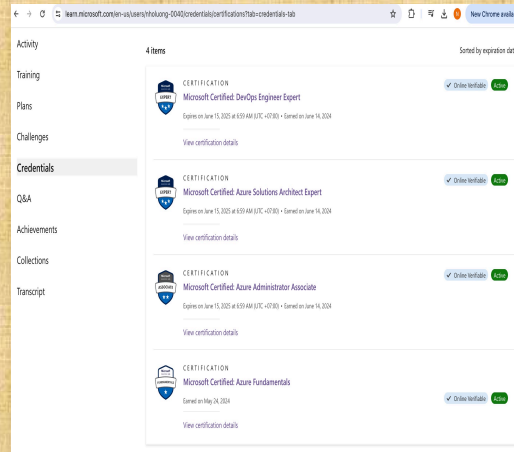
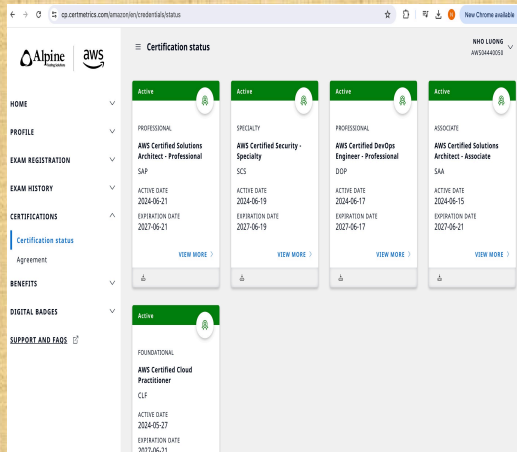


Prometheus vs Grafana Overview

Author: Nho Luong

Skill: DevOps Engineer Lead



Prometheus

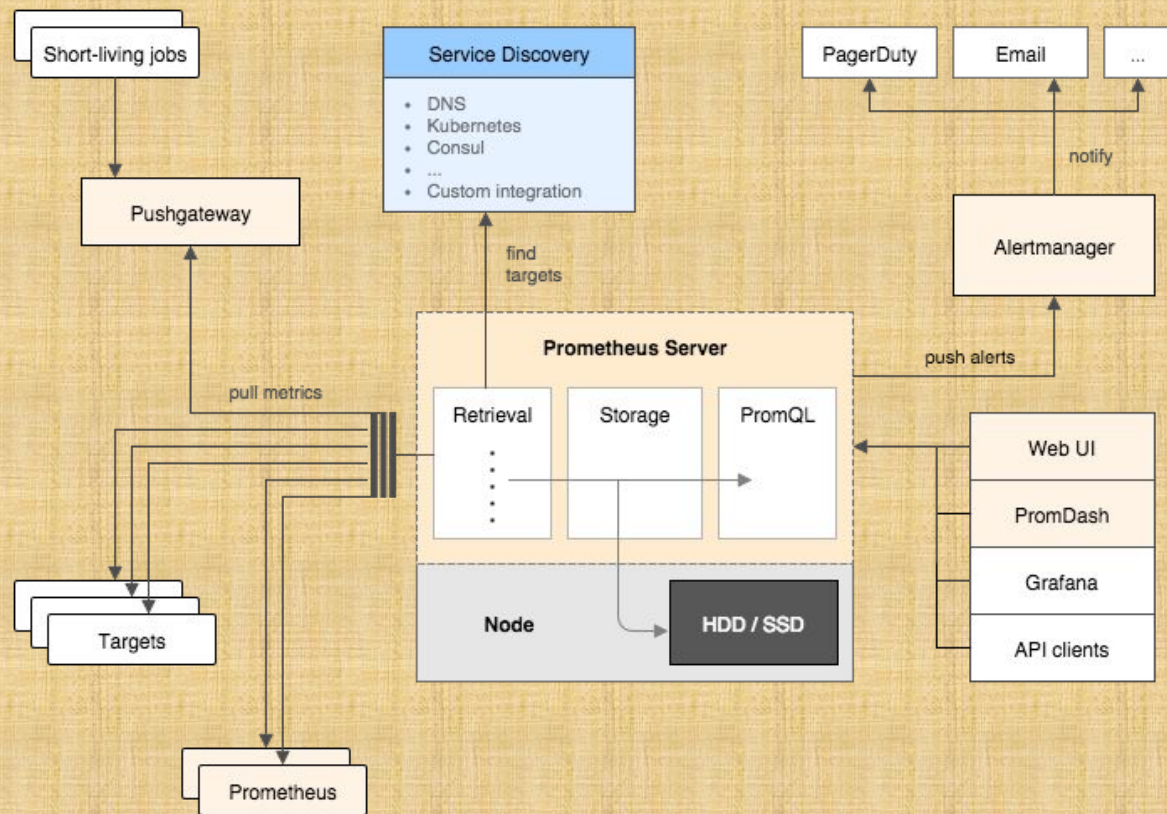
<http://prometheus.io>

An open-source service monitoring system and time series database.

