CONFIDENTIAL A

GM3.0 SW architecture

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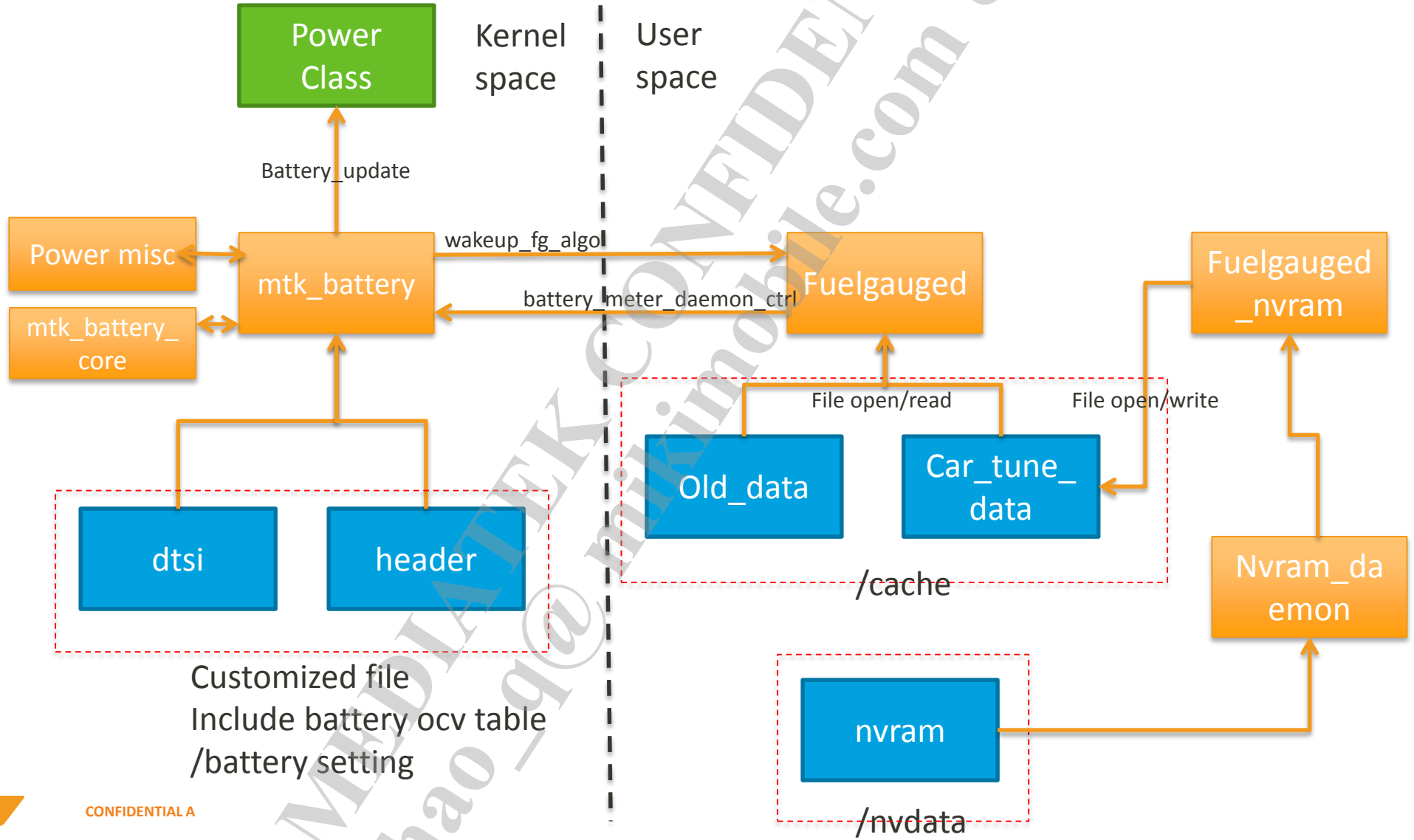
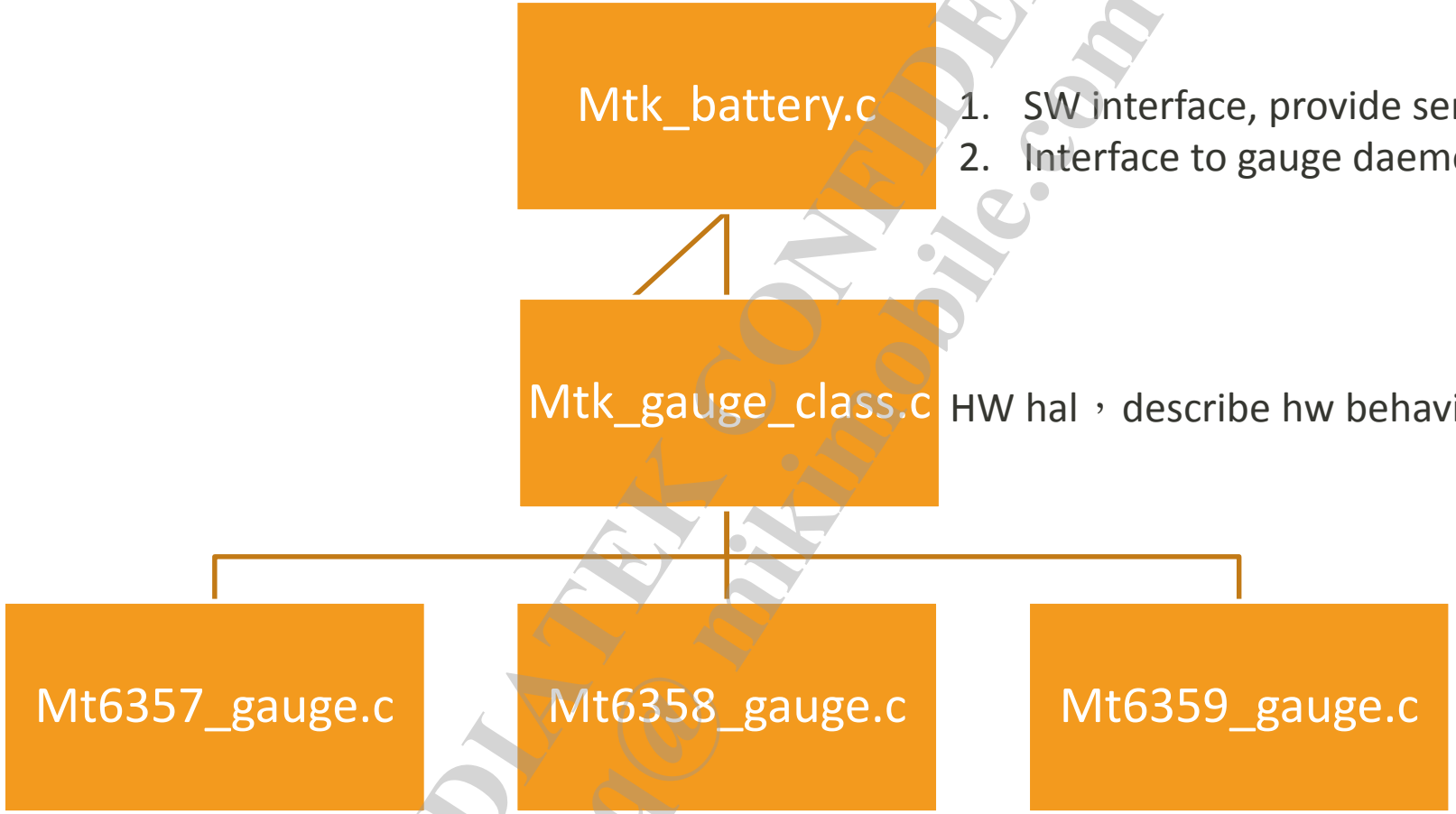
GM30 sw architecture

