

# AWS Report

AWS config list: [https://github.com/wenhuizhang/kconfig-safety-check/tree/master/config\\_files/aws](https://github.com/wenhuizhang/kconfig-safety-check/tree/master/config_files/aws)

Tool usage: `"/bin/kconfig-safety-check -p X86_64 -c ./config_files/aws/* -m show_fail -e prod"`

## 1. Amazon Linux v2: config-4.14.275-207.503.amzn2.x86\_64

```

1 wenhui.zhang@n231-227-105:~/kconfig-safety-check$ ./bin/kconfig-safety-check -p X86_64 -c
2 [+] Special report mode: show_fail
3 [+] Kconfig file to check: ./config_files/aws/config-4.14.275-207.503.amzn2.x86_64
4 [+] Detected architecture: X86_64
5 [+] Detected kernel version: 4.14
6 =====
7          option name          | type | desired val | decision |          reason
8 =====
9 CONFIG_SLAB_FREELIST_RANDOM   |kconfig|    y    |ELISA_safety, Intel|Memory m
10 CONFIG_SLAB_MERGE_DEFAULT     |kconfig|    n    |ELISA_safety, Intel|Memory m
11 CONFIG_SHUFFLE_PAGE_ALLOCATOR |kconfig|    y    |ELISA_safety, Intel|Memory m
12 CONFIG_REFCOUNT_FULL          |kconfig|    y    |ELISA_safety|Kernel Memory r
13 CONFIG_GCC_PLUGIN_STRUCTKLEAK |kconfig|    y    |ELISA_safety|GCC, plugins, S
14 CONFIG_GCC_PLUGIN_STRUCTLEAK_BYREF_ALL |kconfig|    y    |ELISA_safety|GCC, plugins, S
15 CONFIG_INIT_STACK_ALL         |kconfig|    y    |ELISA_safety|Stack memory:Un
16 CONFIG_STACKPROTECTOR         |kconfig|    y    |ELISA_safety, Intel|Stack me
17 CONFIG_STACKPROTECTOR_STRONG  |kconfig|    y    |ELISA_safety, Intel|Stack me
18 CONFIG_GCC_PLUGIN_STACKLEAK   |kconfig|    y    |ELISA_safety|Stack memory:St
19 CONFIG_PAGE_POISONING         |kconfig|    y    |ELISA_safety|Stack memory:St
20 CONFIG_PAGE_POISONING_NO_SANITY |kconfig|    n    |ELISA_safety|Stack memory:St
21 CONFIG_DEBUG_SG               |kconfig|    y    |ELISA_safety|Driver: Heap ov
22 CONFIG_KMEM                   |kconfig|    n    |   Intel   |Kernel Memory:Ker
23 CONFIG_DEVMEM                 |kconfig|    n    |ELISA_safety, Intel|Kernel M
24 CONFIG_DEVPORT                |kconfig|    n    |ELISA_safety, Intel|Kernel M
25 CONFIG_ACPI_CUSTOM_METHOD     |kconfig|    n    |ELISA_safety|Kernel Memory:K
26 CONFIG_LEGACY_PTYS            |kconfig|    n    |ELISA_safety|Kernel Memory:K
27 CONFIG_HIBERNATION            |kconfig|    n    |ELISA_safety|Kernel Memory:K
28 CONFIG_KEXEC                  |kconfig|    n    |ELISA_safety|Kernel Memory:K
29 CONFIG_HARDENED_USERCOPY_FALLBACK |kconfig|    n    |ELISA_safety|Kernel Memory:K
30 CONFIG_HARDENED_USERCOPY_PAGESPAN |kconfig|    n    |ELISA_safety|Kernel Memory:K
31 CONFIG_COMPAT_BRK             |kconfig|    n    |ELISA_safety|Heap memory:R/W
32 CONFIG_USERFAULTFD           |kconfig|    n    |ELISA_safety|Heap memory:R/W
33 CONFIG_DEBUG_WX               |kconfig|    y    |ELISA_safety|Kernel Memory:W
34 CONFIG_BPF_UNPRIV_DEFAULT_OFF |kconfig|    n    |ELISA_safety|Branch Target B
35 CONFIG_LIVEPATCH             |kconfig|    n    |ELISA_safety|   Live Patch
36 CONFIG_DEVMEM                 |kconfig|    y    |ELISA_safety|Kernel Memory:K
37 CONFIG_SECURITY_WRITABLE_HOOKS |kconfig|    n    |ELISA_security|Linux Securit
38 CONFIG_SECURITY_PATH          |kconfig|    y    |ELISA_security|Linux Securit
39 CONFIG_LSM_MMAP_MIN_ADDR      |kconfig|    y    |ELISA_security|Linux Securit
40 CONFIG_STATIC_USERMODEHELPER   |kconfig|    y    |ELISA_security|Linux Securit
41 CONFIG_STATIC_USERMODEHELPER_PATH |kconfig|    y    |ELISA_security|Linux Securit
42 CONFIG_DEFAULT_SECURITY_DAC    |kconfig|    y    |ELISA_security|Linux Securit
43 CONFIG_SECURITY_APPARMOR       |kconfig|    y    |ELISA_security|Linux Securit
44
45 [+] Config check is finished: 'OK' - 21 (suppressed in output) / 'FAIL' - 35

