Crankk official guide for onboarding a Linxdot Rockchip variant gateway

1) Flash the CrankkOS image to the Linxdot's eMMC
2) Local Dashboard setup
3) User Dashboard setup

Here are a few things you might need for this guide: USB C cable

To follow this guide, please make sure you have the **rockchip-based** version of the **Linxdot** gateway.

The easiest way to distinguish between these two variations is by inspecting the rear side of your device, where the ports are situated.

You can identify Rockchip gateways by the presence of a '**BT Pair**' button located near the antenna connector, while CM4 units lack this feature.

In this guide, we will walk you through the process of flashing the **CrankkOS** image onto your **Linxdot** gateway using a Windows OS PC.

1) Flash the CrankkOS image to the Linxdot's eMMC

1. Download the CrankkOS image.
Please follow this **link** to download the **CrankkOS image for Linxdot**.
Once the download is complete, extract the contents of the downloaded image file.
Also download **the bootloader**, an essential component for the later stages of this guide.

2. Download and Install the Rockchip Flashing Tools.
For this step there is no need to connect your Linxdot device
to your PC yet.
Rockchip Flashing Tools are available for **Windows/Linux/
MAC OS**.

For Windows users, download the latest recommended version
of the tools. Follow the instructions provided to install the tools.
Make sure to install **RKDriverAssistant** as the first step.
Then please restart your PC.
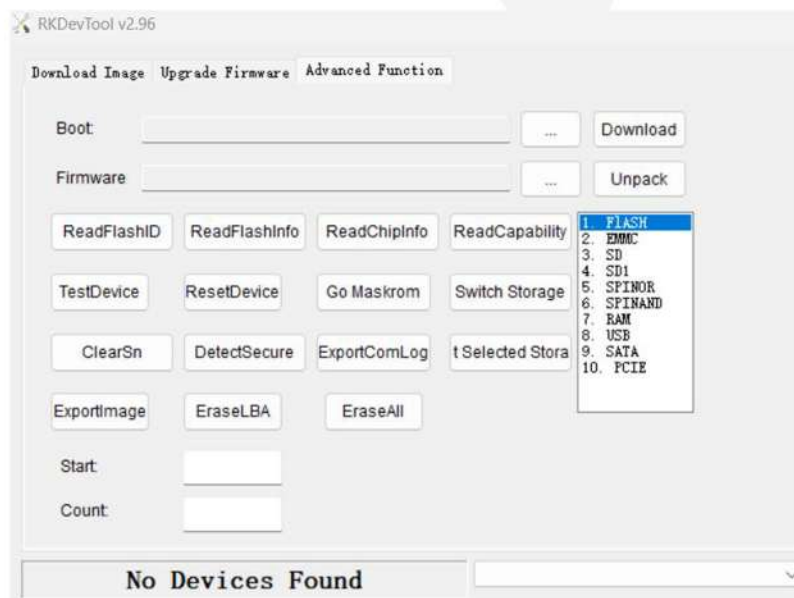
3. Connect the Linxdot to your PC via USB C cable
Use a USB C cable to connect the **Linxdot** to your PC.
The port is located on the back of the gateway. For now, keep
the gateway powered off.

