The New Comb Intercom with way, way more... IoT

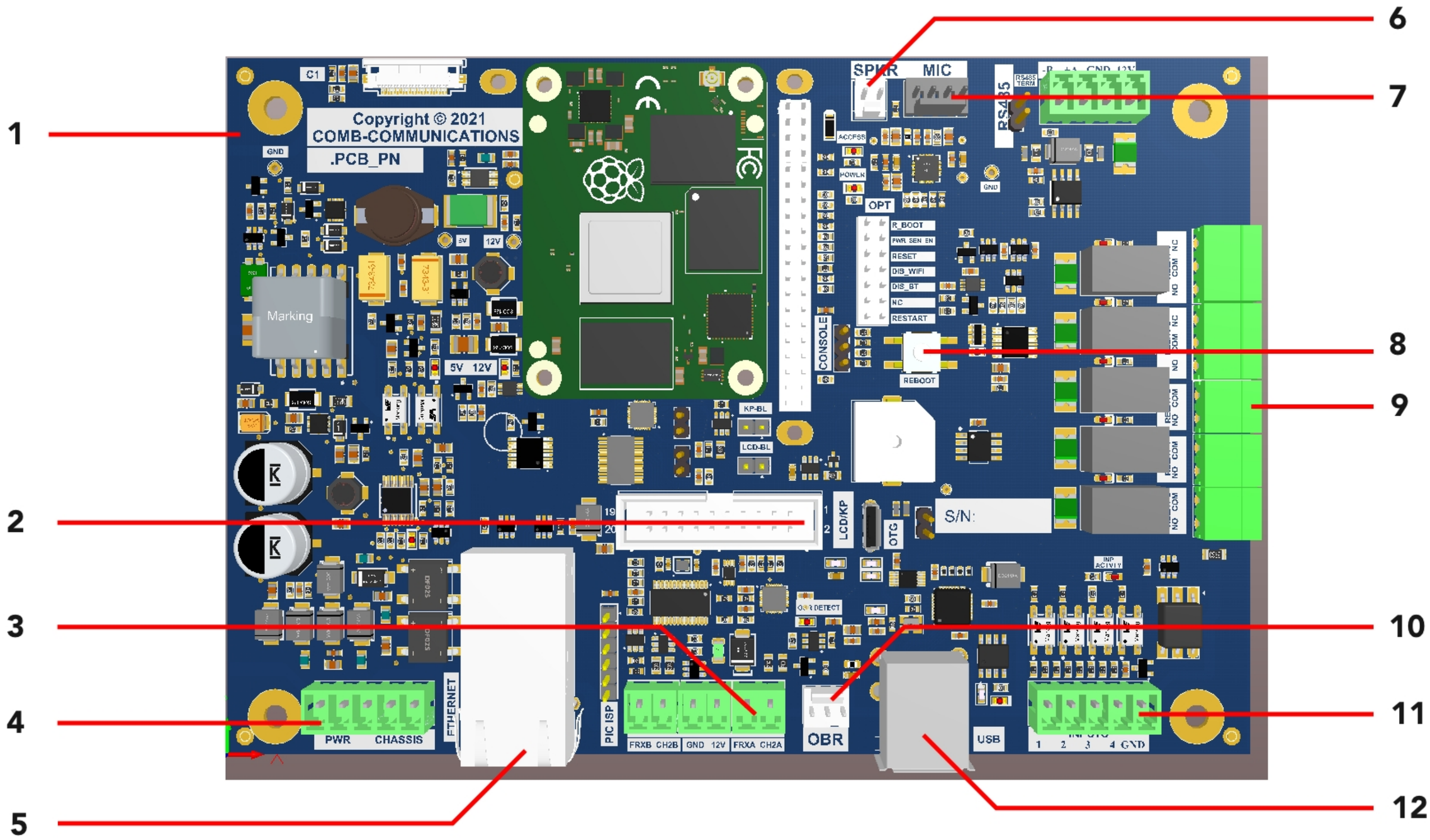
Introducing the MK II NS (No SIM/GSM), the next generation smart intercom which makes phone calls over the Internet via the Voice Over Internet Protocol (VOIP) and sends TAP codes via the MyComb Mobile app. This gives you all the control you are accustomed to, and more in terms of dependencies on cellular network provider failures (downtime due to connectivity).

Ideal for cluster complexes, townhouses, business parks, residential estates and several other access managed environments.

Featuring an entirely new foundation in the form of a redesigned, more robust, and significantly improved PC board.

MK II NS SETUP WIFI/VOIP USER GUIDE

MK II NS BOARD LAYOUT

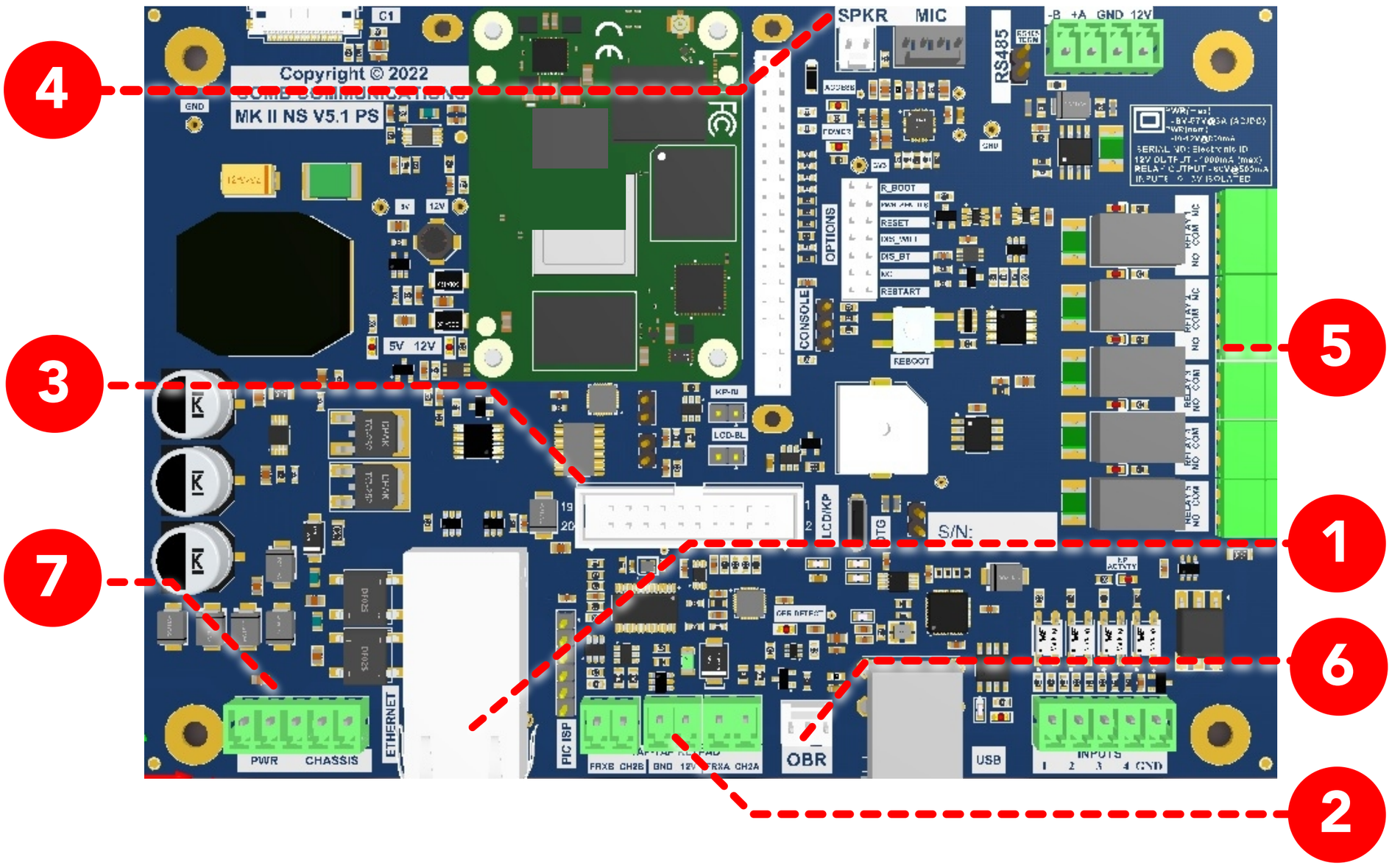


1: PC Board
2: Ribbon connection
3: TAP-TAP Channel A/B
4: Power connection
5: Ethernet Port
6: Speaker connection
7: Microphone connection
8: Reboot button
9: Relay connection
10: On-board receiver
11: Inputs
12: USB Input port

