**Steps pre-installation and post installation**

**Update System Packages before installations**

sudo apt update && sudo apt upgrade -y

**Adjust Firewall after installations**

Sudo ufw allow <port>/<tcp>

Sudo ufw status verbose

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**Restart UFW after installations**

sudo systemctl restart ufw

# Fail2ban

**Install Fail2Ban:**

sudo apt install fail2ban -y

**Configure Fail2Ban**

**Create a Local Configuration File**

sudo cp /etc/fail2ban/jail.conf /etc/fail2ban/jail.local

**Edit jail.local**

sudo nano /etc/fail2ban/jail.local

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**Enabling Fail2Ban as service**

sudo systemctl enable fail2ban

sudo systemctl start fail2ban

**Check Fail2Ban service is active**

sudo systemctl status fail2ban

**Check IP is Banned**

sudo fail2ban-client status sshd

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**Unbanning an IP Address for testing**

sudo fail2ban-client set sshd unbanip <IP\_address>

# Prometheus

**Download Prometheus**

wget <url of Prometheus latest release>

**Extract Prometheus Files**

tar -xvzf prometheus-\*.linux-amd64.tar.gz

**Move Prometheus Files to /usr/local/bin**

cd prometheus-\*.linux-amd64

sudo mv prometheus /usr/local/bin/

**Create a Prometheus User**

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

**Set Up Prometheus Directories**

sudo mkdir /etc/prometheus

sudo mkdir /var/lib/prometheus

**Set the ownership to the prometheus user.**

sudo chown prometheus:prometheus /usr/local/bin/prometheus

**Configure Prometheus**

sudo mv prometheus.yml /etc/prometheus/

sudo nano /etc/prometheus/prometheus.yml

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**Create Prometheus service**

sudo nano /etc/systemd/system/prometheus.service

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**Reload daemon and Start/Enable Prometheus**

sudo systemctl daemon-reload

sudo systemctl start prometheus

sudo systemctl enable prometheus

**Verify Prometheus is Running**

sudo systemctl status Prometheus

**Go to Prometheus web**

http://<your\_server\_ip>:9090

**Install Node Exporter**

**Download the Node Exporter**

wget <url of Node Exporter latest release>

**Extract the package**

tar -xvzf node\_exporter-1.5.0.linux-amd64.tar.gz

**Move binaries to /usr/local/bin**

sudo mv node\_exporter-1.5.0.linux-amd64/node\_exporter /usr/local/bin/

**Create a systemd service for node\_exporter**

sudo nano /etc/systemd/system/node\_exporter.service

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AI-generated content may be incorrect.**Reload daemon and start Node Exporter:**

sudo systemctl daemon-reload

sudo systemctl start node\_exporter

sudo systemctl enable node\_exporter

Repeat on Rocky linux for a second node

**Install Alert manager**

**Download and Install Alertmanager**

wget <url of Alert manager latest release>

**Extract**

tar -xvzf alertmanager-\*.linux-amd64.tar.gz

**Move the Binary**

cd alertmanager-\*.linux-amd64

sudo mv alertmanager /usr/local/bin/

**Create the alertmanager User**

sudo useradd --no-create-home --shell /bin/false alertmanager

**Create the directories for storing its data and configuration files**

sudo mkdir /etc/alertmanager

sudo mkdir /var/lib/alertmanager

**Set ownership**

sudo chown -R alertmanager:alertmanager /etc/alertmanager /var/lib/alertmanager

**Configure Alertmanager to send alert to Discord**

Create discord channel

Create webhook

Copy url

sudo nano /etc/alertmanager/alertmanager.yml

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**Create Alertmanager service**

sudo nano /etc/systemd/system/alertmanager.service

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**Start and Enable Alertmanager Service**

sudo systemctl daemon-reload

sudo systemctl start alertmanager

sudo systemctl enable alertmanager

**Check the Status of the Service:**

sudo systemctl status alertmanager

**Verify the Web Interface**

http://<your\_server\_ip>:9093

**Create an Alert Rule:**

sudo nano /etc/prometheus/rules.yml (&rules1.yml-rules3.yml)

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**Reconfigure Prometheus**

sudo nano /etc/prometheus/prometheus.yml

screenshot

**Reload Prometheus:**

sudo systemctl reload prometheus

**Trigger Alert to test.**

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**Install Fail2Ban Exporter**

wget <url of fail2ban exporter latest release>

**Extract**

tar -xvzf fail2ban\_exporter-\*.linux-amd64.tar.gz

**Move the binary**

sudo mv fail2ban\_exporter-\*.linux-amd64/fail2ban\_exporter /usr/local/bin/

**Make the binary executable**

sudo chmod +x /usr/local/bin/fail2ban\_exporter

**Create Fail2Ban Exporter service**

sudo nano /etc/systemd/system/fail2ban\_exporter.service

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**Reload systemd and start Fail2ban Exporter:**

sudo systemctl daemon-reload

sudo systemctl enable fail2ban\_exporter

sudo systemctl start fail2ban\_exporter

**Verify Fail2Ban Exporter is Running**

sudo systemctl status fail2ban\_exporter

**Reconfigure Prometheus**

sudo nano /etc/prometheus/prometheus.yml

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**Reload Prometheus**

sudo systemctl reload prometheus

# Grafana

**Add Grafana Repository**

sudo add-apt-repository "deb https://packages.grafana.com/oss/deb stable main"

Add the Grafana GPG key:

wget -q -O - https://packages.grafana.com/gpg.key | sudo apt-key add -

sudo apt update

**Install Grafana**

sudo apt install grafana -y

**Start Grafana**

sudo systemctl start grafana-server

sudo systemctl enable grafana-server

**Check Grafana service is active**

sudo systemctl status grafana-server

**Access Grafana Web**

http://<your-ip>:3000

Default login

Username: admin

Password: admin

Change the password at log on.

**Configure Grafana on web site**

Add Data Sources as needed

Import and edit Dashboards as needed

Follow Tutorials on the Grafana webpage.

Ubuntu Dashboard

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Rocky Linux Dashboard

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Fail2Ban Dashboard

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