

Streamit IRIS devices

Firmware update instructions



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Revision history

Version	Author	Description	Distribution
1.0	AC	Initial release	December 7, 2023

1 Updating your Iris devices

The complete software functionality of the Iris technology is implemented over two embedded controllers. The main controller implements all audio (networking) functionality and drives the device's UI elements, which is all that some products need. The secondary controller is responsible for additional processing and the remote-control connectivity, enabling the user to manage and monitor audio networks.

All transmitter devices employ both controllers. Most receiver devices implement all functionality on the main controller alone, however, in the early stages of development the standard Iris receiver devices implemented part of the functionality on the secondary controller.






Depending on the exact hardware type and firmware it is running, updating might be required for the main controller alone or both controllers.

For the products currently in the field, both controllers might need to be updated.

1.1 Updating the main controller

The update of the main controller is straight forward:

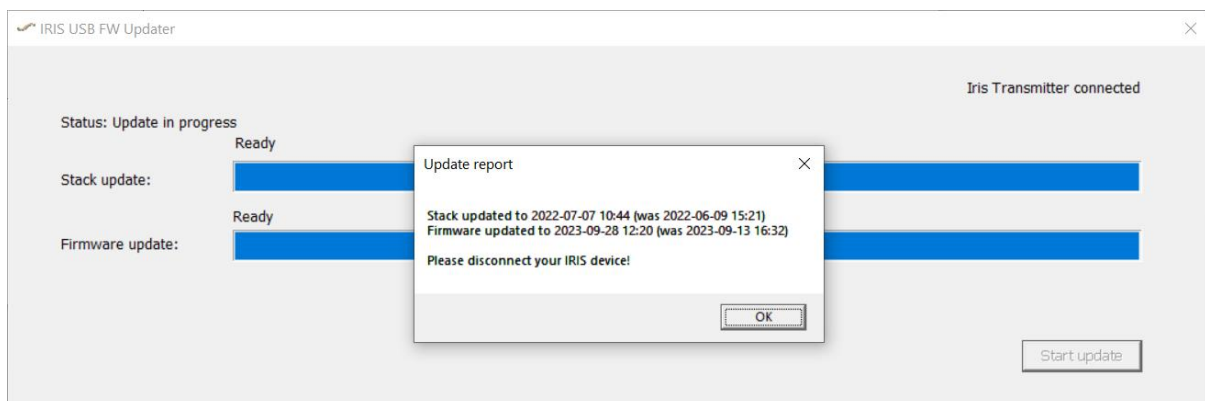
- Download the distribution from the Streamit website (<https://www.streamit.eu/downloads/iris-main-controller-update>) and extract the content on your Windows PC. Check and make sure that the executable file, the three dll files, and the 'firmware' folder are present.

Name	Date modified	Type	Size
 firmware	21-11-2023 15:48	File folder	
 IrisUSBFWUpdater.exe	21-11-2023 15:48	Application	384 KB
 msvcp140.dll	13-11-2023 14:38	Application extension	565 KB
 vcruntime140.dll	13-11-2023 14:38	Application extension	107 KB
 vcruntime140_1.dll	13-11-2023 14:38	Application extension	49 KB

- The firmware folder contains all files required for the different hardware types, organized in a specific structure. Please do not modify the given structure or rename any files/folders.
- Start the executable 'IrisUSBFWUpdater.exe'
- Connect the Iris device to the PC using a USB cable. The device will be automatically detected and the text on the upper right corner will communicate the Iris device is 'connected'.



- Press 'Start update' and wait for the update to be completed. Depending on what exactly requires updating, the process might take a few seconds, up to over one minute.
- During the update process the device might restart, which will show in the 'connected' state to shortly display that no Iris device is connected. Please do not disconnect the USB cable until the update has been completed.
- On completion, a summary of the update will be reported. Due to the nature of the firmware, no version numbers will be shown in the report. Instead, the date and time when the firmware was compiled will be displayed.



- Disconnect the Iris device, and eventually proceed with the next one.
- Follow the instructions below to update the secondary controller, when needed.

1.2 Updating the secondary controller

Unlike the update of the main controller, updating the secondary controller is less straight forward. The update is only possible wirelessly using a Bluetooth enabled mobile device.

