

Knowledgebase > OS-aware debugging > [Linux] On-chip breakpoints do not stop the program execution during kernel boot

[Linux] On-chip breakpoints do not stop the program execution during kernel boot

2022-01-12 - Comments (0) - OS-aware debugging

On-chip breakpoints can be removed by the kernel during boot:

- The Linux kernel resets on Arm the breakpoints as well as the Vector Catch
 Register (VCR) when booting if CONFIG_HAVE_HW_BREAKPOINT is enabled in
 the kernel configuration. See arch//kernel/hw_breakpoint.c. This can be detected on
 Armv8 by enabling the option TrOnchip.Set TDA ON.
- A similar problem can also be seen on Intel x86 when the debug registers are cleared during boot. Please refer to arch/x86/include/asm/debugreg.h. This can be detected by enabling the option TrOnchip.Set GeneralDetect ON.