[Linux] The kernel boots fine without debugger but crashes with attached debugger

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You should check the information printed by the kernel when it panics. Some Linux kernel distributions have security mechanisms that treat a connected debugger via JTAG as a security violation and enter an infinite loop. This behavior can generally be deactivated by editing the kernel configuration or patching the kernel.

Example

In the case of some NXP Linux kernels for the i.MX processor family, for instance, this security mechanism can be disabled by disabling `CRYPTO_DEV_FSL_CAAM_SECVIO` in the kernel configuration.

In some other cases, the crash could be simply due to debugging only a subset of the cores used by an SMP kernel. In case you attach the debugger to a single core for instance and halt that core, the SMP kernel panics as it detects that single cores are blocked.