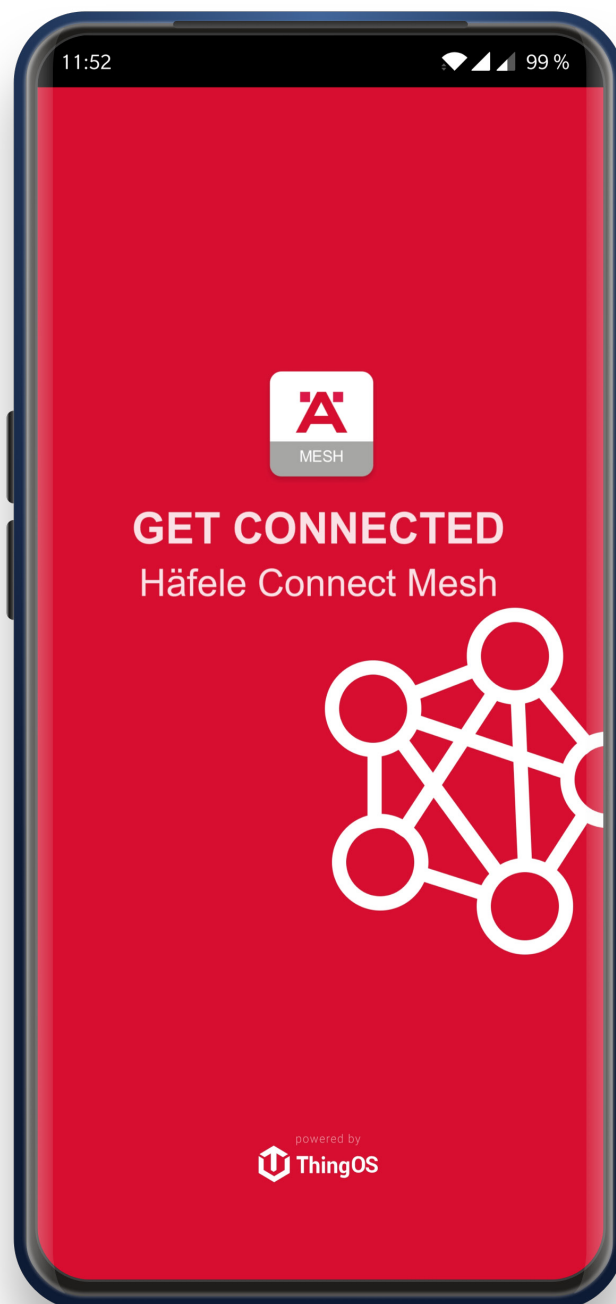# Connect Mesh App
Technical Documentation – Version 1.0

732.28.423

HDE 25.06.20

1. Change History

Version	Date	Changes
1.0		• Initial Documentation

Subject to alteration

2. Table of Contents

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3. Häfele Connect Mesh

Häfele Connect Mesh is an ecosystem of smart devices (such as light controllers, wall switches, remote controls) that is built on top of the Bluetooth Low Energy Mesh (BLE Mesh) standard.

| Connect Hub | Connect Mesh 6-way Distributor | Connect Mesh 4-Channel Interface | Connect Mesh Remote Control | Connect Mesh Wall Switch | Connect Mesh 2-Channel Interface | Connect Mesh App |
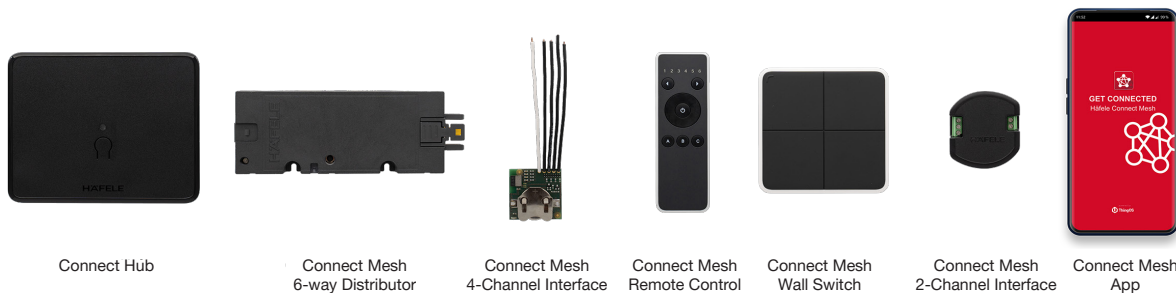
[image 3.1]

3.1. What is BLE Mesh?

BLE Mesh is a wireless communication protocol that extends the functionality of classic Bluetooth Low Energy (BLE) by the capability that BLE Mesh devices can now communicate with *each other* instead of only with smartphones. Devices in reach of each other can now create a dynamic network – a smartphone or tablet is not required for daily operation anymore but usually for the initial setup. The more BLE Mesh devices are deployed in the environment, the bigger the range of the network and its robustness becomes.

[image 3.1.1]

3.2. How does BLE Mesh work?

BLE Mesh devices work in *networks*. The first mandatory step is always to create a new network for a physical environment such as 'My Kitchen' or 'Office'. This step can be most easily done by using a smartphone with a BLE Mesh capable App such as the *Connect Mesh App*. The process of adding new BLE Mesh devices to a network is called 'Provis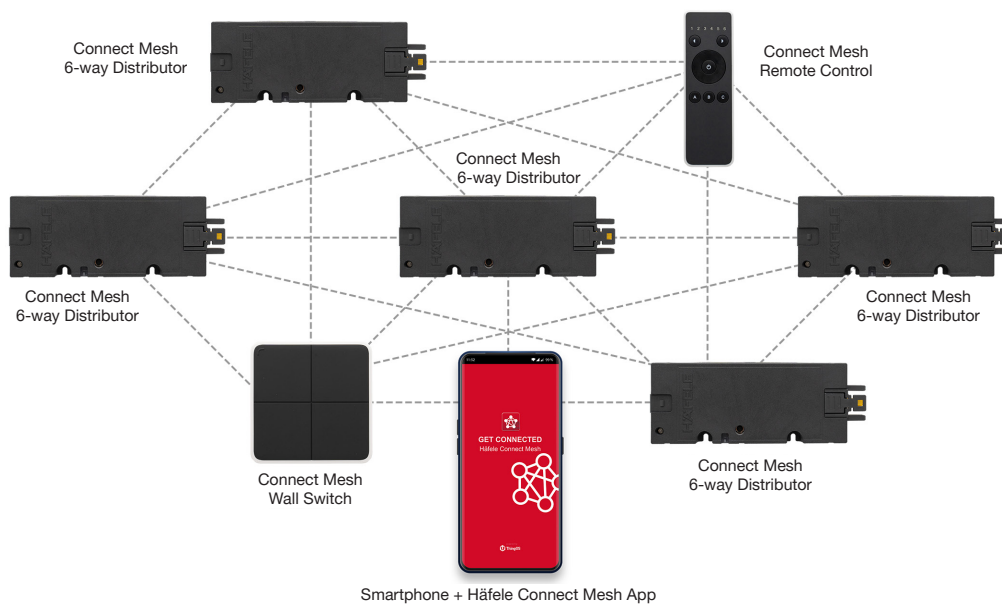ioning' and the device that is used for this process is called 'Provisioner'. During the provisioning process, often a 'secret' needs to be exchanged between the new device and the smartphone App to ensure authenticity and initialize a secure, encrypted communication (e.g. the BLE Mesh devices blinks 3 times, so the number 3 is selected as the secret in the smartphone App).

3.3. Why is a secure, encrypted communication important?

A secure provisioning process and encrypted communication, such as the one used in BLE Mesh, is important to protect end users' home devices from external intruders and attacks. It ensures the security of wireless devices and the privacy of its users.

3.4. How do different BLE Mesh devices work together?

After different devices are added to the same network, they can be combined by putting them into the same *group*. This is comfortably done via the Connect Mesh App. For instance, when a LED-Light 1 is put into the same group named 'Kitchen Light' as Wall Switch 1, then Wall Switch 1 will automatically turn all lights in the same group on or off when pressed. A user can add or remove more lights or other devices into the same group anytime or simply create other groups. The group concept offers users a simple but powerful mechanism to configure the desired behaviour for BLE Mesh devices.

3.5. What are the benefits of BLE Mesh?

Compared to other recent technologies, BLE Mesh offers the following benefits:
- **With or without smartphone:** BLE Mesh devices can be controlled from any smartphone or tablet device but can also be operated without.
- **Larger Range:** Many BLE Mesh devices can form a BLE Mesh network with a much larger range than classic BLE devices could (classic BLE: 5-10 m).
- **No additional infrastructure needed:** A BLE Mesh network automatically grows with the number of devices. No access point, gateway, bridge or other additional infrastructure as necessary for WiFi, ZigBee or Z-Wave is needed.
- **Secure:** Encrypted communication provides a very high level of security and privacy for a user's wireless BLE Mesh devices.
- **Standardized:** BLE Mesh is a standardized protocol. This will ensure that BLE Mesh devices from different vendors can be used together.

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4. Connect Mesh App

The Connect Mesh App is the main tool for setting up and configuring BLE Mesh networks and devices. It is currently available for iOS and Android smartphones and tablet devices. It is obligatory for setting up a new BLE Mesh network, adding new devices and configuring how they should work together. After this is done, the App is not mandatory anymore but can be used in parallel to other devices such as wall switches or remote controls to control actuator devices (e.g. lights, motors, etc.).
The Connect Mesh App can be freely downloaded from iOS App Store or Google Play store as described below.
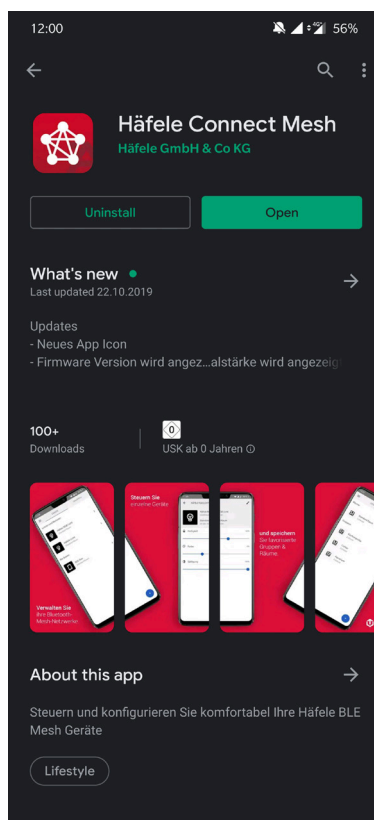
4.1. Downloading and Starting the App
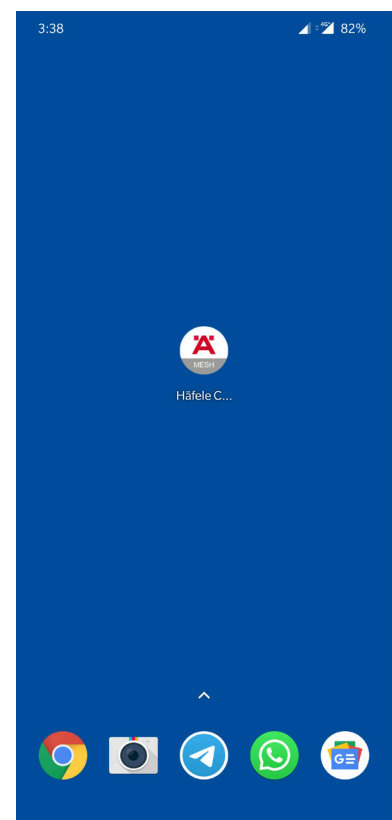
Android

Download the current version of the Häfele Mesh Connect App from the Google Play store. Go to the Play Store App and search for '**Haefele Connect Mesh**' or scan the QR-code below. After the download is complete, you can start the App by pressing the App icon on your homescreen or App drawer.

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[image 4.1.1]

[image 4.1.2]

[image 4.1.3]

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iOS

Download the current version of the Häfele Mesh Connect App from the Apple App store onto your iOS device. Go to the App Store App and search for **'Haefele Connect Mesh'** or scan the QR-code below. After the download is complete, you can start the App by pressing the App icon on your homescreen.