```

## 2. Amazon Linux v2: config-5.10.109-104.500.amzn2.x86\_64

```

1 wenhui.zhang@n231-227-105:~/kconfig-safety-check$ ./bin/kconfig-safety-check -p X86_64 -c
2 [+] Special report mode: show_fail
3 [+] Kconfig file to check: ./config_files/aws/config-5.10.109-104.500.amzn2.x86_64
4 [+] Detected architecture: X86_64
5 [+] Detected kernel version: 5.10
6 =====
7          option name          | type | desired val | decision |          reason
8 =====
9 CONFIG_SLAB_MERGE_DEFAULT      | kconfig | n          | ELISA_safety, Intel | Memory m
10 CONFIG_REFCOUNT_FULL          | kconfig | y          | ELISA_safety | Kernel Memory r
11 CONFIG_GCC_PLUGIN_STRUCTKLEAK | kconfig | y          | ELISA_safety | GCC, plugins, S
12 CONFIG_GCC_PLUGIN_STRUCTLEAK_BYREF_ALL | kconfig | y          | ELISA_safety | GCC, plugins, S
13 CONFIG_INIT_STACK_ALL        | kconfig | y          | ELISA_safety | Stack memory:Un
14 CONFIG_GCC_PLUGIN_STACKLEAK   | kconfig | y          | ELISA_safety | Stack memory:St
15 CONFIG_PAGE_POISONING         | kconfig | y          | ELISA_safety | Stack memory:St
16 CONFIG_PAGE_POISONING_NO_SANITY | kconfig | n          | ELISA_safety | Stack memory:St
17 CONFIG_DEBUG_SG               | kconfig | y          | ELISA_safety | Driver: Heap ov
18 CONFIG_KMEM                   | kconfig | n          | Intel | Kernel Memory:Ker
19 CONFIG_DEVMEM                 | kconfig | n          | ELISA_safety, Intel | Kernel M
20 CONFIG_DEVPORT                | kconfig | n          | ELISA_safety, Intel | Kernel M
21 CONFIG_ACPI_CUSTOM_METHOD     | kconfig | n          | ELISA_safety | Kernel Memory:K
22 CONFIG_LEGACY_PTYS            | kconfig | n          | ELISA_safety | Kernel Memory:K
23 CONFIG_HIBERNATION            | kconfig | n          | ELISA_safety | Kernel Memory:K
24 CONFIG_KEXEC                  | kconfig | n          | ELISA_safety | Kernel Memory:K
25 CONFIG_HARDENED_USERCOPY_FALLBACK | kconfig | n          | ELISA_safety | Kernel Memory:K
26 CONFIG_HARDENED_USERCOPY_PAGESPAN | kconfig | n          | ELISA_safety | Kernel Memory:K
27 CONFIG_COMPAT_BRK             | kconfig | n          | ELISA_safety | Heap memory:R/W
28 CONFIG_USERFAULTFD           | kconfig | n          | ELISA_safety | Heap memory:R/W
29 CONFIG_DEBUG_WX               | kconfig | y          | ELISA_safety | Kernel Memory:W
30 CONFIG_BPF_UNPRIV_DEFAULT_OFF | kconfig | n          | ELISA_safety | Branch Target B
31 CONFIG_LIVEPATCH             | kconfig | n          | ELISA_safety | Live Patch
32 CONFIG_DEVMEM                | kconfig | y          | ELISA_safety | Kernel Memory:K
33 CONFIG_SECURITY_WRITABLE_HOOKS | kconfig | n          | ELISA_security | Linux Securit
34 CONFIG_LSM_MMAP_MIN_ADDR      | kconfig | y          | ELISA_security | Linux Securit
35 CONFIG_STATIC_USERMODEHELPER   | kconfig | y          | ELISA_security | Linux Securit
36 CONFIG_STATIC_USERMODEHELPER_PATH | kconfig | y          | ELISA_security | Linux Securit
37 CONFIG_DEFAULT_SECURITY_DAC    | kconfig | y          | ELISA_security | Linux Securit
38 CONFIG_SECURITY_APPARMOR       | kconfig | y          | ELISA_security | Linux Securit
39
40 [+] Config check is finished: 'OK' - 26 (suppressed in output) / 'FAIL' - 30

