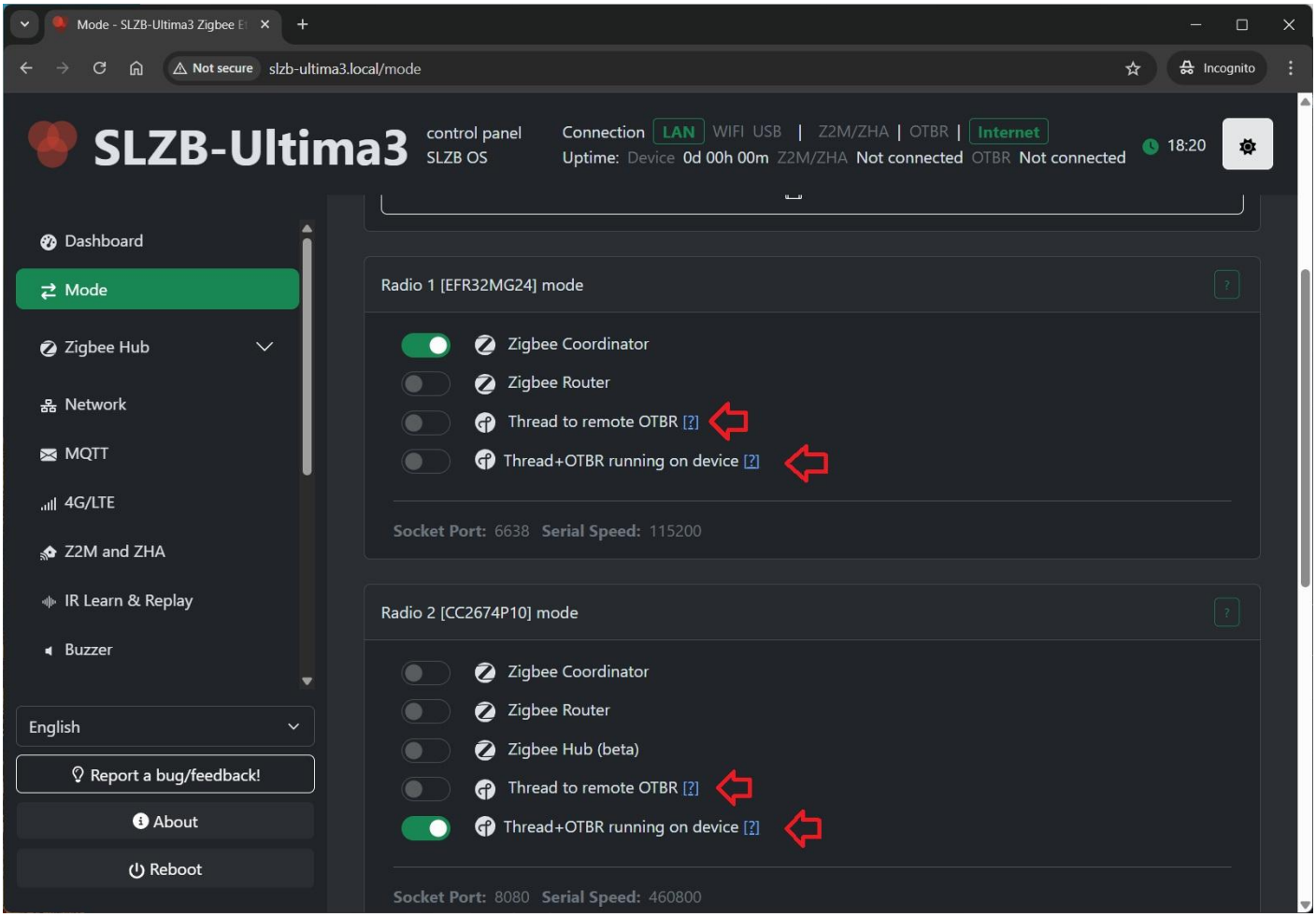
Thread setup (network and USB connection)

Thread setup for Home Assistant: two options

SLZB devices support two ways to run a Thread network with Home Assistant:

- **Option A - “Thread to remote OTBR”**: OTBR runs on Home Assistant (OTBR add-on, or, since Jan-2026, called "**App**"), SLZB works as a Thread RCP (radio).
- **Option B - “Thread + OTBR running on device”**: OTBR runs directly on the SLZB device, Home Assistant connects to it via REST API.



