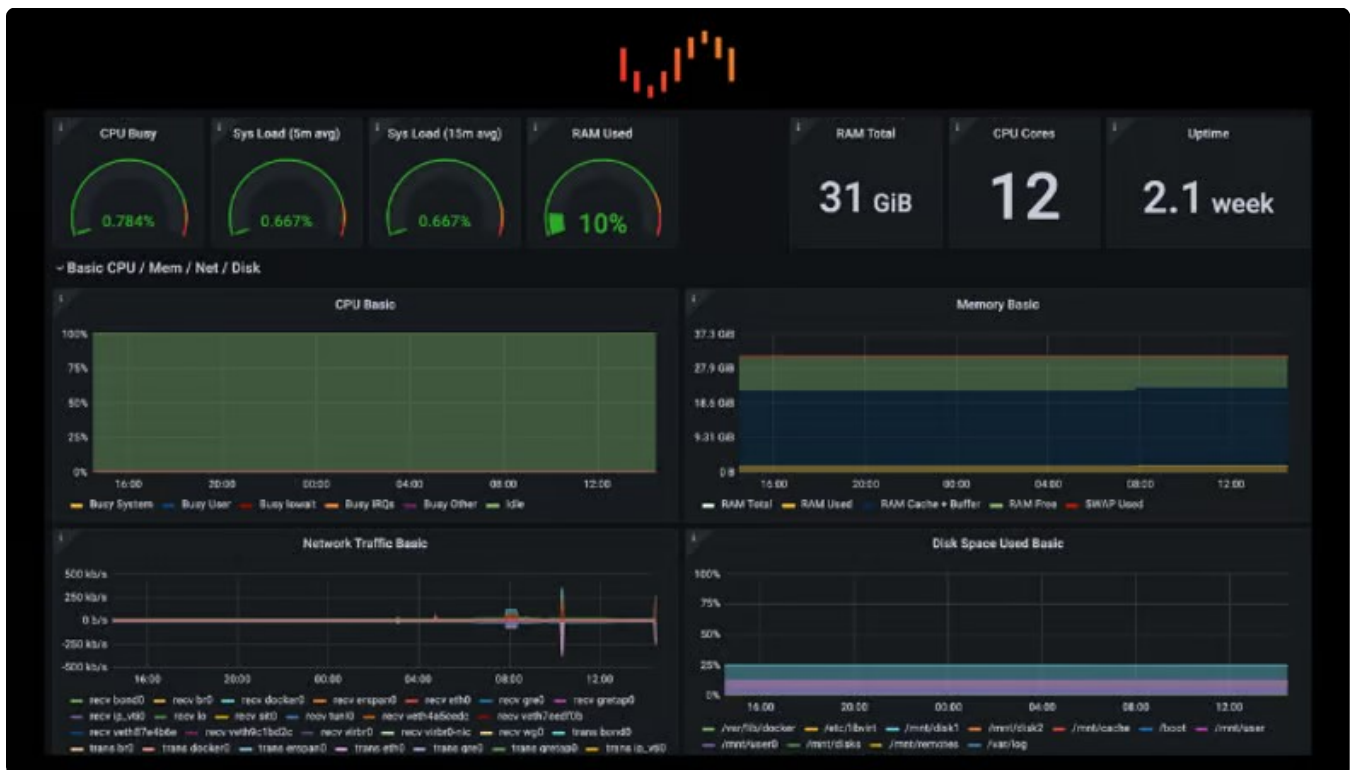


## Unraid News

9 July 2021

# Unraid Data Monitoring with Prometheus and Grafana

This guide will show you how to set up Grafana and Prometheus's Node Exporter for self-hosted Unraid server monitoring.



Let's take a look at how to set up [Prometheus](#) and [Grafana](#) on your Unraid server for feature-rich metrics dashboards and data visualizations.

