



Impacts of LwIP CVE-2020-22283 and CVE-2020-22284 on STM32 embedded software

Overview

This security advisory pertains to the impact of LwIP CVE-2020-22283 and CVE-2020-22284 on STM32 embedded software.

Affected products

Product ⁽¹⁾	Version	Type	Note
STM32CubeF1	v1.8.0 and earlier <i>Note:</i> Because the issue might not be fixed in subsequent version, refer to the release notes ⁽²⁾ of the affected product to check if the issue has been fixed.	Embedded software	Affected by the two CVEs listed in Section Description
STM32CubeF2	V1.8.0 and earlier <i>Note:</i> Because the issue might not be fixed in subsequent version, refer to the release notes ⁽²⁾ of the affected product to check if the issue has been fixed.	Embedded software	-
STM32CubeF4	v1.28.1 and earlier <i>Note:</i> Because the issue might not be fixed in subsequent version, refer to the release notes ⁽²⁾ of the affected product to check if the issue has been fixed.	Embedded software	-
STM32CubeF7	v1.17.2 and earlier <i>Note:</i> Because the issue might not be fixed in subsequent version, refer to the release notes ⁽²⁾ of the affected product to check if the issue has been fixed.	Embedded software	-
STM32CubeH7	v1.12.0 and earlier <i>Note:</i> Because the issue might not be fixed in subsequent version, refer to the release notes ⁽²⁾ of the affected product to check if the issue has been fixed.	Embedded software	-

1. Some other STM32Cube expansion packages or function packages (X-CUBE, I-CUBE, STSW, FPs) can depend on the **affected products** and are not mentioned in this document. Check if the STM32Cube expansion packages or function packages you are using contain the **affected products**. If so, refer to the package release note to check if the issue has been fixed.
2. Release notes are available in each downloaded package (on www.st.com product pages, on STMicroelectronics GitHub product pages, and via STM32CubeMX).

To know if an STM32Cube firmware package, an STM32Cube expansion package, or a function package is impacted, check the version of the LwIP software component supported:

Software component relative path	File to read	Versions affected by the vulnerabilities	Version fixing the vulnerabilities
./Middlewares/Third_Party/LwIP	st_readme.txt	LwIP v2.1.2 and earlier	LwIP v2.1.3 and later

Regarding the standalone components offered through GitHub that might be used with the **affected products**, the corresponding fixes are available at: https://github.com/STMicroelectronics/stm32-mw-lwip/releases/tag/v2.1.3_20230818.

The user needs to reconfigure the affected package with the fixed component.

Description

The third-party security advisories can be found at the following links:

- <https://nvd.nist.gov/vuln/detail/CVE-2020-22283>⁽¹⁾
 - <https://nvd.nist.gov/vuln/detail/CVE-2020-22284>⁽¹⁾
1. *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.*

Impact

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

Remediation

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

Contact information

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Revision history

Table 1. Document revision history

Date	Version	Changes
09-April-2025	1	Initial release.

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