PROMETHEUS AND GRAFANA

PROMETHEUS

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

FEATURES

- a multi-dimensional data model with time series data identified by metric name and
- key/value pairs
- PromQL, a flexible query language to leverage this dimensionality
- no reliance on distributed storage; single server nodes are autonomous
- time series collection happens via a pull model over HTTP
- pushing time series is supported via an intermediary gateway
- targets are discovered via service discovery or static configuration
- multiple modes of graphing and dashboarding support

INSTALLATION COMMANDS

```
sudo useradd \
   --system \
   --no-create-home \
   --shell /bin/false Prometheus
```

wget https://github.com/prometheus/prometheus/releases/download/v2.47.1/prometheus-2.47.1.linux-amd64.tar.gz

tar -xvf prometheus-2.47.1.linux-amd64.tar.gz

sudo mkdir -p /data /etc/prometheus

cd prometheus-2.47.1.linux-amd64/

sudo mv prometheus promtool /usr/local/bin/

```
sudo mv consoles/ console_libraries/ /etc/prometheus/
sudo mv prometheus.yml /etc/prometheus/prometheus.yml
sudo chown -R prometheus:prometheus /etc/prometheus/ /data/
cd
rm -rf prometheus-2.47.1.linux-amd64.tar.gz
prometheus --version
sudo vim /etc/systemd/system/prometheus.service
```

prometheus.service

```
[Unit]
Description=Prometheus
Wants=network-online.target
After=network-online.target
StartLimitIntervalSec=500
StartLimitBurst=5
[Service]
User=prometheus
Group=prometheus
Type=simple
Restart=on-failure
RestartSec=5s
ExecStart=/usr/local/bin/prometheus \
  --config.file=/etc/prometheus/prometheus.yml \
  --storage.tsdb.path=/data \
  --web.console.templates=/etc/prometheus/consoles \
  --web.console.libraries=/etc/prometheus/console_libraries \
  --web.listen-address=0.0.0.0:9090 \
  --web.enable-lifecycle
[Install]
```

