HUBBOX Connect X1 – WEB Panel, Local Panel and Desktop Client

User Manual

Version 24.13

30/03/2024

Contents

1.   Introduction

This document has been prepared by **HUBBOX ENDSTRİYEL TEKNOLOJİ YAZILIM ve DANIŞMANLIK A.Ş.** This document contains information about the products and related systems. The products discussed in this document are intended for use by individuals with a certain level of technical expertise. Continuous updating of products and services may render this document invalid, but we commit to publishing documents related to our new services and products as quickly as possible

This user manual is prepared for individuals proficient in "Electricity, Automation, and Electronic Communication" subjects. Basic knowledge of IPv4 networking is required to use the systems described in this manual.

1.1   Benefits of the HUBBOX System

With HUBBOX Connect X1, you can:

- Establish secure and fast VPN connections
- Access USB devices remotely
- Enable remote access using Wi-Fi, RS485, Ethernet, and optional 4G interfaces.
- Collect and transmit data efficiently.

1.2   Components of the HUBBOX Platform

- HUBBOX.io Web site
- HUBBOX Web Panel
- HUBBOX Local Panel
- HUBBOX Desktop Client Windows Application

1.3   What is HUBBOX ?

It is an **"INDUSTRIAL REMOTE CONNECTION DEVICE"** in general terms. It is a comprehensive Industrial IoT (IIoT) system that enables remote access, monitoring, and management of PLCs, Operator Panels, Drives, Robots, and other systems used in machinery and automation systems.

HUBBOX Connect X1, is a brand-independent device. You can remotely access any device with network connectivity. Its various interfaces (Ethernet, RS485, USB) and industrial access protocols (MODBUS (TCP, Serial), Siemens S7, OMRON Fins, OPC UA, MQTT, etc.) allow simultaneous access to multiple devices using different protocols.

With **HUBBOX** products, you can have direct access to your industrial machines from anywhere, anytime, and collect production data from machine and automation systems both offline and online. Our products offer easy and seamless access with WAN, LAN, and WIFI inputs, providing high-security SSL certificates and utilizing the latest encryption methods (ECDHE-RSA-AES256-GCM-SHA384) for data communication. For access to your systems, we implement two-factor authentication (2FA) using the Google Authenticator infrastructure, ensuring enhanced security.

2.   Getting started - www.hubbox.io WEB Site

### HUBBOX Connect X1 - Technical specifications

Type   : IIoT - HUBBOX - DIN Rail mount

Inputs   : 1 x 100Mbps WAN Ethernet –1 x 100Mbps
LAN - 1xUSB 2.0 - MODBUS(RS485)

Wireless   : 1xWifi Client 150 Mbps

Storage   : 16GB - (Max 32GB)

CPU   : 1.2 Ghz

Voltage   : 12-35v DC

Operating temperature : -10 > + 40 C

USB Ports   : 1 x USB Port

Dimensions   : With package - 145 x 120 x 40 mm

Without package - 113,5 x 100 x 22 mm

Weight   : With package- 0,32 kg

Without package - 0,25 kg

Certificates   : CE, FCC

2.1   Login

To use your **"HUBBOX Connect X1"** device, you need to create an account for your company at **https://www.hubbox.io** . If your "HUBBOX Connect X1" device has already been registered, you can log in with your account information at https://www.hubbox.io to connect to the **HUBBOX Web Panel** and manage all your devices.

The first step to access or remotely manage any HUBBOX product is to register or log in.
Click on the icon at the top right of our website and register or log in from the Account page.
If you don't remember your account information, you can use the **"forgot my password"** option.
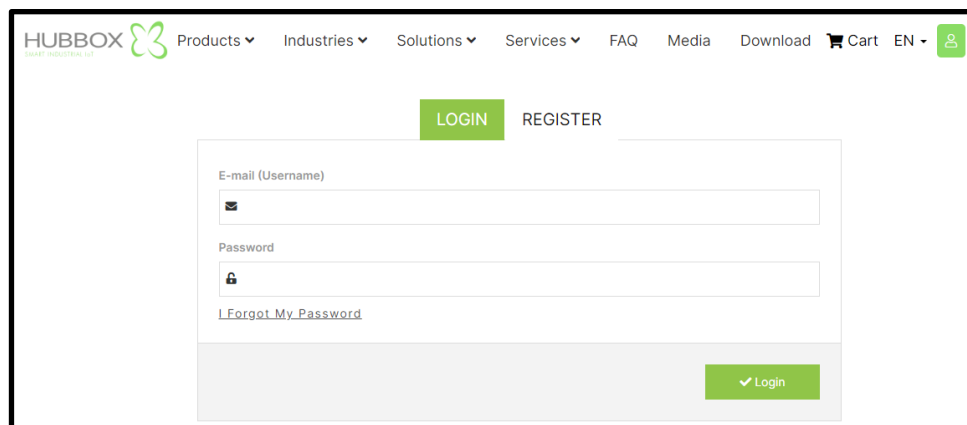
2.2   Registration

If you don't have an account, click on the register button and fill in the information indicated in the image below accurately and completely. This information will grant you authorized and unique access to all **"HUBBOX Connect X1"** devices you purchase and own. Therefore, it is recommended that this user be created by authorized and accessible personnel within your company.

The information provided in the registration form will be used to create all financial and administrative accounts for your company within our system. Once logged in to **www.hubbox.io**, you can manage your devices and view transactions such as **orders, support, and purchases** on the **'My Account'** page.

Some information entered into this form can be modified through written or interactive communication. Otherwise, the **'email' and 'phone'** information provided during initial registration will remain unchanged. Additionally, each user can only register once in our system.

Registrations of individuals who have not purchased devices or have made multiple registrations for the same company are periodically deleted by us.
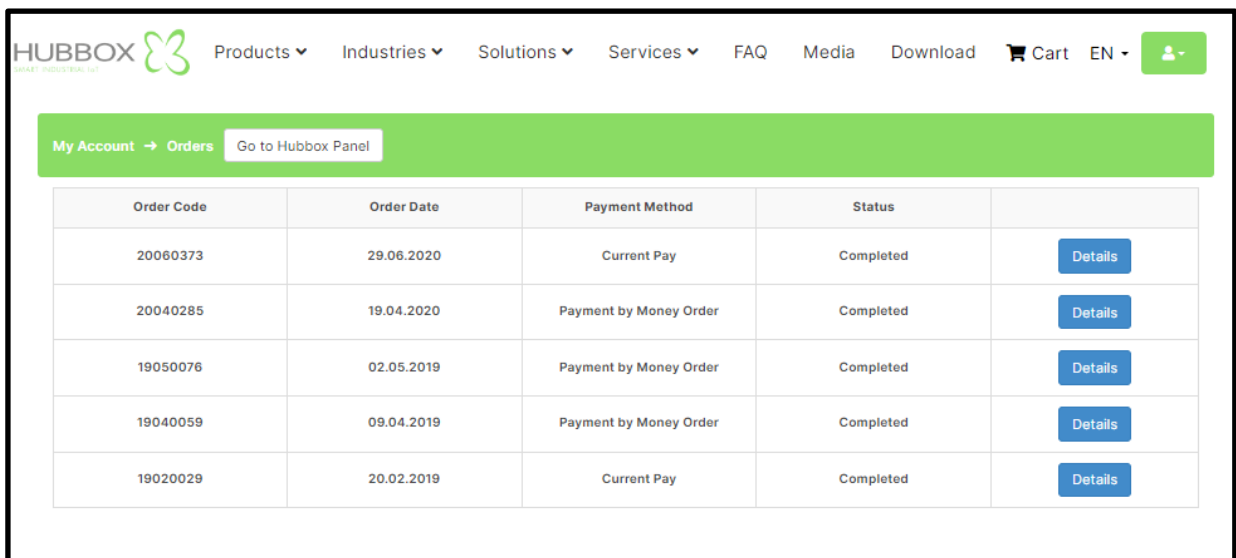
2.3   My Account

