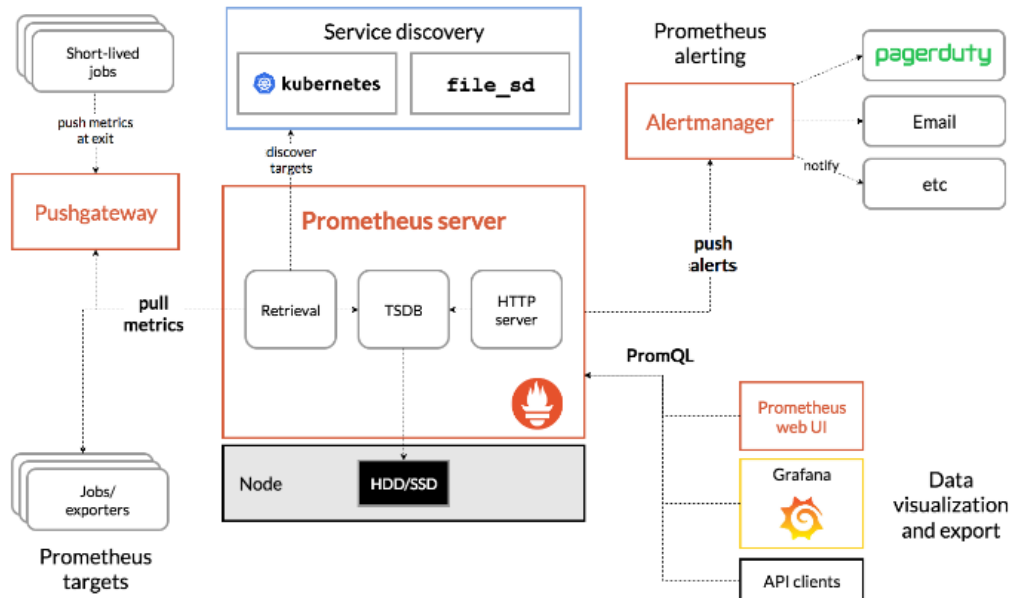


## 22 SEPTEMBER – GRAFANA

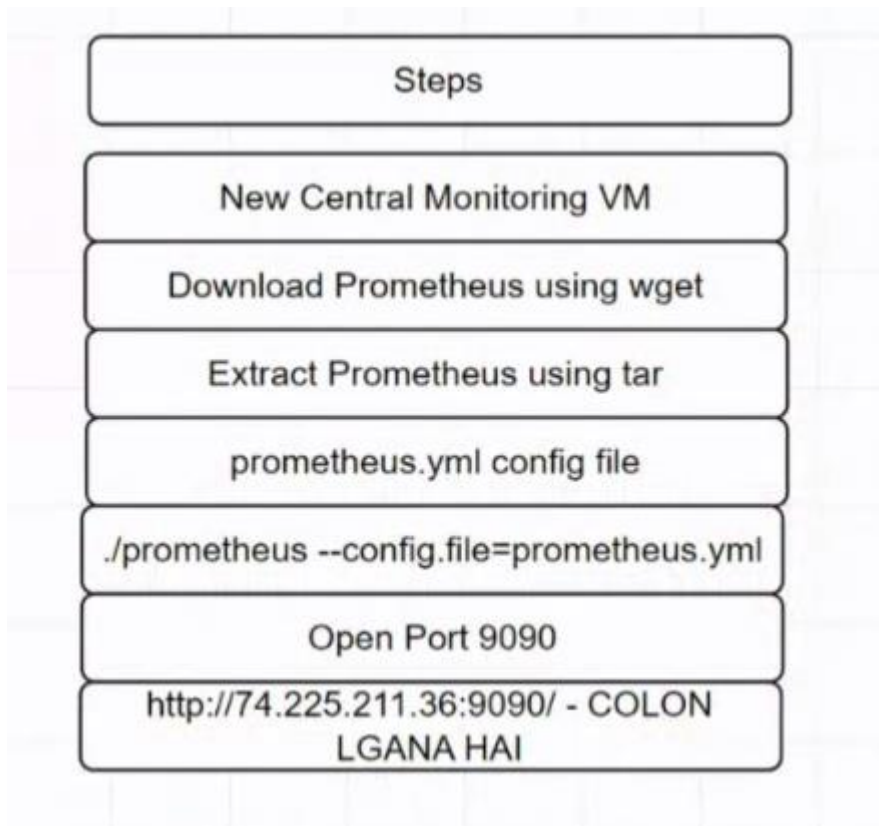
- 1) Prometheus is a pull based tool.
- 2) Explain Prometheus architecture

