

## Security advisory TN1528-ST-PSIRT: Impact of Mbed TLS security advisories released between 2022-07 and 2024-01 on STM32 embedded software

### Overview

This security advisory pertains to the impact of Mbed TLS security advisories released between 2022-07 and 2024-01 on STM32 embedded software.

### Affected products

Product <sup>(1)</sup>	Version	Type	Note
STM32CubeH7	v1.11.1 and earlier <i>Note:</i> Because the issue might not be fixed in subsequent release <sup>(2)</sup> , refer to the release notes of the <b>affected product</b> to check if the issue has been fixed.	embedded software	Affected by the 4 advisories listed in <a href="#">Section Description</a> .
STM32CubeF4	v1.28.0 and earlier <i>Note:</i> Because the issue might not be fixed in subsequent release <sup>(2)</sup> , refer to the release notes of the <b>affected product</b> to check if the issue has been fixed.	embedded software	Affected by the 4 advisories listed in <a href="#">Section Description</a> .
STM32CubeF7	v1.17.1 and earlier <i>Note:</i> Because the issue might not be fixed in subsequent release <sup>(2)</sup> , refer to the release notes of the <b>affected product</b> to check if the issue has been fixed.	embedded software	Affected by the 4 advisories listed in <a href="#">Section Description</a> .
STM32CubeH5	v1.1.1 and earlier <i>Note:</i> Because the issue might not be fixed in subsequent release <sup>(2)</sup> , refer to the release notes of the <b>affected product</b> to check if the issue has been fixed.	embedded software	Affected by the 4 advisories listed in <a href="#">Section Description</a> .
STM32CubeF2	v1.9.4 and earlier <i>Note:</i> Because the issue might not be fixed in subsequent release <sup>(2)</sup> , refer to the release notes of the <b>affected product</b> to check if the issue has been fixed.	embedded software	Affected by the 4 advisories listed in <a href="#">Section Description</a> .
STM32CubeU5	v1.4.0 and earlier <i>Note:</i> Because the issue might not be fixed in subsequent release <sup>(2)</sup> , refer to the release notes of the <b>affected product</b> to check if the issue has been fixed.	embedded software	Affected by the 4 advisories listed in <a href="#">Section Description</a> .
STM32CubeWBA	v1.2.0 and earlier <i>Note:</i> Because the issue might not be fixed in subsequent release <sup>(2)</sup> , refer to the release notes of the <b>affected product</b> to check if the issue has been fixed.	embedded software	Affected by the 4 advisories listed in <a href="#">Section Description</a> .

Product <sup>(1)</sup>	Version	Type	Note
STM32CubeL5	v1.4.0 and earlier <i>Note:</i> Because the issue might not be fixed in subsequent release <sup>(2)</sup> , refer to the release notes of the <b>affected product</b> to check if the issue has been fixed.	embedded software	Affected by the 4 advisories listed in <a href="#">Section Description</a> .
STM32CubeWL	v1.3.0 and earlier <i>Note:</i> Because the issue might not be fixed in subsequent release <sup>(2)</sup> , refer to the release notes of the <b>affected product</b> to check if the issue has been fixed.	embedded software	Affected by the 4 advisories listed in <a href="#">Section Description</a> .
X-Cube-SBSFU	v2.6.2 and earlier <i>Note:</i> Because the issue might not be fixed in subsequent release <sup>(2)</sup> , refer to the release notes of the <b>affected product</b> to check if the issue has been fixed.	embedded software	Affected by the 4 advisories listed in <a href="#">Section Description</a> .

1. Some other STM32Cube Expansion packages (X-CUBE or I-CUBE) could depend on the **affected products** and are not mentioned in this document. Check if the X-CUBE or I-CUBE packages you are using contain the **affected products**. And if this is the case, refer to X-CUBE or I-CUBE packages release notes to check if the issue has been fixed.
2. Release notes are available in each downloaded package (on [www.st.com](http://www.st.com) product pages, on [STMicroelectronics Github](#) product pages, via STM32CubeMX)

To know if an STM32 Cube firmware package or an STM32 X-Cube firmware package is impacted, you can check the version of the middleware mbedTLS or the version of the middleware mbed-crypto supported:

Software component	File to read	Version fixing the vulnerabilities
Middlewares/Third_Party/mbedTLS	ST_readme.txt	mbedTLS 2.28.7 and later
Middlewares/Third_Party/mbed-crypto	ST_readme.txt	mbedTLS 2.28.7 and later

## Description

The vulnerability description can be found at the following links:

- mbedtls-security-advisory-2022-07 (CVE-2022-35409): <https://mbed-tls.readthedocs.io/en/latest/security-advisories/mbedtls-security-advisory-2022-07/><sup>(\*)</sup>
- mbedtls-security-advisory-2024-01-2 (CVE-2024-23775): <https://mbed-tls.readthedocs.io/en/latest/security-advisories/mbedtls-security-advisory-2024-01-2/><sup>(\*)</sup>
- mbedtls-security-advisory-2024-01-1 (CVE-2024-23170): <https://mbed-tls.readthedocs.io/en/latest/security-advisories/mbedtls-security-advisory-2024-01-1/><sup>(\*)</sup>
- mbedtls-security-advisory-2023-10-1 (CVE-2023-43615): <https://mbed-tls.readthedocs.io/en/latest/security-advisories/mbedtls-security-advisory-2023-10-1/><sup>(\*)</sup>

## Impact

Refer to the links given in [Section Description](#).

## Remediation

Refer to [Section Affected products](#) to identify the fixed products.

## Credit

Refer to the links given in [Section Description](#).

## Contact information

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(\*) *The URL belongs to a third party. It might be moved, modified, and/or inactivated by them at any time. STMicroelectronics is not responsible for the content of the referenced website.*

## Revision history

**Table 1. Document revision history**

Date	Version	Changes
06-Jun-2024	1	Initial release.

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