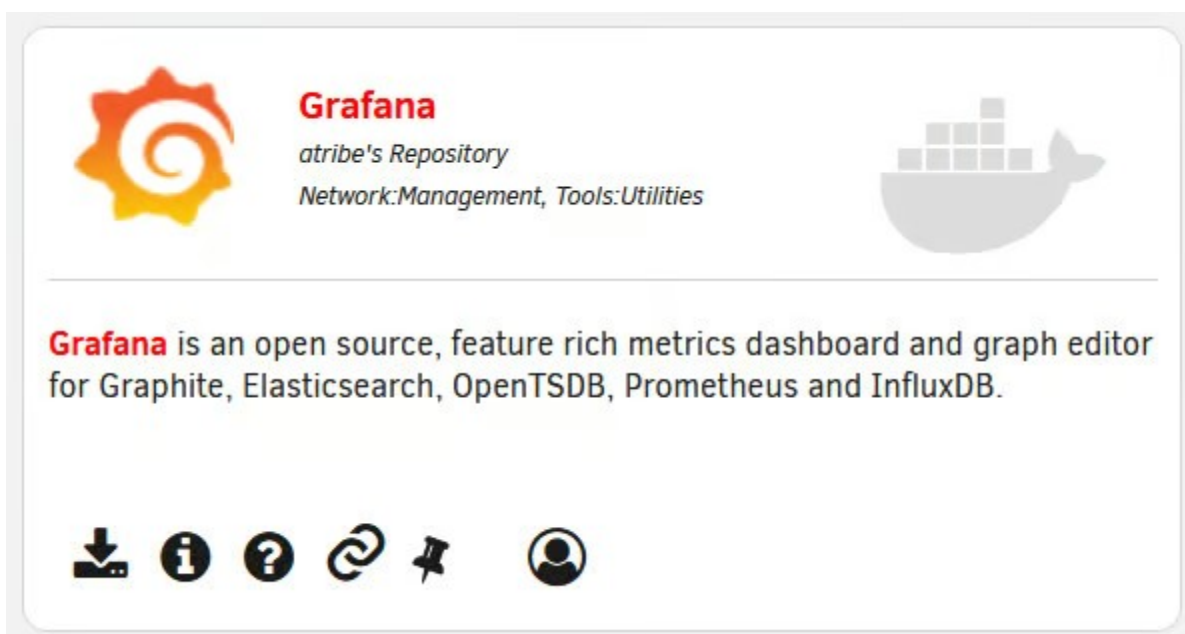
This guide will get you set up with the base Prometheus Node Exporter which will

further allow users to create [custom Dashboards](#) and the monitoring of custom setups such as the [Nvidia Driver](#) plugin, [Pihole](#), and [local PC and VM](#) monitoring, all self-hosted on Unraid!

A big thanks goes to [ich777](#) for writing up these guides and for helping other users get these going!

## Guide

1. Go to [Community Apps](#) (CA) and download the Grafana Docker container. Be sure to input *your server's IP or hostname* in the Key1 section when first setting up the container:



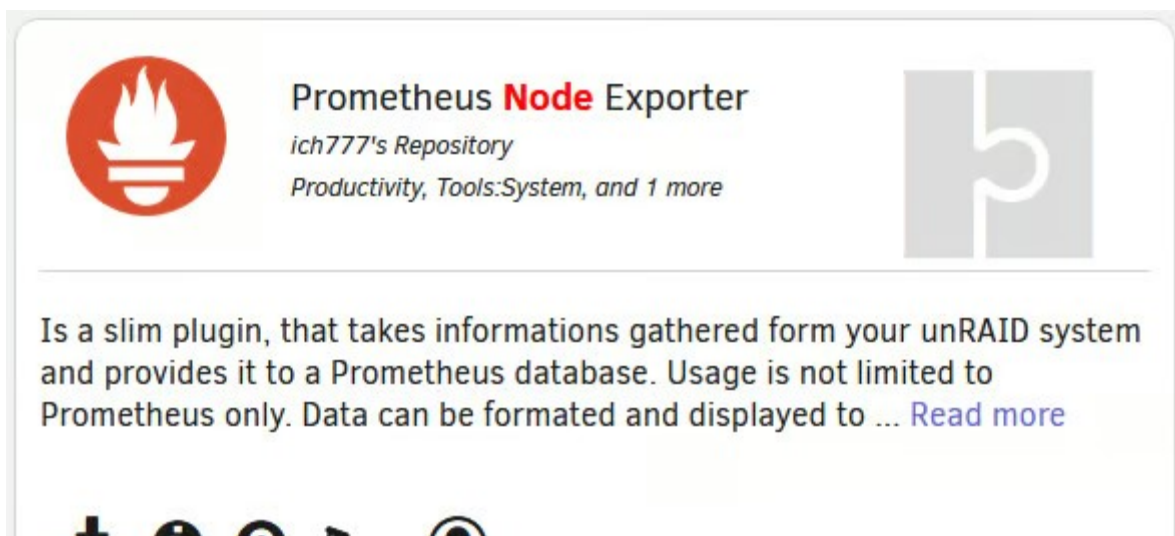
The screenshot shows a card for the Grafana application. On the left is the Grafana logo, a yellow gear with a white spiral. To its right, the text reads "Grafana" in bold, followed by "attribution's Repository" and "Network:Management, Tools:Utilities" in a smaller font. On the right side of the card is the Docker logo, a grey whale carrying a stack of containers. Below this information, a horizontal line separates it from a paragraph: "Grafana is an open source, feature rich metrics dashboard and graph editor for Graphite, Elasticsearch, OpenTSDB, Prometheus and InfluxDB." At the bottom of the card is a row of six icons: a download arrow, an information 'i' icon, a question mark icon, a circular refresh icon, a pushpin icon, and a user profile icon.