WantedBy=multi-user.target

sudo systemctl enable prometheus

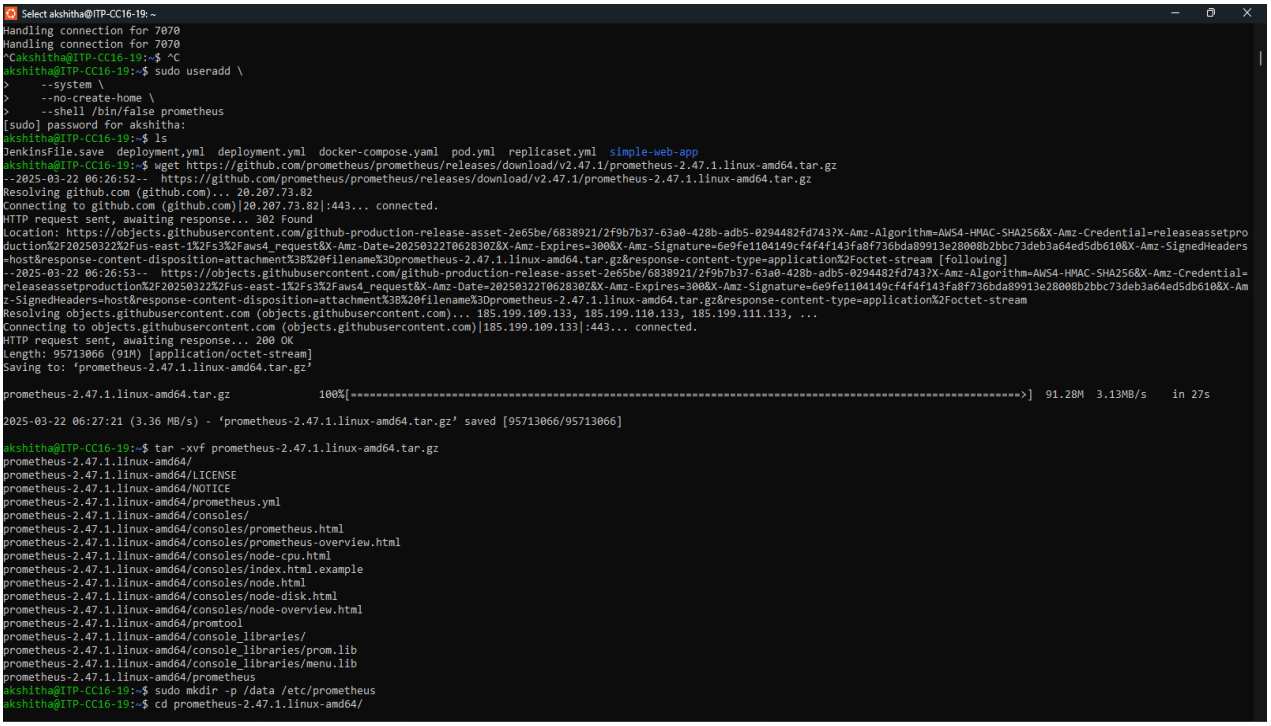
sudo systemctl start prometheus

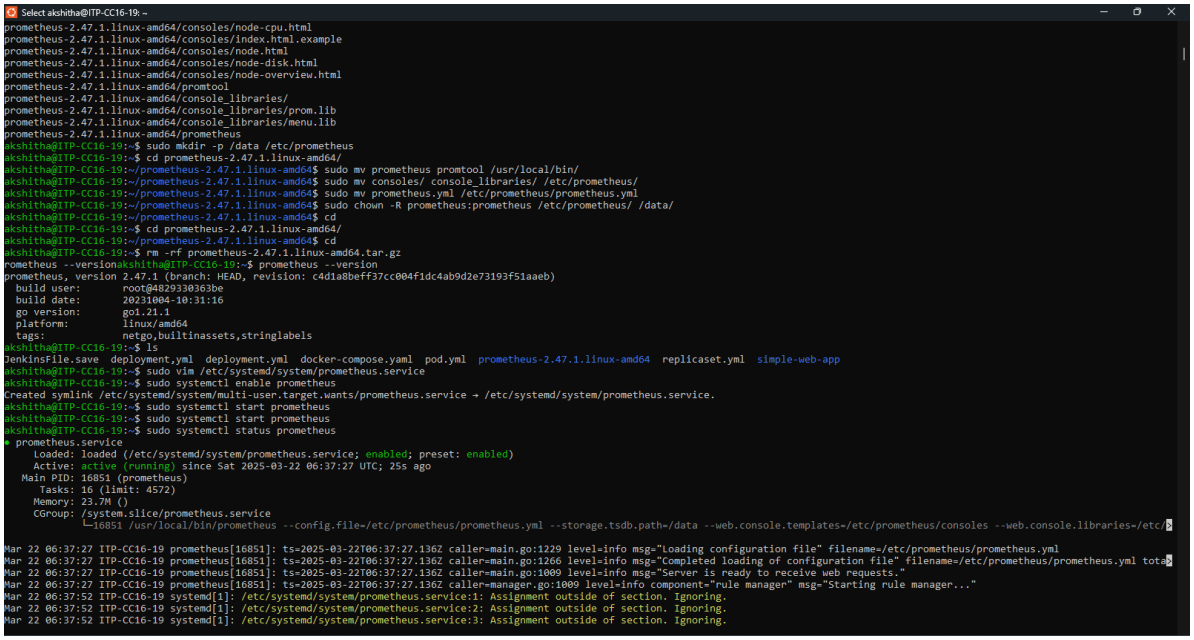
sudo systemctl status prometheus

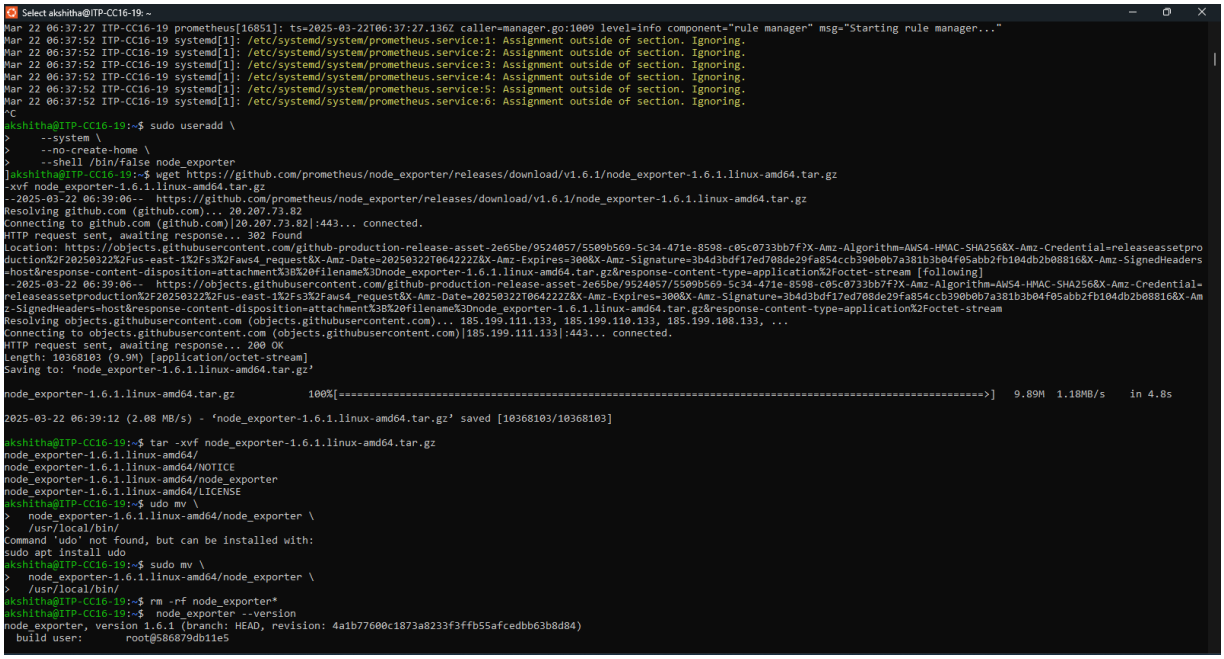
journalctl -u prometheus -f --no-pager

promtool check config /etc/prometheus/prometheus.yml

EXECUTION OF COMMANDS




Select akshitha@ITP-CC16-19: ~
prometheus-2.47.1.linux-amd64/consoles/node-cpu.html
prometheus-2.47.1.linux-amd64/consoles/index.html.example
prometheus-2.47.1.linux-amd64/consoles/node.html
prometheus-2.47.1.linux-amd64/consoles/node-disk.html
prometheus-2.47.1.linux-amd64/consoles/node-overview.html
prometheus-2.47.1.linux-amd64/promtool
prometheus-2.47.1.linux-amd64/console_libraries/
prometheus-2.47.1.linux-amd64/console_libraries/prom.lib
prometheus-2.47.1.linux-amd64/console_libraries/menu.lib
prometheus-2.47.1.linux-amd64/prometheus
akshitha@ITP-CC16-19:~$ sudo mkdir -p /data /etc/prometheus
akshitha@ITP-CC16-19:~$ cd prometheus-2.47.1.linux-amd64/
akshitha@ITP-CC16-19:~/prometheus-2.47.1.linux-amd64$ sudo mv prometheus promtool /usr/local/bin/
akshitha@ITP-CC16-19:~/prometheus-2.47.1.linux-amd64$ sudo mv consoles/ console_libraries/ /etc/prometheus/
akshitha@ITP-CC16-19:~/prometheus-2.47.1.linux-amd64$ sudo mv prometheus.yml /etc/prometheus/prometheus.yml
akshitha@ITP-CC16-19:~/prometheus-2.47.1.linux-amd64$ sudo chown -R prometheus:prometheus /etc/prometheus/ /data/
akshitha@ITP-CC16-19:~/prometheus-2.47.1.linux-amd64$ cd
akshitha@ITP-CC16-19:~$ cd prometheus-2.47.1.linux-amd64/
akshitha@ITP-CC16-19:~/prometheus-2.47.1.linux-amd64$ cd
akshitha@ITP-CC16-19:~$ rm -rf prometheus-2.47.1.linux-amd64.tar.gz
prometheus --versionakshitha@ITP-CC16-19:~$ prometheus --version
prometheus, version 2.47.1 (branch: HEAD, revision: c4d1a8beff37cc004f1dc4ab9d2e73193f51aaeb)
build user: root@482933036 3be
build date: 20231004-10:31:16
go version: go1.21.1
platform: linux/amd64
tags: netgo,builtinassets,stringlabels
akshitha@ITP-CC16-19:~$ ls
JenkinsFile.save deployment.yml deployment.yml docker-compose.yaml pod.yml prometheus-2.47.1.linux-amd64 replicaset.yml simple-web-app
akshitha@ITP-CC16-19:~$ sudo vim /etc/systemd/system/prometheus.service
akshitha@ITP-CC16-19:~$ sudo systemctl enable prometheus
Created symlink /etc/systemd/system/multi-user.target.wants/prometheus.service → /etc/systemd/system/prometheus.service.
akshitha@ITP-CC16-19:~$ sudo systemctl start prometheus
akshitha@ITP-CC16-19:~$ sudo systemctl start prometheus
akshitha@ITP-CC16-19:~$ sudo systemctl status prometheus
● prometheus.service
Loaded: loaded (/etc/systemd/system/prometheus.service; enabled; preset: enabled)
Active: active (running) since Sat 2025-03-22 06:37:27 UTC; 25s ago
Main PID: 16851 (prometheus)
Tasks: 16 (limit: 4572)
Memory: 23.7M ()
CGroup: /system.slice/prometheus.service
└─16851 /usr/local/bin/prometheus --config.file=/etc/prometheus/prometheus.yml --storage.tsdb.path=/data --web.console.templates=/etc/prometheus/consoles --web.console.libraries=/etc/
Mar 22 06:37:27 ITP-CC16-19 prometheus[16851]: ts=2025-03-22T06:37:27.136Z caller=main.go:1229 level=info msg="Loading configuration file" filename=/etc/prometheus/prometheus.yml
Mar 22 06:37:27 ITP-CC16-19 prometheus[16851]: ts=2025-03-22T06:37:27.136Z caller=main.go:1266 level=info msg="Completed loading of configuration file" filename=/etc/prometheus/prometheus.yml tota
Mar 22 06:37:27 ITP-CC16-19 prometheus[16851]: ts=2025-03-22T06:37:27.136Z caller=main.go:1009 level=info msg="Server is ready to receive web requests."
Mar 22 06:37:27 ITP-CC16-19 prometheus[16851]: ts=2025-03-22T06:37:27.136Z caller=manager.go:1009 level=info component="rule manager" msg="Starting rule manager..."
Mar 22 06:37:52 ITP-CC16-19 systemd[1]: /etc/systemd/system/prometheus.service:1: Assignment outside of section. Ignoring.
Mar 22 06:37:52 ITP-CC16-19 systemd[1]: /etc/systemd/system/prometheus.service:2: Assignment outside of section. Ignoring.
Mar 22 06:37:52 ITP-CC16-19 systemd[1]: /etc/systemd/system/prometheus.service:3: Assignment outside of section. Ignoring.


