Myriota

Myriota DeviceAssist

User Guide

ORI9011-04
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Revision History

Rev	Date	Description of Change
01	Jul 2024	Initial version.
02	Jul 2024	Updates to reflect DeviceAssist v1.3.0
03	Jun 2025	Updates to reflect DeviceAssist v1.5.0
04	Jul 2025	Updates to reflect DeviceAssist v1.6.0

Related Documentation

Find the latest versions of all Myriota documentation at support.myriota.com

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Introduction

Myriota DeviceAssist is a desktop tool that supports the following functionality across the Myriota product range:

- Read the Myriota module ID
- Read the Module registration code
- Print the debug information in boot-loader mode
- Update the device with the following binary images:
    - BLE firmware
    - System image
    - User application image
    - Network information

Download DeviceAssist

The DeviceAssist desktop application is available for Windows, Linux, and macOS operating systems.

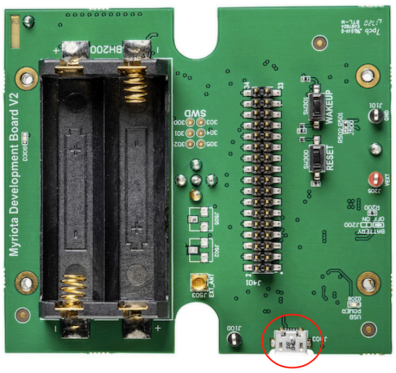
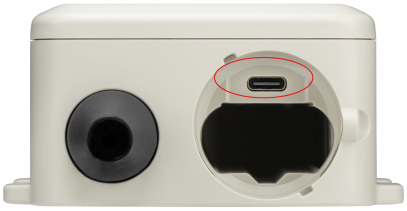
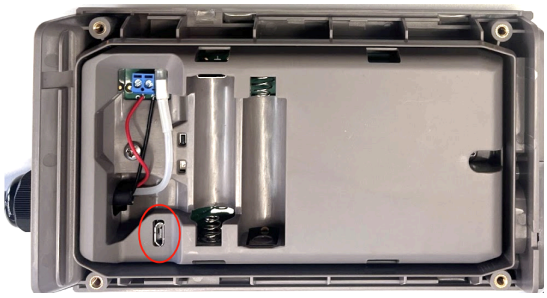
It can be downloaded from the DeviceAssist area of the Myriota Support Site.

Physical connection

The Myriota DeviceAssist tool utilises the USB port onboard the Myriota device to establish a connection with the device. Depending on the device type, you may need to use a USB Micro-B or USB Type-C cable.

The table below summarises the various Myriota devices and USB types.

Myriota Device	USB type	Where is the USB port?
Developer Toolkit	Micro B	The USB port can be located on the PCB assembly.

		
FlexSense	Type C	The USB port can be located above the battery caddy entry point, once the caddy is removed. 
Sense n Locate (SnL) (Discontinued)	Micro B	The USB port can be located below the battery compartment once the enclosure lid is removed. 

Note: DeviceAssist is compatible with any custom boards that have access to the UART port of the Myriota module. A UART-to-USB cable would be required in this case.

Prerequisites

Windows

In the Windows 10/11 environment, the DeviceAssist tool just works out of the box. No pre-install steps are required.

Linux

We recommend using Ubuntu 22.04 or a similar Debian-based variant.

The following steps are required before launching the Linux version of the DeviceAssist tool:

— Install the dependency libxcb-cursor0 by running the following command

> **sudo apt install libxcb-cursor0**

— Add the current user to the dialout group using the command below, and reboot

> **sudo gpasswd --add ${USER} dialout**

Users will need to log out & back in and/or restart their computer for the group permissions to take effect

MacOS

Support on macOS is for Mac computers with Apple silicon. To determine if your Mac is running Apple Silicon, please refer to this article by Apple.

