



Secure Engine Firmware Release Notes

For EFR32xG23 Products

Secure Engine (SE) firmware is installed with the product. The firmware is upgradable through Gecko Bootloader and Simplicity Studio. Features and security updates available in the latest release are described in this document.

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Using This Release

Secure Engine (SE) firmware is factory installed with the product.

SE firmware upgrade images are installed with Gecko SDK Suite in Simplicity Studio. This release contains the following.

- Upgrade image for Gecko Bootloader (.seu file)
- Upgrade application (.hex file)

Upgrade images are signed and encrypted.

Use of the upgrade image with Gecko Bootloader is described in *UG266: Silicon Labs Gecko Bootloader User's Guide, Section on Secure Engine Upgrade*.

To upgrade your device using the Upgrade application, program the .hex file to Flash using Simplicity Commander and then reset the device or use the upgrade feature in Simplicity Studio.

The Secure Engine Manager component in the Gecko SDK Suite provides an API to get the current SE version from the device. The API reference guide is available on <https://docs.silabs.com/gecko-platform/latest/service/api/group-sl-se-manager>

1.1 Compatible Products

The firmware is compatible with the following Series-2 products:

- EFR32xG23 SoCs

1.2 Support

Development Kit customers are eligible for training and technical support. You can use the Silicon Laboratories web site <https://www.silabs.com/products/development-tools/software> to obtain information about software products and services, and to sign up for product support.

You can contact Silicon Laboratories support at www.silabs.com/support

Features and Security Updates

v2.1.4

- Fixed a bug where using volatile keys together with a custom ECC curve did not work
- Added explicit validation of input and output length for commands that are sent without any input/output buffers from the mailbox interface. This causes a change in behavior of the SE Manager function `sl_se_roll_challenge`, which has been fixed in Gecko SDK v3.2.2. When applying the SE firmware upgrade to a device with an application compiled with an older version of the SDK, be aware that `sl_se_roll_challenge` will return an error code after the SE firmware upgrade, until the application is recompiled with the updated SDK.
- Improved fault injection hardening

v2.1.3

- Fixed bug where using custom domains failed for some commands

v2.1.2

- Added support for new glitch detectors through the tamper response bits in SM InitOTP
- Added PBKDF2-CMAC support (option 0x10) to DeriveKey command
- Added custom curve support in ECDSA and ECDH
- Improved fault injection resistance
- Security and stability updates

v2.1.1

- Production support update (Silicon Labs internal)

v2.1.0 (first release for EFR32xG23 products)

- Secure Vault High features

Known Issues

- None

Legal

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4.3.1 t_cose

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4.3.2 QCBOR

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