



EKSELANS BY ITS

# USER MANUAL

## UC MINI

331009

Control unit and provisioning desktop  
format. Power from PC. Maximum 50  
access points

V01

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## Introduction.

### Description:

Control unit and provisioning desktop format. Power from PC. Maximum 50 access points

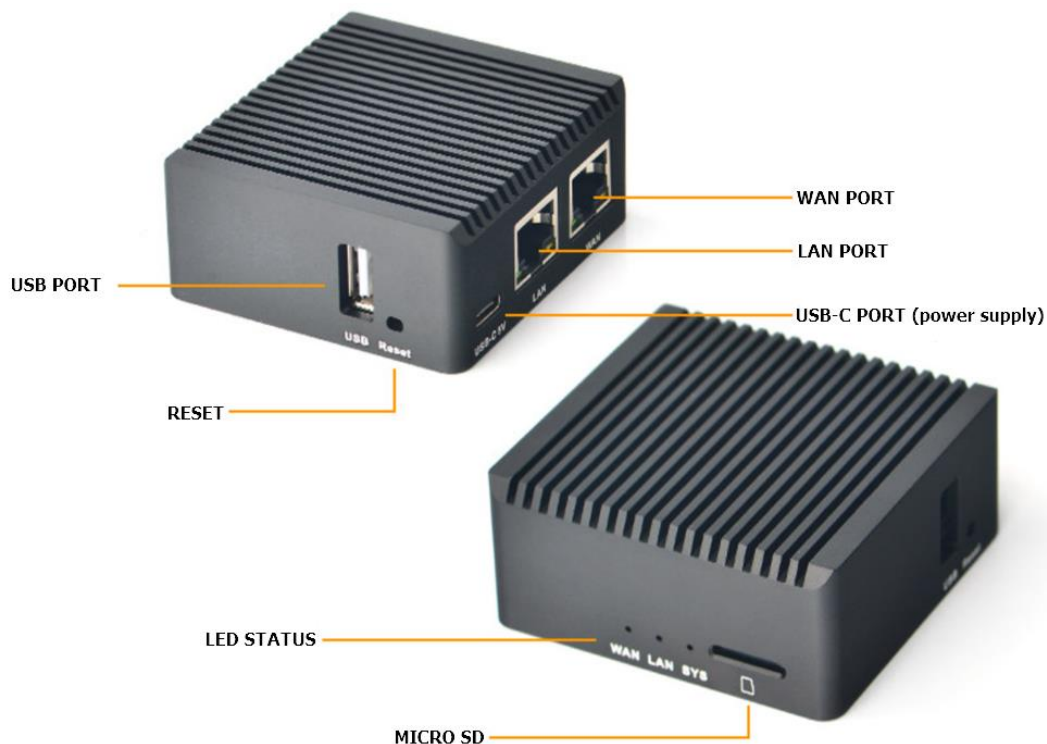
### Contents.

1 x UC MINI.

1 x USB Type-C to USB Type-A cable

## Interfaces, connection and access to the equipment.

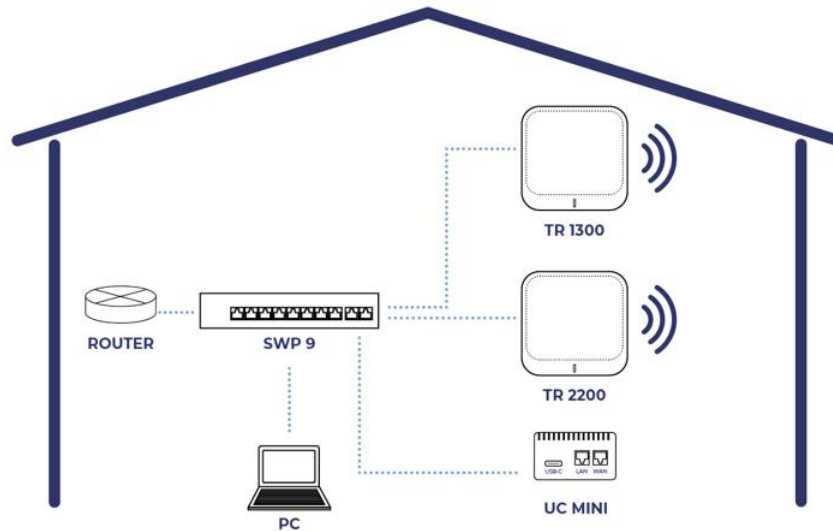
### Interfaces:



### Connection.

Connect the USB-C port to a 5V 2A DC power supply.