TECHNICAL SPECIFICATIONS

Description	Indications
Primary Input AC With Switch-mode PS	85 - 240VAC
Secondary input DC	15.0VDC
Current draw	15 watts
Primary Cable type	1.5m AC
Ethernet Port	Cat 5 UTP
Internet connection type	ADSL Fiber or Router
Total Distance over ethernet	40m Maximum from hub
Internal wiring (Tap-Tap Keypad & Gate motor)	Comms cable
Humidity Range	10°C - 85°C
Display size	16 x 2 characters display
Battery Back up	No battery back up
USB Port	Any LTE modem
POE Active	Over Gigabit Adaptor 48VDC adaptor
Active VIOP LINE	Provided by Comb Contracts department
IP rating	54

INSTALLATION USER GUIDE



1. Test the Ethernet cable with a network tester to ensure there is a successful internet connection. Once you have ensured there is an internet connection, connect the ethernet cable to the PC board.

2. Connect the intercom TAP-TAP keypads to the PC board. Please note that 'Channel A' is used for entrance into the organisation and 'Channel B' is used for exiting the organisation.

3. Connect the display Ribbon connection to the PC board.

4. Connect the speaker and microphone to the PC board.

5. Connect the devices to the relays on the PC board that correspond with the relays you would like to open and close (Relays 1 and 2 have Normally closed).

6. Connect the OBR harness to the OBR port on the PC board.

7. Before connecting the power ensure that all 6 Earth points are connected and have a reading of 0 ohms. *1: Main to surge protector, 2: Connection to PC board, 3: Switch mode power supply to protector , 4: Connection to Back-plate, 5: Connection to Front-plate, 6: Connection from "Chassis" on PC board to earth wire*. Test the 220V feed to ensure that it is within safe specifications (85 – 240VAC). Once safe to continue, connect the power supply to the MK II NS PC board.

8. You have now completed connecting the MK II NS PC board. Once the power is connected to the intercom, the intercom display should turn on and you should now be able to see a "Welcome" message on the display.

9. Dial *#0020 on the keypad to verify your device is connected to the internet and has an IP address.

10. Dial *#0008 on the keypad to retrieve the device's serial number.

11. You can now log onto Comb Portal and add the device to your organisation

- Not sure how to add devices on Comb Portal? Visit the following link to view the user guide on "How to add devices to your organisation via Comb Portal"

Link to user guide: https://comb-communications.com/ns-portal-userguide

12. Once completed, dial *#0016 on the keypad to confirm the intercom is linked successfully.

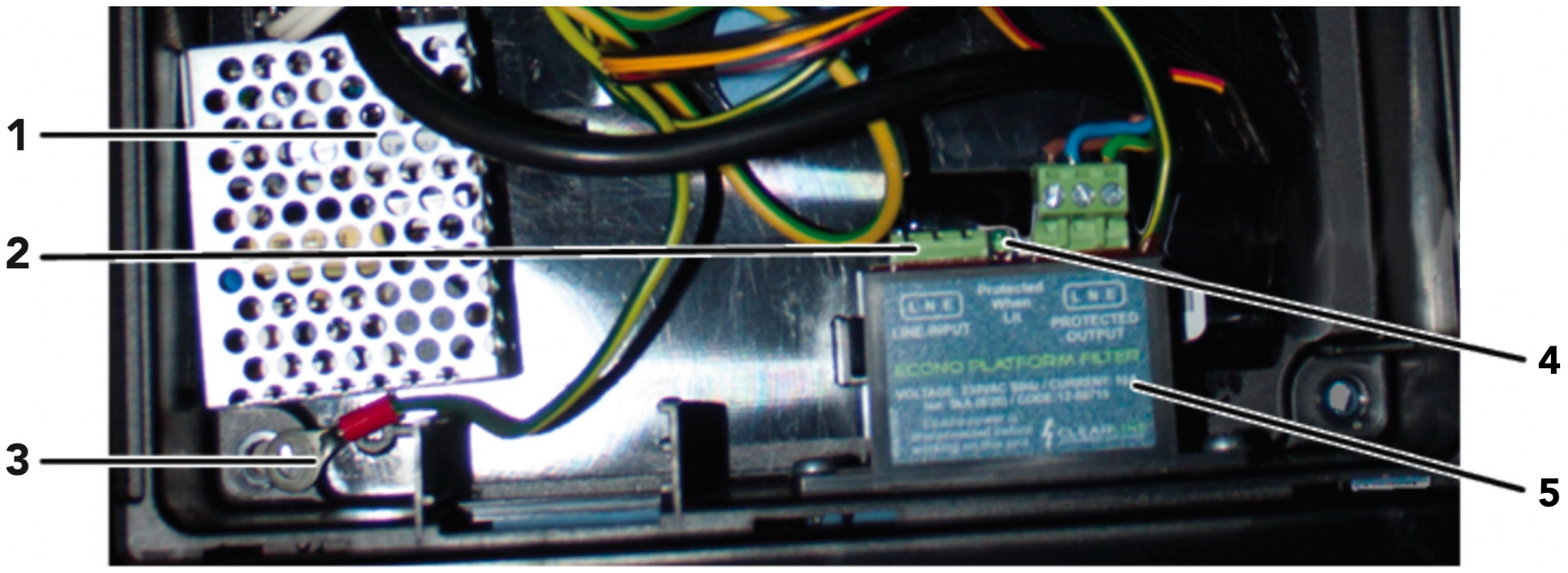
13. Visit the following link to view more information on our pricing and License fees: *https://comb-communications.com/license-fees/*

ON-SIGHT REQUIREMENTS

The list mentioned below is required before going on sight

- POWER SUPPLY
- ETHERNET CABLE MAX 100 METERS
- INTERNET CONNECTION
- 1.2MM FLAT SCREWDRIVER
- ACTIVE VOIP ACCOUNT
- TAP-TAP KEYPAD (FOR EXIT PURPOSES)

AC CONNECTION LAYOUT POWER SUPPLY (REQUIRED)

