



Impact of Azure RTOS NetXDuo HTTP server issues on STM32 embedded software (TALOS-2024-2097, TALOS-2024-2102, and TALOS-2024-2103)

Overview

This security advisory pertains to the impact of Azure RTOS NetXDuo HTTP server issues on STM32 embedded software, identified as TALOS-2024-2097, TALOS-2024-2102, and TALOS-2024-2103 by Cisco Talos team.

Affected products

Product ⁽¹⁾	Version	Type	Note
STM32CubeU5	v1.7.0 and earlier <i>Note: 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.</i>	Embedded software	-
STM32CubeH5	v1.5.0 and earlier <i>Note: 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.</i>	Embedded software	-
STM32CubeWBA	v1.6.0 and earlier <i>Note: 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.</i>	Embedded software	-
STM32CubeN6	v1.1.0 and earlier <i>Note: 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.</i>	Embedded software	-
STM32CubeU3	v1.1.0 and earlier <i>Note: 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.</i>	Embedded software	-
STM32CubeMP13	v1.2.0 and earlier <i>Note: 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.</i>	Embedded software	-
X-CUBE-AZRTOS-F4	v1.1.0 and earlier <i>Note: 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.</i>	Embedded software	-
X-CUBE-AZRTOS-F7	v1.1.0 and earlier <i>Note: 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.</i>	Embedded software	-
X-CUBE-AZRTOS-G0	v1.1.0 and earlier <i>Note: 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.</i>	Embedded software	-

Product ⁽¹⁾	Version	Type	Note
X-CUBE-AZRTOS-G4	v2.0.0 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	-
X-CUBE-AZRTOS-H7	v3.3.0 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	-
X-CUBE-AZRT-H7RS	v1.0.0 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	-
X-CUBE-AZRTOS-L4	v2.0.0 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	-
X-CUBE-AZRTOS-L5	v2.0.0 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	-
X-CUBE-AZRTOS-WB	v2.0.0 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	-
X-CUBE-AZRTOS-WL	v2.0.0 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	-

- Some other STM32Cube expansion packages or function packages (X-CUBE, I-CUBE, STSW, FPs) could depend on the **affected products** and are not mentioned in this document. Check if STM32Cube expansion packages or function packages you use contain the **affected products**. If so, refer to the package release note to check if the issue has been fixed.
- 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 STM32 Cube firmware package, an STM32 X-Cube firmware package, or a function package is impacted, check the version of the NetXDuo software component supported:

Software component relative path	File to read	Version with vulnerabilities
./Middlewares/ST/netxDuo	st_readme.txt	6.4.0 and earlier

Description

The following table makes the link between these ST issues and their description:

ST issue	Link to the issue description
TALOS-2024-2097	Eclipse ThreadX NetX Duo HTTP server denial of service vulnerability (TALOS-2024-2098)⁽¹⁾
TALOS-2024-2102	Eclipse ThreadX NetX Duo HTTP server chunked PUT request integer underflow vulnerability (TALOS-2024-2104)⁽¹⁾
TALOS-2024-2103	Eclipse ThreadX NetX Duo HTTP server single PUT request integer underflow vulnerability (TALOS-2024-2105)⁽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.

Note: The Cisco Talos team assigned the issue number in the left table column to ST, and the issue number in the right table column to Eclipse Foundation.

Impact

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

Remediation

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

Credit

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Revision history

Table 1. Document revision history

Date	Version	Changes
27-Mar-2025	1	Initial version.

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