[image 4.1.4]

[image 4.1.5]

[image 4.1.6]
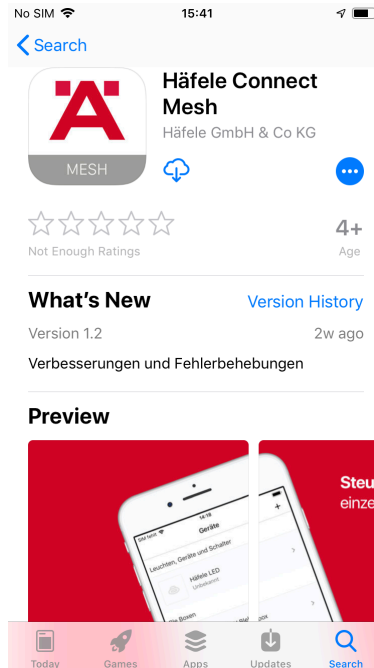
4.2. Networks

4.2.1. General information

As described earlier BLE Mesh devices work in networks. Every BLE Mesh device can be in one network at the time. The Connect Mesh App enables the user's smartphone or tablet to function as part of a BLE Mesh network, e.g. as a remote and managing device. However, it can anytime switch into another network. In the Connect Mesh App, the user is able to manage those networks and the devices within. It is also possible to manage several networks and switch between them, e.g. the user's home network and the company's office network. Since every network has an individual encryption many networks with many devices inside can be run in parallel at the same location.
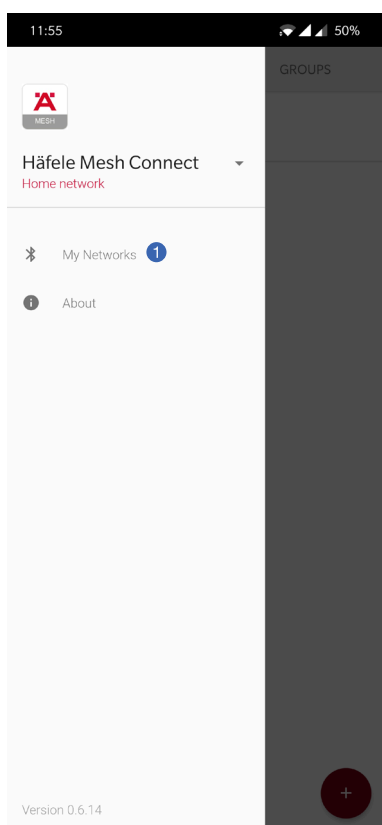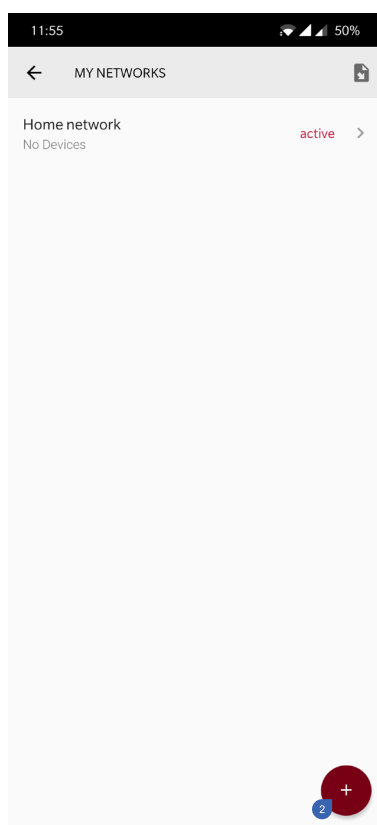
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4.2.2. Creating a new Network

Android

[image 4.2.1]

[image 4.2.2]

[image 4.2.3]

To create a new network, navigate to the "My Networks" ❶ menu item. In the Android App, it's the first item of your side menu. Press the "+"-Button ❷ to add a new network. In the next step, enter a name for your network ❸ and a location ❹. You can also use the suggestions beneath as a shortcut ❺. Create the new network by clicking on the tick in the upper right corner ❻.
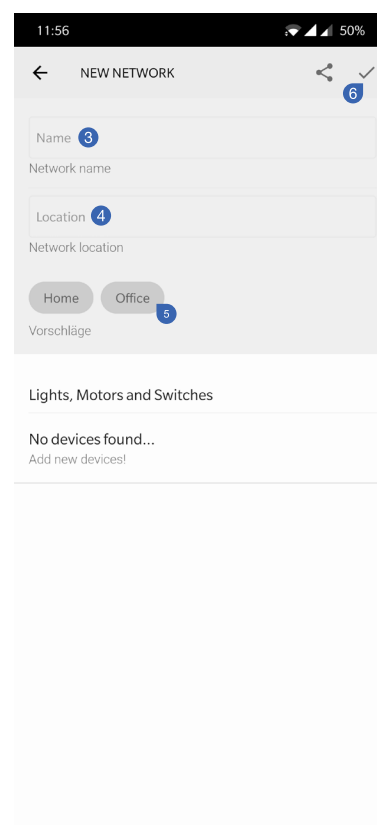
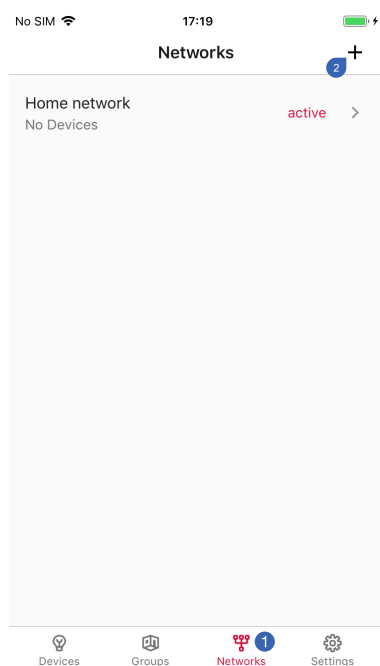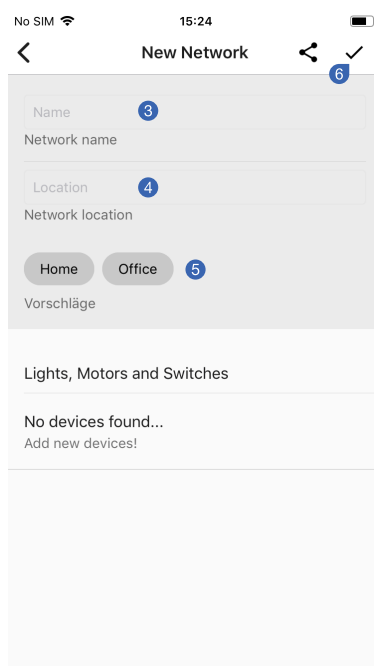732.28.423

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iOS

[image 4.2.4]

[image 4.2.5]

[image 4.2.6]

To create a new network, navigate to the "My Networks" ❶ menu item. In the iOS App, it's the third item of your main menu. Press the "+"-Button ❷ to add a new network. In the next step, enter a name for your network ❸ and a location ❹. You can also use the suggestions beneath as a shortcut ❺. Create the new network by clicking on the tick in the upper right corner ❻.

Subject to
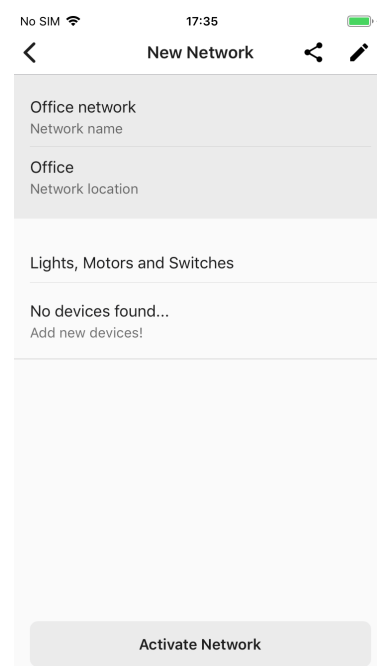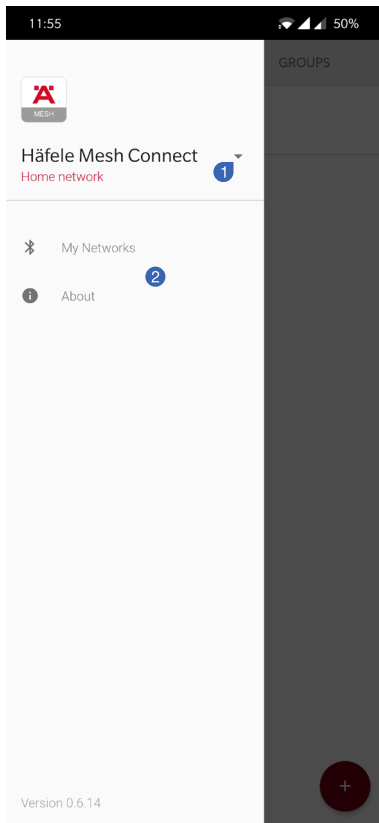alteration

4.2.3. Activating a Network

Android

[image 4.2.7]

After creating a new BLE Mesh network, it has to be activated if you want to use it right away. In order to do this, open the side menu. The red network name underneath the app name "Häfele Mesh Connect" shows the current network. Tap on the small arrow ❶ on the right side of the name to see a list of your networks. Choose the network ❷ you want to activate. In addition, you can do it the same way as described for iOS devices.
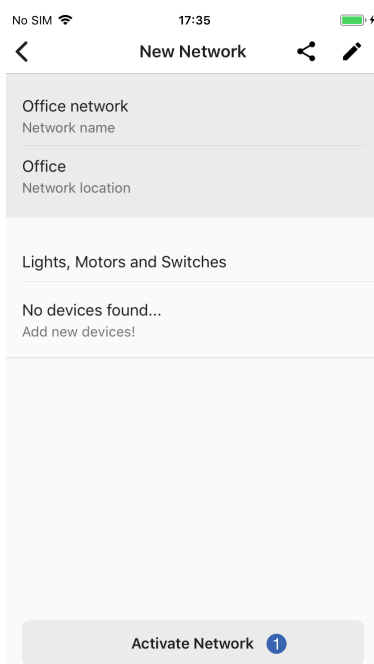
iOS

[image 4.2.8]

After creating a new BLE Mesh network, it has to be activated if you want to use it right away. In order to do this, tap on the blue button ❶ on the bottom of the network details of the network you want to activate.

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4.2.4. Deleting an existing Network

Android
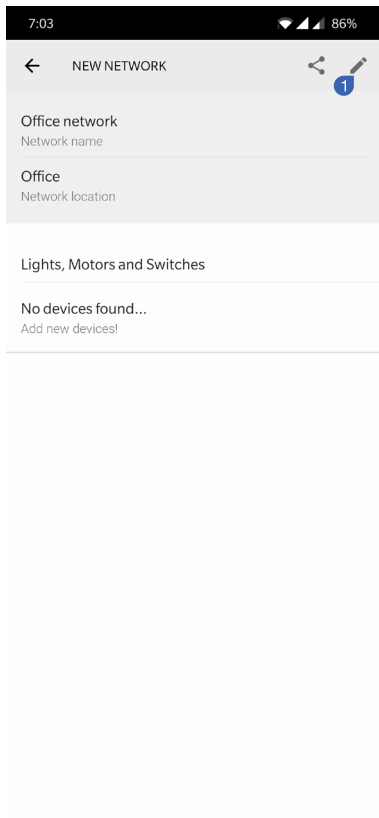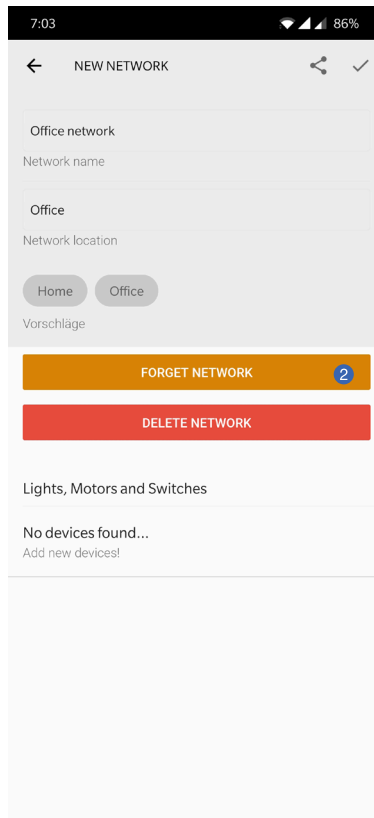
[image 4.2.9]   [image 4.2.10]

To delete an existing BLE Mesh network, go to "My networks" and choose the network you would like to delete. Inside the network overview, tap on the edit button ❶ in the upper right corner of the screen. You will enter the network settings, where you can forget ❷ the network by pressing the red button.

⚠ **IMPORTANT**

You can **export** network settings before deleting the network to save your settings for a later import!

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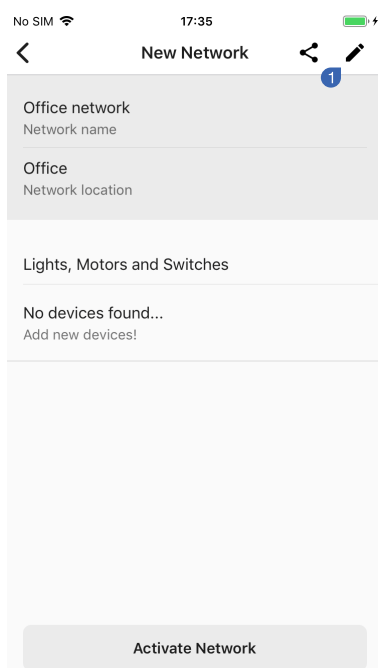
iOS

[image 4.2.12]

[image 4.2.13]

To delete an existing BLE Mesh network, go to "My networks" and choose the network you would like to delete. Inside the network overview, tap on the edit button ❶ in the upper right corner of the screen. You will enter the network settings, where you can forget ❷ the network by pressing the red "Forget Network" button.
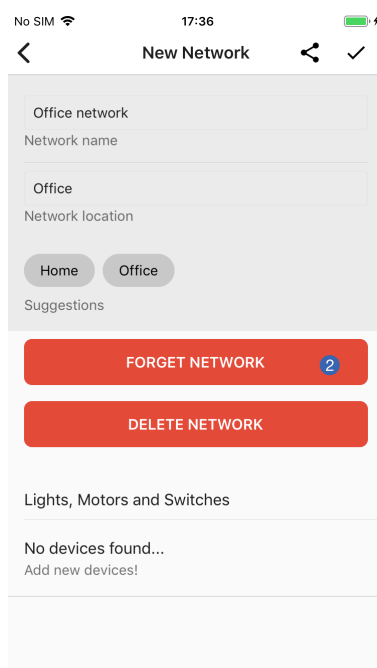
⚠ **IMPORTANT**

You can **export** the network settings before deleting the network to save your settings for a later import!