### Architecture

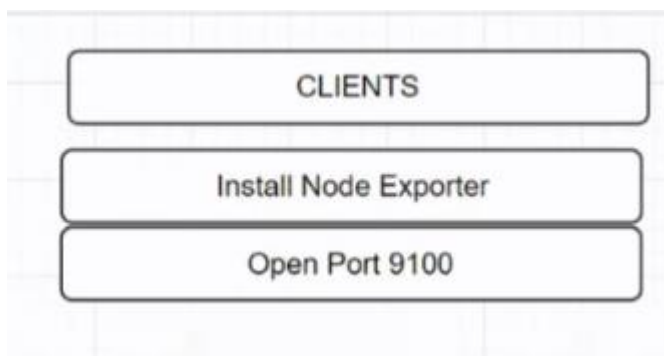
This diagram illustrates the architecture of Prometheus and some of its ecosystem components:



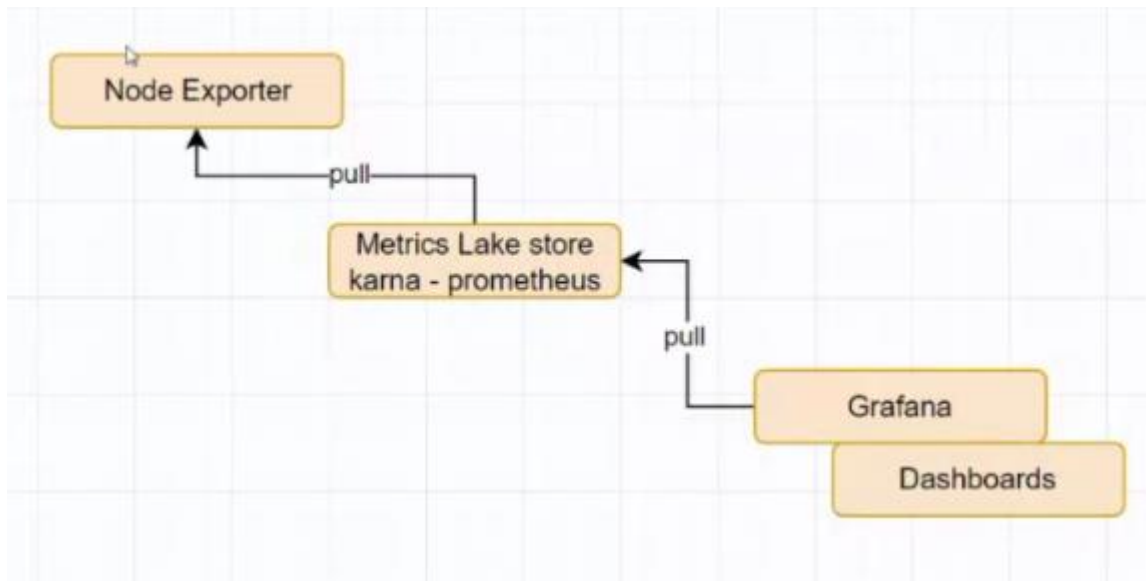
- 3) Which machine monitors Prometheus – Prometheus itself
- 4) Command to run Prometheus - **./prometheus --config.file=prometheus.yml**



5)



6)