Prerequisites

- A server with **Home Assistant** installed and running (example: Raspberry Pi 4 with HAOS).
- An **SLZB device** with a Thread-capable radio module.
- The **Matter** device you want to connect (example: Eve Energy EU).
- An **Android or iOS** smartphone.

Additional:

- **Option A (Thread to remote OTBR):** Available on **ALL SLZB** coordinators. Can run over either **USB** or **network (Serial-over-IP)**.
- **Option B (Thread + OTBR on device):** Available on **SLZB-06xU**, **SLZB-MRxU** and **SLZB-Ultima**. OTBR requires **IPv6** on your LAN (IPv6 will be force-enabled on the device when this mode is activated).

Step 1 - Choose your setup option

Option A: “Thread to remote OTBR” (OTBR add-on/app runs on Home Assistant)

Choose this if you want OTBR to run on Home Assistant or other smart home systems. SLZB acts as a **Thread RCP** (radio only). This is the traditional setup, and supports USB or network connection.

Option B: “Thread + OTBR running on device” (OTBR runs on SLZB)

Choose this if you want OTBR to run **directly on the SLZB device**. Home Assistant connects via network API (**http://device-ip:8080**), and you don’t need the OTBR add-on in HA.

Note: this is an **initial (beta)** integration and may have limitations or unexpected behavior.

Step 2 - Set SLZB mode / firmware

Option A (Thread to remote OTBR): Flash / select Thread RCP mode

- Your device must have an internet connection.
- Go to `Mode` and select the "**Thread to remote OTBR**". The device will be reflashed; wait until the update completes.

Option B (Thread + OTBR on device): Enable OTBR on the device

- Your device must have an internet connection.
- Go to `Mode` and select **“Thread + OTBR running on device”**. The device will apply the required configuration and services and reboots.
- OTBR REST API will be available at **http://device-ip:8080**.

Step 3 - Home Assistant software setup

3.1 Install and start Matter Server (required for both options)

1. In Home Assistant go to `Settings` → `Devices & Services`.

2. Click `Add integration` and search for `Matter`.
3. Keep `Use the official Matter Server Supervisor add-on` enabled and click `Submit`.
4. Wait until Matter Integration and Matter Server add-on are installed.
5. Go to `Settings` → `Add-ons` → `Matter Server` and click `Start`. Recommended: enable `Start on boot` and `Watchdog`.

Step 4 - Thread / OTBR setup in Home Assistant

Option A: OTBR add-on on Home Assistant

Install the **OpenThread Border Router** add-on and connect it to the SLZB radio (USB or network).

1. Go to `Settings` → `Add-ons` → `Add-on Store`.
2. Search for `OpenThread Border Router` and click `Install`.
3. Open the add-on and go to the `Configure` tab.

Option A - OTBR add-on with **USB** connection

1. Switch the coordinator to USB connection mode (if applicable).
2. Set OTBR add-on parameters:

- `Port`: select your SLZB USB serial port.
- `Hardware flow control`: **No**
- `Baud rate`: **460800**
- `Flash firmware`: **No** (use pre-flashed RCP firmware)
- Click `Save`

