

Install Prometheus and Grafana on a Linux EC2 machine, connect Prometheus to Grafana, and create a dashboard to view metrics.

<input type="checkbox"/>	Name	Instance ID	Instance state	Instance type	Status check
<input type="checkbox"/>	Targeting server	i-07198d978a632069b	Running	t2.micro	2/2 checks passed
<input type="checkbox"/>	Monitoring server	i-0982059393a15f0be	Running	t2.micro	2/2 checks passed

```
ubuntu@ip-172-31-32-153:~/Prometheus_Grafana_doc$ ./install-prometheus.sh
--2024-05-27 02:08:39-- https://github.com/prometheus/prometheus/releases/download/v2.23.0/prometheus-2.23.0.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/6838921/9563ce00-2fee-11eb-8365-d1748ff14824?X-Amz-Algorithm=AWS4-HMAC-SHA256&X-Amz-Credential=releaseassetproduction%2F20240527%2Fus-east-1%2F%3A%2Faws4_request&X-Amz-Date=20240527T020839&X-Amz-Expires=300&X-Amz-Signature=f1c08155187eaaf2d9b6e5e2113e3582f72d4742752d2c14d8c847621430560a&X-Amz-SignedHeaders=host&actor_id=0&key_id=0&repo_id=6838921&response-content-disposition=attachment%3B%20filename%3Dprometheus-2.23.0.linux-amd64.tar.gz&response-content-type=application%2Foctet-stream [following]
--2024-05-27 02:08:39-- https://objects.githubusercontent.com/github-production-release-asset-2e65be/6838921/9563ce00-2fee-11eb-8365-d1748ff14824?X-Amz-Algorithm=AWS4-HMAC-SHA256&X-Amz-Credential=releaseassetproduction%2F20240527%2Fus-east-1%2F%3A%2Faws4_request&X-Amz-Date=20240527T020839&X-Amz-Expires=300&X-Amz-Signature=f1c08155187eaaf2d9b6e5e2113e3582f72d4742752d2c14d8c847621430560a&X-Amz-SignedHeaders=host&actor_id=0&key_id=0&repo_id=6838921&response-content-disposition=attachment%3B%20filename%3Dprometheus-2.23.0.linux-amd64.tar.gz
Resolving objects.githubusercontent.com (objects.githubusercontent.com)... 185.199.111.133, 185.199.108.133, 185.199.109.133, ...
Connecting to objects.githubusercontent.com (objects.githubusercontent.com)[185.199.111.133]:443... connected.
HTTP request sent, awaiting response... 200 OK
Length: 64298432 (61M) [application/octet-stream]
Saving to: 'prometheus-2.23.0.linux-amd64.tar.gz'

prometheus-2.23.0.linux-amd64.tar.gz          100%[=====>] 61.32M
137MB/s in 0.4s

2024-05-27 02:08:41 (137 MB/s) - 'prometheus-2.23.0.linux-amd64.tar.gz' saved [64298432/64298432]

prometheus-2.23.0.linux-amd64/
prometheus-2.23.0.linux-amd64/LICENSE
prometheus-2.23.0.linux-amd64/conssoles/
prometheus-2.23.0.linux-amd64/conssoles/node-cpu.html
prometheus-2.23.0.linux-amd64/conssoles/prometheus-overview.html
prometheus-2.23.0.linux-amd64/conssoles/node-overview.html
prometheus-2.23.0.linux-amd64/conssoles/node.html
prometheus-2.23.0.linux-amd64/conssoles/node-disk.html
prometheus-2.23.0.linux-amd64/conssoles/index.html.example
prometheus-2.23.0.linux-amd64/conssoles/prometheus.html
prometheus-2.23.0.linux-amd64/prometheus
prometheus-2.23.0.linux-amd64/console libraries/
prometheus-2.23.0.linux-amd64/console libraries/prom.lib
prometheus-2.23.0.linux-amd64/console libraries/menu.lib
```

```
Created symlink /etc/systemd/system/multi-user.target.wants/prometheus.service → /etc/systemd/system/prometheus.service.
* prometheus.service - Prometheus
   Loaded: loaded (/etc/systemd/system/prometheus.service; enabled; vendor preset: enabled)
   Active: active (running) since Mon 2024-05-27 02:08:47 UTC; 40ms ago
   Main PID: 1705 (prometheus)
     Tasks: 3 (limit: 1121)
    Memory: 6.6M
       CPU: 17ms
   CGroup: /system.slice/prometheus.service
