

USN-4752-1: Linux kernel (OEM) vulnerabilities

Daniele Antonioli, Nils Ole Tippenhauer, and Kasper Rasmussen discovered that legacy pairing and secure-connections pairing authentication in the Bluetooth protocol could allow an unauthenticated user to complete authentication without pairing credentials via adjacent access. A physically proximate attacker could use this to impersonate a previously paired Bluetooth device. (CVE-2020-10135)

Jay Shin discovered that the ext4 file system implementation in the Linux kernel did not properly handle directory access with broken indexing, leading to an out-of-bounds read vulnerability. A local attacker could use this to cause a denial of service (system crash). (CVE-2020-14314)

It was discovered that the block layer implementation in the Linux kernel did not properly perform reference counting in some situations, leading to a use-after-free vulnerability. A local attacker could use this to cause a denial of service (system crash). (CVE-2020-15436)

It was discovered that the serial port driver in the Linux kernel did not properly initialize a pointer in some situations. A local attacker could possibly use this to cause a denial of service (system crash). (CVE-2020-15437)

Andy Nguyen discovered that the Bluetooth HCI event packet parser in the Linux kernel did not properly handle event advertisements of certain sizes, leading to a heap-based buffer overflow. A physically proximate remote attacker could use this to cause a denial of service (system crash) or possibly execute arbitrary code. (CVE-2020-24490)

It was discovered that the NFS client implementation in the Linux kernel did not properly perform bounds checking before copying security labels in some situations. A local attacker could use this to cause a denial of service (system crash) or possibly execute arbitrary code. (CVE-2020-25212)

It was discovered that the Rados block device (rbd) driver in the Linux kernel did not properly perform privilege checks for access to rbd devices in some situations. A local attacker could use this to map or unmap rbd block devices. (CVE-2020-25284)

It was discovered that the block layer subsystem in the Linux kernel did not properly handle zero-length requests. A local attacker could use this to cause a denial of service. (CVE-2020-25641)

It was discovered that the HDLC PPP implementation in the Linux kernel did not properly validate input in some situations. A local attacker could use this to cause a denial of service (system crash) or possibly

execute
arbitrary code. (CVE-2020-25643)

Kiyin (奇因) discovered that the perf subsystem in the Linux kernel did not properly deallocate memory in some situations. A privileged attacker could use this to cause a denial of service (kernel memory exhaustion).
(CVE-2020-25704)

It was discovered that the KVM hypervisor in the Linux kernel did not properly handle interrupts in certain situations. A local attacker in a guest VM could possibly use this to cause a denial of service (host system crash). (CVE-2020-27152)

It was discovered that the jfs file system implementation in the Linux kernel contained an out-of-bounds read vulnerability. A local attacker could use this to possibly cause a denial of service (system crash).
(CVE-2020-27815)

It was discovered that an information leak existed in the syscall implementation in the Linux kernel on 32 bit systems. A local attacker could use this to expose sensitive information (kernel memory).
(CVE-2020-28588)

It was discovered that the framebuffer implementation in the Linux kernel did not properly perform range checks in certain situations. A

local

attacker could use this to expose sensitive information (kernel memory).

(CVE-2020-28915)

Jann Horn discovered a race condition in the copy-on-write implementation

in the Linux kernel when handling hugepages. A local attacker could use

this to gain unintended write access to read-only memory pages.

(CVE-2020-29368)

Jann Horn discovered that the mmap implementation in the Linux kernel

contained a race condition when handling munmap() operations, leading to a

read-after-free vulnerability. A local attacker could use this to cause a

denial of service (system crash) or possibly expose sensitive information.

(CVE-2020-29369)

Jann Horn discovered that the romfs file system in the Linux kernel did not

properly validate file system meta-data, leading to an out-of-bounds read.

An attacker could use this to construct a malicious romfs image that, when

mounted, exposed sensitive information (kernel memory).

(CVE-2020-29371)

Jann Horn discovered that the tty subsystem of the Linux kernel did not use

consistent locking in some situations, leading to a read-after-free

vulnerability. A local attacker could use this to cause a denial of service

(system crash) or possibly expose sensitive information (kernel memory).
(CVE-2020-29660)

Jann Horn discovered a race condition in the tty subsystem of the Linux kernel in the locking for the TI0CSPGRP ioctl(), leading to a use-after-free vulnerability. A local attacker could use this to cause a denial of service (system crash) or possibly execute arbitrary code.
(CVE-2020-29661)

It was discovered that a race condition existed that caused the Linux kernel to not properly restrict exit signal delivery. A local attacker could possibly use this to send signals to arbitrary processes.
(CVE-2020-35508)