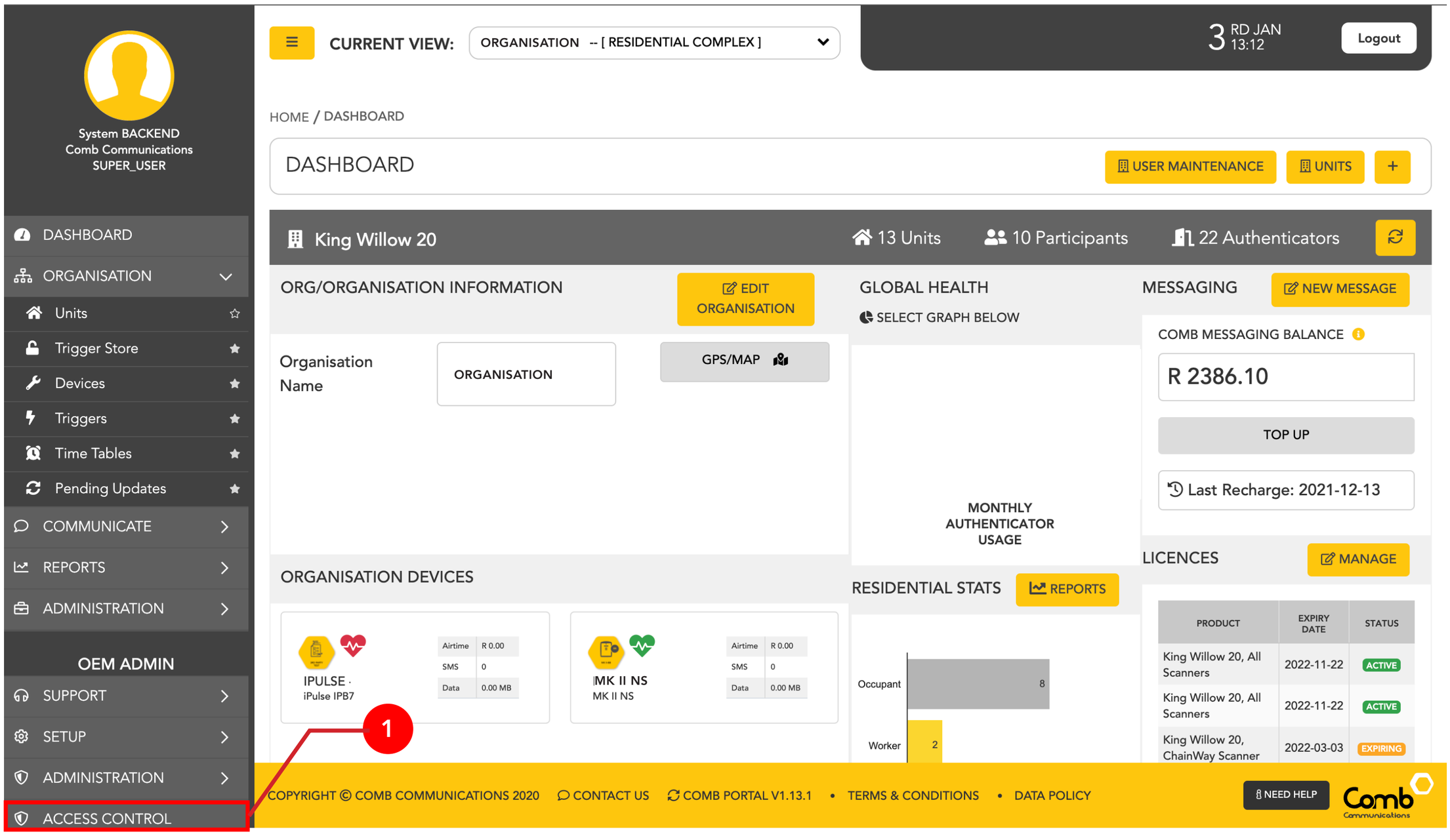


1: Switch mode power supply
2: 220V installation connection
3: PCB earth wire
4: LED light on surge protector
5: Surge protector

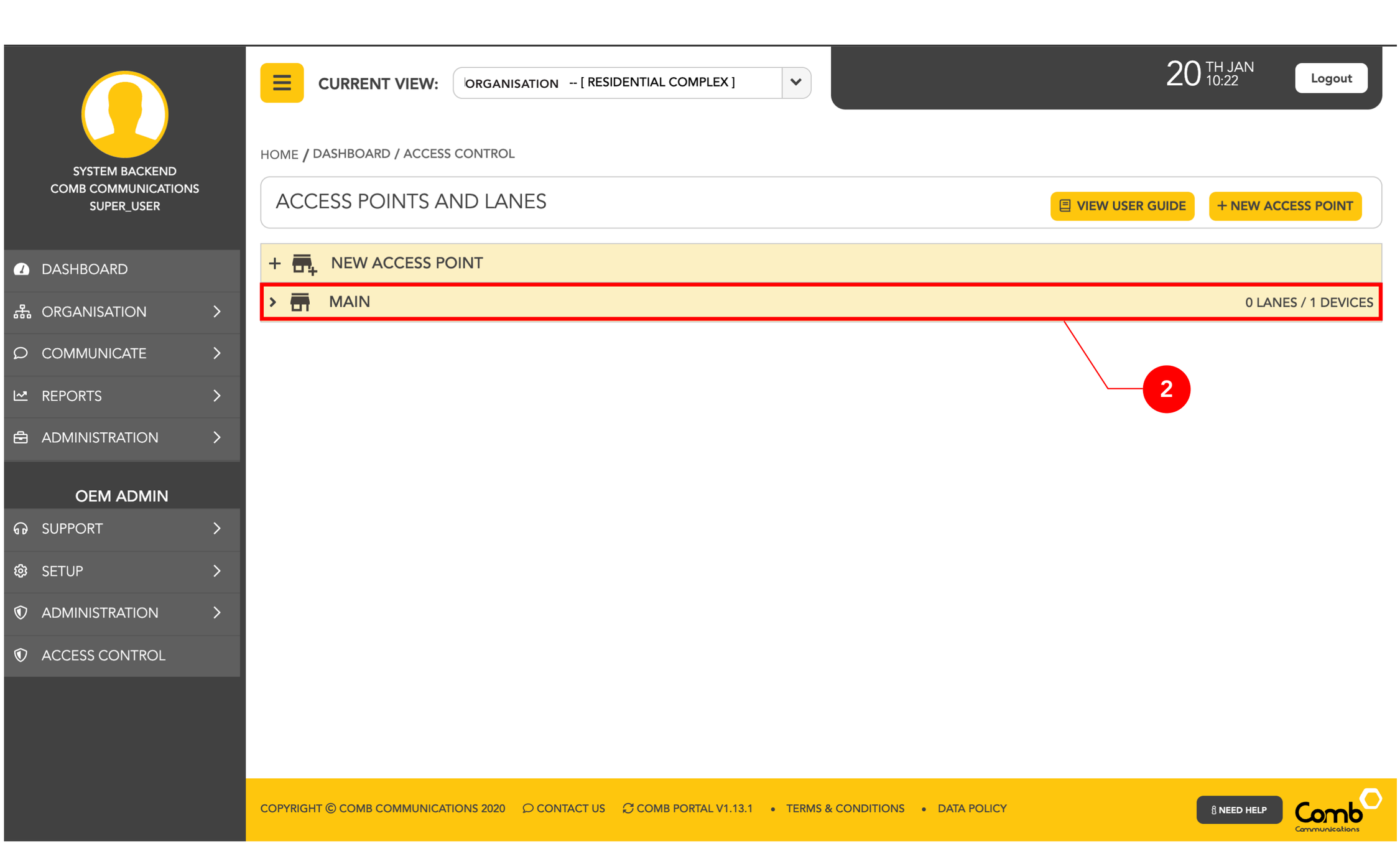
MK II NS SUPERVISOR CODES

CODE	ACTION
*#0000	ALL CODES
*#0001	FIRMWARE VERSION
*#0004	REBOOT
*#0007	MODEM RECONFIG
*#0008	SERIAL NUMBER
*#0014	TAP STATUS
*#0019	MAINTENANCE AND TEMPER STATUS
*#0020	IP ADDRESS
*#7633	POWER OFF RESET.
*#0021	NETWORK WORK (N2TT
*#2000 *#2017	LANGUAGE
*#2099	LCD CHARACTER TEST
*#2836	AUDIO LOOPBACK
*#3284	DEBUG MODE
*#2437	ROUTS VIA LAN

