Integrating Bouffalo Lab Zigbee (BLZ) Radios with Home Assistant ZHA

This guide outlines the steps to add support for Bouffalo Lab Zigbee (BLZ) radios (BL702/4/6) into Home Assistant's Zigbee Home Automation (ZHA) integration.

Prerequisites

- Home Assistant environment already set up
- Python 3.12 installed and configured

Steps

1. Install the zigpy-blz

1. Clone the zigpy-blz repository:

git clone https://github.com/bouffalolab/zigpy-blz.git

2. Change directory to the cloned repository:

cd zigpy-blz

3. Install the zigpy-blz package:

sudo $HOMEASSISTANTFOLDER/bin/pip3.12 install -e .

2. Modify ZHA Integration

1. Navigate to your ZHA application's constants file:

cd $HOMEASSISTANTFOLDER/lib/python3.12/site-packages/zha/application/

2. Open const.py with your preferred text editor, e.g., vim or nano:

vim const.py

3. Add the following import statement at line 15:

import zigpy_blz.zigbee.application

4. Update the blz tuple at line 126 to include the BLZ radios:

```
blz = (
    "BLZ = Bouffalo Lab Zigbee radios: BL702/4/6",
    zigpy_blz.zigbee.application.ControllerApplication,
)
```

3. Configure Logging(Optional)

1. Open the configuration.yaml file in your Home Assistant configuration directory:

vim $HOMEASSISTANTFOLDER/.homeassistant/configuration.yaml

2. Add the following logging configuration:

```
logger:
  default: info
  logs:
    homeassistant.components.zha: debug
    zigpy: debug
    zigpy_blz: debug
```

4. Restart Home Assistant

- Restart your Home Assistant instance to apply the changes.

5. Get Hardware

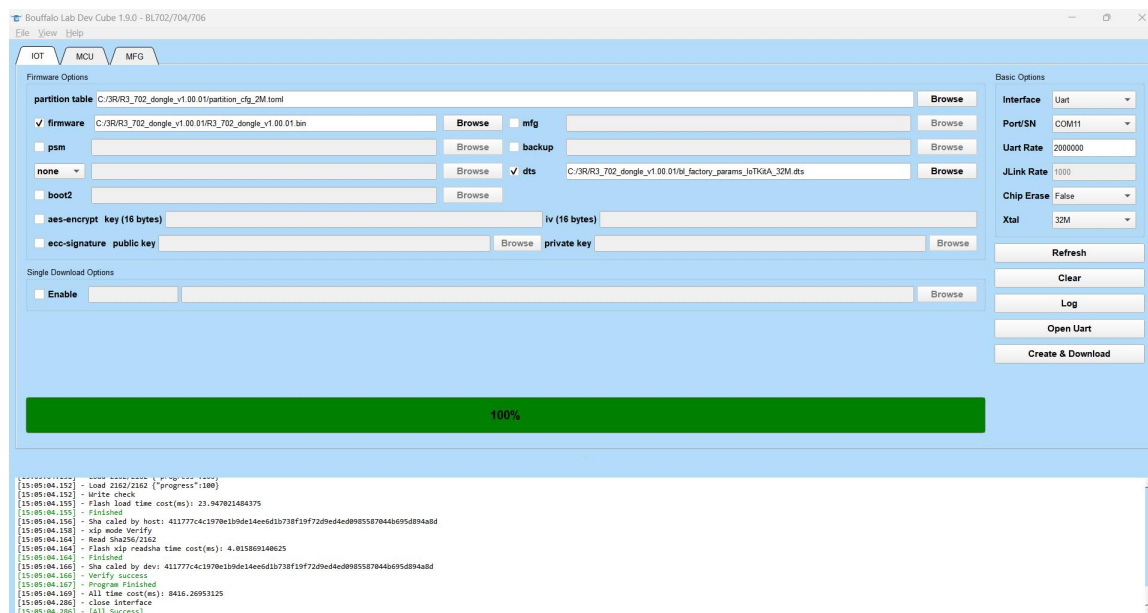Here we use Third Reality Zigbee Dongle 3RZD02032Z as an example.

6. Flash Firmware

To ensure the BLZ radios operate correctly, you may need to flash the appropriate firmware onto your device. Follow these steps:
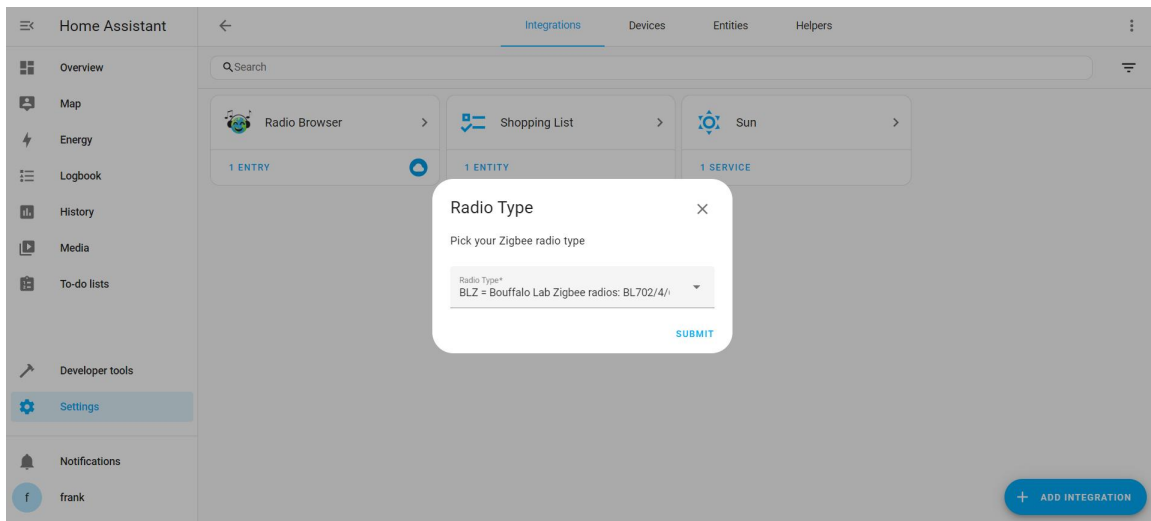
1. Download the latest firmware for your specific Bouffalo Lab Zigbee radio model from the official website or repository. For this example, we will use the firmware released by Third Reality for the Zigbee Dongle (3RZD02032Z).