7) SEARCH – Setup of grafana on Ubuntu

<https://grafana.com/docs/grafana/latest/setup-grafana/installation/debian/>

**VMCMS1 - 4.210.204.136:9090**

**vmprom1 - 40.68.134.37:9100**

**vmprom2 - 40.113.144.125:9100**

8) grafana installation steps

**sudo apt-get install -y adduser libfontconfig1 musl**

**wget https://dl.grafana.com/enterprise/release/grafana-enterprise\_11.2.1\_amd64.deb**

**sudo dpkg -i grafana-enterprise\_11.2.1\_amd64.deb**

**sudo apt-get install -f**

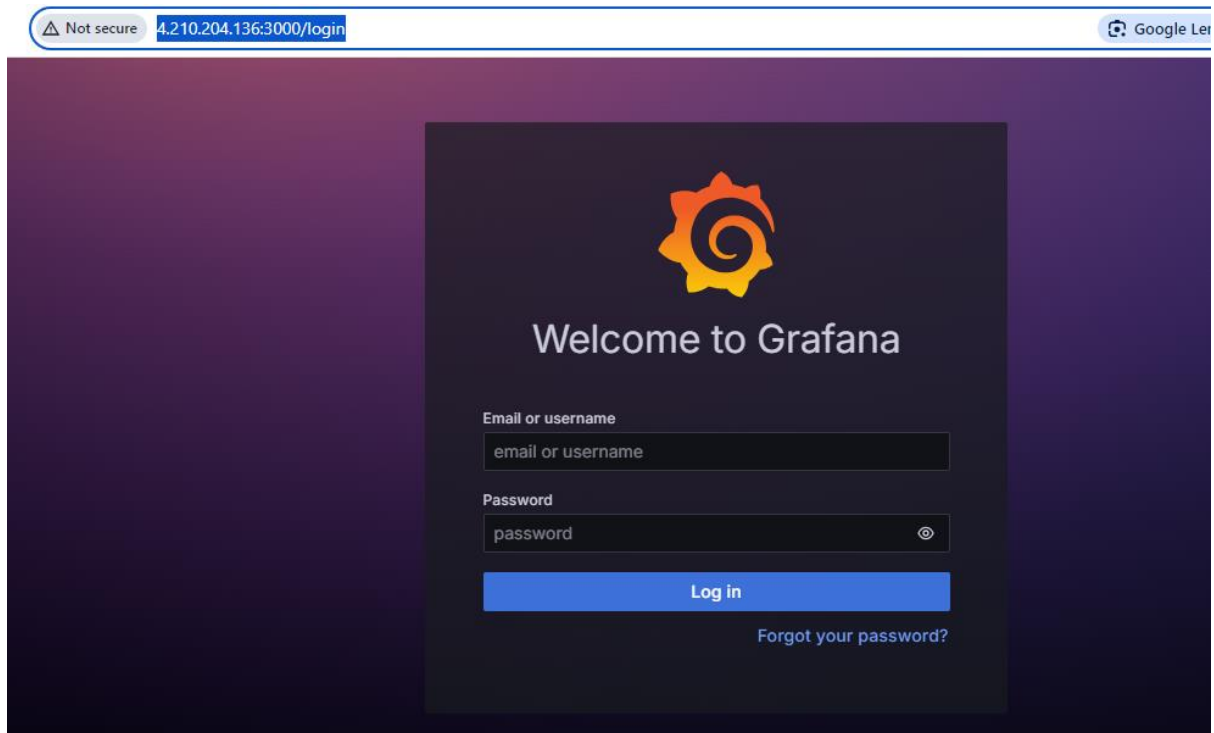
**sudo systemctl start grafana-server**

**sudo systemctl enable grafana-server**

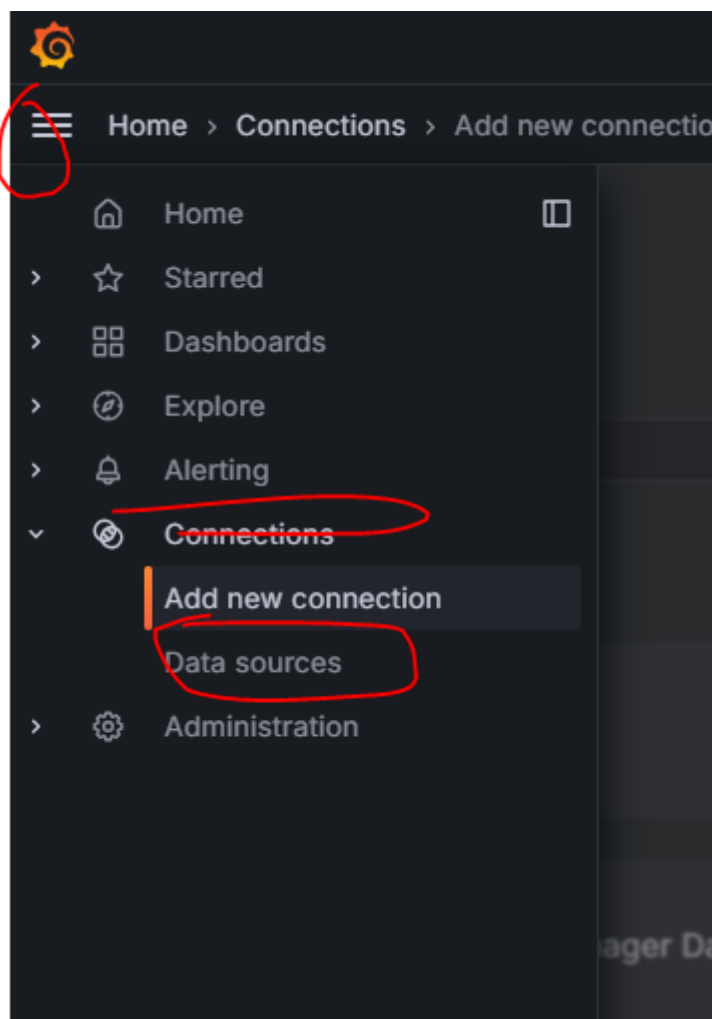
**sudo systemctl status grafana-server**