To access the 'My Account' page, you must register on the **www.hubbox.io** website and log in with the created account information. When logged in with correct information, the **'My Account'** page shown below opens. From this page, you can access the **'HUBBOX Panel'** login and other menus.
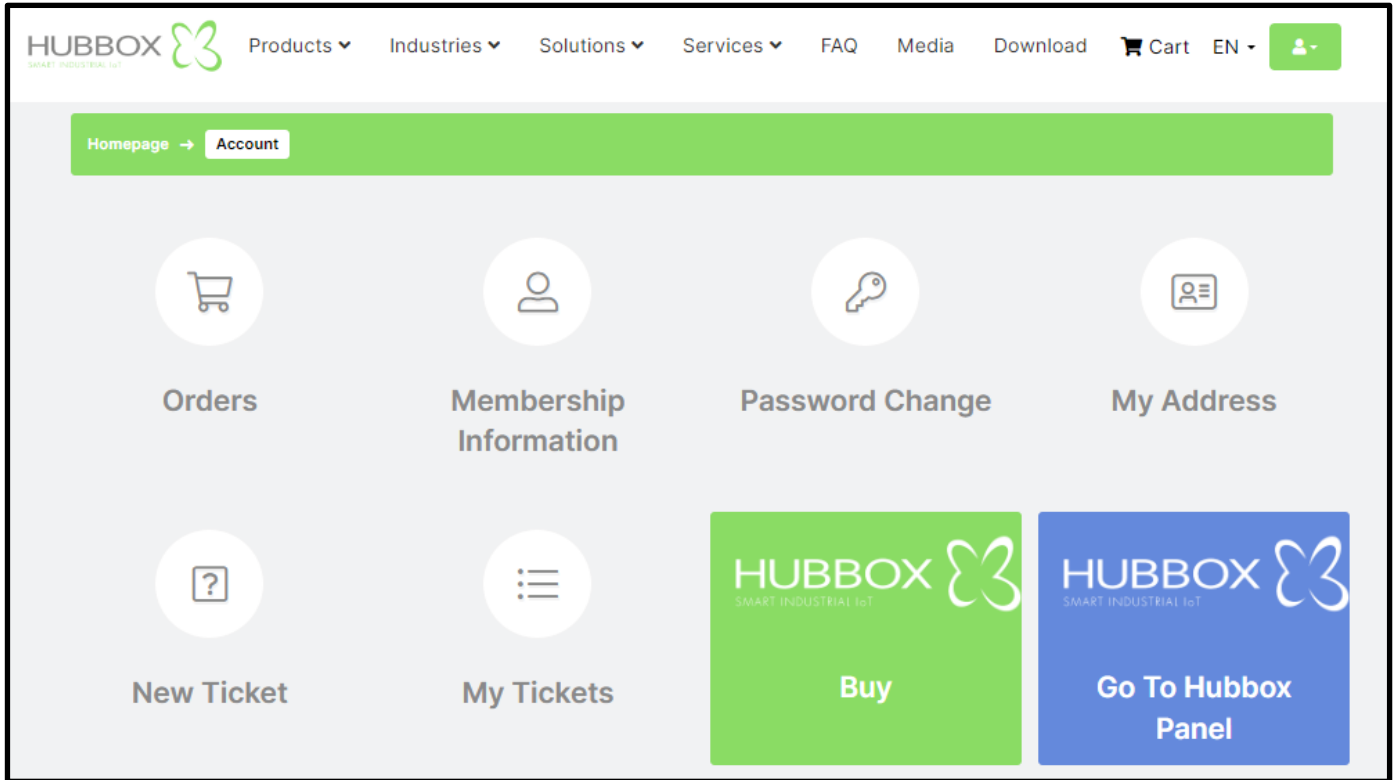
2.4   Orders

This is the page where you can view the statuses of your orders.

Order Code	Order Date	Payment Method	Status	
20060373	29.06.2020	Current Pay	Completed	Details
20040285	19.04.2020	Payment by Money Order	Completed	Details
19050076	02.05.2019	Payment by Money Order	Completed	Details
19040059	09.04.2019	Payment by Money Order	Completed	Details
19020029	20.02.2019	Current Pay	Completed	Details

2.5   Membership Information

This is the page where you can view and modify your membership information

2.6   Password change

This is the page where you can change your password. However, to make this change, you need to enter your old password.

2.7   Creating a new support ticket

Category   **:** Please select from common topics.

Title   **:** Enter a brief title describing the problem you are experiencing.

Description   : This is the area where you will explain the problem.

Attach file   : Upload any screenshots or log files that demonstrate the problem you are

experiencing. You can attach multiple files.

The most important point to consider when creating a support ticket is to describe your problem accurately under the correct topic and within a single support ticket. Your support ticket is created immediately in our system. Our support team will analyze and resolve problems based on priority and importance.

2.8   View details of support tickets

You can view the statuses of the support tickets you have opened for HUBBOX device and other issues.

2.9   Go to Hubbox Panel

With this button, you can access the panel where you can manage your HUBBOX devices from anywhere in the world.
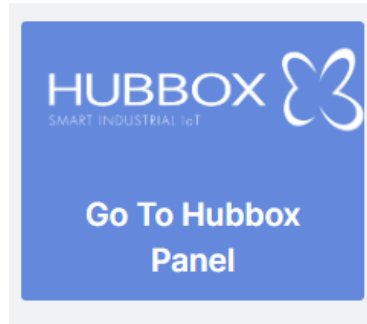
2.10   Buy Hubbox products

