# Prometheus Installation & Configuration

Prometheus is an open-source system monitoring and alerting toolkit originally built at SoundCloud. Since its inception in 2012, many companies and organizations have adopted Prometheus, and the project has a very active developer and user community.


## Steps to Setup Prometheus

### Disabled SeLinux:

```
# vim /etc/selinux/config
        SELINUX=disabled
:x
# init 6
# getenforce
```

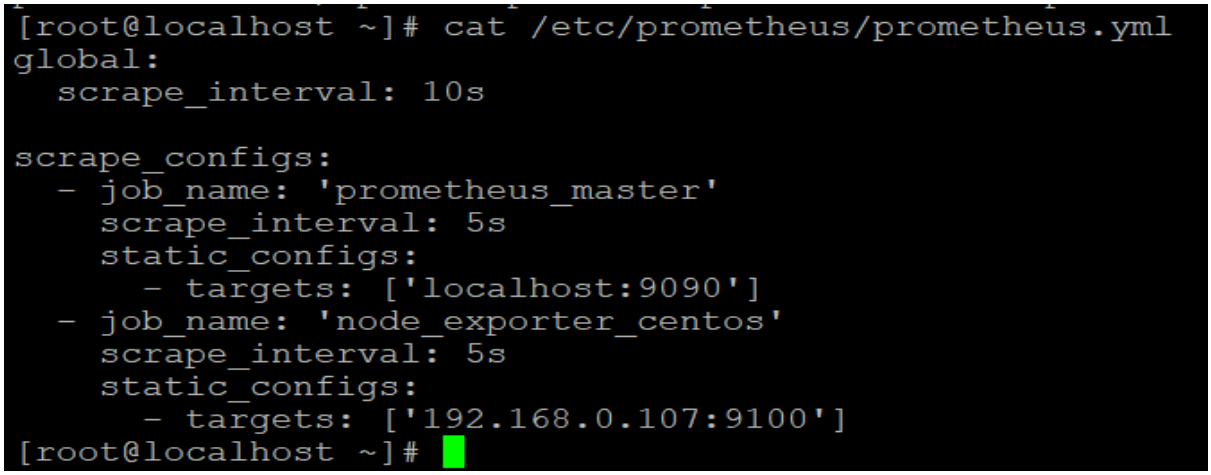
### Download Prometheus & Installation:

```
 # wget
https://github.com/prometheus/prometheus/releases/download/v2.8.1/prometheus-
2.8.1.linux-amd64.tar.gz
 # tar -xvzf prometheus-2.8.1.linux-amd64.tar.gz
 # mv prometheus-2.8.1.linux-amd64 prometheuspackage

 # useradd --no-create-home --shell /bin/false prometheus


 # mkdir /etc/prometheus
 # mkdir /var/lib/prometheus
 # chown prometheus:prometheus /etc/prometheus
 # chown prometheus:prometheus /var/lib/Prometheus
```

```
# cp prometheuspackage/prometheus /usr/local/bin/
# cp prometheuspackage/promtool /usr/local/bin/
# chown prometheus:prometheus /usr/local/bin/prometheus
# chown prometheus:prometheus /usr/local/bin/promtool

# cp -r prometheuspackage/consoles /etc/prometheus
# cp -r prometheuspackage/console_libraries /etc/prometheus
# chown -R prometheus:prometheus /etc/prometheus/consoles
# chown -R prometheus:prometheus /etc/prometheus/console_libraries
```

**Configuration on Prometheus:**

```
# vim /etc/prometheus/prometheus.yml

global:
  scrape_interval: 10s

scrape_configs:
  - job_name: 'prometheus_master'
    scrape_interval: 5s
    static_configs:
      - targets: ['localhost:9090']
  - job_name: 'node_exporter_centos'
    scrape_interval: 5s
    static_configs:
      - targets: ['192.168.0.107:9100']
```




```
# chown prometheus:prometheus /etc/prometheus/prometheus.yml
```

