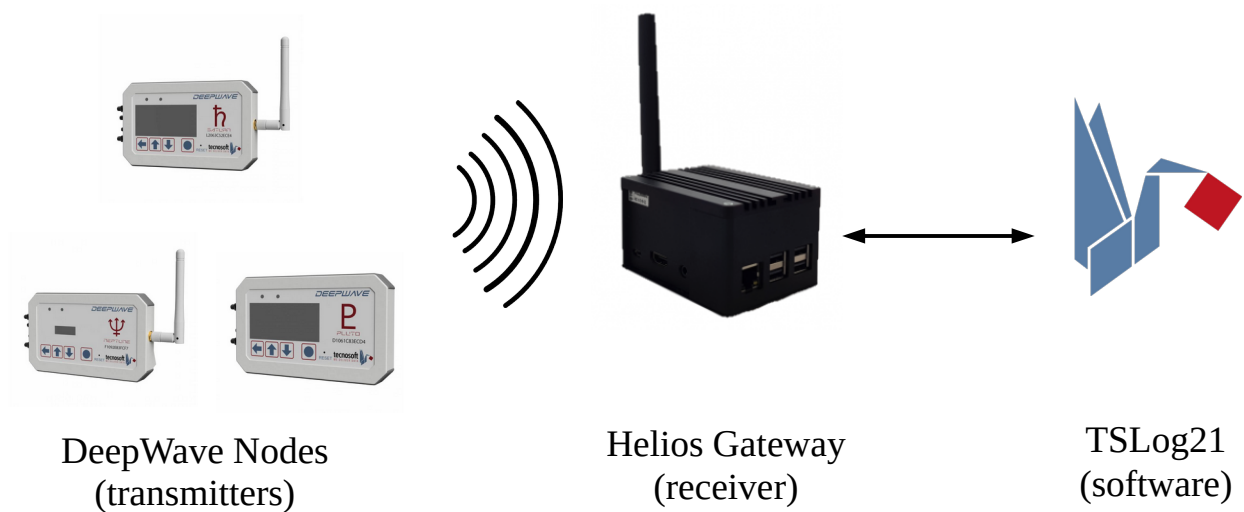


## DeepWave System Quick Start Guide

The system is composed by:



The correct procedure is to:

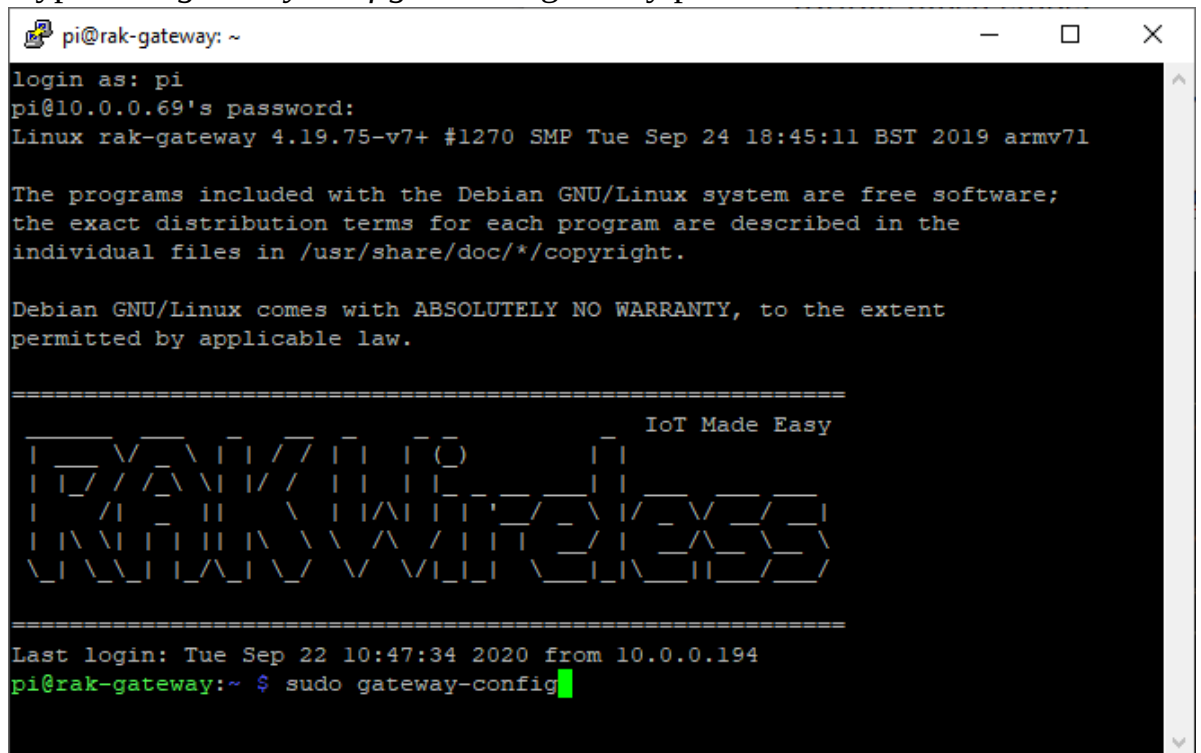
1. Power on the Helios Gateway and, eventually, configure its IP address (Section 1)
2. Configure TSLog21 software (Section 2)
3. Power on the DeepWave nodes