           └─1705 /usr/local/bin/prometheus --config.file /etc/prometheus/prometheus.yml --storage.tsdb.path /var/lib/prometheus/ --web.console.templates=/etc/prometheus/conssoles
           --web.console.libraries=/

May 27 02:08:47 ip-172-31-32-153 systemd[1]: Started Prometheus.
lines 1-11/11 (END)
```

```
ubuntu@ip-172-31-32-153:~/Prometheus_Grafana_doc$ ./install-grafana.sh
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
adduser is already the newest version (3.118ubuntu5).
adduser set to manually installed.
The following additional packages will be installed:
  fontconfig-config fonts-dejavu-core
The following NEW packages will be installed:
  fontconfig-config fonts-dejavu-core libfontconfig1
0 upgraded, 3 newly installed, 0 to remove and 0 not upgraded.
Need to get 1202 kB of archives.
After this operation, 3540 kB of additional disk space will be used.
Get:1 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu jammy/main amd64 fonts-dejavu-core all 2.37-2build1 [1041 kB]
Get:2 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu jammy/main amd64 fontconfig-config all 2.13.1-4.2ubuntu5 [29.1 kB]
Get:3 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu jammy/main amd64 libfontconfig1 amd64 2.13.1-4.2ubuntu5 [131 kB]
Fetched 1202 kB in 0s (26.0 MB/s)
Selecting previously unselected package fonts-dejavu-core.
(Reading database ... 65283 files and directories currently installed.)
Preparing to unpack .../fonts-dejavu-core_2.37-2build1_all.deb ...
Unpacking fonts-dejavu-core (2.37-2build1) ...
Selecting previously unselected package fontconfig-config.
Preparing to unpack .../fontconfig-config_2.13.1-4.2ubuntu5_all.deb ...
Unpacking fontconfig-config (2.13.1-4.2ubuntu5) ...
Selecting previously unselected package libfontconfig1:amd64.
Preparing to unpack .../libfontconfig1_2.13.1-4.2ubuntu5_amd64.deb ...
Unpacking libfontconfig1:amd64 (2.13.1-4.2ubuntu5) ...
```

```
Selecting previously unselected package grafana.
(Reading database ... 65398 files and directories currently installed.)
Preparing to unpack grafana_7.3.4_amd64.deb ...
Unpacking grafana (7.3.4) ...
Setting up grafana (7.3.4) ...
Adding system user 'grafana' (UID 115) ...
Adding new user 'grafana' (UID 115) with group 'grafana' ...
Not creating home directory '/usr/share/grafana'.
##! NO! 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
* grafana-server.service - Grafana instance
   Loaded: loaded (/lib/systemd/system/grafana-server.service; disabled; vendor preset: enabled)
   Active: active (running) since Mon 2024-05-27 02:13:50 UTC; 42ms ago
     Docs: http://docs.grafana.org
   Main PID: 2372 (grafana-server)
    Tasks: 4 (limit: 1121)
   Memory: 4.1M
      CPU: 13ms
   CGroup: /system.slice/grafana-server.service
           └─2372 /usr/sbin/grafana-server --config=/etc/grafana/grafana.ini --pidfile=/var/run/grafana/grafana-server.pid --packaging=deb cfg:default.paths.logs=/var/log/grafana cfg:default.paths.data=/v

May 27 02:13:50 ip-172-31-32-153 systemd[1]: Started Grafana instance.
Since 1-12-22 (END)
```

```
ubuntu@ip-172-31-32-153:~/Prometheus_Grafana_doc$ ./install-node-exporter.sh
2024-05-27 02:15:48 - https://github.com/prometheus/node_exporter/releases/download/v1.0.1/node_exporter-1.0.1-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/9524057/2ae54580-afed-11ea-8b8a-89172cfff39d?X-Amz-Algorithm=AWS4-HMAC-SHA256&X-Amz-Credential=releaseassetproduction%2F20240527%2Fus-east-1%2Faws4_request&X-Amz-Date=20240527T021549Z&X-Amz-Expires=300&X-Amz-Signature=7d3ce61cb1200edd0c4aa2a37eb16cc7f57c450d6d842de55d95558cbb7d42f44X-Amz-SignedHeaders=host&actor_id=06ke