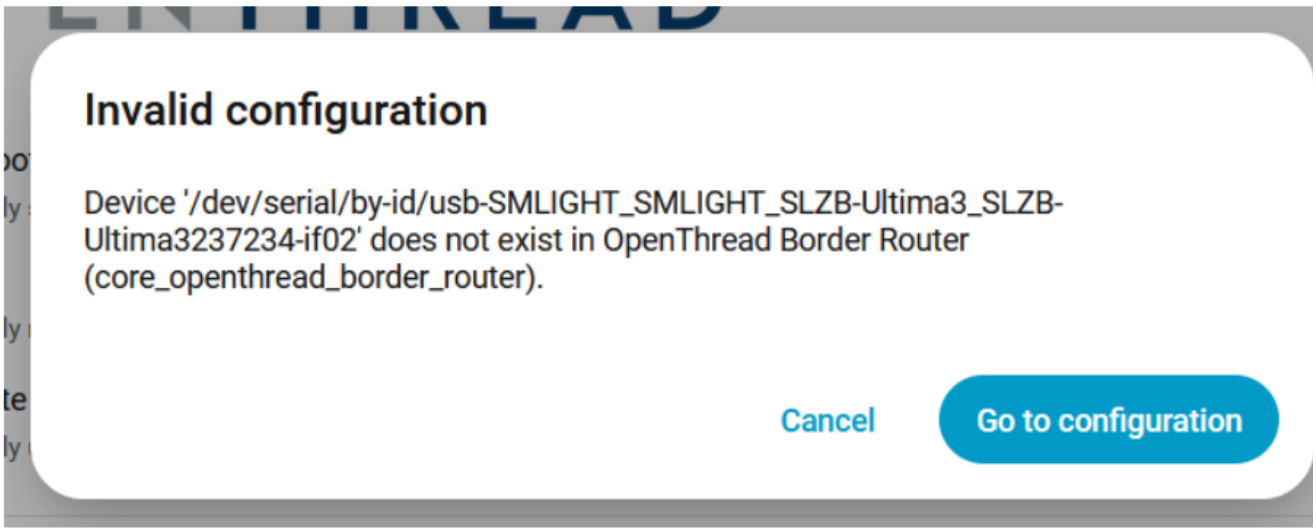
3. Go to `Info` tab and click `Start`.
4. Recommended: enable `Start on boot` and `Watchdog`.

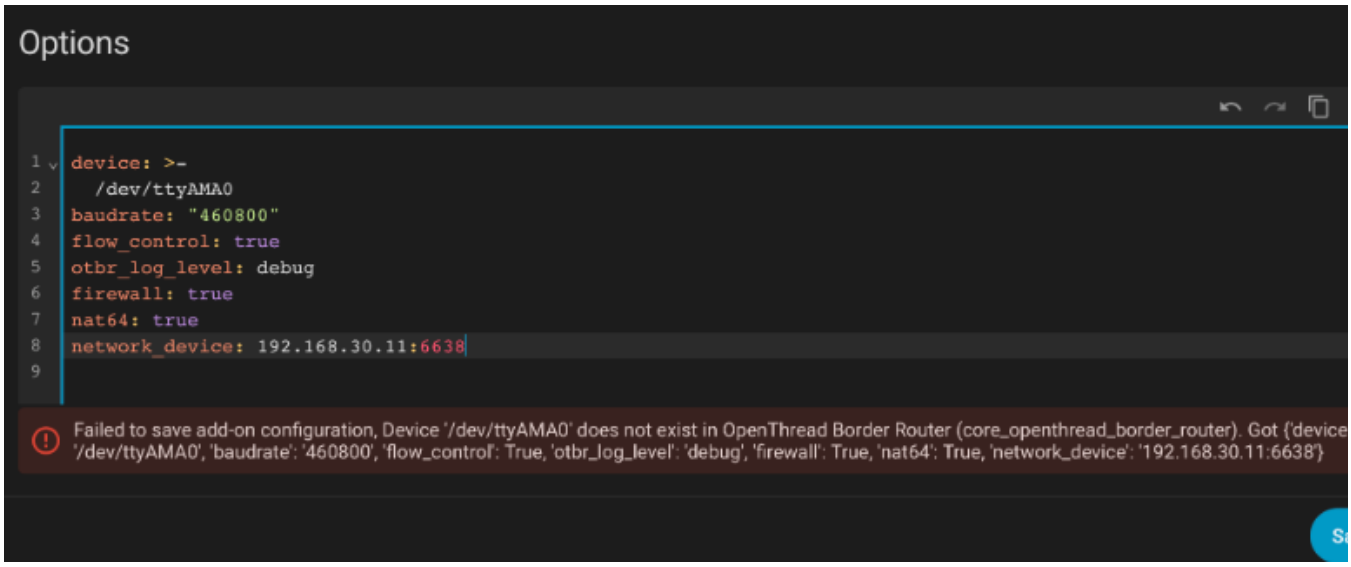
Option A - OTBR add-on with **Network** connection (Serial-over-IP)

Configure the OTBR add-on to connect to the SLZB network serial endpoint (example: `192.168.1.10:6638`).

