**Alibaba Cloud Report**

*Alibaba config list: https://github.com/wenhuizhang/kconfig-safety-check/tree/master/config\_files/alibaba*

*Tool usage: "./bin/kconfig-safety-check -p X86\_64 -c ./config\_files/aws/\* -m show\_fail -e prod"*

1. **config-2.6.18-371.11.1.el5.x86\_64-centos5**

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| Python % ./bin/kconfig-safety-check -p X86\_64 -c ./config\_files/alibaba/config-2.6.18-371.11.1.el5.x86\_64-centos5 -m show\_fail [+] Special report mode: show\_fail [+] Kconfig file to check: ./config\_files/alibaba/config-2.6.18-371.11.1.el5.x86\_64-centos5 [+] Detected architecture: X86\_64 [+] Detected kernel version: 2.6.18 2.6.18 =========================================================================================================================  option name | type |desired val | decision | reason | check result ========================================================================================================================= CONFIG\_KEXEC |kconfig| n |ELISA\_safety|Kernel Memory:Kernel corruption of user space memory| FAIL: "y" CONFIG\_KPROBES |kconfig| n |ELISA\_safety|Stack memory:Enable traceability| FAIL: "y" CONFIG\_KALLSYMS |kconfig| n |ELISA\_safety|Stack memory:Enable traceability| FAIL: "y" CONFIG\_PROVE\_LOCKING |kconfig| y |ELISA\_safety|Debug:Kernel mode lockup| FAIL: "is not set" CONFIG\_DEBUG\_RT\_MUTEXES |kconfig| y |ELISA\_safety| Debug:RT mutexes | FAIL: "is not set" CONFIG\_DEBUG\_SPINLOCK |kconfig| y |ELISA\_safety| Debug:RT mutexes | FAIL: "is not set" CONFIG\_DEBUG\_MUTEXES |kconfig| y |ELISA\_safety| Debug:RT mutexes | FAIL: "is not set" CONFIG\_DEBUG\_LOCK\_ALLOC |kconfig| y |ELISA\_safety| Debug:RT mutexes | FAIL: "is not set" CONFIG\_DEBUG\_LOCKING\_API\_SELFTESTS |kconfig| y |ELISA\_safety| Debug:RT mutexes | FAIL: "is not set" CONFIG\_RCU\_TORTURE\_TEST |kconfig| y |ELISA\_safety| Debug:RT mutexes | FAIL: "is not set"  [+] Config check is finished: 'OK' - 2 (suppressed in output) / 'FAIL' - 10 |

2. **config-2.6.32-754.35.1.el6.x86\_64-centos6**

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| Python  % ./bin/kconfig-safety-check -p X86\_64 -c ./config\_files/alibaba/config-2.6.32-754.35.1.el6.x86\_64-centos6 -m show\_fail  [+] Special report mode: show\_fail [+] Kconfig file to check: ./config\_files/alibaba/config-2.6.32-754.35.1.el6.x86\_64-centos6 [+] Detected architecture: X86\_64 [+] Detected kernel version: 2.6.32 2.6.32 =========================================================================================================================  option name | type |desired val | decision | reason | check result ========================================================================================================================= CONFIG\_SLUB\_DEBUG |kconfig| y |ELISA\_safety|Memory management:Heap:Debug| FAIL: not found CONFIG\_DEBUG\_SG |kconfig| y |ELISA\_safety|Driver: Heap overflow| FAIL: "is not set" CONFIG\_KMEM |kconfig| n | Intel |Kernel Memory:Kernel corruption of user space memory| FAIL: not found CONFIG\_DEVPORT |kconfig| n |ELISA\_safety, Intel|Kernel Memory:Kernel corruption of user space memory| FAIL: "y" CONFIG\_HIBERNATION |kconfig| n |ELISA\_safety|Kernel Memory:Kernel corruption of user space memory| FAIL: "y" CONFIG\_KEXEC |kconfig| n |ELISA\_safety|Kernel Memory:Kernel corruption of user space memory| FAIL: "y" CONFIG\_COMPAT\_BRK |kconfig| n |ELISA\_safety|Heap memory:R/W access to memory allocated to another software element| FAIL: "is not set" CONFIG\_KPROBES |kconfig| n |ELISA\_safety|Stack memory:Enable traceability| FAIL: "y" CONFIG\_PROC\_KCORE |kconfig| n |ELISA\_safety|Stack memory:Enable traceability| FAIL: "y" CONFIG\_KALLSYMS |kconfig| n |ELISA\_safety|Stack memory:Enable traceability| FAIL: "y" CONFIG\_PROVE\_LOCKING |kconfig| y |ELISA\_safety|Debug:Kernel mode lockup| FAIL: "is not set" CONFIG\_DEBUG\_RT\_MUTEXES |kconfig| y |ELISA\_safety| Debug:RT mutexes | FAIL: "is not set" CONFIG\_DEBUG\_NOTIFIERS |kconfig| y |ELISA\_safety|Debug:Notification| FAIL: "is not set" CONFIG\_LOCK\_STAT |kconfig| y |ELISA\_safety|Debug:Notification| FAIL: "is not set" CONFIG\_DEBUG\_SPINLOCK |kconfig| y |ELISA\_safety| Debug:RT mutexes | FAIL: "is not set" CONFIG\_DEBUG\_MUTEXES |kconfig| y |ELISA\_safety| Debug:RT mutexes | FAIL: "is not set" CONFIG\_DEBUG\_LOCK\_ALLOC |kconfig| y |ELISA\_safety| Debug:RT mutexes | FAIL: "is not set" CONFIG\_DEBUG\_LOCKING\_API\_SELFTESTS |kconfig| y |ELISA\_safety| Debug:RT mutexes | FAIL: "is not set" CONFIG\_RCU\_TORTURE\_TEST |kconfig| y |ELISA\_safety| Debug:RT mutexes | FAIL: "is not set" CONFIG\_SECURITY\_WRITABLE\_HOOKS |kconfig| n |ELISA\_security|Linux Security Module| FAIL: not found CONFIG\_SECURITY\_INFINIBAND |kconfig| y |ELISA\_security|Linux Security Module| FAIL: not found CONFIG\_SECURITY\_PATH |kconfig| y |ELISA\_security|Linux Security Module| FAIL: "is not set" CONFIG\_LSM\_MMAP\_MIN\_ADDR |kconfig| y |ELISA\_security|Linux Security Module| FAIL: "65535" CONFIG\_HAVE\_HARDENED\_USERCOPY\_ALLOCATOR |kconfig| y |ELISA\_security|Linux Security Module| FAIL: not found CONFIG\_STATIC\_USERMODEHELPER |kconfig| y |ELISA\_security|Linux Security Module| FAIL: not found CONFIG\_STATIC\_USERMODEHELPER\_PATH |kconfig| y |ELISA\_security|Linux Security Module| FAIL: not found CONFIG\_DEFAULT\_SECURITY\_DAC |kconfig| y |ELISA\_security|Linux Security Module| FAIL: not found  [+] Config check is finished: 'OK' - 14 (suppressed in output) / 'FAIL' - 27 |

3. **config-3.10.0-1160.62.1.el7.x86\_64-centos7**

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| Python % ./bin/kconfig-safety-check -p X86\_64 -c ./config\_files/alibaba/config-3.10.0-1160.62.1.el7.x86\_64-centos7 -m show\_fail  [+] Special report mode: show\_fail [+] Kconfig file to check: ./config\_files/alibaba/config-3.10.0-1160.62.1.el7.x86\_64-centos7 [+] Detected architecture: X86\_64 [+] Detected kernel version: 3.10.0 3.10.0 =========================================================================================================================  option name | type |desired val | decision | reason | check result ========================================================================================================================= CONFIG\_DEBUG\_SG |kconfig| y |ELISA\_safety|Driver: Heap overflow| FAIL: "is not set" CONFIG\_KMEM |kconfig| n | Intel |Kernel Memory:Kernel corruption of user space memory| FAIL: not found CONFIG\_DEVPORT |kconfig| n |ELISA\_safety, Intel|Kernel Memory:Kernel corruption of user space memory| FAIL: "y" CONFIG\_ACPI\_CUSTOM\_METHOD |kconfig| n |ELISA\_safety|Kernel Memory:Kernel corruption of user space memory| FAIL: "m" CONFIG\_LEGACY\_PTYS |kconfig| n |ELISA\_safety|Kernel Memory:Kernel corruption of user space memory| FAIL: "is not set" CONFIG\_HIBERNATION |kconfig| n |ELISA\_safety|Kernel Memory:Kernel corruption of user space memory| FAIL: "y" CONFIG\_KEXEC |kconfig| n |ELISA\_safety|Kernel Memory:Kernel corruption of user space memory| FAIL: "y" CONFIG\_SECURITY\_DMESG\_RESTRICT |kconfig| y |ELISA\_safety|Kernel Memory:Debug| FAIL: "is not set" CONFIG\_COMPAT\_BRK |kconfig| n |ELISA\_safety|Heap memory:R/W access to memory allocated to another software element| FAIL: "is not set" CONFIG\_KPROBES |kconfig| n |ELISA\_safety|Stack memory:Enable traceability| FAIL: "y" CONFIG\_PROC\_KCORE |kconfig| n |ELISA\_safety|Stack memory:Enable traceability| FAIL: "y" CONFIG\_KALLSYMS |kconfig| n |ELISA\_safety|Stack memory:Enable traceability| FAIL: "y" CONFIG\_PROVE\_LOCKING |kconfig| y |ELISA\_safety|Debug:Kernel mode lockup| FAIL: "is not set" CONFIG\_DEBUG\_RT\_MUTEXES |kconfig| y |ELISA\_safety| Debug:RT mutexes | FAIL: "is not set" CONFIG\_DEBUG\_NOTIFIERS |kconfig| y |ELISA\_safety|Debug:Notification| FAIL: "is not set" CONFIG\_LOCK\_STAT |kconfig| y |ELISA\_safety|Debug:Notification| FAIL: "is not set" CONFIG\_DEBUG\_SPINLOCK |kconfig| y |ELISA\_safety| Debug:RT mutexes | FAIL: "is not set" CONFIG\_DEBUG\_MUTEXES |kconfig| y |ELISA\_safety| Debug:RT mutexes | FAIL: "is not set" CONFIG\_DEBUG\_LOCK\_ALLOC |kconfig| y |ELISA\_safety| Debug:RT mutexes | FAIL: "is not set" CONFIG\_DEBUG\_LOCKING\_API\_SELFTESTS |kconfig| y |ELISA\_safety| Debug:RT mutexes | FAIL: "is not set" CONFIG\_RCU\_TORTURE\_TEST |kconfig| y |ELISA\_safety| Debug:RT mutexes | FAIL: "is not set" CONFIG\_DEBUG\_ATOMIC\_SLEEP |kconfig| y |ELISA\_safety| Debug:RT mutexes | FAIL: "is not set" CONFIG\_SECURITY\_WRITABLE\_HOOKS |kconfig| n |ELISA\_security|Linux Security Module| FAIL: not found CONFIG\_LSM\_MMAP\_MIN\_ADDR |kconfig| y |ELISA\_security|Linux Security Module| FAIL: "65535" CONFIG\_STATIC\_USERMODEHELPER |kconfig| y |ELISA\_security|Linux Security Module| FAIL: not found CONFIG\_STATIC\_USERMODEHELPER\_PATH |kconfig| y |ELISA\_security|Linux Security Module| FAIL: not found CONFIG\_DEFAULT\_SECURITY\_DAC |kconfig| y |ELISA\_security|Linux Security Module| FAIL: "is not set"  [+] Config check is finished: 'OK' - 18 (suppressed in output) / 'FAIL' - 27 |