2. Download the Prometheus Docker container from CA. Note: The docker will be stopped after the installation and will be fixed in the next steps:



The image shows a repository card for Prometheus. On the left is the Prometheus logo, a red circle with a white flame. To its right, the text reads "prometheus" in bold red, followed by "Selfhosters Unraid Discord Repository" and "Productivity" in a smaller font. On the right side of the card is a grey Docker whale icon. Below the header, a description states: "Prometheus is a systems and service monitoring system. It collects metrics from configured targets at given intervals, evaluates rule expressions, displays the results, and can trigger alerts if some conditio ... [Read more](#)". At the bottom, there is a row of icons: a download arrow, an information 'i' icon, a question mark, a link icon, a pin icon, and a user profile icon.

3. Download and install the Prometheus Node Exporter plugin from CA:



The image shows a repository card for Prometheus Node Exporter. On the left is the Prometheus logo, a red circle with a white flame. To its right, the text reads "Prometheus **Node** Exporter" in bold, followed by "ich777's Repository" and "Productivity, Tools:System, and 1 more" in a smaller font. On the right side of the card is a grey icon representing a node exporter. Below the header, a description states: "Is a slim plugin, that takes informations gathered form your unRAID system and provides it to a Prometheus database. Usage is not limited to Prometheus only. Data can be formated and displayed to ... [Read more](#)". At the bottom, there is a row of icons: a download arrow, an information 'i' icon, a question mark, a link icon, a pin icon, and a user profile icon.




4. Download the '[prometheus.yml](#)' and place it in your './appdata/prometheus/etc' directory on your Unraid server:

### [prometheus.yml](#)

*Note: You must be logged in to the Unraid forums to download.*

appdata > prometheus > etc

Name	Date modified	Type	Size
 prometheus	03.07.2021 12:11	YML-Datei	1 KB

5. Open the prometheus.yml and edit the 'YOURUNRAIDSERVERIP' part so that it matches your server's IP and save and close the file:

```
global:
  scrape_interval:    15s # By default, scrape targets every 15 seconds.

  # Attach these labels to any time series or alerts when communicating with
  # external systems (federation, remote storage, Alertmanager).
  external_labels:
    monitor: 'monitor'

# 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
```

```
# The job name is added as a label 'job=<job_name>' to any timeseries scraped from this config.
- job_name: 'prometheus'

# Override the global default and scrape targets from this job every 15 seconds.
scrape_interval: 15s

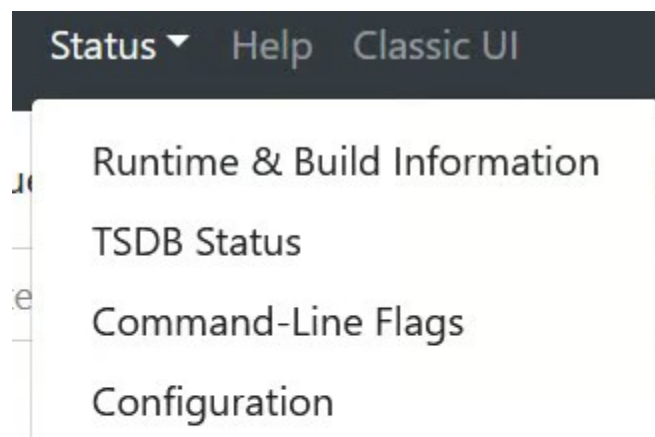
static_configs:
- targets: ["localhost:9090"]
- targets: ["yourunRAIDIP:9100"] # Your unRAID IP:PORT
```