Setting Up the Thread Border Router Add-on (**Network connection**)

1. OTBR config validation issues workarounds.
   If you have errors like the ones in the screenshots below:





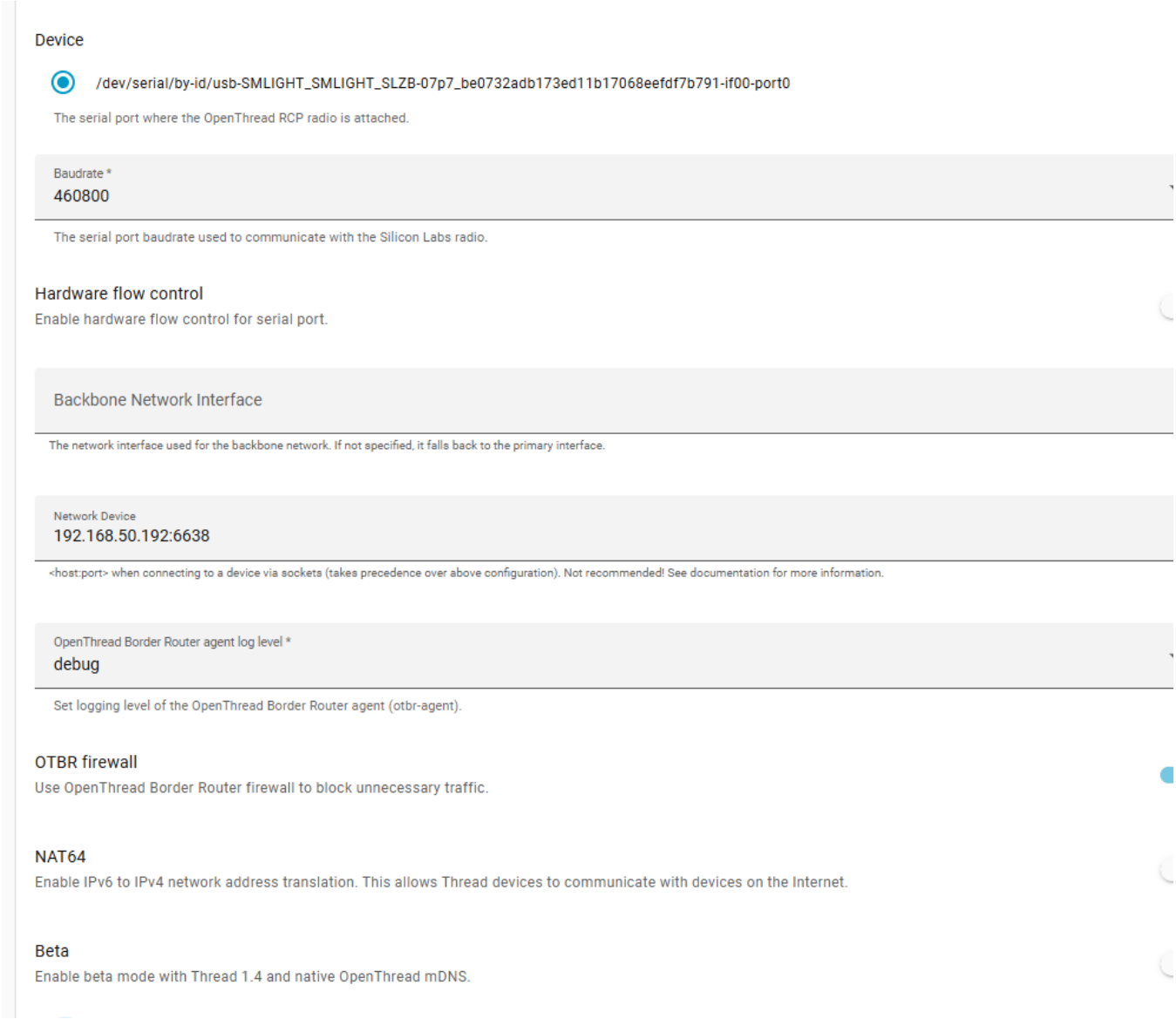
   Workarounds:

