



influxdb



WHAT IS A TIME SERIES DATABASE?

Time-stamped or time series data

sensor data

events

and many other types of analytics data.

Simulations produce time series data

TIME	DATA



WHAT PROBLEM IS IT SOLVING?

Everything has, or will have, a sensor. Resulting in an **endless stream of** metrics and events or **time series data**.

more data points, more data sources - **new workloads**

...We need **optimized databases**

to perform the typical tasks:

querying intervals, specifics

processing large portions of data into averages, derivatives and so on



HOW DO THEY DO IT?

In a time-series database, it is common to request a summary of data over a large time period.
percentile increase this month

TSDB's are optimized using algorithms for exactly this use case giving millisecond level query times over months of data



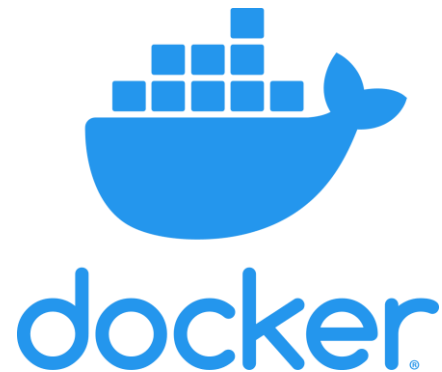
DEMO

Simple python script sending datapoints to database

Run docker

Run influx on localhost

Run python script





DASHBOARDS



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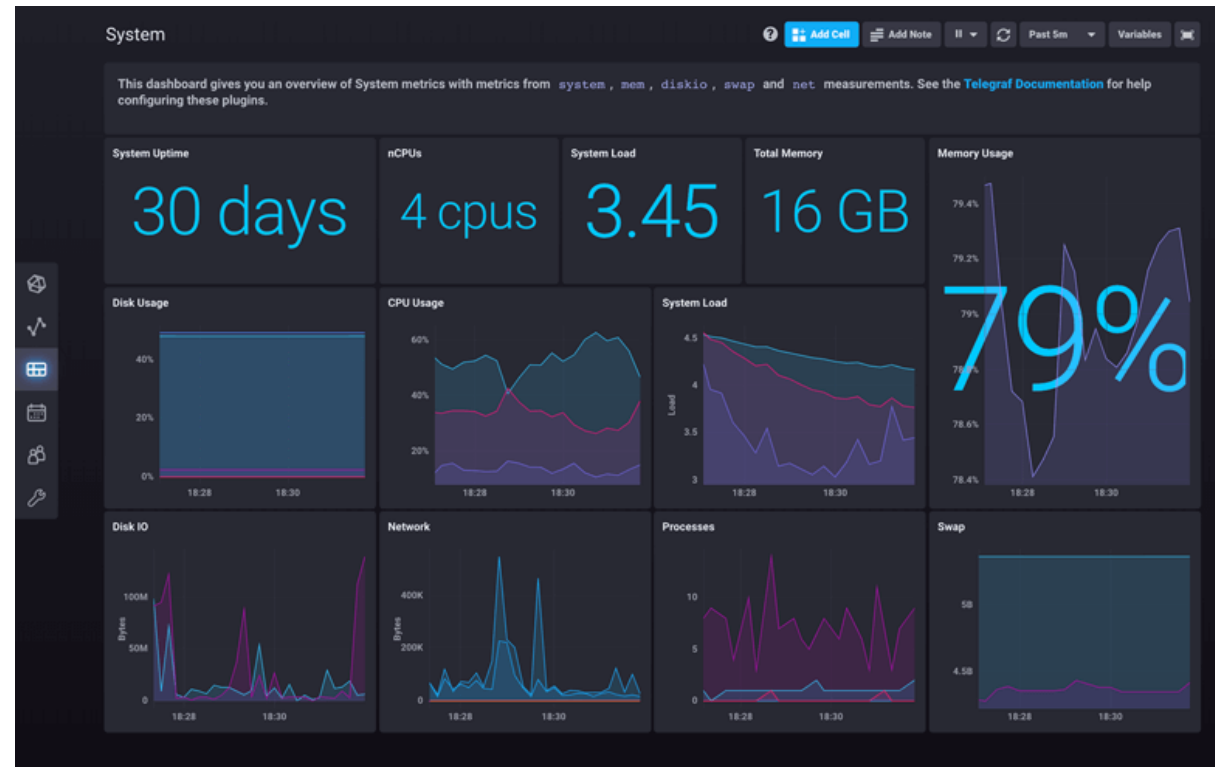
WHAT IS A DASHBOARD?

Graphical interface

Relevant metrics

Available at-a-glance

Influx & grafana



WHY DO WE WANT DASHBOARDS?

In order to digest information we obtain **KPIs**

Typical to represent them over various amount of time.

I.e. 5 minutes, 5 hours, or 5 days.

Some data is best visualized in 2D/3D



HOW DO WE GET DASHBOARDS?

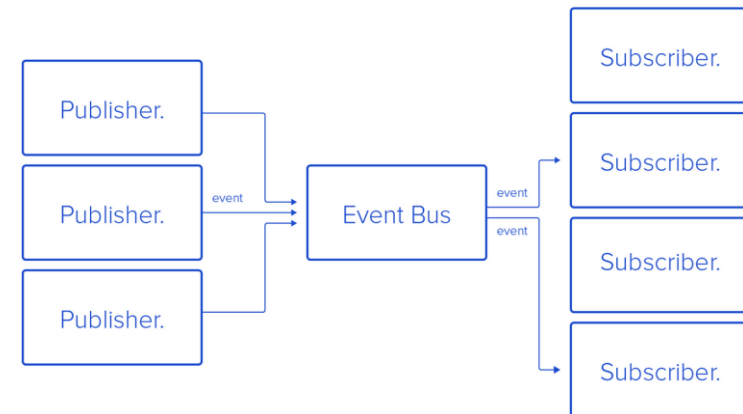
Using technology like RabbitMQ -> we are able to forward data live.

Publisher/subscriber

Whenever messages are received - the datapoints are plotted so the dashboard represent a live image of the data generation.

Widgets

Blocks including something visual like a graph



DEMO

Creating a dashboard from a query