2. Connect the dongle to your computer and enter boot mode by pressing and holding the button inside the pinhole during power-up. Release the button after the device is powered on.
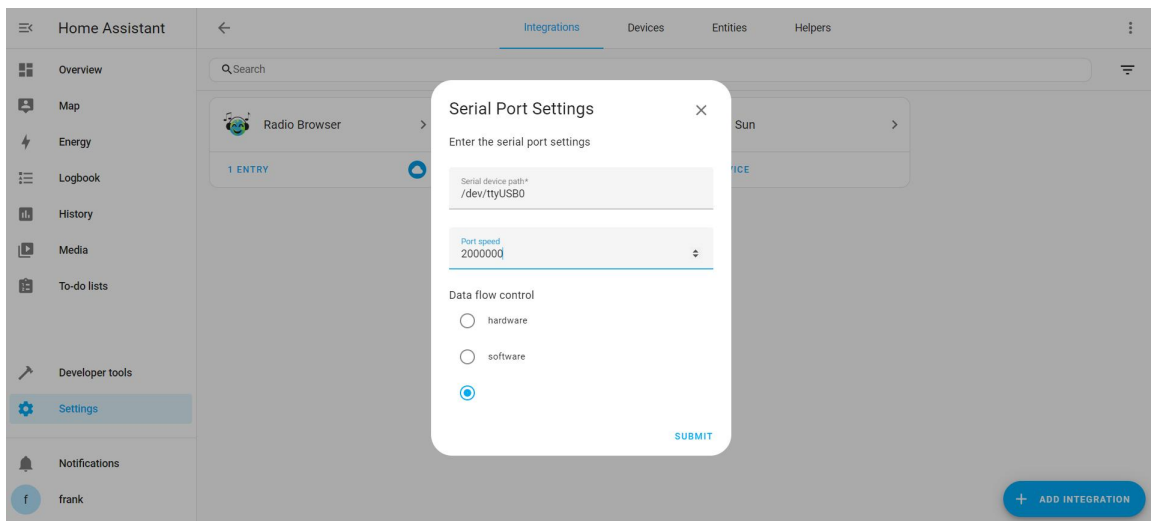
3. Flash the firmware using the Bouffalo Lab Dev Cube or bflb_iot_tool. In this example, we will use the Bouffalo Lab Dev Cube.
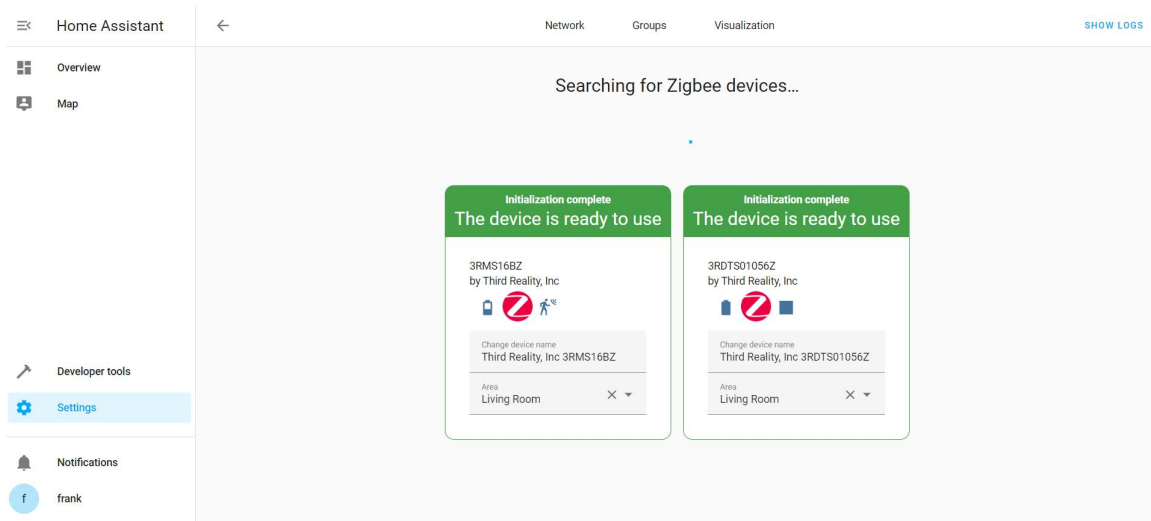
6. Set up dongle in ZHA

Auto-probing is not supported at the moment. After the auto-probe attempt, manually select the BLZ radio

Set the port speed to be 2000000

Overview

Map

Developer tools

Settings

Notifications

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Searching for Zigbee devices…

Initialization complete
The device is ready to use

3RMS16BZ
by Third Reality, Inc

Change device name
Third Reality, Inc 3RMS16BZ

Area
Living Room   × ▾

Initialization complete
The device is ready to use

3RDTS01056Z
by Third Reality, Inc

Change device name
Third Reality, Inc 3RDTS01056Z

Area
Living Room   × ▾

Add devices and enjoy Zigbee!