Status product codeline
Goals

- Improve the power consumption / throughput / latency
- Take full advantage of the big Little system
- Reduce the gap with the upstream Linux kernel
- Use AOSP as a testing platform as an antechamber for upstream
- Spot AOSP regression as soon as possible
Improve power consumption / etc.

- Based on the reference platform hikey960
  - Idle states properties fixed in the DT
    - Cluster idle state selected more often
  - Thermal driver reworked for better performances
    - Lot of fixes and improvement of the code

- Idle loop reordering
  - Fixes a well known issue when selecting a shallow state

- Asymmetric idle state support for cpuidle
  - Replaces hackish cpuidle driver and consolidates the code
Take advantage of big Little system

- Investigating task placement with Jankbench
- Spurious wakeup of big CPUs
- Idle CPU selection optimized
Reduce the gap with the upstream

- Idle loop reordering + fixes
- Idle states for the hi3660’s DT
- Removal of the legacy hisi thermal driver
- Removal of the legacy hisi cpuidle driver
- Task utilization
AOSP a testing platform

- Workloads and real use cases
- Tools to investigate the behavior
- Support for the reference platform
- Android-4.14 is the target because closer to mainline
- Feature tested on AOSP then submitted upstream and then backported to ACK
Spot regressions

● CI loop functional
  ○ Compilation, boot, power measurement, ...
  ○ See demo Friday

● CI loop helped to spot a regression in AOSP recently
Next ...

- Compare 4.9 and 4.14
- Prediction mechanism to be tested
- Per cluster next event
- Reduce target residency breaks
- Misplaced wakeup
- Continue syncing upstream
Collaboration

- How to submit bugs to track them?
  - [https://issuetracker.google.com](https://issuetracker.google.com)

- Share power farm with Google?
  - Submitting jobs?