Connect the WAN port to the network, with output to the internet. We provide an example scheme:



### Access to the UC MINI.

To access the UC MINI we must follow the following steps:

1. Connect to the network where we have connected the UC MINI.
2. Scan the QR code of the metal label or simply put the address that appears from a URL.

The URL will be of the type: **<https://cloud.ek.plus/i/XXXXXXXXXX>**

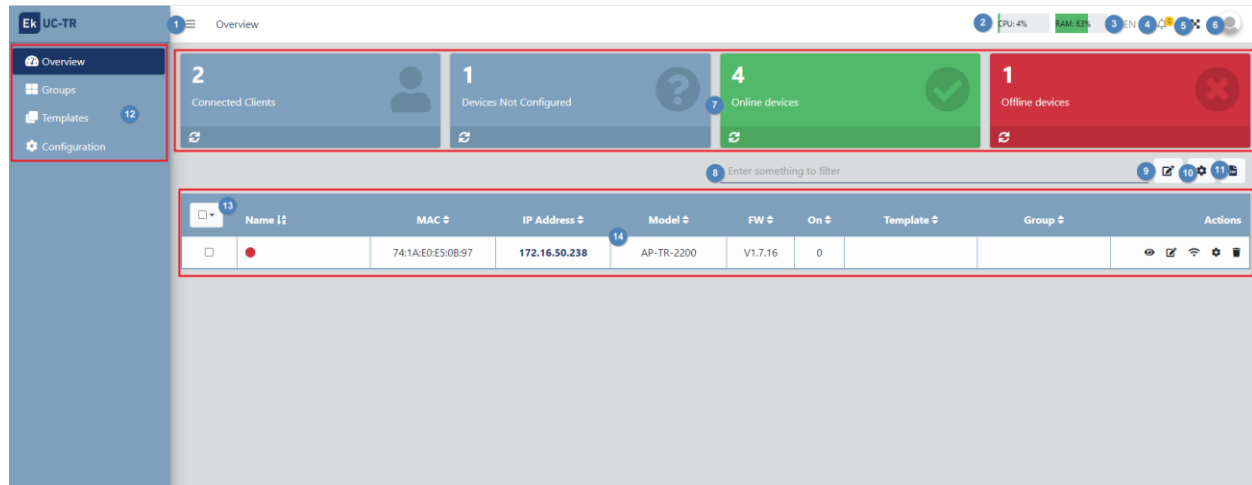
With this we will have access to the equipment. We must put the following username and password:

User: **admin**






Password: **admin**

## UC MINI menus.

### Overview.

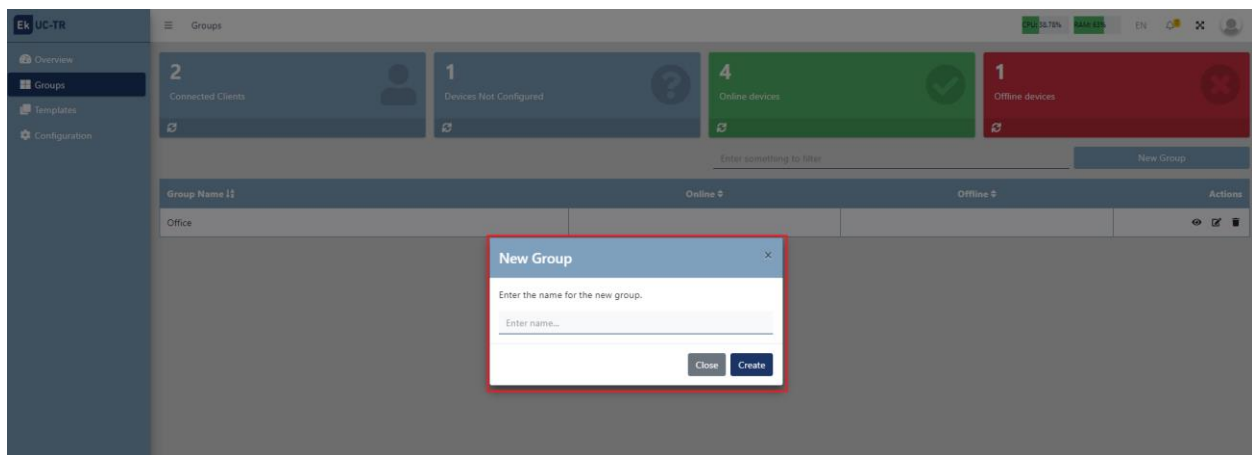


1. Minimize tab: It allows us to minimize or extend the side menu.
2. Computer CPU and memory usage.
3. Language.
4. Notifications.
5. Expand/collapse screen.
6. Session/user options.
  - Change password: We can modify the access password, but not the user.
  - Restart server: Allows us to restart the UC MINI.
  - Log out: Allows us to exit the application.
7. Interface of the status of the equipment.
8. Filter: We can write the word to filter so that a filter is applied in the table of equipment.
9. Edit button: We can edit the selected teams in the equipment table. We can assign them a previously created group or template.
10. Actions:
  - Restart: Allows us to restart the computers selected in the table of computers.
  - Factory reset: It allows us to restart the selected equipment from the factory.
  - Update Firmware: Allows us to update the equipment selected in the equipment table.
11. Export: We will download the list of current equipment in "EXCEL" format.
12. Menus:
  - General: The main setup screen.
  - Groups: Menu where we will create and manage groups of devices.
  - Templates: Menu where we will create and manage the templates applicable to the teams.
  - Configuration: We can configure different parameters of the UC MINI.




13. Option to select group of computers: It allows us to select a certain group of computers, according to its model.
14. Equipment table: The connected devices will appear. It will also tell us if the FW is old **"OLD"** or its current version. In this table we have different action buttons, as well as information about the teams.
  -  Visualize: It allows us to visualize the status and configuration of the equipment.
  -  Edit: Allows us to select the group and template to which the access point is linked.
  -  Action: Allows us to restart or update the firmware of the access point.
  -  Change Channels: Could change radio channels. Device needs a template.
  -  Delete: Allows us to remove the access point from the list.

## Groups.

We can create and manage the groups to which we will link the different teams. When you click on "New group" you will see the following window where you can create your group:

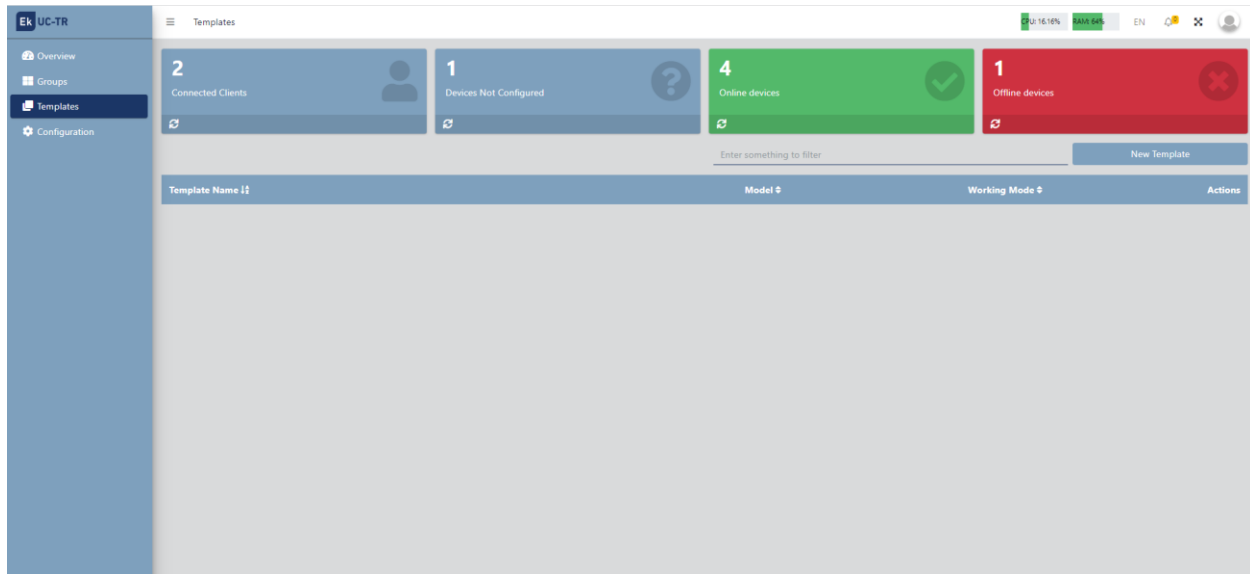


The options that we have once created are the following:

-  Visualize: It will take us to the main screen where we see the list of all the computers that belong to the selected group.
-  Edit: Allows us to change the name of the group.
-  Delete: Allows us to delete the group

