# EFR Connect 2.8.0 GA
## December 13th, 2023

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 Scanner, Advertiser, Configurator 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.

Now you can test matter devices from EFR connect App. You can user matter devices over thread or Wi-Fi and control it. EFR connect supports matter demos are Light, Door lock, Window, Sensor, Thermostats, Plug.

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):

**KEY FEATURES**

- Bluetooth LE and DMP demos
  - Thermometer, Connected Lighting, Range Test, Blinky, Throughput, Motion, Environment, Wi-Fi Commissioning, Electronic Shelf Label
- Scanner with RSSI Graph, OTA and Log
- Advertiser
- GATT Configurator
- Interoperability Test (IOP)
- Matter over Thread and Wi-Fi

2.8.0 released December 13th, 2023
2.7.1 released July 26th, 2023
2.7.0 released June 7th, 2023
2.6.4 released May 3rd, 2023
2.6.3 released April 19th, 2023
2.6.2 released March 9th, 2023
2.6.1 released February 1st, 2023
2.6.0 released December 14th, 2022
2.5.2 released September 28th, 2022
2.5.1 released August 10th, 2022
2.5.0 released June 8th, 2022
2.4.3 released March 11th, 2022
2.4.2 released February 9th, 2022 (only iOS)
2.4.1 released January 28th , 2022
2.4.0 released December 15th, 2021
2.3.3 released October 13th, 2021
2.3.2 released September 15th, 2021
2.3.1 released July 21st, 2021.
2.3.0 released June 16th, 2021.
2.2.0 released December 18th, 2020.
2.1.0 released September 28th, 2020.
2.0.3 released June 15th, 2020.
2.0.2 released April 23rd, 2020.
2.0.1 released March 20th, 2020.
2.0.0 released March 17th, 2020.

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# 1 New Features

## Added in release 2.8.0

### Matter

New Matter demo adds and commissions Matter Thread and Matter Wi-Fi devices to the Matter network by scanning the device's QR code present on the Matter device. After successful commission, you can control the Matter device over the Wi-Fi or Thread network. The supported Matter device types are Light, Lock, OnOff Plug, Window Covering, Thermostat, Temp Sensor, Contact Sensor, and Occupancy Sensor.

## Added in release 2.7.0

### Electronic Shelf Label

New Electronics Shelf Label (ESL) adds and commissions ESL tags to the system network by scanning the tag's QR code with the mobile device's camera and provides the user a UI to view the list of commissioned tags and control them. For more information, see AN1419: Bluetooth LE Electronic Shelf Label.

## Added in release 2.6.0

### Redesign

The app got a refreshed look: main navigation bar with distinct purpose views, demo section focused on out-of-box demos, developer focused scan view, local GATT configurator, BLE Interoperability section and new Settings view.

## Added in release 2.5.0

### Scanner

New RSSI Graph functionality which shows a graphical representation of RSSI for scanned devices.

## Added in release 2.4.1

### Demos

Add support for BRD2601A and BRD2601B boards.

## Added in release 2.4.0

### Demos

Environment and Motion apps migrated to EFR Connect as a new demos. New demo – Wi-Fi Commissioning.

### Blinky Demo

Add support for Thunderboard boards in Blinky demo.

## 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 Interop- erability (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 2.7.1

[iOS] Minor improvements to the ESL Demo for better User Experience

[iOS] Added support for passkey in the QR for the ESL Demo, for future ESL security feature (not used today)

[Android] UI Improvements to the Scan window

[Android] Fixed flag parsing bug in the Heart Monitor (0x180D) profile

[Android] Added support for passkey in the QR for the ESL Demo, for future ESL security feature as it's not used today.

### Improved in release 2.7.0

[iOS] Fixed Throughput test for BLE Interoperability Test to relax the pass/fail criteria

[iOS] UI improvement in Scan view with system refresh control using SILRefreshImageView

[Android] Fixed Throughput test for BLE Interoperability Test to relax the pass/fail criteria

### Improved in release 2.6.4

[iOS] Update Legacy popup views in Advertiser and GATT Configurator views

[Android] Fix an issue with Application OTA DFU

### Improved in release 2.6.3

[iOS] Change characteristic value popup

[iOS] Hide floating button and menu bar when scrolling

[iOS] Remove UUID label from the Browser

[Android] Remove unnecessary version checks

[Android] Update Legacy popup views in Advertiser and GATT Configurator views

[Android] Hide floating button and menu bar when scrolling

[Android] Upgrade android versions, gradel configuration and dependencies

### Improved in release 2.6.2

[iOS] Enable haptic vibration when start scanning

[iOS] Rescaled the Device segments in the “Scanner” view

[iOS] Added guidance information about companion sample app for remote device for each Demo tile

