Detecting device probe regressions
Motivation

• Device probe regressions
  - Big impact on platform's functionality
  - Commonplace
  - Not immediately detected (lack of tests)
Dead ends

- Report all unprobed devices
  - Not all devices need drivers
- call_driver_probe()
  - Logs errors returned from probe
  - Issues:
    - ENODEV/ENXIO sometimes used on error path, rather than match rejection
    - Other errors logged as warning
    - Doesn't detect missing driver or device instantiation
Current status

• Rely on existing static device definitions:
  – Kselftest merged to verify probe of devices based on DT and compatibles present in driver's match. [1]
  – Similar kselftest for ACPI from Laura - still waiting for feedback. [2]

• Kselftest to test devices from discoverable busses (USB/PCI) being discussed. [3]
  • Current RFC focusing on DT-based platforms
  • How to describe HW topology in stable way for all platforms?
Thank you!
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