

Linux Plumbers Conference 2025



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Devicetree MC

CFP ends on September 14th (CLOSED)

The Devicetree Microconference focuses on discussing and solving problems present in the systems using Devicetree as firmware representation. This notably is Linux kernel and U-Boot, but also can cover topics relevant to Zephyr or System Devicetrees. Systems using Devicetree are majority of embedded boards, mobile devices and ARM64 laptops (and many other ARM/ARM64/RISC-V machines).

Current problems:

1. Status of DTS validation against DT schema among vendors: are we getting to error-free dtbs_check anywhere?
2. Using the Linux kernel DTS in U-Boot (aka OF_UPSTREAM): progress and what are the obstacles?
3. DTB selection on EFI systems like arm64 laptops or embedded boards: How to store, update and choose the DTB to pass to the Linux kernel?
4. Hot-pluggable hardware with Devicetree overlays - on-going efforts, discussed also on LPC 2024.
5. Incorrect patterns of using OF API in the Linux kernel (e.g. using of_find_device_by_node() for phandles might return valid unbound platform_device which need to be checked if it is bound).
6. Shall we migrate all of_property_read_xxx() calls in Linux drivers to device_property_read_xxx() to handle also ACPI?
7. Fixing common pattern of unconditional device_init_wakeup() in drivers which makes it impossible to disable it via Devicetree, since wakeup-source is bool.
8. Accepting DTS for other projects - Linux kernel is the source of DTS, so it might get DTS purely for other projects (e.g. OpenBSD).
9. Using in-kernel Devicetree bindings and DTS for Zephyr - is it feasible?
10. Style-checker (aka checkpatch) for DTS - tool automating all style related reviews.

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