



Monitoring with Grafana

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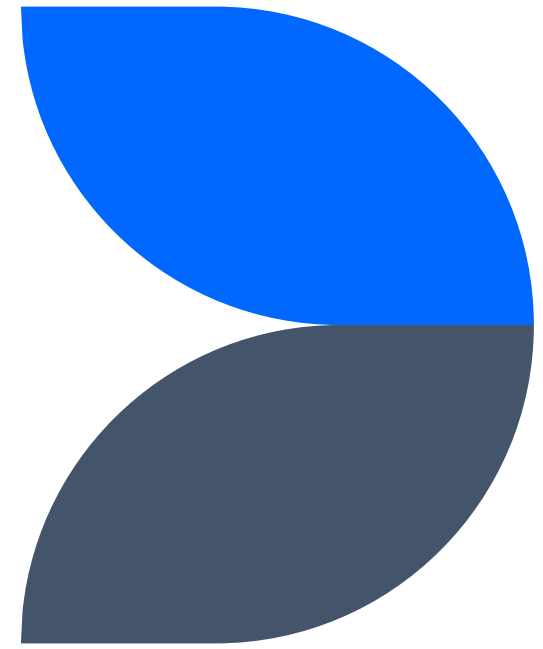
Introduction

- 10 years of career experience
- Currently working as a Site Reliability Engineer (SRE)
- Experience with Grafana
- Site Reliability Engineering (SRE) is a discipline that focuses on ensuring the reliability and performance of systems and applications, with a focus on automation and monitoring
- SREs are responsible for designing, building, and maintaining reliable and scalable systems
- SREs use a variety of tools and technologies to monitor and analyze systems and applications, including Grafana for visualizing data and identifying issues

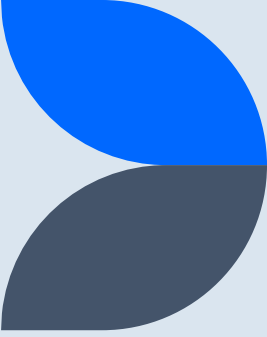
Agenda

1. Introduction to system monitoring and Grafana
2. Details of Grafana
3. Data sources
4. Deep dive into Grafana panels
5. Annotations and alerting
6. Explore and variables
7. Loki - Grafana log aggregation system
8. Grafana administration

Introduction to system monitoring and Grafana



Concept of telemetry



Telemetry

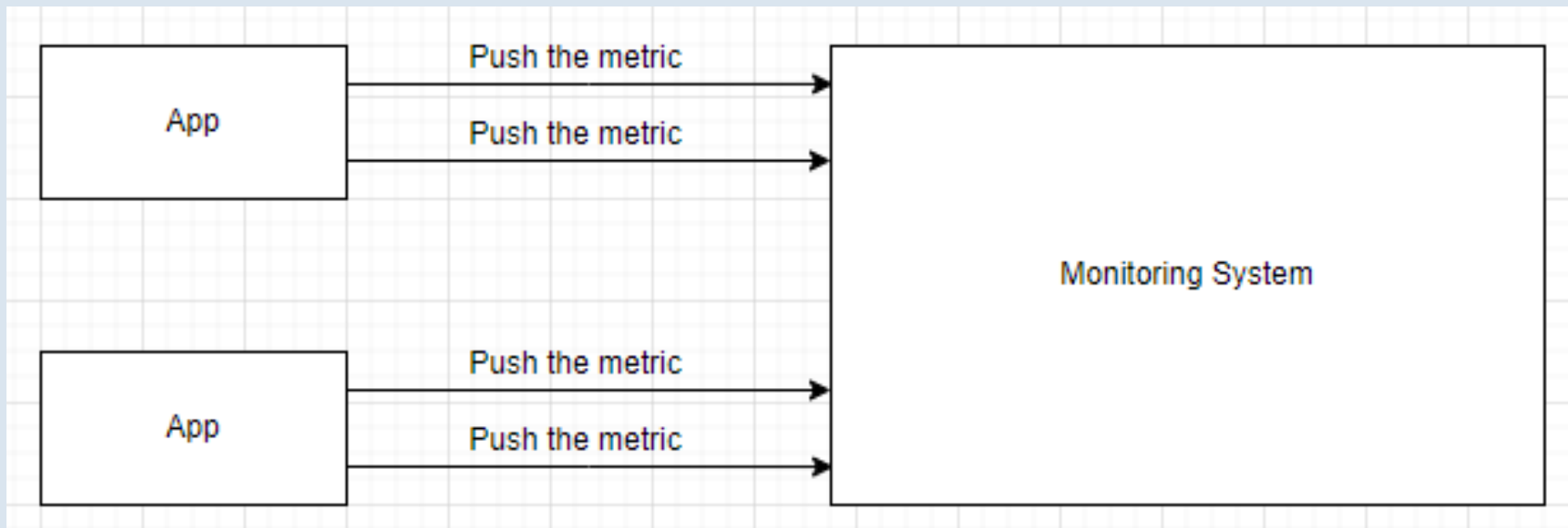
The process of recording and transmitting the readings of an instrument

Telemetry Data

The automatic process of data created by your systems bring remotely collected by agents and protocols.

