Run Thread networks

The following guide explains how to enable **Thread networking** on your **SMLIGHT SMHUB** device.
This process involves updating the operating system, flashing Thread firmware to the radio module, and installing the OpenThread Border Router (OTBR) app.

> ⚠ **Note:** This is an *early-access feature*. Future (expected v0.3.5+ versions) of SMHUB-OS will make it fully automatic.
> For now, please follow the steps carefully in the order below.

A new complete manual is created here:
https://smlight.tech/support/manuals/books/smhub/page/using-smhub-as-thread-border-router-for-matter-devices

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~~? A. Update SMHUB-OS to v0.3.4dev2~~

~~Before enabling Thread, update your device to the latest development version supporting Thread services.~~

1. ~~**Download the update file**~~
   - ~~Open a terminal on your SMHUB or connect via SSH.~~
   - ~~Run:~~

     ```
     wget -O smhub-update-0.3.4.dev2.raucb https://updates.smlight.tech/firmware/smhub/os/smhub-update-0.3.4.dev2.raucb
     ```
2. ~~**Install the update**~~

   ```
   sudo rauc install smhub-update-0.3.4.dev2.raucb
   ```

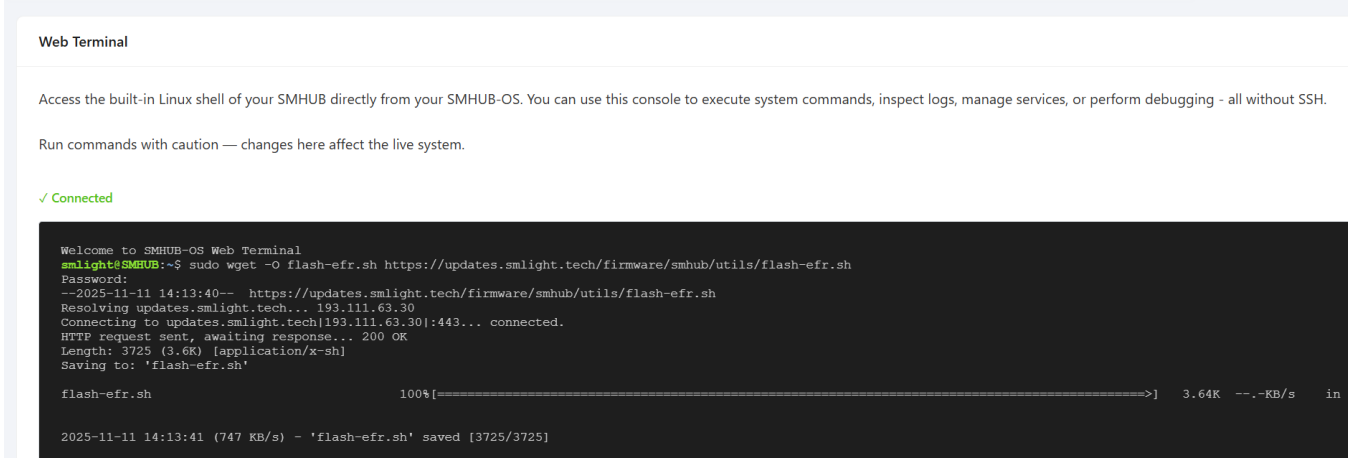
~~After installation, please reboot your device.~~