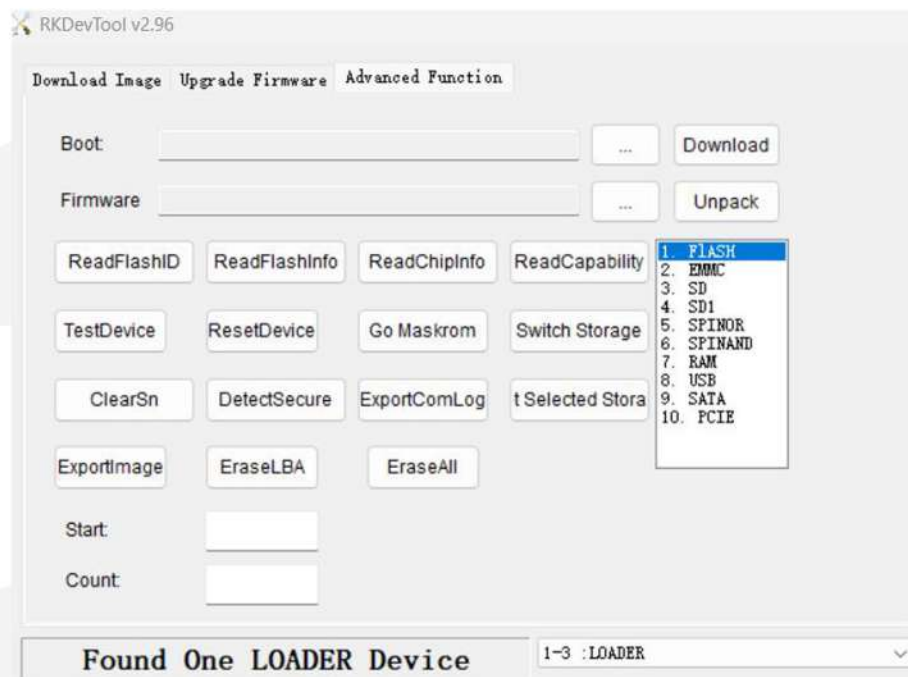**4. Flash the unzipped CrankkOS image to the eMMC**
Run **RKDevTool.exe** to start the flashing tools.

Our goal here is to erase the flash memory and then install
the **CrankkOS** image.

This is how it's going to look the tool interface, before the
procedure:

Now, while the gateway is powered off press and hold the **BT-Pair** (the same function as Recovery button from Bobcat guide) button and then insert the power cable into the **Linxdot**.

If the procedure is successful, you will receive a message indicating **Found One Loader Device**.

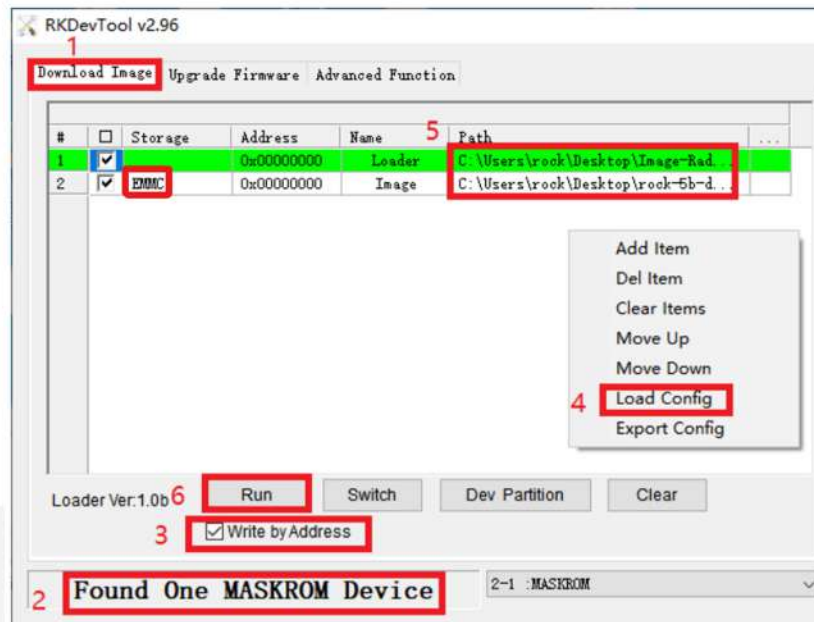Navigate to **Advanced Function** and select **Flash**.

Click on **EraseAll** button and wait until its 100% completed.

