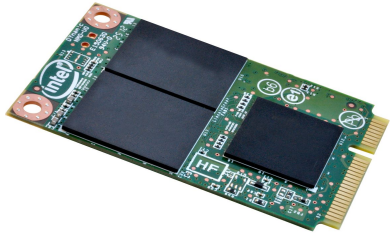
Sequence of data points over a time interval

Where ? From personal area...

To more chatty devices...

20 000 metrics

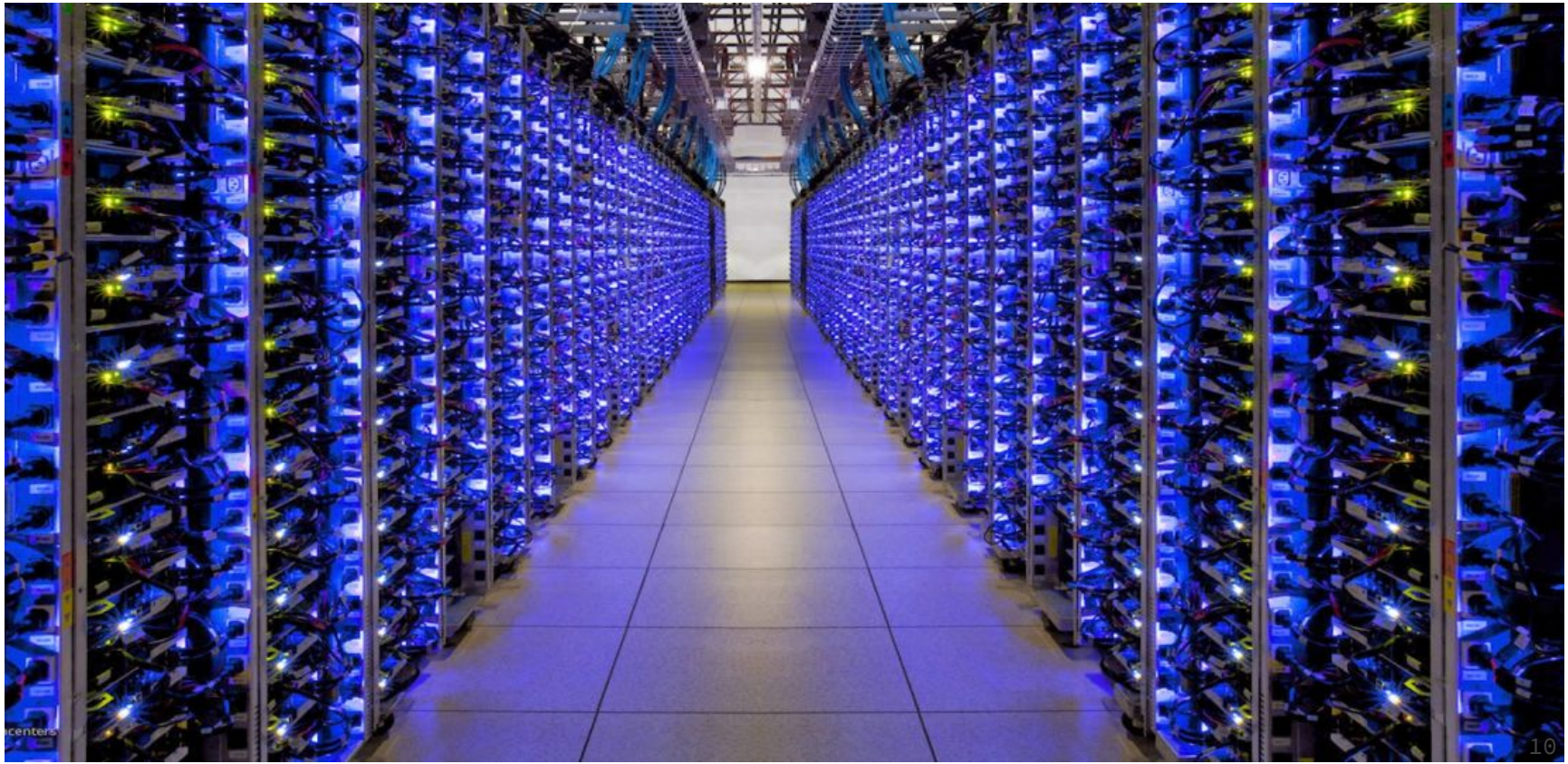
per second



10 000 Hz

670 000 sensors

To massive data producer



A series example : Fuel station data

Liberté • Égalité • Fraternité
RÉPUBLIQUE FRANÇAISE

data.gouv.fr

Station U - Id 29490002

Liberté • Égalité • Fraternité
RÉPUBLIQUE FRANÇAISE

data.gouv.fr

Let’s not forget: Geographical devices