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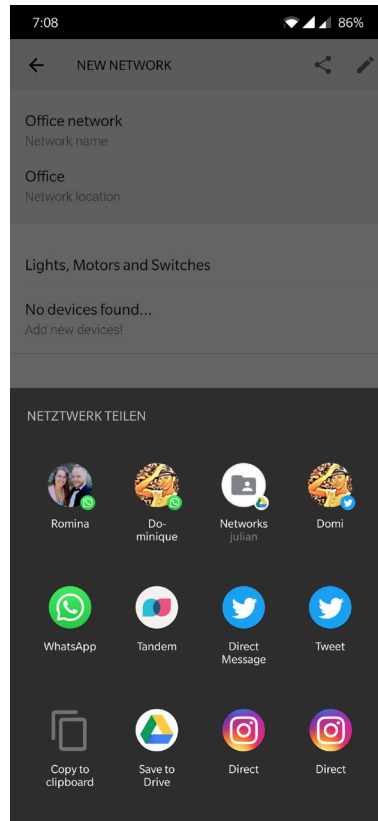
13/46

4.2.5. Exporting a Network

By exporting the BLE Mesh network, you will create a ".connect" file, which can be imported inside the Connect Mesh App, e.g. on another smartphone or tablet. Network-Export files can be simply shared e.g. via Email, WhatsApp oder other installed messenger Apps.
There are two different options when exporting a BLE Mesh network.

Android
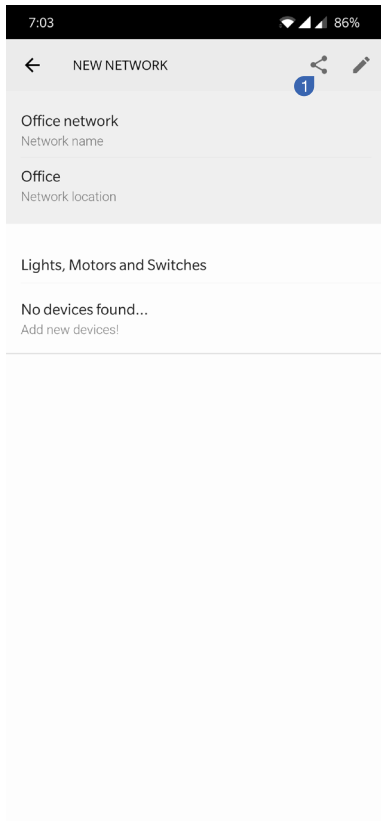
[image 4.2.14]   [image 4.2.15]

Navigate to "My Networks" and choose the network you would like to export. Next to the edit button in the upper right corner of the network overview page, you can find a share icon ❶. By pressing this button, the built-in share menu of your Android device will appear. Choose an application to share or save your configuration file onto your device.

⚠️ **IMPORTANT**

Due to security and usability reasons, it is not advisable to use the same configuration file on two different smartphones. Please export the network as often as you would like to import each individual export to an individual device. This means, every parallel user of a BLE Mesh Network should receive an individual ".connect" file but **NEVER the same one**.

iOS

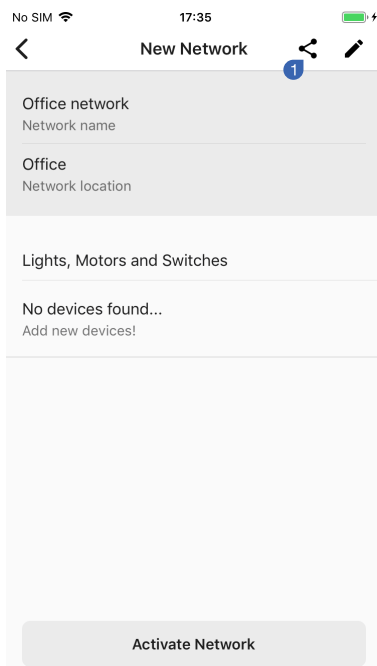[image 4.2.16]   [image 4.2.17]

Navigate to "My Networks" and choose the network you would like to export. Next to the edit button in the upper right corner of the network overview page, you can find a share icon ❶. By pressing this button, the built-in share menu of your iOS device will appear. Choose an application to share or save your configuration file onto your device.
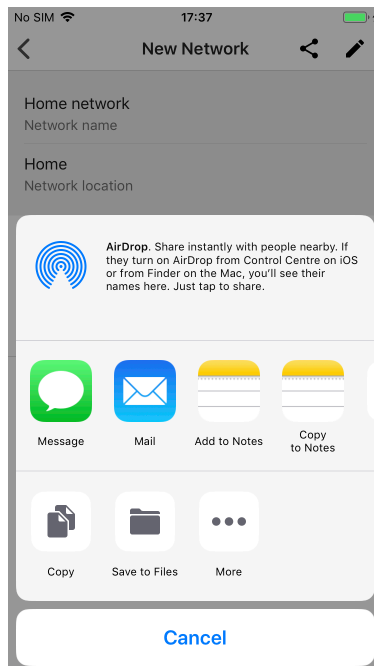
⬡! **IMPORTANT**

Due to security and usability reasons, it is not advisable to use the same configuration file on two different smartphones. Please export the network as often as you would like to import each individual export to an individual device. This means, every parallel user of a BLE Mesh Network should receive an individual ".connect" file but **NEVER the same one**.

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4.2.6. Importing a Network

You can import a ".connect" file which was earlier exported with the Häfele Mesh Connect App. If doing so, you gain access to the already configured BLE Mesh network, which contains all devices and groups. After importing you can control all devices but you also can add new devices over time.

Android
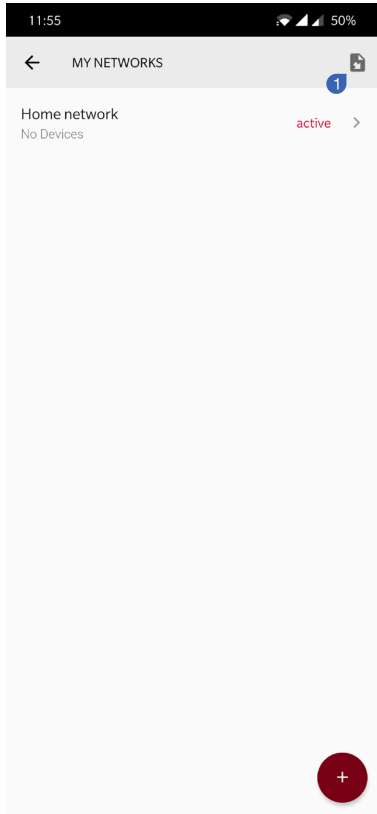
[image 4.2.18]
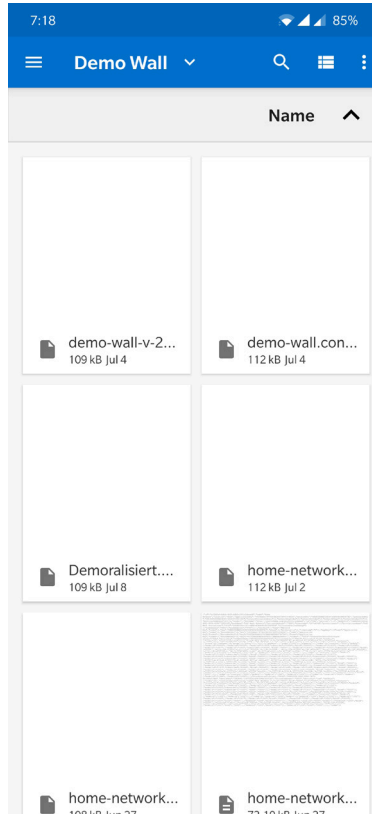
[image 4.2.19]

Navigate to "My Networks". Tap on the import icon ❶ in the upper right corner. The built-in file explorer of your Android device will be opened. Search for the ".connect" file on your device or inside a cloud storage and tap on it. After a short moment, the imported network will appear in your networks list and can be activated through the side menu network picker.

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iOS

[image 4.2.20]

[image 4.2.21]

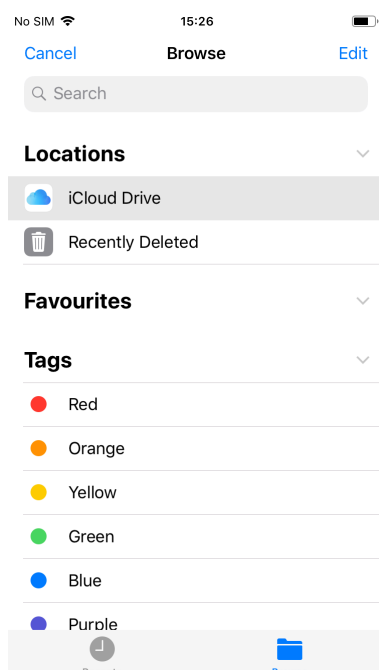Navigate to "Networks". Tap on the import icon ❶ in the upper right corner. The built-in file explorer of your iOS device will be opened. Search for the ".connect" file on your device or inside a cloud storage and tap on it. After a short moment, the imported network will appear in your networks list and can be activated.

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4.3. Devices

4.3.1. Adding a new Connect Mesh 6-way distributor
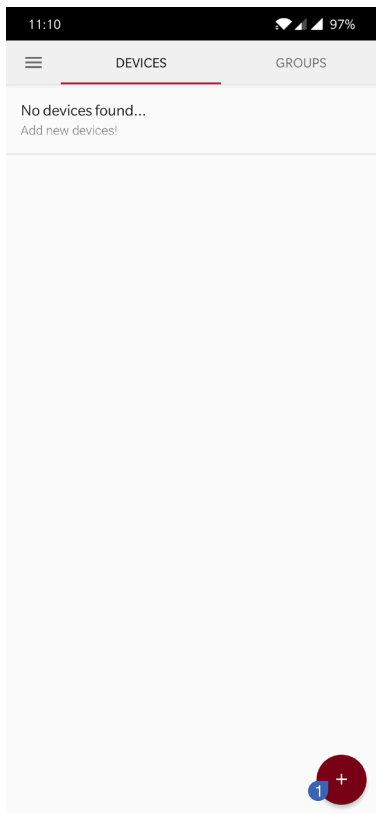
[image 4.3.1]

[image 4.3.2]

To add any new device, navigate to the "Devices" tab and press the "+"-icon ❶. All available devices in provisioning mode will appear in the list on the following page. Press the "+"-icon ❷ next to the device you would like to add to start the provisioning process.

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Provisioning Process

[image 4.3.3]

[image 4.3.4]
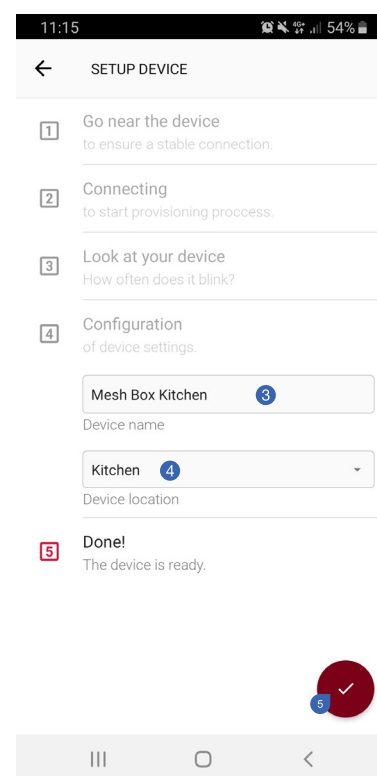
[image 4.3.5]

The provisioning process is necessary to ensure the network's security. For this purpose the new device and the user smartphone need to exchange a 'secret' in order to start a secure communication that nobody else can tap.
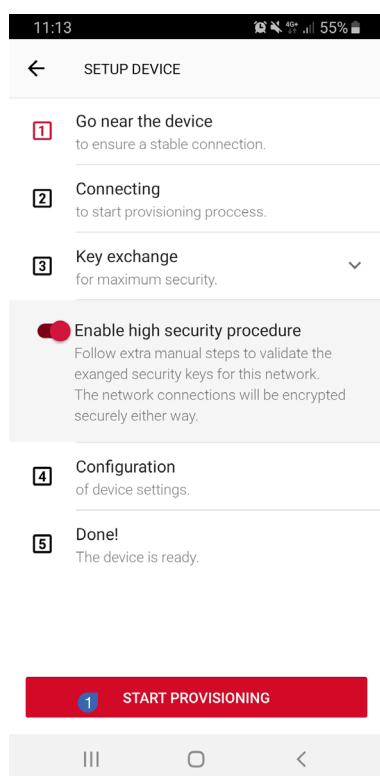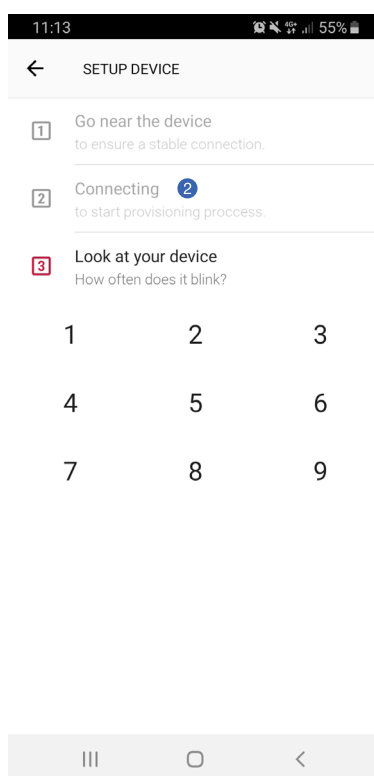
You have to enable the High security procedure under the „Key Exchange" section to have a secure connection as you can see in the image 4.3.3. Tap on the red button ❶ to go to the next step. In the second step, the app tries to connect to the device itself. This can take a short moment. To prove that the device is truly yours, the app will ask you to count how often the device's status LED is blinking (the flashing frequency ranges from 1 to 9) . Click on the right number ❷ to move to the next step. Lastly, a name ❸ and location ❹ can be set for the new device. Complete the last step by pressing the red button ❺.