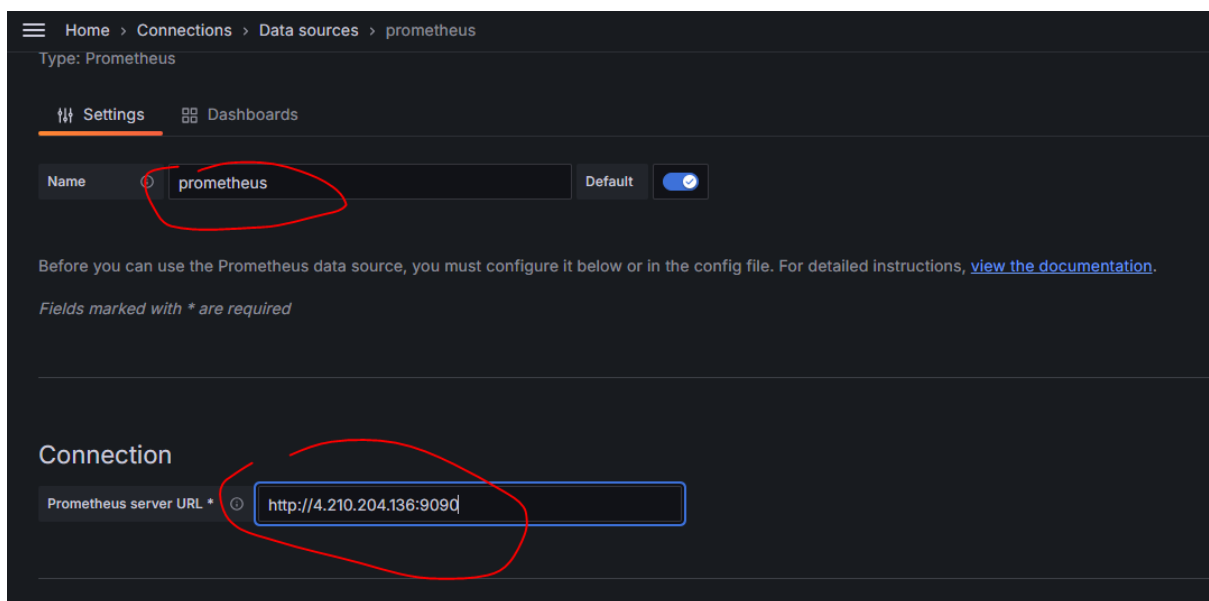
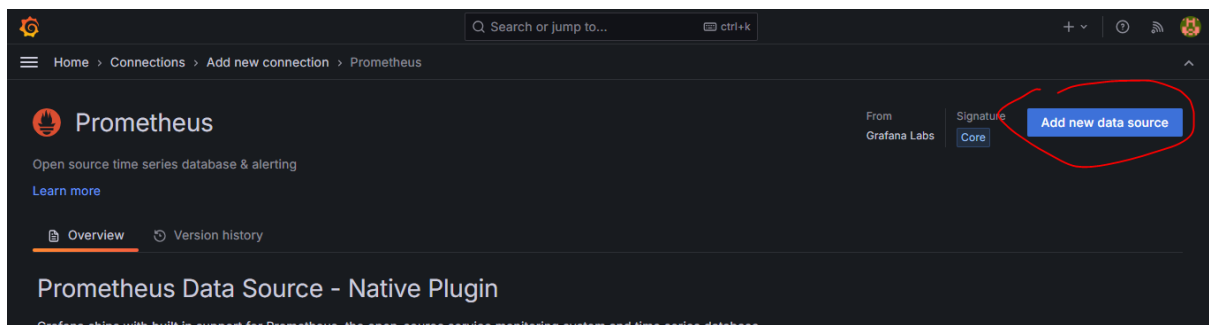
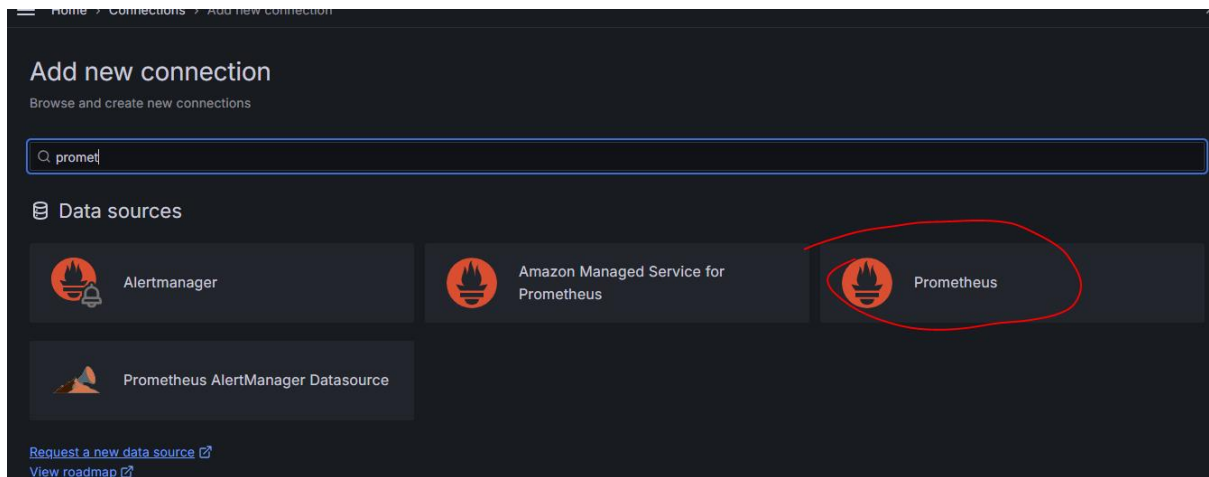
9) From NSG open 3000 default port of grafana