4. **config-4.18.0-348.7.1.el8\_5.x86\_64-centos8**

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| Python % ./bin/kconfig-safety-check -p X86\_64 -c ./config\_files/alibaba/config-4.18.0-348.7.1.el8\_5.x86\_64-centos8 -m show\_fail [+] Special report mode: show\_fail [+] Kconfig file to check: ./config\_files/alibaba/config-4.18.0-348.7.1.el8\_5.x86\_64-centos8 [+] Detected architecture: X86\_64 [+] Detected kernel version: 4.18.0 4.18.0 =========================================================================================================================  option name | type |desired val | decision | reason | check result ========================================================================================================================= CONFIG\_SLAB\_FREELIST\_HARDENED |kconfig| y |ELISA\_safety, Intel|Memory management:Heap:Use after free| FAIL: "is not set" CONFIG\_REFCOUNT\_FULL |kconfig| y |ELISA\_safety|Kernel Memory reference count: Use after free| FAIL: "is not set" CONFIG\_GCC\_PLUGIN\_STRUCTKLEAK |kconfig| y |ELISA\_safety|GCC, plugins, Stack memory:Uninitialized variables| FAIL: not found CONFIG\_GCC\_PLUGIN\_STRUCTLEAK\_BYREF\_ALL |kconfig| y |ELISA\_safety|GCC, plugins, Stack memory:Uninitialized variables| FAIL: not found CONFIG\_SCHED\_STACK\_END\_CHECK |kconfig| y |ELISA\_safety, Intel|Stack memory:Stack overflow| FAIL: "is not set" CONFIG\_PAGE\_POISONING\_NO\_SANITY |kconfig| n |ELISA\_safety|Stack memory:Stack overflow| FAIL: not found CONFIG\_DEBUG\_SG |kconfig| y |ELISA\_safety|Driver: Heap overflow| FAIL: "is not set" CONFIG\_KMEM |kconfig| n | Intel |Kernel Memory:Kernel corruption of user space memory| FAIL: not found CONFIG\_DEVMEM |kconfig| n |ELISA\_safety, Intel|Kernel Memory:Kernel corruption of user space memory| FAIL: "y" CONFIG\_DEVPORT |kconfig| n |ELISA\_safety, Intel|Kernel Memory:Kernel corruption of user space memory| FAIL: "y" CONFIG\_ACPI\_CUSTOM\_METHOD |kconfig| n |ELISA\_safety|Kernel Memory:Kernel corruption of user space memory| FAIL: "is not set" CONFIG\_LEGACY\_PTYS |kconfig| n |ELISA\_safety|Kernel Memory:Kernel corruption of user space memory| FAIL: "is not set" CONFIG\_HIBERNATION |kconfig| n |ELISA\_safety|Kernel Memory:Kernel corruption of user space memory| FAIL: "y" CONFIG\_KEXEC |kconfig| n |ELISA\_safety|Kernel Memory:Kernel corruption of user space memory| FAIL: "y" CONFIG\_HARDENED\_USERCOPY\_FALLBACK |kconfig| n |ELISA\_safety|Kernel Memory:Kernel corruption of user space memory| FAIL: "y" CONFIG\_HARDENED\_USERCOPY\_PAGESPAN |kconfig| n |ELISA\_safety|Kernel Memory:Kernel corruption of user space memory| FAIL: not found CONFIG\_SECURITY\_DMESG\_RESTRICT |kconfig| y |ELISA\_safety|Kernel Memory:Debug| FAIL: "is not set" CONFIG\_COMPAT\_BRK |kconfig| n |ELISA\_safety|Heap memory:R/W access to memory allocated to another software element| FAIL: "is not set" CONFIG\_USERFAULTFD |kconfig| n |ELISA\_safety|Heap memory:R/W access to memory allocated to another software element| FAIL: "y" CONFIG\_DEBUG\_WX |kconfig| y |ELISA\_safety|Kernel Memory:W+X access to memory pages| FAIL: "is not set" CONFIG\_KPROBES |kconfig| n |ELISA\_safety|Stack memory:Enable traceability| FAIL: "y" CONFIG\_PROC\_KCORE |kconfig| n |ELISA\_safety|Stack memory:Enable traceability| FAIL: "y" CONFIG\_KALLSYMS |kconfig| n |ELISA\_safety|Stack memory:Enable traceability| FAIL: "y" CONFIG\_WQ\_WATCHDOG |kconfig| y |ELISA\_safety|Debug:Kernel mode lockup| FAIL: "is not set" CONFIG\_PROVE\_LOCKING |kconfig| y |ELISA\_safety|Debug:Kernel mode lockup| FAIL: "is not set" CONFIG\_DEBUG\_RT\_MUTEXES |kconfig| y |ELISA\_safety| Debug:RT mutexes | FAIL: "is not set" CONFIG\_DEBUG\_NOTIFIERS |kconfig| y |ELISA\_safety|Debug:Notification| FAIL: "is not set" CONFIG\_LOCK\_STAT |kconfig| y |ELISA\_safety|Debug:Notification| FAIL: "is not set" CONFIG\_DEBUG\_SPINLOCK |kconfig| y |ELISA\_safety| Debug:RT mutexes | FAIL: "is not set" CONFIG\_DEBUG\_MUTEXES |kconfig| y |ELISA\_safety| Debug:RT mutexes | FAIL: "is not set" CONFIG\_DEBUG\_WW\_MUTEX\_SLOWPATH |kconfig| y |ELISA\_safety| Debug:RT mutexes | FAIL: "is not set" CONFIG\_DEBUG\_LOCK\_ALLOC |kconfig| y |ELISA\_safety| Debug:RT mutexes | FAIL: "is not set" CONFIG\_DEBUG\_LOCKING\_API\_SELFTESTS |kconfig| y |ELISA\_safety| Debug:RT mutexes | FAIL: "is not set" CONFIG\_LOCK\_TORTURE\_TEST |kconfig| y |ELISA\_safety| Debug:RT mutexes | FAIL: "m" CONFIG\_WW\_MUTEX\_SELFTEST |kconfig| y |ELISA\_safety| Debug:RT mutexes | FAIL: "is not set" CONFIG\_RCU\_TORTURE\_TEST |kconfig| y |ELISA\_safety| Debug:RT mutexes | FAIL: "is not set" CONFIG\_DEBUG\_ATOMIC\_SLEEP |kconfig| y |ELISA\_safety| Debug:RT mutexes | FAIL: "is not set" CONFIG\_LIVEPATCH |kconfig| n |ELISA\_safety| Live Patch | FAIL: "y" CONFIG\_DEVKMEM |kconfig| y |ELISA\_safety|Kernel Memory:Kernel corruption of user space memory| FAIL: "is not set" CONFIG\_SECURITY\_WRITABLE\_HOOKS |kconfig| n |ELISA\_security|Linux Security Module| FAIL: "y" CONFIG\_SECURITY\_PATH |kconfig| y |ELISA\_security|Linux Security Module| FAIL: "is not set" CONFIG\_LSM\_MMAP\_MIN\_ADDR |kconfig| y |ELISA\_security|Linux Security Module| FAIL: "65535" CONFIG\_STATIC\_USERMODEHELPER |kconfig| y |ELISA\_security|Linux Security Module| FAIL: "is not set" CONFIG\_STATIC\_USERMODEHELPER\_PATH |kconfig| y |ELISA\_security|Linux Security Module| FAIL: not found CONFIG\_DEFAULT\_SECURITY\_DAC |kconfig| y |ELISA\_security|Linux Security Module| FAIL: "is not set"  [+] Config check is finished: 'OK' - 32 (suppressed in output) / 'FAIL' - 45 |

5. **config-4.4.0-93-generic-ubuntu14**

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| Python % ./bin/kconfig-safety-check -p X86\_64 -c ./config\_files/alibaba/config-4.4.0-93-generic-ubuntu14 -m show\_fail [+] Special report mode: show\_fail [+] Kconfig file to check: ./config\_files/alibaba/config-4.4.0-93-generic-ubuntu14 [+] Detected architecture: X86\_64 [+] Detected kernel version: 4.4.0 4.4.0 =========================================================================================================================  option name | type |desired val | decision | reason | check result ========================================================================================================================= CONFIG\_DEBUG\_LIST |kconfig| y |ELISA\_safety, Intel|Heap memory:Heap overflow:Debug| FAIL: "is not set" CONFIG\_DEBUG\_SG |kconfig| y |ELISA\_safety|Driver: Heap overflow| FAIL: "is not set" CONFIG\_KMEM |kconfig| n | Intel |Kernel Memory:Kernel corruption of user space memory| FAIL: not found CONFIG\_DEVMEM |kconfig| n |ELISA\_safety, Intel|Kernel Memory:Kernel corruption of user space memory| FAIL: "y" CONFIG\_DEVPORT |kconfig| n |ELISA\_safety, Intel|Kernel Memory:Kernel corruption of user space memory| FAIL: "y" CONFIG\_ACPI\_CUSTOM\_METHOD |kconfig| n |ELISA\_safety|Kernel Memory:Kernel corruption of user space memory| FAIL: "is not set" CONFIG\_LEGACY\_PTYS |kconfig| n |ELISA\_safety|Kernel Memory:Kernel corruption of user space memory| FAIL: "y" CONFIG\_HIBERNATION |kconfig| n |ELISA\_safety|Kernel Memory:Kernel corruption of user space memory| FAIL: "y" CONFIG\_KEXEC |kconfig| n |ELISA\_safety|Kernel Memory:Kernel corruption of user space memory| FAIL: "y" CONFIG\_SECURITY\_DMESG\_RESTRICT |kconfig| y |ELISA\_safety|Kernel Memory:Debug| FAIL: "is not set" CONFIG\_COMPAT\_BRK |kconfig| n |ELISA\_safety|Heap memory:R/W access to memory allocated to another software element| FAIL: "is not set" CONFIG\_USERFAULTFD |kconfig| n |ELISA\_safety|Heap memory:R/W access to memory allocated to another software element| FAIL: "y" CONFIG\_DEBUG\_WX |kconfig| y |ELISA\_safety|Kernel Memory:W+X access to memory pages| FAIL: "is not set" CONFIG\_KPROBES |kconfig| n |ELISA\_safety|Stack memory:Enable traceability| FAIL: "y" CONFIG\_PROC\_KCORE |kconfig| n |ELISA\_safety|Stack memory:Enable traceability| FAIL: "y" CONFIG\_KALLSYMS |kconfig| n |ELISA\_safety|Stack memory:Enable traceability| FAIL: "y" CONFIG\_PROVE\_LOCKING |kconfig| y |ELISA\_safety|Debug:Kernel mode lockup| FAIL: "is not set" CONFIG\_DEBUG\_RT\_MUTEXES |kconfig| y |ELISA\_safety| Debug:RT mutexes | FAIL: "is not set" CONFIG\_DEBUG\_NOTIFIERS |kconfig| y |ELISA\_safety|Debug:Notification| FAIL: "is not set" CONFIG\_LOCK\_STAT |kconfig| y |ELISA\_safety|Debug:Notification| FAIL: "is not set" CONFIG\_DEBUG\_SPINLOCK |kconfig| y |ELISA\_safety| Debug:RT mutexes | FAIL: "is not set" CONFIG\_DEBUG\_MUTEXES |kconfig| y |ELISA\_safety| Debug:RT mutexes | FAIL: "is not set" CONFIG\_DEBUG\_WW\_MUTEX\_SLOWPATH |kconfig| y |ELISA\_safety| Debug:RT mutexes | FAIL: "is not set" CONFIG\_DEBUG\_LOCK\_ALLOC |kconfig| y |ELISA\_safety| Debug:RT mutexes | FAIL: "is not set" CONFIG\_DEBUG\_LOCKING\_API\_SELFTESTS |kconfig| y |ELISA\_safety| Debug:RT mutexes | FAIL: "is not set" CONFIG\_LOCK\_TORTURE\_TEST |kconfig| y |ELISA\_safety| Debug:RT mutexes | FAIL: "m" CONFIG\_RCU\_TORTURE\_TEST |kconfig| y |ELISA\_safety| Debug:RT mutexes | FAIL: "is not set" CONFIG\_DEBUG\_ATOMIC\_SLEEP |kconfig| y |ELISA\_safety| Debug:RT mutexes | FAIL: "is not set" CONFIG\_LIVEPATCH |kconfig| n |ELISA\_safety| Live Patch | FAIL: "y" CONFIG\_DEVKMEM |kconfig| y |ELISA\_safety|Kernel Memory:Kernel corruption of user space memory| FAIL: "is not set" CONFIG\_SECURITY\_WRITABLE\_HOOKS |kconfig| n |ELISA\_security|Linux Security Module| FAIL: not found CONFIG\_SECURITY\_INFINIBAND |kconfig| y |ELISA\_security|Linux Security Module| FAIL: not found CONFIG\_LSM\_MMAP\_MIN\_ADDR |kconfig| y |ELISA\_security|Linux Security Module| FAIL: "0" CONFIG\_HAVE\_HARDENED\_USERCOPY\_ALLOCATOR |kconfig| y |ELISA\_security|Linux Security Module| FAIL: not found CONFIG\_STATIC\_USERMODEHELPER |kconfig| y |ELISA\_security|Linux Security Module| FAIL: not found CONFIG\_STATIC\_USERMODEHELPER\_PATH |kconfig| y |ELISA\_security|Linux Security Module| FAIL: not found CONFIG\_DEFAULT\_SECURITY\_DAC |kconfig| y |ELISA\_security|Linux Security Module| FAIL: "is not set"  [+] Config check is finished: 'OK' - 16 (suppressed in output) / 'FAIL' - 37 |