Configuration of a Connect Mesh 6 way distributor

After you have added and provisioned your new Connect Mesh 6 way distributor the Connect Mesh 6 way distributor must be configured. The configuration should match the real connected actuators and sensors. The Connect Mesh 6 way distributor has six actuator channels and one sensor channel. Actuators can be connected which require between 1 and 3 channels (e.g. RGB-LED stripes require 3 channels, so two individual RGB-LED stripes could be connected to one Connect Mesh 6 way distributor). Of course combinations of actuators can be configured (e.g. one MW-stripe on channel 1 and 2, one RGB stripe on channel 3-5 and one single LED light on channel 6).

To initially configure new sensors or actuators, navigate to the device overview and tap on the unconfigured Connect Mesh 6 way distributor. This opens the device's detailed view. The header area contains device information such as the device name and the location of your Connect Mesh 6 way distributor. Below, you will find a list of all connected sensors and actuators, or an empty channel list if no devices are connected.
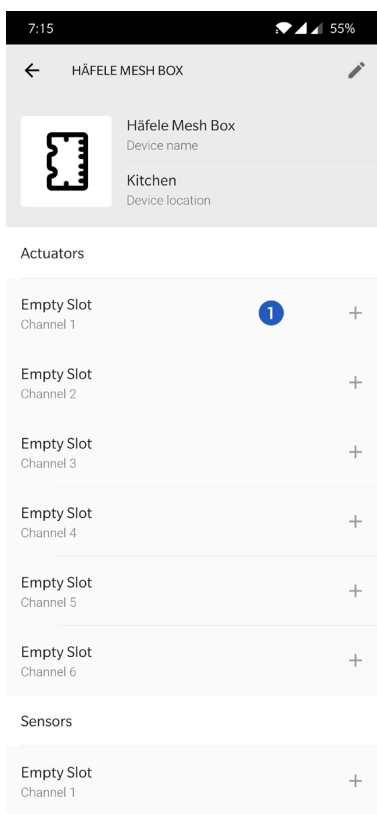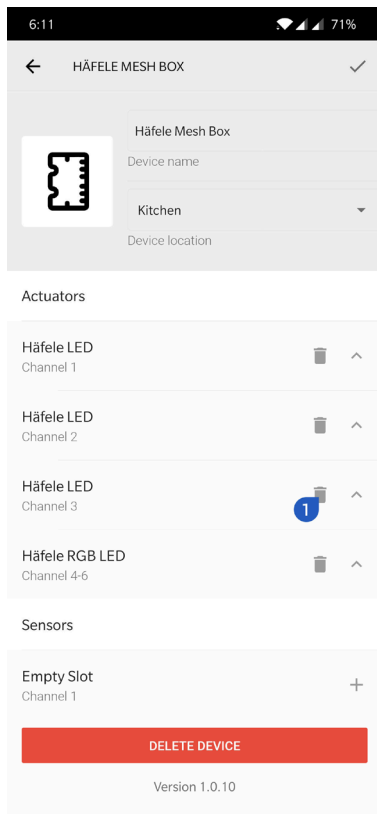

[image 4.3.6]
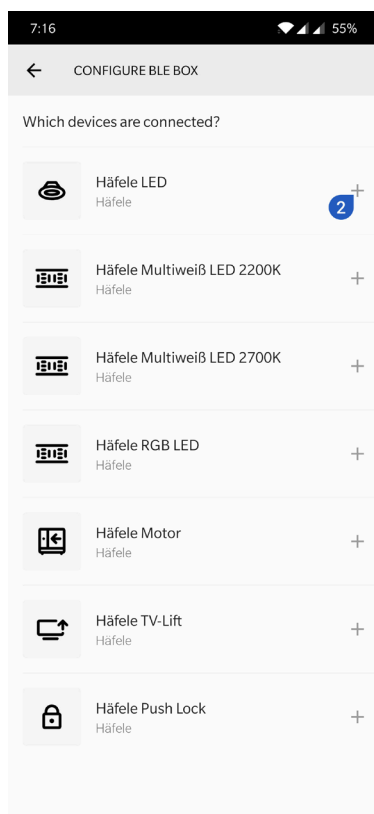
[image 4.3.7]
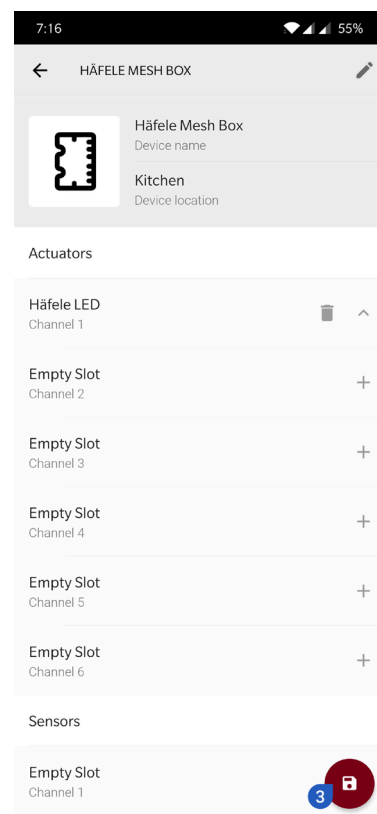
[image 4.3.8]

To add a sensor or actuator, tap on the explicit channel ❶ of the mesbox. A selection of possible devices for this port is shown. In this view you can select the individual sensor or actuator you have connected to the physical channel of the Connect Mesh 6 way distributor. As soon as you have selected a sensor or actuator ❷ from the list. This will return you to the device's detailed overview which now contains this additional sensor or actor in the sensor/actuator list. Repeat this step until you have added all sensors or actuators to the Connect Mesh 6 way distributor. Depending on the free channels, only available devices are clickable. Devices which need more channels to work are disabled.

After all information is correct, confirm the selection with the red button ❸. The configuration will now be saved and sent to the devices. Because the sensor/actuator configuration of the Connect Mesh 6 way distributor has changed, the Connect Mesh 6 way distributor needs to be reprovisioned. This process usually runs automatically after pressing the "Provision" button on the bottom of the screen. Because the user already confirmed the secret in the first provisioning process, a re-confirmation is not needed.

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Editing active Configurations of a Connect Mesh 6 way distributor

Reconfiguring a Connect Mesh 6 way distributor
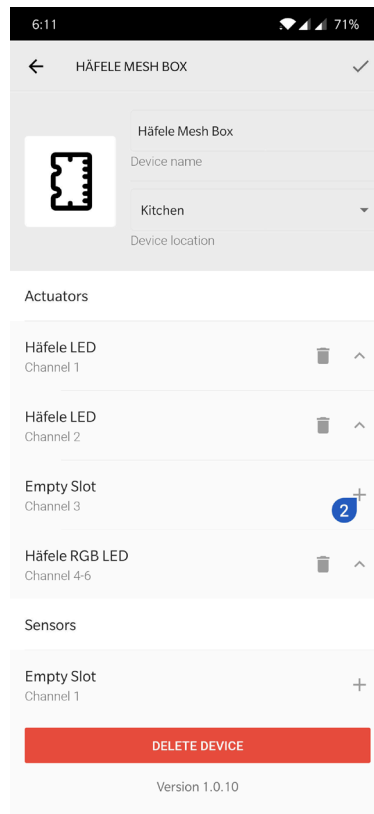
[image 4.3.9]

[image 4.3.10]
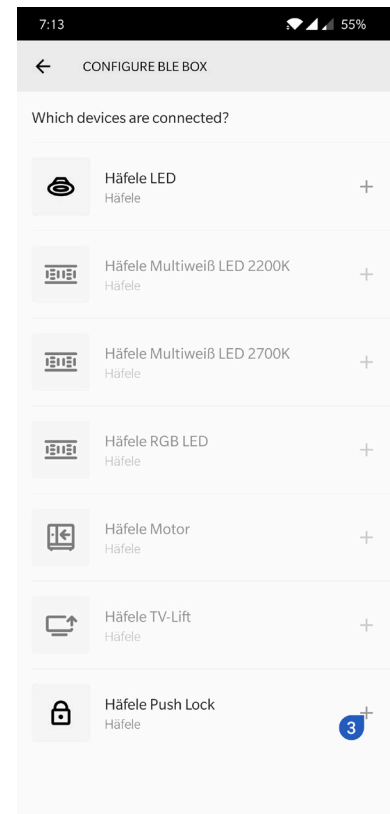
[image 4.3.11]

To change the configuration of an already configured Connect Mesh 6 way distributor, navigate to the device's detail screen. In the upper right corner, is the edit button which enables to edit the existing device configuration. To remove a device from a channel, use the bin icon ❶ next to the respective device. This will empty this and related ports. These freed ports can then be filled with new sensors or actuators by pressing the "+"-icon ❷. Choose a device from the following list ❸. After the reconfiguration is finished, tap on the red button to save the settings and send them to the device. Because the sensor/actuator configuration of the Connect Mesh 6 way distributor has changed, the Connect Mesh 6 way distributor needs to be re-provisioned. This process usually runs automatically after pressing the "Provision" button on the bottom of the screen. Because the user already confirmed the secret in the first provisioning process, a re-confirmation is not needed.
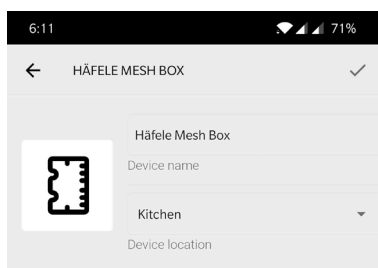
Changing Channels
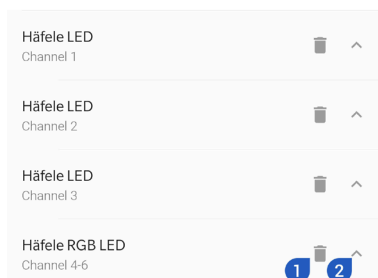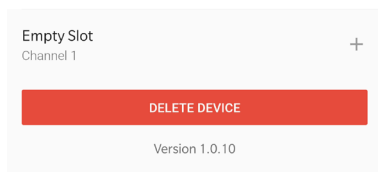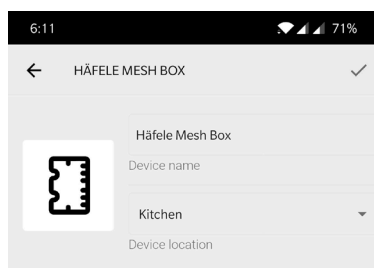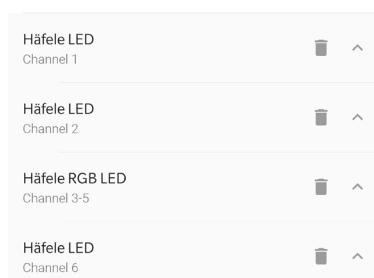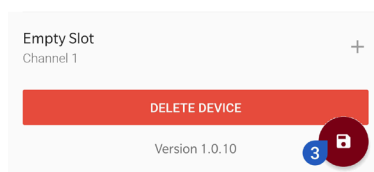
[image 4.3.12]

[image 4.3.13]

You can change the order of the actuators on the corresponding channels. You can either delete ❶ the device and replace it or change the device order by clicking on the arrow icon ❷. This will move the position of the device to the next higher channel. After the order has been changed, the new configuration must be confirmed by a new tap on the red button ❸ and is updated in the Connect Mesh 6 way distributor.

Because the sensor/actuator configuration of the Connect Mesh 6 way distributor has changed, the Mesh Box needs to be re-provisioned.This process usually runs automatically after pressing the "Provision" button on the bottom of the screen. Because the user already confirmed the secret in the first provisioning process, a re-confirmation is not needed.

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4.3.2. Adding Sensors to the Connect Mesh 6 way distributor

To add a sensor device to your BLE Mesh network, plug the sensor into your Connect Mesh 6 way distributor's sensor port on the other side of the actuator ports.

Sensor Port

[image 4.3.14]

Choose and add the right sensor type ("Switch" and "Dimmer") while configuring the Connect Mesh 6 way distributor in the App. Thereafter, the sensor will appear in your device's sensor/actuator overview list and can be added to a group like buttons of the Connect Mesh Wall Switch or the channels of a Connect Mesh Remote Control. Häfele offers a wide variety of switches and dimmers which can all be identified as **"Switch"** or **"Dimmer"**.

Sensor Type: Dimmer

Sensor Type: Switch

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Supported Sensor Models

LED IR Dimmer Switch

[image 4.3.15]

Sensor Type: Dimmer

Product number: 833.89.126
You can toggle devices on and off or dim lights by holding.

IR-Sensor Switch On/Off

[image 4.3.16]

Sensor Type: Switch

Product number: 833.89.127
You can toggle devices on and off.

Door Sensor Switch

[image 4.3.17]

Sensor Type: Switch

Product number: 833.89.128
If the sensor is covered, the signal turns off otherwise it is on.

Motion Detector

[image 4.3.18]

Sensor Type: Switch

Product number: 833.89.135
The signal turns on for 30 seconds if motion is detected and then turns off again.

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IR Sensor Switch

[image 4.3.19]

Sensor Type: Switch

Product number: 833.89.136
You can toggle devices on and off by
approaching the IR-sensor on the side.