<http://4.210.204.136:3000/login>



10)





We can set authentication or id password for Prometheus server as shown below

# Authentication

## Authentication methods

Choose an authentication method to access the data source

No Authentication

## TLS settings

Additional security measures that can be applied on top of authentication

✓ Successfully queried the Prometheus API.

Next, you can start to visualize data by [building a dashboard](#), or by querying data in the [Explore view](#).

Delete

Save & test

Panel Title

No data

Query 1 Transform data 0 Alert 0

Data source prometheus

Query options

MD = auto = 934

Interval = 20s

Query inspector

A (prometheus)

Kick start your query

Explain

Run queries

Builder

Code

Metric node\_cpu\_guest\_seconds\_total

Label filters

job

=

vmprom1

+ Operations

hint: add rate

node\_cpu\_guest\_seconds\_total{job="vmprom1"}

Panel Title

15000

10000

5000

0

16:00

16:30

17:00

17:30

18:00

18:30

19:00

19:30

20:00

20:30

21:00

21:30

{\_\_name\_\_="node\_cpu\_seconds\_total", cpu="0", instance="40.68.134.37:9100", job="vm"

{\_\_name\_\_="node\_cpu\_seconds\_total", cpu="0", instance="40.68.134.37:9100", job="v"

{\_\_name\_\_="node\_cpu\_seconds\_total", cpu="0", instance="40.68.134.37:9100", job="v"

{\_\_name\_\_="node\_cpu\_seconds\_total", cpu="0", instance="40.68.134.37:9100", job="v"

{\_\_name\_\_="node\_cpu\_seconds\_total", cpu="0", instance="40.68.134.37:9100", job="v"

{\_\_name\_\_="node\_cpu\_seconds\_total", cpu="0", instance="40.68.134.37:9100", job="v"

{\_\_name\_\_="node\_cpu\_seconds\_total", cpu="0", instance="40.68.134.37:9100", job="v"

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{\_\_name\_\_="node\_cpu\_seconds\_total", cpu="0", instance="40.68.134.37:9100", job="v"