[iOS] Minor bug fixes and improvements to the UI

[Android] Reworked Settings layout, and added new Scan Timeout and Report Issue buttons

[Android] Rescaled the Device segments in the “Scanner” view

[Android] Minor bug fixes and improvements to the UI, including enabling spin wheel animation for waiting for scanner operation

### Improved in release 2.6.1

[iOS] Added option to clear logs in new redesigned UI

[Android] Added option to clear logs in new redesigned UI

[Android] Remove redundant device address and name from logs

### Improved in release 2.5.0

Robustify demos against non-present or non-operational sensors on development kits.

### Improved in release 2.4.1

[Android] Blocked new connection notifications for demos.

### Improved in release 2.4.0

UX improvements in IOP test.
[iOS] Switched from UIWebView to WKWebView due to deprecation.
Accept .btconf files in GATT Configurator import.

### 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.

**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, AtlBeacon, 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 2.8.0

| ID # | Platform | Description |
|---|---|---|
| 1142722 | iOS | Fixed flag parsing bug in the Heart Monitor (0x180D) profile |
| 1081041 | iOS | [iOS] “No devices to display.” information should be displayed in RSSI Graph |
| 1094044 | Android | [Android] Minor Range Test issues |
| 1142721 | Android | [Android] Fix Heart Monitor (0x180D) GATT characteristic flag parsing |
| 1174846 | IOS | Crash observed in RSSI Graph tab of Scan page when the user navigates randomly between the Scanner/RSSI Graph/Active connection tabs |

### Fixed in release 2.7.1

| ID # | Platform | Description |
|---|---|---|
| 1142722 | iOS | Fixed flag parsing bug in the Heart Monitor (0x180D) profile |

### Fixed in release 2.7.0

| ID # | Platform | Description |
|---|---|---|
| 1145701 | iOS | Fixed Throughput test for BLE Interoperability Test to relax the pass/fail criteria |
| 1145698 | Android | Fixed Throughput test for BLE Interoperability Test to relax the pass/fail criteria |

### Fixed in release 2.6.4

| ID # | Platform | Description |
|---|---|---|
| 1088474<br>1097431 | Android | OTA Firmware not Working with Application OTA DFU |

### Fixed in release 2.6.2

| ID # | Platform | Description |
|---|---|---|
| 1034155 | Android | Throughput Demo freezing and crashing when subscribing to Throughput's characteristics during ongoing notifications |
| 1083255 | Android | Health Thermometer Demo mishandling negative Celsius values |
| 1092635 | Android | Fixed issues with the OTA firmware update procedure, artifact of the recent UI redesign |
| 1103475 | Android | Wrong display of services in GATT connection view when multiple devices connected |
| 1106739 | Android | Handle splash screen with splash screen API, which was instructed in Android 12, but backward compatible |

### Fixed in release 2.6.1

| ID # | Platform | Description |
|---|---|---|
| 1086377<br>1092664 | Android | App crashes when entering the GATT Configurator page, switching Advertiser On, and leaving the Throughput demo while the upload test was still running. |
| 1099113 | iOS | Fixed minor UI defects from previous UI Redesign. |

### Fixed in release 2.6.0

| ID # | Platform | Description |
|---|---|---|
| 746611 | Android | It was impossible to refresh the remote's GATT table |

### Fixed in release 2.5.2

| ID # | Platform | Description |
|---|---|---|
| 495577 | iOS | Body composition service was not parsed correctly |
| 726310 | iOS | SIG Glucose service was not handled correctly |
| 1016213, 1015331, 1015313 | Android | Continuous Glucose Monitoring service was not handled correctly |

### Fixed in release 2.5.1

| ID # | Platform | Description |
|---|---|---|
| 674529 | Android | The app displayed only the data received from the first advertisement packet but after that never updated values |
| 1018965 | iOS | The app crashed in RSSI graph view on iPad Mini 4 |
| 856422 | iOS | During the "OTA with ACK" step of IOP test, the update progress window didn't pop up |

