

[Notes]

R20TS1030EJ0100

Rev.1.00

Vulnerability notice when using Arm's toolchain.

May. 20, 2024

Outline

Arm® has announced that a potential software security issue in code that uses Cortex®-M Security Extensions (CMSE).

e² studio has a feature to install Arm GCC and LLVM toolchains that are affected by this vulnerability. When using these Arm GCC and LLVM toolchains, please be aware of the vulnerabilities.

1. Vulnerability notice when using Arm's toolchain.

1.1 Applicable Products

Renesas Integrated Development Environment e² studio

1.2 Applicable Devices

RA and RZ Family devices that embed Cortex-M Security Extensions (CMSE).

RA4E1, RA4E2, RA4M2, RA4M3, RA4T1, RA6E1, RA6E2, RA6M4, RA6M5, RA6T2, RA6T3,

RA8D1, RA8M1, RA8T1

RZ/G2L, RZ/G2LC, RZ/G2UL, RZ/G3S, RZ/V2L

1.3 Details

Arm has announced that a potential software security issue in code that uses Cortex-M Security Extensions (CMSE).

<https://developer.arm.com/Arm%20Security%20Center/Cortex-M%20Security%20Extensions>

e² studio has a feature to install Arm GCC and LLVM toolchains. The toolchains that are installed by e² studio and affected by this vulnerability are as follows.

- GNU ARM Embedded 13.2-Rel1
- GNU ARM Embedded 12.2-Rel1
- GNU ARM Embedded 10.3 2021.10
- GNU ARM Embedded 9.3.1 2020q2
- GNU ARM Embedded 9.2.1 2019q4
- GNU ARM Embedded 6 2017q2
- LLVM Embedded Toolchain for Arm 17.0.1

When using these Arm GCC and LLVM toolchains, please be aware of the vulnerabilities. More information about the vulnerability of these toolchains can be found on the Arm's website.

We will apply the updated toolchains to e² studio as soon as the toolchains that fix the vulnerability are available.

For information on the impact of this vulnerability on the Flexible Software Package (FSP) for the RA and RZ Families, see the following URL.

RA Family : <https://github.com/renesas/fsp/blob/master/SECURITY.md>

RZ Family RZ/G Series : <https://github.com/renesas/rzg-fsp/blob/master/SECURITY.md>

RZ Family RZ/V Series : <https://github.com/renesas/rzv-fsp/blob/master/SECURITY.md>

Revision History

Rev.	Date	Description	
		Page	Summary
1.00	May.20.24	-	First edition issued

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