Push- and pull-based telemetry

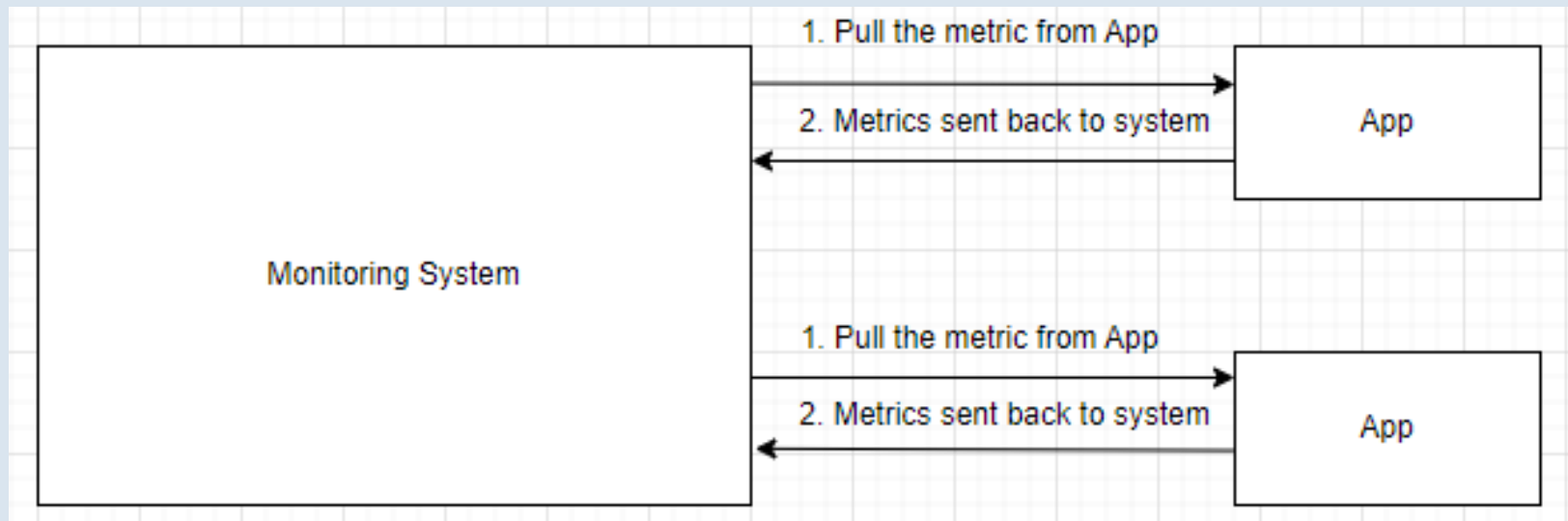
Push-based telemetry



Example : Zabbix, Nagios and InfluxDB

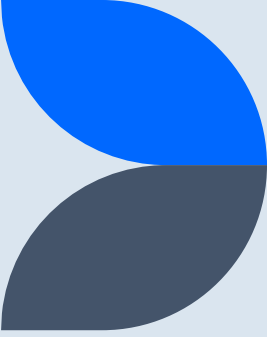
Push- and pull-based telemetry

Pull-based telemetry



Example: Prometheus, Datadog and collectd

Sampling, Data retention and Downsampling



Sampling

- How often incoming data is captured

Data retention

- How long data is stored for

Downsampling

- The process of reducing the sampling rate

Grafana

- Grafana is a tool that allows you to create visualizations of data, usually from various sources, and present them in a dashboard format.
 - Enterprise
 - Open-source system (OSS)



Data sources

- Refers to a specific type of data repository or service that provides the data that you want to visualize
- A data source could be any type of system or database that stores or generates data
- is an essential component of Grafana that allows you to retrieve and visualize data from a variety of sources

Data source guides



Graphite



Elasticsearch



InfluxDB



Prometheus



Google Cloud
Monitoring



AWS CloudWatch



Azure Monitor



Loki



MySQL



Postgres



Microsoft SQL Server



OpenTSDB

Github

- <https://github.com/MartinWong06/grafana/wiki>

Thank you

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