Once finished, remove the power cable and again hold **BT-Pair** button and insert the power cable back to the device. If the **Linxdot** can't be found, restart your PC and try again.
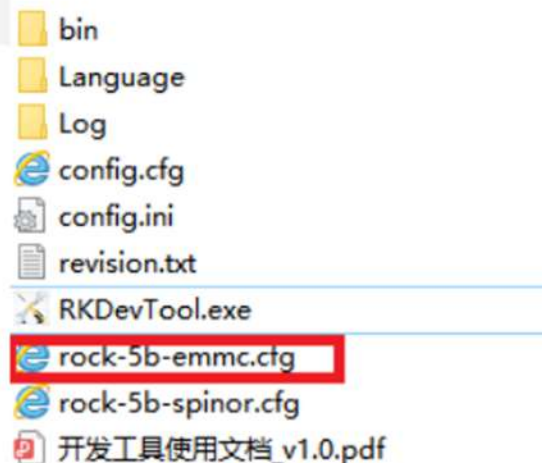
5. Flash the CrankkOS image
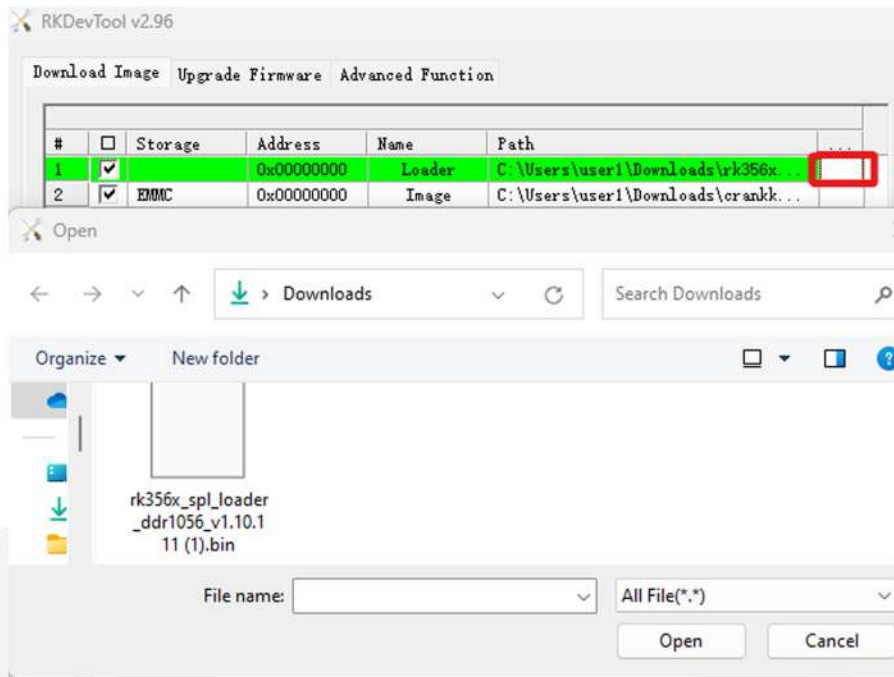Open **RKDevTool.exe** again.

Please note that this will erase all the previous information, stored on the **Linxdot**.

1. Select **Download image** tab
2. Make sure you are in **Maskrom mode** and **EMMC** is selected
3. Enable **Write by Address**
4. Right-click in the blank area of the list and select **Load configuration file**.

5. Now we have to assign the path of the **boot loader** and **CrankkOS image**
- Navigate to the download location of the boot loader by selecting the empty box next to **Path section**

-Repeat the same process for the **CrankkOS** image. Make sure you already unzipped the file and locate the img file inside the folder.

6. Double-check all the settings, ensuring everything is in order. Confirm that the Address is set to 0, and then press **Run**.

Upon completion of the flashing process, disconnect the **USB** C cable and restart the gateway.

