Creating a Kernel Wishlist
for Android/Mobile

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A Linux Plumbers Tradition

A number of folks in the desktop environment have presented a wishlist of functionality that would help desktop environments to the kernel community each year.

I'd like to do the same, but focusing on Android and mobile.

This is a BOF

I'm looking for your input here!

If no one has input, this will be a short session

I'll write it down, distill the list, and hopefully present those ideas at plumbers and on lkml.

Where does it hurt?

What are the pain points your teams have with the kernel?

What functionality is missing?

What ugly things do you do to hack around the kernel in order to ship?

Seeding the clouds

Sane modern IPC?

Discardable/volatile memory?

Constraint aware dma-buf allocators?

Better per-process power accounting?

Energy aware scheduling?

Trouble with filesystems?

Your input here!

- usb charging changes
- Anywhere there's a HAL (for android) something is lacking
  - No HAL for input because the input subsystem is enough
- ipv6 issues after kitkat
- validate upstream kernel's on consumer devices
- runtime pm for drm/ADF
- concerns around audio interfaces

Your input here!

- power states and graphics panels
  - already changing w/ L
- Things to remove?
  - obsolete modules for devices that aren't around/supported
- Standard way to deal w/ dtbs (multi-append, separate partition, etc)
- Automation for converting boardfiles to devicetree (and back?)
- 3g Video/Telephone (vt) stack in the kernel?
- open graphics drivers!
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Your input here!

Way to condense config files from runtime profiles?

Alternatives in arm?

Clang kernel support

Baseband/modem support in linux (rather then separate rtos) - see linmodem

Thank You!

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