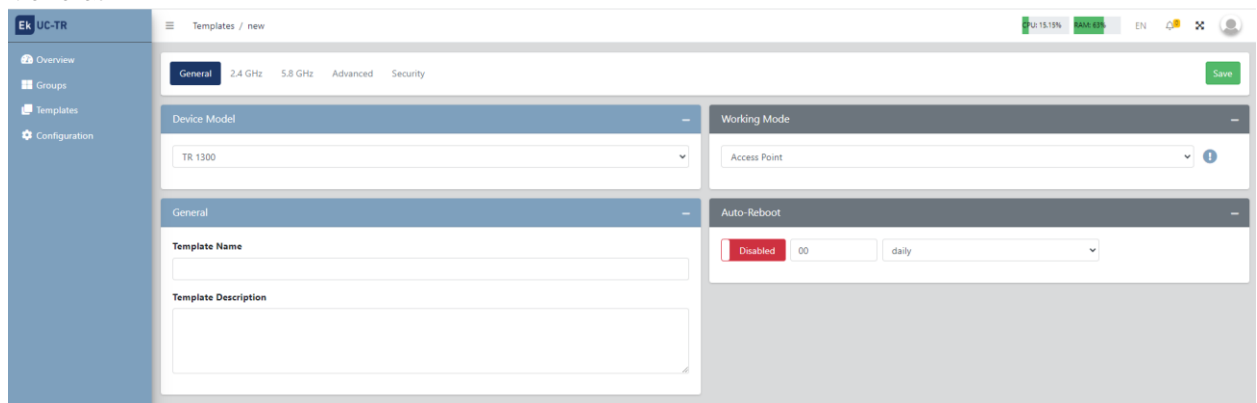
## Templates.

Through this menu we will create and manage the different templates and their different options.



Clicking on "New template" will open the configuration options:

- General.



- Device model: We will select the computer model for the template.
- General: We will put the name of the template, as well as a description of it.
- Working mode: Working mode in which the equipment will work:
  - AP: In this mode, the AP wireless interface and the wired interface are joined. No NAT, firewall and all network-related features.

- Gateway: In this mode, the device is supposed to connect to the Internet via ADSL/Cable Modem. NAT is enabled and PCs on the LAN ports share the same IP with the ISP over the WAN port. The connection type can be configured on the WAN page using PPPOE, DHCP Client or Static IP.
  - Auto-Reboot: We can enable an automatic restart, if we need it. **It is advisable to schedule a daily restart for better network operation.**
- 2.4 GHz.

- Common: We will configure the channel number and bandwidth of the 2.4GHz Wi-Fi.
- SSID: We will configure the different SSIDs, as well as the encryption or VLAN in which it will work (if desired).



- 5.8 GHz.

The screenshot shows the '5.8 GHz' configuration page in the UC-TR interface. The 'Common' tab is selected, showing settings for four SSIDs (SSID 1 to SSID 4). The 'Channel' is set to 'Auto' and the 'Band' is '20/40/80'. Each SSID configuration includes fields for Name, Password, Auth (WPA2-PSK), Encryption (AES), and a VLAN option (disabled, 1). The interface also shows a sidebar with navigation options like Overview, Groups, Templates, and Configuration.

- Common: We will configure the channel number and bandwidth of the 5GHz Wi-Fi.
- SSID: We will configure the different SSIDs, as well as the encryption or VLAN in which it will work (if desired).

- Advanced:

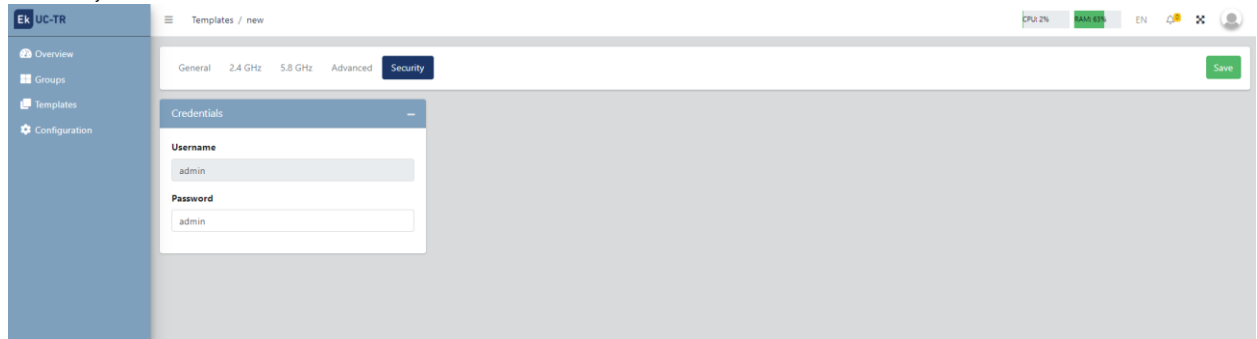
The screenshot shows the 'Advanced' configuration page in the UC-TR interface. The 'Advanced' tab is selected, displaying various settings. The 'Country' is set to 'ETSI'. The '2G Mode' is 'N/G' and the '5G Mode' is 'AC'. The 'Max Users' is set to '64' and 'AP Isolation' is 'disabled'. The 'Output power' is '100%', 'Short Guard Interval' is 'disabled', 'Prefer 5G' is 'disabled', 'Coverage Threshold' is '-90', and 'DFS' is 'disabled'. The 'Terminal Fast Roaming' is 'disabled', 'Multicast Fast' is 'disabled', 'RTS Threshold' is '2347', and 'Fragmentation Threshold' is '2346'. The interface also shows a sidebar with navigation options like Overview, Groups, Templates, and Configuration.

- Advanced.
  - Country: Emission band according to the selected country, default for Europe is ETSI.
  - 2G mode: Standard 2GHz band, default cannot be touched.
  - 5G mode: Standard 5GHz band, default cannot be touched.
  - Maximum users: Maximum number of computers per band.

- AP isolation: It allows us to enable isolation between connected computers within the same SSID.
- Expert.
  - Output power: Wifi emission power.
  - Short guard interval: The guard interval (GI) is a parameter that regulates the time that elapses between two different symbols. It normally takes a value of 800ns, but can be reduced to 400ns. This optimization allows speed gains in n and ac modes, although it may not be suitable in environments with a high level of interference.
  - Prefer 5G: In case of configuring the same SSID for the two networks, if the device has a good signal it will connect to the 5G SSID whenever it can preferentially.
  - Coverage threshold: It is a quality parameter on the power required of a terminal in reception on the AP, so that those users received with less power are automatically disassociated. The resulting effect is equivalent to limiting the range in distance and, consequently, that the connected terminals have a better performance service.
  - DFS: The DFS function is suitable for environments with nearby radars (e.g. ports or airports) where strong interference is generated. This function, when detecting an anomaly, analyzes the rest of the radio channels in 5GHz and, after a time of scanning, identifies and migrates communications to a new channel. Except in cases of proven need, its deactivation is generally recommended.
- Dangerous.
  - Terminal Fast Roaming: Allows equipment to switch APs quickly and without having to reconfigure. The APs communicate with each other and decide based on certain values (e.g. connection quality/number of devices connected to each point), to which point the end devices will be connected.
  - Multicast Fast: This option is useful when there is presence of multicast traffic (e.g. video over IP) on the LAN network and you want to carry it through the Wi-Fi interfaces. To do this, simply deselect the OFF option (default option) and select a multicast Wi-Fi transmission speed, with speeds of 6, 12 and 24 Mbps being recommended, as they are basic speeds of the device.
  - RTS Threshold: It is the packet size threshold above which the RTS/CTS mechanism is activated. RTS (Send Request) /CTS (Ready to Send) is a mechanism to reduce the collision between stations, but the use of RTS/CTS will add more overhead to the network; so, by default, the AP uses only the RTS/CTS when transmitting a packet of 2347 bytes or larger. Thanks to this mechanism, we can minimize the number of collisions between hidden stations (end equipment that communicates only with the Wifi AP and does not communicate with other end equipment connected to the AP, since they are not within its range).
  - Fragmentation threshold: It is the maximum value that the packets will reach before being fragmented. The maximum value is 2346 (no fragmentation) and it is advisable to reduce it a little only if you experience media access problems or collisions.

Once finished, do not forget to press the green **'Save'** button to save these settings.

- Security:



It allows us to change the password to access the computer.

