Procedure for Restarting or Updating a Keep Node

Random Beacon and ECDSA Edition July 31, 2020

Introduction

It is recommended to upgrade your Docker container to run the latest stable or recommended client, you should always check the official channels regularly for any changes to the release or changes to the **Peers List** or **Contract Addresses**.

https://github.com/keep-network/keep-core

https://discord.gg/kCauju

1. Stop and Remove Containers

Beginning with all Operational Nodes: Check all Docker Containers

Stop and remove the containers that need updating.

(keep-client replace with name of your container)

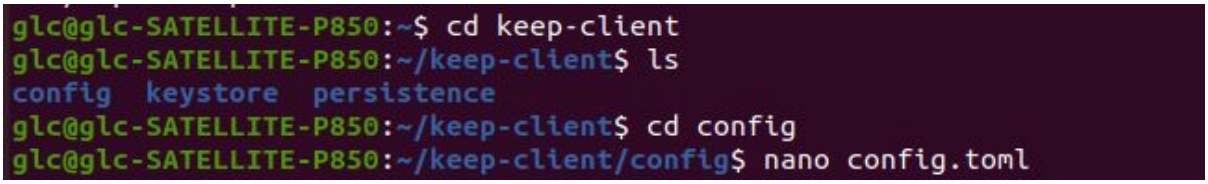
```
sudo docker stop keep-client
```

```
sudo docker rm keep-client
```

2. Edit Your Config File (Verify if Update is Required)

If no updates or changes are needed skip ahead to Step 3.

If Changes are needed Follow this Procedure:



Step 1. Begin by accessing the Directory where Config.toml is stored.

Display your Directory Contents in the Terminal Window with command:

```
Nano config.toml
```

This also allows edits to be made within the Terminal window.

For additional help see https://discord.gg/kCauju

Step 2. Double check that changes have been successfully written.

Display the contents on the terminal with command:

```
cat config.toml
```

3. Update your Device and Restart the Node

Now is a good time to update your system software, using command:

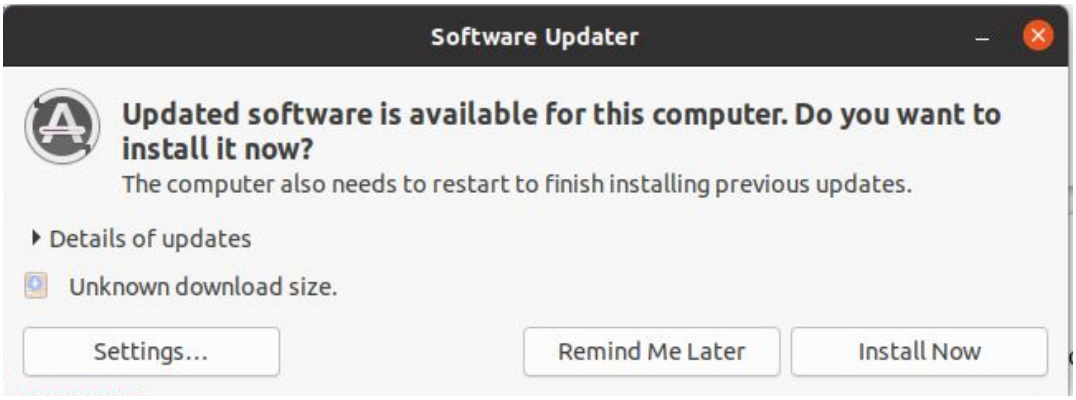
```
sudo apt-get update
```

Following this Procedure you should also update your Docker

```
sudo apt-get remove docker
docker-engine docker.io
sudo apt install docker.io curl -y
sudo systemctl start docker
sudo systemctl enable docker
```

Update Ubuntu with software updater,

Click “install now” and restart when completed.