6. Go to your Docker page and start the Prometheus Docker container.

7. After it is started, click the Prometheus container again and select WebUI:



8. On the top click on "Status -> Targets":





9. You should see now a list with two entries, the entry "YOURSERVERIP:9100" should display "UP" like in the following screenshot:

Prometheus Alerts Graph Status ▾ Help Classic UI

## Targets

All Unhealthy Collapse All

**prometheus (2/2 up)** [show less](#)

Endpoint	State	Labels
<a href="http://10.0.0.157:9100/metrics">http://10.0.0.157:9100/metrics</a>	UP	<a href="#">instance="10.0.0.157:9100"</a> <a href="#">job="prometheus"</a>
<a href="http://localhost:9090/metrics">http://localhost:9090/metrics</a>	UP	<a href="#">instance="localhost:9090"</a> <a href="#">job="prometheus"</a>

10. Go to the Docker page, start the Grafana WebUI and log in with your Username and Password (default: admin | admin):





# Welcome to Grafana

Email or username

Password

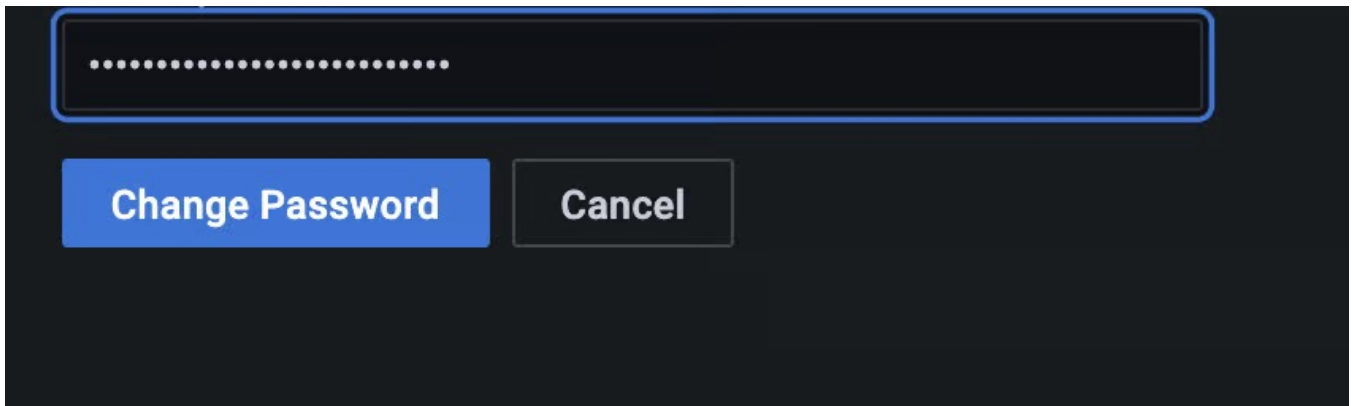
Log in

[Forgot your password?](#)