On this page, you can directly order **HUBBOX Connect X1** and other products

3.   Usage of HUBBOX Panel

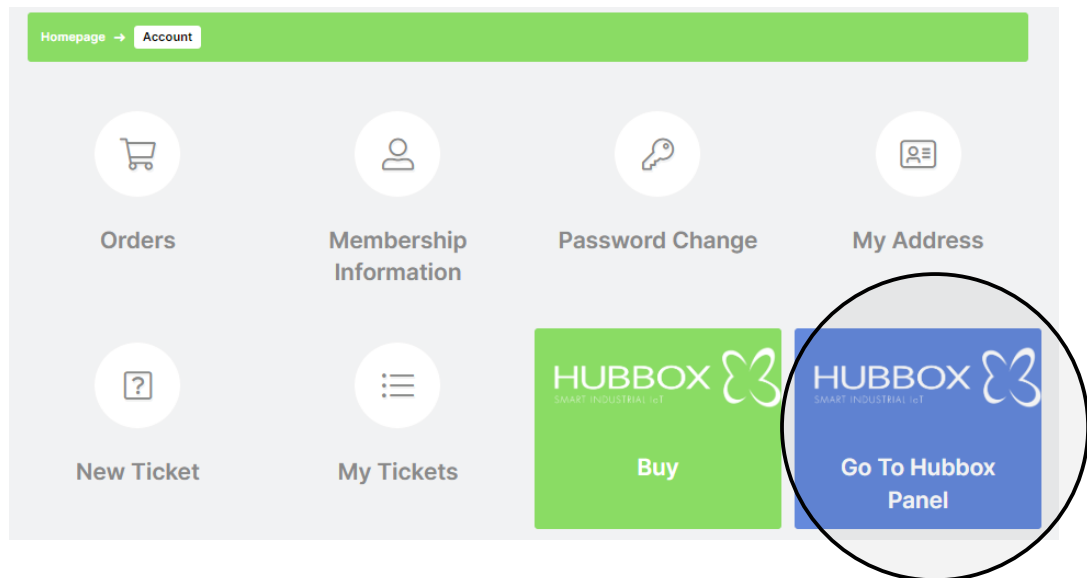After creating an account for your company at **www.hubbox.io**, you can access the "HUBBOX Panel" to manage your **HUBBOX Connect X1** devices from anywhere by clicking on the "**Go to HUBBOX Panel**" button on the "**My Account**" page


3.1   Log in to "HUBBOX Panel"

By clicking on the "**Go To HUBBOX Panel**" button, you can access the **2FA** verification screen. When you log in for the first time, you will be shown a unique and personal "**QR Code**." You need to use the "**PIN**" code generated by the "**Google Authenticator**" application on your mobile phone with this code. Each company has a unique "**HUBBOX Panel**" account.

Note: The "**QR Code**" on the initial login screen is generated only once and shown to you. Therefore, you should not refresh that screen. When the code is generated, download the "**Google Authenticator**" application to your mobile phone and scan the generated code into the "**Google Authenticator**" application.

To regenerate the "**QR Code**" you need to send the necessary documents to "**qrcode@hubbox.io**" from your company's registered email address in our system, including "**Identification information of the Company Authorized Person**" and "**Documents showing the title and tax number of your company registered in our systems**." After verifying the accuracy of the information through our call center, a new "**QR Code**" will be generated, which is also unique and personal.
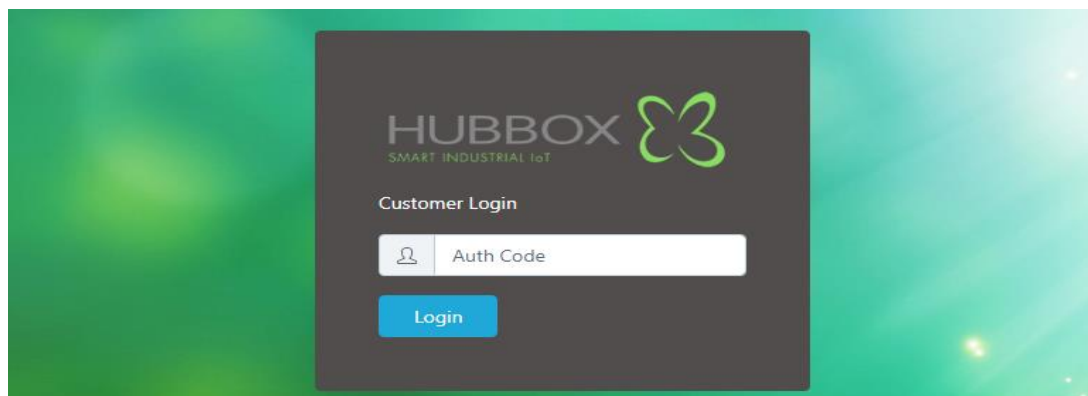
3.2   Usage of the HUBBOX Panel

"

HUBBOX
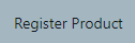SMART INDUSTRIAL IoT

⊙ Home	
▯ Device Manager	● You can add your HUBBOX devices to the system and create a network
⛬ Hubbox M2M	● You can manage all the networks you have created and the devices
⛊ Accounts	● You can create sub-accounts who will connect to your HUBBOX devices.
⛬ Hubbox Desktop Client	● You can download the HUBBOX Desktop Client application
▤ Licenses	● You can manage the licenses you can use with your device.
ⓘ NotifyManager	● You can manage the SMS and email notification services.

3.3   "Device Manager"

You can register the devices you've purchased. Additionally, if you want to upload WiFi settings to your devices via the USB input, you need to use this menu. You can also view real-time statistics such as connection and traffic, and change the device name.

HUBBOX
SMART INDUSTRIAL IoT

Home / Box List

▦	≡	All Networks ▼	Search text			Q Search	Register Product	Wifi setting by USB

| Box Configuration	Network Name	Title	Serial No	Model No	Network Status	İnternet
☑	HAT4_PRES3	HAT4_PRES3	1985100504063	HUBBOX-CX2	●	●
☑	HAT4_PRES1	HAT4_PRES1	1985100504078	HUBBOX-CX2	●	●
☑	HAT1_PRES1	HAT1_PRES1	1985100504110	HUBBOX-CX2	●	●
☑	HAT1_PRES2	HAT1_PRES2	1985100504098	HUBBOX-CX2	●	●
☑	HAT4_PRES2	HAT4_PRES2	1985100504086	HUBBOX-CX2	●	●
☑	HAT1_PRES3	HAT1_PRES3	1985100504058	HUBBOX-CX2	●	●

To register your device, simply click on Register Product button. On the opened page fill in the "Serial Number" ve "Register Code" fields with the information found on the label on your device. After checking online ⊙ Check Online ⊙ Register register button will become active.

Serial Number

Please insert serial number

Register Code

Please insert serial code. Exp: XXXXX-XXXXX

⊙ Check Online   ⊙ Register

3.4   "Hubbox M2M"