```

### 3. Ubuntu 18.04: config-5.4.0-1071-aws-ubuntu-18.04

```

1 wenhui.zhang@n231-227-105:~/kconfig-safety-check$ ./bin/kconfig-safety-check -p X86_64 -c
2 [+] Special report mode: show_fail
3 [+] Kconfig file to check: ./config_files/aws/config-5.4.0-1071-aws-ubuntu-18.04
4 [+] Detected architecture: X86_64
5 [+] Detected kernel version: 5.4
6 =====
7          option name          | type | desired val | decision |          reason
8 =====
9 CONFIG_SLAB_MERGE_DEFAULT      | kconfig | n          | ELISA_safety, Intel | Memory m
10 CONFIG_REFCOUNT_FULL          | kconfig | y          | ELISA_safety | Kernel Memory r
11 CONFIG_GCC_PLUGIN_STRUCTKLEAK | kconfig | y          | ELISA_safety | GCC, plugins, S
12 CONFIG_GCC_PLUGIN_STRUCTLEAK_BYREF_ALL | kconfig | y          | ELISA_safety | GCC, plugins, S
13 CONFIG_INIT_STACK_ALL         | kconfig | y          | ELISA_safety | Stack memory:Un
14 CONFIG_GCC_PLUGIN_STACKLEAK   | kconfig | y          | ELISA_safety | Stack memory:St
15 CONFIG_PAGE_POISONING_NO_SANITY | kconfig | n          | ELISA_safety | Stack memory:St
16 CONFIG_DEBUG_SG                | kconfig | y          | ELISA_safety | Driver: Heap ov
17 CONFIG_BUG_ON_DATA_CORRUPTION | kconfig | y          | ELISA_safety | Kernel Memory:K
18 CONFIG_KMEM                    | kconfig | n          | Intel | Kernel Memory:Ker
19 CONFIG_DEVMEM                  | kconfig | n          | ELISA_safety, Intel | Kernel M
20 CONFIG_DEVPORT                 | kconfig | n          | ELISA_safety, Intel | Kernel M
21 CONFIG_ACPI_CUSTOM_METHOD      | kconfig | n          | ELISA_safety | Kernel Memory:K
22 CONFIG_LEGACY_PTYS             | kconfig | n          | ELISA_safety | Kernel Memory:K
23 CONFIG_HIBERNATION             | kconfig | n          | ELISA_safety | Kernel Memory:K
24 CONFIG_KEXEC                   | kconfig | n          | ELISA_safety | Kernel Memory:K
25 CONFIG_HARDENED_USERCOPY_FALLBACK | kconfig | n          | ELISA_safety | Kernel Memory:K
26 CONFIG_HARDENED_USERCOPY_PAGESPAN | kconfig | n          | ELISA_safety | Kernel Memory:K
27 CONFIG_COMPAT_BRK              | kconfig | n          | ELISA_safety | Heap memory:R/W
28 CONFIG_USERFAULTFD             | kconfig | n          | ELISA_safety | Heap memory:R/W
29 CONFIG_BPF_UNPRIV_DEFAULT_OFF  | kconfig | n          | ELISA_safety | Branch Target B
30 CONFIG_LIVEPATCH              | kconfig | n          | ELISA_safety | Live Patch
31 CONFIG_DEVKMEM                 | kconfig | y          | ELISA_safety | Kernel Memory:K
32 CONFIG_SECURITY_WRITABLE_HOOKS | kconfig | n          | ELISA_security | Linux Securit
33 CONFIG_LSM_MMAB_MIN_ADDR       | kconfig | y          | ELISA_security | Linux Securit
34 CONFIG_STATIC_USERMODEHELPER   | kconfig | y          | ELISA_security | Linux Securit
35 CONFIG_STATIC_USERMODEHELPER_PATH | kconfig | y          | ELISA_security | Linux Securit
36 CONFIG_DEFAULT_SECURITY_DAC     | kconfig | y          | ELISA_security | Linux Securit
37
38 [+] Config check is finished: 'OK' - 28 (suppressed in output) / 'FAIL' - 28