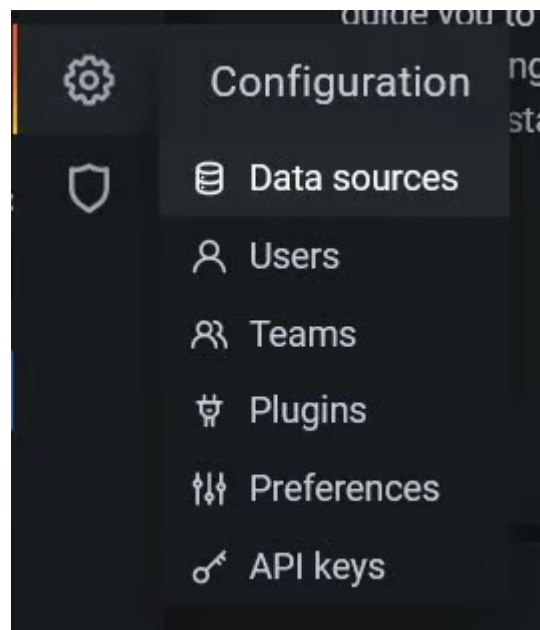
11. If you left it at default you should change the password in the next screen to something secure:

New password

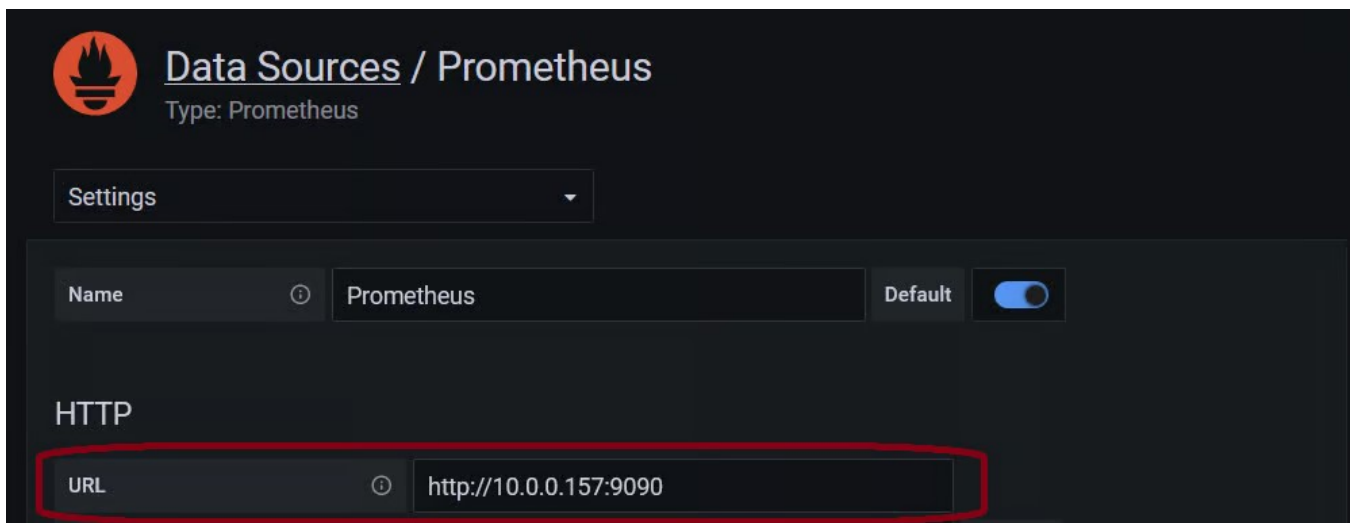
Confirm password



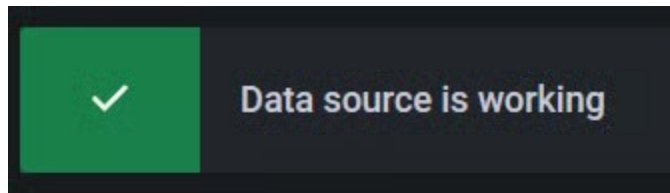
12. Next we are going to configure the Prometheus data source in Grafana by clicking on the "Gear Icon -> Data sources":



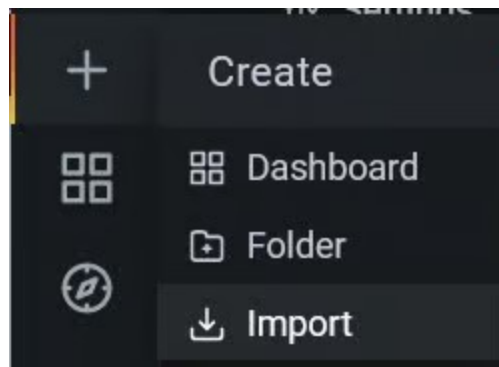
13. Click on "Add data source" and at Prometheus click on "Select":