For each HUBBOX you register, a network is created. Configuration settings, user permissions, IP configurations, and user statistics for the HUBBOXes within the network are accessed by navigating to the networks created under "Hubbox Network"
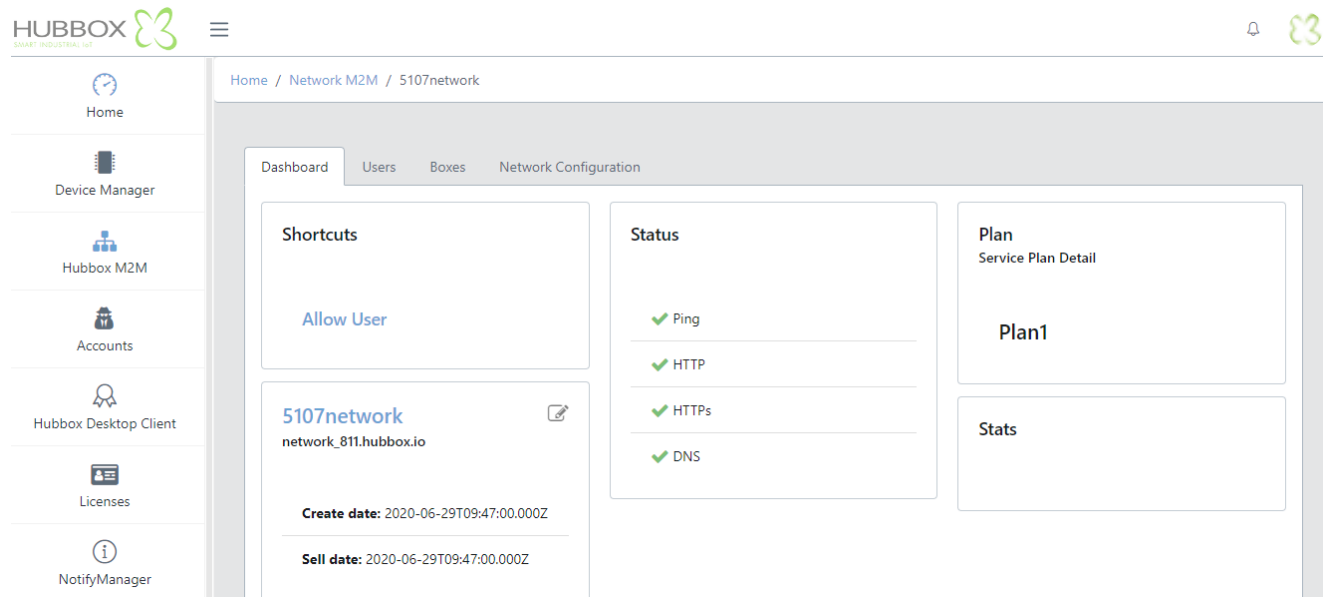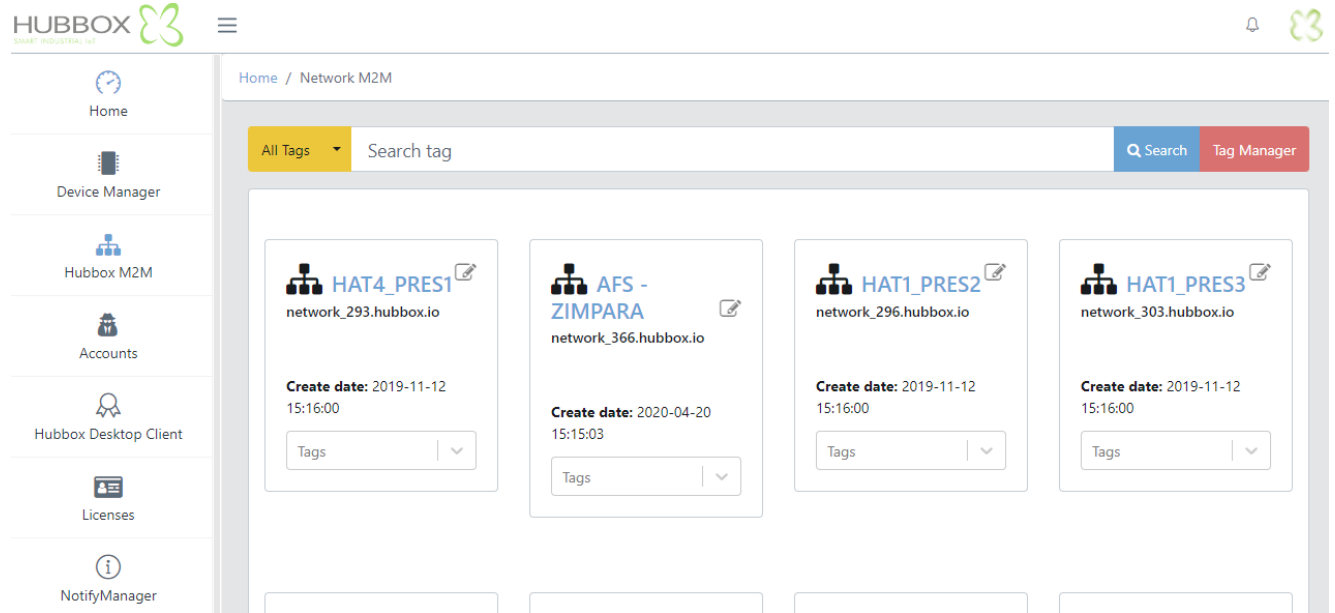
3.5 "Accounts"

You can create users who will access the HUBBOX devices you've registered. When adding a user, ensure that the email address has not been registered before. Initially, the user has no permissions; authorization is done through the "Hubbox Networks" menu.

4.   HUBBOX Local Panel
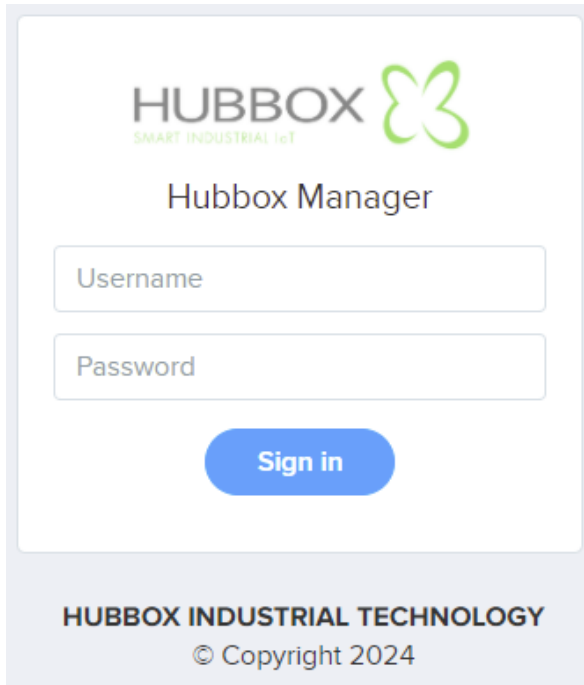
Some functions and features of "**HUBBOX Connect X1**" devices can only be accessed through the "**HUBBOX Local Panel**." Access to this panel is achieved through a web request from the device's **LAN** port.

4.1   "HUBBOX Local Panel" Login

To configure the settings of your "**HUBBOX Connect X1**" device, you first need to access the "**Hubbox Local Panel**" To do this, open **https://192.168.24.254** in any web browser. Fill in the required information on the User Login screen that appears.

Default Username: hubbox

Default Password: hubbox

Note : To connect to the "**Hubbox Local Panel**" of your "**HUBBOX Connect X1**" device, you need to be on the same network as your device. Additionally, the IP address of your PC or notebook's **Ethernet interface should be within the 192.168.24.0/24 subnet range**. Otherwise, you won't be able to access the device.

