A APPENDIX FOR REPORTED ISSUES

Table 4. Issues Reported and Feedback

Description	Reported to	Status
In function `check_syslog_permissions()`, `CAP_SYS_ADMIN` overlaps with `CAP_SYSLOG`	Kernel developers	Patched
In function `tty_ioctl()`, `CAP_SYS_ADMIN` overlaps with `CAP_SYS_TTY_CONFIG`	Kernel developers	Confirmed
In function `aac_send_raw_srb()`, `CAP_SYS_ADMIN` overlaps with `CAP_SYS_RAWIO`	Kernel developers	Posted
In function `ldsc_open()`, `CAP_SYS_ADMIN` overlaps with `CAP_SYS_TTY_CONFIG`, and `CAP_NET_ADMIN` check is missing	Kernel developers	Posted
In function `caif_create()`, `CAP_SYS_ADMIN` overlaps with `CAP_NET_ADMIN`	Kernel developers	Posted
In function `_rlimit_overlimit()`, `CAP_SYS_ADMIN` overlaps with `CAP_SYS_RESOURCE`	Kernel developers	Confirmed
In function `too_many_unix_fds()`, `CAP_SYS_ADMIN` overlaps with `CAP_SYS_RESOURCE`	Kernel developers	Posted
In function `pipe_is_unprivileged_user()`, `CAP_SYS_ADMIN` overlaps with `CAP_SYS_RESOURCE`	Kernel developers	Posted
Overlapping capability definitions between `CAP_SYS_ADMIN` and `CAP_SYS_RESOURCE`, and between `CAP_NET_ADMIN` and `CAP_NET_RAW`	Documentation maintainer	Confirmed
In functions `sk_setsockopt()` and `__sock_cmsg_send()`, capability checks does not align with the documentation	Kernel developers	Posted
Function `__rfcomm_release_dev()` lacks `CAP_SYS_TTY_CONFIG`	Kernel developers	Posted
Commands are misplaced on Section 1* and Section 8*	Documentation maintainer	Posted
Command `ctrlaltdel` should not check euid in userspace	Command developers	Fixed
Command ping lacks `CAP_NET_ADMIN`	Command developers	Fixed
Command `clockdiff` installed on Ubuntu 22.04 both lack `CAP_NET_ADMIN`	Ubuntu distribution	Posted

[*] Linux man pages are divided into 8 sections, where section 1 and section 8 are user commands and privileged commands respectively.

Table 5. Privileged Functions Protected by Each Capability

Capability	Numbers of Protected Privileged Functions	Corresponding Ratios*
`CAP_SYS_ADMIN`	1258	45.62%
`CAP_NET_ADMIN`	736	26.81%
`CAP_SYS_RESOURCE`	195	7.21%
`CAP_SYS_RAWIO`	157	5.69%
`CAP_IPC_LOCK`	113	4.11%
`CAP_NET_RAW`	102	3.71%
`CAP_SYS_NICE`	89	3.28%
`CAP_NET_BIND_SERVICE`	61	2.23%
`CAP_FSETID`	33	1.23%
`CAP_SYS_TIME`	31	1.15%
`CAP_WAKE_ALARM`	28	1.05%
others	<27	<1%

*The ratios sum to more than 100% due to overlap between the functions protected by the capabilities.