## Run Prometheus as a Service:

```
# vim /etc/systemd/system/prometheus.service

        [Unit]
        Description=Prometheus
        Wants=network-online.target
        After=network-online.target

        [Service]
        User=prometheus
        Group=prometheus
        Type=simple
        ExecStart=/usr/local/bin/prometheus \
        --config.file /etc/prometheus/prometheus.yml \
        --storage.tsdb.path /var/lib/prometheus/ \
        --web.console.templates=/etc/prometheus/consoles \
        --web.console.libraries=/etc/prometheus/console_libraries

        [Install]
        WantedBy=multi-user.target


  # systemctl daemon-reload
  # systemctl start prometheus
  # systemctl status Prometheus
```

## Allow in System Firewall:

```
  # firewall-cmd --zone=public --add-port=9090/tcp --permanent
  # firewall-cmd --reload
  # firewall-cmd --list-all
```

## Install & Configuration Node Exporter:

```
   # wget
https://github.com/prometheus/node_exporter/releases/download/v0.17.0/node_export
er-0.17.0.linux-amd64.tar.gz
  # tar -xvzf node_exporter-0.17.0.linux-amd64.tar.gz
  # mv node_exporter-0.17.0.linux-amd64/node_exporter /usr/local/bin/

  # useradd -rs /bin/false nodeusr
```

**Run node exporter as a Service:**

```
# vim /etc/systemd/system/node_exporter.service

        [Unit]
        Description=Node Exporter
        After=network.target

        [Service]
        User=nodeusr
        Group=nodeusr
        Type=simple
        ExecStart=/usr/local/bin/node_exporter

        [Install]
        WantedBy=multi-user.target
```

```
# systemctl daemon-reload
# systemctl start node_exporter
# systemctl enable node_exporter
# systemctl status node_exporter
```

**Allow in System Firewall:**

```
#  firewall-cmd --zone=public --add-port=9100/tcp --permanent
#  firewall-cmd –reload
#  firewall-cmd --list-all

# systemctl restart prometheus
# systemctl status prometheus
```

**Login:**

http://192.168.0.107:9090/graph

**Metric Details:**

http://192.168.0.107:9100/metrics

# How to install and configuration Grafana

Grafana is open source visualization and analytics software. It allows you to query, visualize, alert on, and explore your metrics no matter where they are stored. In plain English, it provides you with tools to turn your time-series database (TSDB) data into beautiful graphs and visualizations.


## Steps to Setup Grafana

### Setup Grafana Repo:

# vim /etc/yum.repos.d/grafana.repo

```
[grafana]
name=grafana
baseurl=https://packages.grafana.com/oss/rpm
repo_gpgcheck=1
enabled=1
gpgcheck=1
gpgkey=https://packages.grafana.com/gpg.key
```

```
# yum install grafana
# systemctl daemon-reload
# systemctl start grafana-server
# systemctl status grafana-server
# systemctl enable grafana-server
```