If, for any reason, the flashing procedure fails, you can begin again from **Step 5. Flash the unzipped CrankkOS image to the eMMC**

2) Local Dashboard setup

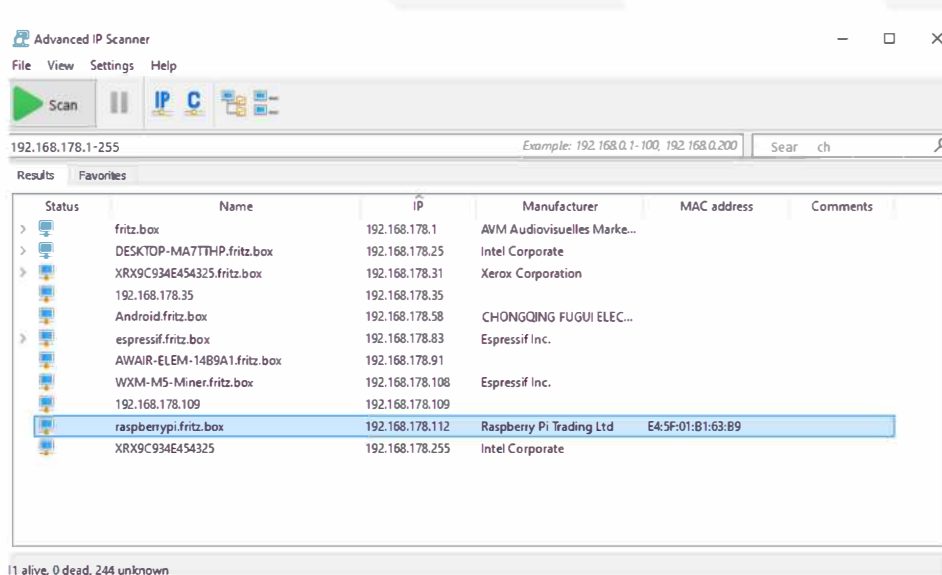**6. Log in to the Local Dashboard.**
We have automated the process and you do **NOT** need to download the **Crankk Installer** anymore.

Instead, just log in to the **Local Dashboard**.

If you have any VPN enabled on your PC, please turn it off.

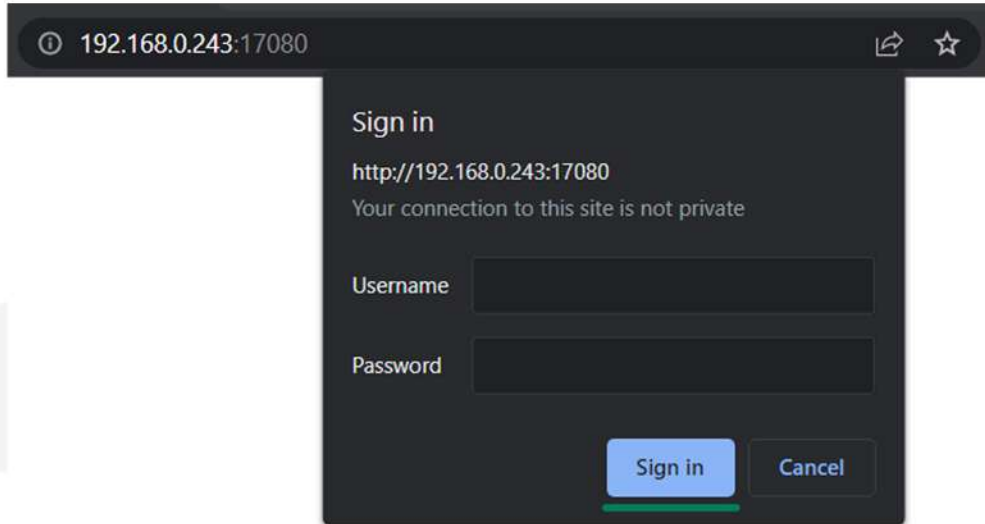Now check your router to find the **gateway IP address**.

If you are unsure how to do this, you can use free tools like **Advanced IP Scanner** to help you out.

