Monitoring with Prometheus and Grafana

How we're using it in the BU-Team

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What is Prometheus

- Prometheus is an open-source systemmonitoring and alerting toolkit originally built at SoundCloud.
- Prometheus joined the Cloud Native Computing Foundation in 2016 as the second hosted project, after Kubernetes.

What is Grafana

- The leading open source software for time series analytics
- Fast and flexible client side graphs with a multitude of options. Panel plugins for many different way to visualize metrics and log
- Visually define alert rules for your most important metrics. Grafana will continuously evaluate them and can send notifications.
- When an alert changes state it sends out notifications. Receive email notifications or get them from Slack, PagerDuty, VictorOps, OpsGenie, or via webhook.
- Mix different data sources in the same graph! You can specify a data source on a per-query basis. This works for even custom datasources.
- Official & community built dashboards

Grafana Dashboards

- Grafana Dashboards

Architecture
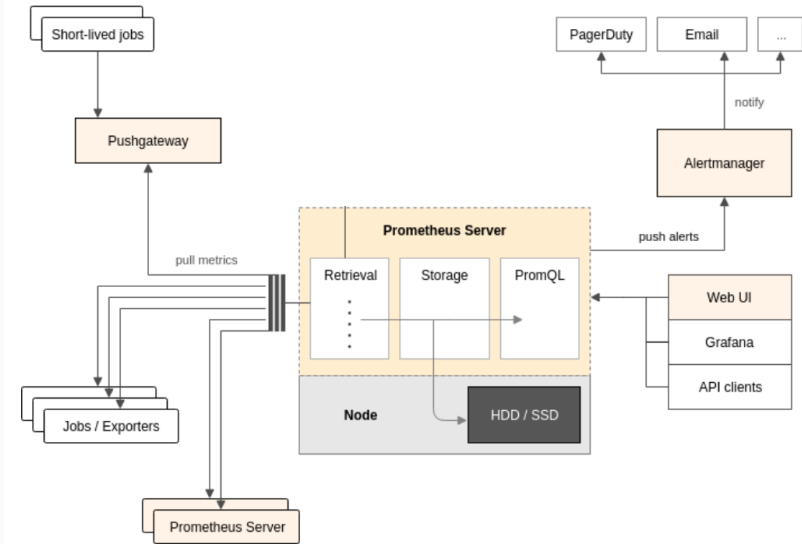
Why are we using it?

- Because it has been developed to work with containers
- It adapts to different environments
- It allows persistance of metrics for a long periods of time
- It's free and Open Source and it's widely used

Exporters

- node-exporter
- cAdvisor
- blackbox-exporter
- haproxy-exporter

Alertmanager

- Create alerts with a simple query of Prometheus with PromQL
- Support working with groups, severity and high-availability
- Compatibility with Slack, Email, Pagerduty and Webhook
- Supported from Grafana