6. **config-4.4.0-210-generic-ubuntu16**

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| Python  % ./bin/kconfig-safety-check -p X86\_64 -c ./config\_files/alibaba/config-4.4.0-210-generic-ubuntu16 -m show\_fail [+] Special report mode: show\_fail [+] Kconfig file to check: ./config\_files/alibaba/config-4.4.0-210-generic-ubuntu16 [+] Detected architecture: X86\_64 [+] Detected kernel version: 4.4.0 4.4.0 =========================================================================================================================  option name | type |desired val | decision | reason | check result ========================================================================================================================= CONFIG\_DEBUG\_LIST |kconfig| y |ELISA\_safety, Intel|Heap memory:Heap overflow:Debug| FAIL: "is not set" CONFIG\_DEBUG\_SG |kconfig| y |ELISA\_safety|Driver: Heap overflow| FAIL: "is not set" CONFIG\_KMEM |kconfig| n | Intel |Kernel Memory:Kernel corruption of user space memory| FAIL: not found CONFIG\_DEVMEM |kconfig| n |ELISA\_safety, Intel|Kernel Memory:Kernel corruption of user space memory| FAIL: "y" CONFIG\_DEVPORT |kconfig| n |ELISA\_safety, Intel|Kernel Memory:Kernel corruption of user space memory| FAIL: "y" CONFIG\_ACPI\_CUSTOM\_METHOD |kconfig| n |ELISA\_safety|Kernel Memory:Kernel corruption of user space memory| FAIL: "is not set" CONFIG\_LEGACY\_PTYS |kconfig| n |ELISA\_safety|Kernel Memory:Kernel corruption of user space memory| FAIL: "y" CONFIG\_HIBERNATION |kconfig| n |ELISA\_safety|Kernel Memory:Kernel corruption of user space memory| FAIL: "y" CONFIG\_KEXEC |kconfig| n |ELISA\_safety|Kernel Memory:Kernel corruption of user space memory| FAIL: "y" CONFIG\_SECURITY\_DMESG\_RESTRICT |kconfig| y |ELISA\_safety|Kernel Memory:Debug| FAIL: "is not set" CONFIG\_COMPAT\_BRK |kconfig| n |ELISA\_safety|Heap memory:R/W access to memory allocated to another software element| FAIL: "is not set" CONFIG\_USERFAULTFD |kconfig| n |ELISA\_safety|Heap memory:R/W access to memory allocated to another software element| FAIL: "y" CONFIG\_DEBUG\_WX |kconfig| y |ELISA\_safety|Kernel Memory:W+X access to memory pages| FAIL: "is not set" CONFIG\_KPROBES |kconfig| n |ELISA\_safety|Stack memory:Enable traceability| FAIL: "y" CONFIG\_PROC\_KCORE |kconfig| n |ELISA\_safety|Stack memory:Enable traceability| FAIL: "y" CONFIG\_KALLSYMS |kconfig| n |ELISA\_safety|Stack memory:Enable traceability| FAIL: "y" CONFIG\_PROVE\_LOCKING |kconfig| y |ELISA\_safety|Debug:Kernel mode lockup| FAIL: "is not set" CONFIG\_DEBUG\_RT\_MUTEXES |kconfig| y |ELISA\_safety| Debug:RT mutexes | FAIL: "is not set" CONFIG\_DEBUG\_NOTIFIERS |kconfig| y |ELISA\_safety|Debug:Notification| FAIL: "is not set" CONFIG\_LOCK\_STAT |kconfig| y |ELISA\_safety|Debug:Notification| FAIL: "is not set" CONFIG\_DEBUG\_SPINLOCK |kconfig| y |ELISA\_safety| Debug:RT mutexes | FAIL: "is not set" CONFIG\_DEBUG\_MUTEXES |kconfig| y |ELISA\_safety| Debug:RT mutexes | FAIL: "is not set" CONFIG\_DEBUG\_WW\_MUTEX\_SLOWPATH |kconfig| y |ELISA\_safety| Debug:RT mutexes | FAIL: "is not set" CONFIG\_DEBUG\_LOCK\_ALLOC |kconfig| y |ELISA\_safety| Debug:RT mutexes | FAIL: "is not set" CONFIG\_DEBUG\_LOCKING\_API\_SELFTESTS |kconfig| y |ELISA\_safety| Debug:RT mutexes | FAIL: "is not set" CONFIG\_LOCK\_TORTURE\_TEST |kconfig| y |ELISA\_safety| Debug:RT mutexes | FAIL: "m" CONFIG\_RCU\_TORTURE\_TEST |kconfig| y |ELISA\_safety| Debug:RT mutexes | FAIL: "is not set" CONFIG\_DEBUG\_ATOMIC\_SLEEP |kconfig| y |ELISA\_safety| Debug:RT mutexes | FAIL: "is not set" CONFIG\_LIVEPATCH |kconfig| n |ELISA\_safety| Live Patch | FAIL: "y" CONFIG\_DEVKMEM |kconfig| y |ELISA\_safety|Kernel Memory:Kernel corruption of user space memory| FAIL: "is not set" CONFIG\_SECURITY\_WRITABLE\_HOOKS |kconfig| n |ELISA\_security|Linux Security Module| FAIL: not found CONFIG\_SECURITY\_INFINIBAND |kconfig| y |ELISA\_security|Linux Security Module| FAIL: not found CONFIG\_LSM\_MMAP\_MIN\_ADDR |kconfig| y |ELISA\_security|Linux Security Module| FAIL: "0" CONFIG\_HAVE\_HARDENED\_USERCOPY\_ALLOCATOR |kconfig| y |ELISA\_security|Linux Security Module| FAIL: not found CONFIG\_STATIC\_USERMODEHELPER |kconfig| y |ELISA\_security|Linux Security Module| FAIL: not found CONFIG\_STATIC\_USERMODEHELPER\_PATH |kconfig| y |ELISA\_security|Linux Security Module| FAIL: not found CONFIG\_DEFAULT\_SECURITY\_DAC |kconfig| y |ELISA\_security|Linux Security Module| FAIL: "is not set"  [+] Config check is finished: 'OK' - 16 (suppressed in output) / 'FAIL' - 37 |

7. **config-4.15.0-177-generic-ubuntu18**

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| Python % ./bin/kconfig-safety-check -p X86\_64 -c ./config\_files/alibaba/config-4.15.0-177-generic-ubuntu18 -m show\_fail [+] Special report mode: show\_fail [+] Kconfig file to check: ./config\_files/alibaba/config-4.15.0-177-generic-ubuntu18 [+] Detected architecture: X86\_64 [+] Detected kernel version: 4.15.0 4.15.0 =========================================================================================================================  option name | type |desired val | decision | reason | check result ========================================================================================================================= CONFIG\_REFCOUNT\_FULL |kconfig| y |ELISA\_safety|Kernel Memory reference count: Use after free| FAIL: "is not set" CONFIG\_GCC\_PLUGIN\_STRUCTKLEAK |kconfig| y |ELISA\_safety|GCC, plugins, Stack memory:Uninitialized variables| FAIL: not found CONFIG\_GCC\_PLUGIN\_STRUCTLEAK\_BYREF\_ALL |kconfig| y |ELISA\_safety|GCC, plugins, Stack memory:Uninitialized variables| FAIL: not found CONFIG\_PAGE\_POISONING |kconfig| y |ELISA\_safety|Stack memory:Stack overflow| FAIL: "is not set" CONFIG\_PAGE\_POISONING\_NO\_SANITY |kconfig| n |ELISA\_safety|Stack memory:Stack overflow| FAIL: not found CONFIG\_DEBUG\_LIST |kconfig| y |ELISA\_safety, Intel|Heap memory:Heap overflow:Debug| FAIL: "is not set" CONFIG\_DEBUG\_SG |kconfig| y |ELISA\_safety|Driver: Heap overflow| FAIL: "is not set" CONFIG\_BUG\_ON\_DATA\_CORRUPTION |kconfig| y |ELISA\_safety|Kernel Memory:Kernel corruption of user space memory| FAIL: "is not set" CONFIG\_KMEM |kconfig| n | Intel |Kernel Memory:Kernel corruption of user space memory| FAIL: not found CONFIG\_DEVMEM |kconfig| n |ELISA\_safety, Intel|Kernel Memory:Kernel corruption of user space memory| FAIL: "y" CONFIG\_DEVPORT |kconfig| n |ELISA\_safety, Intel|Kernel Memory:Kernel corruption of user space memory| FAIL: "y" CONFIG\_ACPI\_CUSTOM\_METHOD |kconfig| n |ELISA\_safety|Kernel Memory:Kernel corruption of user space memory| FAIL: "is not set" CONFIG\_LEGACY\_PTYS |kconfig| n |ELISA\_safety|Kernel Memory:Kernel corruption of user space memory| FAIL: "y" CONFIG\_HIBERNATION |kconfig| n |ELISA\_safety|Kernel Memory:Kernel corruption of user space memory| FAIL: "y" CONFIG\_KEXEC |kconfig| n |ELISA\_safety|Kernel Memory:Kernel corruption of user space memory| FAIL: "y" CONFIG\_HARDENED\_USERCOPY\_PAGESPAN |kconfig| n |ELISA\_safety|Kernel Memory:Kernel corruption of user space memory| FAIL: "is not set" CONFIG\_SECURITY\_DMESG\_RESTRICT |kconfig| y |ELISA\_safety|Kernel Memory:Debug| FAIL: "is not set" CONFIG\_COMPAT\_BRK |kconfig| n |ELISA\_safety|Heap memory:R/W access to memory allocated to another software element| FAIL: "is not set" CONFIG\_USERFAULTFD |kconfig| n |ELISA\_safety|Heap memory:R/W access to memory allocated to another software element| FAIL: "y" CONFIG\_KPROBES |kconfig| n |ELISA\_safety|Stack memory:Enable traceability| FAIL: "y" CONFIG\_PROC\_KCORE |kconfig| n |ELISA\_safety|Stack memory:Enable traceability| FAIL: "y" CONFIG\_KALLSYMS |kconfig| n |ELISA\_safety|Stack memory:Enable traceability| FAIL: "y" CONFIG\_WQ\_WATCHDOG |kconfig| y |ELISA\_safety|Debug:Kernel mode lockup| FAIL: "is not set" CONFIG\_PROVE\_LOCKING |kconfig| y |ELISA\_safety|Debug:Kernel mode lockup| FAIL: "is not set" CONFIG\_DEBUG\_RT\_MUTEXES |kconfig| y |ELISA\_safety| Debug:RT mutexes | FAIL: "is not set" CONFIG\_DEBUG\_NOTIFIERS |kconfig| y |ELISA\_safety|Debug:Notification| FAIL: "is not set" CONFIG\_LOCK\_STAT |kconfig| y |ELISA\_safety|Debug:Notification| FAIL: "is not set" CONFIG\_DEBUG\_SPINLOCK |kconfig| y |ELISA\_safety| Debug:RT mutexes | FAIL: "is not set" CONFIG\_DEBUG\_MUTEXES |kconfig| y |ELISA\_safety| Debug:RT mutexes | FAIL: "is not set" CONFIG\_DEBUG\_WW\_MUTEX\_SLOWPATH |kconfig| y |ELISA\_safety| Debug:RT mutexes | FAIL: "is not set" CONFIG\_DEBUG\_LOCK\_ALLOC |kconfig| y |ELISA\_safety| Debug:RT mutexes | FAIL: "is not set" CONFIG\_DEBUG\_LOCKING\_API\_SELFTESTS |kconfig| y |ELISA\_safety| Debug:RT mutexes | FAIL: "is not set" CONFIG\_LOCK\_TORTURE\_TEST |kconfig| y |ELISA\_safety| Debug:RT mutexes | FAIL: "is not set" CONFIG\_WW\_MUTEX\_SELFTEST |kconfig| y |ELISA\_safety| Debug:RT mutexes | FAIL: "is not set" CONFIG\_RCU\_TORTURE\_TEST |kconfig| y |ELISA\_safety| Debug:RT mutexes | FAIL: "is not set" CONFIG\_DEBUG\_ATOMIC\_SLEEP |kconfig| y |ELISA\_safety| Debug:RT mutexes | FAIL: "is not set" CONFIG\_LIVEPATCH |kconfig| n |ELISA\_safety| Live Patch | FAIL: "y" CONFIG\_DEVKMEM |kconfig| y |ELISA\_safety|Kernel Memory:Kernel corruption of user space memory| FAIL: "is not set" CONFIG\_SECURITY\_WRITABLE\_HOOKS |kconfig| n |ELISA\_security|Linux Security Module| FAIL: "is not set" CONFIG\_LSM\_MMAP\_MIN\_ADDR |kconfig| y |ELISA\_security|Linux Security Module| FAIL: "0" CONFIG\_STATIC\_USERMODEHELPER |kconfig| y |ELISA\_security|Linux Security Module| FAIL: "is not set" CONFIG\_STATIC\_USERMODEHELPER\_PATH |kconfig| y |ELISA\_security|Linux Security Module| FAIL: not found CONFIG\_DEFAULT\_SECURITY\_DAC |kconfig| y |ELISA\_security|Linux Security Module| FAIL: not found  [+] Config check is finished: 'OK' - 31 (suppressed in output) / 'FAIL' - 43 |