Once you have the LAN IP address of your gateway, open a new browser tab from a PC on the same network and paste the IP followed by **:17080**
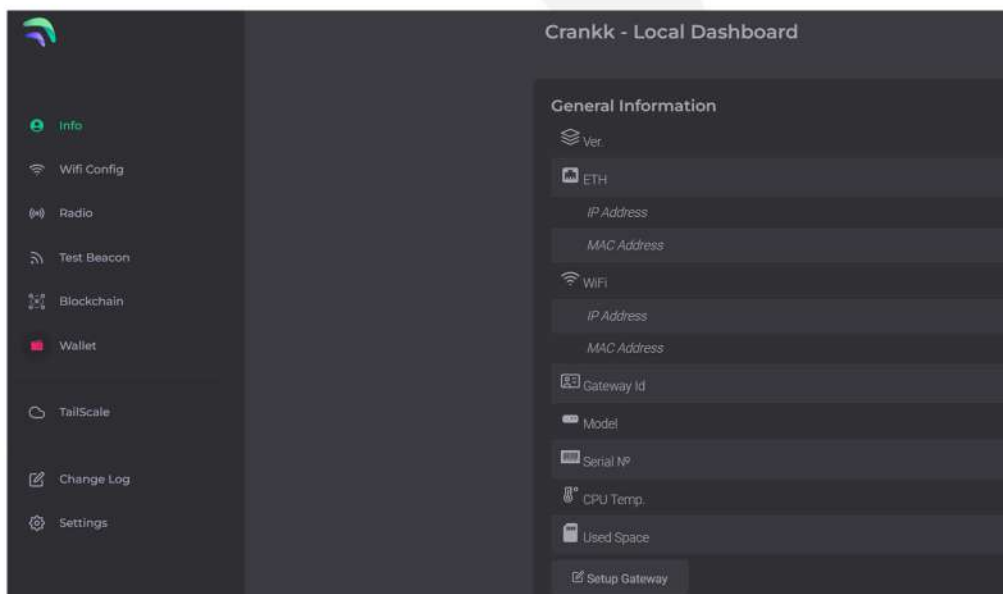
http://192.168.0.243:**17080**

When logging in for the first time, you do not need to enter any credentials, just press **Sign in**.

Once you logged in you will be asked to create your own password.

7. Set up the gateway.

Go to the **Info** tab > **Setup Gateway**

Copy your **Gateway ID**, as we will need it later.

Select the **Image** that is installed on your gateway (Crankk / Helium / Nebra), **Model (Please use only Linxdot RK)** and **Region*** (EU868 / AU915 / US915).

For **Linxdot** gateways, only the Crankk image is available at the moment.

Turn on the **Packet Forwarder**.

If you are currently mining or planning to mine Helium, leave the **Forwards to** box unchanged as shown in the screenshot.
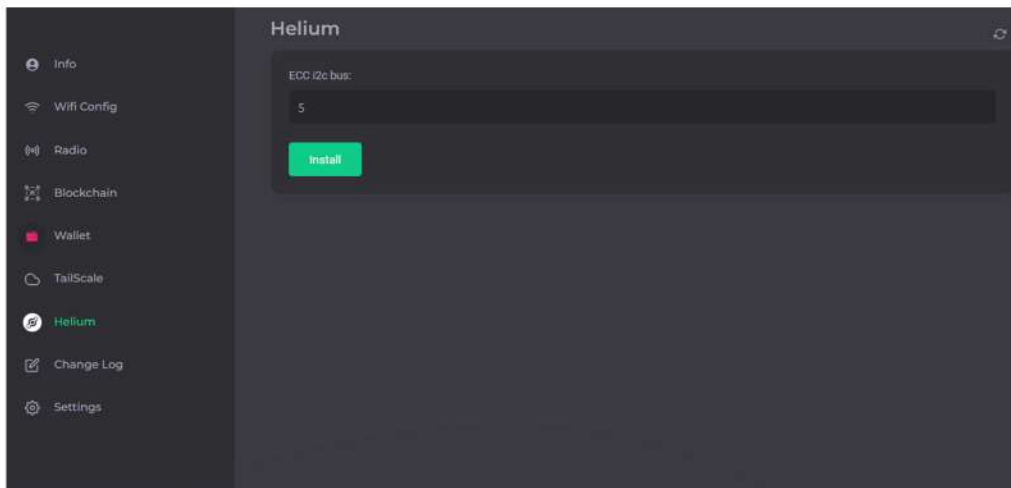
If you don't wish to mine Helium, leave only **127.0.0.1:1700**