Select akshitha@ITP-CC16-19: ~
Mar 22 06:37:27 ITP-CC16-19 prometheus[16851]: ts=2025-03-22T06:37:27.136Z caller=manager.go:1009 level=info component="rule manager" msg="Starting rule manager..."
Mar 22 06:37:52 ITP-CC16-19 systemd[1]: /etc/systemd/system/prometheus.service:1: Assignment outside of section. Ignoring.
Mar 22 06:37:52 ITP-CC16-19 systemd[1]: /etc/systemd/system/prometheus.service:2: Assignment outside of section. Ignoring.
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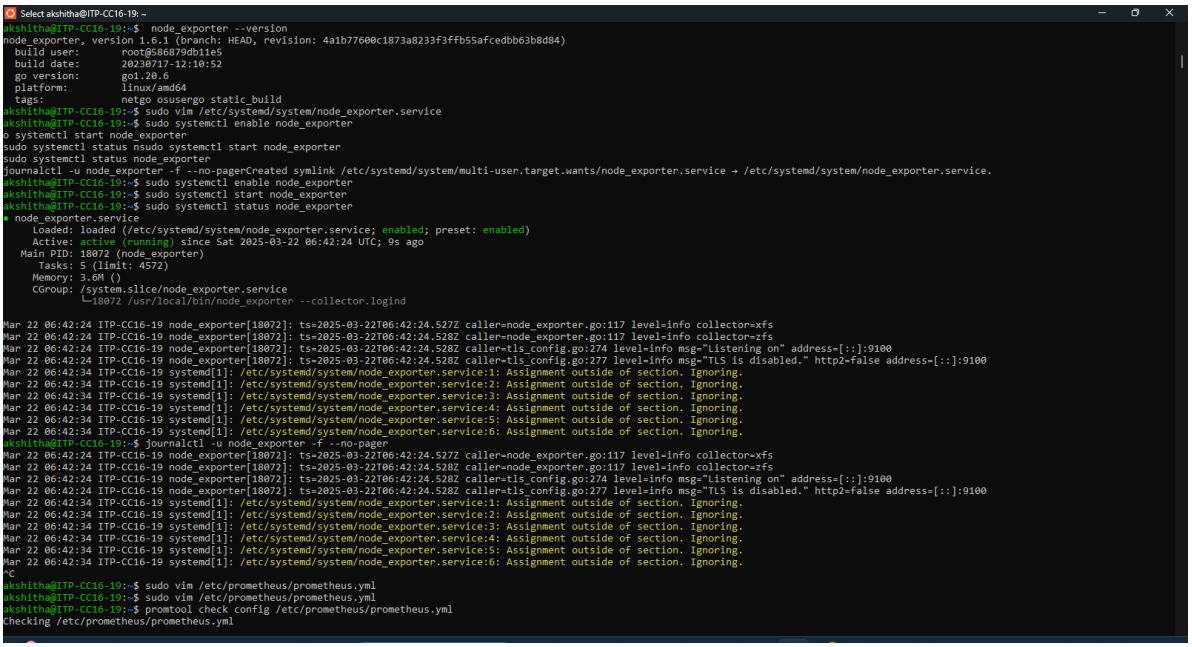
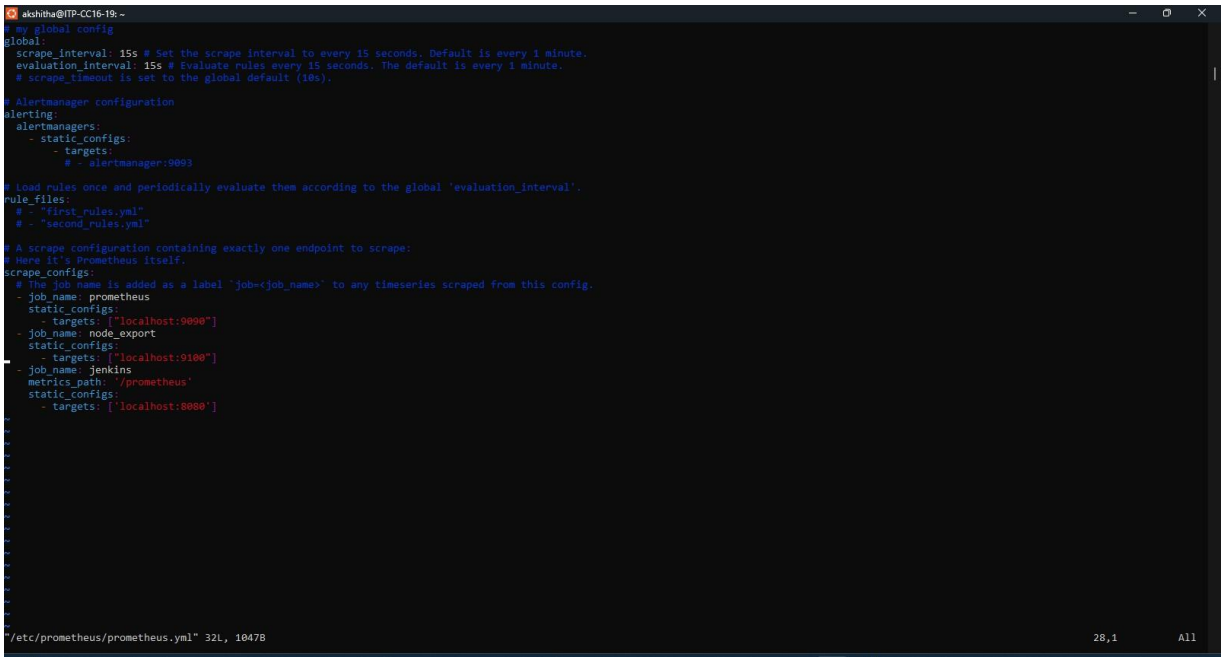
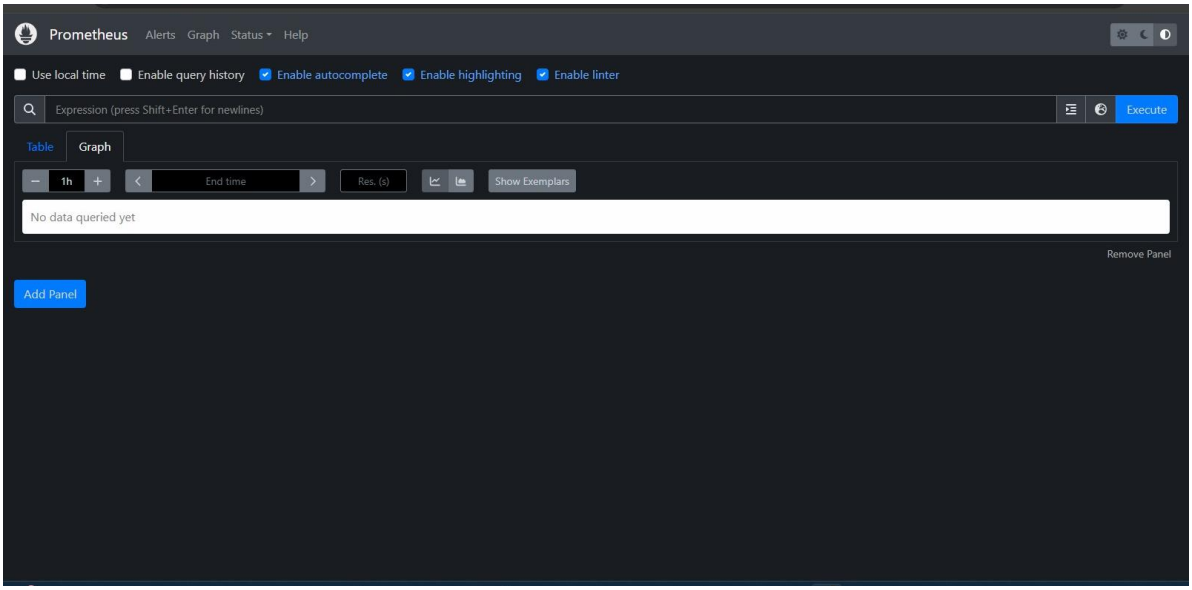
Mar 22 06:37:52 ITP-CC16-19 systemd[1]: /etc/systemd/system/prometheus.service:4: Assignment outside of section. Ignoring.
Mar 22 06:37:52 ITP-CC16-19 systemd[1]: /etc/systemd/system/prometheus.service:5: Assignment outside of section. Ignoring.
Mar 22 06:37:52 ITP-CC16-19 systemd[1]: /etc/systemd/system/prometheus.service:6: Assignment outside of section. Ignoring.
^C
akshitha@ITP-CC16-19:~$ sudo useradd \
> --system \
> --no-create-home \
> --shell /bin/false node_exporter
]akshitha@ITP-CC16-19:~$ wget https://github.com/prometheus/node_exporter/releases/download/v1.6.1/node_exporter-1.6.1.linux-amd64.tar.gz
-xvf node_exporter-1.6.1.linux-amd64.tar.gz
--2025-03-22 06:39:06-- https://github.com/prometheus/node_exporter/releases/download/v1.6.1/node_exporter-1.6.1.linux-amd64.tar.gz
Resolving github.com (github.com)... 20.207.73.82
Connecting to github.com (github.com)|20.207.73.82|:443... connected.
HTTP request sent, awaiting response... 302 Found
Location: https://objects.githubusercontent.com/github-production-release-asset-2e65be/9524057/5509b569-5c34-471e-8598-c05c0733bb7f?X-Amz-Algorithm=AWS4-HMAC-SHA256&X-Amz-Credential=releaseassetpro
duction%2F20250322%2Fus-east-1%2Fs3%2Faws4_request&X-Amz-Date=20250322T064222Z&X-Amz-Expires=300&X-Amz-Signature=3b4d3bdf17ed708de29fa854ccb390b0b7a381b3b04f05abb2fb104db2b08816&X-Amz-SignedHeaders
=host&response-content-disposition=attachment%3B%20filename%3Dnode_exporter-1.6.1.linux-amd64.tar.gz&response-content-type=application%2Foctet-stream [following]
--2025-03-22 06:39:06-- https://objects.githubusercontent.com/github-production-release-asset-2e65be/9524057/5509b569-5c34-471e-8598-c05c0733bb7f?X-Amz-Algorithm=AWS4-HMAC-SHA256&X-Amz-Credential=
releaseassetproduction%2F20250322%2Fus-east-1%2Fs3%2Faws4_request&X-Amz-Date=20250322T064222Z&X-Amz-Expires=300&X-Amz-Signature=3b4d3bdf17ed708de29fa854ccb390b0b7a381b3b04f05abb2fb104db2b08816&X-Am
z-SignedHeaders=host&response-content-disposition=attachment%3B%20filename%3Dnode_exporter-1.6.1.linux-amd64.tar.gz&response-content-type=application%2Foctet-stream
Resolving objects.githubusercontent.com (objects.githubusercontent.com)... 185.199.111.133, 185.199.110.133, 185.199.108.133, ...
Connecting to objects.githubusercontent.com (objects.githubusercontent.com)|185.199.111.133|:443... connected.
HTTP request sent, awaiting response... 200 OK
Length: 10368103 (9.9M) [application/octet-stream]
Saving to: ‘node_exporter-1.6.1.linux-amd64.tar.gz’
node_exporter-1.6.1.linux-amd64.tar.gz 100%[==========>] 9.89M 1.18MB/s in 4.8s
2025-03-22 06:39:12 (2.08 MB/s) - ‘node_exporter-1.6.1.linux-amd64.tar.gz’ saved [10368103/10368103]
akshitha@ITP-CC16-19:~$ tar -xvf node_exporter-1.6.1.linux-amd64.tar.gz
node_exporter-1.6.1.linux-amd64/
node_exporter-1.6.1.linux-amd64/NOTICE
node_exporter-1.6.1.linux-amd64/node_exporter
node_exporter-1.6.1.linux-amd64/LICENSE
akshitha@ITP-CC16-19:~$ udo mv \
> node_exporter-1.6.1.linux-amd64/node_exporter \
> /usr/local/bin/
Command 'udo' not found, but can be installed with:
sudo apt install udo
akshitha@ITP-CC16-19:~$ sudo mv \
> node_exporter-1.6.1.linux-amd64/node_exporter \
> /usr/local/bin/
akshitha@ITP-CC16-19:~$ rm -rf node_exporter*
akshitha@ITP-CC16-19:~$ node_exporter --version
node_exporter, version 1.6.1 (branch: HEAD, revision: 4a1b77600c1873a8233f3ffb55afcedbb63b8d84)
build user: root@586879db11e5