In our case we will talk about: GPS data collect and car information

OBD2

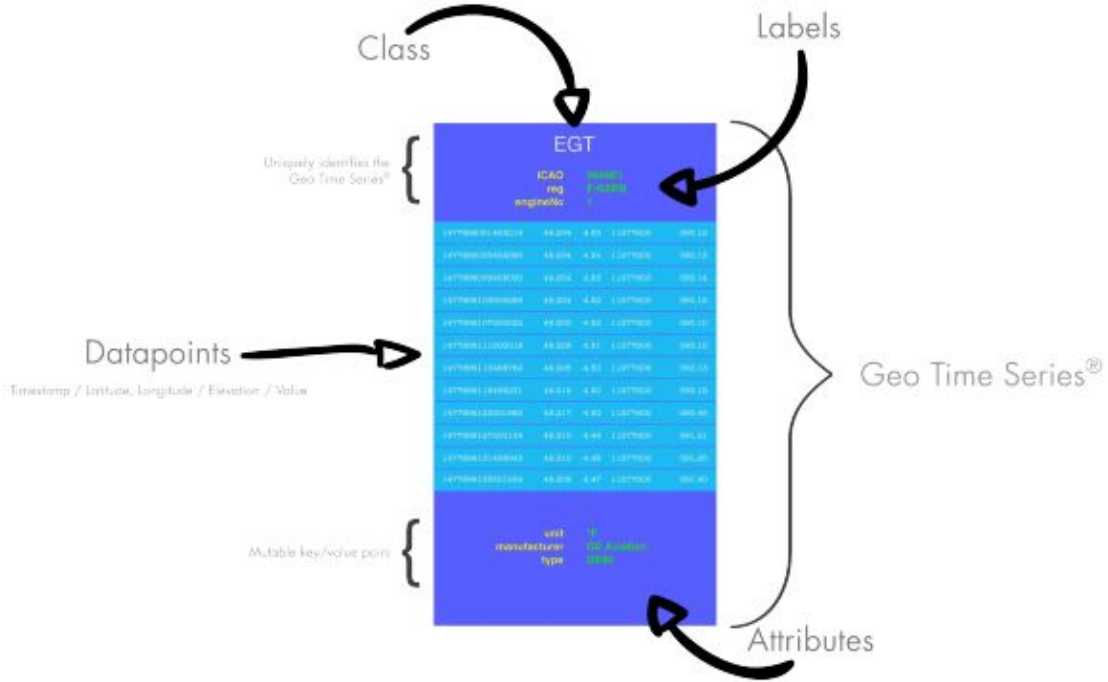
+

Torque

Producing Geo - time series

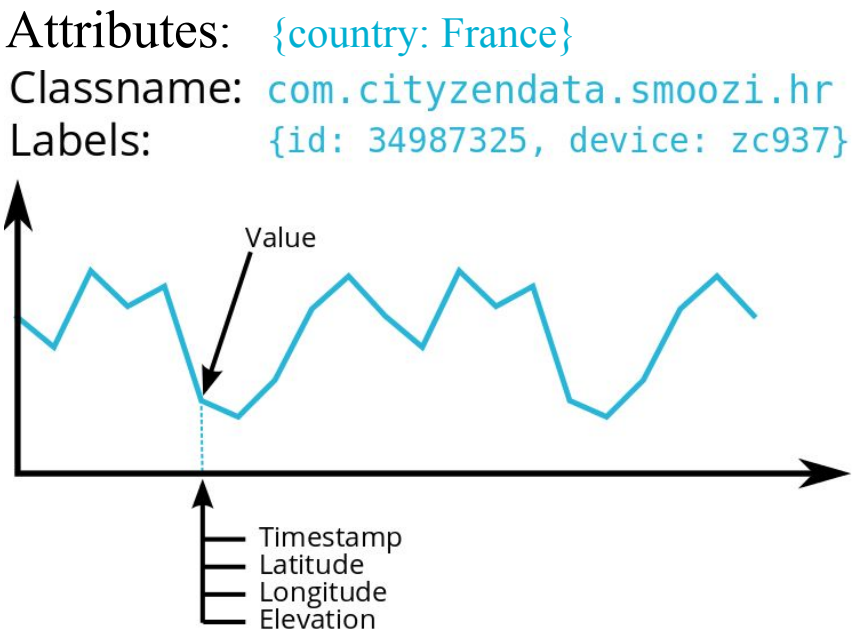
How does it work ?

Data modeling



In resume a GTS is composed of

- **Metadata**
  - Class name
  - Labels
  - Attributes
- **Datapoints**
  - Timestamp
  - Position (lat, long, elev)
  - Value



Warp 10 storage

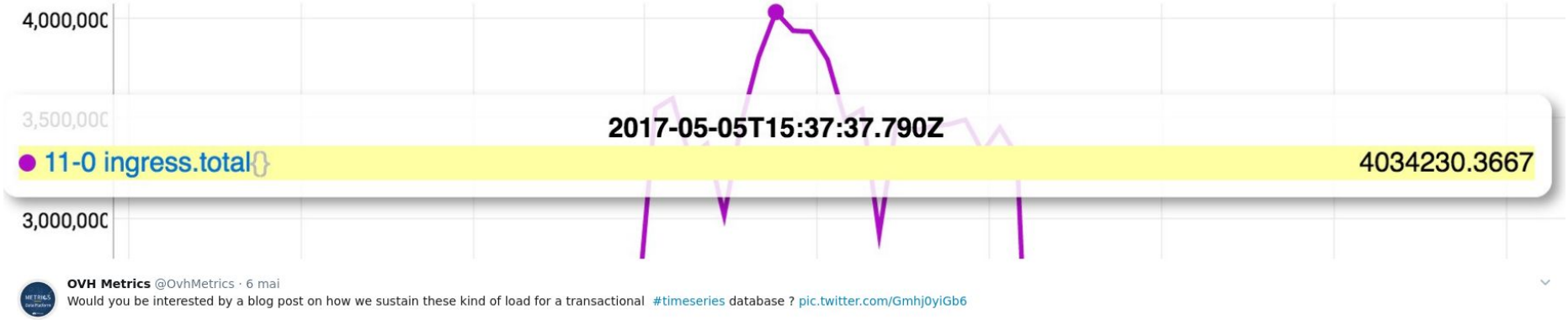
OR

+

Performance ?

Versus other Time series data-base

Real life example



OVH Metrics @OvhMetrics · 6 mai
Would you be interested by a blog post on how we sustain these kind of load for a transactional #timeseries database ? pic.twitter.com/Gmhj0yiGb6

OVH Metrics @OvhMetrics · 6 mai
A greedy @OvhMetrics user :) 5M metrics/s is the new record for this region under real load. Now looking for 10M/s ! #timeseries pic.twitter.com/LpBFkAJ7WI

And more : analysis toolbox

Fetching data is only the tip of the iceberg

Why is it needed ?