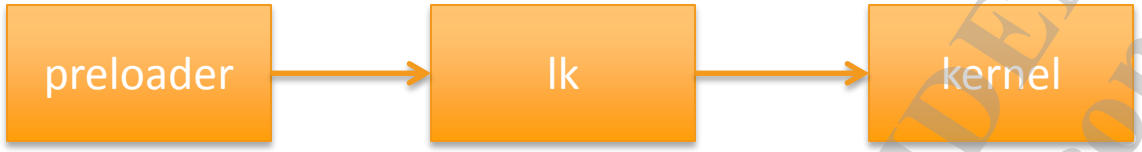


Kernel describe



Difference PMIC have difference detail, but all operation described in mtk_gauge_class

Initial flow



PL
(1) Check Bat exist
(2) fgauge initial
(3) Read boot voltage, shutdown time pass to kernel

LK
(1) Get swocv
(2) Check vbat > 3.45v

kernel
(1) Battery driver probe
(2) Read header / DTSI parameter
(3) Register interrupt
(4) Interact to daemon(fuelgauged)
(5) Control PMIC HW

daemon

daemon
(1) Calculate SOC/UISOC
(2) Set interrupt

Preloader file list

- vendor/mediatek/proprietary/bootable/bootloader/preloader/platform/mt6873/src/drivers/battery.c
- vendor/mediatek/proprietary/bootable/bootloader/preloader/platform/mt6873/src/drivers/charging_bat.c

Preloader conclusion

- fuel_gauge_init()
  - Check battery exist or not
  - Gauge HW init
  - Check gauge has been reset or not (check bat plugout)
  - read boot_vbat
  - read shutdowntime
  - Check 2sec reboot or not

- Please do not adjust init flow

LK file list

- vendor/mediatek/proprietary/bootable/bootloader/lk/platform/common/power
  - mtk_battery.c
  - mtk_battery.h
- vendor/mediatek/proprietary/bootable/bootloader/lk/platform/mt6873/mt_gauge.c
- vendor/mediatek/proprietary/bootable/bootloader/lk/platform/mt6873/platform.c

LK Conclusion

- LK need to get_swocv() and check battery voltage is over 3.45v. If battery voltage is < 3.45v, hold system in LK to charge until vbat is > 3.45v
- Platform.c
  - Get vbat / check_sw_ocv()

everyday genius