



tcp: Fix shift-out-of-bounds in dctcp_update_alpha().

[MITRE](#)[NVD](#)[CVE.ORG](#)[JSON API](#)[Print: PDF !\[\]\(003082e50e3009141f59bd5df831749f_img.jpg\)](#)

Summary

CVE	CVE-2024-37356
State	PUBLISHED
Assigner	Linux
Source Priority	CVE Program / NVD first with legacy fallback
Published	2024-06-21 11:15:10 UTC
Updated	2026-05-12 12:16:51 UTC
Description	In the Linux kernel, the following vulnerability has been resolved: tcp: Fix shift-out-of-bounds in dctcp_update_alpha(). In dc

Risk And Classification

Primary CVSS: v3.1 5.5 MEDIUM from nvd@nist.gov

CVSS: 3.1/AV:L/AC:L/PR:L/UI:N/S:U/C:N/I:N/A:H

Problem Types: CWE-190

CVSS v3.1 Breakdown

Attack Vector

Local

Attack Complexity

Low

Privileges Required

Low

User Interaction

None

Scope

Unchanged

Confidentiality

None

Integrity

None

Availability

High

CVSS: 3.1/AV:L/AC:L/PR:L/UI:N/S:U/C:N/I:N/A:H

NVD Known Affected Configurations (CPE 2.3)

Type	Vendor	Product	Version	Update	Edition	Language
Operating System	Linux	Linux Kernel	All	All	All	All

Vendor Declared Affected Products

Source	Vendor	Product	Version
CNA	Linux	Linux	affected e3118e8359bb7c59555aca60c725106e6d78
CNA	Linux	Linux	affected e3118e8359bb7c59555aca60c725106e6d78
CNA	Linux	Linux	affected e3118e8359bb7c59555aca60c725106e6d78
CNA	Linux	Linux	affected e3118e8359bb7c59555aca60c725106e6d78
CNA	Linux	Linux	affected e3118e8359bb7c59555aca60c725106e6d78
CNA	Linux	Linux	affected e3118e8359bb7c59555aca60c725106e6d78
CNA	Linux	Linux	affected e3118e8359bb7c59555aca60c725106e6d78
CNA	Linux	Linux	affected e3118e8359bb7c59555aca60c725106e6d78
CNA	Linux	Linux	affected 3.18
CNA	Linux	Linux	unaffected 3.18 semver
CNA	Linux	Linux	unaffected 4.19.316 4.19.* semver
CNA	Linux	Linux	unaffected 5.4.278 5.4.* semver
CNA	Linux	Linux	unaffected 5.10.219 5.10.* semver
CNA	Linux	Linux	unaffected 5.15.161 5.15.* semver
CNA	Linux	Linux	unaffected 6.1.93 6.1.* semver
CNA	Linux	Linux	unaffected 6.6.33 6.6.* semver
CNA	Linux	Linux	unaffected 6.9.4 6.9.* semver
CNA	Linux	Linux	unaffected 6.10 * original_commit_for_fix
ADP	Siemens	RUGGEDCOM RST2428P	affected V3.1 custom
ADP	Siemens	SCALANCE XC-300/XR-300/XC-400/XR-500WG/XR-500 Family	unaffected * custom
ADP	Siemens	SCALANCE XCM-/XRM-/XCH-/XRH-300 Family	affected V3.1 custom
ADP	Siemens	SIMATIC S7-1500 TM MFP - GNU/Linux Subsystem	affected * custom
ADP	Siemens	SIMATIC S7-1500 CPU 1518-4 PN/DP MFP	affected V3.1.0 V3.1.5 custom
ADP	Siemens	SIMATIC S7-1500 CPU 1518-4 PN/DP MFP	affected V3.1.0 V3.1.5 custom
ADP	Siemens	SIMATIC S7-1500 CPU 1518F-4 PN/DP MFP	affected V3.1.0 V3.1.5 custom
ADP	Siemens	SIMATIC S7-1500 CPU 1518F-4 PN/DP MFP	affected V3.1.0 V3.1.5 custom
ADP	Siemens	SIPLUS S7-1500 CPU 1518-4 PN/DP MFP	affected V3.1.0 V3.1.5 custom

References

Reference	Source	Link
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cert-portal.siemens.com/productcert/html/ssa-398330.html	0b142b55-0307-4c5a-b3c9-f314f3fb7c5e	cert-portal.siemens.com
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cert-portal.siemens.com/productcert/html/ssa-613116.html	0b142b55-0307-4c5a-b3c9-f314f3fb7c5e	cert-portal.siemens.com
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lists.debian.org/debian-lts-announce/2024/06/msg00020.html	af854a3a-2127-422b-91ae-364da2661108	lists.debian.org
git.kernel.org/stable/c/e9b2f60636d18dfd0dd4965b3316f88dfd6a2b31	af854a3a-2127-422b-91ae-364da2661108	git.kernel.org
CVE Program record	CVE.ORG	www.cve.org
NVD vulnerability detail	NVD	nvd.nist.gov

No vendor comments have been submitted for this CVE.

There are currently no legacy QID mappings associated with this CVE.

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