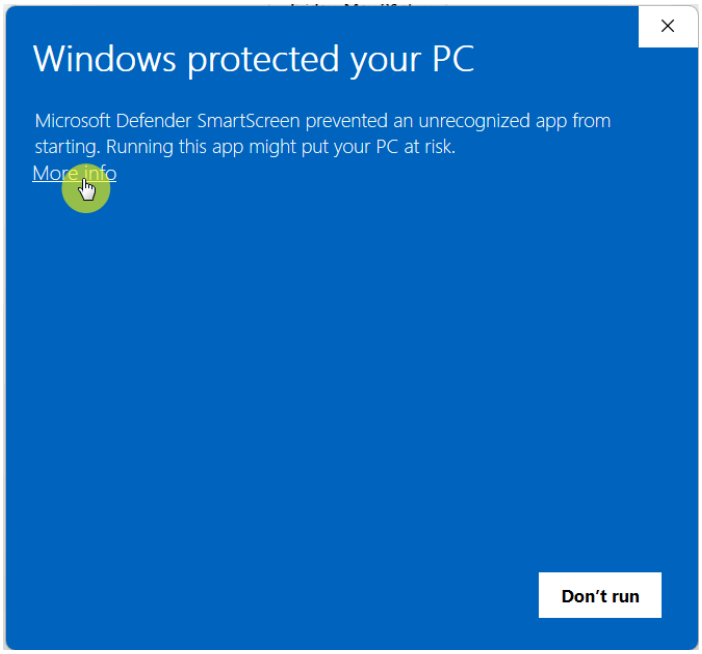
Running DeviceAssist

Windows

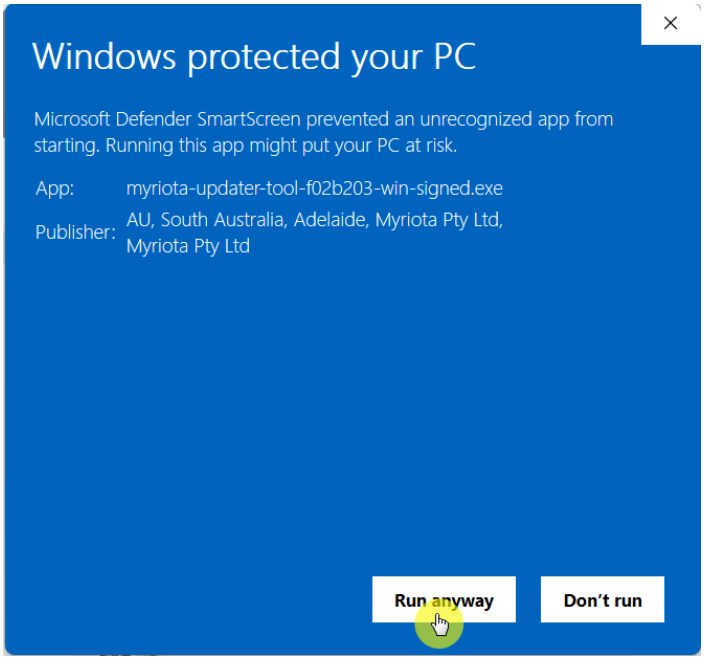
Follow the download instructions and run the executable to start the DeviceAssist app.

As we are still awaiting confirmation of authorisation from Microsoft for the signed application, you may see a Windows Defender screen when running the executable for the first time on your computer.

If you see this pop-up, select “More info” as shown below.



Confirm that Myriota is the application publisher and click “Run anyway".



From this point onwards, you should no longer see this warning.

Linux

1. Follow the download instructions and copy the download file to a suitable folder on your Linux machine.

2. Change the permissions of the file to ensure you have execute permissions by running the following command:

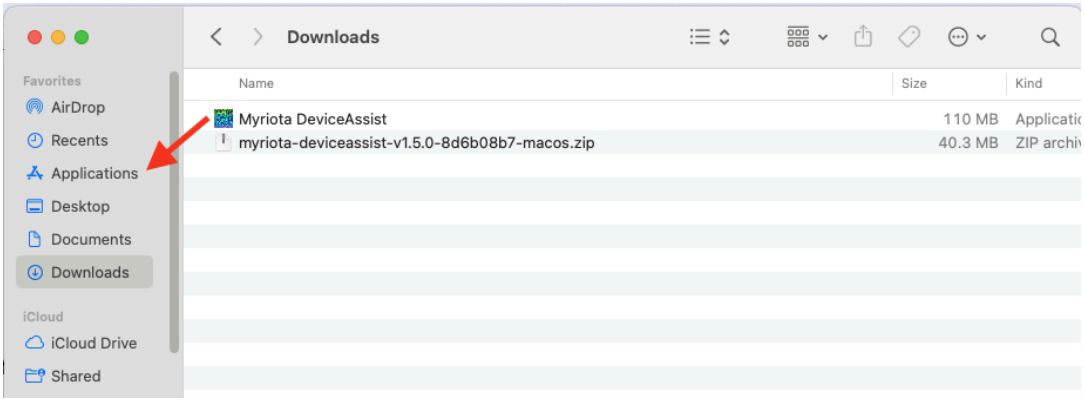
   chmod +x <<name of the downloaded file>>

3. In the directory where the file was downloaded, execute the application by running the following command from a terminal:

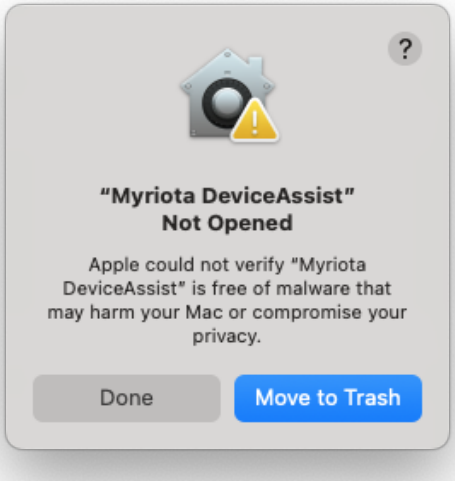
   ./<<name of the downloaded file>>

MacOS

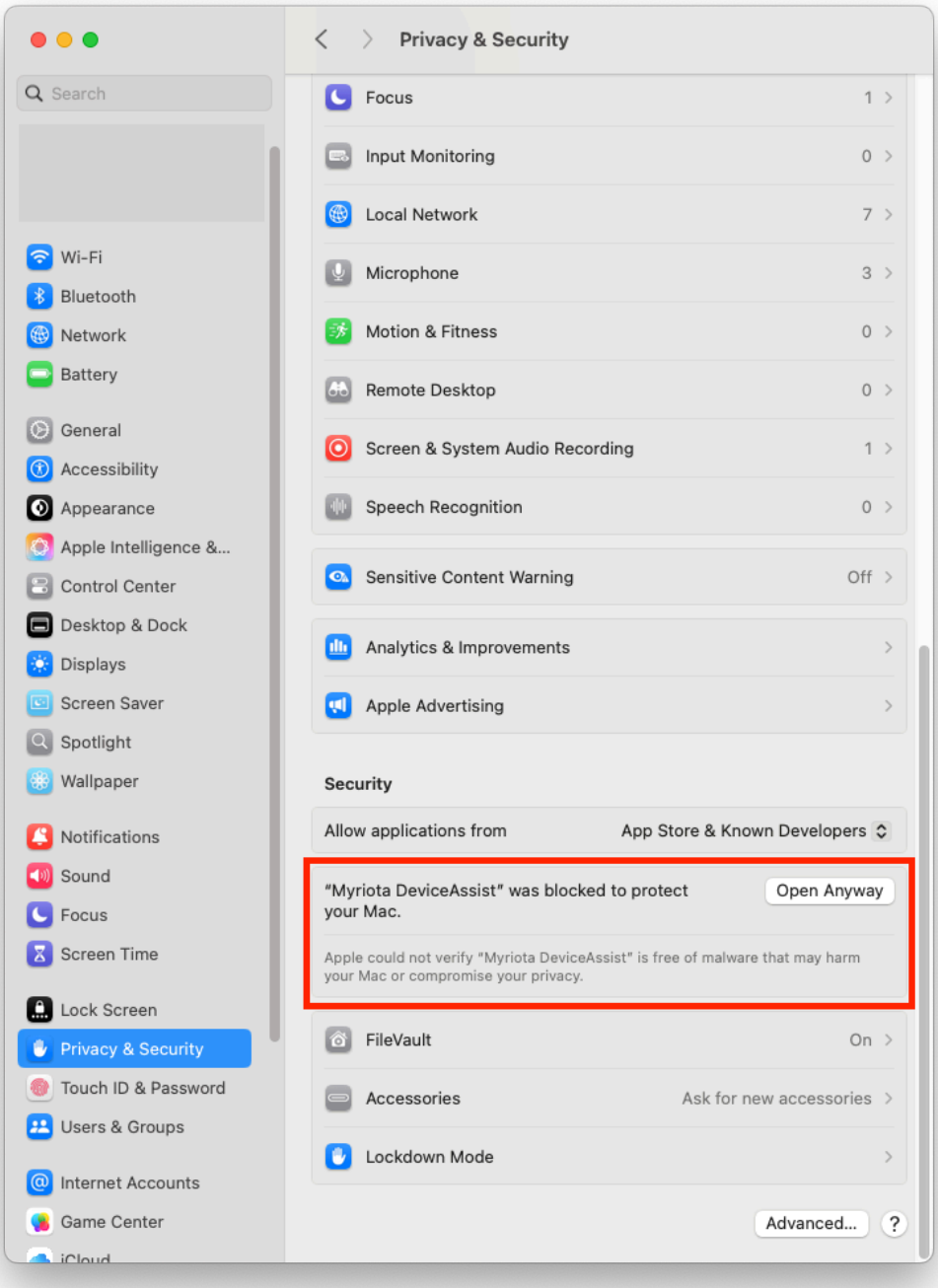
1. Follow the download instructions and extract the .zip file.
2. Open Finder and navigate to the extracted file.
3. Click and drag the extracted file to your applications folder.



4. If you see this pop-up, select “Done” to close it.



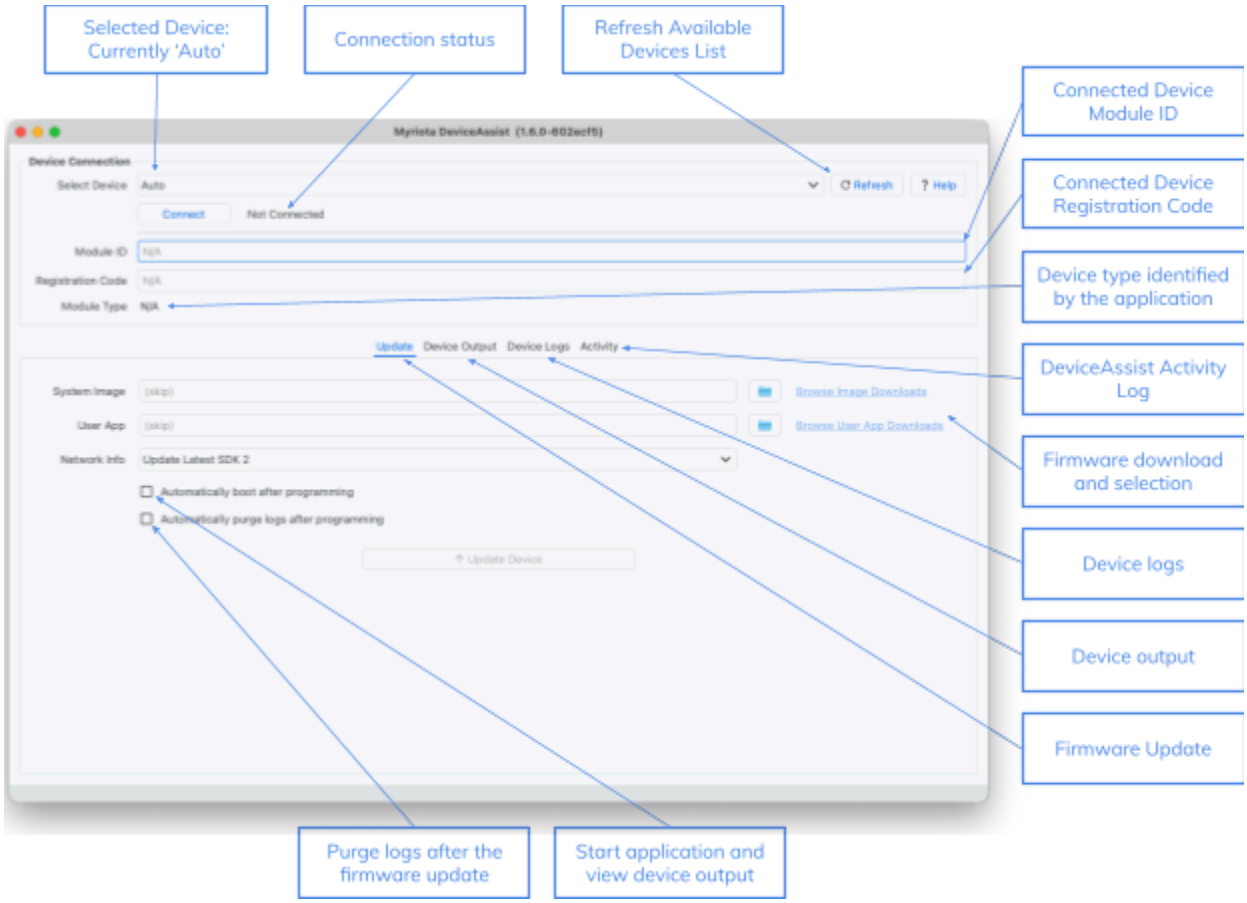
5. Navigate to the “Privacy & Security” section under your Mac Settings. Scroll down until you see the highlighted block and click “Open Anyway.”



