Linux Plumbers Conference 2025



Contribution ID: 172 Type: not specified

HW/SW design recommendations for 16kb devices

Content:

Android's transition to 16kb page sizes necessitates that hardware components work seamlessly with 16kb page sizes in order to get optimal performance. This presentation will focus on hardware and software recommendations for devices running with 16kb page sizes.

This section will highlight the hardware design decisions that need to be made to support 16kb page sizes on:

- 1. CPUs
- 2. IOMMU
- 3. CSR registers/mailboxes and security implications
- 4. TPU
- 5. DSP
- 6. Compression hardware
- 7. Root of Trust

In addition to this, the talk will also cover filesystem recommendations for the various different partitions on an Android device.

- 1. File Systems for factory partitions
- 2. File systems for data partitions

Target audience: For Android partners aiming to launch devices with 16kb page size support,

Primary authors: YESCAS, Juan; SINGH, Kalesh (Google)

Presenters: YESCAS, Juan; SINGH, Kalesh (Google)

Session Classification: Android MC

Track Classification: Android MC