Hit **Save**.

Your gateway will restart automatically. Please wait a few minutes while it loads.

8. Double mining.
If you want to participate in Double mining, you can install Helium from here:
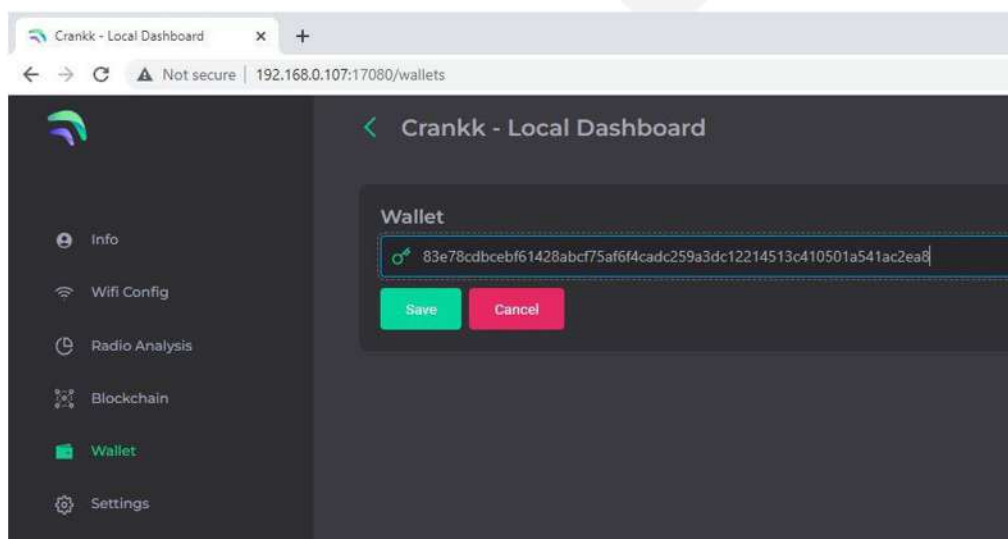
9. Import your secret key.

Hint: If you don't have your secret key saved, you can go to the **User Dashboard** > **Wallets** > find the correct wallet > use the three dots to reveal the secret key.

Navigate to the **Wallet** section in the **Local Dashboard** and enter your **secret key**, keeping the following in mind:

• Please ensure that you copy and paste the **secret key** exactly as it is, without any spaces or other symbols

• Please double-check that it is the correct **secret key** and that it does not belong to another gateway

• Please also note that your **secret key** is different from your **wallet address/public key** starting with k:

Hit **Save**.

If you have entered the correct secret key, then you will see your **k: wallet address** displayed in the **Wallet** field.
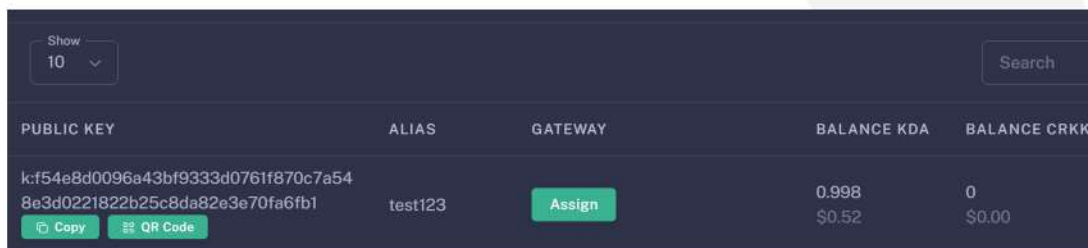
3) User Dashboard setup