4.2   "Network Interface"

On this page, you can view and configure all network interfaces of your "**HUBBOX Connect X1**" device. The "**HUBBOX Connect X1**" device consists of 3 different network interfaces and 2 network areas, listed in the table below:

WAN	LAN
ETH1 **(configurable)**	ETH0
4G/LTE	ETH1 **(configurable)**
WIFI	

You can monitor the status of all these interfaces on this page, and you can also configure their settings. By moving the **ETH1** interface from the **WAN** side to the **LAN** side, your "**HUBBOX Connect X1**" device can have two LAN interfaces simultaneously. This way, with one "**HUBBOX Connect X1**" device, you can establish remote connections to two different devices.
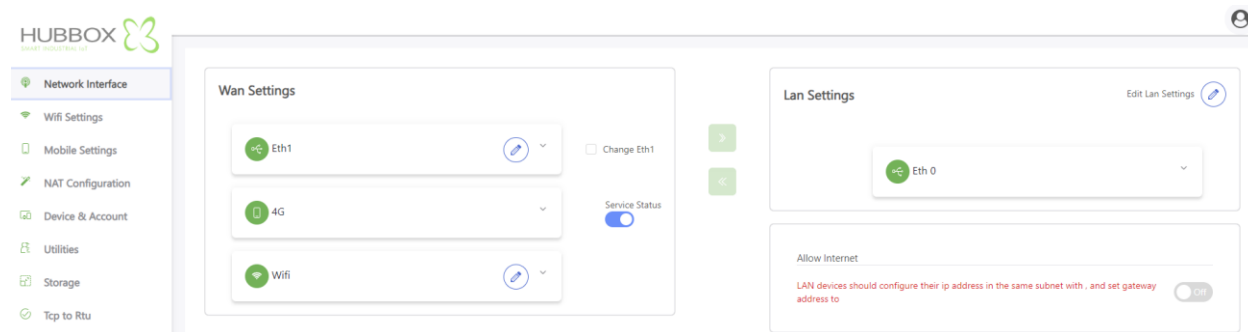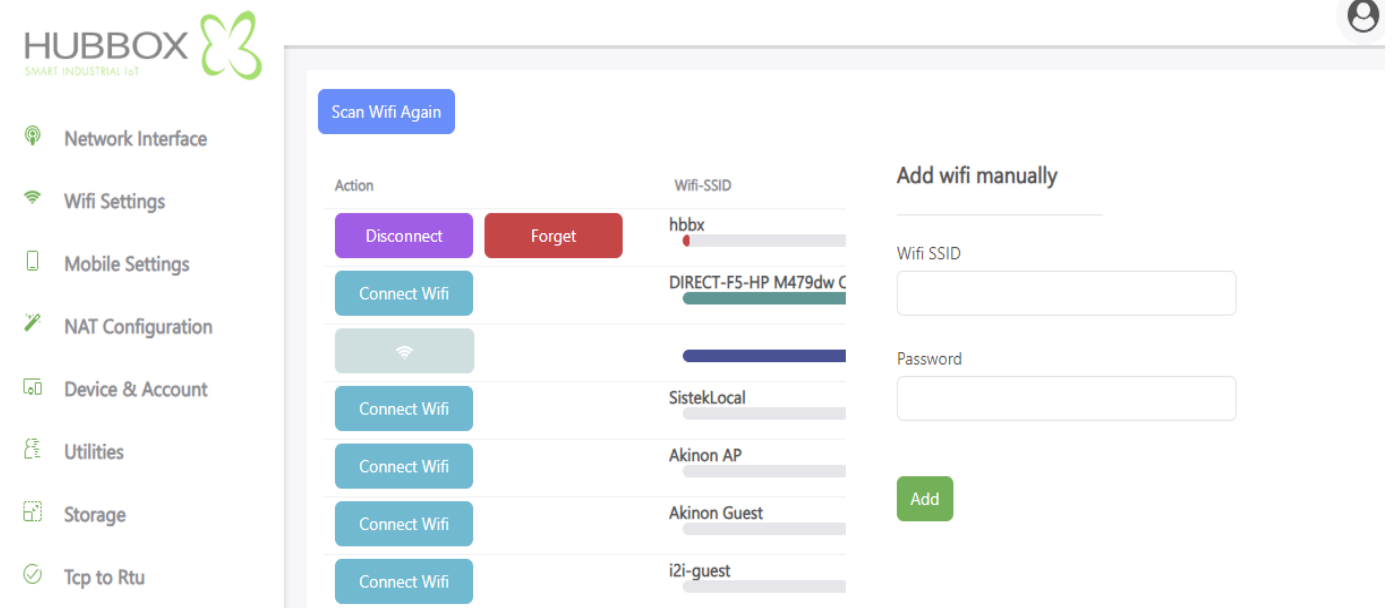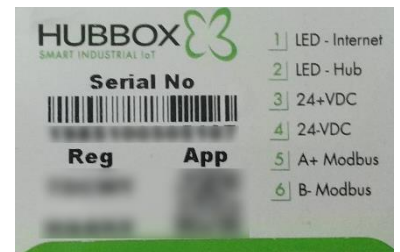

4.3   "Wifi Settings"

On this page, you can view the **WiFi** status of your "**HUBBOX Connect X1**" device and configure its settings. To connect to the default "**hbbx**" network on the device, you need to set the **SSID** (network name) of your wireless access device to "**hbbx**." Additionally, **the password you set for this SSID should be the serial number of your "HUBBOX Connect X1" device**. You can also configure these settings for the "**Mobile Hotspot**" feature on your phone if you prefer.

To connect to other WiFi networks besides "**hbbx**," click on the "**Connect Wifi**" button next to the listed WiFi networks. Then, enter your WiFi password into the password field to connect. You can also add an unlisted SSID that is not listed. Once this SSID is active, your device will automatically connect to it.

4.4 "Mobile Settings"

On this page, you can view the 4G/LTE status of your "HUBBOX Connect X1" device and configure its settings.

4.5 "NAT Configuration"

On this page, you can view the **NAT** (Network Address Translation) status of your "**HUBBOX Connect X1**" device and configure its settings. By performing NAT, you can access your device from the IP address assigned to all **WAN** interfaces of your "**HUBBOX Connect X1**" device.

4.6   "Device & Account"

On this page, you can perform tasks such as viewing the version information of your device, changing the login credentials for the "Hubbox Local Panel," and rebooting your device.

Version: Displays the hardware and software version of your Hubbox device.

Change username and password: Allows you to change the login credentials

Reboot Hubbox: Restarts your "HUBBOX Connect X1" device

4.7   "Utilities"

The "**HUBBOX Connect X1**" device includes tools to test the health of its network connections and other features.

4.8 "Storage"

"HUBBOX Connect X1" device is able store data read from PLCs or other devices. You can download or delete the stored data onto your PC from this page.
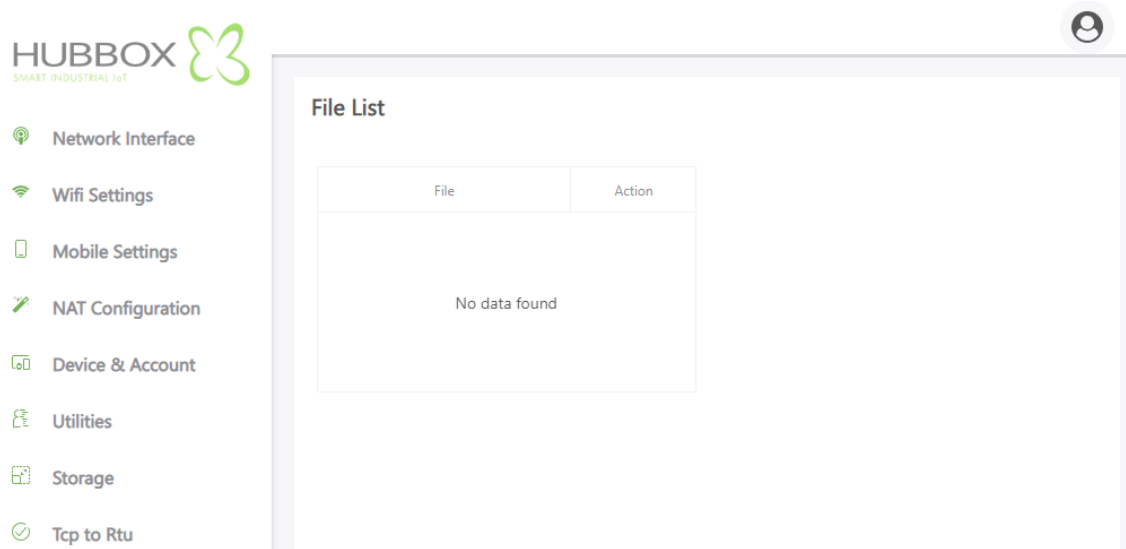
4.9 "TCP to RTU"