## 1. Helios Gateway setup

If the Helios Configuration Module has been filled and sent to Tecnosoft, your Helios Gateway has already been setup: let's go to step 2 of this guide.

Otherwise, to configure the IP address of your Helios Gateway, please follow these steps:

1. Connect an HDMI cable to the Helios and to a monitor
2. Connect a keyboard plugging an USB Bluetooth dongle into the Helios
3. Supply the Helios
4. Login (ask Tecnosoft for credentials)
5. Type `sudo gateway-config` to enter gateway preferences



```
pi@rak-gateway: ~  
login as: pi  
pi@10.0.0.69's password:  
Linux rak-gateway 4.19.75-v7+ #1270 SMP Tue Sep 24 18:45:11 BST 2019 armv7l  
  
The programs included with the Debian GNU/Linux system are free software;  
the exact distribution terms for each program are described in the  
individual files in /usr/share/doc/*/copyright.  
  
Debian GNU/Linux comes with ABSOLUTELY NO WARRANTY, to the extent  
permitted by applicable law.  
  
===== IoT Made Easy =====  
[ ASCII Art Logo ]  
===== Last login: Tue Sep 22 10:47:34 2020 from 10.0.0.194 =====  
pi@rak-gateway:~ $ sudo gateway-config
```

6. Go to *Configure LAN* and press ENTER: you will be asked to enter the new IP address and you router IP.

[illegible]

7. After completing the procedure, press ESC and then type `sudo reboot` to make you changing effective.

Now you can access the gateway without a monitor and a keyboard, simply using a SSH terminal software (like Putty).

## 2. TSLog21 Configuration (version 1.1.4.0)

1. After downloading and installing the software, at the first access the database configuration window will appear.

The only things to check are the IP addresses highlighted in the red rectangles above. It must match the Helios Gateway IP address.

After this, a connection test to the database and to the license server address can be performed by clicking the related buttons.

If one of these tests fails, please check that the Helios Gateway is powered on and it is connected to the network, otherwise reset the Helios Gateway and try again.