## Configuration.

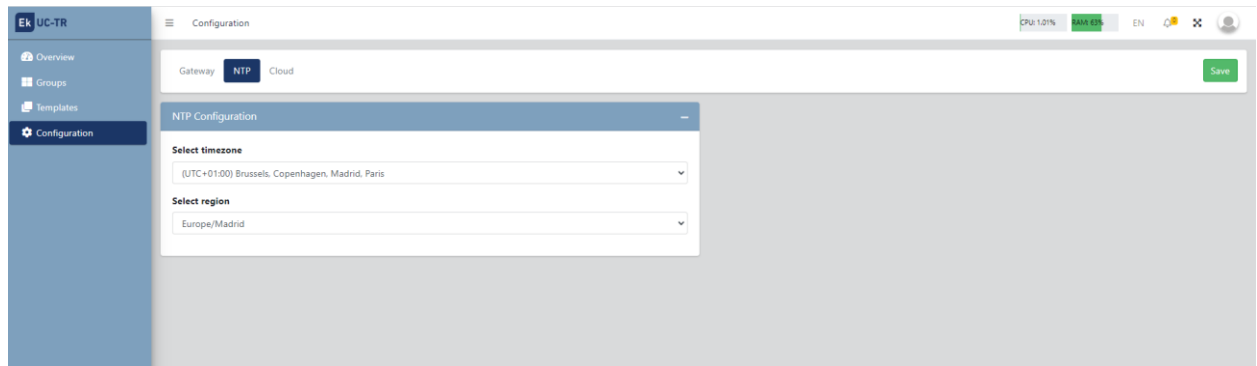
Thanks to this menu we can configure different network parameters.

- Gateway.

The screenshot shows the 'Configuration' page for 'UC-TR'. The left sidebar contains links to 'Overview', 'Groups', 'Templates', and 'Configuration'. The main content area has three tabs: 'Gateway', 'NTP', and 'Cloud'. The 'Gateway' tab is active, showing a form for IP configuration. The form includes a section 'IP by DHCP' with a red 'Disabled' button. Below this are input fields for 'Device IP' (172.16.50.20), 'Subnet Mask' (255.255.255.0), 'Gateway IP' (172.16.5.5), 'DNS 1' (8.8.8.8), and 'DNS 2' (1.1.1.1). A 'Save' button is located in the top right corner of the main area.

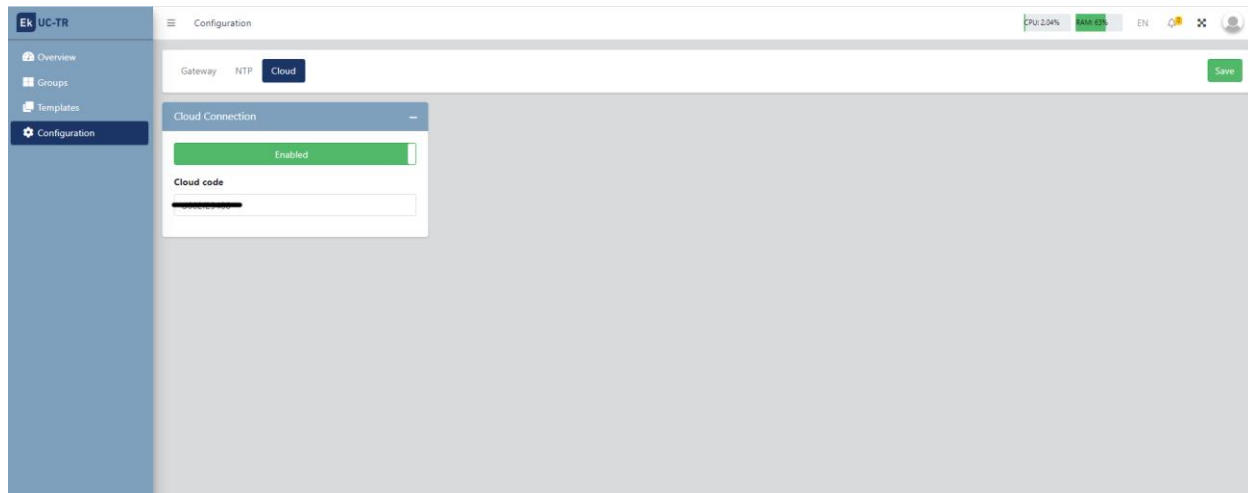
By default works as DHCP enabled. We can disable it and configure the network parameters as we need.

- NTP.



We can configure the time zone according to our interests.

- Cloud.



To have remote access from the Cloud we must enable this option.

Thanks to this we can manage from our Cloud panel (<https://cloud.ek.plus>) all the UC linked to that panel.

In the section **"Cloud code"** we must put the Cloud code of our controller. If we do not have a user, we must create one.