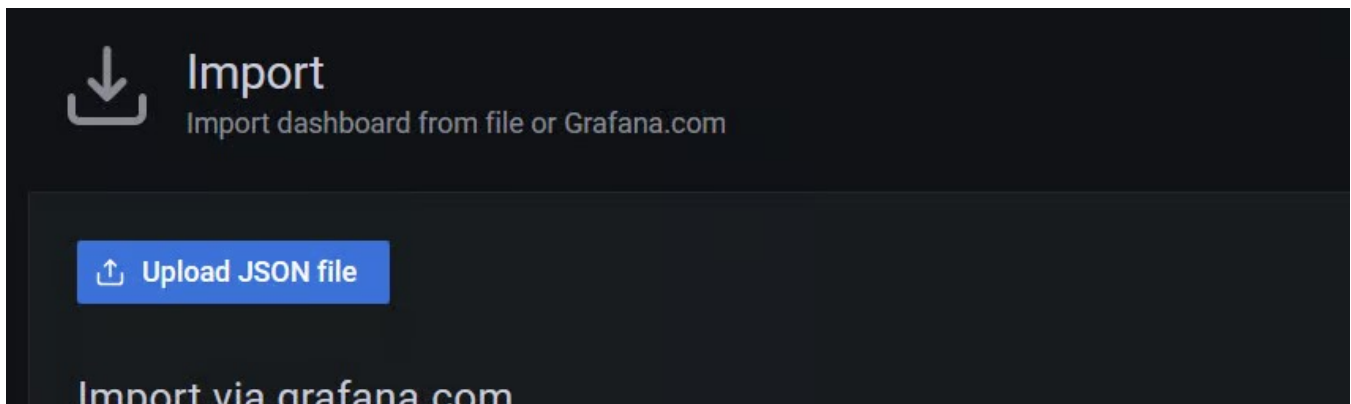
15. At the bottom click on "Save & Test" and you should see this message:



16. In Grafana click on "+ -> Import":



17. Now we are going to import a pre-configured Dashboard for the Node Exporter from Grafana.com ([Source](#)). To do this, simply enter the ID from the Dashboard and click "Load":



import via grafana.com

1860

Load

## If you find these guides useful...

please consider donating to ich777 for this and all of his other hard work!

[DONATE](#)

18. In the next screen be sure to select "Prometheus" as the data source and rename the Dashboard to your liking and click Import.

### Importing dashboard from [Grafana.com](https://grafana.com)

Published by

rfrail

Updated on

2021-05-09 00:30:46

### Options

Name

Server Dashboard

Folder

General

Unique identifier (UID)

The unique identifier (UID) of a dashboard can be used for uniquely identifying

The unique identifier (UID) of a dashboard can be used for uniquely identifying a dashboard between multiple Grafana installs. The UID allows having consistent URLs for accessing dashboards so changing the title of a dashboard will not break any bookmarked links to that dashboard.

