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Devicetree MC

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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