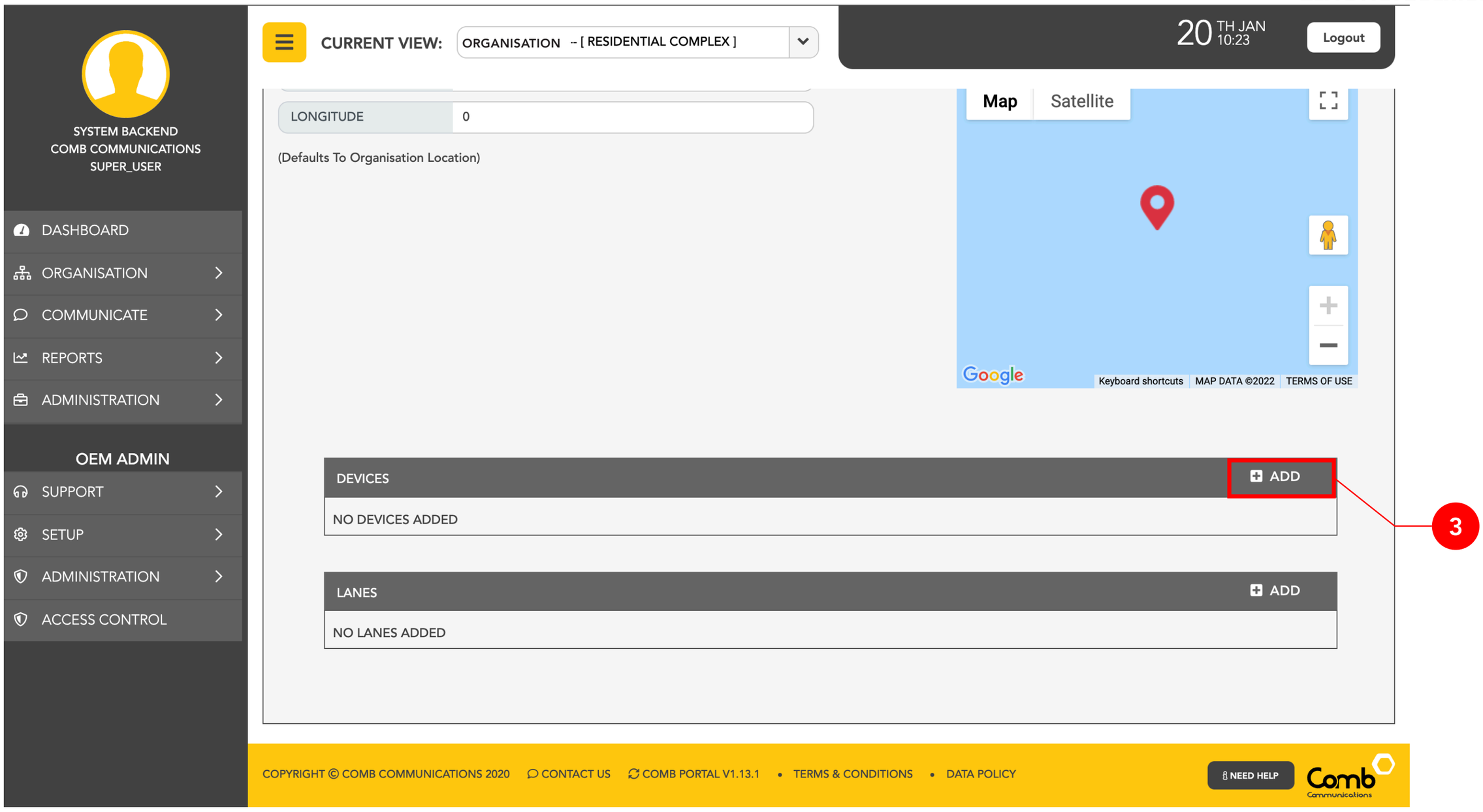
ADDING A MK II NS DEVICE



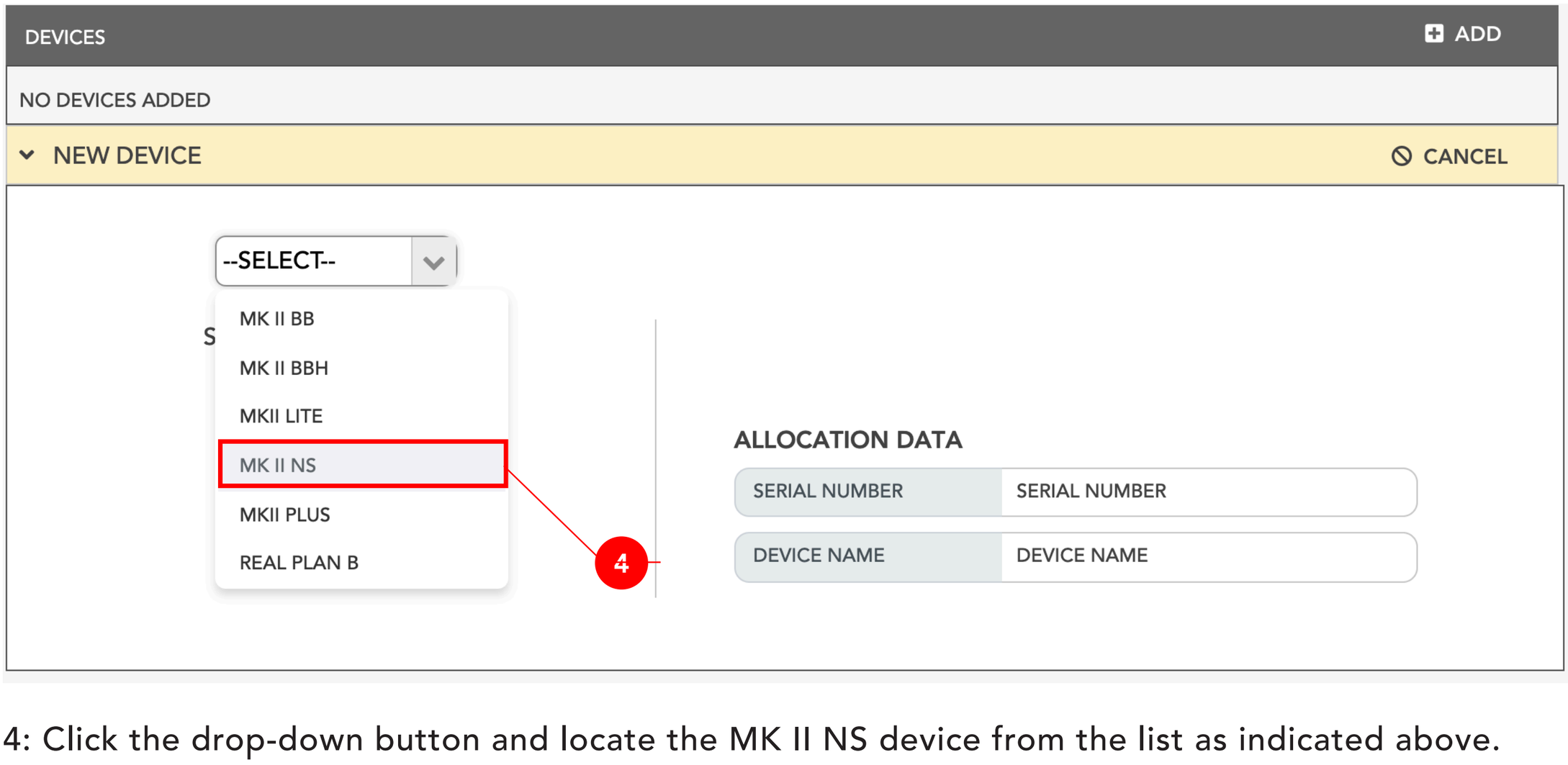
1: Start by logging into the Comb Portal and navigate to “Access control” from the side menu as indicated above.