   - https://github.com/home-assistant/addons/issues/3993#issuecomment-3536041147 and

   https://github.com/home-assistant/addons/issues/4299#issuecomment-3771514634

   - Connect any USB-serial device

2. Configure the addon according to the example below



- Select `Show unused optional configuration options`
- `Hardware flow control`: **No**.
- `Baud rate`: **460800**.
- `Flash firmware`: **No** (we use pre-flashed coordinator)
- `Network Device`: Enter the IP and port of your coordinator. (for example 192.168.1.10:6638)
- Click `Save`.

4. Go back to the INFO tab and `Start` the OpenThread Border Router add-on. It may take a moment to initialize. We would suggest to activate both `Start on boot` and `Watchdog`.
5. You can check logs, they should say that addon started, although they can contain some errors as Thread and Matter are still under development in Home Assistant.

Option B: OTBR runs on the SLZB device (no OTBR add-on needed)

In this option, you **do not** install/use the OTBR add-on in Home Assistant. OTBR is already running on the SLZB device.

- Make sure SLZB mode is set to **“Thread + OTBR running on device”**.

Step 5 - Configure Home Assistant integrations (both options)

1. Go to `Settings` → `Devices & Services`.
2. Add (or confirm autodiscovery of) these integrations:

- **Thread**
- **OpenThread Border Router**

Notes:

- If you use **Option A**, the “OpenThread Border Router” integration will typically use the OTBR add-on.
- If you use **Option B**, when asked for the Border Router address, use: **<device-ip>:8080**.

In the **Thread** integration:

- Set **OpenThread Border Router** as the **Preferred network**.
- If available, enable **Use router for Android + iOS credentials**.

Step 6 - Reboot Home Assistant

1. After installing and configuring Matter + Thread components, reboot your Home Assistant server.

Step 7 - Pre-set up your phone

1. Install `Home Assistant` app on your phone.
2. Install `Google Home` app (often required for Thread credential handling on Android).
3. Open Home Assistant app and connect it to your Home Assistant server (same Wi-Fi network).
4. In the app go to `Settings` → `Companion app` → `Troubleshooting` → `Sync Thread Credentials`.
5. Repeat until you see: `Home Assistant and this device use the same network`.
6. If it fails repeatedly, try resetting Google Play Services data (Android) and try again.

Step 8 - Add the Matter-over-Thread device

1. Ensure Bluetooth is enabled on your phone.
2. In Home Assistant app: `Settings` → `Devices & Services` → `Devices`.
3. Tap `+ ADD DEVICE` → `Add Matter device`.
4. Scan the QR code (or enter the pairing code) and follow the on-screen steps.
5. If prompted “Which app to open?”, choose `Other` → `Home Assistant`.

The pairing flow usually goes through:

- Connecting to device…
- Generating Matter credentials…
- Connecting device to network…
- Checking network connectivity…
- Connecting device to Home Assistant…
- Device connected!

Tips:

- If the device was powered for a long time, you may need to reset it to enter pairing mode again.
- If you have Google/Nest Thread devices and pairing is unstable, try turning them off temporarily while pairing.

Step 9 - Verify connection and control

1. After pairing, the device should appear in Home Assistant under `Devices`.
2. Open it and confirm you can control it (e.g., switch on/off).

Congratulations! You’ve successfully connected a Matter-over-Thread device to Home Assistant.

> **TIP:**
> Home Assistant Thread documentation: https://www.home-assistant.io/integrations/thread/

Revision #6
Created 2026-02-06 12:19:59 UTC by Taras
Updated 2026-05-14 13:43:28 UTC by Taras