10. Assign your gateway ID to a wallet in the User Dashboard. Visit **User Dashboard** and sign in into your account.
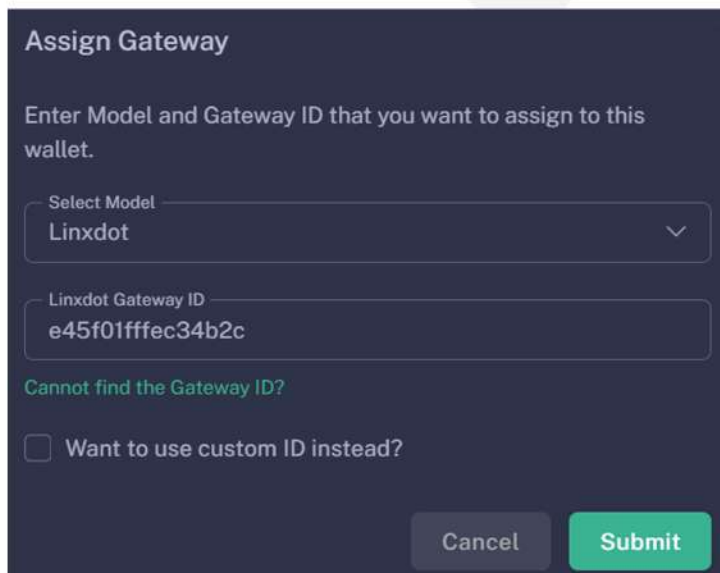
Navigate to the **Wallets** section and select the wallet that you want to use for your software license activation.

Assign your gateway ID to the chosen wallet by clicking on the **Assign** button. If you don't see such a button, it means you haven't purchased a software license for this wallet.

Select your gateway **Model**, copy and paste your **Gateway ID** (please double-check that it is correct) and hit the **Submit** button.
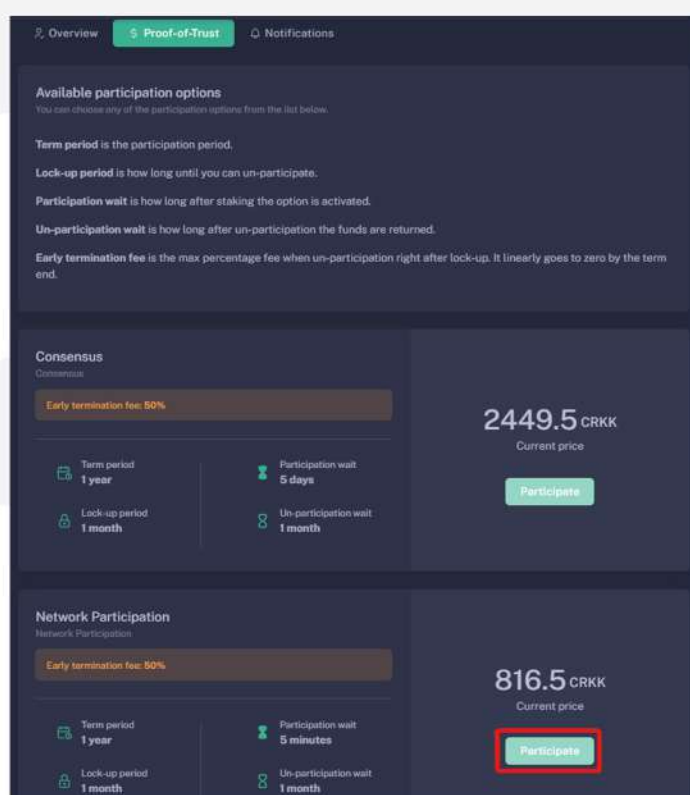
Please wait a few minutes to allow the changes to sync to the blockchain.