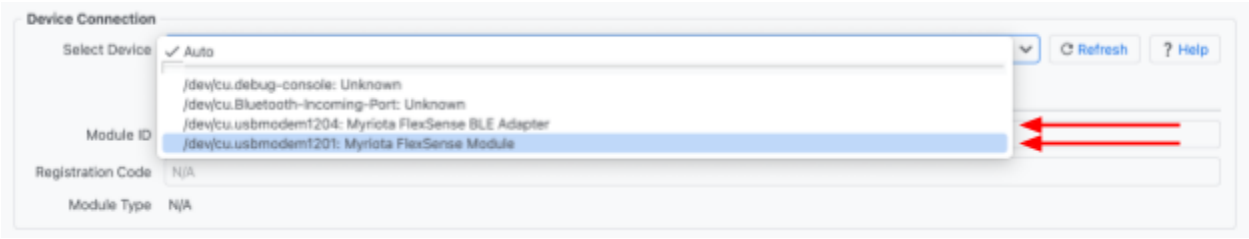
6. A new pop-up will appear, on which you need to select “Open Anyway”. You may be asked for your computer password to authenticate this selection. After this, you will not be asked again.

UI Overview

The following is the default screen of the DeviceAssist application.



If a FlexSense device is connected, the list of available devices will display two FlexSense connection options, as shown in the figure below.



Selecting and connecting to the **Myriota FlexSense Module** enables updating the System Image, User Application and Network Information through the default screen.

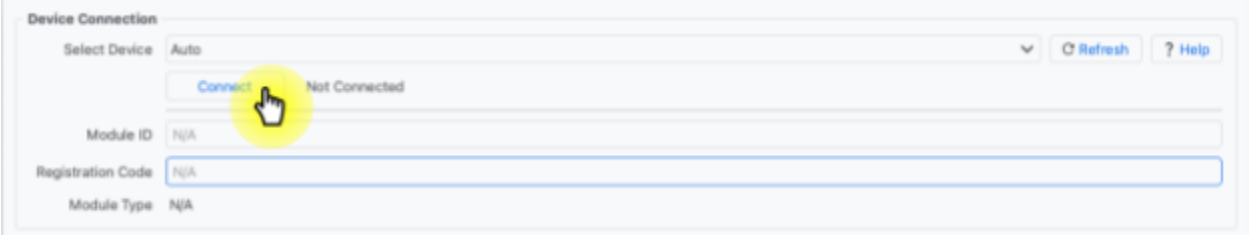
Selecting and connecting to the **Myriota FlexSense BLE Adapter** enables updating the BLE Firmware through the screen shown below.

Establishing Device Connection

Auto Connection:

Connect the USB cable (as specified in the Physical Connection section) to the Myriota Device.

In the **Select Device** dropdown of the DeviceAssist app, make sure the “Auto” option is selected and click **Connect**.



When prompted, unplug the USB cable and plug it straight back into the device; this will reset the device. Please note that the reset may take up to 15 seconds to complete.

Once complete, the device status will change to “Connected”, and the Device ID and Registration Code fields will be populated.

The Registration code displayed should be used to register the device with the Myriota Device Manager (Please see Device Registration for details)

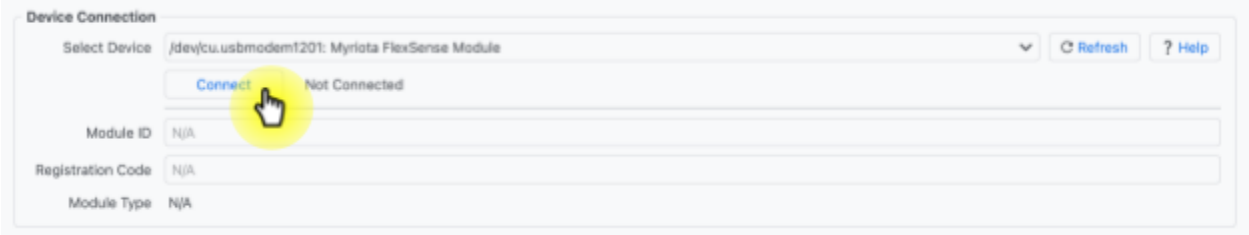
Auto connection will not connect you to the BLE adapter. Connecting to the BLE adapter is achieved through the manual connection method.

Manual Connection:

Connect the USB cable (as specified in the Physical Connection section) to the Myriota Device.

Click the **Refresh** button to populate the **Select Device** dropdown with available devices.

Select the device you want to connect to and click Connect.



When connecting, you may be prompted to reset the device. Locate the reset button on the connected device and push it to proceed with the connection.

Device Registration

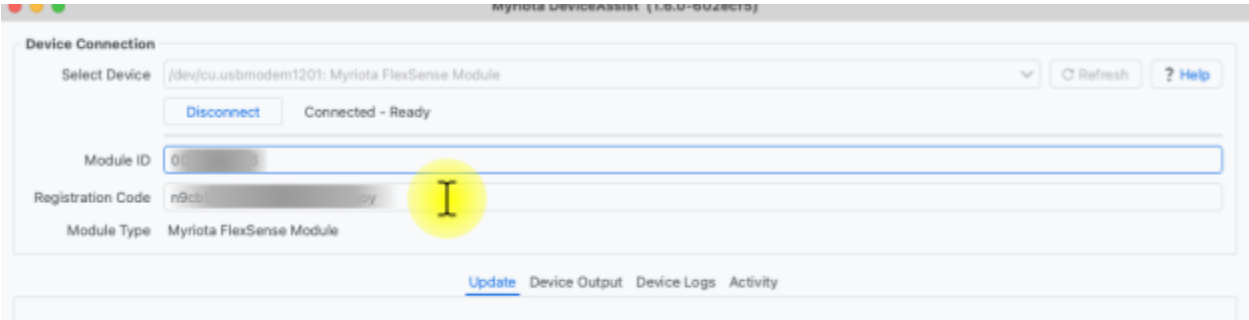
It is mandatory to register Myriota devices with Myriota Device Manager before the device starts sending messages over the satellite network.