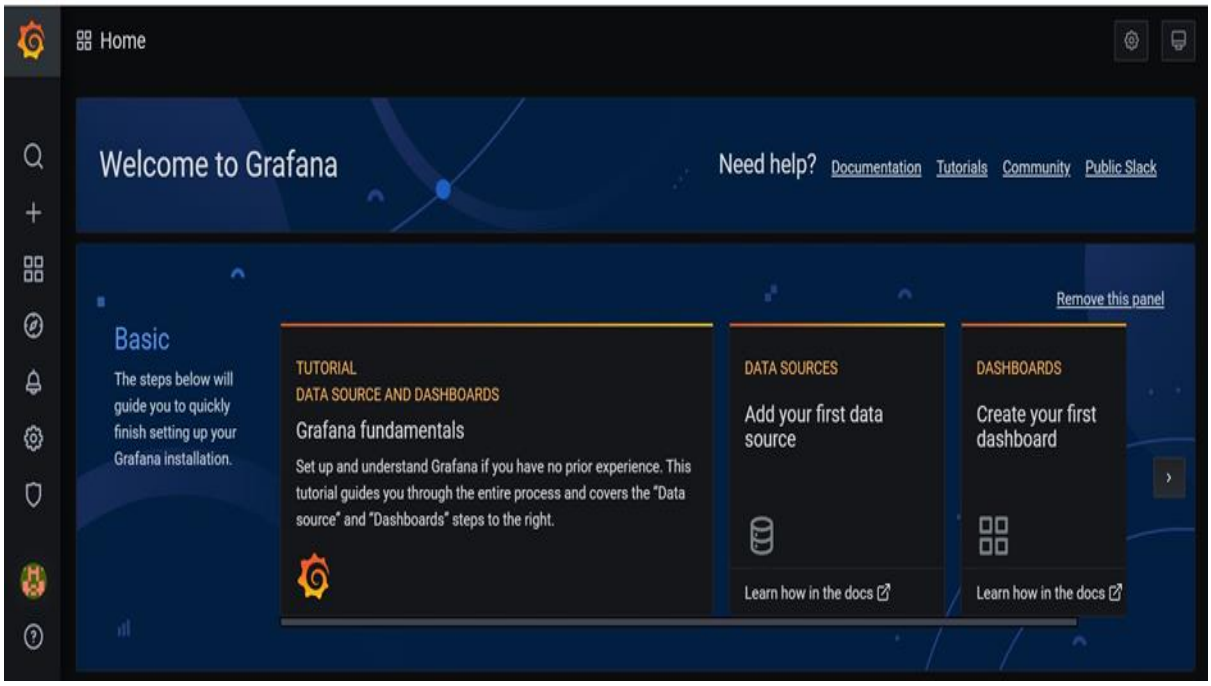
## Allow in System Firewall:

```
# firewall-cmd --permanent --add-port=3000/tcp
# firewall-cmd –reload
# firewall-cmd --list-all
```

