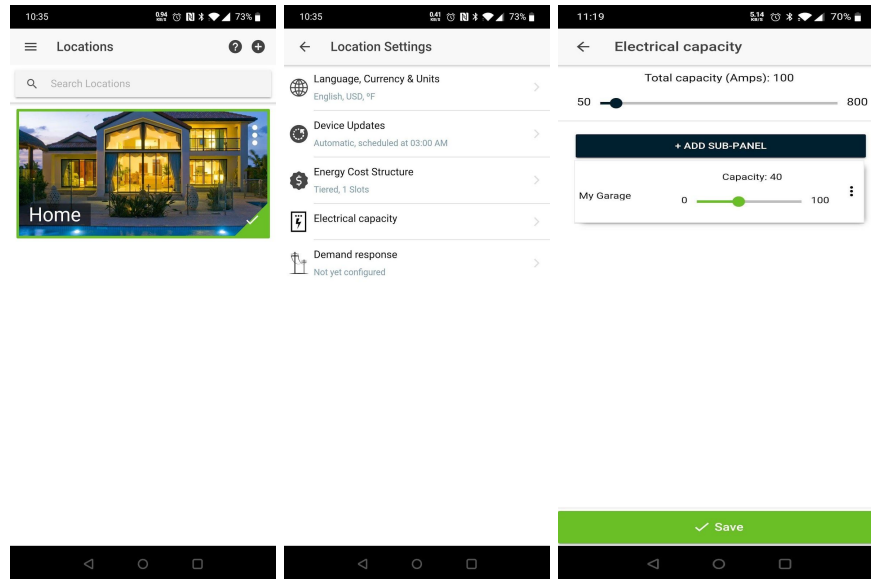# EVSE Autonomous Load Balancer Guide

Overview

This guide provides steps to connect multiple SmartElek EVSE devices in an ALBN (Autonomous Load Balancing Network). The SmartElek EVSEs contain both Wi-Fi and Zigbee radios and communicate with each other via the Zigbee protocol for the Load Balancing function. The Wi-Fi connection is needed to receive software updates and to connect to a monitoring/controlling app such as our mobile and web applications. When ready, please follow the steps below:
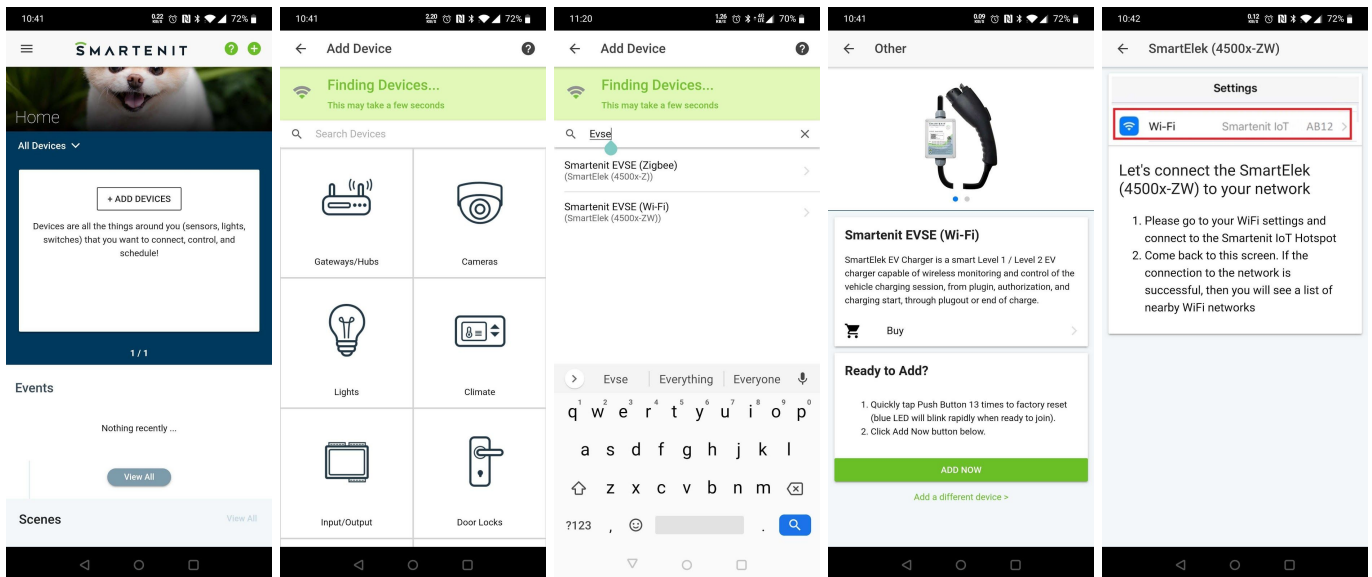
1. ## Setup Account and Location
    i. Download the Smartenit Mobile App or use the Smartenit WebApp at console.smartenit.io
    ii. Create an account or login to your existing account
    iii. Create a location if you do not already have one
    iv. Go to Locations → 3 dot menu → Location Settings → Electrical Capacity
    v. Configure the Total Capacity and then Add Sub Panel
    vi. Give your Sub Panel a name, enter its capacity in Amps and add a minimum allocated current. This configures the lowest amount of current to allocate to the EVSEs when load balancing multiple chargers.
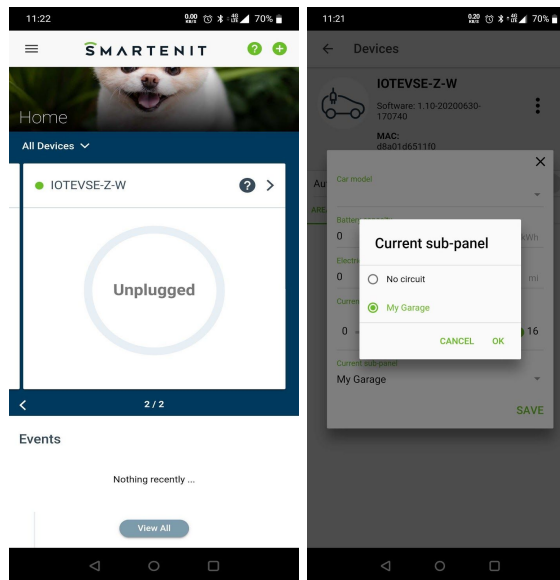   vii. Click the Save button when done.