rYdddIPWk

Change uid

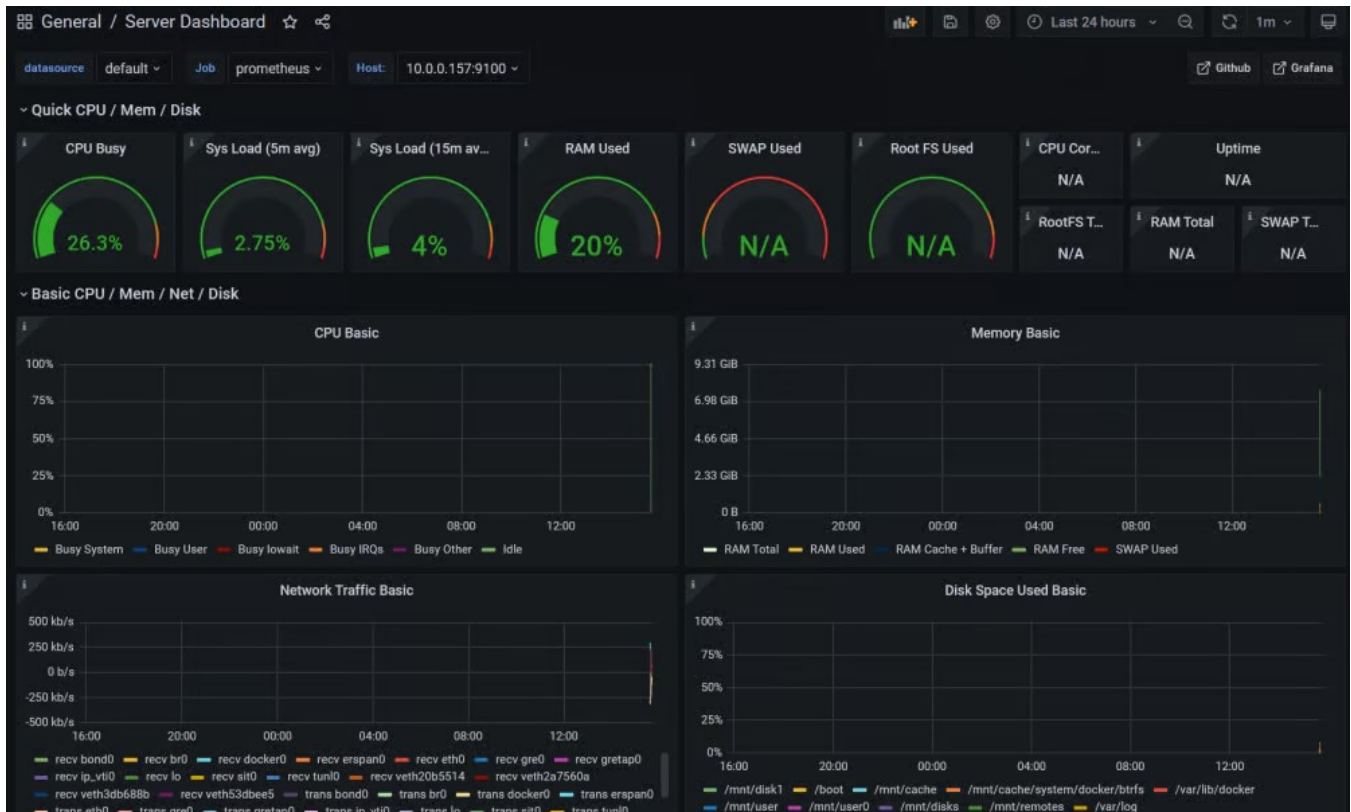
Prometheus

Prometheus

Import

Cancel

Now, you should be greeted with something like this:



Keep in mind that the Dashboard can display N/A values since there is not enough data

available. Wait a few minutes and you will see that the values begin to fill in. Also, please also keep in mind that some values will not be filled at all because by default Unraid doesn't have a SWAP, for example.

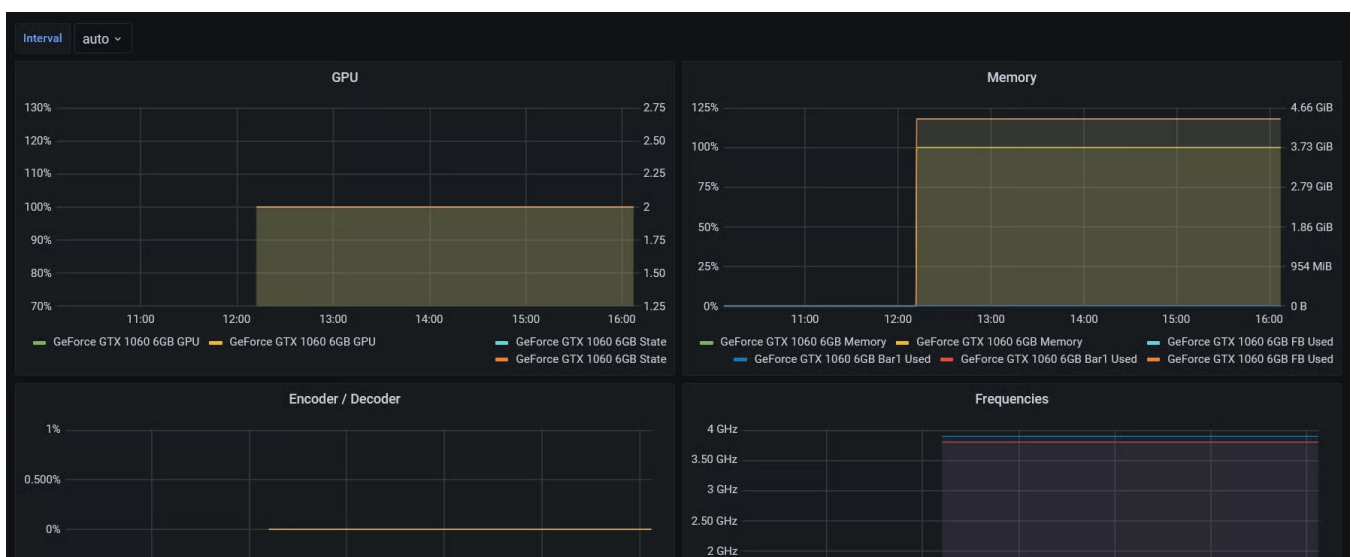
## Would you like to set up Custom Dashboards?

