

# Monitoring and alerting | Grafana

## Setup

```
apt-get install -y adduser libfontconfig1
wget https://dl.grafana.com/oss/release/grafana_6.7.3_armhf.deb
dpkg -i grafana_6.7.3_armhf.deb
rm grafana_6.7.3_armhf.deb
```

## Enable as service

```
systemctl enable grafana-server.service
service grafana-server start
```

## Configuration

```
vim /etc/grafana/grafana.ini
```

```
[server]
root_url = someDomain

[security]
allow_embedding = true

[smtp]
enabled = true
host = smtp.host.de:25
user = user@host.de
password = password
from_address = printer@host.de
from_name = Grafana

[panels]
disable_sanitise_html = true
```

# Upgrading

visit <https://grafana.com/grafana/download?platform=arm>

```
#make backup of Grafana SQLite Database
sudo cp /var/lib/grafana/grafana.db ~/grafana.db.bak

#visit https://grafana.com/grafana/download/5.2.0-beta1?platform=arm
LATEST_RELEASE=$(curl --silent "https://api.github.com/repos/grafana/grafana/releases/latest"
| jq -r .tag_name | sed -e 's/v//')
LATEST_RELEASE=${LATEST_RELEASE/\-/~} #replace - with ~ to allow installation of beta
packages
echo $LATEST_RELEASE

wget https://dl.grafana.com/oss/release/grafana_"$LATEST_RELEASE"_armhf.deb
sudo dpkg -i grafana_"$LATEST_RELEASE"_armhf.deb
rm grafana_"$LATEST_RELEASE"_armhf.deb

sudo service grafana-server restart
```

# Apache virtual host

See [mkcert & Go](#) for SSL cert generation

```
vim /etc/apache2/sites-enabled/grafana.conf
```

```
<VirtualHost *:3001>
    ServerName localhost
    ServerAdmin some_mail@domain.de
    SSLEngine on
    SSLCertificateFile /etc/ssl/certs/trikarus.pem
    SSLCertificateKeyFile /etc/ssl/private/trikarus-key.pem
    ProxyPass / http://localhost:3000/
    ProxyPassReverse / http://localhost:3000/
    ProxyPreserverHost On
    ErrorLog ${APACHE_LOG_DIR}/error-grafana.log
    CustomLog ${APACHE_LOG_DIR}/access-grafana.log combined
    RewriteEngine On
```

```
RewriteCond %{HTTP:Upgrade} =websocket [NC]
RewriteRule /(.*) ws://localhost:3000/$1 [P,L]
</VirtualHost>
```


```
vim /etc/apache2/ports.conf
```

```
Listen 3001
```


## Grafana Image renderer plugin

This is not included in Raspbian arm version of Grafana because usually arm devices have not the minimum requirements of [16 GB of RAM as official documentation says](#). So without image rendering plugin we cannot send alert images by email sadly. It could be done by remote rendering using another machine to run the renderer as service. At the moment this is not used but possible → [https://github.com/grafana/grafana-image-renderer/blob/master/docs/remote\\_rendering\\_using\\_docker.md](https://github.com/grafana/grafana-image-renderer/blob/master/docs/remote_rendering_using_docker.md)

To compile as unsigned plugin is possible upon this but useless. This step documentation is based on <https://community.openhab.org/t/tutorial-grafana-rendering-on-raspberry-pi/71777>

 **Grafana Image Renderer**  
By Grafana Labs

RENDERER

 Unsigned

```
grafana-cli plugins install grafana-image-renderer #this command fails
```

```
#clone git repository of the plugin
```

```
cd /var/lib/grafana/plugins
```

```
git clone https://github.com/grafana/grafana-image-renderer
```

```
cd grafana-image-renderer
```

```
#install yarn
```

```
curl -sS https://dl.yarnpkg.com/debian/pubkey.gpg | sudo apt-key add -
```

```
echo "deb https://dl.yarnpkg.com/debian/ stable main" | sudo tee
```

```
/etc/apt/sources.list.d/yarn.list
```

```
apt update
```

```
apt install yarn
```

```
#install nodejs
wget https://nodejs.org/dist/latest-v12.x/node-v12.18.0-linux-armv7l.tar.gz
tar -xvf node-v12.18.0-linux-armv7l.tar.gz
sudo mv node-v12.18.0-linux-armv7l /opt/
sudo ln -s /opt/node-v12.18.0-linux-armv7l /opt/node
sudo chown -R root:root /opt/node*
sudo ln -s /opt/node/bin/node /usr/bin/node
sudo ln -s /opt/node/bin/npm /usr/bin/npm

#compile the plugin
yarn global add typescript
yarn install
yarn run build

#rename to match the architecture
cp plugin_start_linux_amd64 plugin_start_linux_arm
```

```
vim /etc/grafana/grafana.ini
```

```
#restart Grafana and check if the plugin is available in the plugin list
systemctl restart grafana-server.service
```

## Error:

```
t=2020-06-06T01:44:31+0200 lvl=error msg="Render request failed" logger=plugins.backend pluginId=
```

Version #1

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