



# EFR Connect 2.3.2 GA

## September 15<sup>th</sup>, 2021

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EFR Connect is a generic Bluetooth LE mobile app, which speeds up embedded Bluetooth application development.

With EFR Connect, you can test and debug the Bluetooth applications and Over-The-Air Direct Firmware Update (OTA DFU) during embedded development. Troubleshooting is a breeze – the Browser, Advertiser and Logging features help you fix bugs in no time. For an in-depth analysis, use Silicon Labs' Network Analyzer (installed with Simplicity Studio) to see the collected packet trace data.

The out-of-the-box demos provided with the Silicon Labs Bluetooth Software Development Kit (SDK) get you up to speed with EFR Connect and with the entire Silicon Labs development tools ecosystem.

EFR Connect works with all Silicon Labs Bluetooth development kits, EFR32 SoCs, and modules.

These release notes cover EFR Connect (for Android and iOS) version(s):

- 2.3.2 released September 15<sup>th</sup> 2021
- 2.3.1 released July 21<sup>st</sup>, 2021
- 2.3.0 released June 16<sup>th</sup>, 2021
- 2.2.0 released December 18<sup>th</sup>, 2020
- 2.1.0 released September 28<sup>th</sup>, 2020
- 2.0.3 released June 15<sup>th</sup>, 2020
- 2.0.2 released April 23<sup>rd</sup>, 2020
- 2.0.1 released March 20<sup>th</sup>, 2020
- 2.0.0 released March 17<sup>th</sup>, 2020



## EFR Connect

### KEY FEATURES

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- Bluetooth LE and DMP demos
  - Blinky, Thermometer, Throughput, Connected Lighting and Range Test
- Browser with OTA & Log
- Advertiser
- GATT Configurator
- Interoperability Test (IOP)

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# 1 New Features

## Added in release 2.3.2

### GATT Configurator import/export

The GATT Configurator now allows importing/exporting the GATT database to/from Simplicity Studio's GATT Configurator.

## Added in release 2.3.0

### Interoperability Test (IOP)

Interoperability Test runs a sequence of Bluetooth LE operations to verify interoperability between the Bluetooth LE stack running on the mobile phone and the Silicon Labs stack running on the EFR32. This requires flashing a device with the *Bluetooth – SoC Interoperability Test* sample app from the Silicon Labs Bluetooth SDK in Simplicity Studio. For more information, see [AN1346: Running the BLE Interoperability \(IOP\) Test Application Note](#).

### Demos

Demos are precompiled images that can be flashed directly to compatible EFR32 devices from Simplicity Studio with the Bluetooth SDK installed.

- **Bluetooth - SoC Throughput**
- **Bluetooth - SoC Blinky** .

### GATT Configurator

Introduced a GATT Configurator feature that allows creating, manipulating, and enabling multiple GATT databases on the mobile app. This also displays the local GATT when connecting to a device, whereas before only the remote GATT was being shown.

## Added in release 2.2.0

### Demos

Ported Connected Lighting and Range Test demos from Wireless Gecko mobile app, which is no longer available for download.

## Added in release 2.1.0

### Advertiser

The advertiser feature was introduced, which allows using EFR Connect as a peripheral.

## Added in release 2.0.0

### Logging

A logging feature was introduced, which keeps a log of all Bluetooth transactions for later analysis.

### Mappings dictionary

This feature allows naming custom services and characteristics (with 128-bit long UUIDs).

### Multi-connection support

With EFR Connect it is now possible to connect to multiple peripheral devices and seamlessly switch between those connections to interface with their respective GATT databases.

## 2 Improvements

### **Improved in release 2.3.1**

Added mobile -> EFR32 data direction in throughput demo

### **Improved in release 2.2.0**

Added GATT data to the logs.

Added the ability to sort scan results by RSSI and device name.

Added the ability to read descriptors.

Added a bar with active filter parameters.

Added bonding support so that EFR Connect can be used as an initiator (Android only).

### **Improved in release 2.1.0**

Added the ability to copy-paste characteristic's data.

The user interface on iOS was polished with better textures for the different elements.

### **Improved in release 2.0.3**

Improved workflow for GATT operations. Tapping one of the characteristics controls (read, notify or indicate) automatically expands the card to show the data. All controls are accessible without having to first expand the characteristic.

Updates to some of the icons (filter, beacon).

Better handling of error situations with descriptive messages to the user.

Silicon Labs OTA service and characteristics are automatically recognized and properly named in the browser.

### **Improved in release 2.0.2**

Disabled scan auto-restoring for better stability on different mobile phones.

### **Improved in release 2.0.1**

Mobile app opens on Develop view by default.

Removed "CAN CONNECT" and RSSI from advertisement details, as those are in the main device card.

Eliminated EFR/Other's split in the Thermometer demo pop-up.

Added a way to delete custom UUID name from the mappings dictionary.

Overall user interface improvements, mostly in the iOS app.

### **Improved in release 2.0.0**

#### **UI overhaul**

In this release the mobile app user interface (UI) was completely redesigned compared to the predecessor Blue Gecko app, for a seamless and consistent experience. It is divided into two focus sections, Demo and Develop.

- The Demo side hosts ready-made demos, which leverage sample apps from the Silicon Labs SDK for a quick and delightful out-of-box experience.
- The Develop side hosts features focused on helping Bluetooth firmware developers move faster with application development.

General UI improvements that were done as part of the redesign include the expansion of clickable areas, better information density, and more intuitive overall controls.