The registration is a two-step process as described below:

Step 1: Get the device registration code

Connect to the Myriota device as described in the "Establishing Device Connection" section.

Upon a successful connection, the “Registration code” field in DeviceAssist will display the device code. Make a copy of the registration code.

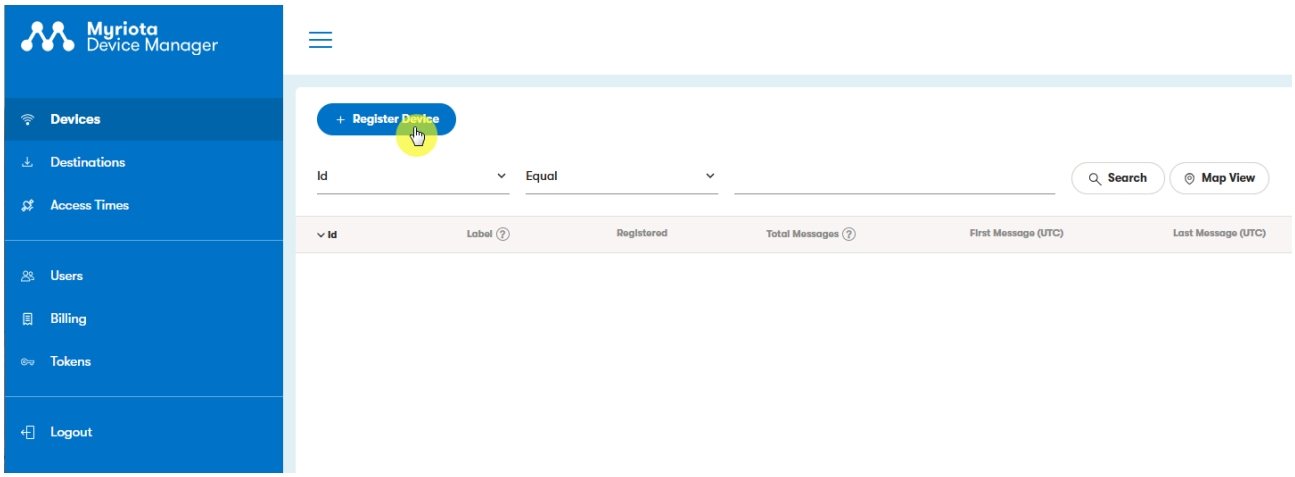


Step 2: Register the device on Device Manager

Log in to your Device Manager account.

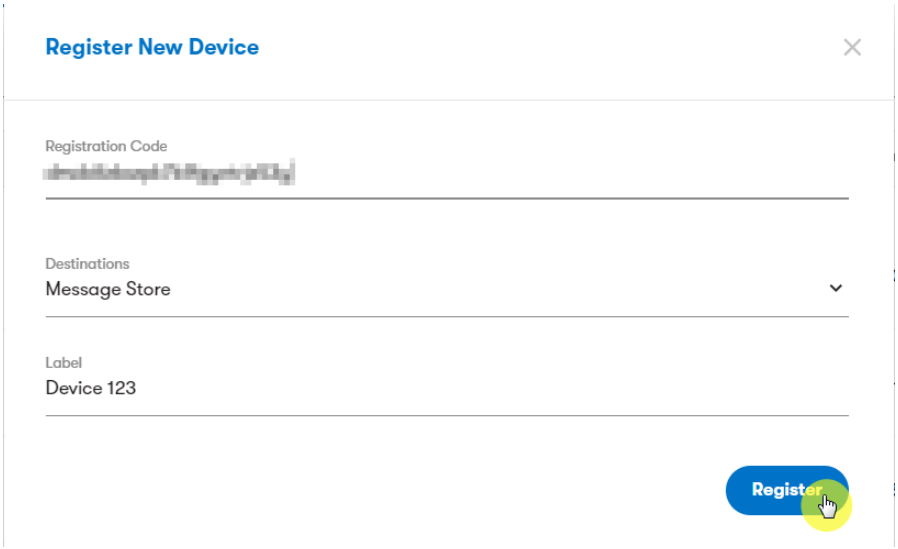
- If you do not have a Device Manager account and your organisation is new to Myriota, you can register for a new Device Manager account. Go to Device Manager Register, and your request will be processed by the Myriota team as soon as possible.
- Device Manager accounts are created within an organisational account structure. This enables all of your Myriota devices to be displayed together and accessed in one location by your team.
- For this reason, if your organisation already has a Device Manager account, do not submit a registration request. Please ask your account admin to add you as a user.
- For any account registration issues, raise a support request.

Once logged in, click on the “Register Device” button as shown below:



On the Registration pop-up, complete the form fields as follows:

- Enter the **Registration Code** copied in the steps above
- Select '*Myriota Message Store*' as the *destination*, or choose a custom destination. Refer to the Destinations documentation for more information on configuring your own.
- Assign the Device a friendly name in the **Label** field
- Click **Register** to complete and close the pop-up



Your device is now registered for use on the Myriota Network.