```

## 4. Ubuntu 20.04: config-5.13.0-1022-aws-ubuntu-20.04

```

1 wenhui.zhang@n231-227-105:~/kconfig-safety-check$ ./bin/kconfig-safety-check -p X86_64 -c
2 [+] Special report mode: show_fail
3 [+] Kconfig file to check: ./config_files/aws/config-5.13.0-1022-aws-ubuntu-20.04
4 [+] Detected architecture: X86_64
5 [+] Detected kernel version: 5.13
6 =====
7
8          option name          | type | desired val | decision |          reason
9 =====
10 CONFIG_SLAB_MERGE_DEFAULT    | kconfig | n          | ELISA_safety, Intel | Memory m
11 CONFIG_REFCOUNT_FULL         | kconfig | y          | ELISA_safety | Kernel Memory r
12 CONFIG_GCC_PLUGIN_STRUCTKLEAK | kconfig | y          | ELISA_safety | GCC, plugins, S
13 CONFIG_GCC_PLUGIN_STRUCTLEAK_BYREF_ALL | kconfig | y          | ELISA_safety | GCC, plugins, S
14 CONFIG_INIT_STACK_ALL        | kconfig | y          | ELISA_safety | Stack memory:Un
15 CONFIG_GCC_PLUGIN_STACKLEAK   | kconfig | y          | ELISA_safety | Stack memory:St
16 CONFIG_PAGE_POISONING_NO_SANITY | kconfig | n          | ELISA_safety | Stack memory:St
17 CONFIG_DEBUG_SG               | kconfig | y          | ELISA_safety | Driver: Heap ov
18 CONFIG_BUG_ON_DATA_CORRUPTION | kconfig | y          | ELISA_safety | Kernel Memory:K
19 CONFIG_KMEM                   | kconfig | n          | Intel | Kernel Memory:Ker
20 CONFIG_DEVMEM                 | kconfig | n          | ELISA_safety, Intel | Kernel M
21 CONFIG_DEVPORT                | kconfig | n          | ELISA_safety, Intel | Kernel M
22 CONFIG_ACPI_CUSTOM_METHOD     | kconfig | n          | ELISA_safety | Kernel Memory:K
23 CONFIG_LEGACY_PTYS            | kconfig | n          | ELISA_safety | Kernel Memory:K
24 CONFIG_HIBERNATION            | kconfig | n          | ELISA_safety | Kernel Memory:K
25 CONFIG_KEXEC                  | kconfig | n          | ELISA_safety | Kernel Memory:K
26 CONFIG_HARDENED_USERCOPY_FALLBACK | kconfig | n          | ELISA_safety | Kernel Memory:K
27 CONFIG_HARDENED_USERCOPY_PAGESPAN | kconfig | n          | ELISA_safety | Kernel Memory:K
28 CONFIG_COMPAT_BRK            | kconfig | n          | ELISA_safety | Heap memory:R/W
29 CONFIG_USERFAULTFD           | kconfig | n          | ELISA_safety | Heap memory:R/W
30 CONFIG_BPF_UNPRIV_DEFAULT_OFF | kconfig | n          | ELISA_safety | Branch Target B
31 CONFIG_LIVEPATCH             | kconfig | n          | ELISA_safety | Live Patch
32 CONFIG_DEVKMEM                | kconfig | y          | ELISA_safety | Kernel Memory:K
33 CONFIG_SECURITY_WRITABLE_HOOKS | kconfig | n          | ELISA_security | Linux Securit
34 CONFIG_LSM_MMAP_MIN_ADDR      | kconfig | y          | ELISA_security | Linux Securit
35 CONFIG_STATIC_USERMODEHELPER   | kconfig | y          | ELISA_security | Linux Securit
36 CONFIG_STATIC_USERMODEHELPER_PATH | kconfig | y          | ELISA_security | Linux Securit
37 CONFIG_DEFAULT_SECURITY_DAC    | kconfig | y          | ELISA_security | Linux Securit
38
39 [+] Config check is finished: 'OK' - 28 (suppressed in output) / 'FAIL' - 28
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```

## 5. Ubuntu 22.04: config-5.15.0-1004-aws-ubuntu-22.04