2. Add and setup the first EVSE (will add as a gateway or network controller)
   i. Power on the 1st SmartElek EVSE
   ii. Go to Devices and click the plus (+) button on top right to add devices
   iii. Search for EVSE and click on Smartenit EVSE (**Wi-Fi**)
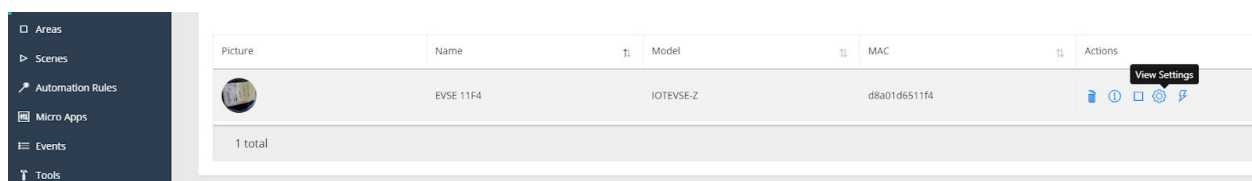   iv. Click Add Now and follow the instructions in the App

v.   When the above steps are completed, go back to the Dashboard and wait for the green dot on the EVSE device; this means it's ready and connected to your account successfully
In some cases, the device might be added successfully, but it will continue to show the red dot. In this case, please follow the steps listed in the next section: "Setup Load Balancer"

vi.   If the device fails to connect (for example, incorrect password), then please factory reset the device by tapping the SET button 13 times and repeat the process

vii.   Now go to EVSE detail view (click > next to name) and then Settings. At the bottom make sure to assign it to the sub-panel that was created previously.
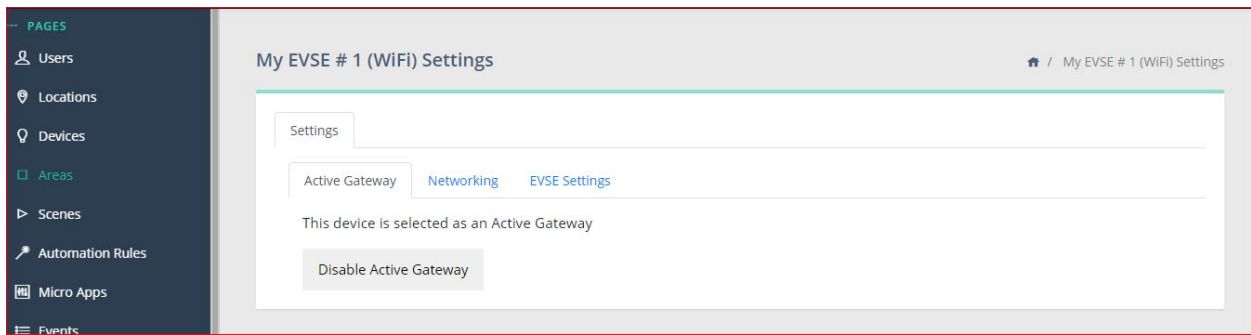

3. Setup Load Balancer

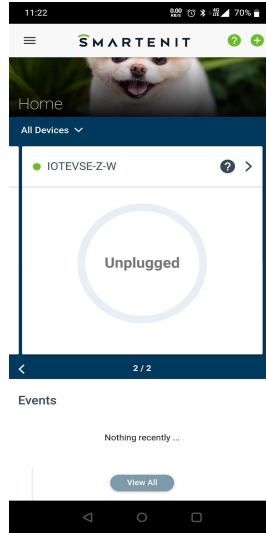*Currently, this section is available on the WebApp only*

i.   Go to the WebApp: console.smartenit.io and login with your account

ii.   Go to Devices menu item on the left panel

iii.   Select the View Settings option on the EVSE #1 with Wi-Fi

iv.   Go to Settings → Active Gateway

v.   It should show as "This device is selected as an Active Gateway". Otherwise, click on the button Select to be an Active Gateway.

4. Add and setup more EVSEs

    i.   To add another EVSE, the steps are the same as above, click + button on top right to Add Devices

    ii.   Search for EVSE and click on Smartenit EVSE (**Zigbee**)

    iii.   Click Add Now and follow the instructions in the App.
If you get an error, go back to the previous page and enter the Add Devices page again.

    iv.   Once the device is added, go back to the Dashboard and wait to see the green dot appear on the EVSE device indicating it's ready and connected successfully

    v.   Now go to EVSE detail view (click > next to name) and then Settings. At the bottom assign it to a sub-panel that was created previously

    vi.   Once the EVSE has been added via Zigbee, it is necessary to commission the Wi-Fi. To do this, follow the steps in section 2 - Add and Setup the first EVSE.

    vii.   To easily verify that the Wi-Fi has been successfully commissioned, go into the EVSE detail view (click -> next to name). A 12 digit MAC address should appear in the Text Box labeled **MAC**

    viii.   If the device fails to connect (for example, incorrect password), then do a factory reset by tapping the SET button on the EVSE 13 times and repeat the process.

For any issues or help, please contact support@smartenit.com