You can use your "**HUBBOX Connect X1**" device as a **MODBUS RTU to MODBUS TCP** converter. All necessary settings can be configured on this page. With this feature, you'll be able to access **RS485** and MODBUS RTU devices via **TCP**.
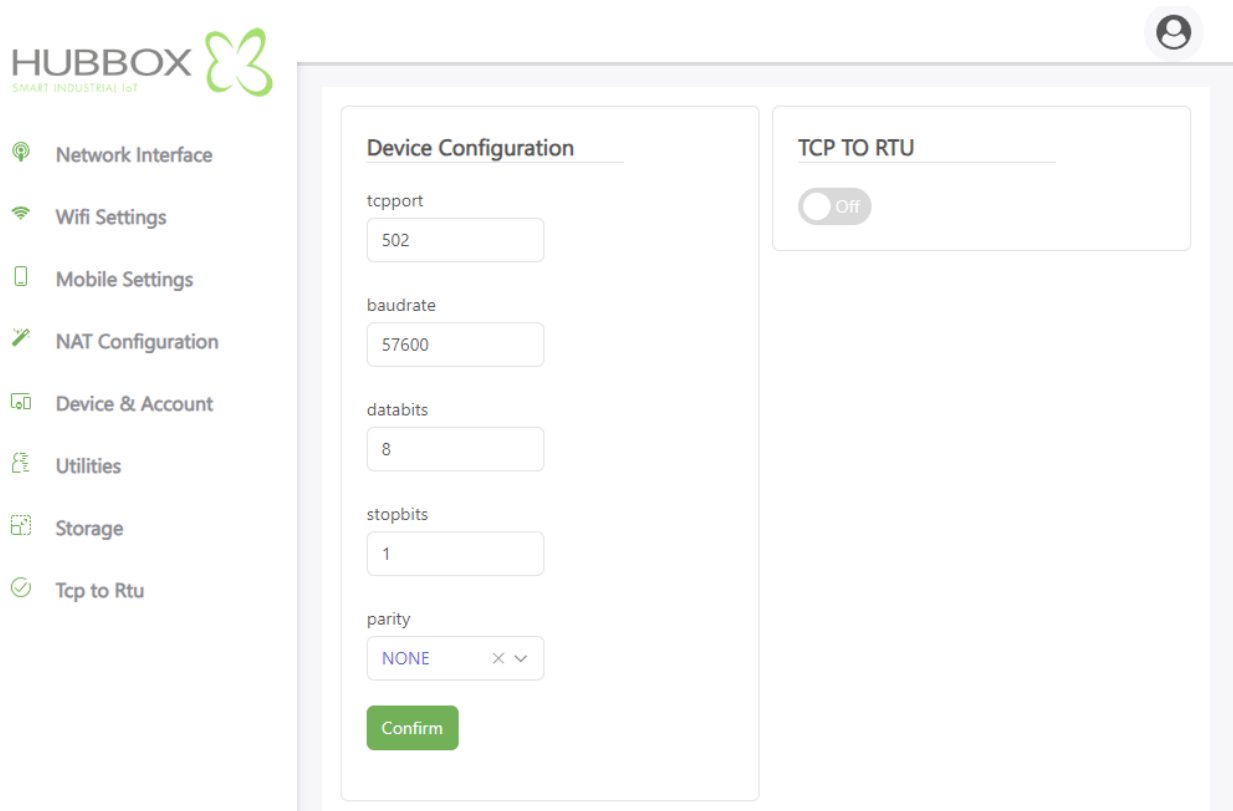
5.   Hubbox Desktop Client

Once you've created an account for your company on **www.hubbox.io**, you can download the "**HUBBOX Desktop Client**" from the panel

The compressed "**Hubbox.zip**" file can be extracted, and inside, you'll find the "**Hubbox_Desktop_Client.jar**" and "**Hubbox_Desktop_Client.exe**" files, which can be copied to any folder. When you run "**Hubbox_Desktop_Client.exe**," the "Hubbox Desktop Client" software will handle the necessary installation and setup.

Opening the "**HUBBOX Panel -> Accounts**" menu and authorizing users from the "**Hubbox Networks -> xNetwork -> Allow User**" step enables access for those users to industrial devices connected to HUBBOX devices

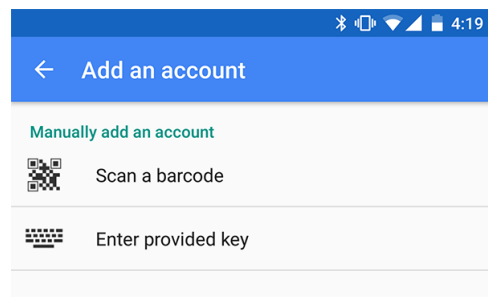## 5.1   "HUBBOX Desktop Client Application"

After creating an account for your company on **www.hubbox.io**, you can download the "**HUBBOX Desktop Client Application**" to access all "HUBBOX Connect X1" devices you've purchased and registered through the HUBBOX Panel, provided you have the necessary permissions.

