Device Mainlining KS Lightning Talk

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Mobile SoC code out-of-tree

Company	Phone	SOC	Insertions
LG	G3	Msm	2.6 M
Motorola	Moto X	Msm	1.8 M
Samsung	Galaxy 4	Exynos	1.1 M
Samsung	Galaxy S5	Msm	3.1 M
Sony	Xperia Z2	Msm	1.8 M
Sony	Xperia C	Mediatek	1.9 M
Acer	Liquid E2	Mediatek	1.4 M
Asus	Zenfone 6	Atom	2.2 M
Huawei	Ascend P7	Hisilicon	2.7 M

Example of version gap

- Delta between Sony Mobile and mainline kernel
  - Sony mobile dependent on upstream supplier for Linux version (3.4 in this case)

Commiter e-mail	Commits	Authors
Google/Android commits	963	61
Other	2677	828
Qualcomm	20395	635
Sony Mobile	1799	203
Between our tree and mainline base (3.4)	25843	1757

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Big problem areas

Area	Insertions range
Mach-xxx	347K – 417K
Media	120K – 360K
Video	37K – 346K
Wireless	80K – 250K
Sound	74K – 240K
Input	51K – 238K
Camera	50K – 210K
GPU	36K – 172K
Power	44K – 94K

CE Workgroup

Active technical projects

- Wireless drivers
  - Mainline Broadcom wireless driver has never been run on production hardware
  - Want to improve/mature the mainline driver
  - Sony has tested a backport of the driver
  - Recently got latest kernel running on phone hardware, and have run mainline driver
- USB
  - No one has ever charged their mobile device using only mainline code
  - Working on USB charger framework