8. **config-5.4.0-110-generic-ubuntu20**

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| --- |
| Python % ./bin/kconfig-safety-check -p X86\_64 -c ./config\_files/alibaba/config-5.4.0-110-generic-ubuntu20 -m show\_fail [+] Special report mode: show\_fail [+] Kconfig file to check: ./config\_files/alibaba/config-5.4.0-110-generic-ubuntu20 [+] Detected architecture: X86\_64 [+] Detected kernel version: 5.4.0 5.4.0 =========================================================================================================================  option name | type |desired val | decision | reason | check result ========================================================================================================================= CONFIG\_INIT\_ON\_FREE\_DEFAULT\_ON |kconfig| y |ELISA\_safety|Memory management:Heap:Debug| FAIL: "is not set" CONFIG\_REFCOUNT\_FULL |kconfig| y |ELISA\_safety|Kernel Memory reference count: Use after free| FAIL: "is not set" CONFIG\_GCC\_PLUGIN\_STRUCTKLEAK |kconfig| y |ELISA\_safety|GCC, plugins, Stack memory:Uninitialized variables| FAIL: not found CONFIG\_GCC\_PLUGIN\_STRUCTLEAK\_BYREF\_ALL |kconfig| y |ELISA\_safety|GCC, plugins, Stack memory:Uninitialized variables| FAIL: not found CONFIG\_INIT\_STACK\_ALL |kconfig| y |ELISA\_safety|Stack memory:Uninitialized variables| FAIL: not found CONFIG\_GCC\_PLUGIN\_STACKLEAK |kconfig| y |ELISA\_safety|Stack memory:Stack overflow| FAIL: not found CONFIG\_PAGE\_POISONING\_NO\_SANITY |kconfig| n |ELISA\_safety|Stack memory:Stack overflow| FAIL: "y" CONFIG\_DEBUG\_LIST |kconfig| y |ELISA\_safety, Intel|Heap memory:Heap overflow:Debug| FAIL: "is not set" CONFIG\_DEBUG\_SG |kconfig| y |ELISA\_safety|Driver: Heap overflow| FAIL: "is not set" CONFIG\_BUG\_ON\_DATA\_CORRUPTION |kconfig| y |ELISA\_safety|Kernel Memory:Kernel corruption of user space memory| FAIL: "is not set" CONFIG\_KMEM |kconfig| n | Intel |Kernel Memory:Kernel corruption of user space memory| FAIL: not found CONFIG\_DEVMEM |kconfig| n |ELISA\_safety, Intel|Kernel Memory:Kernel corruption of user space memory| FAIL: "y" CONFIG\_DEVPORT |kconfig| n |ELISA\_safety, Intel|Kernel Memory:Kernel corruption of user space memory| FAIL: "y" CONFIG\_ACPI\_CUSTOM\_METHOD |kconfig| n |ELISA\_safety|Kernel Memory:Kernel corruption of user space memory| FAIL: "is not set" CONFIG\_LEGACY\_PTYS |kconfig| n |ELISA\_safety|Kernel Memory:Kernel corruption of user space memory| FAIL: "y" CONFIG\_HIBERNATION |kconfig| n |ELISA\_safety|Kernel Memory:Kernel corruption of user space memory| FAIL: "y" CONFIG\_KEXEC |kconfig| n |ELISA\_safety|Kernel Memory:Kernel corruption of user space memory| FAIL: "y" CONFIG\_HARDENED\_USERCOPY\_FALLBACK |kconfig| n |ELISA\_safety|Kernel Memory:Kernel corruption of user space memory| FAIL: "y" CONFIG\_HARDENED\_USERCOPY\_PAGESPAN |kconfig| n |ELISA\_safety|Kernel Memory:Kernel corruption of user space memory| FAIL: "is not set" CONFIG\_SECURITY\_DMESG\_RESTRICT |kconfig| y |ELISA\_safety|Kernel Memory:Debug| FAIL: "is not set" CONFIG\_COMPAT\_BRK |kconfig| n |ELISA\_safety|Heap memory:R/W access to memory allocated to another software element| FAIL: "is not set" CONFIG\_USERFAULTFD |kconfig| n |ELISA\_safety|Heap memory:R/W access to memory allocated to another software element| FAIL: "y" CONFIG\_KPROBES |kconfig| n |ELISA\_safety|Stack memory:Enable traceability| FAIL: "y" CONFIG\_PROC\_KCORE |kconfig| n |ELISA\_safety|Stack memory:Enable traceability| FAIL: "y" CONFIG\_KALLSYMS |kconfig| n |ELISA\_safety|Stack memory:Enable traceability| FAIL: "y" CONFIG\_WQ\_WATCHDOG |kconfig| y |ELISA\_safety|Debug:Kernel mode lockup| FAIL: "is not set" CONFIG\_PROVE\_LOCKING |kconfig| y |ELISA\_safety|Debug:Kernel mode lockup| FAIL: "is not set" CONFIG\_DEBUG\_RT\_MUTEXES |kconfig| y |ELISA\_safety| Debug:RT mutexes | FAIL: "is not set" CONFIG\_DEBUG\_NOTIFIERS |kconfig| y |ELISA\_safety|Debug:Notification| FAIL: "is not set" CONFIG\_LOCK\_STAT |kconfig| y |ELISA\_safety|Debug:Notification| FAIL: "is not set" CONFIG\_DEBUG\_SPINLOCK |kconfig| y |ELISA\_safety| Debug:RT mutexes | FAIL: "is not set" CONFIG\_DEBUG\_MUTEXES |kconfig| y |ELISA\_safety| Debug:RT mutexes | FAIL: "is not set" CONFIG\_DEBUG\_WW\_MUTEX\_SLOWPATH |kconfig| y |ELISA\_safety| Debug:RT mutexes | FAIL: "is not set" CONFIG\_DEBUG\_LOCK\_ALLOC |kconfig| y |ELISA\_safety| Debug:RT mutexes | FAIL: "is not set" CONFIG\_DEBUG\_LOCKING\_API\_SELFTESTS |kconfig| y |ELISA\_safety| Debug:RT mutexes | FAIL: "is not set" CONFIG\_LOCK\_TORTURE\_TEST |kconfig| y |ELISA\_safety| Debug:RT mutexes | FAIL: "is not set" CONFIG\_WW\_MUTEX\_SELFTEST |kconfig| y |ELISA\_safety| Debug:RT mutexes | FAIL: "is not set" CONFIG\_RCU\_TORTURE\_TEST |kconfig| y |ELISA\_safety| Debug:RT mutexes | FAIL: "is not set" CONFIG\_DEBUG\_ATOMIC\_SLEEP |kconfig| y |ELISA\_safety| Debug:RT mutexes | FAIL: "is not set" CONFIG\_LIVEPATCH |kconfig| n |ELISA\_safety| Live Patch | FAIL: "y" CONFIG\_DEVKMEM |kconfig| y |ELISA\_safety|Kernel Memory:Kernel corruption of user space memory| FAIL: "is not set" CONFIG\_SECURITY\_WRITABLE\_HOOKS |kconfig| n |ELISA\_security|Linux Security Module| FAIL: not found CONFIG\_LSM\_MMAP\_MIN\_ADDR |kconfig| y |ELISA\_security|Linux Security Module| FAIL: "0" CONFIG\_STATIC\_USERMODEHELPER |kconfig| y |ELISA\_security|Linux Security Module| FAIL: "is not set" CONFIG\_STATIC\_USERMODEHELPER\_PATH |kconfig| y |ELISA\_security|Linux Security Module| FAIL: not found CONFIG\_DEFAULT\_SECURITY\_DAC |kconfig| y |ELISA\_security|Linux Security Module| FAIL: "is not set"  [+] Config check is finished: 'OK' - 36 (suppressed in output) / 'FAIL' - 46 |

9. **config-3.16.0-7-amd64-debian8**

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| --- |
| Python % ./bin/kconfig-safety-check -p X86\_64 -c ./config\_files/alibaba/config-3.16.0-7-amd64-debian8 -m show\_fail [+] Special report mode: show\_fail [+] Kconfig file to check: ./config\_files/alibaba/config-3.16.0-7-amd64-debian8 [+] Detected architecture: X86\_64 [+] Detected kernel version: 3.16.59 3.16.59 =========================================================================================================================  option name | type |desired val | decision | reason | check result ========================================================================================================================= CONFIG\_SLUB\_DEBUG |kconfig| y |ELISA\_safety|Memory management:Heap:Debug| FAIL: not found CONFIG\_DEBUG\_LIST |kconfig| y |ELISA\_safety, Intel|Heap memory:Heap overflow:Debug| FAIL: "is not set" CONFIG\_DEBUG\_SG |kconfig| y |ELISA\_safety|Driver: Heap overflow| FAIL: "is not set" CONFIG\_KMEM |kconfig| n | Intel |Kernel Memory:Kernel corruption of user space memory| FAIL: not found CONFIG\_DEVPORT |kconfig| n |ELISA\_safety, Intel|Kernel Memory:Kernel corruption of user space memory| FAIL: "y" CONFIG\_ACPI\_CUSTOM\_METHOD |kconfig| n |ELISA\_safety|Kernel Memory:Kernel corruption of user space memory| FAIL: "is not set" CONFIG\_LEGACY\_PTYS |kconfig| n |ELISA\_safety|Kernel Memory:Kernel corruption of user space memory| FAIL: "is not set" CONFIG\_HIBERNATION |kconfig| n |ELISA\_safety|Kernel Memory:Kernel corruption of user space memory| FAIL: "y" CONFIG\_KEXEC |kconfig| n |ELISA\_safety|Kernel Memory:Kernel corruption of user space memory| FAIL: "y" CONFIG\_SECURITY\_DMESG\_RESTRICT |kconfig| y |ELISA\_safety|Kernel Memory:Debug| FAIL: "is not set" CONFIG\_COMPAT\_BRK |kconfig| n |ELISA\_safety|Heap memory:R/W access to memory allocated to another software element| FAIL: "is not set" CONFIG\_KPROBES |kconfig| n |ELISA\_safety|Stack memory:Enable traceability| FAIL: "y" CONFIG\_PROC\_KCORE |kconfig| n |ELISA\_safety|Stack memory:Enable traceability| FAIL: "y" CONFIG\_KALLSYMS |kconfig| n |ELISA\_safety|Stack memory:Enable traceability| FAIL: "y" CONFIG\_PROVE\_LOCKING |kconfig| y |ELISA\_safety|Debug:Kernel mode lockup| FAIL: "is not set" CONFIG\_DEBUG\_RT\_MUTEXES |kconfig| y |ELISA\_safety| Debug:RT mutexes | FAIL: "is not set" CONFIG\_DEBUG\_NOTIFIERS |kconfig| y |ELISA\_safety|Debug:Notification| FAIL: "is not set" CONFIG\_LOCK\_STAT |kconfig| y |ELISA\_safety|Debug:Notification| FAIL: "is not set" CONFIG\_DEBUG\_SPINLOCK |kconfig| y |ELISA\_safety| Debug:RT mutexes | FAIL: "is not set" CONFIG\_DEBUG\_MUTEXES |kconfig| y |ELISA\_safety| Debug:RT mutexes | FAIL: "is not set" CONFIG\_DEBUG\_WW\_MUTEX\_SLOWPATH |kconfig| y |ELISA\_safety| Debug:RT mutexes | FAIL: "is not set" CONFIG\_DEBUG\_LOCK\_ALLOC |kconfig| y |ELISA\_safety| Debug:RT mutexes | FAIL: "is not set" CONFIG\_DEBUG\_LOCKING\_API\_SELFTESTS |kconfig| y |ELISA\_safety| Debug:RT mutexes | FAIL: "is not set" CONFIG\_LOCK\_TORTURE\_TEST |kconfig| y |ELISA\_safety| Debug:RT mutexes | FAIL: "is not set" CONFIG\_RCU\_TORTURE\_TEST |kconfig| y |ELISA\_safety| Debug:RT mutexes | FAIL: "is not set" CONFIG\_DEBUG\_ATOMIC\_SLEEP |kconfig| y |ELISA\_safety| Debug:RT mutexes | FAIL: "is not set" CONFIG\_SECURITY\_WRITABLE\_HOOKS |kconfig| n |ELISA\_security|Linux Security Module| FAIL: not found CONFIG\_SECURITY\_INFINIBAND |kconfig| y |ELISA\_security|Linux Security Module| FAIL: not found CONFIG\_INTEL\_TXT |kconfig| y |ELISA\_security|Linux Security Module| FAIL: "is not set" CONFIG\_LSM\_MMAP\_MIN\_ADDR |kconfig| y |ELISA\_security|Linux Security Module| FAIL: "65536" CONFIG\_HAVE\_HARDENED\_USERCOPY\_ALLOCATOR |kconfig| y |ELISA\_security|Linux Security Module| FAIL: not found CONFIG\_STATIC\_USERMODEHELPER |kconfig| y |ELISA\_security|Linux Security Module| FAIL: not found CONFIG\_STATIC\_USERMODEHELPER\_PATH |kconfig| y |ELISA\_security|Linux Security Module| FAIL: not found  [+] Config check is finished: 'OK' - 14 (suppressed in output) / 'FAIL' - 33 |