```

1 wenhui.zhang@n231-227-105:~/kconfig-safety-check$ ./bin/kconfig-safety-check -p X86_64 -c
2 [+] Special report mode: show_fail
3 [+] Kconfig file to check: ./config_files/aws/config-5.15.0-1004-aws-ubuntu-22.04
4 [+] Detected architecture: X86_64
5 [+] Detected kernel version: 5.15
6 =====
7          option name          | type | desired val | decision |          reason
8 =====
9 CONFIG_SLAB_MERGE_DEFAULT      | kconfig | n          | ELISA_safety, Intel | Memory m
10 CONFIG_REFCOUNT_FULL           | kconfig | y          | ELISA_safety | Kernel Memory r
11 CONFIG_GCC_PLUGIN_STRUCTKLEAK  | kconfig | y          | ELISA_safety | GCC, plugins, S
12 CONFIG_GCC_PLUGIN_STRUCTLEAK_BYREF_ALL | kconfig | y          | ELISA_safety | GCC, plugins, S
13 CONFIG_INIT_STACK_ALL         | kconfig | y          | ELISA_safety | Stack memory:Un
14 CONFIG_GCC_PLUGIN_STACKLEAK    | kconfig | y          | ELISA_safety | Stack memory:St
15 CONFIG_PAGE_POISONING_NO_SANITY | kconfig | n          | ELISA_safety | Stack memory:St
16 CONFIG_DEBUG_SG                | kconfig | y          | ELISA_safety | Driver: Heap ov
17 CONFIG_BUG_ON_DATA_CORRUPTION | kconfig | y          | ELISA_safety | Kernel Memory:K
18 CONFIG_KMEM                    | kconfig | n          | Intel | Kernel Memory:Ker
19 CONFIG_DEVMEM                  | kconfig | n          | ELISA_safety, Intel | Kernel M
20 CONFIG_DEVPORT                 | kconfig | n          | ELISA_safety, Intel | Kernel M
21 CONFIG_ACPI_CUSTOM_METHOD      | kconfig | n          | ELISA_safety | Kernel Memory:K
22 CONFIG_LEGACY_PTYS             | kconfig | n          | ELISA_safety | Kernel Memory:K
23 CONFIG_HIBERNATION             | kconfig | n          | ELISA_safety | Kernel Memory:K
24 CONFIG_KEXEC                   | kconfig | n          | ELISA_safety | Kernel Memory:K
25 CONFIG_HARDENED_USERCOPY_FALLBACK | kconfig | n          | ELISA_safety | Kernel Memory:K
26 CONFIG_HARDENED_USERCOPY_PAGESPAN | kconfig | n          | ELISA_safety | Kernel Memory:K
27 CONFIG_COMPAT_BRK              | kconfig | n          | ELISA_safety | Heap memory:R/W
28 CONFIG_USERFAULTFD             | kconfig | n          | ELISA_safety | Heap memory:R/W
29 CONFIG_BPF_UNPRIV_DEFAULT_OFF  | kconfig | n          | ELISA_safety | Branch Target B
30 CONFIG_LIVEPATCH              | kconfig | n          | ELISA_safety | Live Patch
31 CONFIG_DEVKMEM                 | kconfig | y          | ELISA_safety | Kernel Memory:K
32 CONFIG_SECURITY_WRITABLE_HOOKS | kconfig | n          | ELISA_security | Linux Securit
33 CONFIG_LSM_MMAB_MIN_ADDR       | kconfig | y          | ELISA_security | Linux Securit
34 CONFIG_STATIC_USERMODEHELPER    | kconfig | y          | ELISA_security | Linux Securit
35 CONFIG_STATIC_USERMODEHELPER_PATH | kconfig | y          | ELISA_security | Linux Securit
36 CONFIG_DEFAULT_SECURITY_DAC     | kconfig | y          | ELISA_security | Linux Securit
37
38 [+] Config check is finished: 'OK' - 28 (suppressed in output) / 'FAIL' - 28

```

## 6. SUSE 15: config-5.3.18-59.37-default-aws-suse-15