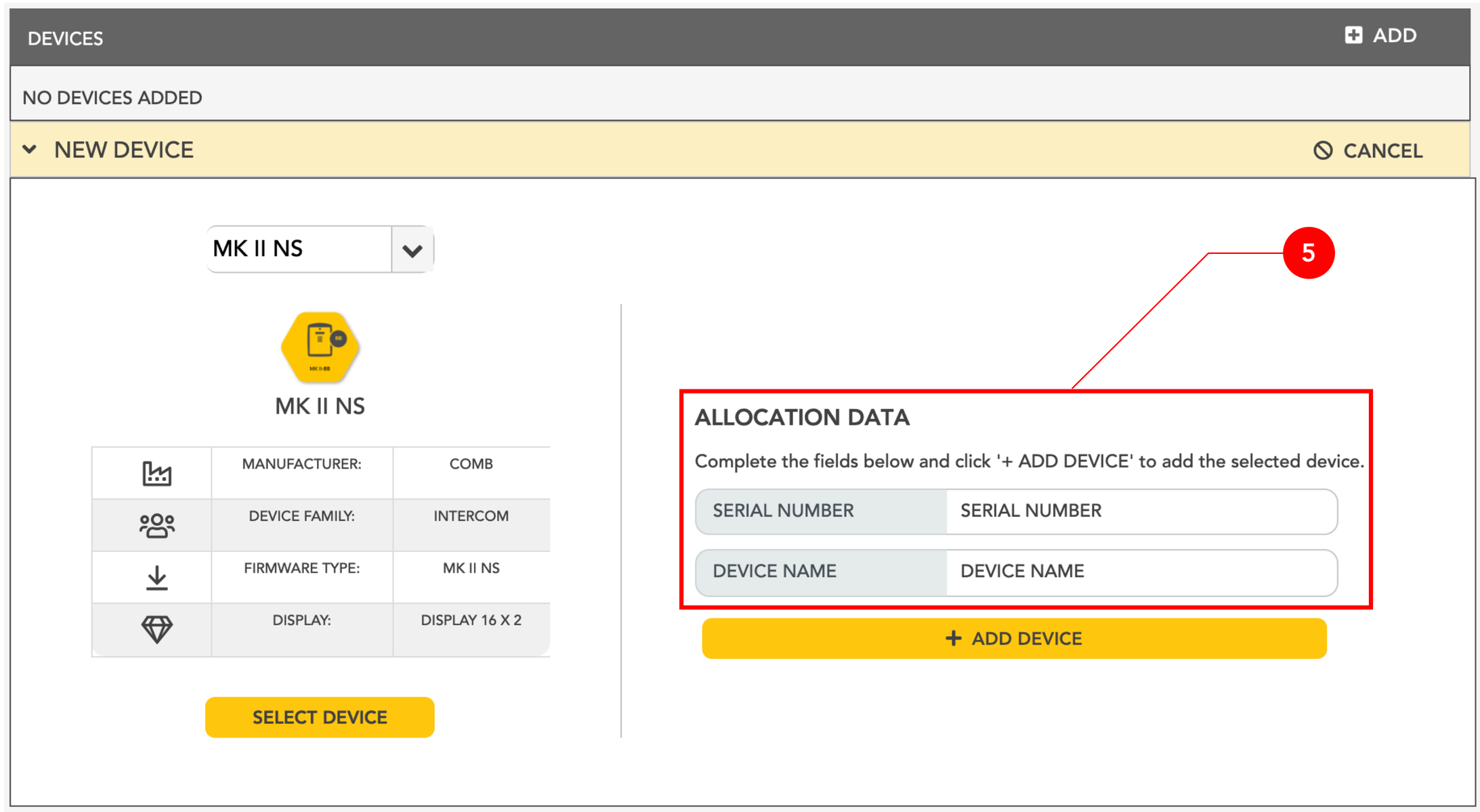
2: Navigate to the Access point that you would like to add the MK II NS device to. Alternatively you can create a new Access point by clicking the “+ADD ACCESS POINT” button on the top-right.



3: Click the “+ADD” button on the top-right hand side of the “DEVICES” component as indicated above to add a new device.



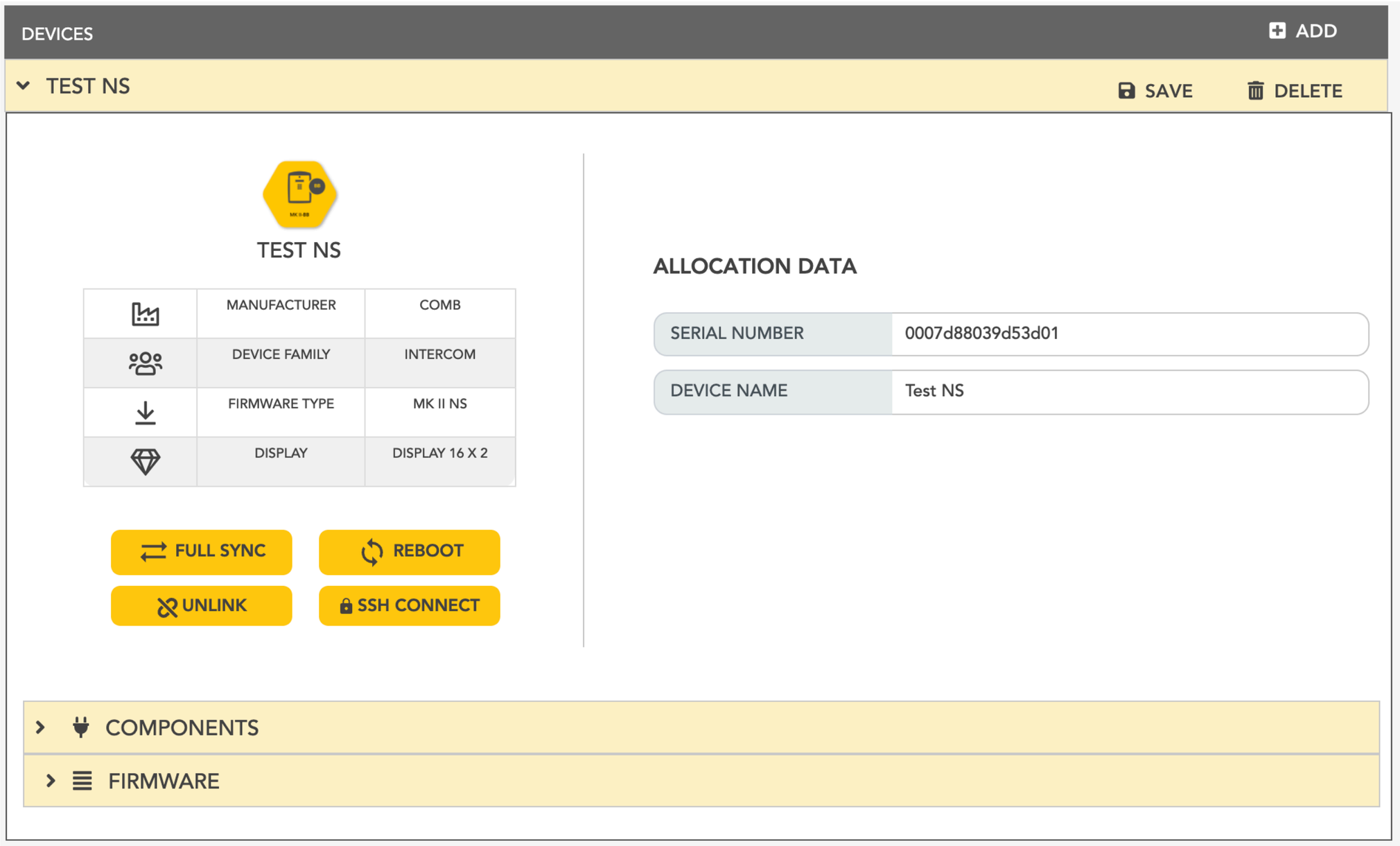
4: Click the drop-down button and locate the MK II NS device from the list as indicated above.