Prometheus - Overview

- multi-dimensional data model
 - PromQL - a flexible query language
 - operationally very simple, just a single binary
 - pull model to collect data
 - many client libraries available (Go, Java, Python, Ruby, ...)
 - growing amount of exporters
-
- several graphing solutions available

Prometheus - Architecture

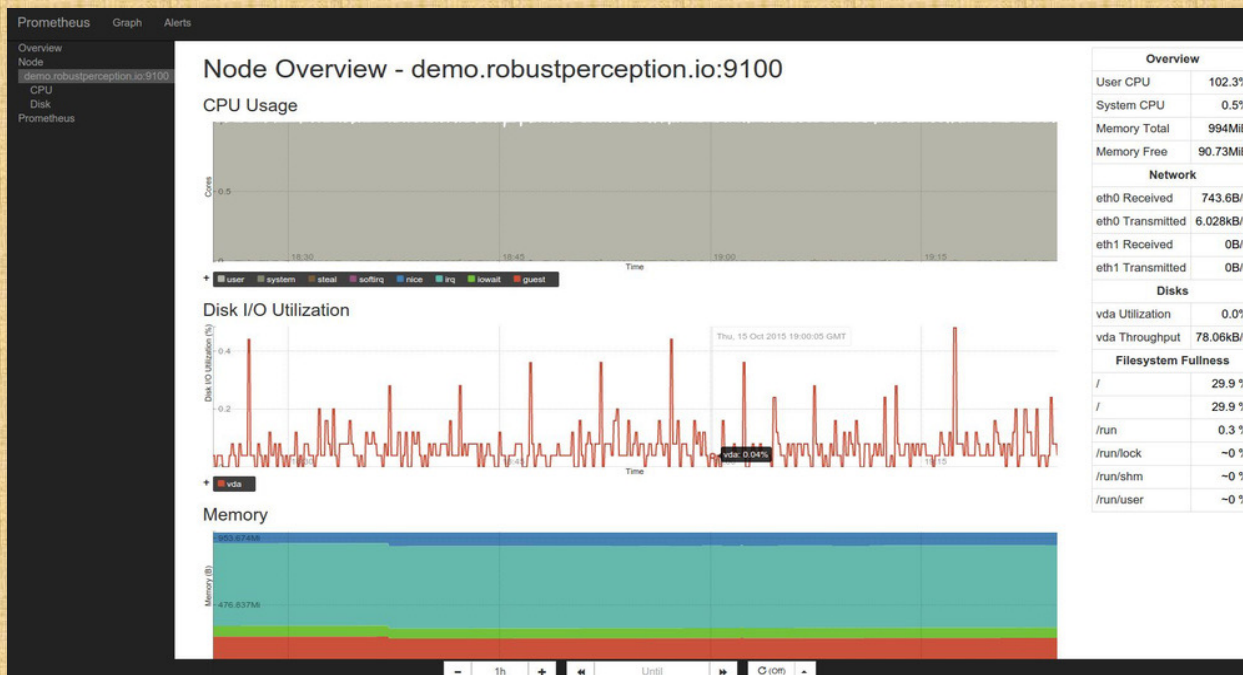


Prometheus - Expression browser

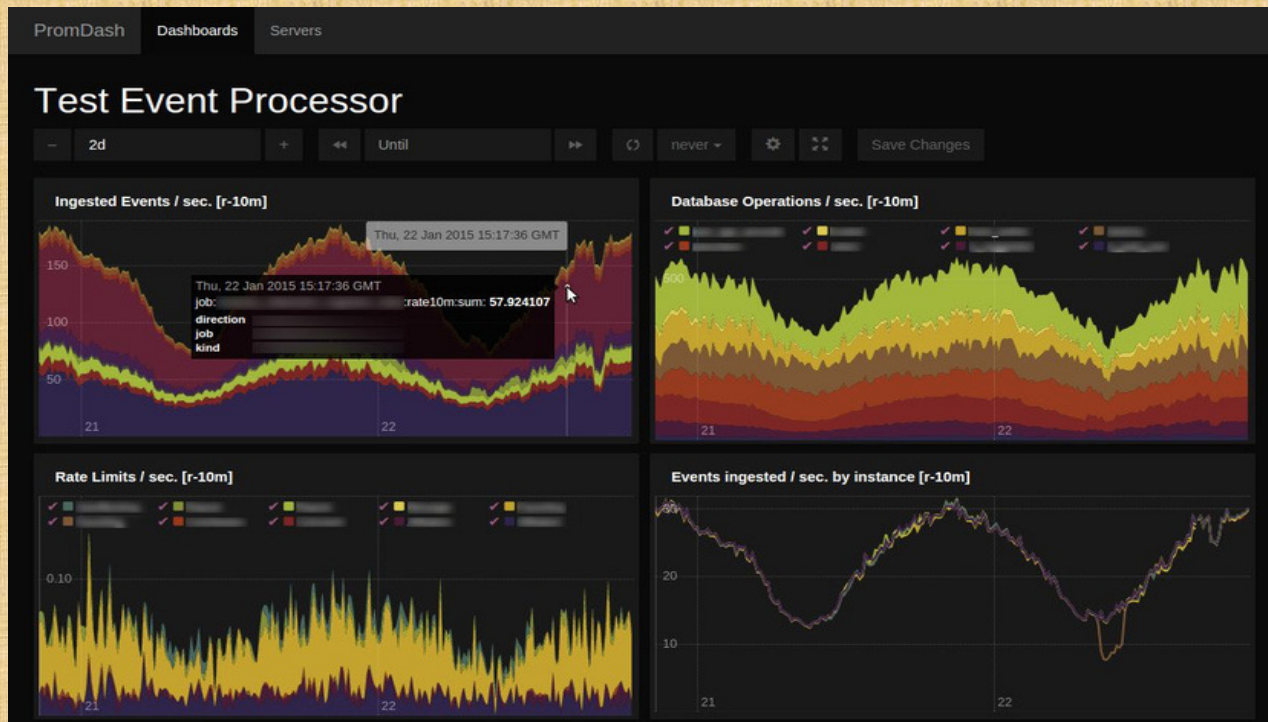
The screenshot shows the Prometheus Expression browser interface. At the top is a navigation bar with links for Prometheus, Consoles, Alerts, Graph, Status, and Help. Below this is a search bar containing the expression `node_filesystem_free`. To the right of the search bar, it displays 'Load time: 226ms' and 'Resolution: 14s'. Below the search bar is an 'Execute' button and a dropdown menu set to '- insert metric at cursor -'. There are two tabs: 'Graph' and 'Console', with 'Console' being the active tab. The main content area displays a table with two columns: 'Element' and 'Value'. The table contains six rows of data, each representing a different filesystem instance on the node. At the bottom left, there is an 'Add Graph' button.

Element	Value
<code>node_filesystem_free{device="rootfs",fstype="rootfs",instance="demo.robustperception.io:9100",job="node",mountpoint="/"}</code>	22140063744
<code>node_filesystem_free{device="none",fstype="tmpfs",instance="demo.robustperception.io:9100",job="node",mountpoint="/run/lock"}</code>	5242880