The 'nRF Connect for Mobile' needs to be used. The app is available for download from the Google Play store and well as the Apple App Store.

Android: <https://play.google.com/store/apps/details?id=no.nordicsemi.android.mcp&hl=en&gl=US>

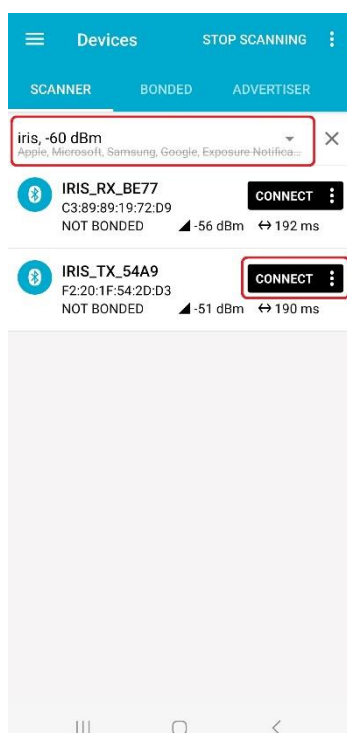
iOS: <https://apps.apple.com/gb/app/nrf-connect-for-mobile/id1054362403>

Once you have installed the 'nRF Connect' app on your mobile device, you can download the firmware from the Streamit website (<https://www.streamit.eu/downloads/iris-secondary-controller-update>).

Extract the contents of the archive on your mobile device, and you should have two archives (ZIP files), respectively for the receiver and the transmitter devices. These archives must not be extracted further. Moving these files to a dedicated folder might be useful when updating many devices.

Now, start the 'nRF Connect' app to proceed with the update.

! Please allow the app location permission when asked for, normally on the first start.



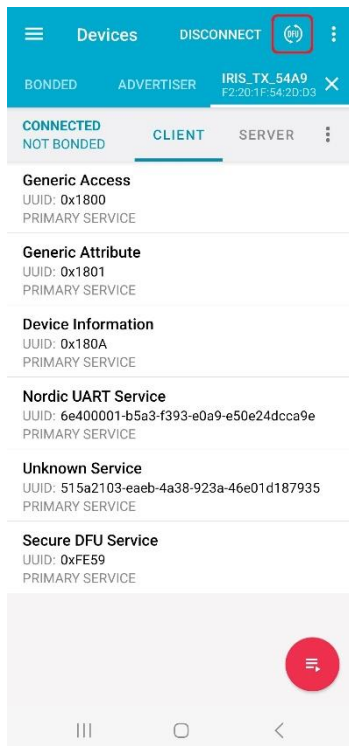
After starting the 'nRF Connect' app, scanning for devices will start automatically.

Many BLE enabled devices in proximity to your mobile device will be displayed, and not only Iris devices.


You could restrict the scan result to only Iris devices by entering 'iris' in the filter field "Filter by name or address", and additional filters are also possible.

Check the device name on the label at the bottom of your Iris device, then press the 'CONNECT' button next to it.

Should your device not be listed, make sure that your filters are not too strict and swipe down to start a new scan.

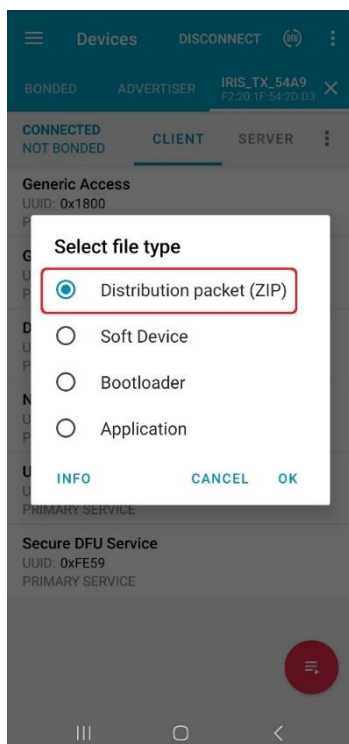


When you connect to your Iris device, the capabilities of the device will be discovered, and some information will be displayed. The specifics of this information are out of scope for this document.

