Aufbau & Installation

Was installiert sein muss

1. Docker
2. Docker-Compose
3. Node
4. Nginx Reverse Proxy

Aufbau

Es gibt einen NIG-Root-Ordner. In diesem liegen alle Dateien die zur Einrichtung benötigt werden. In diesem werden auch alle NIG-Environments gespeichert. Alle NIGs verwenden persistenten Speicher. In dem NIG-Ordner befinden sich mehrere Ordner und das Installationsscript. Die Ordnerstruktur:

- base-nginx
- base-nig
- newNIG.sh
- nig-environments

nig.sh

```
# Define all variables
DOMAIN="nig.eolab.de"
ROOT="groupX"
NODE_RED_USERNAME="groupX"
NODE_RED_PASSWORD="password"
NODERED_PORT=17609
GRAFANA_PORT=17709
GRAFANA_USERNAME="groupX"
GRAFANA_PASSWORD="password"
# Generate the hash for the password
NODE_RED_PASSWORD=$(echo $(node -e
"console.log(require('bcryptjs').hashSync(process.argv[1], 8));"
$NODE_RED_PASSWORD) | sed s/[$]$
# Copy all the base-nig files to a new directory
cp -r ./base-nig/ ./nig-environments/$ROOT/
# Edit the docker-compose file for the new environment
sed -i "s/{{ROOT}}/$ROOT/g" ./nig-environments/$ROOT/docker-compose.yml
sed -i "s/{{NODE_RED_USERNAME}}/$NODE_RED_USERNAME/g" ./nig-
environments/$ROOT/docker-compose.yml
sed -i "s|{{NODE_RED_PASSWORD}}|$NODE_RED_PASSWORD|g" ./nig-
environments/$ROOT/docker-compose.yml
sed -i "s/{{GRAFANA_USERNAME}}/$GRAFANA_USERNAME/g" ./nig-
environments/$ROOT/docker-compose.yml
sed -i "s/{{GRAFANA_PASSWORD}}/$GRAFANA_PASSWORD/g" ./nig-
environments/$ROOT/docker-compose.yml
sed -i "s/{{GRAFANA_PORT}}/$GRAFANA_PORT/g" ./nig-
```

```
environments/$ROOT/docker-compose.yml
sed -i "s/{{NODERED_PORT}}/$NODERED_PORT/g" ./nig-
environments/$ROOT/docker-compose.yml
# Edit grafana.ini for the new environment
sed -i "s/{{ROOT}}/$ROOT/g" ./nig-environments/$ROOT/grafana.ini
sed -i "s/{{DOMAIN}}/$DOMAIN/g" ./nig-environments/$ROOT/grafana.ini
# Copy base-nginx config to nginx-nig folder
cp -r ./base-nginx/base-nig.conf "/etc/nginx/nigs/$ROOT.conf"
# Edit the base-nginx config
sed -i "s/{{ROOT}}/$ROOT/g" "/etc/nginx/nigs/$ROOT.conf"
sed -i "s/{{GRAFANA_PORT}}/$GRAFANA_PORT/g"
"/etc/nginx/nigs/$ROOT.conf"
sed -i "s/{{NODERED_PORT}}/$NODERED_PORT/g"
"/etc/nginx/nigs/$ROOT.conf"
# No need to edit the node_red settings.js -> it works with environment
variables (is already modified tho)
# Make the data for all ubuntu-users available
sudo chmod -R 777 ./nig-environments/$ROOT
# Start the NIG-Environment
cd ./nig-environments/$ROOT
sudo docker-compose up -d
# The persitent volumes are now created but not accessible for docker
sudo docker-compose stop
# Otherwise the persistent storage is not available for docker
sudo chmod -R 777 ./
# Now it has access and can be started
sudo docker-compose up -d
# Restart nginx
sudo systemctl restart nginx
# Otherwise the persistent storage is not available for docker
sudo chmod -R 777 ./
```

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