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Security Bulletin

Red Hat Security Advisories: kernel security update - RHSA-2025_16354

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TLP:CLEAR

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List of changes

Version	Date	Description
0.1	2025/09/26	Initial Eviden version

Executive summary

Red Hat has released a set of security advisories addressing several vulnerabilities in the Linux kernel. The update includes important security fixes designed to protect systems from potential exploits. Users are strongly advised to apply the kernel update promptly to maintain system integrity and prevent unauthorized access.

CVE-2023-53125 (Moderate)

The vulnerability in SMSC LAN75XX based USB 2.0 gigabit ethernet devices driver arises because the driver fails to properly validate packet length fields when receiving network frames. Specifically, the code used size values that could exceed the actual skb->len, leading to a situation where kernel memory beyond the buffer is copied into the outgoing skb. If the driver is active, a remote attacker on the same network can send oversized Ethernet frames to trigger this bug, resulting in leakage of uninitialized kernel memory (CIA: HNN, Confidentiality: High).

CVE-2025-37810 (Moderate)

In the Linux kernel, the following vulnerability has been resolved: usb: dwc3: gadget: check that event count does not exceed event buffer length The event count is read from register DWC3_GEVNTCOUNT. There is a check for the count being zero, but not for exceeding the event buffer length. Check that event count does not exceed event buffer length, avoiding an out-of-bounds access when memcpy'ing the event. Crash log: Unable to handle kernel paging request at virtual address ffffffc0129be000 pc : __memcpy+0x114/0x180 lr : dwc3_check_event_buf+0xec/0x348 x3 : 0000000000000030 x2 : 000000000000dfc4 x1 : ffffffc0129be000 x0 : ffffff87aad60080 Call trace: __memcpy+0x114/0x180 dwc3_interrupt+0x24/0x34

CVE-2025-38498 (Moderate)

In the Linux kernel, the following vulnerability has been resolved: do_change_type(): refuse to operate on unmounted/not ours mounts Ensure that propagation settings can only be changed for mounts located in the caller's mount namespace. This change aligns permission checking with the rest of mount(2).

CVE-2025-39694 (Moderate)

In the Linux kernel, the following vulnerability has been resolved: s390/sclp: Fix SCCB present check Tracing code called by the SCLP interrupt handler contains early exits if the SCCB address associated with an interrupt is NULL. This check is performed after physical to virtual address translation. If the kernel identity mapping does not start at address zero, the resulting virtual address is never zero, so that the NULL checks won't work. Subsequently this may result in incorrect accesses to the first page of the identity mapping. Fix this by introducing a function that handles the NULL case before address translation.

RHSA-2025_16354

RHSA-2025_16354	Red Hat Security Advisory: kernel security update
CVE	CVE-2023-53125 (Moderate) CVE-2025-37810 (Moderate) CVE-2025-38498 (Moderate) CVE-2025-39694 (Moderate)
Summary	**An update for kernel is now available for Red Hat Enterprise Linux 9.**
Description	Red Hat Product Security has rated this update as having a security impact of Moderate. A Common Vulnerability Scoring System (CVSS) base score, which gives a detailed severity rating, is available for each vulnerability from the CVE link(s) in the References section. The kernel packages contain the Linux kernel, the core of any Linux operating system. Security Fix(es): • kernel: net: usb: smsc75xx: Limit packet length to skb->len (CVE-2023-53125) • kernel: usb: dwc3: gadget: check that event count does not exceed event buffer length (CVE-2025-37810) • kernel: do_change_type(): refuse to operate on unmounted/not ours mounts (CVE-2025-38498) • kernel: s390/sclp: Fix SCCB present check (CVE-2025-39694) For more details about the security issue(s), including the impact, a CVSS score, acknowledgments, and other related

	information, refer to the CVE page(s) listed in the References section.

Affected products

Linux Kernels used in all Eviden products are updated on a regular basis to guarantee that they are not older than 6 month when products are released.

Although Eviden tries to provide accurate and complete information, Eviden shall not be liable if the above table is incomplete or erroneous. During its vulnerability analysis process, the information in this document is subject to change without notice to reflect new results of this analysis.

Recommendations

Using uname -r you can check the current running kernel version. The version provided by this patch is kernel-6.12.0-55.34.1.el10_0. Recommendation is to check that running kernel version is at least this level.

Available Vendor Patches

It is highly recommended to apply the latest kernel security patches released by Red Hat without delay. These updates contain critical fixes that address vulnerabilities which could be exploited by attackers. Prompt installation of these patches helps ensure your systems remain secure and stable. Regularly updating your systems with Red Hat's security fixes is essential for maintaining a strong defense against potential threats.

Available Workarounds

No workaround is available.

Available Mitigations

No mitigation identified.

Available Exploits/PoC

Eviden is not aware of any exploitation of the reported vulnerabilities.

References

1. https://access.redhat.com/errata/RHSA-2025:16354

Glossary of terms

Term	Description
Mitigation	Refers to a setting, common configuration, or general best-practice, existing in a default state that could reduce the severity of exploitation of a vulnerability
Neutralization	The neutralization phase is the decision-making process during which the risk posed by an incident is evaluated.
PoC	Proof of Concept
Remediation	The remediation phase ends with the delivering of a qualified solution/update fixing the vulnerability without regression.
TI	Threat Intelligence
TLP	Traffic Light Protocol (TLP) FIRST Standards Definitions and Usage Guidance — Version 2.0. https://www.first.org/tlp/
Workaround	Refers to a setting or configuration change that does not correct the underlying vulnerability but would help block known attack vectors before you apply the update

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- Neutralization security bulletins are numbered 0.x
- Privately disclosed Remediation security bulletins are numbered 1.x
- Publicly disclosed Remediation security bulletins are numbered 2.x

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- https://support.bull.com/ols/product/security/psirt

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