10. **config-4.9.0-18-amd64-debian9**

|  |
| --- |
| Python % ./bin/kconfig-safety-check -p X86\_64 -c ./config\_files/alibaba/config-4.9.0-18-amd64-debian9 -m show\_fail [+] Special report mode: show\_fail [+] Kconfig file to check: ./config\_files/alibaba/config-4.9.0-18-amd64-debian9 [+] Detected architecture: X86\_64 [+] Detected kernel version: 4.9.303 4.9.303 =========================================================================================================================  option name | type |desired val | decision | reason | check result ========================================================================================================================= CONFIG\_SLUB\_DEBUG |kconfig| y |ELISA\_safety|Memory management:Heap:Debug| FAIL: not found CONFIG\_PAGE\_POISONING\_NO\_SANITY |kconfig| n |ELISA\_safety|Stack memory:Stack overflow| FAIL: "y" CONFIG\_DEBUG\_SG |kconfig| y |ELISA\_safety|Driver: Heap overflow| FAIL: "is not set" CONFIG\_KMEM |kconfig| n | Intel |Kernel Memory:Kernel corruption of user space memory| FAIL: not found CONFIG\_DEVMEM |kconfig| n |ELISA\_safety, Intel|Kernel Memory:Kernel corruption of user space memory| FAIL: "y" CONFIG\_DEVPORT |kconfig| n |ELISA\_safety, Intel|Kernel Memory:Kernel corruption of user space memory| FAIL: "y" CONFIG\_ACPI\_CUSTOM\_METHOD |kconfig| n |ELISA\_safety|Kernel Memory:Kernel corruption of user space memory| FAIL: "is not set" CONFIG\_LEGACY\_PTYS |kconfig| n |ELISA\_safety|Kernel Memory:Kernel corruption of user space memory| FAIL: "is not set" CONFIG\_HIBERNATION |kconfig| n |ELISA\_safety|Kernel Memory:Kernel corruption of user space memory| FAIL: "y" CONFIG\_KEXEC |kconfig| n |ELISA\_safety|Kernel Memory:Kernel corruption of user space memory| FAIL: "y" CONFIG\_HARDENED\_USERCOPY\_PAGESPAN |kconfig| n |ELISA\_safety|Kernel Memory:Kernel corruption of user space memory| FAIL: "is not set" CONFIG\_COMPAT\_BRK |kconfig| n |ELISA\_safety|Heap memory:R/W access to memory allocated to another software element| FAIL: "is not set" CONFIG\_USERFAULTFD |kconfig| n |ELISA\_safety|Heap memory:R/W access to memory allocated to another software element| FAIL: "y" CONFIG\_KPROBES |kconfig| n |ELISA\_safety|Stack memory:Enable traceability| FAIL: "y" CONFIG\_PROC\_KCORE |kconfig| n |ELISA\_safety|Stack memory:Enable traceability| FAIL: "y" CONFIG\_KALLSYMS |kconfig| n |ELISA\_safety|Stack memory:Enable traceability| FAIL: "y" CONFIG\_WQ\_WATCHDOG |kconfig| y |ELISA\_safety|Debug:Kernel mode lockup| FAIL: "is not set" CONFIG\_PROVE\_LOCKING |kconfig| y |ELISA\_safety|Debug:Kernel mode lockup| FAIL: "is not set" CONFIG\_DEBUG\_RT\_MUTEXES |kconfig| y |ELISA\_safety| Debug:RT mutexes | FAIL: "is not set" CONFIG\_DEBUG\_NOTIFIERS |kconfig| y |ELISA\_safety|Debug:Notification| FAIL: "is not set" CONFIG\_LOCK\_STAT |kconfig| y |ELISA\_safety|Debug:Notification| FAIL: "is not set" CONFIG\_DEBUG\_SPINLOCK |kconfig| y |ELISA\_safety| Debug:RT mutexes | FAIL: "is not set" CONFIG\_DEBUG\_MUTEXES |kconfig| y |ELISA\_safety| Debug:RT mutexes | FAIL: "is not set" CONFIG\_DEBUG\_WW\_MUTEX\_SLOWPATH |kconfig| y |ELISA\_safety| Debug:RT mutexes | FAIL: "is not set" CONFIG\_DEBUG\_LOCK\_ALLOC |kconfig| y |ELISA\_safety| Debug:RT mutexes | FAIL: "is not set" CONFIG\_DEBUG\_LOCKING\_API\_SELFTESTS |kconfig| y |ELISA\_safety| Debug:RT mutexes | FAIL: "is not set" CONFIG\_LOCK\_TORTURE\_TEST |kconfig| y |ELISA\_safety| Debug:RT mutexes | FAIL: "is not set" CONFIG\_RCU\_TORTURE\_TEST |kconfig| y |ELISA\_safety| Debug:RT mutexes | FAIL: "is not set" CONFIG\_DEBUG\_ATOMIC\_SLEEP |kconfig| y |ELISA\_safety| Debug:RT mutexes | FAIL: "is not set" CONFIG\_LIVEPATCH |kconfig| n |ELISA\_safety| Live Patch | FAIL: "y" CONFIG\_DEVKMEM |kconfig| y |ELISA\_safety|Kernel Memory:Kernel corruption of user space memory| FAIL: "is not set" CONFIG\_SECURITY\_WRITABLE\_HOOKS |kconfig| n |ELISA\_security|Linux Security Module| FAIL: not found CONFIG\_SECURITY\_INFINIBAND |kconfig| y |ELISA\_security|Linux Security Module| FAIL: not found CONFIG\_INTEL\_TXT |kconfig| y |ELISA\_security|Linux Security Module| FAIL: "is not set" CONFIG\_LSM\_MMAP\_MIN\_ADDR |kconfig| y |ELISA\_security|Linux Security Module| FAIL: "65536" CONFIG\_STATIC\_USERMODEHELPER |kconfig| y |ELISA\_security|Linux Security Module| FAIL: not found CONFIG\_STATIC\_USERMODEHELPER\_PATH |kconfig| y |ELISA\_security|Linux Security Module| FAIL: not found  [+] Config check is finished: 'OK' - 24 (suppressed in output) / 'FAIL' - 37 |

11. **config-4.19.0-16-amd64-debian10**

|  |
| --- |
| Python  % ./bin/kconfig-safety-check -p X86\_64 -c ./config\_files/alibaba/config-4.19.0-16-amd64-debian10 -m show\_fail [+] Special report mode: show\_fail [+] Kconfig file to check: ./config\_files/alibaba/config-4.19.0-16-amd64-debian10 [+] Detected architecture: X86\_64 [+] Detected kernel version: 4.19.181 4.19.181 =========================================================================================================================  option name | type |desired val | decision | reason | check result ========================================================================================================================= CONFIG\_GCC\_PLUGIN\_STRUCTKLEAK |kconfig| y |ELISA\_safety|GCC, plugins, Stack memory:Uninitialized variables| FAIL: not found CONFIG\_GCC\_PLUGIN\_STRUCTLEAK\_BYREF\_ALL |kconfig| y |ELISA\_safety|GCC, plugins, Stack memory:Uninitialized variables| FAIL: not found CONFIG\_BPF\_JIT\_ALWAYS\_ON |kconfig| y |ELISA\_safety|Kernel Memory:Isolation of critical code| FAIL: "is not set" CONFIG\_PAGE\_POISONING\_NO\_SANITY |kconfig| n |ELISA\_safety|Stack memory:Stack overflow| FAIL: "y" CONFIG\_DEBUG\_SG |kconfig| y |ELISA\_safety|Driver: Heap overflow| FAIL: "is not set" CONFIG\_KMEM |kconfig| n | Intel |Kernel Memory:Kernel corruption of user space memory| FAIL: not found CONFIG\_DEVMEM |kconfig| n |ELISA\_safety, Intel|Kernel Memory:Kernel corruption of user space memory| FAIL: "y" CONFIG\_DEVPORT |kconfig| n |ELISA\_safety, Intel|Kernel Memory:Kernel corruption of user space memory| FAIL: "y" CONFIG\_ACPI\_CUSTOM\_METHOD |kconfig| n |ELISA\_safety|Kernel Memory:Kernel corruption of user space memory| FAIL: "is not set" CONFIG\_LEGACY\_PTYS |kconfig| n |ELISA\_safety|Kernel Memory:Kernel corruption of user space memory| FAIL: "is not set" CONFIG\_HIBERNATION |kconfig| n |ELISA\_safety|Kernel Memory:Kernel corruption of user space memory| FAIL: "y" CONFIG\_KEXEC |kconfig| n |ELISA\_safety|Kernel Memory:Kernel corruption of user space memory| FAIL: "y" CONFIG\_HARDENED\_USERCOPY\_FALLBACK |kconfig| n |ELISA\_safety|Kernel Memory:Kernel corruption of user space memory| FAIL: "is not set" CONFIG\_HARDENED\_USERCOPY\_PAGESPAN |kconfig| n |ELISA\_safety|Kernel Memory:Kernel corruption of user space memory| FAIL: "is not set" CONFIG\_COMPAT\_BRK |kconfig| n |ELISA\_safety|Heap memory:R/W access to memory allocated to another software element| FAIL: "is not set" CONFIG\_USERFAULTFD |kconfig| n |ELISA\_safety|Heap memory:R/W access to memory allocated to another software element| FAIL: "y" CONFIG\_KPROBES |kconfig| n |ELISA\_safety|Stack memory:Enable traceability| FAIL: "y" CONFIG\_PROC\_KCORE |kconfig| n |ELISA\_safety|Stack memory:Enable traceability| FAIL: "y" CONFIG\_KALLSYMS |kconfig| n |ELISA\_safety|Stack memory:Enable traceability| FAIL: "y" CONFIG\_WQ\_WATCHDOG |kconfig| y |ELISA\_safety|Debug:Kernel mode lockup| FAIL: "is not set" CONFIG\_PROVE\_LOCKING |kconfig| y |ELISA\_safety|Debug:Kernel mode lockup| FAIL: "is not set" CONFIG\_DEBUG\_RT\_MUTEXES |kconfig| y |ELISA\_safety| Debug:RT mutexes | FAIL: "is not set" CONFIG\_DEBUG\_NOTIFIERS |kconfig| y |ELISA\_safety|Debug:Notification| FAIL: "is not set" CONFIG\_LOCK\_STAT |kconfig| y |ELISA\_safety|Debug:Notification| FAIL: "is not set" CONFIG\_DEBUG\_SPINLOCK |kconfig| y |ELISA\_safety| Debug:RT mutexes | FAIL: "is not set" CONFIG\_DEBUG\_MUTEXES |kconfig| y |ELISA\_safety| Debug:RT mutexes | FAIL: "is not set" CONFIG\_DEBUG\_WW\_MUTEX\_SLOWPATH |kconfig| y |ELISA\_safety| Debug:RT mutexes | FAIL: "is not set" CONFIG\_DEBUG\_LOCK\_ALLOC |kconfig| y |ELISA\_safety| Debug:RT mutexes | FAIL: "is not set" CONFIG\_DEBUG\_LOCKING\_API\_SELFTESTS |kconfig| y |ELISA\_safety| Debug:RT mutexes | FAIL: "is not set" CONFIG\_LOCK\_TORTURE\_TEST |kconfig| y |ELISA\_safety| Debug:RT mutexes | FAIL: "is not set" CONFIG\_WW\_MUTEX\_SELFTEST |kconfig| y |ELISA\_safety| Debug:RT mutexes | FAIL: "is not set" CONFIG\_RCU\_TORTURE\_TEST |kconfig| y |ELISA\_safety| Debug:RT mutexes | FAIL: "is not set" CONFIG\_DEBUG\_ATOMIC\_SLEEP |kconfig| y |ELISA\_safety| Debug:RT mutexes | FAIL: "is not set" CONFIG\_LIVEPATCH |kconfig| n |ELISA\_safety| Live Patch | FAIL: "y" CONFIG\_DEVKMEM |kconfig| y |ELISA\_safety|Kernel Memory:Kernel corruption of user space memory| FAIL: "is not set" CONFIG\_SECURITY\_WRITABLE\_HOOKS |kconfig| n |ELISA\_security|Linux Security Module| FAIL: not found CONFIG\_SECURITY\_INFINIBAND |kconfig| y |ELISA\_security|Linux Security Module| FAIL: "is not set" CONFIG\_INTEL\_TXT |kconfig| y |ELISA\_security|Linux Security Module| FAIL: "is not set" CONFIG\_LSM\_MMAP\_MIN\_ADDR |kconfig| y |ELISA\_security|Linux Security Module| FAIL: "65536" CONFIG\_STATIC\_USERMODEHELPER |kconfig| y |ELISA\_security|Linux Security Module| FAIL: "is not set" CONFIG\_STATIC\_USERMODEHELPER\_PATH |kconfig| y |ELISA\_security|Linux Security Module| FAIL: not found CONFIG\_DEFAULT\_SECURITY\_DAC |kconfig| y |ELISA\_security|Linux Security Module| FAIL: "is not set"  [+] Config check is finished: 'OK' - 35 (suppressed in output) / 'FAIL' - 42 |