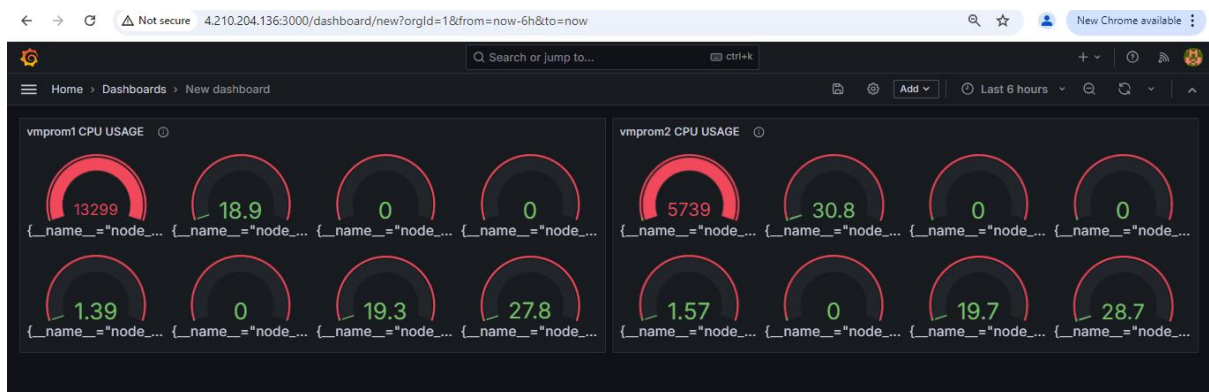
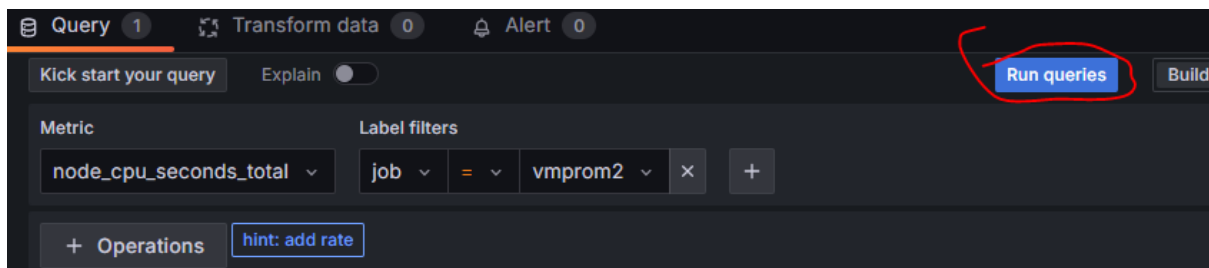
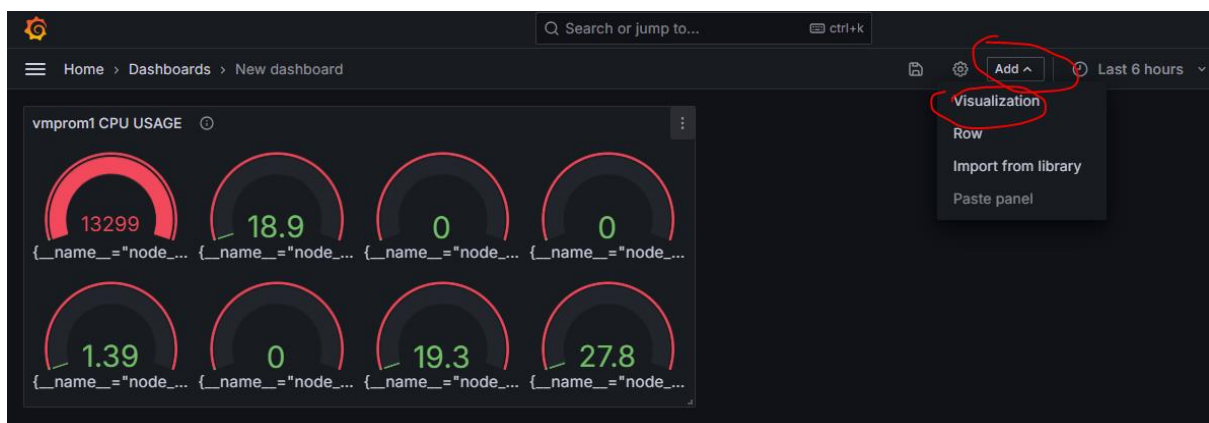
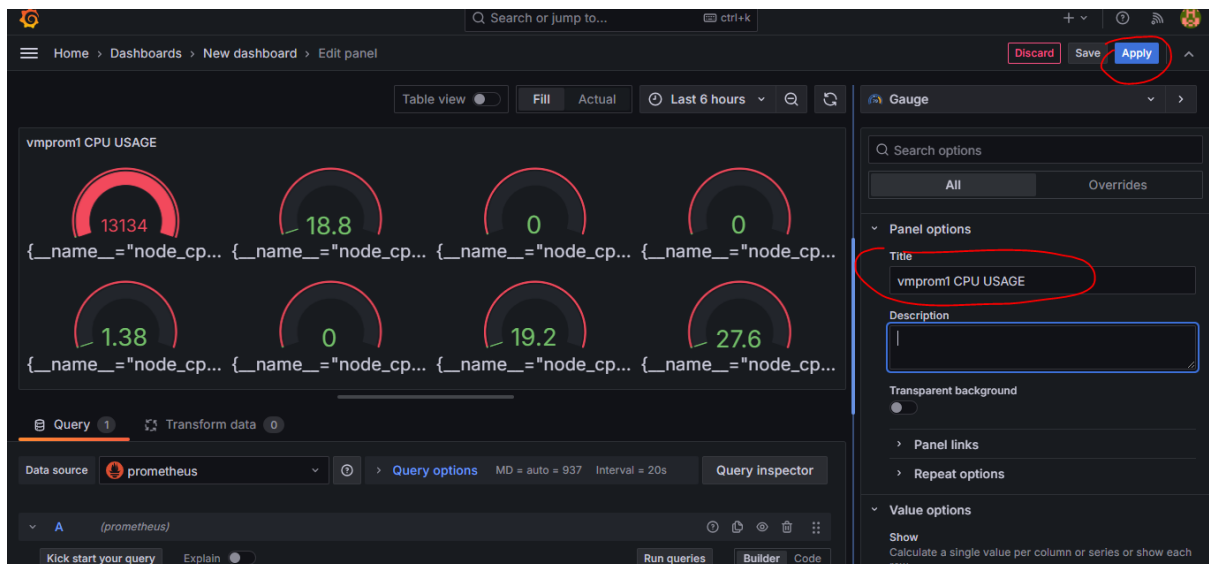
2024-09-27 18:51:20