Device Update

The DeviceAssist app supports updating Myriota devices with the following binary image types:

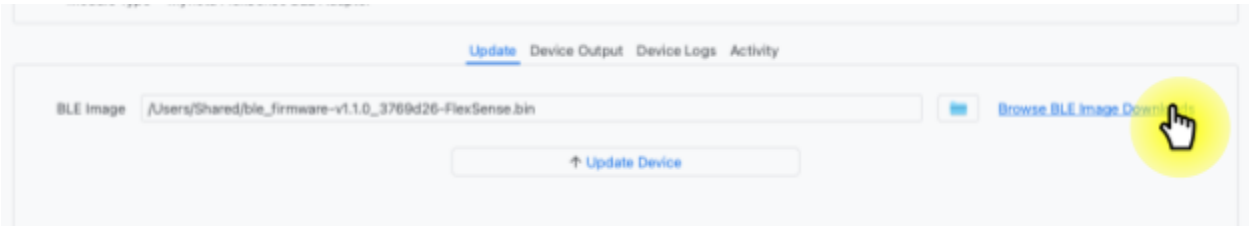
- **BLE Firmware**: The BLE firmware is developed and maintained by Myriota. It is only applicable to a subset of Myriota products and performs Myriota-side initialisation. Please note: The BLE firmware should always be the latest available version.
- **System image**: The System Image is a firmware package developed and maintained by Myriota. It performs Myriota-side device initialisation. Please note: when using an example user application (provided by Myriota), the system image must be built from the same SDK version as the chosen example user application.
- **User Application image**: The user firmware that defines the behaviour of your device and interaction with any external sensors or devices
- **Network configuration binary**: To speed up the start-up time of a test device during development, we recommend programming your device with the latest network information. When using this option, deploy the device as soon as possible to avoid the network info getting stale.

In all cases, the image type is specific to the type of device being programmed and the version of the SDK in use.

Please raise a support request for help if you are unsure which binary to use for your device.

Preparing to Update: BLE Firmware

To update Myriota devices that include a BLE interface with new BLE firmware, you need to have the image file stored on your computer. To download the latest version, click the "Browse BLE Image Downloads" button, as shown below.



Once the file has been selected, click the **Update Device** button to program the firmware. Upon completing programming, the device may disconnect and will no longer appear as an available device in the **Select Device** dropdown. This is normal, and after the BLE completes its reboot, the device will appear as an available device when you click **Refresh**.

Programming the BLE firmware removes all other images. Ensure the System Image and User Application are programmed after a BLE firmware update.

Preparing to Update: System Image & User App

To update a Myriota device with a new system or user application image, you need to have the image files stored on your computer. There are two options:

- If you have developed custom firmware, save a compiled binary to your computer.
- If you don't wish to develop firmware or you are just starting out, Myriota provides example user applications and associated system images on the Support Site.

To view and download one of the example user applications (User App) and associated system images (System Image), click on either of the Browse links in the Update panel, as shown in the screenshot below.

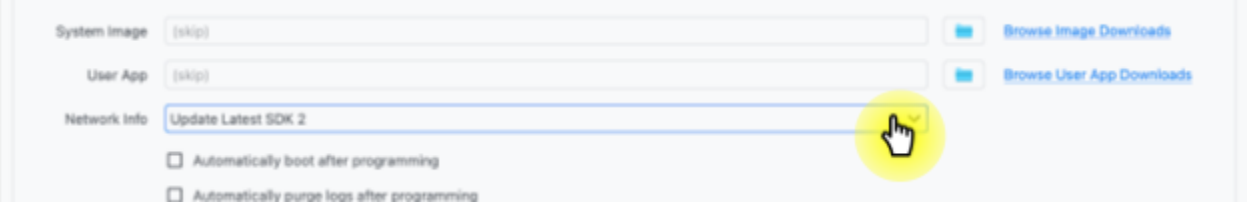
Internet connectivity is required to make use of the **Browse Image Downloads** and **Browse User App Downloads** features

Preparing to Update: Network Info

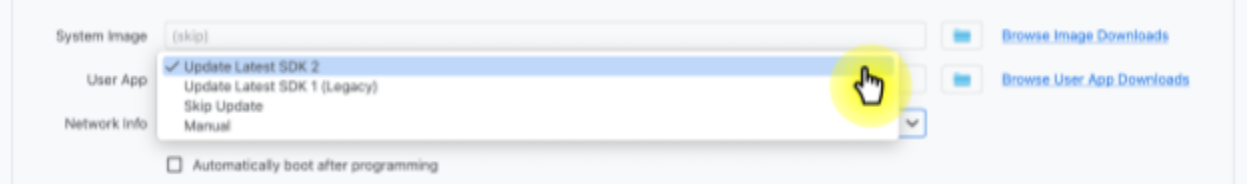
Fresh network information for the Myriota Network is uploaded to the Myriota Cloud on a daily basis.

For the fastest possible device startup, it is recommended to update all devices with the latest network information before deploying them in the field.

You can download this binary at any time by selecting from the Network Info dropdown, as shown below.



This will prompt you to select the SDK version of the System Image installed on the device. For example, if your System Image is v2.0.0 or higher, then select SDK 2.



Internet connectivity is required to make use of the Network Info **Download Latest** feature.