12. **config-5.10.0-11-amd64-amd64-debian11**

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| --- |
| Python % ./bin/kconfig-safety-check -p X86\_64 -c ./config\_files/alibaba/config-5.10.0-11-amd64-amd64-debian11 -m show\_fail [+] Special report mode: show\_fail [+] Kconfig file to check: ./config\_files/alibaba/config-5.10.0-11-amd64-amd64-debian11 [+] Detected architecture: X86\_64 [+] Detected kernel version: 5.10.92 5.10.92 =========================================================================================================================  option name | type |desired val | decision | reason | check result ========================================================================================================================= CONFIG\_INIT\_ON\_FREE\_DEFAULT\_ON |kconfig| y |ELISA\_safety|Memory management:Heap:Debug| FAIL: "is not set" CONFIG\_GCC\_PLUGIN\_STRUCTKLEAK |kconfig| y |ELISA\_safety|GCC, plugins, Stack memory:Uninitialized variables| FAIL: not found CONFIG\_GCC\_PLUGIN\_STRUCTLEAK\_BYREF\_ALL |kconfig| y |ELISA\_safety|GCC, plugins, Stack memory:Uninitialized variables| FAIL: not found CONFIG\_BPF\_JIT\_ALWAYS\_ON |kconfig| y |ELISA\_safety|Kernel Memory:Isolation of critical code| FAIL: "is not set" CONFIG\_GCC\_PLUGIN\_STACKLEAK |kconfig| y |ELISA\_safety|Stack memory:Stack overflow| FAIL: not found CONFIG\_DEBUG\_SG |kconfig| y |ELISA\_safety|Driver: Heap overflow| FAIL: "is not set" CONFIG\_KMEM |kconfig| n | Intel |Kernel Memory:Kernel corruption of user space memory| FAIL: not found CONFIG\_DEVMEM |kconfig| n |ELISA\_safety, Intel|Kernel Memory:Kernel corruption of user space memory| FAIL: "y" CONFIG\_DEVPORT |kconfig| n |ELISA\_safety, Intel|Kernel Memory:Kernel corruption of user space memory| FAIL: "y" CONFIG\_ACPI\_CUSTOM\_METHOD |kconfig| n |ELISA\_safety|Kernel Memory:Kernel corruption of user space memory| FAIL: "is not set" CONFIG\_LEGACY\_PTYS |kconfig| n |ELISA\_safety|Kernel Memory:Kernel corruption of user space memory| FAIL: "is not set" CONFIG\_HIBERNATION |kconfig| n |ELISA\_safety|Kernel Memory:Kernel corruption of user space memory| FAIL: "y" CONFIG\_KEXEC |kconfig| n |ELISA\_safety|Kernel Memory:Kernel corruption of user space memory| FAIL: "y" CONFIG\_HARDENED\_USERCOPY\_FALLBACK |kconfig| n |ELISA\_safety|Kernel Memory:Kernel corruption of user space memory| FAIL: "is not set" CONFIG\_HARDENED\_USERCOPY\_PAGESPAN |kconfig| n |ELISA\_safety|Kernel Memory:Kernel corruption of user space memory| FAIL: "is not set" CONFIG\_COMPAT\_BRK |kconfig| n |ELISA\_safety|Heap memory:R/W access to memory allocated to another software element| FAIL: "is not set" CONFIG\_USERFAULTFD |kconfig| n |ELISA\_safety|Heap memory:R/W access to memory allocated to another software element| FAIL: "y" CONFIG\_KPROBES |kconfig| n |ELISA\_safety|Stack memory:Enable traceability| FAIL: "y" CONFIG\_PROC\_KCORE |kconfig| n |ELISA\_safety|Stack memory:Enable traceability| FAIL: "y" CONFIG\_KALLSYMS |kconfig| n |ELISA\_safety|Stack memory:Enable traceability| FAIL: "y" CONFIG\_WQ\_WATCHDOG |kconfig| y |ELISA\_safety|Debug:Kernel mode lockup| FAIL: "is not set" CONFIG\_KCSAN |kconfig| y |ELISA\_safety|Debug:Kernel mode lockup| FAIL: not found CONFIG\_PROVE\_LOCKING |kconfig| y |ELISA\_safety|Debug:Kernel mode lockup| FAIL: "is not set" CONFIG\_DEBUG\_RT\_MUTEXES |kconfig| y |ELISA\_safety| Debug:RT mutexes | FAIL: "is not set" CONFIG\_DEBUG\_NOTIFIERS |kconfig| y |ELISA\_safety|Debug:Notification| FAIL: "is not set" CONFIG\_LOCK\_STAT |kconfig| y |ELISA\_safety|Debug:Notification| FAIL: "is not set" CONFIG\_DEBUG\_SPINLOCK |kconfig| y |ELISA\_safety| Debug:RT mutexes | FAIL: "is not set" CONFIG\_DEBUG\_MUTEXES |kconfig| y |ELISA\_safety| Debug:RT mutexes | FAIL: "is not set" CONFIG\_DEBUG\_WW\_MUTEX\_SLOWPATH |kconfig| y |ELISA\_safety| Debug:RT mutexes | FAIL: "is not set" CONFIG\_DEBUG\_LOCK\_ALLOC |kconfig| y |ELISA\_safety| Debug:RT mutexes | FAIL: "is not set" CONFIG\_DEBUG\_LOCKING\_API\_SELFTESTS |kconfig| y |ELISA\_safety| Debug:RT mutexes | FAIL: "is not set" CONFIG\_LOCK\_TORTURE\_TEST |kconfig| y |ELISA\_safety| Debug:RT mutexes | FAIL: "is not set" CONFIG\_WW\_MUTEX\_SELFTEST |kconfig| y |ELISA\_safety| Debug:RT mutexes | FAIL: "is not set" CONFIG\_RCU\_TORTURE\_TEST |kconfig| y |ELISA\_safety| Debug:RT mutexes | FAIL: "is not set" CONFIG\_DEBUG\_ATOMIC\_SLEEP |kconfig| y |ELISA\_safety| Debug:RT mutexes | FAIL: "is not set" CONFIG\_LIVEPATCH |kconfig| n |ELISA\_safety| Live Patch | FAIL: "y" CONFIG\_DEVKMEM |kconfig| y |ELISA\_safety|Kernel Memory:Kernel corruption of user space memory| FAIL: "is not set" CONFIG\_SECURITY\_WRITABLE\_HOOKS |kconfig| n |ELISA\_security|Linux Security Module| FAIL: not found CONFIG\_SECURITY\_INFINIBAND |kconfig| y |ELISA\_security|Linux Security Module| FAIL: "is not set" CONFIG\_LSM\_MMAP\_MIN\_ADDR |kconfig| y |ELISA\_security|Linux Security Module| FAIL: "65536" CONFIG\_STATIC\_USERMODEHELPER |kconfig| y |ELISA\_security|Linux Security Module| FAIL: "is not set" CONFIG\_STATIC\_USERMODEHELPER\_PATH |kconfig| y |ELISA\_security|Linux Security Module| FAIL: not found CONFIG\_DEFAULT\_SECURITY\_DAC |kconfig| y |ELISA\_security|Linux Security Module| FAIL: "is not set"  [+] Config check is finished: 'OK' - 37 (suppressed in output) / 'FAIL' - 43 |

13. **config-4.19.91-25.8.al7.x86\_64-AlibabaCloudLinux2**

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| --- |
| Python % ./bin/kconfig-safety-check -p X86\_64 -c ./config\_files/alibaba/config-4.19.91-25.8.al7.x86\_64-AlibabaCloudLinux2 -m show\_fail [+] Special report mode: show\_fail [+] Kconfig file to check: ./config\_files/alibaba/config-4.19.91-25.8.al7.x86\_64-AlibabaCloudLinux2 [+] Detected architecture: X86\_64 [+] Detected kernel version: 4.19.91 4.19.91 =========================================================================================================================  option name | type |desired val | decision | reason | check result ========================================================================================================================= CONFIG\_SLAB\_FREELIST\_HARDENED |kconfig| y |ELISA\_safety, Intel|Memory management:Heap:Use after free| FAIL: "is not set" CONFIG\_REFCOUNT\_FULL |kconfig| y |ELISA\_safety|Kernel Memory reference count: Use after free| FAIL: "is not set" CONFIG\_GCC\_PLUGIN\_STRUCTKLEAK |kconfig| y |ELISA\_safety|GCC, plugins, Stack memory:Uninitialized variables| FAIL: not found CONFIG\_GCC\_PLUGIN\_STRUCTLEAK\_BYREF\_ALL |kconfig| y |ELISA\_safety|GCC, plugins, Stack memory:Uninitialized variables| FAIL: not found CONFIG\_STACKPROTECTOR\_STRONG |kconfig| y |ELISA\_safety, Intel|Stack memory:Stack overflow| FAIL: "is not set" CONFIG\_PAGE\_POISONING |kconfig| y |ELISA\_safety|Stack memory:Stack overflow| FAIL: "is not set" CONFIG\_PAGE\_POISONING\_NO\_SANITY |kconfig| n |ELISA\_safety|Stack memory:Stack overflow| FAIL: not found CONFIG\_DEBUG\_SG |kconfig| y |ELISA\_safety|Driver: Heap overflow| FAIL: "is not set" CONFIG\_BUG\_ON\_DATA\_CORRUPTION |kconfig| y |ELISA\_safety|Kernel Memory:Kernel corruption of user space memory| FAIL: "is not set" CONFIG\_KMEM |kconfig| n | Intel |Kernel Memory:Kernel corruption of user space memory| FAIL: not found CONFIG\_DEVMEM |kconfig| n |ELISA\_safety, Intel|Kernel Memory:Kernel corruption of user space memory| FAIL: "y" CONFIG\_DEVPORT |kconfig| n |ELISA\_safety, Intel|Kernel Memory:Kernel corruption of user space memory| FAIL: "y" CONFIG\_ACPI\_CUSTOM\_METHOD |kconfig| n |ELISA\_safety|Kernel Memory:Kernel corruption of user space memory| FAIL: "m" CONFIG\_LEGACY\_PTYS |kconfig| n |ELISA\_safety|Kernel Memory:Kernel corruption of user space memory| FAIL: "is not set" CONFIG\_HIBERNATION |kconfig| n |ELISA\_safety|Kernel Memory:Kernel corruption of user space memory| FAIL: "y" CONFIG\_KEXEC |kconfig| n |ELISA\_safety|Kernel Memory:Kernel corruption of user space memory| FAIL: "y" CONFIG\_HARDENED\_USERCOPY\_FALLBACK |kconfig| n |ELISA\_safety|Kernel Memory:Kernel corruption of user space memory| FAIL: "y" CONFIG\_HARDENED\_USERCOPY\_PAGESPAN |kconfig| n |ELISA\_safety|Kernel Memory:Kernel corruption of user space memory| FAIL: "is not set" CONFIG\_SECURITY\_DMESG\_RESTRICT |kconfig| y |ELISA\_safety|Kernel Memory:Debug| FAIL: "is not set" CONFIG\_COMPAT\_BRK |kconfig| n |ELISA\_safety|Heap memory:R/W access to memory allocated to another software element| FAIL: "is not set" CONFIG\_USERFAULTFD |kconfig| n |ELISA\_safety|Heap memory:R/W access to memory allocated to another software element| FAIL: "y" CONFIG\_DEBUG\_WX |kconfig| y |ELISA\_safety|Kernel Memory:W+X access to memory pages| FAIL: "is not set" CONFIG\_KPROBES |kconfig| n |ELISA\_safety|Stack memory:Enable traceability| FAIL: "y" CONFIG\_PROC\_KCORE |kconfig| n |ELISA\_safety|Stack memory:Enable traceability| FAIL: "y" CONFIG\_KALLSYMS |kconfig| n |ELISA\_safety|Stack memory:Enable traceability| FAIL: "y" CONFIG\_WQ\_WATCHDOG |kconfig| y |ELISA\_safety|Debug:Kernel mode lockup| FAIL: "is not set" CONFIG\_PROVE\_LOCKING |kconfig| y |ELISA\_safety|Debug:Kernel mode lockup| FAIL: "is not set" CONFIG\_DEBUG\_RT\_MUTEXES |kconfig| y |ELISA\_safety| Debug:RT mutexes | FAIL: "is not set" CONFIG\_DEBUG\_NOTIFIERS |kconfig| y |ELISA\_safety|Debug:Notification| FAIL: "is not set" CONFIG\_LOCK\_STAT |kconfig| y |ELISA\_safety|Debug:Notification| FAIL: "is not set" CONFIG\_DEBUG\_SPINLOCK |kconfig| y |ELISA\_safety| Debug:RT mutexes | FAIL: "is not set" CONFIG\_DEBUG\_MUTEXES |kconfig| y |ELISA\_safety| Debug:RT mutexes | FAIL: "is not set" CONFIG\_DEBUG\_WW\_MUTEX\_SLOWPATH |kconfig| y |ELISA\_safety| Debug:RT mutexes | FAIL: "is not set" CONFIG\_DEBUG\_LOCK\_ALLOC |kconfig| y |ELISA\_safety| Debug:RT mutexes | FAIL: "is not set" CONFIG\_DEBUG\_LOCKING\_API\_SELFTESTS |kconfig| y |ELISA\_safety| Debug:RT mutexes | FAIL: "is not set" CONFIG\_LOCK\_TORTURE\_TEST |kconfig| y |ELISA\_safety| Debug:RT mutexes | FAIL: "is not set" CONFIG\_WW\_MUTEX\_SELFTEST |kconfig| y |ELISA\_safety| Debug:RT mutexes | FAIL: "is not set" CONFIG\_RCU\_TORTURE\_TEST |kconfig| y |ELISA\_safety| Debug:RT mutexes | FAIL: "is not set" CONFIG\_DEBUG\_ATOMIC\_SLEEP |kconfig| y |ELISA\_safety| Debug:RT mutexes | FAIL: "is not set" CONFIG\_LIVEPATCH |kconfig| n |ELISA\_safety| Live Patch | FAIL: "y" CONFIG\_DEVKMEM |kconfig| y |ELISA\_safety|Kernel Memory:Kernel corruption of user space memory| FAIL: "is not set" CONFIG\_SECURITY\_WRITABLE\_HOOKS |kconfig| n |ELISA\_security|Linux Security Module| FAIL: "y" CONFIG\_LSM\_MMAP\_MIN\_ADDR |kconfig| y |ELISA\_security|Linux Security Module| FAIL: "65535" CONFIG\_STATIC\_USERMODEHELPER |kconfig| y |ELISA\_security|Linux Security Module| FAIL: "is not set" CONFIG\_STATIC\_USERMODEHELPER\_PATH |kconfig| y |ELISA\_security|Linux Security Module| FAIL: not found CONFIG\_DEFAULT\_SECURITY\_DAC |kconfig| y |ELISA\_security|Linux Security Module| FAIL: "is not set"  [+] Config check is finished: 'OK' - 31 (suppressed in output) / 'FAIL' - 46 |