IR Sensor Switch Modular

[image 4.3.20]

Sensor Type: Switch

Product number: 833.89.137
You can toggle devices on and off by
approaching the IR-sensor on the side.

IR-Dimmer Modular

[image 4.3.21]

Sensor Type: Dimmer

Product number: 833.89.129
You can toggle devices on and off or dim
lights by approaching the IR-sensor on
the side and or holding.

Capacitive Switch

[image 4.3.22]

Sensor Type: Switch

Product number: 833.89.087
You can toggle devices on and off by
touching the enclosure.

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Capacitive Dimmable Switch

[image 4.3.23]

Sensor Type: Dimmer

Product number: 833.89.133
You can toggle devices on and off or dim lights by touching the enclosure constantly.

Switch Door

[image 4.3.24]

Sensor Type: Switch

Product number: 833.89.059
If the sensor is pressed, the signal turns off and otherwise on.

Switch Door Modular

[image 4.3.25]

Sensor Type: Switch

Product number: 833.89.143
If the sensor is pressed, the signal turns off and otherwise on.

Switch Foot

[image 4.3.26]

Sensor Type: Switch

Product number: 833.89.046
You can toggle devices on and off by pressing the physical button.

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Switch Rocker

[image 4.3.27]

Sensor Type: Switch

Product number: 833.89.106
You can toggle devices on and off by
changing the rockers state.

Switch Push

[image 4.3.28]

Sensor Type: Switch

Product number: 833.89.108
You can toggle devices on and off by
pressing the button.

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4.3.3. Adding a Connect Mesh Wall Switch

The Connect Mesh Wall-Switch consists of 4 buttons. These can individually be linked to available groups. Taping a button shortly will toggle all devices in the same group as the button. Holding the button will dim the devices in the same group up or down.
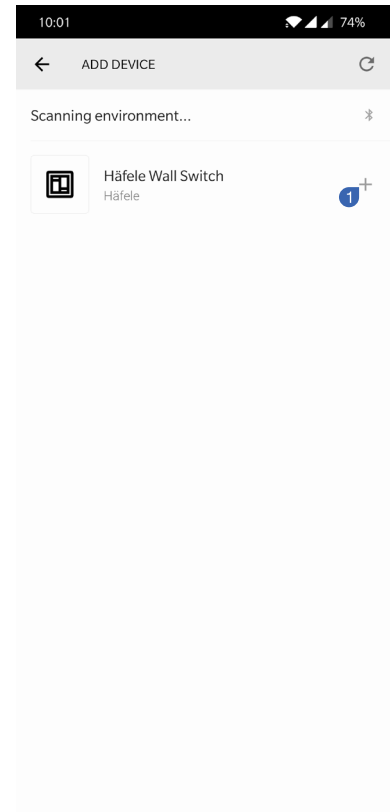
Adding to a Network
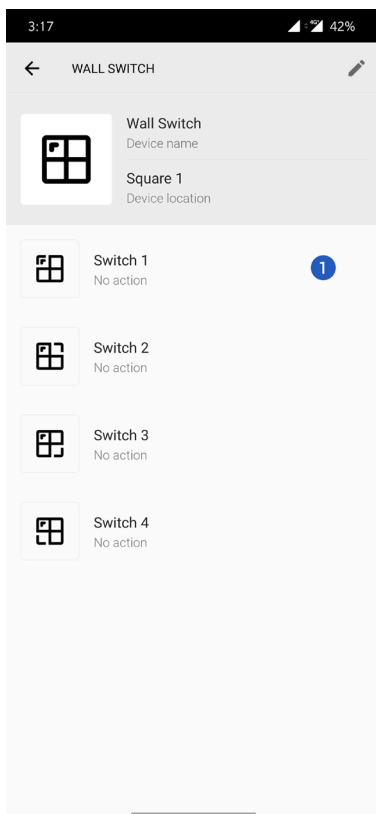

[image 4.3.30]

[image 4.3.31]

[image 4.3.32]

The Wall-Switch must be in provisioning mode (identified by a flashing LED on the back of the device). Go into the "Devices" section of the App and click the "+" symbol to add a new device. This will scan the environment and show all surrounding devices in provisioning mode. These can be added to the Mesh Network. To choose the Wall Switch, tap the discovered Wall Switch ❶, which will start the provisioning process.

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Adding the Wall-Switch to a Group

After adding a Wall Switch to the Mesh network, a Wall Switch device appears in your device list's sensor section. Tap on the device to configure the physical buttons. In this device settings page, you can choose the physical button you would like to control your group or trigger your scene ❶. There are small details in the button icons to help identifying the right one. After choosing a button, the app will ask you to connect to the button by holding one of the switch's buttons. This will wake up the button from the energy saving mode. After the connection has been established, the next screen asks you to select one of your groups or scenes to connect it with the button ❷. After a successful configuration, you will see a tick icon next to "Toggle group" option. To delete the connection, simply choose "Deactivate" in the actions list.

You can now toggle the devices in the group by pressing the physical button of your Wall Switch. A long press will dim the group up or down until you release it.
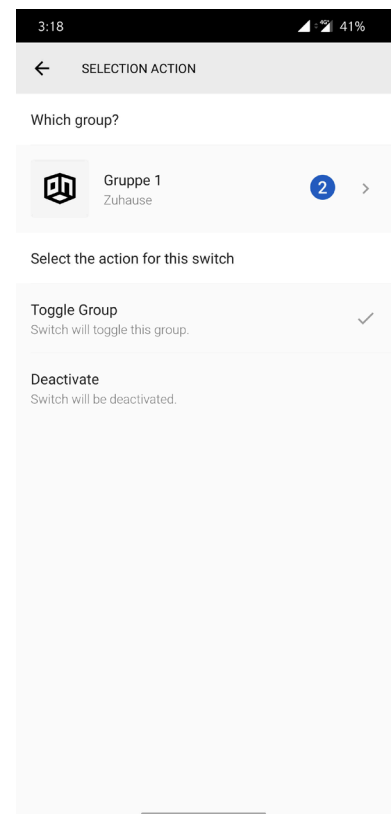
Each group can contain scenes, these scenes can be triggered by the wall-switch. Available scenes will be shown as listed in image 4.3.35. Selecting a scene will result in applying the scene whenever the corresponding button of the wall-switch is pressed.

[image 4.3.33]
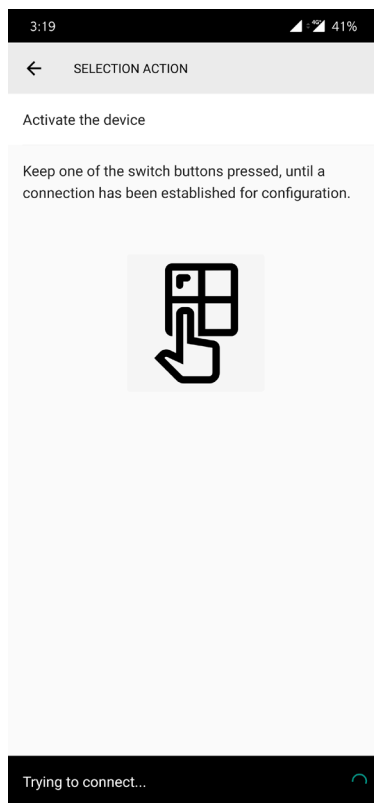
[image 4.3.34]

[image 4.3.35]

4.3.4. Adding a Connect Mesh Remote Control

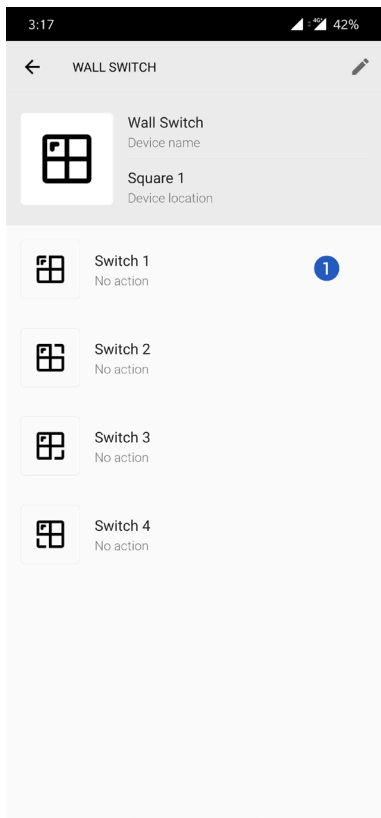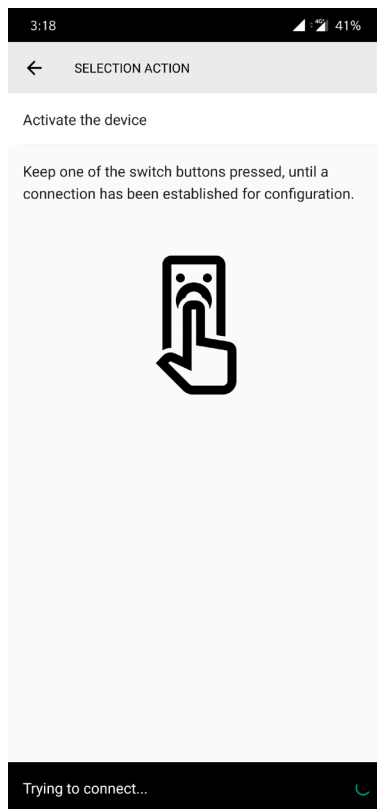Adding to a Network

[image 4.3.36]

[image 4.3.37]

The Remote Control must be in provisioning mode (the LED of channel 1 is flashing). Go into the "Devices" section of the App and click the "+" symbol to add a new device. This will scan the environment and show devices in provisioning mode, which can be added to the Mesh Network. Tap the discovered Connect Mesh Remote Control ❶ to start the provisioning process.
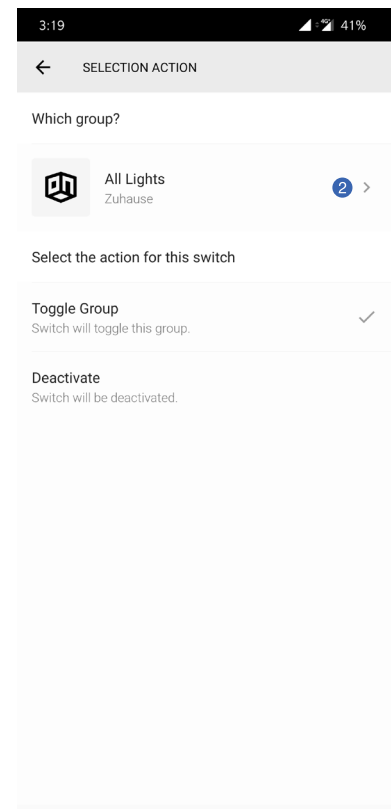
Adding the Remote Control to a Group

After adding a Remote Control to the Mesh network, a Remote Control device appears in your device list's sensor section. Tap on the device to start configuration of the six channels of your remote. In the device settings, you can choose the channel you would like to connect with your group ❶. In the next step the app asks you to hold down the middle button of your remote to wake it up from energy saving mode. In case you were successful, the next screen asks you to select one of your groups to connect it with the remote channel ❷. After connecting you can see a tick icon next to "Toggle group" option. To delete the connection, simply choose "Deactivate" in the actions list.
Choose the same remote channel on your physical device (the respective number on the remote lights in red).
You can now control the group with your Connect Mesh Remote Control (see the Documentation for Connect Mesh Remote Control for details on how to control various parameters such as brightness, saturation, color and temperature).