```

1 wenhui.zhang@n231-227-105:~/kconfig-safety-check$ ./bin/kconfig-safety-check -p X86_64 -c
2 [+] Special report mode: show_fail
3 [+] Kconfig file to check: ./config_files/aws/config-5.3.18-59.37-default-aws-suse-15
4 [+] Detected architecture: X86_64
5 [+] Detected kernel version: 5.3
6 =====
7          option name          | type | desired val | decision |          reason
8 =====
9 CONFIG_SLAB_MERGE_DEFAULT      | kconfig | n          | ELISA_safety, Intel | Memory m
10 CONFIG_REFCOUNT_FULL          | kconfig | y          | ELISA_safety | Kernel Memory r
11 CONFIG_GCC_PLUGIN_STRUCTKLEAK | kconfig | y          | ELISA_safety | GCC, plugins, S
12 CONFIG_GCC_PLUGIN_STRUCTLEAK_BYREF_ALL | kconfig | y          | ELISA_safety | GCC, plugins, S
13 CONFIG_INIT_STACK_ALL         | kconfig | y          | ELISA_safety | Stack memory:Un
14 CONFIG_GCC_PLUGIN_STACKLEAK   | kconfig | y          | ELISA_safety | Stack memory:St
15 CONFIG_PAGE_POISONING         | kconfig | y          | ELISA_safety | Stack memory:St
16 CONFIG_PAGE_POISONING_NO_SANITY | kconfig | n          | ELISA_safety | Stack memory:St
17 CONFIG_DEBUG_SG               | kconfig | y          | ELISA_safety | Driver: Heap ov
18 CONFIG_BUG_ON_DATA_CORRUPTION | kconfig | y          | ELISA_safety | Kernel Memory:K
19 CONFIG_KMEM                   | kconfig | n          | Intel | Kernel Memory:Ker
20 CONFIG_DEVMEM                 | kconfig | n          | ELISA_safety, Intel | Kernel M
21 CONFIG_DEVPORT                | kconfig | n          | ELISA_safety, Intel | Kernel M
22 CONFIG_ACPI_CUSTOM_METHOD     | kconfig | n          | ELISA_safety | Kernel Memory:K
23 CONFIG_LEGACY_PTYS            | kconfig | n          | ELISA_safety | Kernel Memory:K
24 CONFIG_HIBERNATION            | kconfig | n          | ELISA_safety | Kernel Memory:K
25 CONFIG_KEXEC                  | kconfig | n          | ELISA_safety | Kernel Memory:K
26 CONFIG_HARDENED_USERCOPY      | kconfig | y          | ELISA_safety, Intel | Kernel M
27 CONFIG_HARDENED_USERCOPY_FALLBACK | kconfig | n          | ELISA_safety | Kernel Memory:K
28 CONFIG_HARDENED_USERCOPY_PAGESPAN | kconfig | n          | ELISA_safety | Kernel Memory:K
29 CONFIG_COMPAT_BRK             | kconfig | n          | ELISA_safety | Heap memory:R/W
30 CONFIG_USERFAULTFD            | kconfig | n          | ELISA_safety | Heap memory:R/W
31 CONFIG_DEBUG_WX               | kconfig | y          | ELISA_safety | Kernel Memory:W
32 CONFIG_BPF_UNPRIV_DEFAULT_OFF | kconfig | n          | ELISA_safety | Branch Target B
33 CONFIG_LIVEPATCH             | kconfig | n          | ELISA_safety | Live Patch
34 CONFIG_DEVMEM                | kconfig | y          | ELISA_safety | Kernel Memory:K
35 CONFIG_SECURITY_WRITABLE_HOOKS | kconfig | n          | ELISA_security | Linux Securit
36 CONFIG_LSM_MMAP_MIN_ADDR      | kconfig | y          | ELISA_security | Linux Securit
37 CONFIG_STATIC_USERMODEHELPER   | kconfig | y          | ELISA_security | Linux Securit
38 CONFIG_STATIC_USERMODEHELPER_PATH | kconfig | y          | ELISA_security | Linux Securit
39 CONFIG_DEFAULT_SECURITY_DAC    | kconfig | y          | ELISA_security | Linux Securit
40
41 [+] Config check is finished: 'OK' - 25 (suppressed in output) / 'FAIL' - 31

```

## 7. CentOS 8: config-4.18.0-305.el8.x86\_64-aws-centos-8