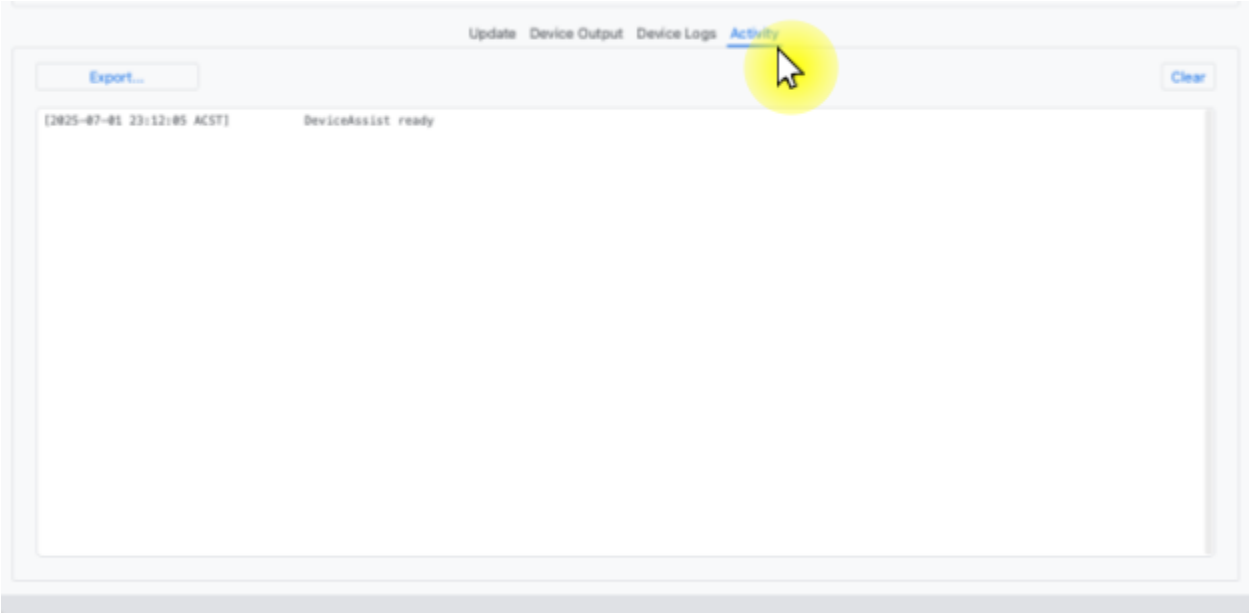
Update Device

Once you have your image files ready and have connected your device (see Establishing Device Connection), you are ready to update your device.

Click **Update Device** to begin the update process. You can update the images one at a time, or all at once as required.

Update Status

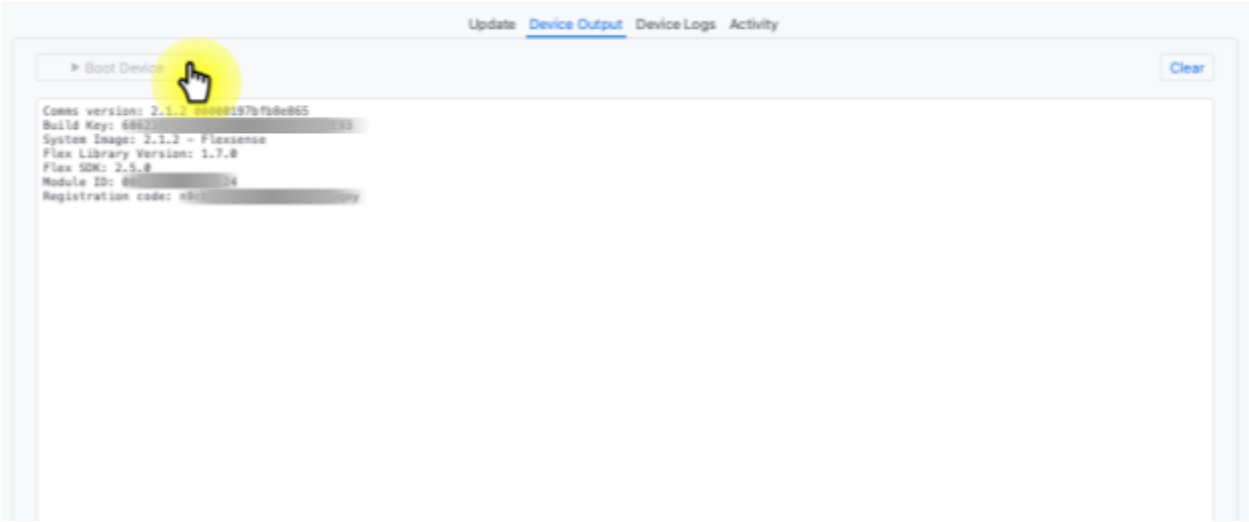
Any activity, such as status updates on the update process, can be viewed in the Activity tab at any time, as shown in the image below.



Viewing Device Debug Information

After establishing a connection with your Myriota device (as per Establishing Device Connection), select the **Device Output** tab. If you selected the '**Automatically boot after programming'** option during programming, you will be navigated here after programming has completed.

Click the **Boot Device** button to put the device in boot mode, allowing it to output debug information. Once selected, you should see debug information in the message box as shown below.



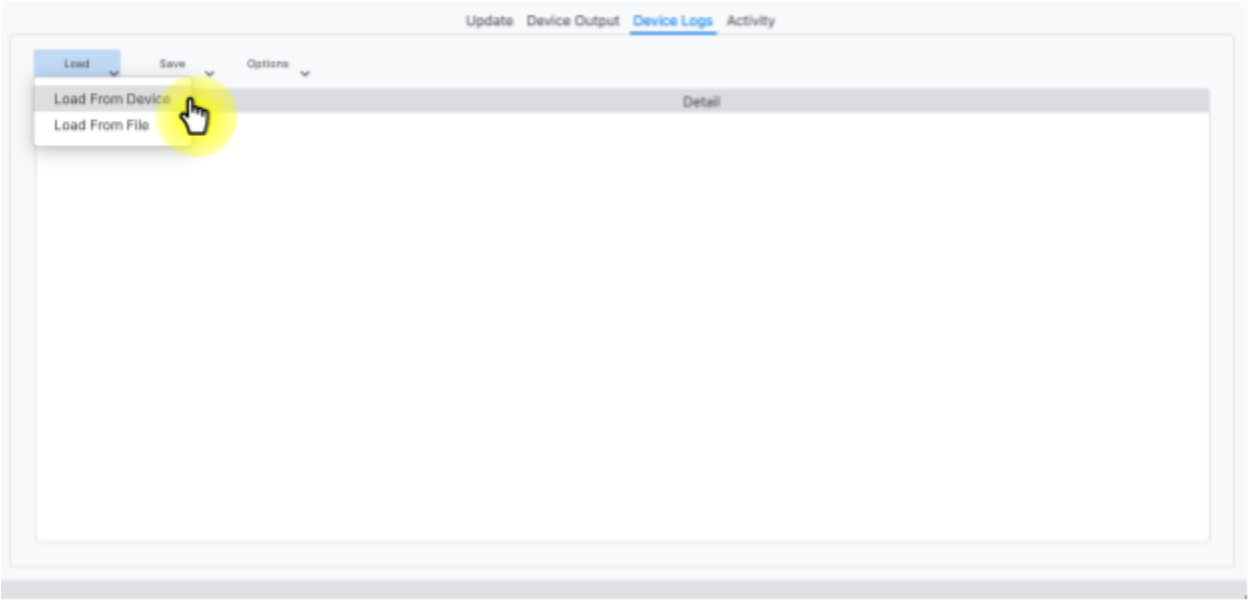
If you are in the **Device Output** tab, boot the device to read debug information, and then subsequently navigate back to the **Update** tab, you will not be able to perform any of the update operations.