5: Configure and complete the required fields:

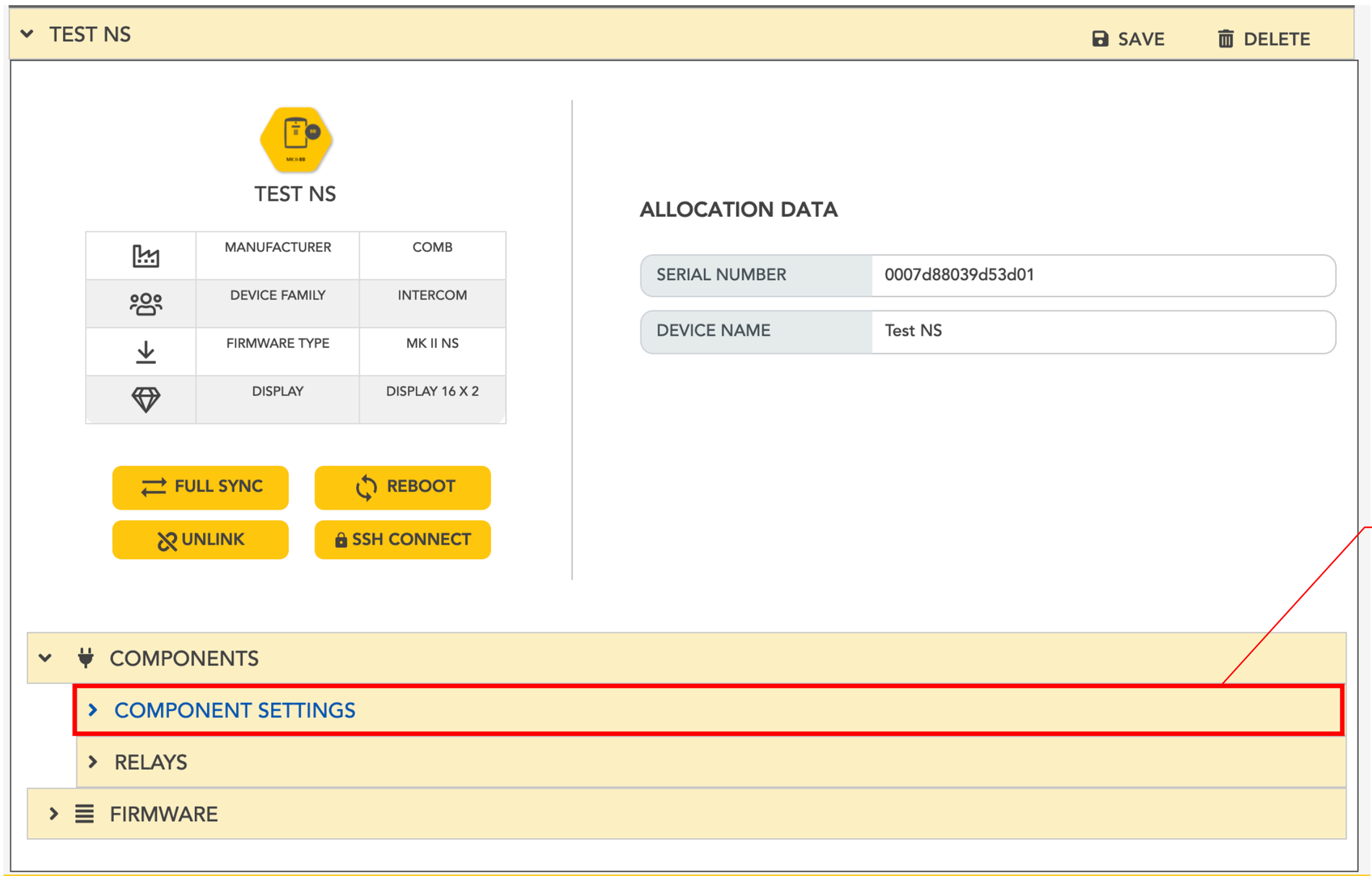
Serial number: The identification number printed on the manufactured device.
Device Name: The name that you would like the MK II NS device to be called.

Once completed, click the "+ ADD DEVICE" button to add your MK II NS device.

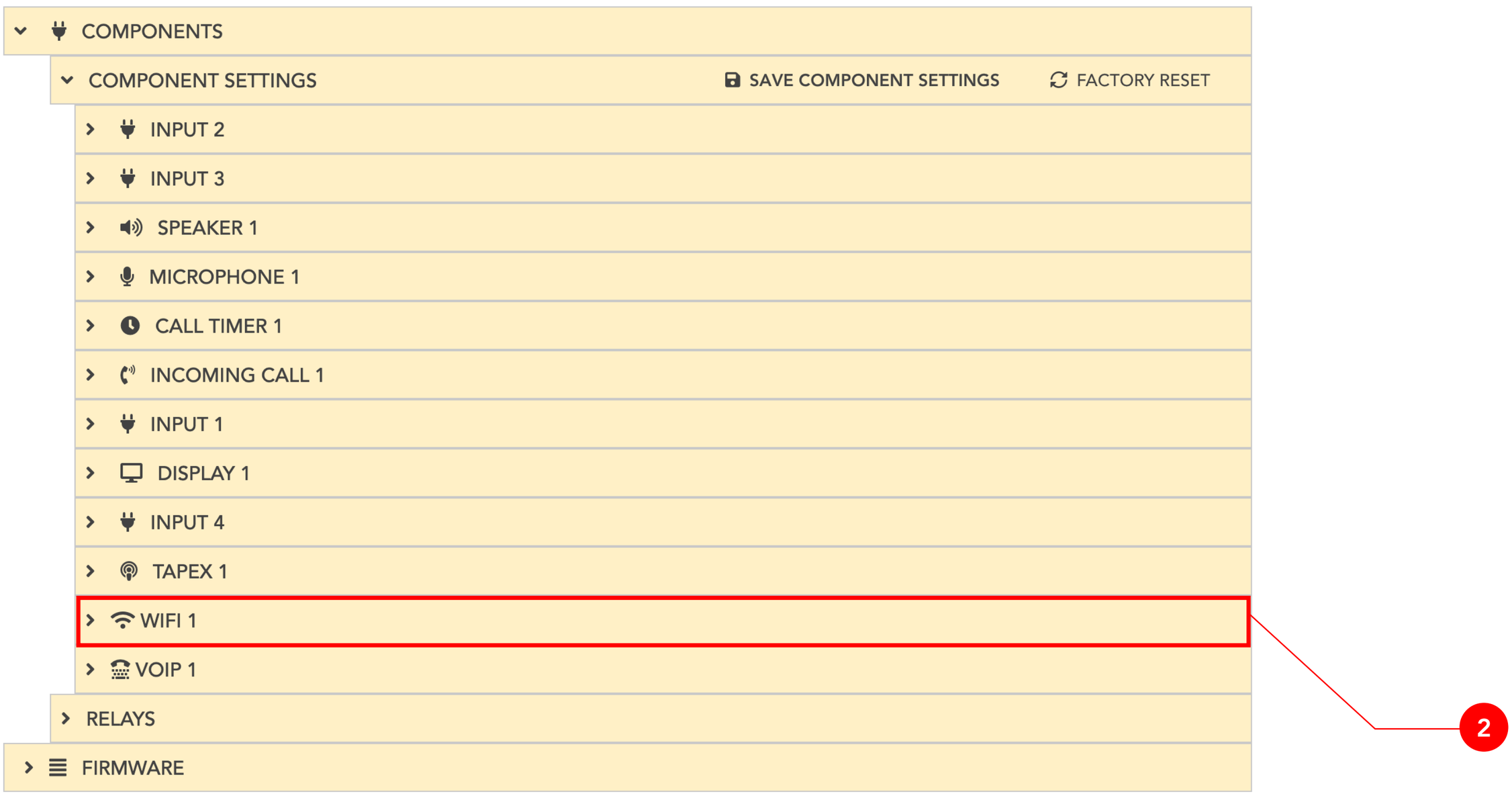


Congradulations! Your MK II NS should be added successfully as indicated above.