See here for setting up customizable ones from templates!

LEARN MORE

## Prometheus nvidia-smi Exporter

If you would like a dashboard to pair with the [please see here for a setup guide.](#)





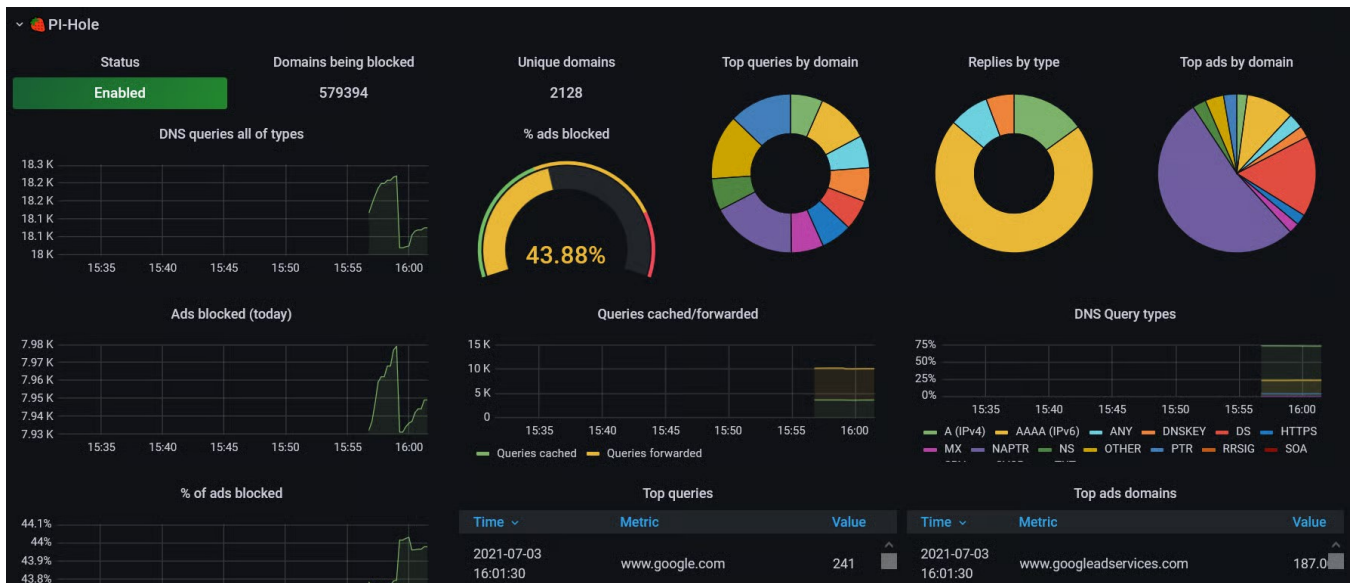
**If you find these guides useful...**

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## Prometheus PiHole Exporter

If you use Pihole, [set up a dashboard to track those blocked ads here!](#)



Do you have a cool dashboard to share?

Need help? Head to the Unraid forums ->

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