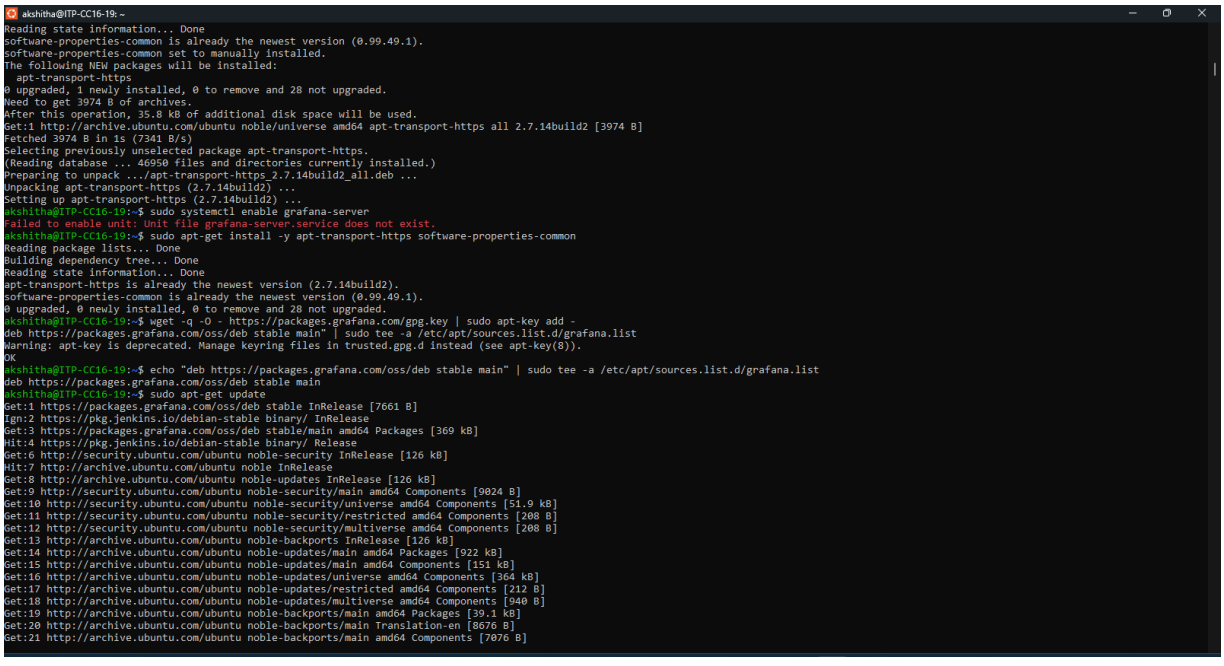

Select akshitha@ITP-CC16-19: ~
akshitha@ITP-CC16-19:~$ node_exporter --version
node_exporter, version 1.6.1 (branch: HEAD, revision: 4a1b77600c1873a8233f3ffb55afcedbb63b8d84)
build user: root@586879db11e5
build date: 20230717-12:10:52
go version: go1.20.6
platform: linux/amd64
tags: netgo osusergo static_build
akshitha@ITP-CC16-19:~$ sudo vim /etc/systemd/system/node_exporter.service
akshitha@ITP-CC16-19:~$ sudo systemctl enable node_exporter
o systemctl start node_exporter
sudo systemctl status nsudo systemctl start node_exporter
sudo systemctl status node_exporter
journalctl -u node_exporter -f --no-pagerCreated symlink /etc/systemd/system/multi-user.target.wants/node_exporter.service → /etc/systemd/system/node_exporter.service.
akshitha@ITP-CC16-19:~$ sudo systemctl enable node_exporter
akshitha@ITP-CC16-19:~$ sudo systemctl start node_exporter
akshitha@ITP-CC16-19:~$ sudo systemctl status node_exporter
● node_exporter.service
Loaded: loaded (/etc/systemd/system/node_exporter.service; enabled; preset: enabled)
Active: active (running) since Sat 2025-03-22 06:42:24 UTC; 9s ago
Main PID: 18072 (node_exporter)
Tasks: 5 (limit: 4572)
Memory: 3.6M ()
CGroup: /system.slice/node_exporter.service
└─18072 /usr/local/bin/node_exporter --collector.logind
Mar 22 06:42:24 ITP-CC16-19 node_exporter[18072]: ts=2025-03-22T06:42:24.527Z caller=node_exporter.go:117 level=info collector=xfs
Mar 22 06:42:24 ITP-CC16-19 node_exporter[18072]: ts=2025-03-22T06:42:24.528Z caller=node_exporter.go:117 level=info collector=zfs
Mar 22 06:42:24 ITP-CC16-19 node_exporter[18072]: ts=2025-03-22T06:42:24.528Z caller=tls_config.go:274 level=info msg="Listening on" address=[::]:9100
Mar 22 06:42:24 ITP-CC16-19 node_exporter[18072]: ts=2025-03-22T06:42:24.528Z caller=tls_config.go:277 level=info msg="TLS is disabled." http2=false address=[::]:9100
Mar 22 06:42:34 ITP-CC16-19 systemd[1]: /etc/systemd/system/node_exporter.service:1: Assignment outside of section. Ignoring.
Mar 22 06:42:34 ITP-CC16-19 systemd[1]: /etc/systemd/system/node_exporter.service:2: Assignment outside of section. Ignoring.
Mar 22 06:42:34 ITP-CC16-19 systemd[1]: /etc/systemd/system/node_exporter.service:3: Assignment outside of section. Ignoring.
Mar 22 06:42:34 ITP-CC16-19 systemd[1]: /etc/systemd/system/node_exporter.service:4: Assignment outside of section. Ignoring.
Mar 22 06:42:34 ITP-CC16-19 systemd[1]: /etc/systemd/system/node_exporter.service:5: Assignment outside of section. Ignoring.
Mar 22 06:42:34 ITP-CC16-19 systemd[1]: /etc/systemd/system/node_exporter.service:6: Assignment outside of section. Ignoring.
akshitha@ITP-CC16-19:~$ journalctl -u node_exporter -f --no-pager
Mar 22 06:42:24 ITP-CC16-19 node_exporter[18072]: ts=2025-03-22T06:42:24.527Z caller=node_exporter.go:117 level=info collector=xfs
Mar 22 06:42:24 ITP-CC16-19 node_exporter[18072]: ts=2025-03-22T06:42:24.528Z caller=node_exporter.go:117 level=info collector=zfs
Mar 22 06:42:24 ITP-CC16-19 node_exporter[18072]: ts=2025-03-22T06:42:24.528Z caller=tls_config.go:274 level=info msg="Listening on" address=[::]:9100
Mar 22 06:42:24 ITP-CC16-19 node_exporter[18072]: ts=2025-03-22T06:42:24.528Z caller=tls_config.go:277 level=info msg="TLS is disabled." http2=false address=[::]:9100
Mar 22 06:42:34 ITP-CC16-19 systemd[1]: /etc/systemd/system/node_exporter.service:1: Assignment outside of section. Ignoring.
Mar 22 06:42:34 ITP-CC16-19 systemd[1]: /etc/systemd/system/node_exporter.service:2: Assignment outside of section. Ignoring.
Mar 22 06:42:34 ITP-CC16-19 systemd[1]: /etc/systemd/system/node_exporter.service:3: Assignment outside of section. Ignoring.
Mar 22 06:42:34 ITP-CC16-19 systemd[1]: /etc/systemd/system/node_exporter.service:4: Assignment outside of section. Ignoring.
Mar 22 06:42:34 ITP-CC16-19 systemd[1]: /etc/systemd/system/node_exporter.service:5: Assignment outside of section. Ignoring.
Mar 22 06:42:34 ITP-CC16-19 systemd[1]: /etc/systemd/system/node_exporter.service:6: Assignment outside of section. Ignoring.
^C
akshitha@ITP-CC16-19:~$ sudo vim /etc/prometheus/prometheus.yml
akshitha@ITP-CC16-19:~$ sudo vim /etc/prometheus/prometheus.yml
akshitha@ITP-CC16-19:~$ promtool check config /etc/prometheus/prometheus.yml
Checking /etc/prometheus/prometheus.yml

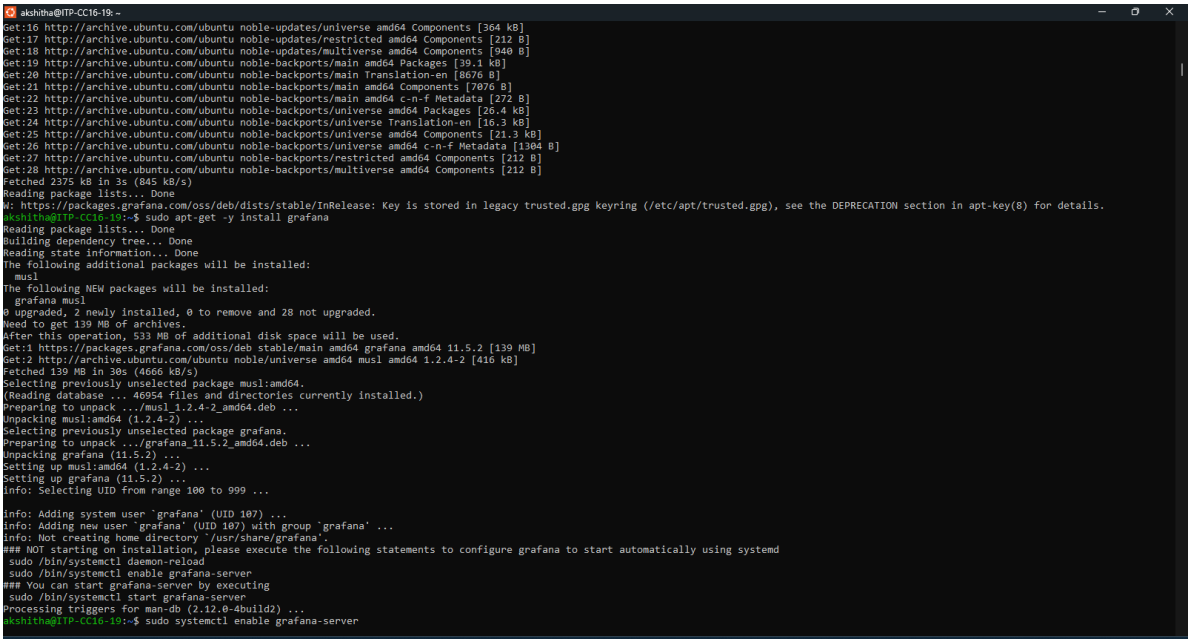

akshitha@ITP-CC16-19: ~
my global config
global:
scrape_interval: 15s # Set the scrape interval to every 15 seconds. Default is every 1 minute.
evaluation_interval: 15s # Evaluate rules every 15 seconds. The default is every 1 minute.
scrape_timeout is set to the global default (10s).
Alertmanager configuration
alerting:
alertmanagers:
- static_configs:
- targets:
- alertmanager:9093
Load rules once and periodically evaluate them according to the global 'evaluation_interval'.
rule_files:
- "first_rules.yml"
- "second_rules.yml"
A scrape configuration containing exactly one endpoint to scrape:
Here it's Prometheus itself.
scrape_configs:
The job name is added as a label `job=<job_name>` to any timeseries scraped from this config.
- job_name: prometheus
static_configs:
- targets: ["localhost:9090"]
- job_name: node_export
static_configs:
- targets: ["localhost:9100"]
- job_name: jenkins
metrics_path: '/prometheus'
static_configs:
- targets: ['localhost:8080']
"/etc/prometheus/prometheus.yml" 32L, 1047B
28,1
All