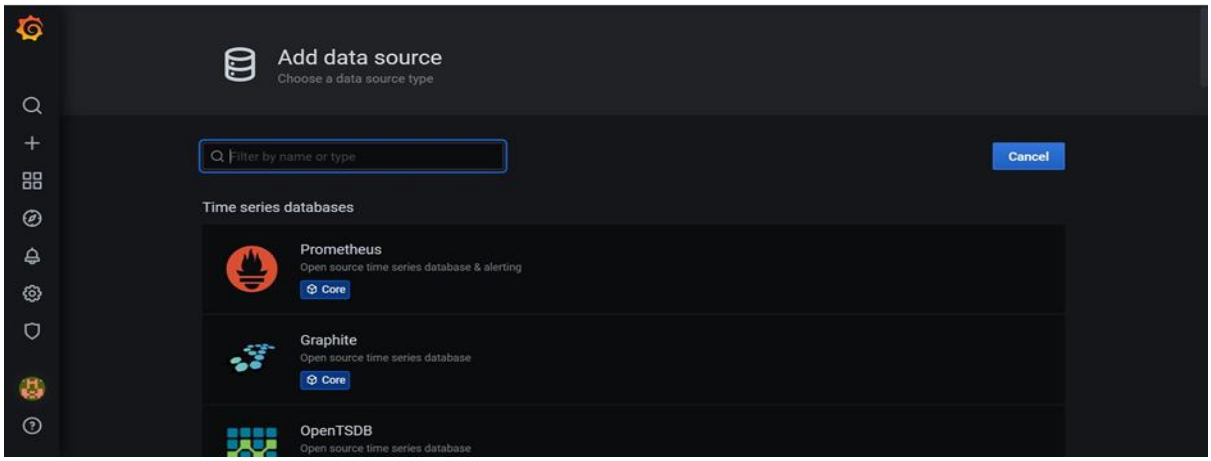
Go to http://192.168.0.107:3000

Log in Page
admin/admin

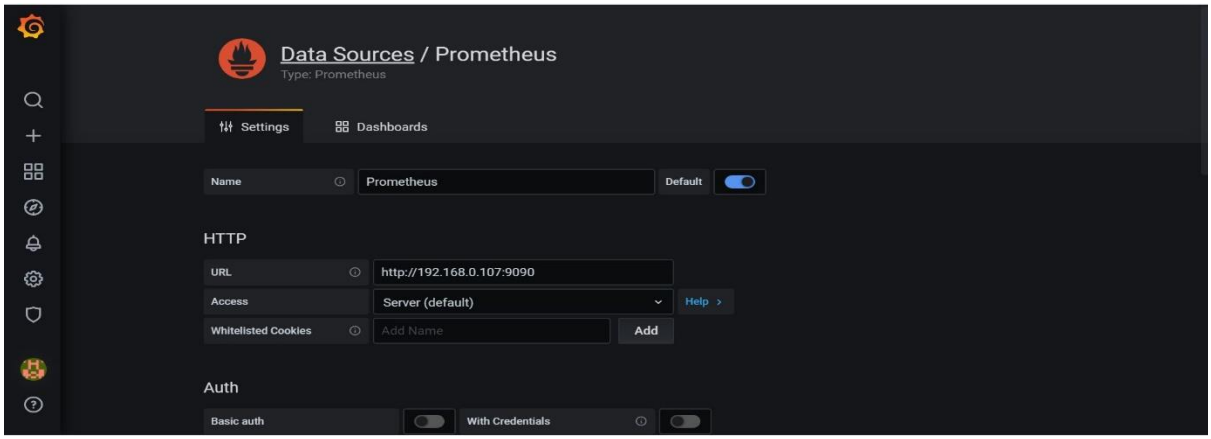

**Add the data Source:**



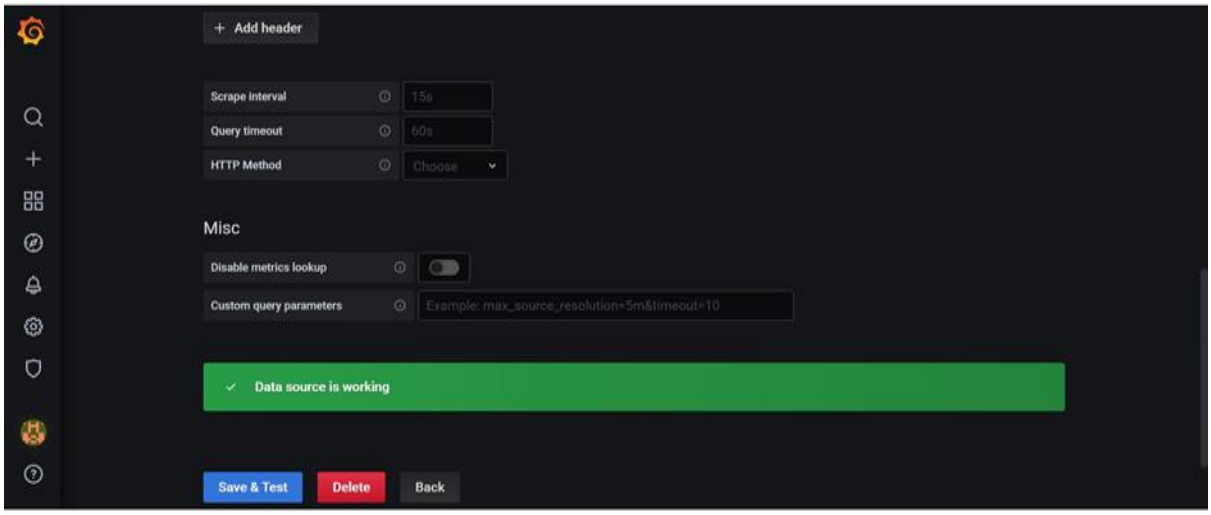