This is expected, you will need to Disconnect and Reconnect to the device as per **Establishing Device Connection**, after which you should be able to perform updates from the **Update** tab.

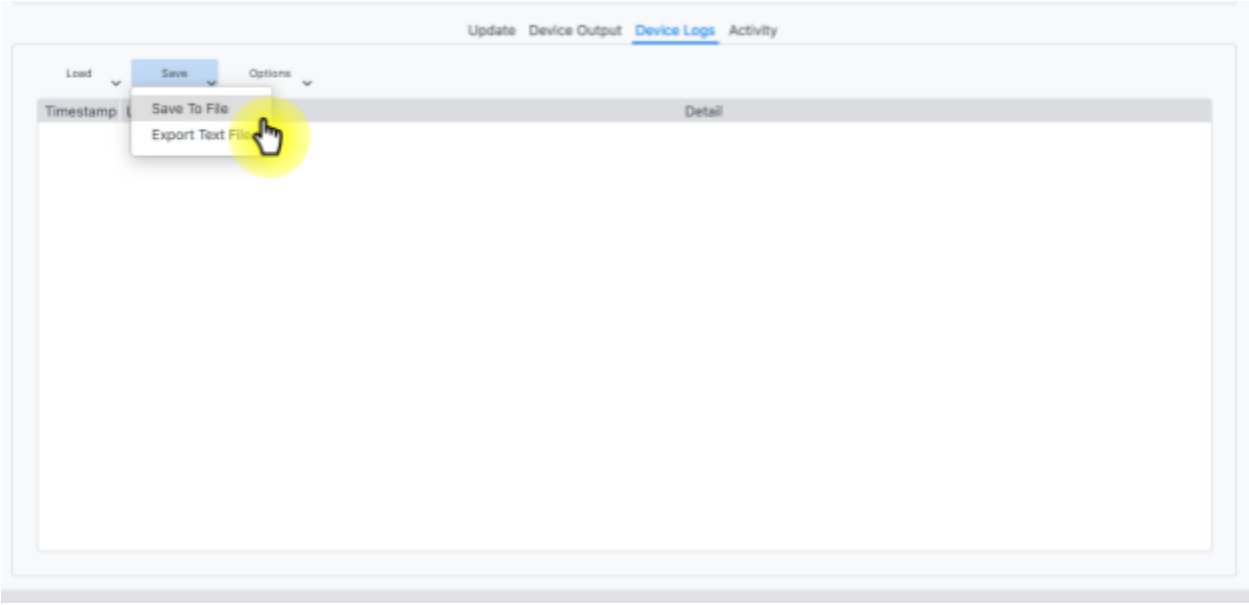
Viewing Device Logs

After establishing a connection with your Myriota device (as per Establishing Device Connection), select the **Logs** tab, as shown in the screenshot below. If you selected the **Automatically purge logs after programming** option during programming, your logs will be blank.

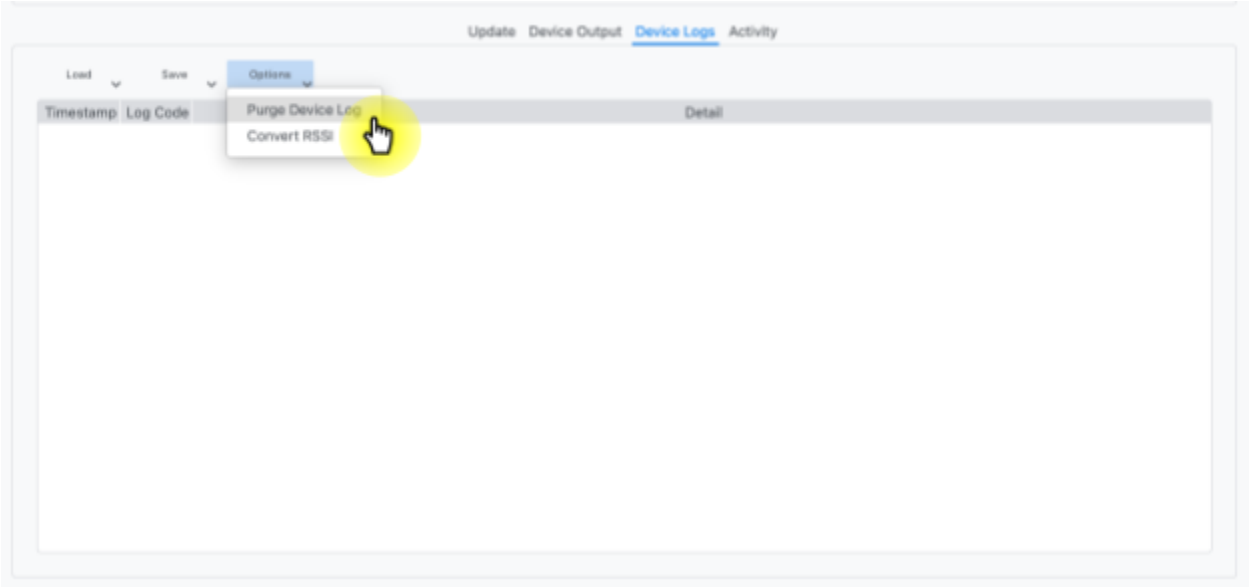
Click on the **Load from Device** button to retrieve the device logs as shown below:



You can save the logs to a file or export as a text file using the options under the **Save** button, as shown below.



You can purge the logs under the **Options** button options as shown below.



When running the RF test example in the [SDK GitHub repository] for non-FlexSense devices with logging enabled, the RSSI results can be converted to a human-readable format using the "**Convert RSSI"** option under the **Options** button.