You can download the "**HUBBOX Desktop Client Application**" from the HUBBOX Panel. Extract the downloaded "Hubbox.zip" file and copy its contents to an empty folder. Ensure that your computer has "Java Runtime" installed. Run the "Hubbox_Desktop_Client.exe" file from the copied folder.
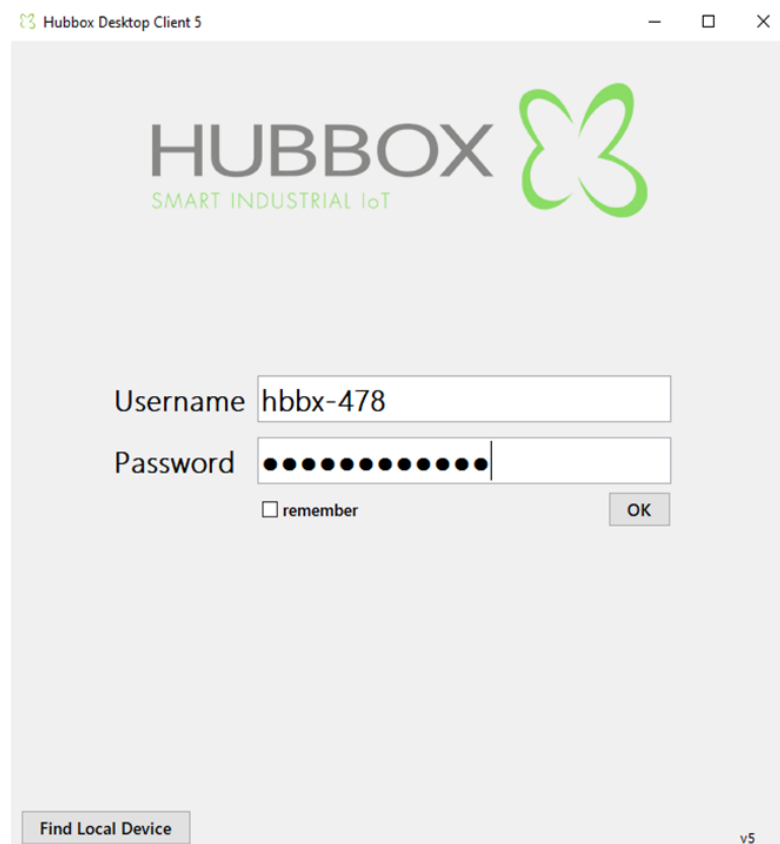
At the login screen, enter the "**Username**" and "**Password**" assigned to you from the HUBBOX Panel application. If the "**2FA**" (Two-Factor Authentication) option is enabled for your account in the HUBBOX Panel application, you will see a QR Code displayed during your first login. This QR Code is visible only once, so you need to download the **Google Authenticator** app and set it up when you see it for the first time.

You can use the "**Find Local Device**" feature to discover "**HUBBOX Connect X1**" devices on the same network.

You can open the "**Google Authenticator**" app on your phone and scan the **QR code** shown above to set up your account.

After that, you'll be able to get a unique "**2FA**" code from your phone for each login to the "**HUBBOX Desktop Client Application**".

When you log in, all the networks you're authorized for, along with their associated HUBBOX devices, are displayed. You can edit the network to determine which "**Adapter**" you'll use to connect to your devices by clicking the "**Edit**" button next to the network.

The boxes listed in the "**Boxes**" section under the selected "**Network**" are displayed. You can connect to your HUBBOX devices that are in the "**Online**" status by clicking the "Connect" button.
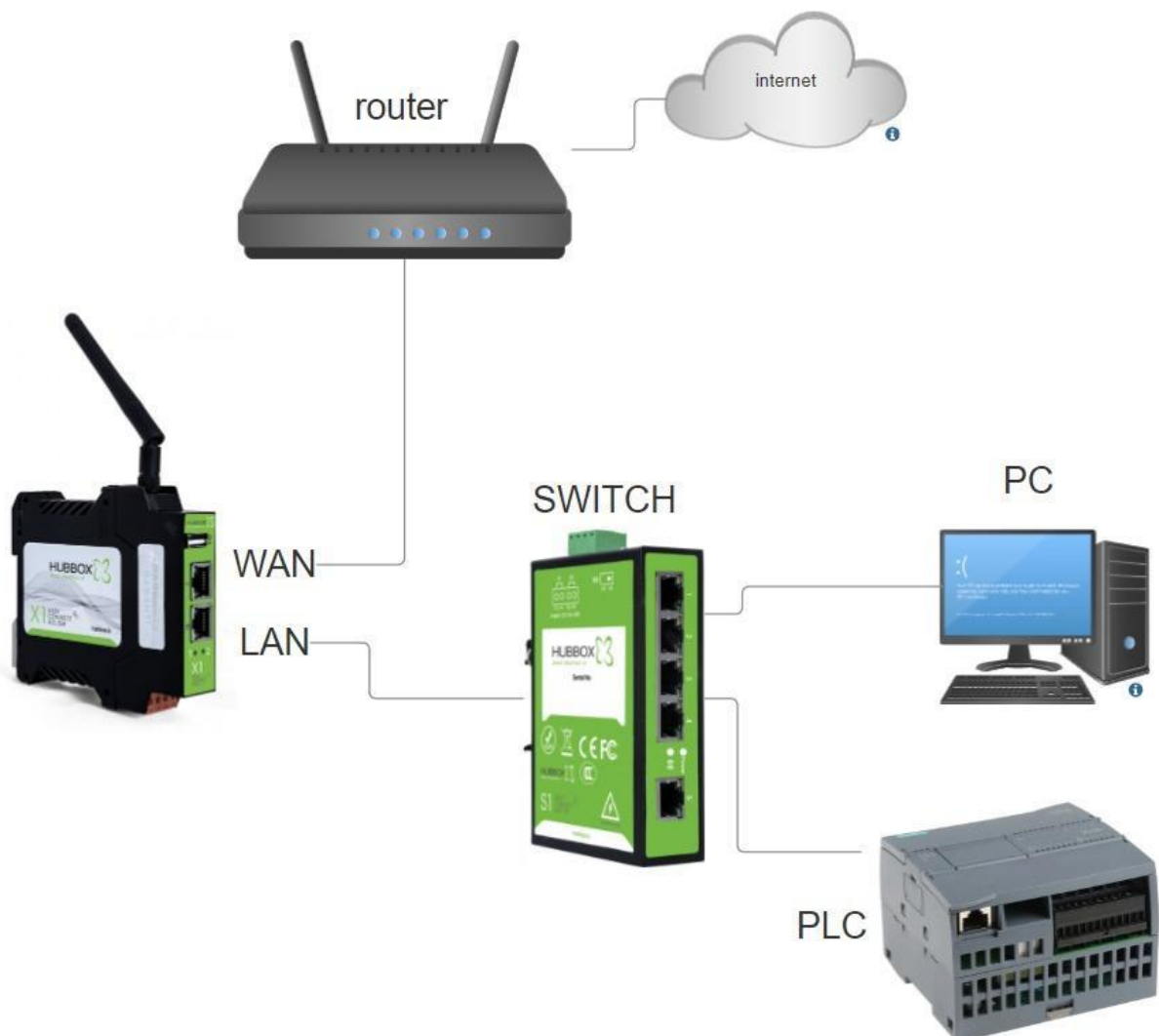
6.   Troubleshooting & Support

You need to connect your '**HUBBOX Connect X1**' device according to the following diagram. You can provide internet connection to your 'HUBBOX Connect X1' device in three different ways.

- **1-** Wired (WAN Ethernet port)
- **2-** Wireless (IEEE 802.11 a/b/g)
- **3-** USB Tethering (IOS/Android Cep telefonu)

Your '**Hubbox Connect X1**' device's **WAN** interface is configured to use **DHCP** (automatically obtain **IP** address and **DNS** server)

The default IP for the **LAN** interface is **192.168.24.254**. How to access the local interface is explained in section 4.1 'Hubbox Local Panel' entry.