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## Browser Filtering

The filtering capabilities on the browser have been improved to include more parameters such as connectable/non-connectable, device name, device address (Android only), raw data (Android only), beacon type (iBeacon, AtIBeacon, Eddystone), and RSSI. In addition to that it is possible to add devices to Favorites and filter by favorites as well. Furthermore, filters can be saved for later use.

### 3 Fixed Issues

#### Fixed in release 2.3.2

ID #	Platform	Description
717364	Android	Standard Bluetooth characteristics were not recognized in the Browser
717365	Android	Notify/Indicate on the Browser's GATT server view were not working
729820	Android	Connecting Lighting Demo was not working
735915	Android	Range Test Demo was not working
676821	Android	If notifications were sent in rapid sequence the last value to be shown in the browser may not be correct
685114	iOS	Advertisement data does not get updated during scanning
683246	iOS	OTA could fail on some devices
700001	iOS	A read request was being sent after writing a characteristic, which may cause a GATT timeout if the characteristic was user type and the code was not handling the read operation
687905	iOS	When trying to OTA an unsigned image the app would throw "Error: device not responding" instead of "Code 0x84: Invalid file format" which is sent back to by the Apploder when it checks that the signature is missing from the image.
713932	iOS	There was no error message when a connection fails to get established.

#### Fixed in release 2.3.1

ID #	Platform	Description
717366	Android	Reading descriptors did not work on browser server view
718739	Android	Button for opening AN1346 did not work
716969	iOS	Read descriptor and read characteristic controls were swapped

#### Fixed in release 2.1.0

ID #	Platform	Description
519234	Android	Fixed issue with displaying indications and notifications in the browser
497934	iOS	Fixed issue where writing to a characteristic without manually reading would crash the app

#### Fixed in release 2.0.3

ID #	Platform	Description
476503	Android	Fixed issue that could cause the app to freeze when trying to perform OTA
476711	iOS	Fixed issue with application-level OTA

#### Fixed in release 2.0.2

ID #	Platform	Description
484784	iOS	Fixed an issue that prevented non-connectable advertisements without 0xFF AD Type from showing up on the browser
472556	Android	Fixed issue that cause full OTA to always be performed, even if partial OTA had been selected

#### Fixed in release 2.0.1

ID #	Platform	Description
471998	iOS	Fixed scanner freeze after locking and unlocking the screen
471907	Both	When adding a new favorite device it will only surface at the top of the list after refreshing scan list
472607	iOS	Tapping log/connections/filter can now also collapse them
472589	iOS	GATT icons were changing size when active/inactive
471914	iOS	Connection interval was not reliable
472582	iOS	Connect button was not kept in the device card if the device is also sending non-connectable advertisements
459752	iOS	Fixed an issue that the app was reading all readable characteristics after discovering the GATT

472555	Android	Fixed issue that caused other devices to become favorite randomly
475277	Android	Devices advertising using advertisement extensions are now showing up on the browser as well
449865	Android	Fixed slowness in the browser after a period of scanning
472156	Android	Fixed OTA speed mode
470799	Android	Added better error description when there are issues parsing characteristics
476141	Android	Fixed issue that caused the app to crash when tapping Write button on the characteristics

### **Fixed in release 2.0.0**

ID #	Platform	Description
N/A	Both	Compared to Blue Gecko 1.5.2 multiple bugs were fixed as part of code refactoring and increased testing activities.

## 4 Known Issues in the Current Release

Issues in bold were added since the previous release.

ID #	Platform	Description	Workaround
495577	Both	Bluetooth SIG Body Composition service is not being correctly parsed	None
674529	<b>Android</b>	Advertisement data does not get updated during scanning	Refresh the scan list
<b>667014</b>	<b>Android</b>	<b>Bluetooth SIG Pulse Oximeter service is not being correctly parsed</b>	<b>None</b>
472621	iOS	Text overlaps with icons when looking for OTA file	None
731327	Both	Bluetooth SIG Glucose service is not being correctly parsed	None
477089	iOS	If at least two devices are connected then the app may behave randomly when disconnecting one of them from the device view: it may go to the Browser (correct behavior), develop view or stay in the device view.	None



## 5 Deprecated Items

### Deprecated in release 2.0.0

The EFR Connect 2.0.0 release was made on top of what used to be the Blue Gecko app, for which 1.5.2 was the latest version.

Compared to Blue Gecko app 1.5.2 the following features were removed:

- iBeacon demo
- Keyfob demo

## 6 Removed Items

None

## 7 Using This Release

This release contains the following

- EFR Connect mobile app

For more information about the EFR Connect mobile app see the [documentation](#).

### 7.1 Installation and Use

EFR Connect can be downloaded from [Google Playstore](#) or [Apple Appstore](#), and the source code can be found on [GitHub](#). The minimal supported OS versions are Android 9 and iOS 12.

EFR Connect is used in conjunction with Silicon Labs Bluetooth SDK, which is downloaded through Simplicity Studio. Install Simplicity Studio [here](#).

### 7.2 Security Information

#### Security Advisories

To subscribe to Security Advisories, log in to the Silicon Labs customer portal, then select **Account Home**. Click **HOME** to go to the portal home page and then click the **Manage Notifications** tile. Make sure that 'Software/Security Advisory Notices & Product Change Notices (PCNs)' is checked, and that you are subscribed at minimum for your platform and protocol. Click **Save** to save any changes.

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