14. **config-5.10.84-10.4.al8.x86\_64-AlibabaCloudLinux3**

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| --- |
| Python % ./bin/kconfig-safety-check -p X86\_64 -c ./config\_files/alibaba/config-5.10.84-10.4.al8.x86\_64-AlibabaCloudLinux3 -m show\_fail [+] Special report mode: show\_fail [+] Kconfig file to check: ./config\_files/alibaba/config-5.10.84-10.4.al8.x86\_64-AlibabaCloudLinux3 [+] Detected architecture: X86\_64 [+] Detected kernel version: 5.10.84 5.10.84 =========================================================================================================================  option name | type |desired val | decision | reason | check result ========================================================================================================================= CONFIG\_SLAB\_FREELIST\_HARDENED |kconfig| y |ELISA\_safety, Intel|Memory management:Heap:Use after free| FAIL: "is not set" CONFIG\_INIT\_ON\_FREE\_DEFAULT\_ON |kconfig| y |ELISA\_safety|Memory management:Heap:Debug| FAIL: "is not set" CONFIG\_INIT\_ON\_ALLOC\_DEFAULT\_ON |kconfig| y |ELISA\_safety|Memory management:Heap:Debug| FAIL: "is not set" CONFIG\_GCC\_PLUGIN\_STRUCTKLEAK |kconfig| y |ELISA\_safety|GCC, plugins, Stack memory:Uninitialized variables| FAIL: not found CONFIG\_GCC\_PLUGIN\_STRUCTLEAK\_BYREF\_ALL |kconfig| y |ELISA\_safety|GCC, plugins, Stack memory:Uninitialized variables| FAIL: not found CONFIG\_STACKPROTECTOR\_STRONG |kconfig| y |ELISA\_safety, Intel|Stack memory:Stack overflow| FAIL: "is not set" CONFIG\_SCHED\_STACK\_END\_CHECK |kconfig| y |ELISA\_safety, Intel|Stack memory:Stack overflow| FAIL: "is not set" CONFIG\_GCC\_PLUGIN\_STACKLEAK |kconfig| y |ELISA\_safety|Stack memory:Stack overflow| FAIL: not found CONFIG\_PAGE\_POISONING |kconfig| y |ELISA\_safety|Stack memory:Stack overflow| FAIL: "is not set" CONFIG\_DEBUG\_SG |kconfig| y |ELISA\_safety|Driver: Heap overflow| FAIL: "is not set" CONFIG\_KMEM |kconfig| n | Intel |Kernel Memory:Kernel corruption of user space memory| FAIL: not found CONFIG\_DEVMEM |kconfig| n |ELISA\_safety, Intel|Kernel Memory:Kernel corruption of user space memory| FAIL: "y" CONFIG\_DEVPORT |kconfig| n |ELISA\_safety, Intel|Kernel Memory:Kernel corruption of user space memory| FAIL: "y" CONFIG\_ACPI\_CUSTOM\_METHOD |kconfig| n |ELISA\_safety|Kernel Memory:Kernel corruption of user space memory| FAIL: "is not set" CONFIG\_LEGACY\_PTYS |kconfig| n |ELISA\_safety|Kernel Memory:Kernel corruption of user space memory| FAIL: "is not set" CONFIG\_HIBERNATION |kconfig| n |ELISA\_safety|Kernel Memory:Kernel corruption of user space memory| FAIL: "y" CONFIG\_KEXEC |kconfig| n |ELISA\_safety|Kernel Memory:Kernel corruption of user space memory| FAIL: "y" CONFIG\_HARDENED\_USERCOPY\_FALLBACK |kconfig| n |ELISA\_safety|Kernel Memory:Kernel corruption of user space memory| FAIL: "y" CONFIG\_HARDENED\_USERCOPY\_PAGESPAN |kconfig| n |ELISA\_safety|Kernel Memory:Kernel corruption of user space memory| FAIL: not found CONFIG\_SECURITY\_DMESG\_RESTRICT |kconfig| y |ELISA\_safety|Kernel Memory:Debug| FAIL: "is not set" CONFIG\_COMPAT\_BRK |kconfig| n |ELISA\_safety|Heap memory:R/W access to memory allocated to another software element| FAIL: "is not set" CONFIG\_USERFAULTFD |kconfig| n |ELISA\_safety|Heap memory:R/W access to memory allocated to another software element| FAIL: "y" CONFIG\_DEBUG\_WX |kconfig| y |ELISA\_safety|Kernel Memory:W+X access to memory pages| FAIL: "is not set" CONFIG\_KPROBES |kconfig| n |ELISA\_safety|Stack memory:Enable traceability| FAIL: "y" CONFIG\_PROC\_KCORE |kconfig| n |ELISA\_safety|Stack memory:Enable traceability| FAIL: "y" CONFIG\_KALLSYMS |kconfig| n |ELISA\_safety|Stack memory:Enable traceability| FAIL: "y" CONFIG\_WQ\_WATCHDOG |kconfig| y |ELISA\_safety|Debug:Kernel mode lockup| FAIL: "is not set" CONFIG\_KCSAN |kconfig| y |ELISA\_safety|Debug:Kernel mode lockup| FAIL: not found CONFIG\_PROVE\_LOCKING |kconfig| y |ELISA\_safety|Debug:Kernel mode lockup| FAIL: "is not set" CONFIG\_DEBUG\_RT\_MUTEXES |kconfig| y |ELISA\_safety| Debug:RT mutexes | FAIL: "is not set" CONFIG\_DEBUG\_NOTIFIERS |kconfig| y |ELISA\_safety|Debug:Notification| FAIL: "is not set" CONFIG\_LOCK\_STAT |kconfig| y |ELISA\_safety|Debug:Notification| FAIL: "is not set" CONFIG\_DEBUG\_SPINLOCK |kconfig| y |ELISA\_safety| Debug:RT mutexes | FAIL: "is not set" CONFIG\_DEBUG\_MUTEXES |kconfig| y |ELISA\_safety| Debug:RT mutexes | FAIL: "is not set" CONFIG\_DEBUG\_WW\_MUTEX\_SLOWPATH |kconfig| y |ELISA\_safety| Debug:RT mutexes | FAIL: "is not set" CONFIG\_DEBUG\_LOCK\_ALLOC |kconfig| y |ELISA\_safety| Debug:RT mutexes | FAIL: "is not set" CONFIG\_DEBUG\_LOCKING\_API\_SELFTESTS |kconfig| y |ELISA\_safety| Debug:RT mutexes | FAIL: "is not set" CONFIG\_LOCK\_TORTURE\_TEST |kconfig| y |ELISA\_safety| Debug:RT mutexes | FAIL: "is not set" CONFIG\_WW\_MUTEX\_SELFTEST |kconfig| y |ELISA\_safety| Debug:RT mutexes | FAIL: "is not set" CONFIG\_RCU\_TORTURE\_TEST |kconfig| y |ELISA\_safety| Debug:RT mutexes | FAIL: "is not set" CONFIG\_DEBUG\_ATOMIC\_SLEEP |kconfig| y |ELISA\_safety| Debug:RT mutexes | FAIL: "is not set" CONFIG\_LIVEPATCH |kconfig| n |ELISA\_safety| Live Patch | FAIL: "y" CONFIG\_DEVKMEM |kconfig| y |ELISA\_safety|Kernel Memory:Kernel corruption of user space memory| FAIL: "is not set" CONFIG\_SECURITY\_WRITABLE\_HOOKS |kconfig| n |ELISA\_security|Linux Security Module| FAIL: "y" CONFIG\_LSM\_MMAP\_MIN\_ADDR |kconfig| y |ELISA\_security|Linux Security Module| FAIL: "65535" CONFIG\_STATIC\_USERMODEHELPER |kconfig| y |ELISA\_security|Linux Security Module| FAIL: "is not set" CONFIG\_STATIC\_USERMODEHELPER\_PATH |kconfig| y |ELISA\_security|Linux Security Module| FAIL: not found CONFIG\_DEFAULT\_SECURITY\_DAC |kconfig| y |ELISA\_security|Linux Security Module| FAIL: "is not set"  [+] Config check is finished: 'OK' - 32 (suppressed in output) / 'FAIL' - 48 |