There are three ways to configure the WiFi connection:

1- Use an Ethernet cable between your **PC** and the **LAN** interface. Assign a static IP address to your computer in the range of **192.168.24.***. Then, navigate to **https://192.168.24.254** address
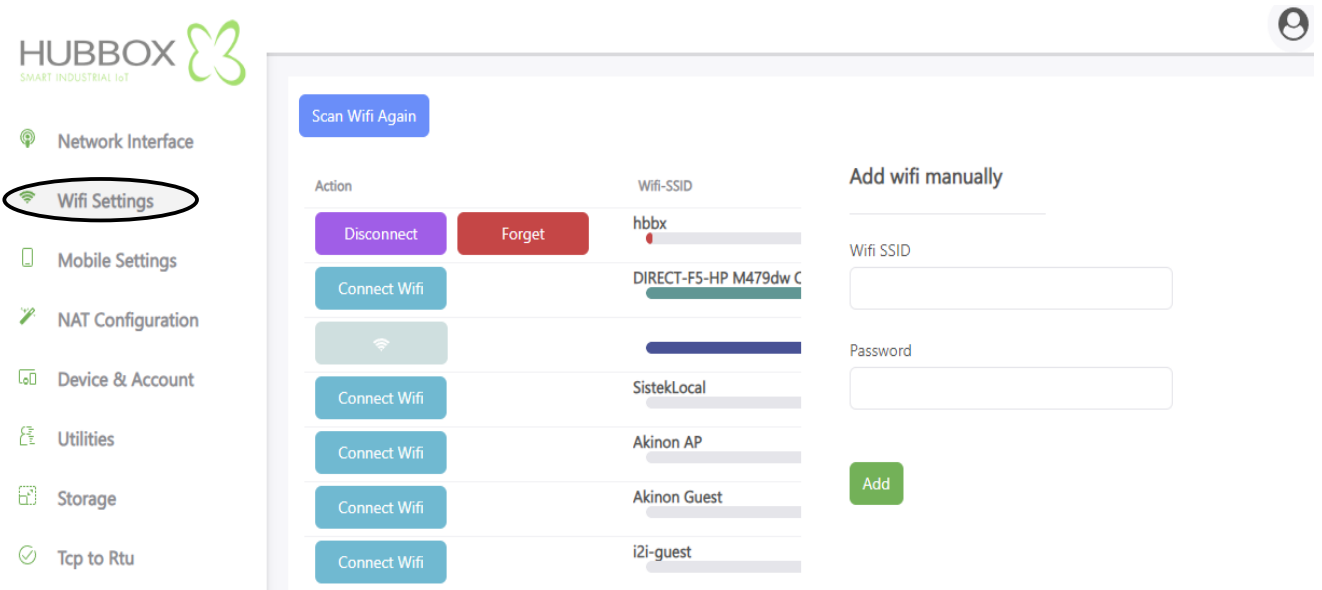
2- Go to **https://my.hubbox.io/DeviceManager**. Click on the **USB to WIFI** settings. Enter your WIFI SSID and password, then download the generated file and copy it to a USB flash drive. Plug this USB drive into your "**Hubbox Connect X1**"
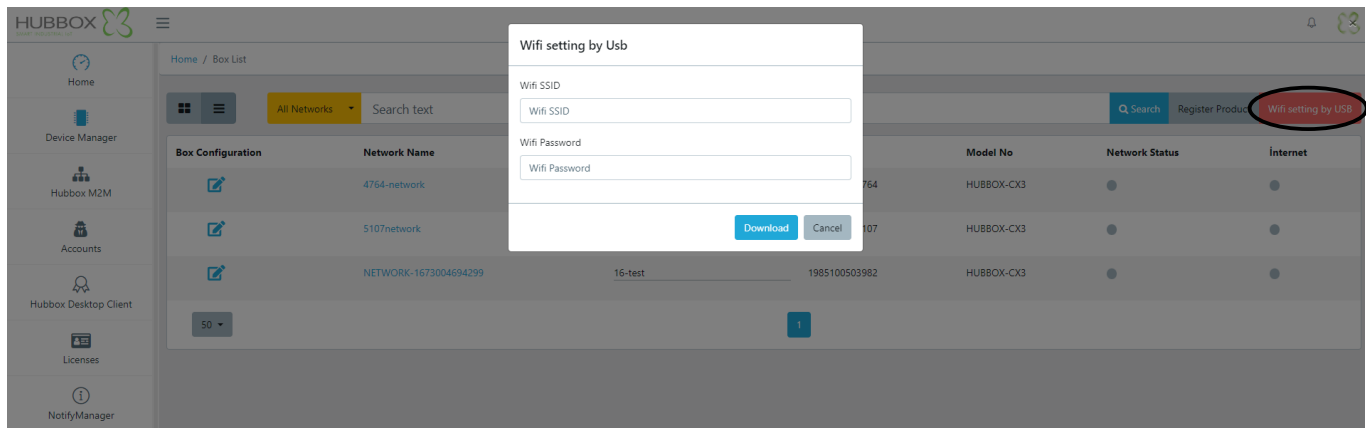
3- Configure your mobile phone's portable hotspot

SSID: hbbx

WPA-PSK: Serial number written on your product

You can get more detailed information from the link below

https://www.hubbox.io/en/blog/local-panel/connecting-hubbox-connect-x1-to-the-internet-via-mobile-phone

Ensure that '**Hubbox Connect X1**' is connected to the internet either via wired or wireless connection. There are three ways to verify that the device is online

a- **"Hubbox Connect X1"** The blue LED light indicates that the device is online.

b- In the device manager on the web panel, there is also a blue indicator.
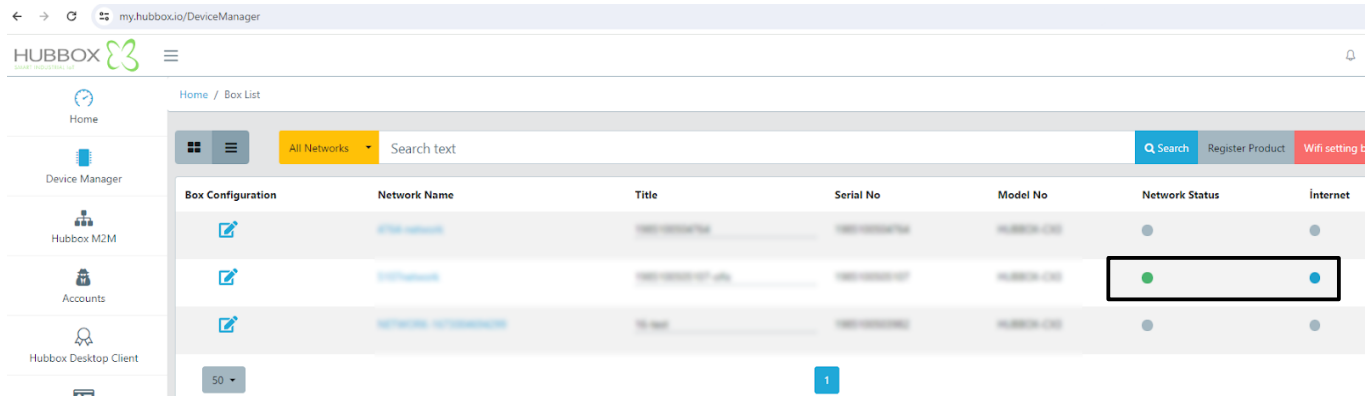
c- The '**Hubbox Desktop Clien**t' application also displays the status of the device.