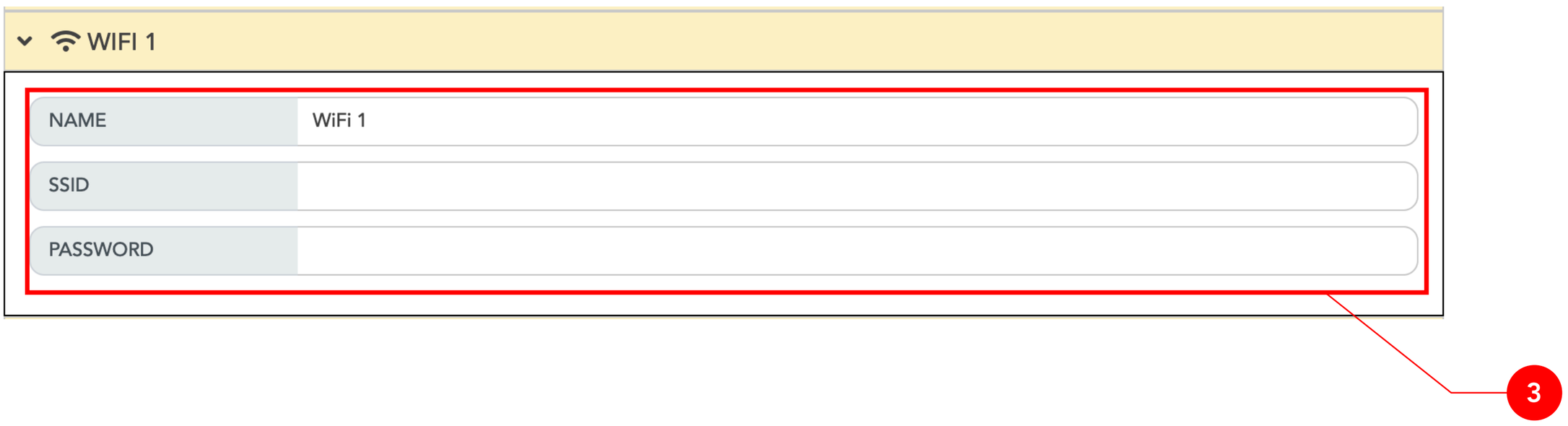
CONFIGURE WIFI SETTINGS



1: On the newly created MK II NS device, click on the “COMPONENTS”accordion, followed by clicking the “COMPONENT SETTINGS” accordion as indicated above to navigate to the MK II NS component settings.



2: The device component settings will drop down, navigate and click on the “WIFI” setting as indicated above to expand the WIFI settings accordion.



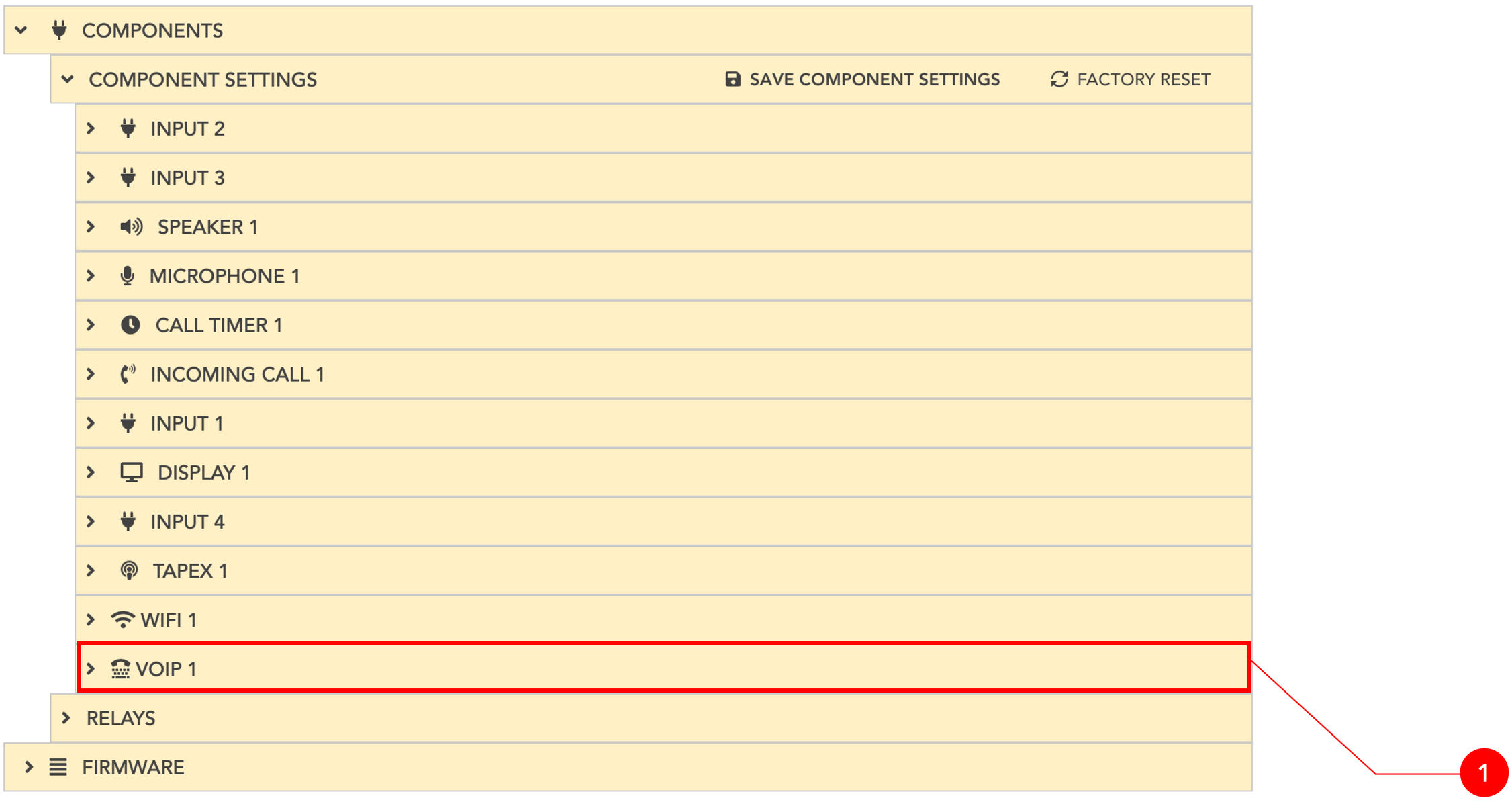
3: Configure and complete the required fields:

Name: The name that you would like to call the WIFI settings
SSID: SSID stands for Service Set Identifier. This is the unique name that identifies a wireless network (The name of the router you are connecting to).
Password: The password of the router you are connecting to