### Fixed in release 2.4.3

| ID # | Platform | Description |
|---|---|---|
| 828799 | iOS | "Start Command" was sent twice to OTA Control |
| 821950 | Android | Fixed range test demo bugs |

### Fixed in release 2.4.3

| ID # | Platform | Description |
|---|---|---|
| 495546 | Android | Body composition service was not parsed correctly |
| 818520, 818522 | Both | Fixed range test demo bugs |
| 818787 | iOS | App crashed when BRD2601A was used with some demos |
| 731327 | Android | SIG Glucose service was not handled correctly |
| 667014 | Android | Pulse Oximeter service was not parsed correctly |

### Fixed in release 2.4.2 (Only iOS was released)

| ID # | Platform | Description |
|---|---|---|
| 814100 | iOS | Blinky demo was not able to discover boards running Blinky sample app |

### Fixed in release 2.4.0

| ID # | Platform | Description |
|---|---|---|
| 697157 | Android | Thunderboard app was not able to connect to demo board |

### Fixed in release 2.3.3

| ID # | Platform | Description |
|---|---|---|
| 743777 | Android | OTA tests were not following the test plan pass criteria |

## 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 Apploader 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 |
|---|---|---|---|
| 1085240, 1058576, 1025704, 1042512 | Both | Multiple OTA-related issues. | 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

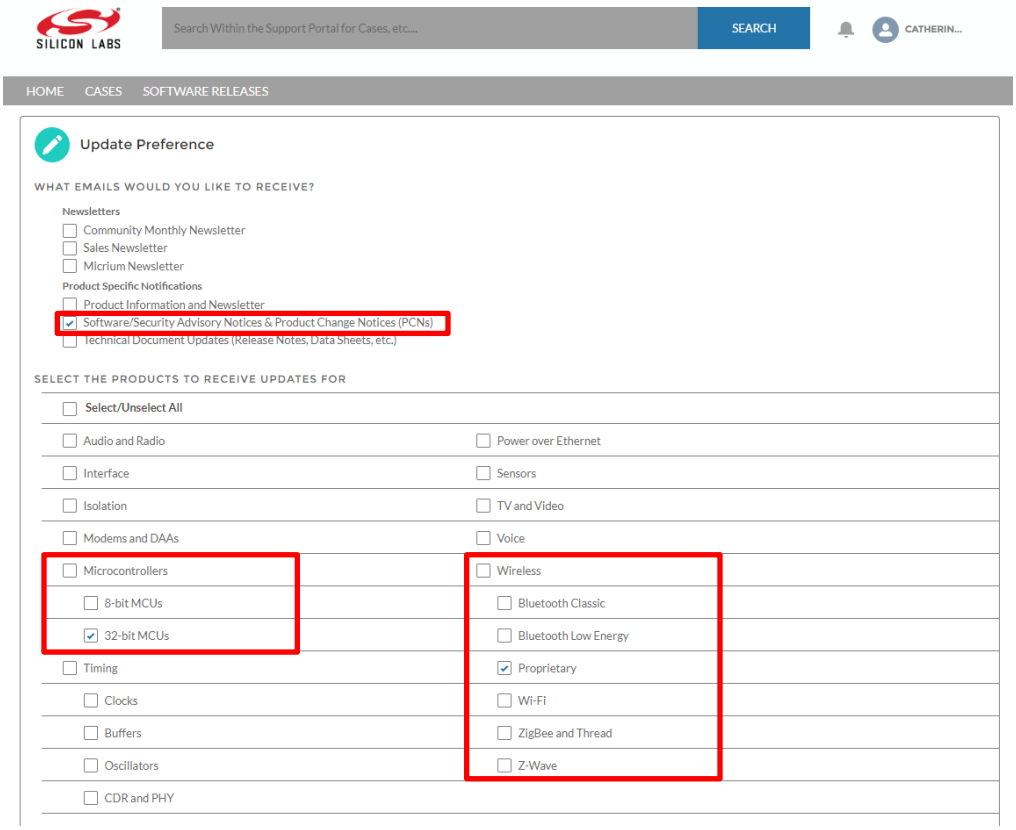
EFR Connect can be downloaded from Google Playstore or Apple Appstore, and the source code can be found on GitHub. The minimal supported OS versions are Android 10 and iOS 16.

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.




## 7.3 Support

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