<code>node_filesystem_free{device="none",fstype="tmpfs",instance="demo.robustperception.io:9100",job="node",mountpoint="/run/user"}</code>	104857600
<code>node_filesystem_free{device="/dev/disk/by-label/DOROOT",fstype="ext4",instance="demo.robustperception.io:9100",job="node",mountpoint="/"}</code>	22140063744
<code>node_filesystem_free{device="none",fstype="tmpfs",instance="demo.robustperception.io:9100",job="node",mountpoint="/run/shm"}</code>	521150464
<code>node_filesystem_free{device="tmpfs",fstype="tmpfs",instance="demo.robustperception.io:9100",job="node",mountpoint="/run"}</code>	103870464

Prometheus - Consoles



PromDash



PromDash - Overview

- Prometheus' dashboard editor
- Started mid 2013
- GUI to build dashboards
- Rails+MySQL backend, dashboards saved as JSON
- Angular+Rickshaw(D3) frontend



PROUDLY USED BY:



“The power of Prometheus meets the beauty of Grafana. Dashboard all the things!”



Comparison

Promdash

- metric source templating
- legend formatting easier to
- move in time native iframe
- panel support some
- workflows are faster*

* subjective

Grafana

- better navigation powerful
- templating lots of graph styling
- options flexible dashboard
- arrangement more mature
- active and big community
-

Suggested roadmap

1. Support metric source templating in Grafana
2. Write Grafana exporter for PromDash
3. Let SoundCloud test Grafana and the migration
4. Propose official switch to the Prometheus community



Thank You

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