11. Staking

Staking is a mandatory requirement for all gateways onboarded into Crankk, in order to receive rewards. It requires staking $100 worth of CRKK tokens.

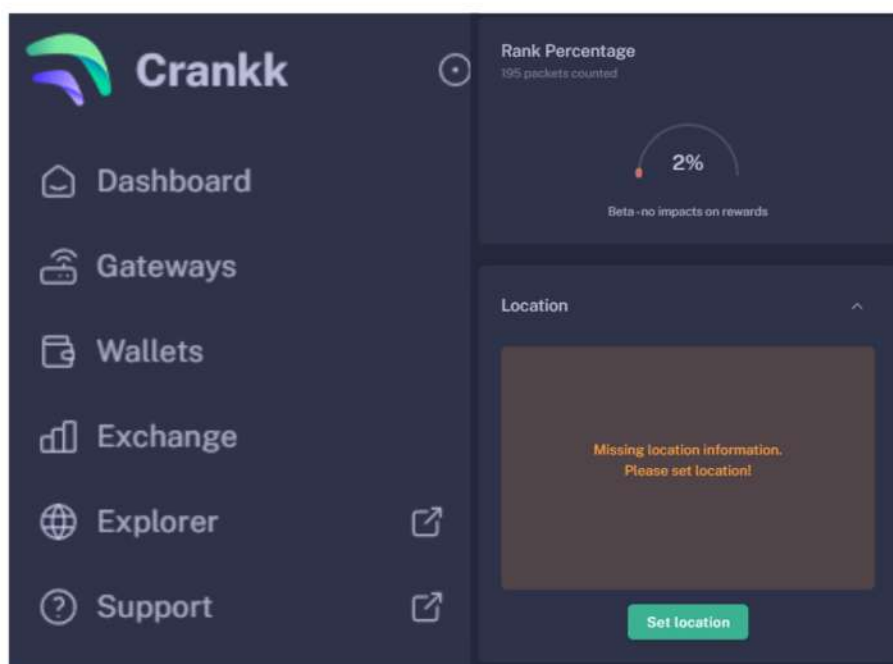Those funds remain yours, and you can fully withdraw them after period of 1 year.

To complete this process:

- Log in to the **User Dashboard**.
- Navigate to **Gateways** and select your specific gateway.
- Click on **Proof-of-Trust**.
- Next to the "Network Participation" tab, you will find the current amount of CRKK tokens required for staking. Simply press the green **Participate** button.

It's important to note that the staking value remains constant at $100. The only variable is the quantity of CRKK tokens that need to be staked. If you lack the necessary tokens for staking, our DEX offers the option to exchange KDA coins for CRKK tokens.

12. Set your gateway location

To set your gateway location you need to:

• Navigate to your gateway in the User Dashboard.
• Scroll down below the **Rank Percentage** section until you find the **Location** tab.
• Unlock your wallet by entering the correct password.
• Click on **Set Location**.
• Zoom out using the scroll wheel on your mouse.
• Select the desired gateway location.
• Click **Submit**.

Congratulations! You have successfully onboarded your **Linxdot** gateway on Crankk!

* Crankk currently supports the following frequencies: EU868 MHz, AU915 MHz and US915 MHz. It is essential to ensure that any hardware purchased from a third-party company for use with Crankk operates on the correct frequency for your region of residence. Crankk Inc. assumes no responsibility for any issues arising from the use of hardware with an incorrect frequency. It is the responsibility of the user to select the appropriate frequency for their region of residence.

Please note that any modifications, updates or restrictions made by the gateway manufacturer that may impact the performance or functionality of the gateway on the Crankk network are beyond the control and responsibility of Crankk Inc. Users are advised to check compatibility and seek assistance from the gateway manufacturer for any gateway-related issues.