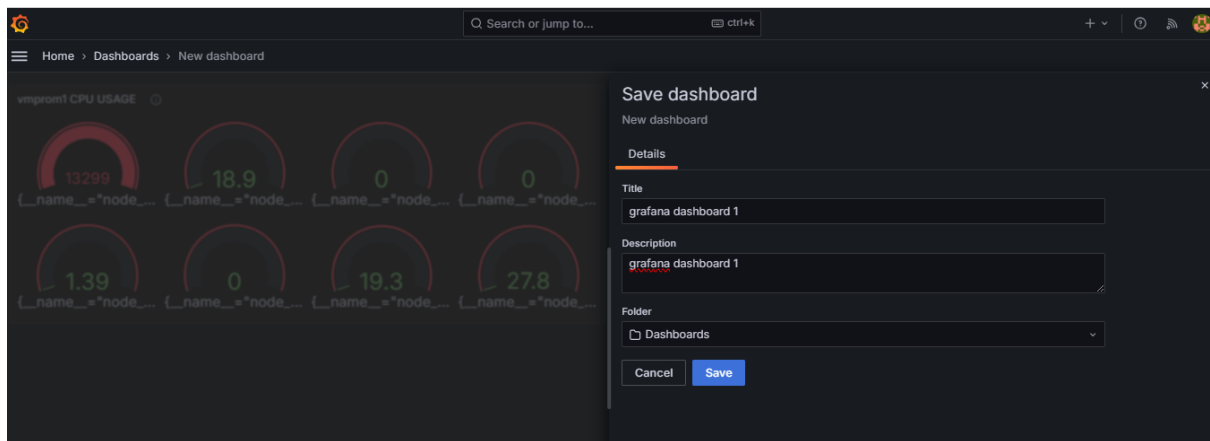
```
{
  __name__="node_cpu_seconds_total",
  cpu="0",
  instance="40.68.134.37:9100",
  job="vmprom1",
  mode="idle"
}
```