3:17 ⊿ ⊿ 42%	3:18 ⊿ ⊿ 41%	3:19 ⊿ ⊿ 41%
← WALL SWITCH ✏	← SELECTION ACTION	← SELECTION ACTION
Wall Switch Device name / **Square 1** Device location	Activate the device	Which group?
⊞ Switch 1 — No action ❶	Keep one of the switch buttons pressed, until a connection has been established for configuration.	🔲 All Lights Zuhause ❷ ›
⊞ Switch 2 — No action		Select the action for this switch
⊞ Switch 3 — No action		**Toggle Group** ✓ Switch will toggle this group.
⊞ Switch 4 — No action		**Deactivate** Switch will be deactivated.
	Trying to connect... ↻	

[image 4.3.39]   [image 4.3.40]   [image 4.3.41]

Trigger Scenes by the Remote Control

The remote control can trigger three scenes. These are mapped to the buttons "A", "B" and "C" of the remote control. The mapping is pre-defined by the given group inside the app. For the selected group, the first scene is mapped on button "A", the second scene is mapped to button "B" and the third scene is mapped to button "C". Each of the 6 remote control channels can be mapped to one group. And for each group – "A", "B" and "C" will map to the first three scences of these groups.
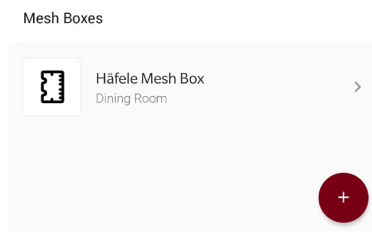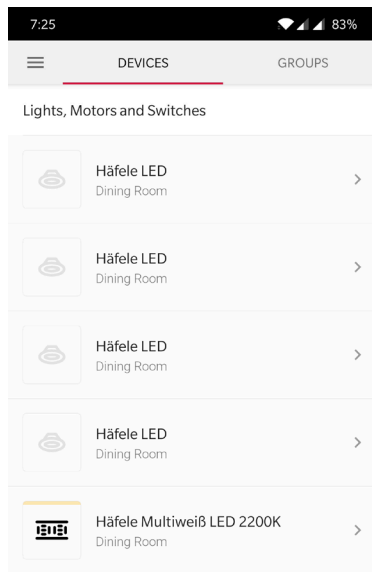
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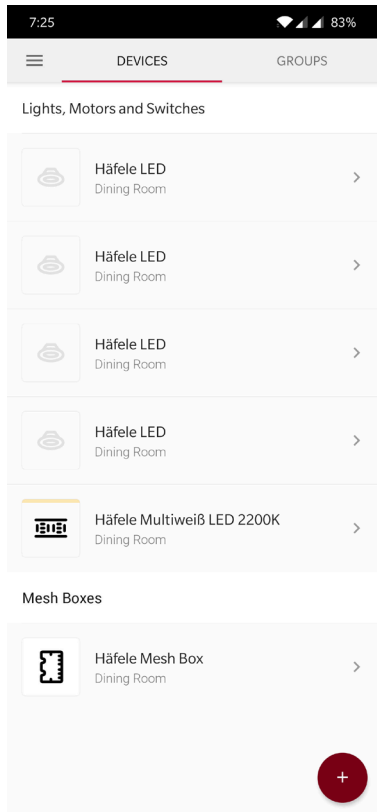### 4.3.5. Controlling Devices

Quick Controls
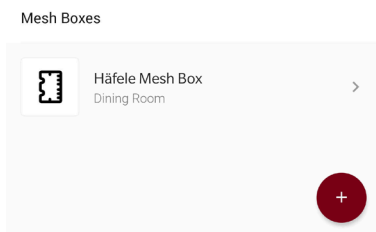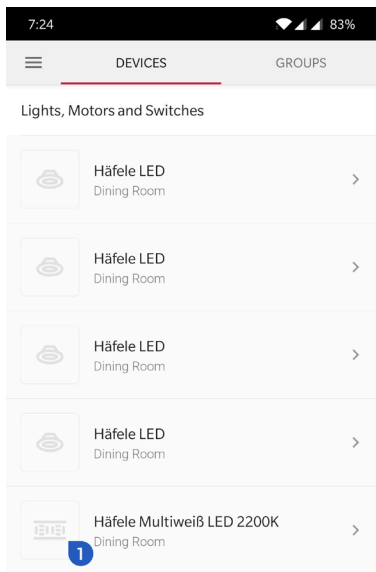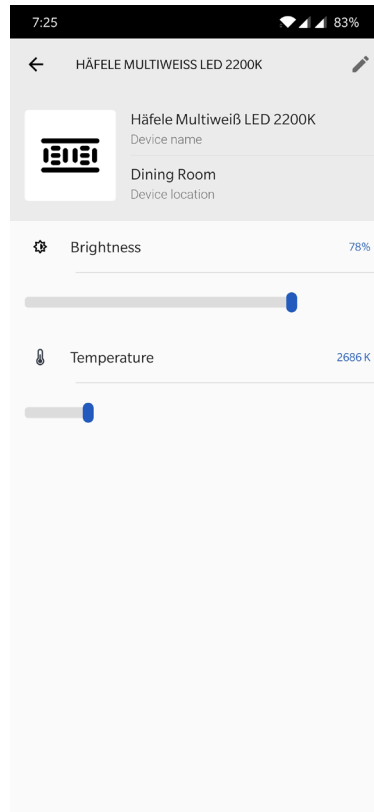

[image 4.3.42]

[image 4.3.43]

The device overview screen offers a fast and easy way to toggle your individual actuator device such as a light. Simply tap on the device icon ❶ next to the device name to toggle on/off.
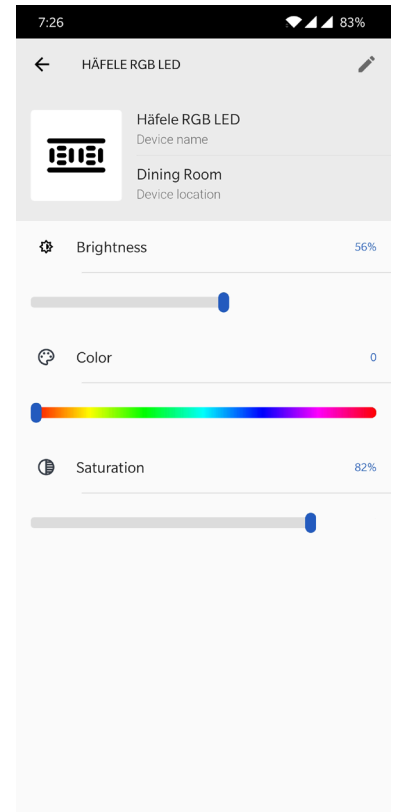
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Device Settings

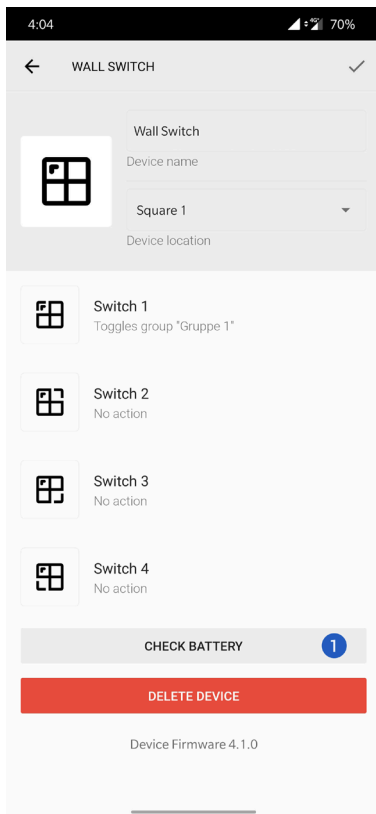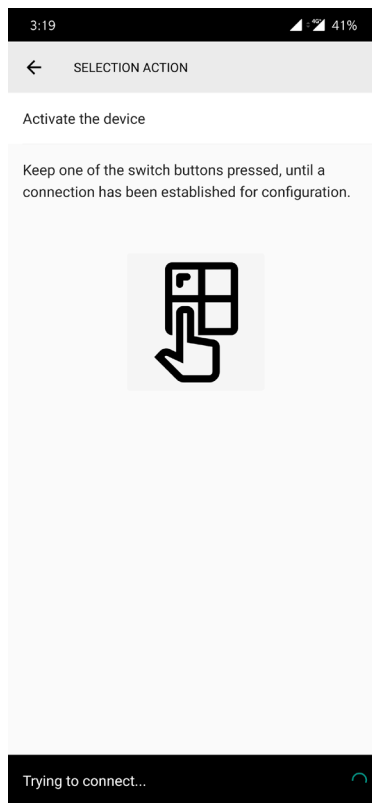[image 4.3.44]

[image 4.3.45]

[image 4.3.46]

By selecting a device from the device overview list, you can access the device settings in which you expect extensive control options. Depending on the device, there are different control options. Multi-white (tunable white) LED strips, for example, offer the possibility of controlling brightness and temperature. RGB LED strips, on the other hand, offer options for controlling color and saturation in addition to brightness.

4.3.6. Request Battery Status
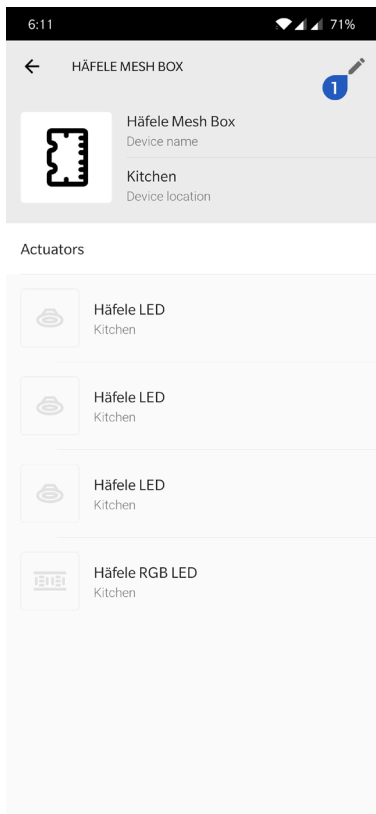

[image 4.3.47]

[image 4.3.48]

[image 4.3.49]

Remote devices offers the possibility to check their current battery status. To request a battery update, head to the edit device page of a remote device. At the bottom of this page, you will find the "Check Battery" button. Tap this button to request the battery status. The following screen asks to press one of the devices buttons. By this press on a button, the device awakes from energy saving mode. This enables the app to shows the current battery level – unless the remote device's battery is completely empty.
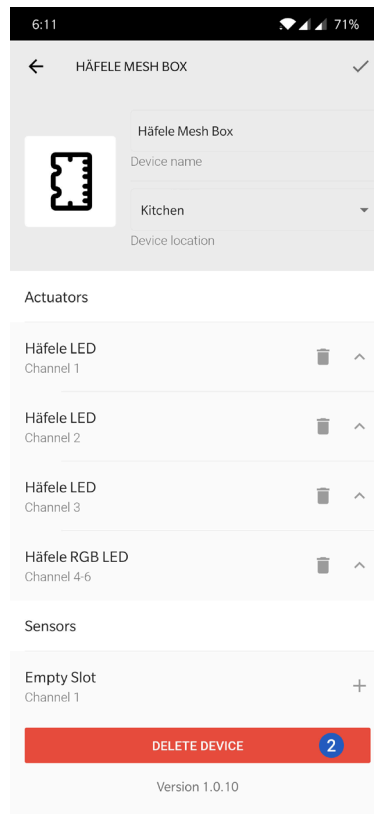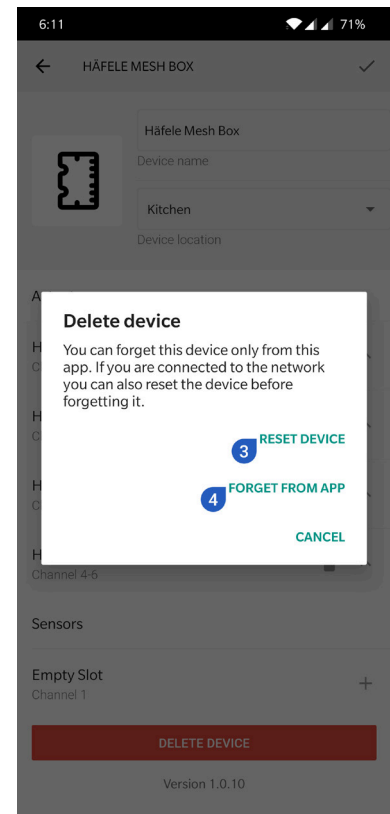
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alteration

4.3.7. Deleting Devices from a Mesh Network

[image 4.3.50]

[image 4.3.51]

[image 4.3.52]

To delete a device, navigate to the detail screen of this device. In the upper right corner you can find an "edit" icon ❶, which leads to the device's edit page. At the bottom of the screen you can find a red "Delete Device" button ❷. Press this button if you want to remove this device. The upcoming pop-up will highlight the possibilities to delete the device:

Reset Device:

This option processes a factory reset of the device. This requires a stable connection to the BLE Mesh Network.

Forget from app:

The device will be removed from the app irrevocable. The physical device will not be reseted. This means the device will work as it worked before but will not be shown in the app anymore. To afterwards reset the device, please use one of the reset methods mentioned in the device documentations.
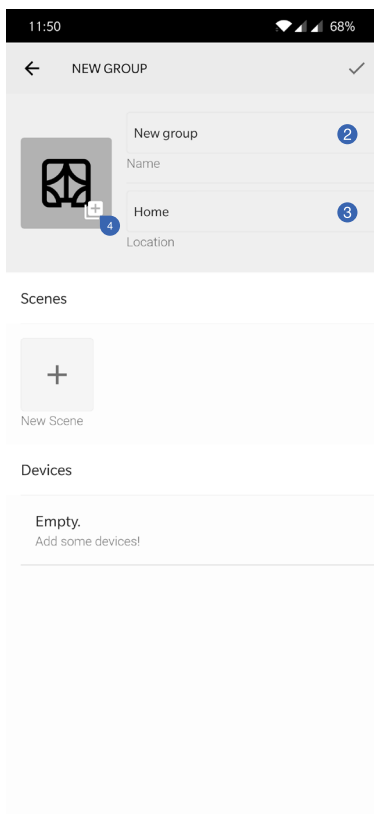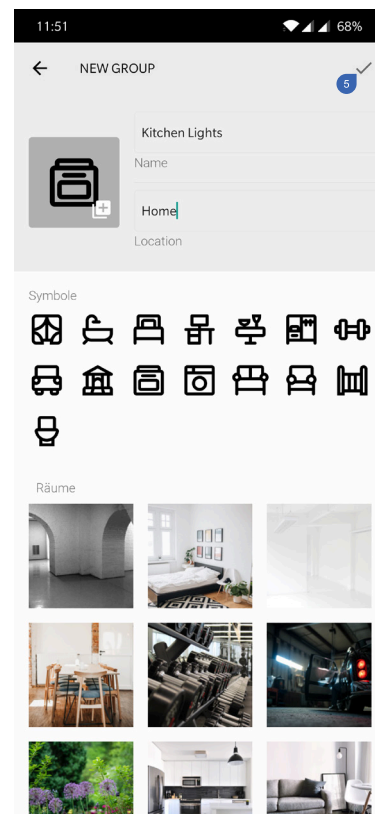
4.4. Groups