## Select the Data source as Prometheus



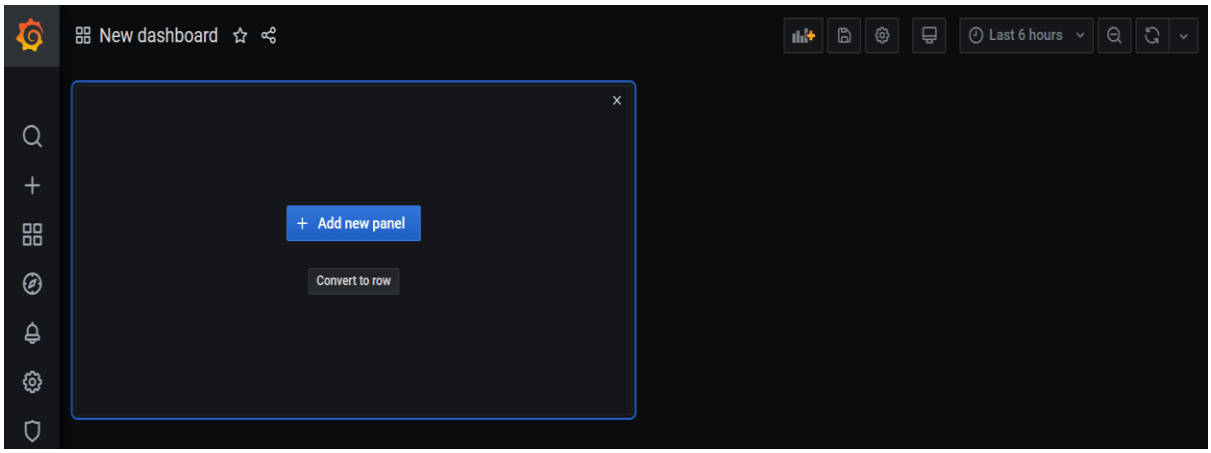

## Add the Data Source:



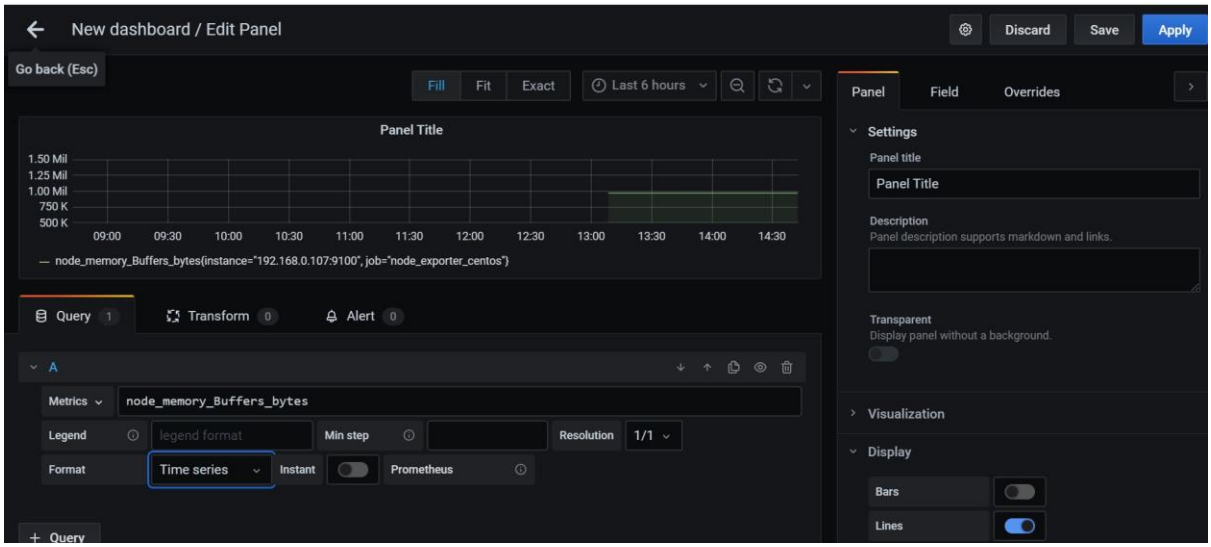

## Data Source Added successfully



## Add a New Panel




## Edit the Panel and Set your desired Metrix




Cheers! 😊