Strong power to

Data Exploratory never ends...

And is natively scalable!

Great, but how to get started ?

Warp 10 standalone

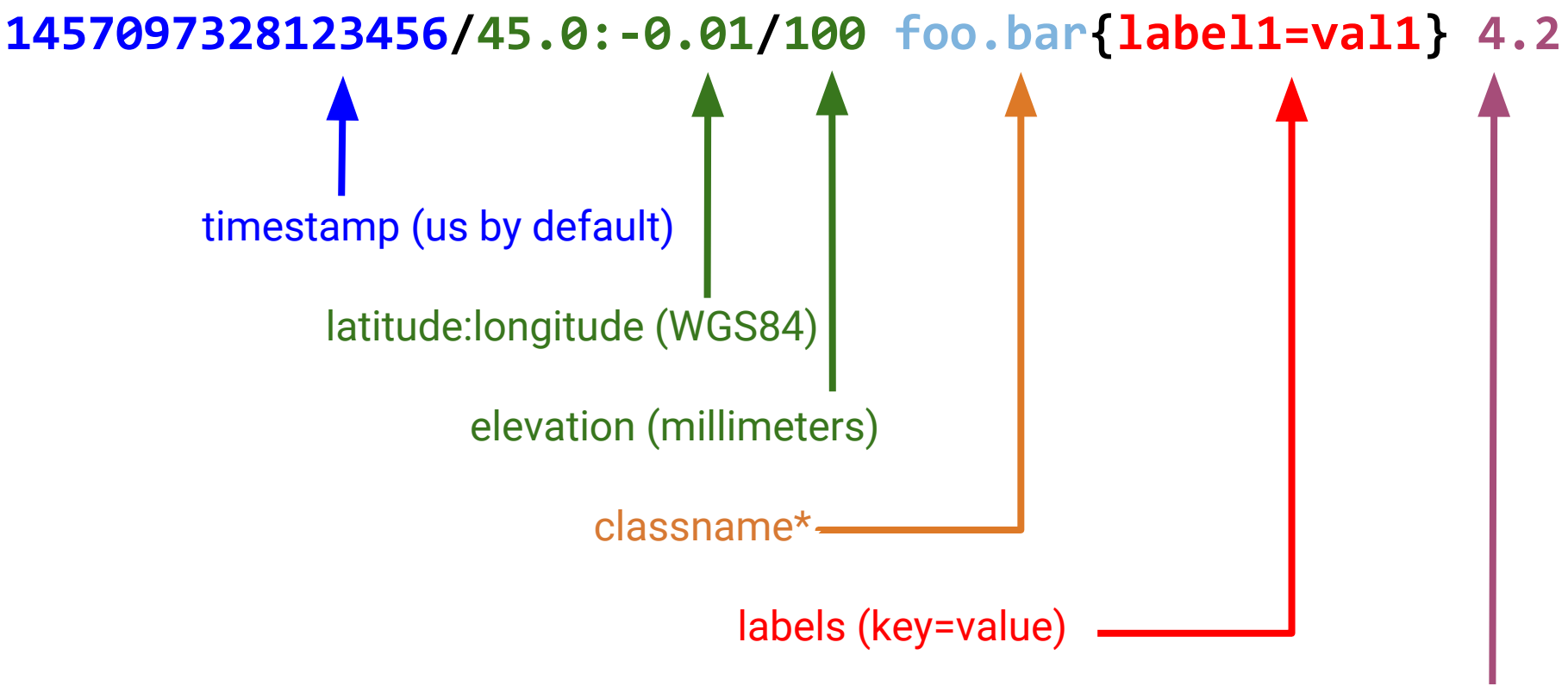
Set-up

- Download latest release from Bintray and untar-it
- sudo ./warp10-standalone.sh bootstrap
- sudo ./warp10-standalone.init start