4.4.1. Creating a new Group

Groups are the most important mechanism in Mesh networks. They allow to group different actuators, sensors and controls. After a user has distributed all devices into groups it becomes very simple to control large numbers of devices in a comfortable way. For instance with a Wall-Switch, a Remote Control, a sensor or the App. A single device, sensor or actuator can be in many groups at the same time (e.g. four buttons of a Wall Switch: a button for the group "All lights", a button for "Kitchen lights" and a button for "living room lights").
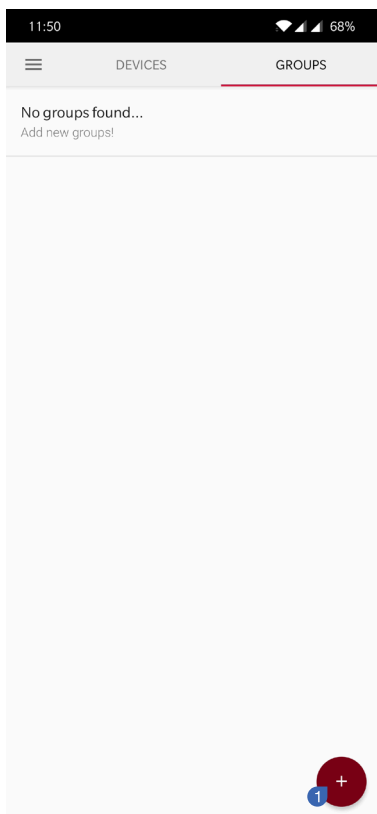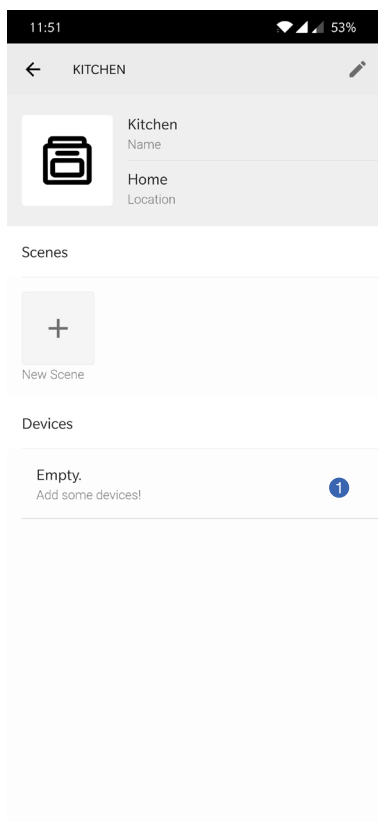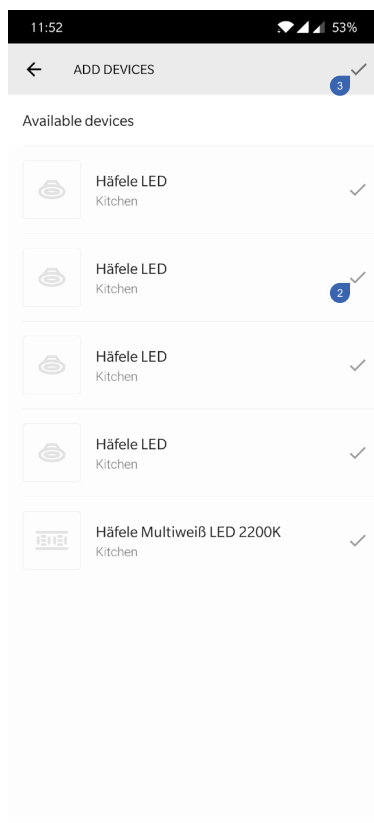

[image 4.4.1]

[image 4.4.2]

[image 4.4.3]

To add a new group, navigate to the groups overview screen. Use a tap on the red "+" button ❶ to add a new group. Give the new group a name ❷ and define a location ❸. This can be a room, or a more extensive location. A tap on the group icon ❹ allows you to choose from a variety of different icons and images. You can even make your own image or to load an image from your smartphones' gallery. After you have filled in the basic information, you can confirm the new group by clicking on the check mark ❺ in the upper right corner.
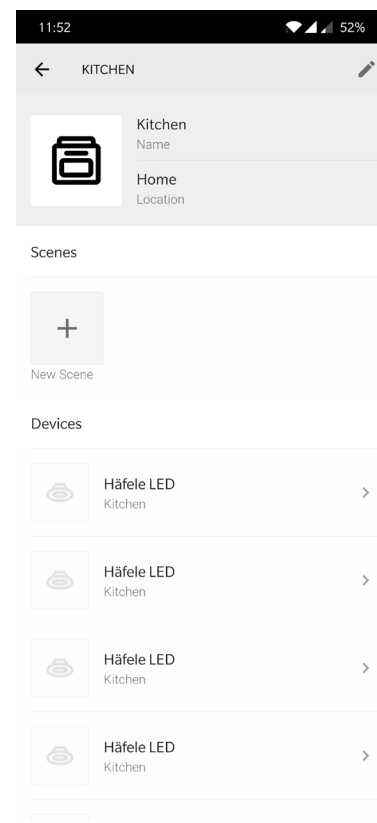
732.28.423

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4.4.2. Adding Devices to a Group

|		
[image 4.4.4]	[image 4.4.5]	[image 4.4.6]

To add devices to an existing group, go to the group overview screen and select the group to which you would like to add devices. In the group detail view, press on the "Empty" text label ❶ to start the process of adding devices. The next screen will show a device list. There you can see all available devices. Press the "+" icon of the devices you would like to add to the group. Devices which are already selected are displayed with a tick icon ❷ on the right side. You can tap on it to remove the device from the group. After you have selected all devices which should be part of the group, press the "done" icon in the upper right corner ❸ to save the group and group members. This will bring you back to the group page of this group. There you will see the progress which devices have already been added to this group. In case the process of adding a device to the group failed (e.g. because the device is turned off) it will show you the possibility to retry adding this device to the network. You can click on these devices to retry.

Subject to
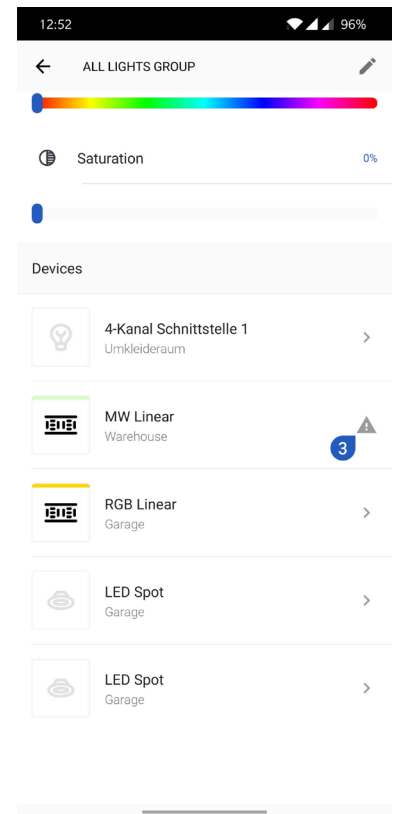alteration

4.4.3. Deleting Devices from a Group
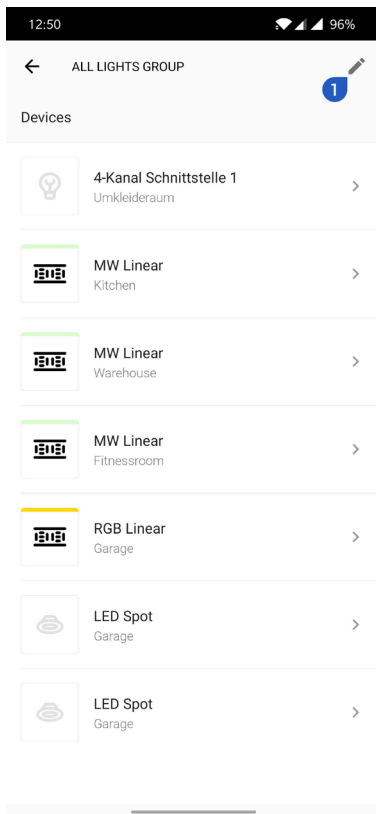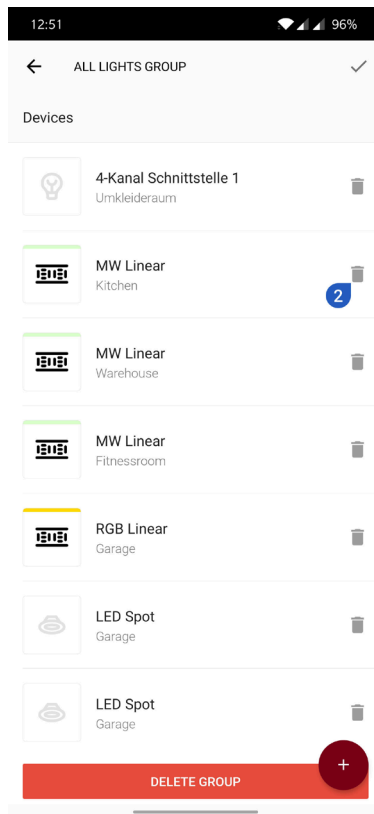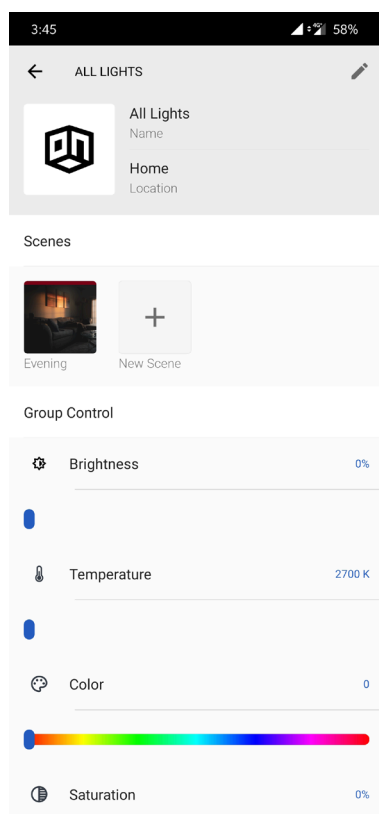

[image 4.4.7]

[image 4.4.8]

[image 4.4.9]

Head over to the group overview screen to select the group from which you would like to remove devices. Inside the group detail screen, press the "edit" button in the upper right corner ❶. Inside the edit mode, the group controls will be hidden. Tap on the bin icon ❷ next to the device you would like to delete from your group. You can see a spinning loading icon while the removing process is running. In case there was a problem while deleting the device you see a error symbol next to it ❸. Press it to retry the process. After removing all unwanted devices from the list, accept the action by pressing the "done" icon in the upper right corner. The new configuration is saved and the devices are removed from the group.

4.4.4. Group Controls

[image 4.4.10]

You can find global group controls underneath your group's scenes. Use the sliders to control all the lights in your group at the same time. To change the settings of a single light instead, scroll down to the device list and choose the light individually.

4.4.5. Scenes

Scenes are pre-configured or saved device settings (e.g. on/off state, brightness, color, saturation, temperature) of a group. Saved scenes give access to a fast and easy quick control feature.

EXAMPLE

You created a group "Dining Room Lights" and added all light devices to this group which belong to the location "Dining Room". While having dinner in the evening, you would like the lights to be bright and warm white. You can change the light settings of every device inside the group individually. When you are happy with your configured light settings, you can create a new scene "Dining". After you are finished eating, you can dim the lights inside the group to match your imagination of what a cosy light environment should look and feel like. You can save this new light mood in a new scene "Cosy Ambient".
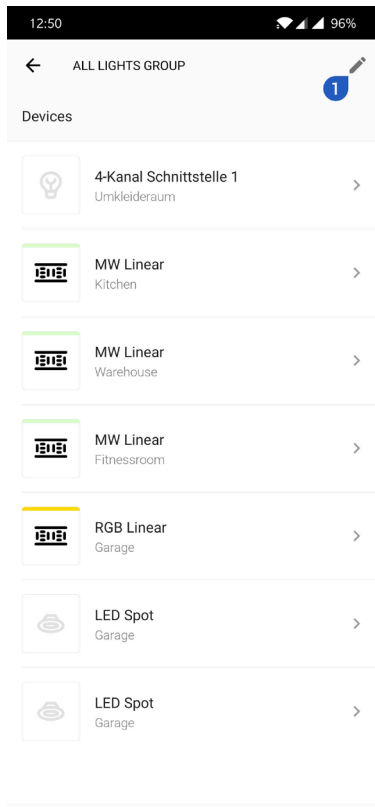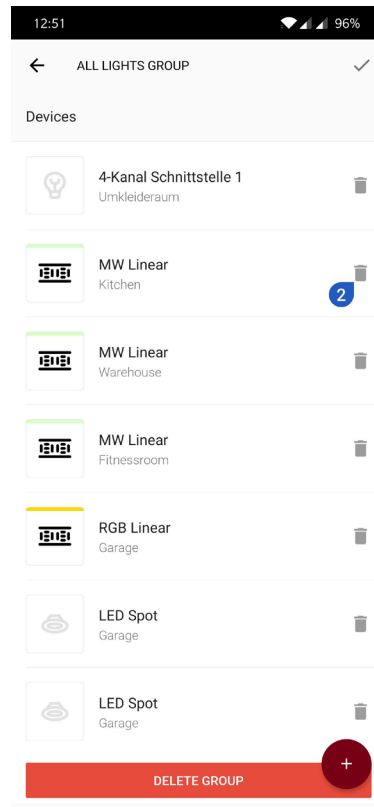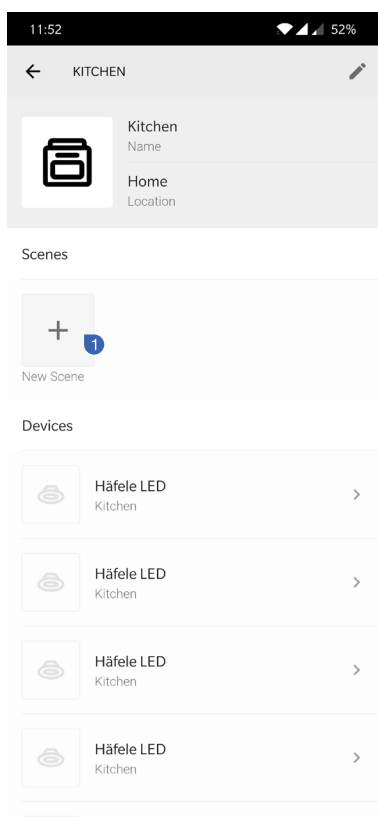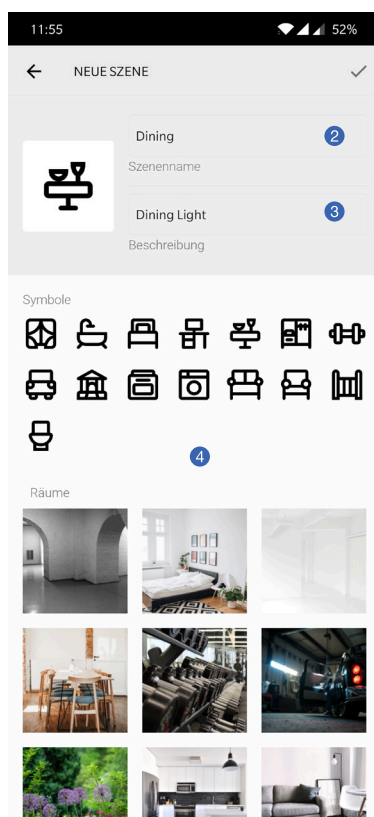
[image 4.4.11]   [image 4.4.12]

