

# Grafana

## Your Current Setup:

- **Prometheus** is running on: Ubuntu VM (let's call it monitoring-server)
- **Node Exporter** is running on: Application Server (app-server)
- You want to visualize data with **Grafana**

## Best Practice: Install Grafana on the same server as Prometheus (monitoring-server)

### Why?

- Prometheus and Grafana often go hand-in-hand — having them on the same server:
  - Makes it easy to connect Grafana to Prometheus (localhost:9090)
  - Simplifies networking, especially if you're behind firewalls or NAT
  - Keeps all your monitoring stack centralized

How to do it?

Run below commands on the monitoring-server:

**sudo apt update**

**sudo apt install -y apt-transport-https software-properties-common wget**

**# Add Grafana GPG key and repo**

```
wget -q -O - https://packages.grafana.com/gpg.key | sudo apt-key add -  
echo "deb https://packages.grafana.com/oss/deb stable main" | sudo tee  
/etc/apt/sources.list.d/grafana.list
```

**# Install Grafana**

**sudo apt update**

**sudo apt install grafana -y**

**# Start and enable the service**

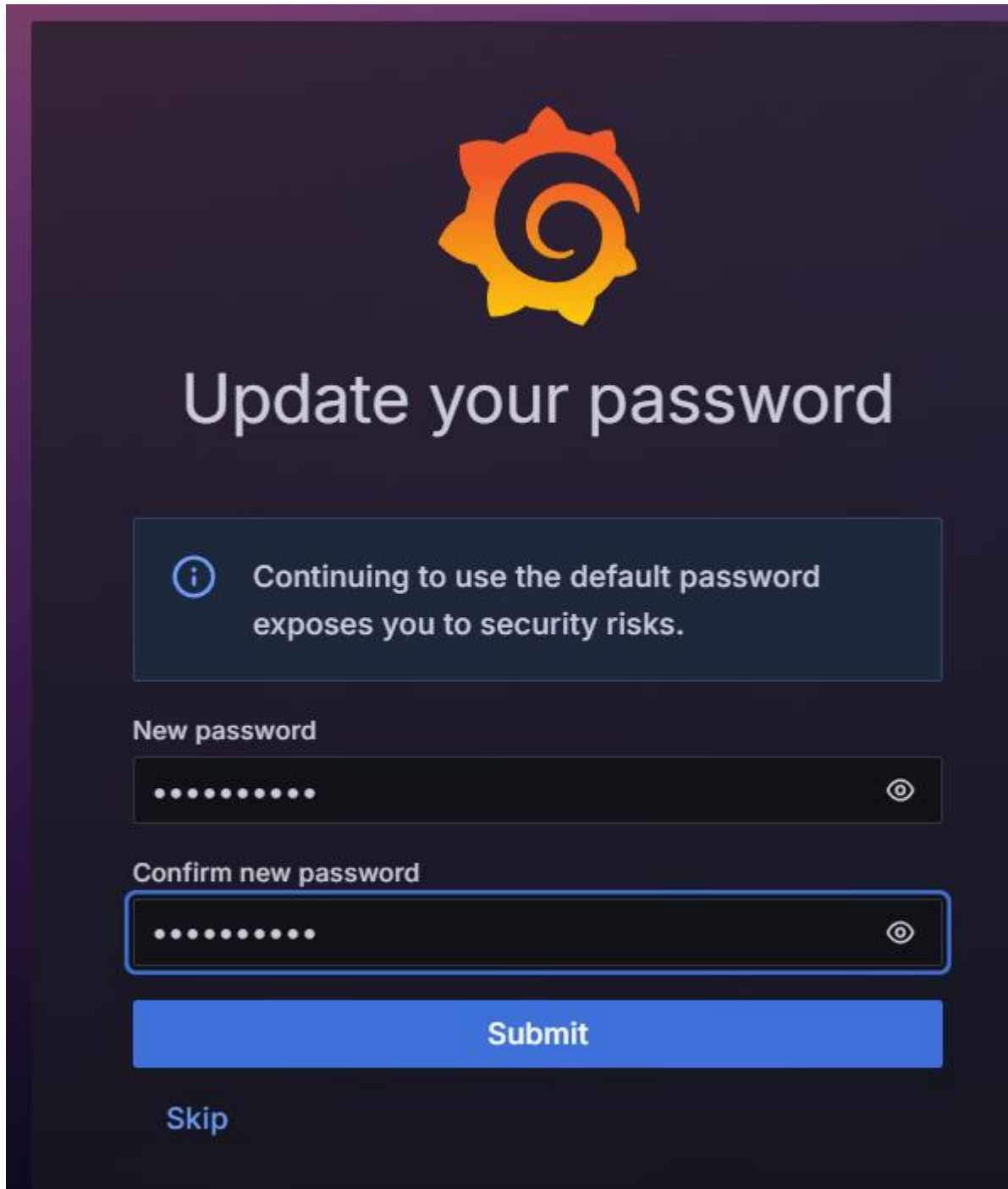
**sudo systemctl start grafana-server**

**sudo systemctl enable grafana-server**

Then we can access Grafana at **http://<monitoring-server-ip>:3000**



Grafana has the default username and password, which is **admin** for both.

On the first login, you can change it.

The image shows the Grafana password update interface. At the top is the Grafana logo, a stylized orange and yellow gear with a spiral inside. Below the logo, the text "Update your password" is displayed in a large, white, sans-serif font. Underneath this is a dark blue rectangular box containing a white information icon (an 'i' inside a circle) followed by the text "Continuing to use the default password exposes you to security risks." Below this warning box are two password input fields. The first is labeled "New password" and the second is labeled "Confirm new password". Both fields are dark with white dots representing the password characters and a white eye icon on the right side to toggle visibility. A blue rectangular button labeled "Submit" is positioned below the second input field. At the bottom left of the form, the word "Skip" is written in a smaller, light blue font.

### Step-by-Step: Connect Prometheus to Grafana

1. 🌟 Open Grafana UI
2. ⚙️ **Add Prometheus as a Data Source**
  - On the left-hand menu, click the **gear icon** (⚙️) → **"Data Sources"**
  - Click **"Add data source"**

- Choose "**Prometheus**" from the list
3.  **Configure the Prometheus Data Source**
- Fill in these details:
  - **Name:** (you can name it anything, like Prometheus)
  - **URL:**
  - If Grafana is on the **same server** as Prometheus:  
http://localhost:9090
  - If Grafana is on a **different server**:  
http://<prometheus-server-ip>:9090
  - Leave the rest as default, then scroll down and click "**Save & test**"
  - ☒ If everything is working, you'll see:
  - "**Data source is working**"
4. **Import a Node Exporter Dashboard (Optional but  Recommended)**
- To get a full system dashboard with zero effort:
  - On the left menu, click "+" → **Import**
  - Enter **Dashboard** **ID:** 1860  
(This is the official Node Exporter dashboard)
  - Click **Load**
  - Select your Prometheus data source when prompted
  - Click **Import**

★ You'll now see a full dashboard showing:

- CPU, memory, disk usage
- Load averages
- Network traffic
- Uptime, etc.

☒ **You're now fully integrated!**

Let me know if you want to:

- Set up alerts from Grafana or Prometheus
- Add more exporters (like MySQL, NGINX, etc.)
- Create a custom dashboard