_id=06repo_id=9524057&response-content-disposition=attachment%3B%20filename%3Dnode_exporter-1.0.1-linux-amd64.tar.gz&response-content-type=application%2Foctet-stream [following]
2024-05-27 02:15:49 - https://objects.githubusercontent.com/github-production-release-asset-2e65be/9524057/2ae54580-afed-11ea-8b8a-89172cfff39d?X-Amz-Algorithm=AWS4-HMAC-SHA256&X-Amz-Credential=releaseassetproduction%2F20240527%2Fus-east-1%2Faws4_request&X-Amz-Date=20240527T021549Z&X-Amz-Expires=300&X-Amz-Signature=7d3ce61cb1200edd0c4aa2a37eb16cc7f57c450d6d842de55d95558cbb7d42f44X-Amz-SignedHeaders=host&actor_id=06ke_id=06repo_id=9524057&response-content-disposition=attachment%3B%20filename%3Dnode_exporter-1.0.1-linux-amd64.tar.gz&response-content-type=application%2Foctet-stream
Resolving objects.githubusercontent.com (objects.githubusercontent.com)... 185.199.111.133, 185.199.108.133, 185.199.109.133, ...
Connecting to objects.githubusercontent.com (objects.githubusercontent.com)[185.199.111.133]:443... connected.
HTTP request sent, awaiting response... 200 OK
Length: 9520728 (9.1M) [application/octet-stream]
Saving to: 'node_exporter-1.0.1-linux-amd64.tar.gz'

node_exporter-1.0.1-linux-amd64.tar.gz          100%[=====>] 9.08M --.-KB/s in 0.06s

2024-05-27 02:15:50 (150 MB/s) - 'node_exporter-1.0.1-linux-amd64.tar.gz' saved [9520728/9520728]

Created symlink /etc/systemd/system/multi-user.target.wants/node-exporter.service -> /etc/systemd/system/node-exporter.service.
* node-exporter.service - Prometheus Node Exporter Service
   Loaded: loaded (/etc/systemd/system/node-exporter.service; enabled; vendor preset: enabled)
   Active: active (running) since Mon 2024-05-27 02:15:51 UTC; 34ms ago
     Main PID: 2875 (node_exporter)
        Tasks: 3 (limit: 1121)
       Memory: 1.7M
          CPU: 6ms
     CGroup: /system.slice/node-exporter.service
             └─2875 /usr/local/bin/node_exporter

May 27 02:15:51 ip-172-31-32-153 node_exporter[2875]: level=info ts=2024-05-27T02:15:51.743Z caller=node_exporter.go:112 collector=thermal_zone
May 27 02:15:51 ip-172-31-32-153 node_exporter[2875]: level=info ts=2024-05-27T02:15:51.743Z caller=node_exporter.go:112 collector=time
May 27 02:15:51 ip-172-31-32-153 node_exporter[2875]: level=info ts=2024-05-27T02:15:51.743Z caller=node_exporter.go:112 collector=timex
May 27 02:15:51 ip-172-31-32-153 node_exporter[2875]: level=info ts=2024-05-27T02:15:51.743Z caller=node_exporter.go:112 collector=udp_queues
May 27 02:15:51 ip-172-31-32-153 node_exporter[2875]: level=info ts=2024-05-27T02:15:51.743Z caller=node_exporter.go:112 collector=uname
May 27 02:15:51 ip-172-31-32-153 node_exporter[2875]: level=info ts=2024-05-27T02:15:51.743Z caller=node_exporter.go:112 collector=vmstat
May 27 02:15:51 ip-172-31-32-153 node_exporter[2875]: level=info ts=2024-05-27T02:15:51.743Z caller=node_exporter.go:112 collector=xfs
May 27 02:15:51 ip-172-31-32-153 node_exporter[2875]: level=info ts=2024-05-27T02:15:51.743Z caller=node_exporter.go:112 collector=xfs
May 27 02:15:51 ip-172-31-32-153 node_exporter[2875]: level=info ts=2024-05-27T02:15:51.743Z caller=node_exporter.go:193 msg="Listening on" address=:9100
May 27 02:15:51 ip-172-31-32-153 node_exporter[2875]: level=info ts=2024-05-27T02:15:51.744Z caller=tlc_config.go:170 msg="TLS is disabled and it cannot be enabled on the fly." http2=false
ubuntu@ip-172-31-32-153:~/Prometheus_Grafana_doc$
```