The two scenes give you the possibility to change between the two light moods by simply tapping once without changing the settings of every light again individually.
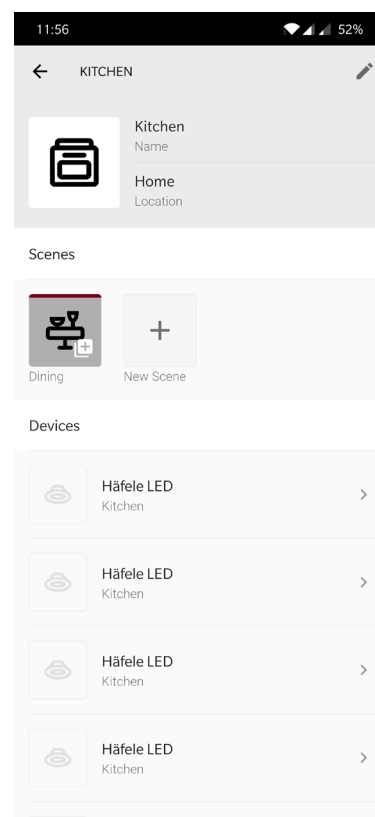
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Creating a new Scene
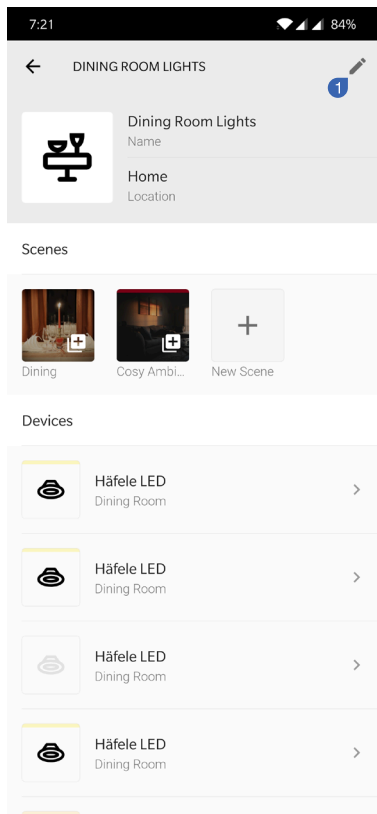

[image 4.4.13]

[image 4.4.14]

[image 4.4.15]

To create a new scene inside of your group, move to the group overview screen and select the group from the group list. Inside the group you can find the scene selector above the group's device list. Press on the "+" icon ❶ on the right of the scene list to add a new one. You can give it a name ❷ and description ❸. In addition, you can also pick one of the preset icons and pictures ❹ or use one from your own smartphone gallery.

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Deleting an existing Scene
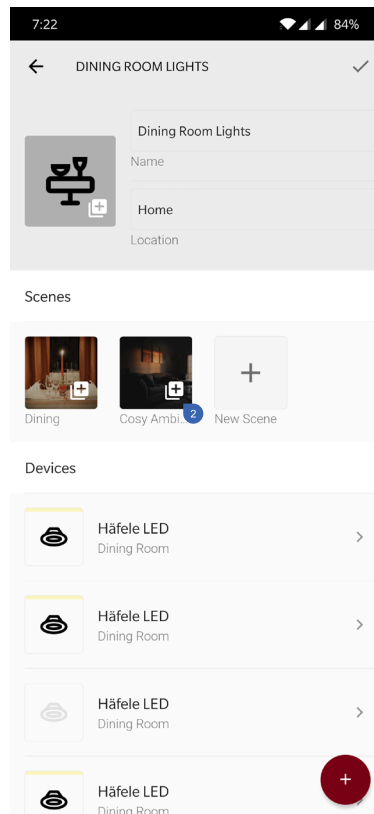
[image 4.4.16]

[image 4.4.17]

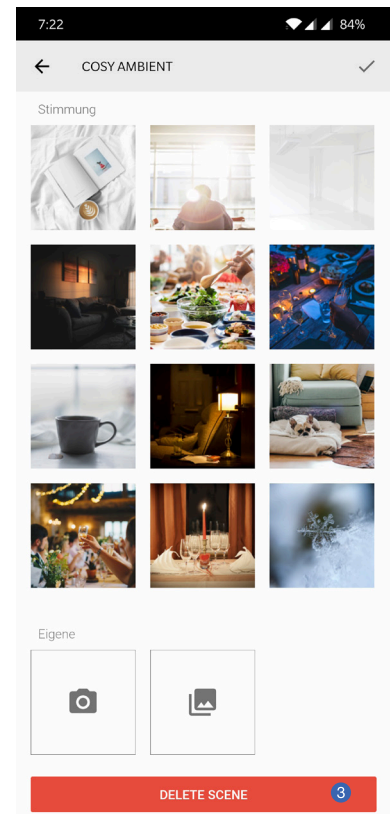[image 4.4.18]

To delete an existing scene, open the editing mode of the respective group by tapping the edit icon ❶ in the upper right corner of the screen. In edit mode, you can select the scene ❷ you want to delete. You will be taken to the scene detail view. If you scroll to the end of the scene settings, you will find a red button ❸ that you can use to delete the scene permanently. Then exit the editing mode of the group by touching the icon in the upper right corner of the view.

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4.5. Updating Mesh Devices

All Connect Mesh devices offer the possibility to receive new firmware updates. This allows to constantly improve the functionality of the devices as well as to add new features.

In App Update Available

In case the firmware of a device is outdated, this will be identified within the app, inside the device settings ❶.
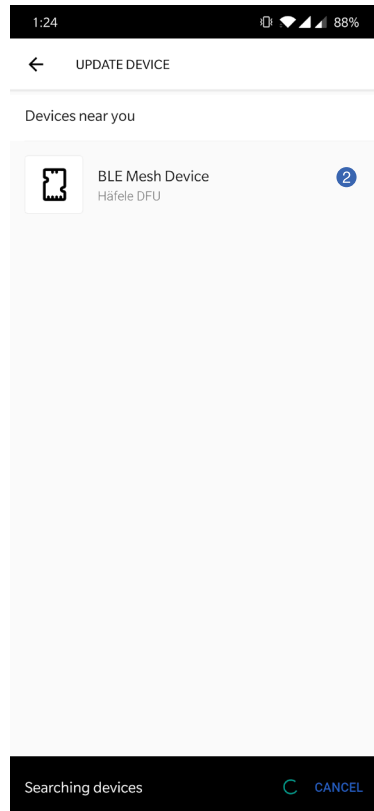
[image 4.5.1]

Subject to
alteration
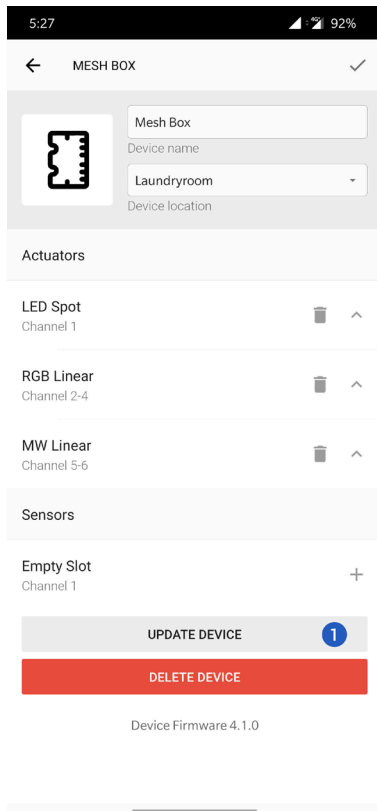
Manually triggered Update

In order to trigger a firmware update of a mesh device explicitly, the App offers you the possibility of Over-The-Air (OTA) updates. To do this, the devices must be set to *update mode*. Depending on the device, there are different possibilities. Please read more about this in the respective technical documentation of the specific device. If the device is set to OTA mode, you can continue inside the Connect Mesh App.
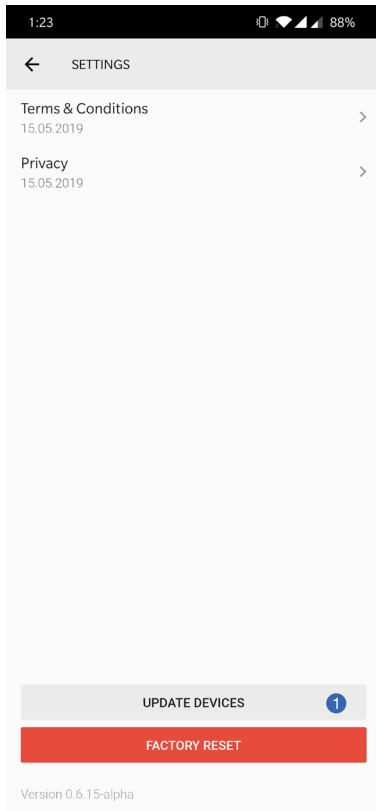
[image 4.5.2]

[image 4.5.3]
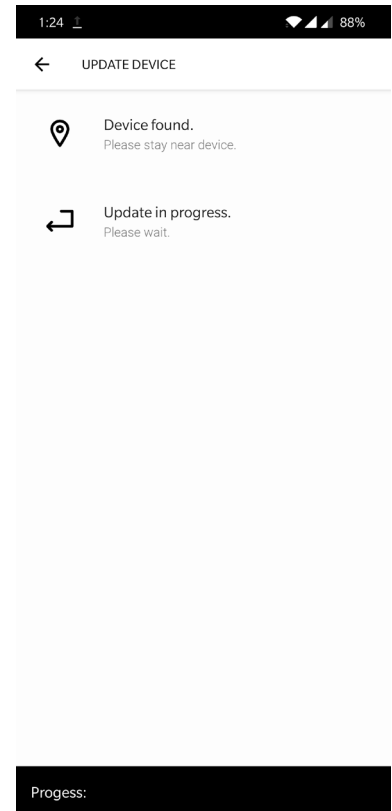
[image 4.5.4]

Open the side menu and tap on the menu item "Settings" to open the app settings. Select the "Update Devices" button ❶ from the list of settings to start the update process. The app starts the search process and lists all devices in its environment that are in update mode. Select the device ❷ and follow the steps to update the device.

Subject to alteration

5. Q&A

Question	Answer
The Connect Mesh 6 way distributor's status-LED is Blinking	The device is in provisioning mode. It can now be added as new device to a Mesh network
How can I reset the Connect Mesh 6 way distributor to provisioning mode	Reset the Connect Mesh 6 way distributor through the App by deleting the device. OR Keep the reset button on the Connect Mesh 6 way distributor pressed longer than 8 seconds. OR Turn the power of the Connect Mesh 6 way distributor on and off for 8 times. When the LED starts to blink, the box is reset.
How to put the Connect Mesh 6 way distributor into OTA-Update mode?	Use the App to put the device into OTA-Update Mode. OR Turn the Connect Mesh 6 way distributor on while keeping the reset button pressed. The box is now in OTA-Update mode for 60 seconds.

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HDE 25.06.20

Subject to alteration

6. Glossary

Term	Description
"connect" file	"connect" files are created during network export and can be selected in the app as a file base for importing networks.
App Store	Apple's iOS App Store
BLE	Bluetooth Low Energy
BLE Mesh	Bluetooth Low Energy Mesh
Google Play Store	Google's Android App Store
Provisioning	Adding a device to the BLE Mesh network
Provisioner	The mobile device, that is adding BLE Mesh devices to the network
OTA	Over The Air (Update) of the device Firmware
Mesh Network	A network between IoT devices, based on Bluetooth BLE Mesh technology.

Subject to alteration