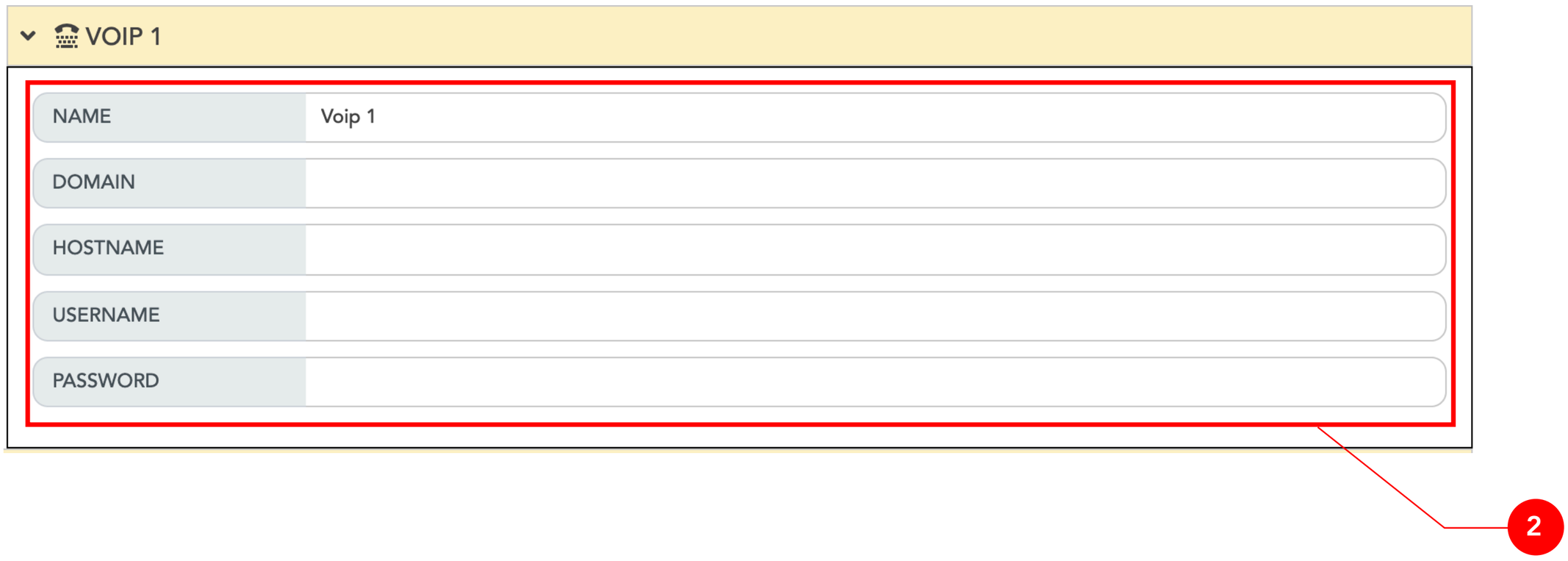
Once completed, click the “SAVE COMPONENT SETTINGS” button to apply your changes.

Congradulations, you have successfully set up your MK II NS Wifi configurations!

CONFIGURE VOIP SETTINGS



1: Click and expant the device component settings and navigate to the “VOIP” setting as indicated above to expand the VOIP settings accordion.



2: Configure and complete the required fields:

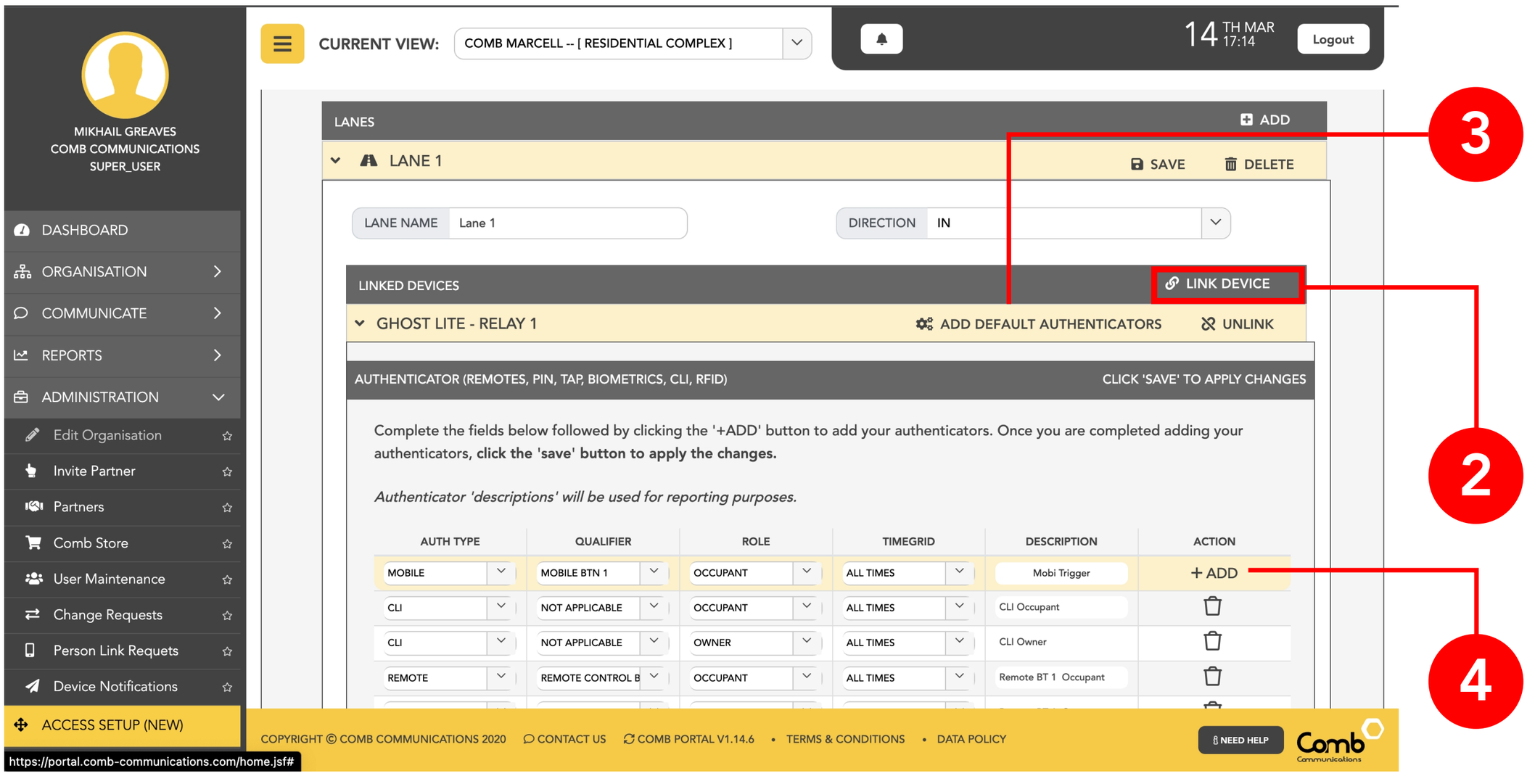
Name: The name that you would like to call the VOIP settings
Domain: The IP address that points to the location of your VOIP account.
Hostname: The hostname is what a device is called on a network.
Username: The username of your VOIP account.
Password: The password of your VOIP account.

Once completed, click the “SAVE COMPONENT SETTINGS” button to apply your changes.

Congradulations, you have successfully set up your MK II NS VOIP configurations!

Lane configuration setup

1. Add a device by clicking “ADD” and selecting the MK II NS from the drop-down box. Enter the Serial number, device name and click “save”.



2. Add a new lane or open an existing lane and link the MK II NS device to that lane.

3. Click “ADD DEFAULT AUTHENTICATORS” and select all the default authenticators you would like to add.

4. Alternatively add your authenticators manually via the authenticators table as indicated above.