```

1 wenhui.zhang@n231-227-105:~/kconfig-safety-check$ ./bin/kconfig-safety-check -p X86_64 -c
2 [+] Special report mode: show_fail
3 [+] Kconfig file to check: ./config_files/aws/config-4.18.0-305.el8.x86_64-aws-centos-8
4 [+] Detected architecture: X86_64
5 [+] Detected kernel version: 4.18
6 =====
7          option name          | type | desired val | decision |          reason
8 =====
9 CONFIG_SLAB_FREELIST_HARDENED | kconfig | y          | ELISA_safety, Intel | Memory m
10 CONFIG_SLAB_MERGE_DEFAULT    | kconfig | n          | ELISA_safety, Intel | Memory m
11 CONFIG_REFCOUNT_FULL         | kconfig | y          | ELISA_safety | Kernel Memory r
12 CONFIG_GCC_PLUGIN_STRUCTKLEAK | kconfig | y          | ELISA_safety | GCC, plugins, S
13 CONFIG_GCC_PLUGIN_STRUCTLEAK_BYREF_ALL | kconfig | y          | ELISA_safety | GCC, plugins, S
14 CONFIG_INIT_STACK_ALL        | kconfig | y          | ELISA_safety | Stack memory:Un
15 CONFIG_BPF_UNPRIV_DEFAULT_OFF | kconfig | y          | ELISA_safety | Kernel Memory:I
16 CONFIG_SCHED_STACK_END_CHECK | kconfig | y          | ELISA_safety, Intel | Stack me
17 CONFIG_GCC_PLUGIN_STACKLEAK  | kconfig | y          | ELISA_safety | Stack memory:St
18 CONFIG_PAGE_POISONING        | kconfig | y          | ELISA_safety | Stack memory:St
19 CONFIG_PAGE_POISONING_NO_SANITY | kconfig | n          | ELISA_safety | Stack memory:St
20 CONFIG_DEBUG_SG               | kconfig | y          | ELISA_safety | Driver: Heap ov
21 CONFIG_KMEM                   | kconfig | n          | Intel | Kernel Memory:Ker
22 CONFIG_DEVMEM                 | kconfig | n          | ELISA_safety, Intel | Kernel M
23 CONFIG_DEVPORT                | kconfig | n          | ELISA_safety, Intel | Kernel M
24 CONFIG_ACPI_CUSTOM_METHOD     | kconfig | n          | ELISA_safety | Kernel Memory:K
25 CONFIG_LEGACY_PTYS            | kconfig | n          | ELISA_safety | Kernel Memory:K
26 CONFIG_HIBERNATION            | kconfig | n          | ELISA_safety | Kernel Memory:K
27 CONFIG_KEXEC                  | kconfig | n          | ELISA_safety | Kernel Memory:K
28 CONFIG_HARDENED_USERCOPY_FALLBACK | kconfig | n          | ELISA_safety | Kernel Memory:K
29 CONFIG_HARDENED_USERCOPY_PAGESPAN | kconfig | n          | ELISA_safety | Kernel Memory:K
30 CONFIG_COMPAT_BRK             | kconfig | n          | ELISA_safety | Heap memory:R/W
31 CONFIG_USERFAULTFD            | kconfig | n          | ELISA_safety | Heap memory:R/W
32 CONFIG_DEBUG_WX               | kconfig | y          | ELISA_safety | Kernel Memory:W
33 CONFIG_BPF_UNPRIV_DEFAULT_OFF | kconfig | n          | ELISA_safety | Branch Target B
34 CONFIG_LIVEPATCH              | kconfig | n          | ELISA_safety | Live Patch
35 CONFIG_DEVKMEM                | kconfig | y          | ELISA_safety | Kernel Memory:K
36 CONFIG_SECURITY_WRITABLE_HOOKS | kconfig | n          | ELISA_security | Linux Securit
37 CONFIG_SECURITY_PATH           | kconfig | y          | ELISA_security | Linux Securit
38 CONFIG_LSM_MMAP_MIN_ADDR      | kconfig | y          | ELISA_security | Linux Securit
39 CONFIG_STATIC_USERMODEHELPER   | kconfig | y          | ELISA_security | Linux Securit
40 CONFIG_STATIC_USERMODEHELPER_PATH | kconfig | y          | ELISA_security | Linux Securit
41 CONFIG_DEFAULT_SECURITY_DAC    | kconfig | y          | ELISA_security | Linux Securit
42 CONFIG_SECURITY_APPARMOR       | kconfig | y          | ELISA_security | Linux Securit
43
44 [+] Config check is finished: 'OK' - 22 (suppressed in output) / 'FAIL' - 34

```

## 8. Debian 10: config-4.19.0-16-cloud-amd64-aws-debian-10