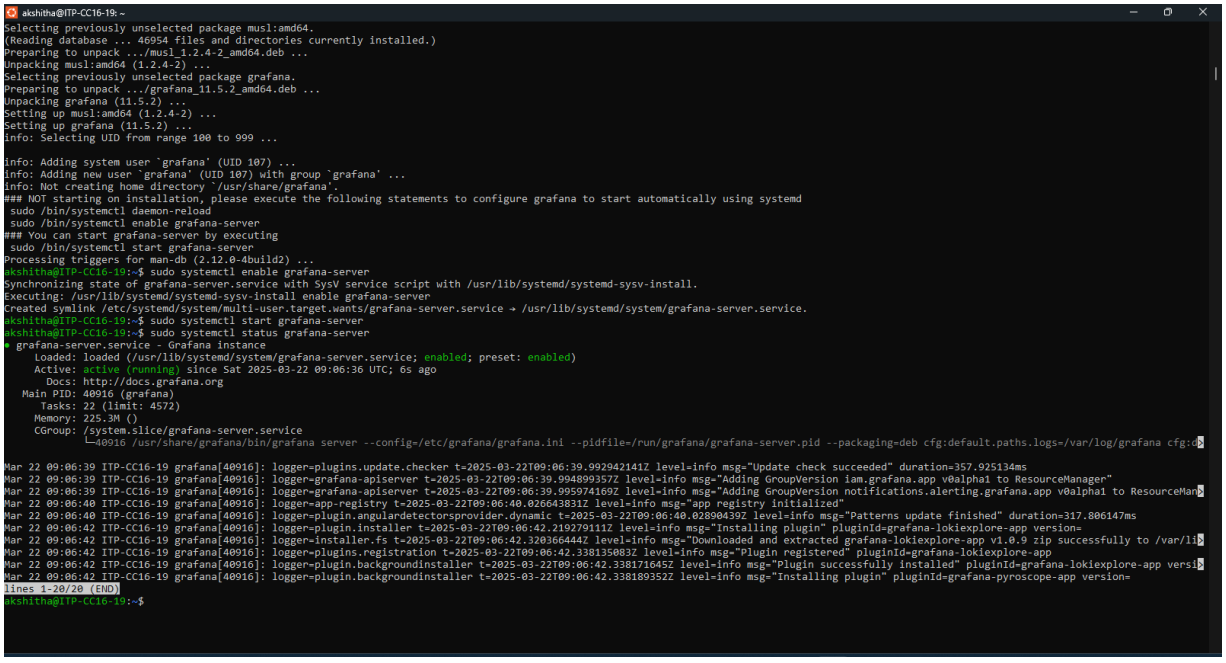
GRAFANA

COMMANDS



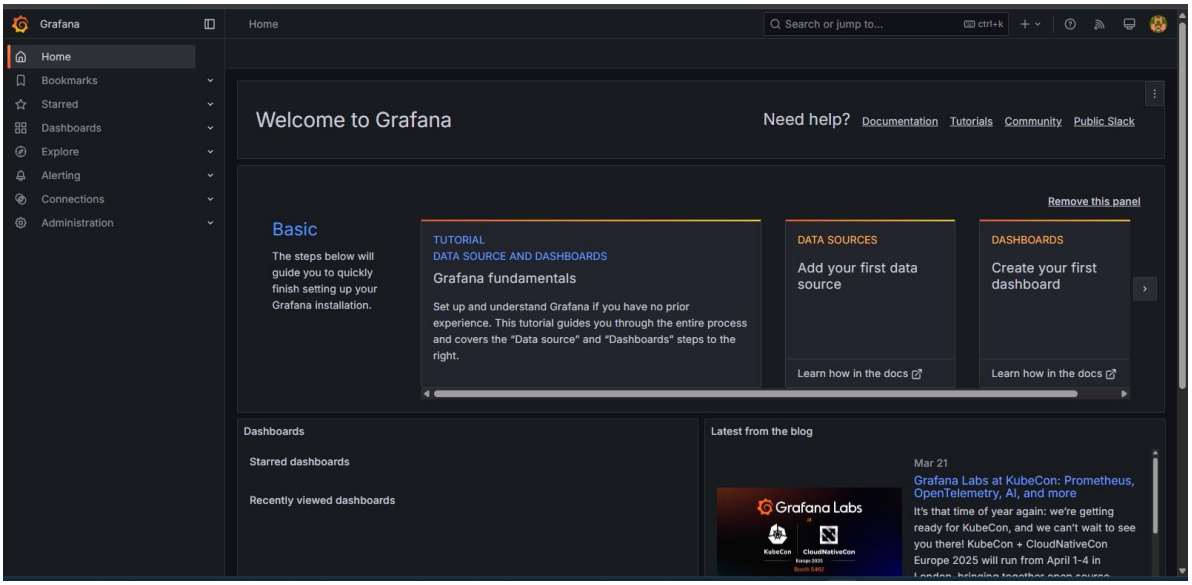

akshitha@ITP-CC16-19: ~
Get:16 http://archive.ubuntu.com/ubuntu noble-updates/universe amd64 Components [364 kB]
Get:17 http://archive.ubuntu.com/ubuntu noble-updates/restricted amd64 Components [212 B]
Get:18 http://archive.ubuntu.com/ubuntu noble-updates/multiverse amd64 Components [940 B]
Get:19 http://archive.ubuntu.com/ubuntu noble-backports/main amd64 Packages [39.1 kB]
Get:20 http://archive.ubuntu.com/ubuntu noble-backports/main Translation-en [8676 B]
Get:21 http://archive.ubuntu.com/ubuntu noble-backports/main amd64 Components [7076 B]
Get:22 http://archive.ubuntu.com/ubuntu noble-backports/main amd64 c-n-f Metadata [272 B]
Get:23 http://archive.ubuntu.com/ubuntu noble-backports/universe amd64 Packages [26.4 kB]
Get:24 http://archive.ubuntu.com/ubuntu noble-backports/universe Translation-en [16.3 kB]
Get:25 http://archive.ubuntu.com/ubuntu noble-backports/universe amd64 Components [21.3 kB]
Get:26 http://archive.ubuntu.com/ubuntu noble-backports/universe amd64 c-n-f Metadata [1304 B]
Get:27 http://archive.ubuntu.com/ubuntu noble-backports/restricted amd64 Components [212 B]
Get:28 http://archive.ubuntu.com/ubuntu noble-backports/multiverse amd64 Components [212 B]
Fetched 2375 kB in 3s (845 kB/s)
Reading package lists... Done
W: https://packages.grafana.com/oss/deb/dists/stable/InRelease: Key is stored in legacy trusted.gpg keyring (/etc/apt/trusted.gpg), see the DEPRECATION section in apt-key(8) for details.
akshitha@ITP-CC16-19:~$ sudo apt-get -y install grafana
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
The following additional packages will be installed:
  musl
The following NEW packages will be installed:
  grafana musl
0 upgraded, 2 newly installed, 0 to remove and 28 not upgraded.
Need to get 139 MB of archives.
After this operation, 533 MB of additional disk space will be used.
Get:1 https://packages.grafana.com/oss/deb stable/main amd64 grafana amd64 11.5.2 [139 MB]
Get:2 http://archive.ubuntu.com/ubuntu noble/universe amd64 musl amd64 1.2.4-2 [416 kB]
Fetched 139 MB in 30s (4666 kB/s)
Selecting previously unselected package musl:amd64.
(Reading database ... 46954 files and directories currently installed.)
Preparing to unpack .../musl_1.2.4-2_amd64.deb ...
Unpacking musl:amd64 (1.2.4-2) ...
Selecting previously unselected package grafana.
Preparing to unpack .../grafana_11.5.2_amd64.deb ...
Unpacking grafana (11.5.2) ...
Setting up musl:amd64 (1.2.4-2) ...
Setting up grafana (11.5.2) ...
info: Selecting UID from range 100 to 999 ...

info: Adding system user `grafana' (UID 107) ...
info: Adding new user `grafana' (UID 107) with group `grafana' ...
info: Not creating home directory `/usr/share/grafana'.
NOT starting on installation, please execute the following statements to configure grafana to start automatically using systemd
 sudo /bin/systemctl daemon-reload
 sudo /bin/systemctl enable grafana-server
You can start grafana-server by executing
 sudo /bin/systemctl start grafana-server
Processing triggers for man-db (2.12.0-4build2) ...
akshitha@ITP-CC16-19:~$ sudo systemctl enable grafana-server


akshitha@ITP-CC16-19: ~
Selecting previously unselected package musl:amd64.
(Reading database ... 46954 files and directories currently installed.)
Preparing to unpack .../musl_1.2.4-2_amd64.deb ...
Unpacking musl:amd64 (1.2.4-2) ...
Selecting previously unselected package grafana.
Preparing to unpack .../grafana_11.5.2_amd64.deb ...
Unpacking grafana (11.5.2) ...
Setting up musl:amd64 (1.2.4-2) ...
Setting up grafana (11.5.2) ...
info: Selecting UID from range 100 to 999 ...