Inbound rules

Info

Security group rule ID	Type	Protocol	Port range	Source	Description - optional
sgr-0709435a462d2adeb	Custom TCP	TCP	3000	Custom	Grafana port
sgr-0c28ce6e6839f576c	Custom TCP	TCP	9100	Custom	Node exporter
sgr-00c465f916cbb1da4	SSH	TCP	22	Custom	
sgr-030e662df7260def2	Custom TCP	TCP	9090	Custom	Prometheus port

Add rule

← → ↺

Not secure 13.232.43.233:9090/targets

Prometheus

Alerts Graph Status ▾ Help Classic UI

Targets

All Unhealthy

prometheus (1/1 up) show less

Endpoint	State	Labels	Last Scrape	Scrape Duration	Error
http://localhost:9090/metrics	UP	instance="localhost:9090" job="prometheus"	8.426s	4.993ms	

Home

Welcome to Grafana

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Basic

TUTORIAL DATA SOURCE AND DASHBOARDS

DATA SOURCES

DASHBOARDS

Shared dashboards

Recently viewed dashboards

Latest from the blog

Node Exporter

[Metrics](#)

```
ubuntu@ip-172-31-45-123:~/Prometheus Grafana doc$ ./install-node-exporter.sh
--2024-05-27 03:14:01-- https://github.com/prometheus/node_exporter/releases/download/v1.0.1/node_exporter-1.0.1-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/9524057/2ae54580-afed-11ea-8b8a-89172effc39d?X-Amz-Algorithm=AWS4-HMAC-SHA256&X-Amz-Credential=releasename%2Fproduction%2Fpus-east-1%2Faws4_request%26X-Amz-Date=20240527T031401Z&X-Amz-Expires=300&X-Amz-Signature=3af4f06eb25ab5fc47fe939978cc6de2896ec0997b6226dbe72d86ddfdcd19cc&X-Amz-SignedHeaders=host&actor_id=0&key_id=0&repo_id=9524057&response-content-disposition=attachment%3B%20filename%3Dnode_exporter-1.0.1-linux-amd64.tar.gz&response-content-type=application%2Foctet-stream [following]
--2024-05-27 03:14:02-- https://objects.githubusercontent.com/github-production-release-asset-2e65be/9524057/2ae54580-afed-11ea-8b8a-89172effc39d?X-Amz-Algorithm=AWS4-HMAC-SHA256&X-Amz-Credential=releasename%2Fproduction%2Fpus-east-1%2Faws4_request%26X-Amz-Date=20240527T031401Z&X-Amz-Expires=300&X-Amz-Signature=3af4f06eb25ab5fc47fe939978cc6de2896ec0997b6226dbe72d86ddfdcd19cc&X-Amz-SignedHeaders=host&actor_id=0&key_id=0&repo_id=9524057&response-content-disposition=attachment%3B%20filename%3Dnode_exporter-1.0.1-linux-amd64.tar.gz&response-content-type=application%2Foctet-stream
Resolving objects.githubusercontent.com (objects.githubusercontent.com)... 185.199.111.133, 185.199.108.133, 185.199.105.133, ...
Connecting to objects.githubusercontent.com (objects.githubusercontent.com)[185.199.111.133]:443... connected.
HTTP request sent, awaiting response... 200 OK
Length: 9520728 (9.1M) [application/octet-stream]
Saving to: 'node_exporter-1.0.1-linux-amd64.tar.gz'

node_exporter-1.0.1-linux-amd64.tar.gz      100%[=====] 9.08M --.-KB/s  in 0.06s

2024-05-27 03:14:03 (144 MB/s) - 'node_exporter-1.0.1-linux-amd64.tar.gz' saved [9520728/9520728]

Created symlink /etc/systemd/system/multi-user.target.wants/node-exporter.service -> /etc/systemd/system/node-exporter.service.
* node-exporter.service - Prometheus Node Exporter Service
   Loaded: loaded (/etc/systemd/system/node-exporter.service; enabled; vendor preset: enabled)
   Active: active (running) since Mon 2024-05-27 03:14:04 UTC; 34ms ago
     Main PID: 1779 (node_exporter)
        Tasks: 3 (limit: 1121)
       Memory: 1.7M
          CPU: 6ms
      CGroup: /system.slice/node-exporter.service
              └─1779 /usr/local/bin/node_exporter

May 27 03:14:04 ip-172-31-45-123 systemd[1]: Started Prometheus Node Exporter Service.
ubuntu@ip-172-31-45-123:~/Prometheus Grafana doc$
```