```

1 wenhui.zhang@n231-227-105:~/kconfig-safety-check$ ./bin/kconfig-safety-check -p X86_64 -c
2 [+] Special report mode: show_fail
3 [+] Kconfig file to check: ./config_files/aws/config-4.19.0-16-cloud-amd64-aws-debian-10
4 [+] Detected architecture: X86_64
5 [+] Detected kernel version: 4.19
6 =====
7          option name          | type | desired val | decision |          reason
8 =====
9 CONFIG_SLAB_MERGE_DEFAULT      | kconfig | n          | ELISA_safety, Intel | Memory m
10 CONFIG_SHUFFLE_PAGE_ALLOCATOR  | kconfig | y          | ELISA_safety, Intel | Memory m
11 CONFIG_GCC_PLUGIN_STRUCTKLEAK  | kconfig | y          | ELISA_safety | GCC, plugins, S
12 CONFIG_GCC_PLUGIN_STRUCTLEAK_BYREF_ALL | kconfig | y          | ELISA_safety | GCC, plugins, S
13 CONFIG_INIT_STACK_ALL          | kconfig | y          | ELISA_safety | Stack memory: Un
14 CONFIG_BPF_JIT_ALWAYS_ON       | kconfig | y          | ELISA_safety | Kernel Memory: I
15 CONFIG_BPF_UNPRIV_DEFAULT_OFF  | kconfig | y          | ELISA_safety | Kernel Memory: I
16 CONFIG_GCC_PLUGIN_STACKLEAK    | kconfig | y          | ELISA_safety | Stack memory: St
17 CONFIG_PAGE_POISONING          | kconfig | y          | ELISA_safety | Stack memory: St
18 CONFIG_PAGE_POISONING_NO_SANITY | kconfig | n          | ELISA_safety | Stack memory: St
19 CONFIG_DEBUG_SG                | kconfig | y          | ELISA_safety | Driver: Heap ov
20 CONFIG_KMEM                    | kconfig | n          | Intel | Kernel Memory: Ker
21 CONFIG_DEVMEM                 | kconfig | n          | ELISA_safety, Intel | Kernel M
22 CONFIG_DEVPORT                | kconfig | n          | ELISA_safety, Intel | Kernel M
23 CONFIG_ACPI_CUSTOM_METHOD      | kconfig | n          | ELISA_safety | Kernel Memory: K
24 CONFIG_LEGACY_PTYS             | kconfig | n          | ELISA_safety | Kernel Memory: K
25 CONFIG_HIBERNATION             | kconfig | n          | ELISA_safety | Kernel Memory: K
26 CONFIG_KEXEC                  | kconfig | n          | ELISA_safety | Kernel Memory: K
27 CONFIG_HARDENED_USERCOPY_FALLBACK | kconfig | n          | ELISA_safety | Kernel Memory: K
28 CONFIG_HARDENED_USERCOPY_PAGESPAN | kconfig | n          | ELISA_safety | Kernel Memory: K
29 CONFIG_COMPAT_BRK              | kconfig | n          | ELISA_safety | Heap memory: R/W
30 CONFIG_USERFAULTFD             | kconfig | n          | ELISA_safety | Heap memory: R/W
31 CONFIG_BPF_UNPRIV_DEFAULT_OFF  | kconfig | n          | ELISA_safety | Branch Target B
32 CONFIG_LIVEPATCH              | kconfig | n          | ELISA_safety | Live Patch
33 CONFIG_DEVMEM                 | kconfig | y          | ELISA_safety | Kernel Memory: K
34 CONFIG_SECURITY_WRITABLE_HOOKS | kconfig | n          | ELISA_security | Linux Securit
35 CONFIG_INTEL_TXT               | kconfig | y          | ELISA_security | Linux Securit
36 CONFIG_LSM_MMAP_MIN_ADDR       | kconfig | y          | ELISA_security | Linux Securit
37 CONFIG_STATIC_USERMODEHELPER    | kconfig | y          | ELISA_security | Linux Securit
38 CONFIG_STATIC_USERMODEHELPER_PATH | kconfig | y          | ELISA_security | Linux Securit
39 CONFIG_DEFAULT_SECURITY_DAC     | kconfig | y          | ELISA_security | Linux Securit
40
41 [+] Config check is finished: 'OK' - 25 (suppressed in output) / 'FAIL' - 31

```