15. **config-5.3.18-24.83-default-suse15-sp2**

|  |
| --- |
| Python % ./bin/kconfig-safety-check -p X86\_64 -c ./config\_files/alibaba/config-5.3.18-24.83-default-suse15-sp2 -m show\_fail [+] Special report mode: show\_fail [+] Kconfig file to check: ./config\_files/alibaba/config-5.3.18-24.83-default-suse15-sp2 [+] Detected architecture: X86\_64 [+] Detected kernel version: 5.3.18 5.3.18 =========================================================================================================================  option name | type |desired val | decision | reason | check result ========================================================================================================================= CONFIG\_INIT\_ON\_FREE\_DEFAULT\_ON |kconfig| y |ELISA\_safety|Memory management:Heap:Debug| FAIL: "is not set" CONFIG\_INIT\_ON\_ALLOC\_DEFAULT\_ON |kconfig| y |ELISA\_safety|Memory management:Heap:Debug| FAIL: "is not set" CONFIG\_REFCOUNT\_FULL |kconfig| y |ELISA\_safety|Kernel Memory reference count: Use after free| FAIL: not found CONFIG\_GCC\_PLUGIN\_STRUCTKLEAK |kconfig| y |ELISA\_safety|GCC, plugins, Stack memory:Uninitialized variables| FAIL: not found CONFIG\_GCC\_PLUGIN\_STRUCTLEAK\_BYREF\_ALL |kconfig| y |ELISA\_safety|GCC, plugins, Stack memory:Uninitialized variables| FAIL: not found CONFIG\_INIT\_STACK\_ALL |kconfig| y |ELISA\_safety|Stack memory:Uninitialized variables| FAIL: not found CONFIG\_FORTIFY\_SOURCE |kconfig| y |ELISA\_safety|Stack memory:Stack overflow| FAIL: "is not set" CONFIG\_GCC\_PLUGIN\_STACKLEAK |kconfig| y |ELISA\_safety|Stack memory:Stack overflow| FAIL: not found CONFIG\_PAGE\_POISONING |kconfig| y |ELISA\_safety|Stack memory:Stack overflow| FAIL: "is not set" CONFIG\_PAGE\_POISONING\_NO\_SANITY |kconfig| n |ELISA\_safety|Stack memory:Stack overflow| FAIL: not found CONFIG\_DEBUG\_LIST |kconfig| y |ELISA\_safety, Intel|Heap memory:Heap overflow:Debug| FAIL: "is not set" CONFIG\_DEBUG\_SG |kconfig| y |ELISA\_safety|Driver: Heap overflow| FAIL: "is not set" CONFIG\_BUG\_ON\_DATA\_CORRUPTION |kconfig| y |ELISA\_safety|Kernel Memory:Kernel corruption of user space memory| FAIL: "is not set" CONFIG\_KMEM |kconfig| n | Intel |Kernel Memory:Kernel corruption of user space memory| FAIL: not found CONFIG\_DEVMEM |kconfig| n |ELISA\_safety, Intel|Kernel Memory:Kernel corruption of user space memory| FAIL: "y" CONFIG\_DEVPORT |kconfig| n |ELISA\_safety, Intel|Kernel Memory:Kernel corruption of user space memory| FAIL: "y" CONFIG\_ACPI\_CUSTOM\_METHOD |kconfig| n |ELISA\_safety|Kernel Memory:Kernel corruption of user space memory| FAIL: "is not set" CONFIG\_LEGACY\_PTYS |kconfig| n |ELISA\_safety|Kernel Memory:Kernel corruption of user space memory| FAIL: "y" CONFIG\_HIBERNATION |kconfig| n |ELISA\_safety|Kernel Memory:Kernel corruption of user space memory| FAIL: "y" CONFIG\_KEXEC |kconfig| n |ELISA\_safety|Kernel Memory:Kernel corruption of user space memory| FAIL: "y" CONFIG\_HARDENED\_USERCOPY |kconfig| y |ELISA\_safety, Intel|Kernel Memory:Kernel corruption of user space memory| FAIL: "is not set" CONFIG\_HARDENED\_USERCOPY\_FALLBACK |kconfig| n |ELISA\_safety|Kernel Memory:Kernel corruption of user space memory| FAIL: not found CONFIG\_HARDENED\_USERCOPY\_PAGESPAN |kconfig| n |ELISA\_safety|Kernel Memory:Kernel corruption of user space memory| FAIL: not found CONFIG\_COMPAT\_BRK |kconfig| n |ELISA\_safety|Heap memory:R/W access to memory allocated to another software element| FAIL: "is not set" CONFIG\_USERFAULTFD |kconfig| n |ELISA\_safety|Heap memory:R/W access to memory allocated to another software element| FAIL: "y" CONFIG\_DEBUG\_WX |kconfig| y |ELISA\_safety|Kernel Memory:W+X access to memory pages| FAIL: "is not set" CONFIG\_KPROBES |kconfig| n |ELISA\_safety|Stack memory:Enable traceability| FAIL: "y" CONFIG\_PROC\_KCORE |kconfig| n |ELISA\_safety|Stack memory:Enable traceability| FAIL: "y" CONFIG\_KALLSYMS |kconfig| n |ELISA\_safety|Stack memory:Enable traceability| FAIL: "y" CONFIG\_PROVE\_LOCKING |kconfig| y |ELISA\_safety|Debug:Kernel mode lockup| FAIL: "is not set" CONFIG\_DEBUG\_RT\_MUTEXES |kconfig| y |ELISA\_safety| Debug:RT mutexes | FAIL: "is not set" CONFIG\_DEBUG\_NOTIFIERS |kconfig| y |ELISA\_safety|Debug:Notification| FAIL: "is not set" CONFIG\_LOCK\_STAT |kconfig| y |ELISA\_safety|Debug:Notification| FAIL: "is not set" CONFIG\_DEBUG\_SPINLOCK |kconfig| y |ELISA\_safety| Debug:RT mutexes | FAIL: "is not set" CONFIG\_DEBUG\_MUTEXES |kconfig| y |ELISA\_safety| Debug:RT mutexes | FAIL: "is not set" CONFIG\_DEBUG\_WW\_MUTEX\_SLOWPATH |kconfig| y |ELISA\_safety| Debug:RT mutexes | FAIL: "is not set" CONFIG\_DEBUG\_LOCK\_ALLOC |kconfig| y |ELISA\_safety| Debug:RT mutexes | FAIL: "is not set" CONFIG\_DEBUG\_LOCKING\_API\_SELFTESTS |kconfig| y |ELISA\_safety| Debug:RT mutexes | FAIL: "is not set" CONFIG\_LOCK\_TORTURE\_TEST |kconfig| y |ELISA\_safety| Debug:RT mutexes | FAIL: "is not set" CONFIG\_WW\_MUTEX\_SELFTEST |kconfig| y |ELISA\_safety| Debug:RT mutexes | FAIL: "is not set" CONFIG\_RCU\_TORTURE\_TEST |kconfig| y |ELISA\_safety| Debug:RT mutexes | FAIL: "m" CONFIG\_DEBUG\_ATOMIC\_SLEEP |kconfig| y |ELISA\_safety| Debug:RT mutexes | FAIL: "is not set" CONFIG\_LIVEPATCH |kconfig| n |ELISA\_safety| Live Patch | FAIL: "y" CONFIG\_DEVKMEM |kconfig| y |ELISA\_safety|Kernel Memory:Kernel corruption of user space memory| FAIL: "is not set" CONFIG\_SECURITY\_WRITABLE\_HOOKS |kconfig| n |ELISA\_security|Linux Security Module| FAIL: "y" CONFIG\_LSM\_MMAP\_MIN\_ADDR |kconfig| y |ELISA\_security|Linux Security Module| FAIL: "0" CONFIG\_STATIC\_USERMODEHELPER |kconfig| y |ELISA\_security|Linux Security Module| FAIL: "is not set" CONFIG\_STATIC\_USERMODEHELPER\_PATH |kconfig| y |ELISA\_security|Linux Security Module| FAIL: not found CONFIG\_DEFAULT\_SECURITY\_DAC |kconfig| y |ELISA\_security|Linux Security Module| FAIL: "is not set"  [+] Config check is finished: 'OK' - 33 (suppressed in output) / 'FAIL' - 49 |

16. **config-5.3.18-150300.59.63-default-suse15-sp3**

|  |
| --- |
| Python  % ./bin/kconfig-safety-check -p X86\_64 -c ./config\_files/alibaba/config-5.3.18-150300.59.63-default-suse15-sp3 -m show\_fail [+] Special report mode: show\_fail [+] Kconfig file to check: ./config\_files/alibaba/config-5.3.18-150300.59.63-default-suse15-sp3 [+] Detected architecture: X86\_64 [+] Detected kernel version: 5.3.18 5.3.18 =========================================================================================================================  option name | type |desired val | decision | reason | check result ========================================================================================================================= CONFIG\_INIT\_ON\_FREE\_DEFAULT\_ON |kconfig| y |ELISA\_safety|Memory management:Heap:Debug| FAIL: "is not set" CONFIG\_INIT\_ON\_ALLOC\_DEFAULT\_ON |kconfig| y |ELISA\_safety|Memory management:Heap:Debug| FAIL: "is not set" CONFIG\_REFCOUNT\_FULL |kconfig| y |ELISA\_safety|Kernel Memory reference count: Use after free| FAIL: not found CONFIG\_GCC\_PLUGIN\_STRUCTKLEAK |kconfig| y |ELISA\_safety|GCC, plugins, Stack memory:Uninitialized variables| FAIL: not found CONFIG\_GCC\_PLUGIN\_STRUCTLEAK\_BYREF\_ALL |kconfig| y |ELISA\_safety|GCC, plugins, Stack memory:Uninitialized variables| FAIL: not found CONFIG\_INIT\_STACK\_ALL |kconfig| y |ELISA\_safety|Stack memory:Uninitialized variables| FAIL: not found CONFIG\_GCC\_PLUGIN\_STACKLEAK |kconfig| y |ELISA\_safety|Stack memory:Stack overflow| FAIL: not found CONFIG\_PAGE\_POISONING |kconfig| y |ELISA\_safety|Stack memory:Stack overflow| FAIL: "is not set" CONFIG\_PAGE\_POISONING\_NO\_SANITY |kconfig| n |ELISA\_safety|Stack memory:Stack overflow| FAIL: not found CONFIG\_DEBUG\_LIST |kconfig| y |ELISA\_safety, Intel|Heap memory:Heap overflow:Debug| FAIL: "is not set" CONFIG\_DEBUG\_SG |kconfig| y |ELISA\_safety|Driver: Heap overflow| FAIL: "is not set" CONFIG\_BUG\_ON\_DATA\_CORRUPTION |kconfig| y |ELISA\_safety|Kernel Memory:Kernel corruption of user space memory| FAIL: "is not set" CONFIG\_KMEM |kconfig| n | Intel |Kernel Memory:Kernel corruption of user space memory| FAIL: not found CONFIG\_DEVMEM |kconfig| n |ELISA\_safety, Intel|Kernel Memory:Kernel corruption of user space memory| FAIL: "y" CONFIG\_DEVPORT |kconfig| n |ELISA\_safety, Intel|Kernel Memory:Kernel corruption of user space memory| FAIL: "y" CONFIG\_ACPI\_CUSTOM\_METHOD |kconfig| n |ELISA\_safety|Kernel Memory:Kernel corruption of user space memory| FAIL: "is not set" CONFIG\_LEGACY\_PTYS |kconfig| n |ELISA\_safety|Kernel Memory:Kernel corruption of user space memory| FAIL: "y" CONFIG\_HIBERNATION |kconfig| n |ELISA\_safety|Kernel Memory:Kernel corruption of user space memory| FAIL: "y" CONFIG\_KEXEC |kconfig| n |ELISA\_safety|Kernel Memory:Kernel corruption of user space memory| FAIL: "y" CONFIG\_HARDENED\_USERCOPY |kconfig| y |ELISA\_safety, Intel|Kernel Memory:Kernel corruption of user space memory| FAIL: "is not set" CONFIG\_HARDENED\_USERCOPY\_FALLBACK |kconfig| n |ELISA\_safety|Kernel Memory:Kernel corruption of user space memory| FAIL: not found CONFIG\_HARDENED\_USERCOPY\_PAGESPAN |kconfig| n |ELISA\_safety|Kernel Memory:Kernel corruption of user space memory| FAIL: not found CONFIG\_COMPAT\_BRK |kconfig| n |ELISA\_safety|Heap memory:R/W access to memory allocated to another software element| FAIL: "is not set" CONFIG\_USERFAULTFD |kconfig| n |ELISA\_safety|Heap memory:R/W access to memory allocated to another software element| FAIL: "y" CONFIG\_DEBUG\_WX |kconfig| y |ELISA\_safety|Kernel Memory:W+X access to memory pages| FAIL: "is not set" CONFIG\_KPROBES |kconfig| n |ELISA\_safety|Stack memory:Enable traceability| FAIL: "y" CONFIG\_PROC\_KCORE |kconfig| n |ELISA\_safety|Stack memory:Enable traceability| FAIL: "y" CONFIG\_KALLSYMS |kconfig| n |ELISA\_safety|Stack memory:Enable traceability| FAIL: "y" CONFIG\_PROVE\_LOCKING |kconfig| y |ELISA\_safety|Debug:Kernel mode lockup| FAIL: "is not set" CONFIG\_DEBUG\_RT\_MUTEXES |kconfig| y |ELISA\_safety| Debug:RT mutexes | FAIL: "is not set" CONFIG\_DEBUG\_NOTIFIERS |kconfig| y |ELISA\_safety|Debug:Notification| FAIL: "is not set" CONFIG\_LOCK\_STAT |kconfig| y |ELISA\_safety|Debug:Notification| FAIL: "is not set" CONFIG\_DEBUG\_SPINLOCK |kconfig| y |ELISA\_safety| Debug:RT mutexes | FAIL: "is not set" CONFIG\_DEBUG\_MUTEXES |kconfig| y |ELISA\_safety| Debug:RT mutexes | FAIL: "is not set" CONFIG\_DEBUG\_WW\_MUTEX\_SLOWPATH |kconfig| y |ELISA\_safety| Debug:RT mutexes | FAIL: "is not set" CONFIG\_DEBUG\_LOCK\_ALLOC |kconfig| y |ELISA\_safety| Debug:RT mutexes | FAIL: "is not set" CONFIG\_DEBUG\_LOCKING\_API\_SELFTESTS |kconfig| y |ELISA\_safety| Debug:RT mutexes | FAIL: "is not set" CONFIG\_LOCK\_TORTURE\_TEST |kconfig| y |ELISA\_safety| Debug:RT mutexes | FAIL: "is not set" CONFIG\_WW\_MUTEX\_SELFTEST |kconfig| y |ELISA\_safety| Debug:RT mutexes | FAIL: "is not set" CONFIG\_RCU\_TORTURE\_TEST |kconfig| y |ELISA\_safety| Debug:RT mutexes | FAIL: "m" CONFIG\_DEBUG\_ATOMIC\_SLEEP |kconfig| y |ELISA\_safety| Debug:RT mutexes | FAIL: "is not set" CONFIG\_LIVEPATCH |kconfig| n |ELISA\_safety| Live Patch | FAIL: "y" CONFIG\_DEVKMEM |kconfig| y |ELISA\_safety|Kernel Memory:Kernel corruption of user space memory| FAIL: "is not set" CONFIG\_SECURITY\_WRITABLE\_HOOKS |kconfig| n |ELISA\_security|Linux Security Module| FAIL: "y" CONFIG\_LSM\_MMAP\_MIN\_ADDR |kconfig| y |ELISA\_security|Linux Security Module| FAIL: "0" CONFIG\_STATIC\_USERMODEHELPER |kconfig| y |ELISA\_security|Linux Security Module| FAIL: "is not set" CONFIG\_STATIC\_USERMODEHELPER\_PATH |kconfig| y |ELISA\_security|Linux Security Module| FAIL: not found CONFIG\_DEFAULT\_SECURITY\_DAC |kconfig| y |ELISA\_security|Linux Security Module| FAIL: "is not set"  [+] Config check is finished: 'OK' - 34 (suppressed in output) / 'FAIL' - 48 |