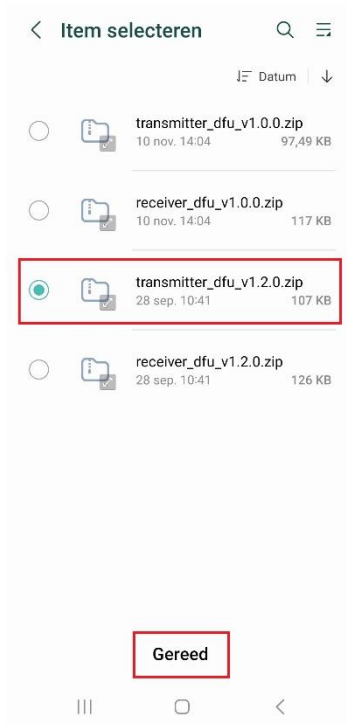
When the Iris device supports the firmware update functionality, an icon  will be shown at the upper right corner.

Except for a few initial samples and starter kits, all Iris devices support firmware update functionality.

When you have already downloaded the BLE firmware on your mobile device, press DFU to proceed.



Select the file type “Distribution packet (ZIP)”, and press ‘OK’ button to proceed.



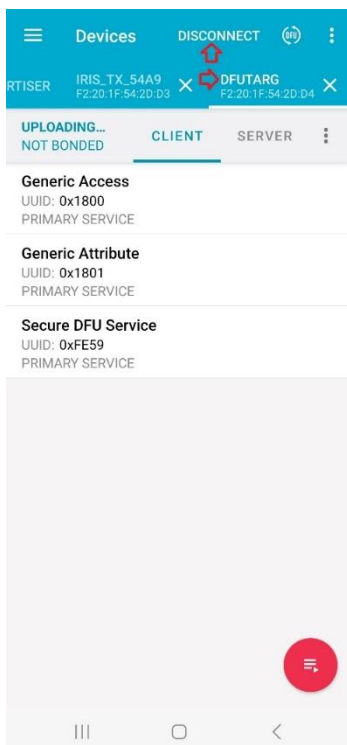
Navigate to the folder where the firmware was downloaded or moved to.


Make sure to select the correct firmware archive, paying special attention to whether you are dealing with a transmitter device or a receiver device.

! Loading transmitter firmware in a receiver device, or the other way around will result in the device no longer functioning properly.

Should you accidentally flash the wrong firmware, you can re-program the correct one by simply following the same steps again and selecting the correct firmware.

Press 'Ready' or similar (OS/language dependent, 'Gereed' in this screenshot) to start flashing the firmware.

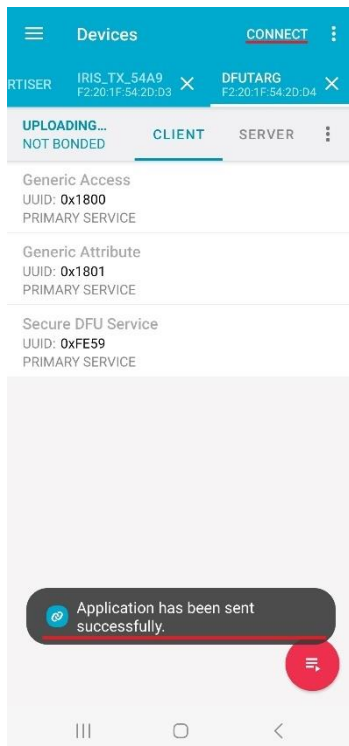


Once the update starts, a new tab called DFUTARG will be added, and left of the  icon will still read DISCONNECT.

The update should be complete within the minute, but the progress will not be clearly displayed in the app.


Depending on the OS, you might be shown the progress in the status bar/notification panel.

For as long as you read 'DISCONNECT', the update will be ongoing, and you simply wait.



When you keep focus on the 'nRF Connect' app, on completion, a notification will be shown informing 'Application has been sent successfully'.

Depending on the OS, a notification might also be shown in the status bar/notification panel, but this is not essential.

The  will no longer be shown, and the text on the upper right corner will read CONNECT.

At this point, you may conclude that the update is complete.

Close the 'nRF Connect' app and perform a power cycle of the Iris device.