TSC BoF: Common kernels Discussion

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Overview

● Common kernel work in Linaro
  ○ LMG
  ○ LEG
  ○ LHG
  ○ LNG

● Discussion
  ○ Does everything line up?
  ○ Are we missing anything?
Boards in LKFT

- Dragonboard 410c
- Dragonboard 820
- HiKey
- HiKey 960
- Juno
- Qemu
- ST B2260
- X15
- x86_64

Kernels

- Mainline
- Current stable
- LTS 4.4
- LTS 4.9
- LTS 4.14 - Someday soon!
- Android Common
  - LTS
  - Out of tree Android Patches
  - 4.4, 4.9

Upstream board support *IN* mainline is essential
Common Kernel (RPK)

Linaro members provide pull requests of their kernel patches submitted upstream once rc1 is released.

Linaro coordinates with all members for kernel patches that have been submitted to kernel.org but not yet accepted into mainline.

RPK common kernel build and QA starting from RC1 to final release. Identify patch clash and find resolution with member kernel teams.

Binary release of the RPK as part of the ERP.

Git tree as a reference for SoC, distributions and third party kernel teams, ie hyperscalers.
ERP Process

● **Build Service**
  ○ Linaro builder and repo for RPK and Firmware
    - Linaro build repos
      - RPK kernels, firmware
      - Linaro patched package for userspace tools such as glibc or qemu
      - Linaro userspace installers
      - Upstream userspace

● **Bare Metal Manager/Developer Cloud**
  ○ MLAB (established in Cambridge)
    - Linaro developed Bare Metal Provisioner ([https://github.com/Linaro/mr-provisioner](https://github.com/Linaro/mr-provisioner))
    - User and API driven
    - Full control of servers by developers and engineers

● **Test Suite Environment**
  ○ Linaro enterprise test suite
    - Leverages the MLAB
    - [https://git.linaro.org/qa/erp-test-automation.git/](https://git.linaro.org/qa/erp-test-automation.git/)
    - In development stage for fully automated CI based on initial (but expanded) Alibaba request
    - Test reports land in QA Reports system
      - ACL for individual member and Linaro
      - Individual SG members can request to share test results (formal request)
      - [https://staging-qa-reports.linaro.org/erp/](https://staging-qa-reports.linaro.org/erp/)
Thank You

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