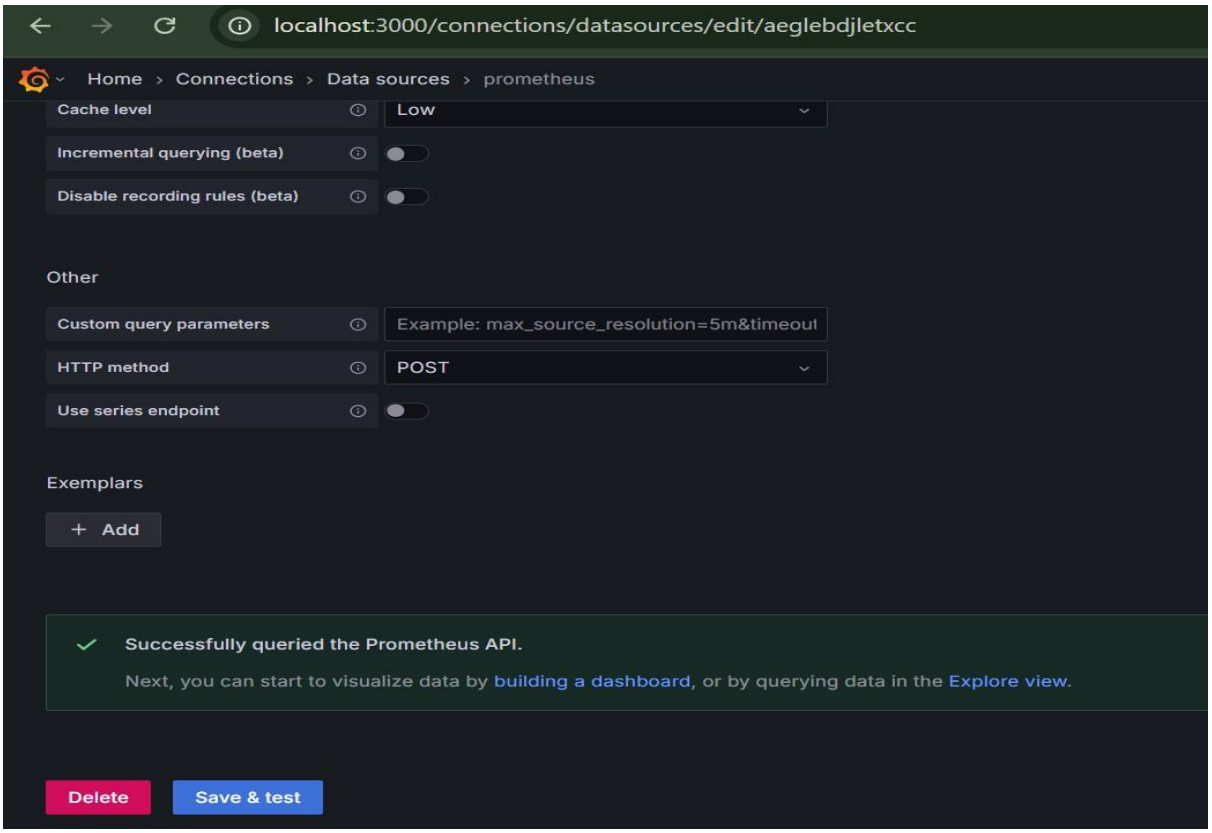
info: Adding system user `grafana' (UID 107) ...
info: Adding new user `grafana' (UID 107) with group `grafana' ...
info: Not creating home directory `/usr/share/grafana'.
NOT starting on installation, please execute the following statements to configure grafana to start automatically using systemd
 sudo /bin/systemctl daemon-reload
 sudo /bin/systemctl enable grafana-server
You can start grafana-server by executing
 sudo /bin/systemctl start grafana-server
Processing triggers for man-db (2.12.0-4build2) ...
akshitha@ITP-CC16-19:~$ sudo systemctl enable grafana-server
Synchronizing state of grafana-server.service with SysV service script with /usr/lib/systemd/systemd-sysv-install.
Executing: /usr/lib/systemd/systemd-sysv-install enable grafana-server
Created symlink /etc/systemd/system/multi-user.target.wants/grafana-server.service → /usr/lib/systemd/system/grafana-server.service.
akshitha@ITP-CC16-19:~$ sudo systemctl start grafana-server
akshitha@ITP-CC16-19:~$ sudo systemctl status grafana-server
● grafana-server.service - Grafana instance
     Loaded: loaded (/usr/lib/systemd/system/grafana-server.service; enabled; preset: enabled)
     Active: active (running) since Sat 2025-03-22 09:06:36 UTC; 6s ago
       Docs: http://docs.grafana.org
   Main PID: 40916 (grafana)
      Tasks: 22 (limit: 4572)
     Memory: 225.3M ()
     CGroup: /system.slice/grafana-server.service
             └─40916 /usr/share/grafana/bin/grafana server --config=/etc/grafana/grafana.ini --pidfile=/run/grafana/grafana-server.pid --packaging=deb cfg:default.paths.logs=/var/log/grafana cfg:d

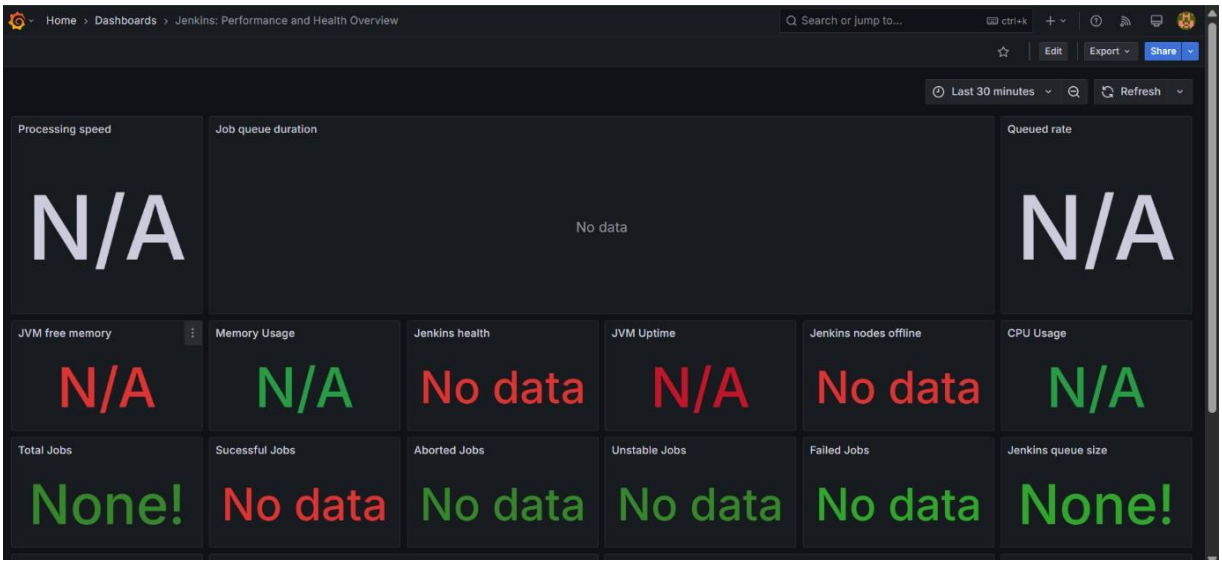
Mar 22 09:06:39 ITP-CC16-19 grafana[40916]: logger=plugins.update.checker t=2025-03-22T09:06:39.992942141Z level=info msg="Update check succeeded" duration=357.925134ms
Mar 22 09:06:39 ITP-CC16-19 grafana[40916]: logger=grafana-apiserver t=2025-03-22T09:06:39.994899357Z level=info msg="Adding GroupVersion iam.grafana.app v0alpha1 to ResourceManager"
Mar 22 09:06:39 ITP-CC16-19 grafana[40916]: logger=grafana-apiserver t=2025-03-22T09:06:39.995974169Z level=info msg="Adding GroupVersion notifications.alerting.grafana.app v0alpha1 to ResourceMan
Mar 22 09:06:40 ITP-CC16-19 grafana[40916]: logger=app-registry t=2025-03-22T09:06:40.026643831Z level=info msg="app registry initialized"
Mar 22 09:06:40 ITP-CC16-19 grafana[40916]: logger=plugin.angulardetectorsprovider.dynamic t=2025-03-22T09:06:40.02890439Z level=info msg="Patterns update finished" duration=317.806147ms
Mar 22 09:06:42 ITP-CC16-19 grafana[40916]: logger=plugin.installer t=2025-03-22T09:06:42.219279111Z level=info msg="Installing plugin" pluginId=grafana-lokiexplore-app version=
Mar 22 09:06:42 ITP-CC16-19 grafana[40916]: logger=installer.fs t=2025-03-22T09:06:42.320366444Z level=info msg="Downloaded and extracted grafana-lokiexplore-app v1.0.9 zip successfully to /var/li
Mar 22 09:06:42 ITP-CC16-19 grafana[40916]: logger=plugins.registration t=2025-03-22T09:06:42.338135003Z level=info msg="Plugin registered" pluginId=grafana-lokiexplore-app
Mar 22 09:06:42 ITP-CC16-19 grafana[40916]: logger=plugin.backgroundinstaller t=2025-03-22T09:06:42.338171645Z level=info msg="Plugin successfully installed" pluginId=grafana-lokiexplore-app versi
Mar 22 09:06:42 ITP-CC16-19 grafana[40916]: logger=plugin.backgroundinstaller t=2025-03-22T09:06:42.338189352Z level=info msg="Installing plugin" pluginId=grafana-pyroscope-app version=
lines 1-20/20 (END)
akshitha@ITP-CC16-19:~$

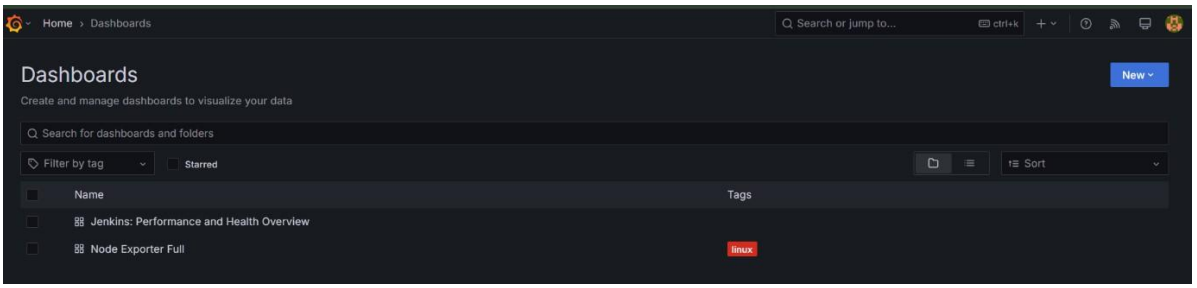

Grafana
Home
Search or jump to...
ctrl+k
Home
Bookmarks
Starred
Dashboards
Explore
Alerting
Connections
Administration
Welcome to Grafana
Need help?
Documentation
Tutorials
Community
Public Slack
Remove this panel
Basic
The steps below will guide you to quickly finish setting up your Grafana installation.
TUTORIAL
DATA SOURCE AND DASHBOARDS
Grafana fundamentals
Set up and understand Grafana if you have no prior experience. This tutorial guides you through the entire process and covers the "Data source" and "Dashboards" steps to the right.
DATA SOURCES
Add your first data source
Learn how in the docs
DASHBOARDS
Create your first dashboard
Learn how in the docs
Dashboards
Starred dashboards
Recently viewed dashboards
Latest from the blog
Mar 21
Grafana Labs at KubeCon: Prometheus, OpenTelemetry, AI, and more
It's that time of year again: we're getting ready for KubeCon, and we can't wait to see you there! KubeCon + CloudNativeCon Europe 2025 will run from April 1-4 in