4. Check Settings

Once the system is online check to see if the recent changes are still present:

Step 1: Check your firewall settings and verify ports are correctly configured to your Nodes in your Config

```
sudo ufw status
```

Step 2: Confirm that your config is set up as before

```
cat config.toml
```

Step 3: Export Environment Variables (some variables can be skipped if they are hard coded into your Config)

```
export SERVER_IP=$(curl ifconfig.co)
export INFURA_PROJECT_ID="insert your infura project Id here"
export ETH_WALLET="insert your ethereum address here"
export KEEP_CLIENT_ETHEREUM_PASSWORD="insert your password here"
```

5. Restart your Docker Containers

Once the system is online check to see if the recent changes are still present:

For Random Beacon

```
sudo docker run -dit \
--restart always \
--volume $HOME/keep-client:/mnt \
--env KEEP_ETHEREUM_PASSWORD=$KEEP_CLIENT_ETHEREUM_PASSWORD \
--env LOG_LEVEL=debug \
--name keep-client \
-p 3919:3919 \
keepnetwork/keep-client:v1.2.4-rc --config /mnt/config/config.toml
start
```

Change the part highlighted to the correct version you wish to run.

For ECDSA

```
sudo docker run -d \
  --restart always \
  --entrypoint /usr/local/bin/keep-ecdsa \
  --volume $HOME/keep-ecdsa:/mnt/keep-ecdsa \
  --env KEEP_ETHEREUM_PASSWORD=$KEEP_CLIENT_ETHEREUM_PASSWORD \
  --env LOG_LEVEL=debug \
  --name ecdsa \
  -p 3920:3919 \
  keepnetwork/keep-ecdsa-client:v1.1.2-rc \
  --config /mnt/keep-ecdsa/config/config.toml start
```

Note: port mapping in this example is used when both Random Beacon and ECDSA are run on the same device

To reduce the size of log files include command:

```
--log-opt max-size=100m \
--log-opt max-file=3 \
```

For Both - Check the Logs: look for any Errors by running command:

```
Sudo docker logs ecdsa –since 10mm –f
```

6. Check Logs for Errors

Complete the Restarting or Reconfiguration procedure by checking the logs.

Run the Command:

```
docker logs keep-client --tail 1000 -f | grep -v DEBUG
```

Be sure to use ecdsa or keep-client depending on which container you are checking.

To show the last 1000 entries run the Command:

```
"-tail 1000"
```

Run the Command:

```
-v DEBUG
```

This Command tells grep to display the log entries without "DEBUG" log entries. This will filter out all the unwanted noise and show you any critical errors (CRITI) or warnings (WARNI).

To verify if your node is connecting to peers run the command:

```
docker logs --tail 1000 keep-client -f | grep "number of connected peers"
```

Finally to check that your Environment Variables are exported to the container:

```
sudo docker exec keep-client sh -c 'echo $KEEP_ETHEREUM_PASSWORD'
```

This should display back your password, be sure to use keep-client or ecdsa (or whatever you have named your container).

RISKS

It should be noted that there are risks involved in restarting and reconfiguring your node. The risk of slashing, if you are selected for work during the restart, is unlikely, but should be considered.

Be sure not to rush though any changes, mistakes could lead to extra downtime and may increase the chances of incurring penalties. This procedure should take approximately 15mins (or less) to make all changes and restart your node, again - provided there are no issues.

About the Authors

GC23997 is currently running (2) Nodes. Random Beacon Address: 0x787d9bA9De6447D140abA210D26912ffb99BBfF2 and ECDSA Node Address: 0x787d9bA9De6447D140abA210D26912ffb99BBfF2 have been running since 6/9/202. GC has selected an in-house server and prefers to utilize on site hardware configurations. His hands on approach allows full access to equipment, but requires additional vigilance, technical knowledge, and local presence.

Nico186#6318 is currently running (3) Nodes. Random Beacon Address: 0x2aD86FCB6D1b2B7f088DD5107B5A98D05a651E91 Has been operational since 5/7/2020 and is operated on a stand alone 2-core VPS. ECDSA Node Address: 0x74eff2413d9c7d46d03e9cdd88550b86f05ef917 And Random Beacon Node Address: 0xeeBbBAE1Ca4E4b7de912EdbE96c32c9Afa7Ac995 have been operational since 6/9/2020 nd are running simultaneously on a 4-core VPS. Nico has chosen to use a VPS Server for convenience and reliability during required periods of work and travel.

Both authors are self proclaimed “Novice Enthusiasts“ drawn to the Keep Project with little to no experience running a node . They have produced this document to assist and encourage anyone interested in participating. Please enjoy!