~~? B. Flash Thread Firmware to the EFR32 Chip~~

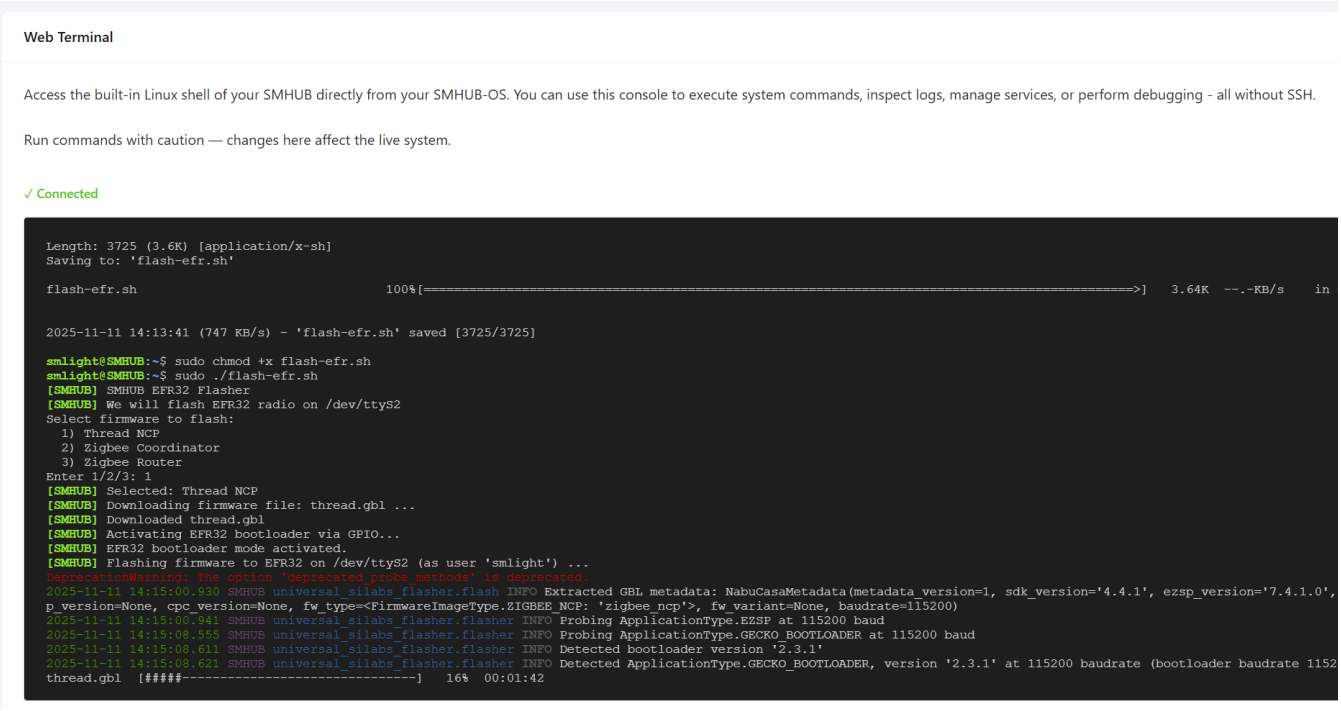
~~The EFR32 radio inside your SMHUB needs a special firmware to operate as a **Thread radio co-processor (RCP)**.~~

1. ~~**Install the flashing tool:**~~

   ~~`pip install universal-silabs-flasher`~~
2. ~~**Download the flashing script:**~~
   ~~`wget -O flash-efr.sh https://updates.smlight.tech/firmware/smhub/utils/flash-efr.sh`~~



3. ~~**Make the script executable:**~~
   ~~`sudo chmod 777 flash-efr.sh`~~
4. ~~**Run the flasher script and select Thread firmware:**~~
   ~~`sudo ./flash-efr.sh`~~



~~Once flashing completes, the EFR32 chip will act as a Thread RCP.~~

~~? C. Install the OpenThread Border Router (OTBR) App~~

~~This application enables SMHUB to act as a **Thread Border Router**, bridging your Thread network with Ethernet or Wi-Fi.~~

1. ~~**Download the OTBR package:**~~

   ~~`wget -O openthread_0.3.0-1~dev1_riscv64.ipk https://updates.smlight.tech/firmware/smhub/os/other/openthread_0.3.0-1~dev1_riscv64.ipk`~~
2. ~~**Install it:**~~

   ~~`sudo opkg install openthread_0.3.0-1~dev1_riscv64.ipk`~~
3. ~~**Start the OTBR service:**~~

   ~~`sudo /etc/init.d/S99openthread start`~~
4. ~~**Check OTBR logs (optional):**~~

   ~~`nano /var/log/otbr-agent.log`~~

~~If the service starts successfully, your SMHUB is now broadcasting as a Thread Border Router.~~

? D. Integrate with Home Assistant

To connect your Thread network to **Home Assistant**:

1. Open **Home Assistant → Devices & Services**.
2. Search for **“Open Thread Border Router”** and install it.
3. In the configuration, enter:

   `tcp://<SMHUB_IP>:8081`
   (replace `<SMHUB_IP>` with your actual device IP address)
4. Add the **Thread integration**.
5. Open its settings and confirm a **Preferred Thread Network** appears.

Once visible, your SMHUB is successfully integrated with Home Assistant as a Thread Border Router.
You can now pair **Thread or Matter** devices through the standard Home Assistant interface.

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