SFO15-306: ARM Kernel Collaboration: Let’s Make it Happen

Mark Brown
Introduction

● Scope
● Task identification
● Prioritisation
● Tasks
● Feedback
Scope

- Shared engineering - generic code
- Upstream generic changes in vendor trees
- Identify common code and factor it out
- Solve problems in kernel APIs
- NOT driver support
  - Except common IPs (e.g., ARM or DesignWare)
Task identification

- Maintainer knowledge
- Member feedback
- Examining product and member kernels
Prioritisation

- Problem importance
- Engineer skills/interest
- Member interest
Tasks - in progress now

- USB charger integration
  - http://thread.gmane.org/gmane.linux.power-management.general/64469
- eMMC subsystem modernisation
- Deferred probe vs IOMMU
- Coprocessor communication with userspace
- Android upstreaming (LMG)
Tasks - future

- DRM/KMS (LMG)
- HDMI audio integration
- AP managed battery charging
- GPS
- Sensors
- dm-crypt large block optimisations
- Basebands (!)
Feedback

- Ongoing work in member updates
- Upstream device mainlining project
  - [http://elinux.org/Kernel_areas_of_focus_for_mainlining](http://elinux.org/Kernel_areas_of_focus_for_mainlining)
  - [https://lists.linuxfoundation.org/mailman/listinfo/device-mainlining](https://lists.linuxfoundation.org/mailman/listinfo/device-mainlining)
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