NODE EXPORTER

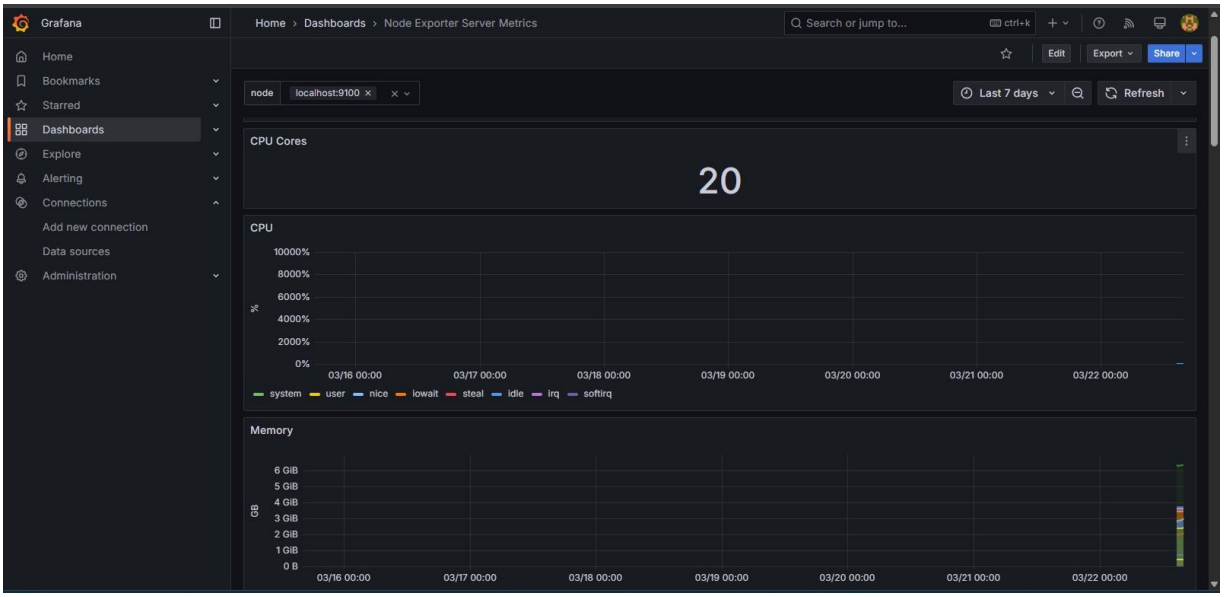
```
# HELP go_gc_duration_seconds A summary of the pause duration of garbage collection cycles.
# TYPE go_gc_duration_seconds summary
go_gc_duration_seconds{quantile="0"} 5.9879e-05
go_gc_duration_seconds{quantile="0.25"} 0.000146969
go_gc_duration_seconds{quantile="0.5"} 0.000187749
go_gc_duration_seconds{quantile="0.75"} 0.00035961
go_gc_duration_seconds{quantile="1"} 0.00135097
go_gc_duration_seconds_sum 0.009039947
go_gc_duration_seconds_count 31
# HELP go_goroutines Number of goroutines that currently exist.
# TYPE go_goroutines gauge
go_goroutines 36
# HELP go_info Information about the Go environment.
# TYPE go_info gauge
go_info{version="go1.21.1"} 1
# HELP go_memstats_alloc_bytes Number of bytes allocated and still in use.
# TYPE go_memstats_alloc_bytes gauge
go_memstats_alloc_bytes 2.5360568e+07
# HELP go_memstats_alloc_bytes_total Total number of bytes allocated, even if freed.
# TYPE go_memstats_alloc_bytes_total counter
go_memstats_alloc_bytes_total 1.84000352e+08
# HELP go_memstats_buck_hash_sys_bytes Number of bytes used by the profiling bucket hash table.
# TYPE go_memstats_buck_hash_sys_bytes gauge
go_memstats_buck_hash_sys_bytes 1.492327e+06
# HELP go_memstats_frees_total Total number of frees.
# TYPE go_memstats_frees_total counter
go_memstats_frees_total 1.302908e+06
# HELP go_memstats_gc_sys_bytes Number of bytes used for garbage collection system metadata.
# TYPE go_memstats_gc_sys_bytes gauge
go_memstats_gc_sys_bytes 4.830976e+06
# HELP go_memstats_heap_alloc_bytes Number of heap bytes allocated and still in use.
# TYPE go_memstats_heap_alloc_bytes gauge
go_memstats_heap_alloc_bytes 2.5360568e+07
# HELP go_memstats_heap_idle_bytes Number of heap bytes waiting to be used.
# TYPE go_memstats_heap_idle_bytes gauge
go_memstats_heap_idle_bytes 1.0903552e+07
# HELP go_memstats_heap_inuse_bytes Number of heap bytes that are in use.
# TYPE go_memstats_heap_inuse_bytes gauge
go_memstats_heap_inuse_bytes 2.9696e+07
# HELP go_memstats_heap_objects Number of allocated objects.
# TYPE go_memstats_heap_objects gauge
go_memstats_heap_objects 116081
# HELP go_memstats_heap_released_bytes Number of heap bytes released to OS.
# TYPE go_memstats_heap_released_bytes gauge
go_memstats_heap_released_bytes 4.292608e+06
# HELP go_memstats_heap_sys_bytes Number of heap bytes obtained from system.
# TYPE go_memstats_heap_sys_bytes gauge
go_memstats_heap_sys_bytes 4.0599552e+07
```

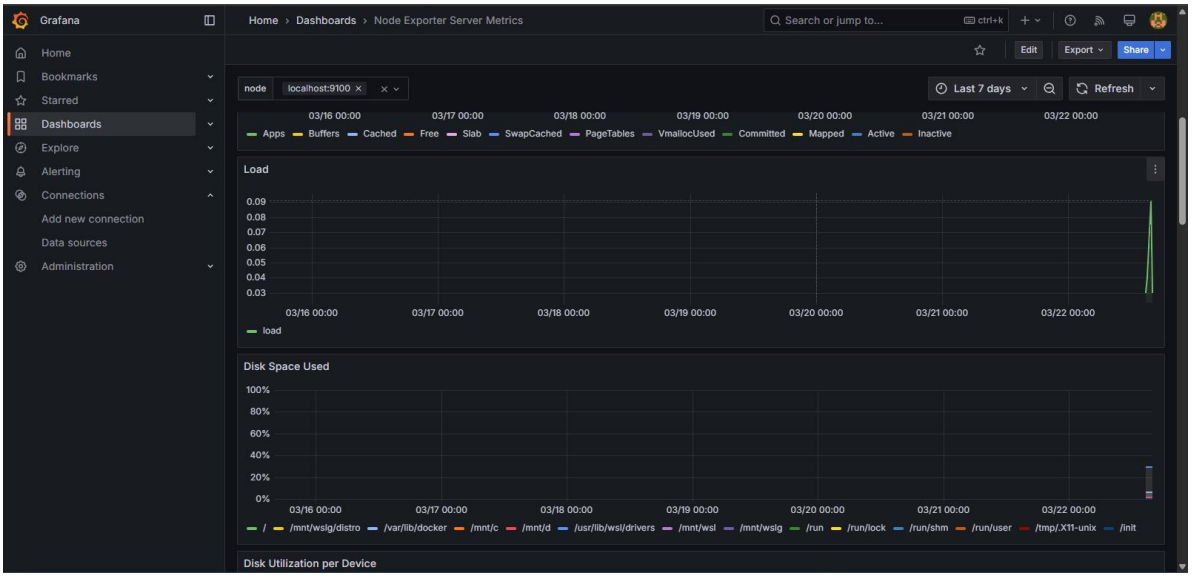

localhost:3000/connections/datasources/edit/aeglebdjletxcc
Home › Connections › Data sources › prometheus
Cache level
Low
Incremental querying (beta)
Disable recording rules (beta)
Other
Custom query parameters
Example: max_source_resolution=5m&timeout
HTTP method
POST
Use series endpoint
Exemplars
+ Add
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

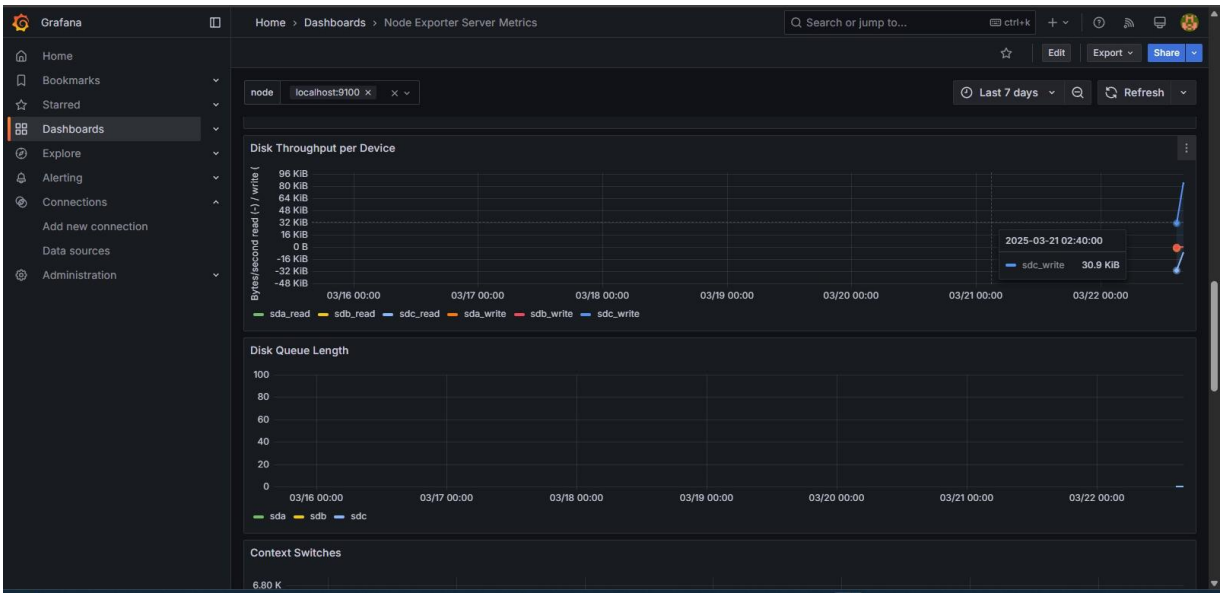

Home › Dashboards › Jenkins: Performance and Health Overview
Search or jump to...
ctrl+k
Edit
Export
Share
Last 30 minutes
Refresh
Processing speed
N/A
Job queue duration
No data
Queued rate
N/A
JVM free memory
N/A
Memory Usage
N/A
Jenkins health
No data
JVM Uptime
N/A
Jenkins nodes offline
No data
CPU Usage
N/A
Total Jobs
None!
Sucessful Jobs
No data
Aborted Jobs
No data
Unstable Jobs
No data
Failed Jobs
No data
Jenkins queue size
None!