Or

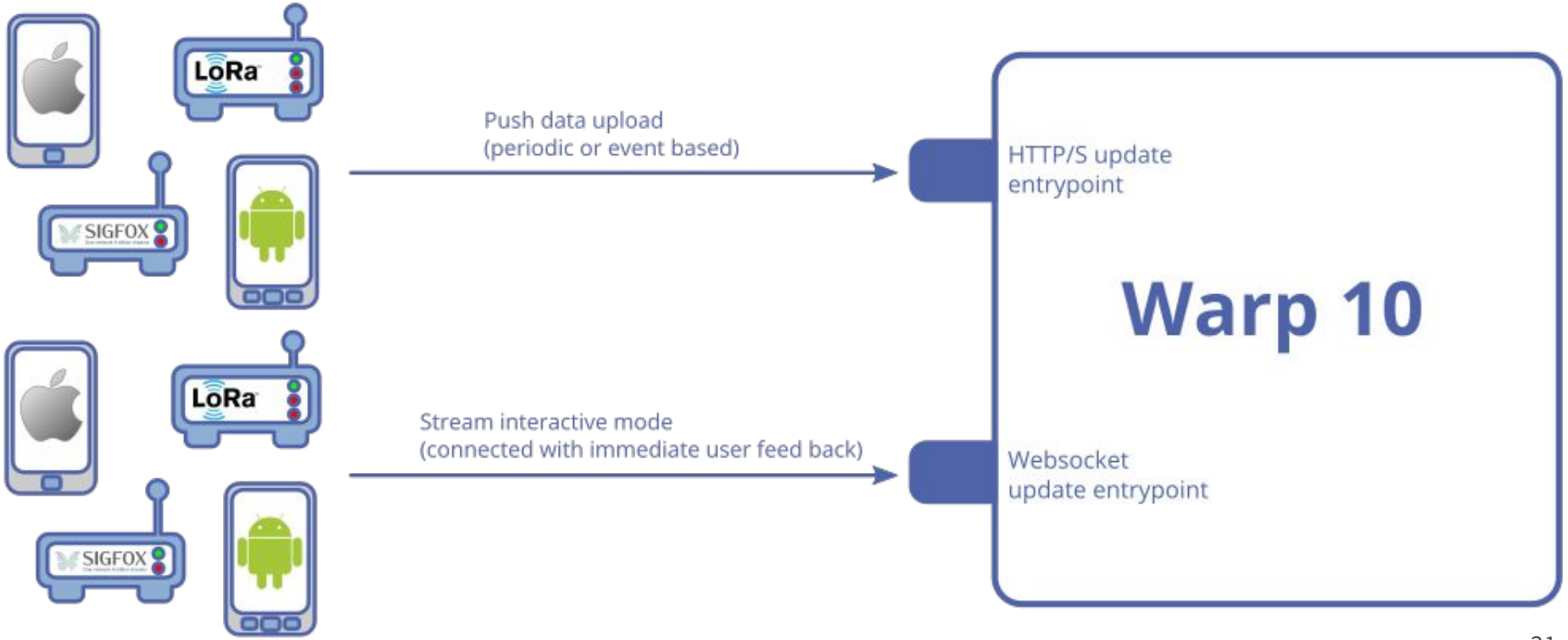
- docker run --volume=/var/warp10:/data -p 8080:8080 -p 8081:8081 -d -i warp10io/warp10:1.2.9

Input Format



* mandatory fields

Collect


LoRa
SIGFOX
LoRa
SIGFOX
Push data upload
(periodic or event based)
Stream interactive mode
(connected with immediate user feed back)
HTTP/S update
entrypoint
Warp 10
Websocket
update entrypoint

Fine, but time to see real code ?

Demo scripts are on Github

aurrelhebert/warp-15

Don’t forget Warp 10 meetup on 24 november!