i-07198d978a632069b (Targeting server)

PublicPcs: 65.0.101.143 PrivatePcs: 172.31.45.123

```
ubuntu@ip-172-31-32-247:~$ sudo vi /etc/prometheus/prometheus.yml
ubuntu@ip-172-31-32-247:~$
```

```
global:
  scrape_interval: 15s
  external_labels:
    monitor: 'prometheus'

scrape_configs:
  - job_name: 'prometheus'
    static_configs:
      - targets: ['localhost:9090']

~
~
~
~
~
~
~
```

```
global:
  scrape_interval: 15s
  external_labels:
    monitor: 'prometheus'

scrape_configs:
  - job_name: 'prometheus'
    static_configs:
      - targets: ['65.0.101.143:9100']

~
~
~
~
~
~
~
~
~
~
~
```

Targets

All Unhealthy

prometheus (0/1 up) [show less](#)

Endpoint	State	Labels	Last Scrape	Scrape Duration	Error
http://65.0.101.143:9100/metrics	UNKNOWN	instance="65.0.101.143:9100" job="prometheus"	Never	0s	

```
# 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"} 1.0615e-05
go_gc_duration_seconds{quantile="0.25"} 1.0807e-05
go_gc_duration_seconds{quantile="0.5"} 1.0977e-05
go_gc_duration_seconds{quantile="0.75"} 1.6127e-05
go_gc_duration_seconds{quantile="1"} 2.4922e-05
go_gc_duration_seconds_sum 7.3448e-05
go_gc_duration_seconds_count 5
# HELP go_goroutines Number of goroutines that currently exist.
# TYPE go_goroutines gauge
go_goroutines 9
# HELP go_info Information about the Go environment.
# TYPE go_info gauge
go_info{version="go1.14.4"} 1
# HELP go_memstats_alloc_bytes Number of bytes allocated and still in use.
# TYPE go_memstats_alloc_bytes gauge
go_memstats_alloc_bytes 3.389528e+06
# 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 1.4932304e+07
# 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 1.448623e+06
# HELP go_memstats_frees_total Total number of frees.
# TYPE go_memstats_frees_total counter
go_memstats_frees_total 125573
# HELP go_memstats_gc_cpu_fraction The fraction of this program's available CPU time used by the GC since the program started.
# TYPE go_memstats_gc_cpu_fraction gauge
go_memstats_gc_cpu_fraction 9.995280679058051e-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 3.574024e+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 3.389528e+06
# HELP go_memstats_heap_idle_bytes Number of heap bytes waiting to be used.
```



Data Sources / Prometheus

Type: Prometheus

Settings

Dashboards

Name



Prometheus

Default



HTTP

URL



http://43.205.203.107:9090/

Access

Server (default)



[Help](#)

Whitelisted Cookies



Add Name

Add

Auth

Basic auth



With Credentials



TLS Client Auth



With CA Cert



Skip TLS Verify



Forward OAuth Identity



Custom HTTP Headers

+ Add header

Scrape interval



15s

Query timeout



60s

HTTP Method



Choose