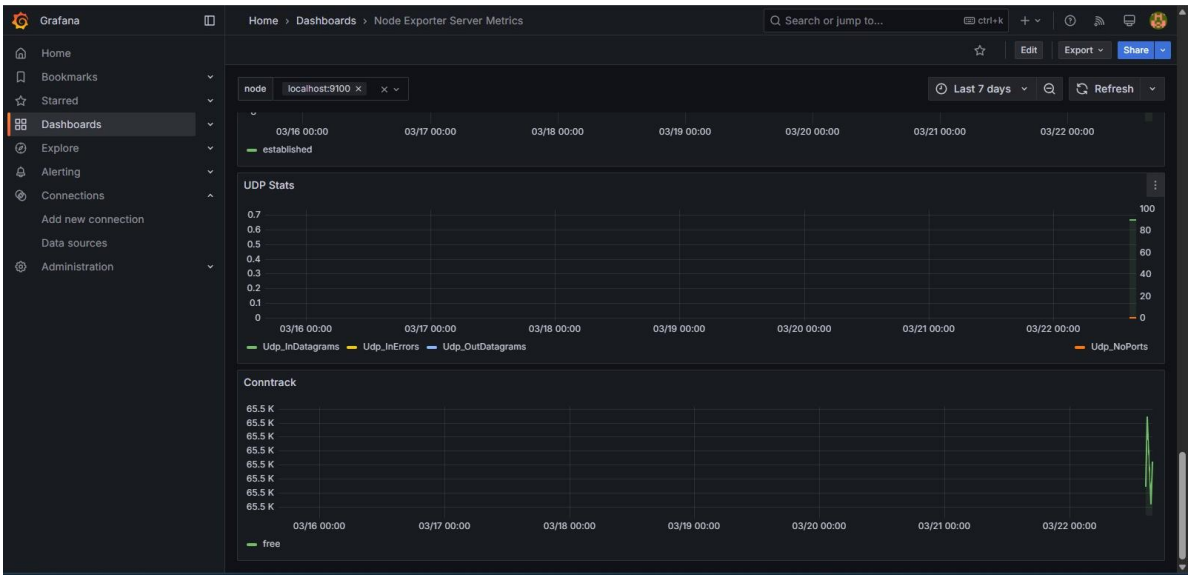

Home › Dashboards
Search or jump to...
ctrl+k
Dashboards
New
Create and manage dashboards to visualize your data
Search for dashboards and folders
Filter by tag
Starred
Sort
Name
Tags
Jenkins: Performance and Health Overview
Node Exporter Full
linux

DASHBOARD


Grafana
Home
Bookmarks
Starred
Dashboards
Explore
Alerting
Connections
Add new connection
Data sources
Administration
Home › Dashboards › Node Exporter Server Metrics
Search or jump to...
ctrl+k
Edit
Export
Share
node
localhost:9100
Last 7 days
Refresh
CPU Cores
20
CPU
10000%
8000%
6000%
4000%
2000%
0%
%
03/16 00:00
03/17 00:00
03/18 00:00
03/19 00:00
03/20 00:00
03/21 00:00
03/22 00:00
system
user
nice
iowait
steal
idle
irq
softirq
Memory
6 GiB
5 GiB
4 GiB
3 GiB
2 GiB
1 GiB
0 B
GiB

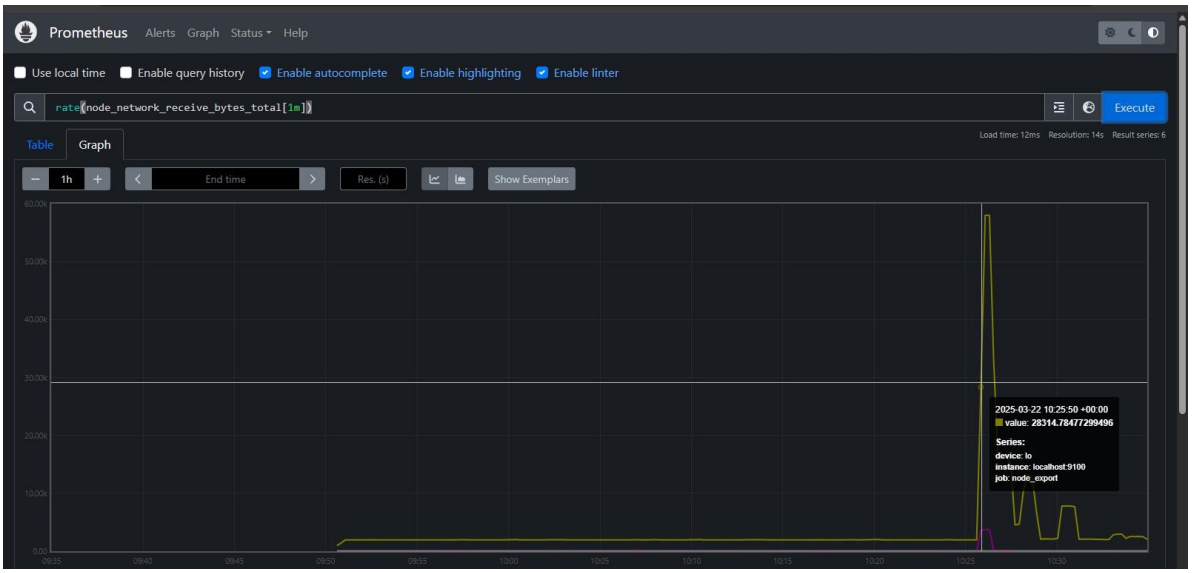

Grafana
Home
Bookmarks
Starred
Dashboards
Explore
Alerting
Connections
Add new connection
Data sources
Administration
Home › Dashboards › Node Exporter Server Metrics
Search or jump to...
ctrl+k
Edit
Export
Share
node
localhost:9100
Last 7 days
Refresh
03/16 00:00
03/17 00:00
03/18 00:00
03/19 00:00
03/20 00:00
03/21 00:00
03/22 00:00
Apps
Buffers
Cached
Free
Slab
SwapCached
PageTables
VmallocUsed
Committed
Mapped
Active
Inactive
Load
0.09
0.08
0.07
0.06
0.05
0.04
0.03
load
Disk Space Used
100%
80%
60%
40%
20%
0%
/
/mnt/wslg/distro
/var/lib/docker
/mnt/c
/mnt/d
/usr/lib/wsl/drivers
/mnt/wsl
/mnt/wslg
/run
/run/lock
/run/shm
/run/user
/tmp/.X11-unix
/init
Disk Utilization per Device


Grafana
Home › Dashboards › Node Exporter Server Metrics
Search or jump to...
ctrl+k
Edit
Export
Share
Home
Bookmarks
Starred
Dashboards
Explore
Alerting
Connections
Add new connection
Data sources
Administration
node
localhost:9100
Last 7 days
Refresh
Disk Throughput per Device
Bytes/second read (-) / write (
96 KiB
80 KiB
64 KiB
48 KiB
32 KiB
16 KiB
0 B
-16 KiB
-32 KiB
-48 KiB
03/16 00:00
03/17 00:00
03/18 00:00
03/19 00:00
03/20 00:00
03/21 00:00
03/22 00:00
2025-03-21 02:40:00
sdc_write
30.9 KiB
sda_read
sdb_read
sdc_read
sda_write
sdb_write
sdc_write
Disk Queue Length
100
80
60
40
20
0
sda
sdb
sdc
Context Switches
6.80 K


Grafana
Home › Dashboards › Node Exporter Server Metrics
Search or jump to...
ctrl+k
Edit
Export
Share
Home
Bookmarks
Starred
Dashboards
Explore
Alerting
Connections
Add new connection
Data sources
Administration
node
localhost:9100
Last 7 days
Refresh
03/16 00:00
03/17 00:00
03/18 00:00
03/19 00:00
03/20 00:00
03/21 00:00
03/22 00:00
established
UDP Stats
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
100
80
60
40
20
0
Udp_InDatagrams
Udp_InErrors
Udp_OutDatagrams
Udp_NoPorts
Conntrack
65.5 K
65.5 K
65.5 K
65.5 K
65.5 K
65.5 K
65.5 K
65.5 K
free

QUERY

Prometheus
Alerts
Graph
Status
Help
Use local time
Enable query history
Enable autocomplete
Enable highlighting
Enable linter
rate(node_cpu_seconds_total{mode="system"}[1m])
Execute
Table
Graph
Load time: 10ms
Resolution: 14s
Result series: 20
1h
End time
Res. (s)
Show Exemplars
2025-03-22 10:10:18 +00:00
value: 0.00222217284060357 4
Series:
cpu: 1
instance: localhost:9100
job: node_export
mode: system


Prometheus
Alerts
Graph
Status
Help
Use local time
Enable query history
Enable autocomplete
Enable highlighting
Enable linter
rate(node_network_receive_bytes_total[1m])
Execute
Table
Graph
Load time: 12ms
Resolution: 14s
Result series: 6
1h
End time
Res. (s)
Show Exemplars
2025-03-22 10:25:50 +00:00
value: 28314.78477299496
Series:
device: lo
instance: localhost:9100
job: node_export

Prometheus
Alerts
Graph
Status
Help
Use local time
Enable query history
Enable autocomplete
Enable highlighting
Enable linter
node_load15
Execute
Table
Graph
Load time: 15ms
Resolution: 14s
Result series: 1
1h
End time
Res. (s)
Show Exemplars
2025-03-22 10:04:59 +00:00
node_load15: 0.12
Series:
node_load15
instance: localhost:9100
job: node_export