TSLog21 Database Manager

MySQL

User:  Password:

☐ Local ☒ Remote  Server port:

Test Connection Test Database Create new database

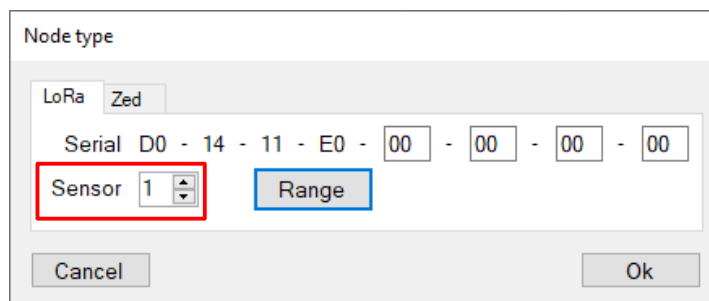
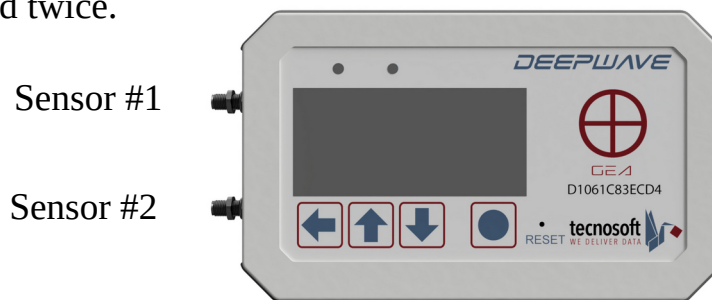
Licence Manager

Licence Server Address:

2. To login select User INSTALL USER and type Password: Tecnosoft2019  
After the login, a new user can be added simply by selecting  
Archive → Users tabs and clicking on the Add button.
3. If the database has not been configured by Tecnosoft or in case of a new empty  
database, the first step is to set the gateway, by selecting  
Archive → Gateways and Nodes → Gateways tabs and clicking on the Add  
Helios button.  
The only things to insert are the IP address, the frequency plan (related to you  
region) and the gateway name and, finally click Ok.



4. The next thing to do is to add the DeepWave Nodes by selecting  
Archive → Gateways and Nodes → Nodes tabs and clicking on the Add  
button. The serial number of the DeepWave Node is required to add it to the  
database (you can use the range button to setup more nodes with the same  
configuration). After that the position of the related sensor connected to the  
DeepWave Node has to be set in Sensor number textbox and then click Ok.  
Note that, if a DeepWave Node is connected to two sensors, this procedure has  
to be completed twice.



5. After that, the DeepWave Node configuration is displayed and the only thing required is to add the channels related to the Smart Sensor connected to the node. For example, in this case, if the DeepWave Node *D01411E00000000D* is connected to a Temperature + Humidity Smart Sensor, the user has to add a first channel of temperature and a second channel of humidity, by clicking on Add Ch button.

Here, the user can change the acquisition rate and modify the minimum and maximum thresholds, with the related hysteresis.

After setting these parameters, the user can click on Ok button to confirm.

LORA D01411E00000000D Sensor 1

Device Address: 0000000d

Application Key: 79 F4 78 AC 05 24 90 CF 56 BC 8A 9C C5 4D C3 BB

Network Key: 1F 1E EA E6 7F 1F F6 A9 EE 78 4F B5 77 70 41 04

Acquisition Rate: 15

☐ External Supply Send Command

1: °C 2: %RH

Hit 1 Min 20 Max 80

Hyst 1 Hyst 1

Add Ch Rem Ch

Cancel Ok

6. At this step, the system is ready to work, but to visualize the data, the user should create a group and list of sensor and match them to the previously added DeepWave Node sensors. To add a group of sensor, the user should go to Archive → Group | Sensor tab and click on the Add button at the bottom of the Group section. For each group of sensor created the user can add multiple sensors by clicking on the Add button at the bottom of the Sensor section. After adding the sensors, the match between user created sensors and Smart Sensor is required. By clicking the Edit button at the bottom of the Sensor section and clicking on the label next to Sensor, the user can match the desired Smart Sensor to its own sensor.

Sensor

Name OVEN 2

Label

Unit

Notes

Sensor

☒ Temperature ☒ Humidity

History

Cancel Ok