3243

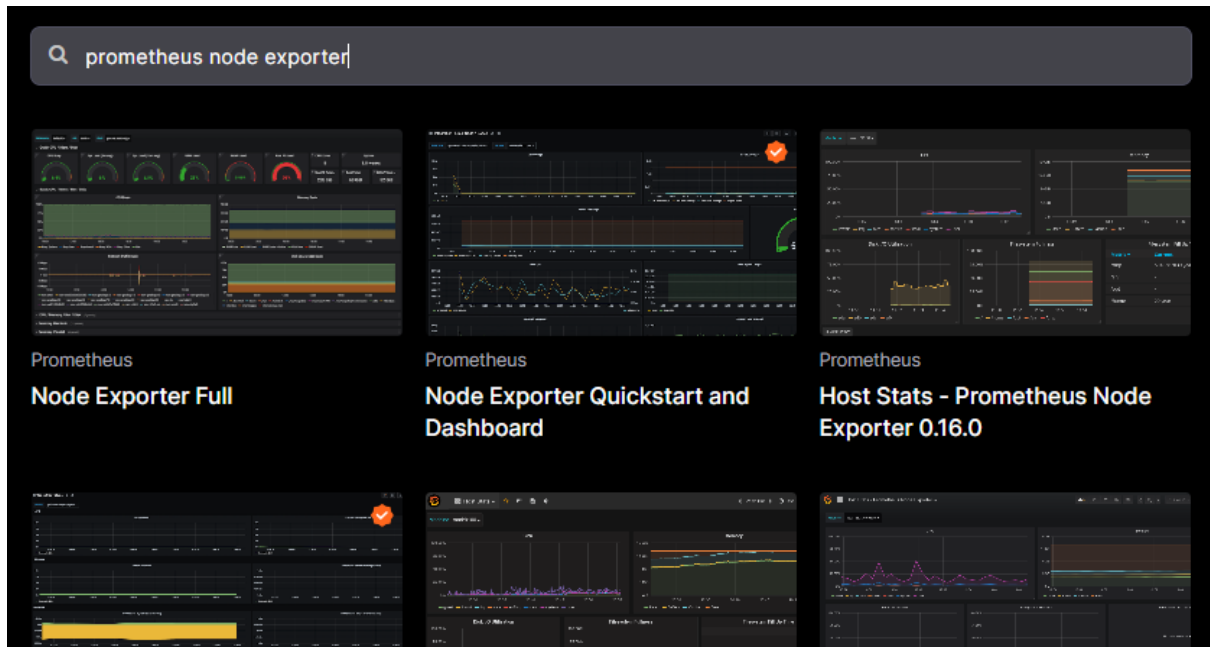
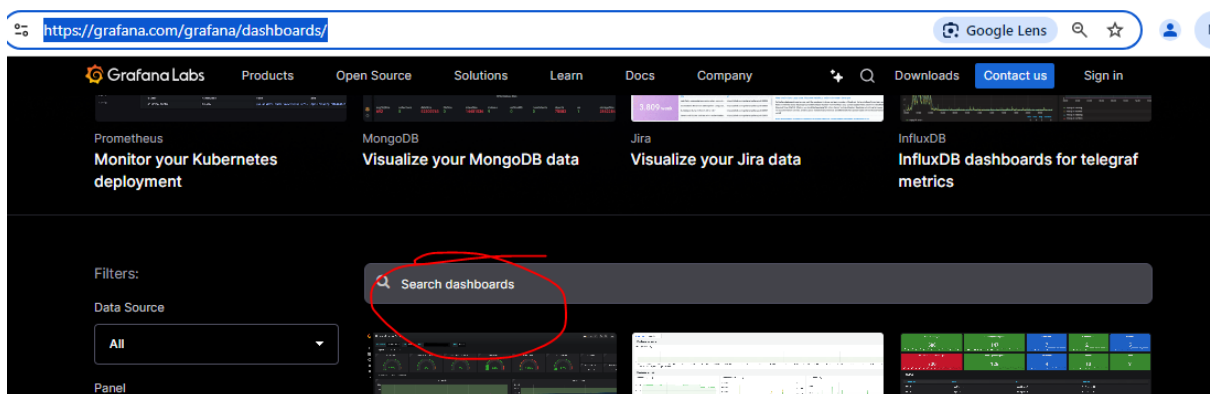
21:30

Query 1 Transform data 0 Alert 0





SEARCH – GRAFANA DASHBOARDS - <https://grafana.com/grafana/dashboards/>





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Learn more

### Get this dashboard

- 1 Sign up for Grafana Cloud  
[Create free account](#)
- 2 Import the dashboard template  
[Copy ID to clipboard](#)

or

[Download JSON](#)

This dashboard is forked from the excellent 1860 node exporter dashboard which gives a lot of detail for CPU, disk and network activity.

This version uses the instance label directly, without requiring any port number in it, to support meaningful instance labels. It also adds a constant \$diskdevices to adjust the regular expression to match disk devices.

NOTE: the original dashboard 1860 has now taken these changes on board, so this version is no longer required. See:

Home > Dashboards

## Dashboards

Create and manage dashboards to visualize your data

Q Search for dashboards and folders

Filter by tag ☐ Starred

Sort

grafana dashboard 1

New ^

- New dashboard
- New folder
- Import

## Import dashboard

Import dashboard from file or Grafana.com

Upload dashboard JSON file

Drag and drop here or click to browse

Accepted file types: .json, .txt

Find and import dashboards for common applications at [grafana.com/dashboards](https://grafana.com/dashboards)

12486

Load

Import via dashboard JSON model

```
{
  "title": "Example - Repeating Dictionary variables",
  "uid": "_0HnEoN4z",
  ...
}
```

Give name and import

