Gauge dependcy function

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When customer using external charger + MTK fuelgauge

- If customer using their own charger, need to implement below function
  - LK need to support stop charging when get_swocv()
- CHARGER_IN interrupt need to notify battery driver
  - When charger is plug in / plug out, need to notify battery
- Charger need to notify battery driver
  - EOC / Start_charging / stop charging / charging error , need to notify battery
- External charger need support charger_get_zcv() API
  - External charger need to latch battery zcv when power on.

LK stop charging need implement

LK check_sw_ocv, need charger support
charger_enable_charging() should working

```
void check_sw_ocv(void)
{
        unsigned int ptim_bat_vol = 0;
        signed int ptim_R_curr = 0;
        int bat_vol;

        mtk_battery_init();

        if(!is_disable_bat()) {
                shutdown_time = g_boot_arg->shutdown_time;
                boot_voltage = g_boot_arg->boot_voltage;

                charger_enable_charging(false);
                bat_vol = get_bat_volt(1);
```

CHARGE_IN interrupt need notify gauge

Charger_in(charger type change), need call fg_charger_in_handler()

```
/* ============================================================ */
/* charger in interrupt handler */
/* ============================================================ */
void fg_charger_in_handler(void)
{
        static enum charger_type chr_type;
        enum charger_type current_chr_type;

        current_chr_type = mt_get_charger_type();

        bm_debug("[%s] notify daemon %d %d\n",
                 __func__,
                chr_type, current_chr_type);

        if (current_chr_type != CHARGER_UNKNOWN) {
                if (chr_type == CHARGER_UNKNOWN)
                        wakeup_fg_algo_atomic(FG_INTR_CHARGER_IN);
        }
        chr_type = current_chr_type;
}
```

Implement charger callback

- when charger status have changes, need notify battery driver.
  - CHARGEING_FULL (EOC)
  - Start Charging
  - Stop Charging
  - Charging Error
  - Charg normal

```
static int battery_callback(
        struct notifier_block *nb, unsigned long event, void *v)
{
        bm_err("%s:%ld\n",
                __func__, event);
        switch (event) {
        case CHARGER_NOTIFY_EOC:
                {
/* CHARGING FULL */
                        notify_fg_chr_full();
                }
                break;
```

External Charger should support latch charger zcv

External Charger IC HW should support latch battery zcv when boot.
While gauge call charger_manater_get_zcv(), should get correct data

```
int battery_get_charger_zcv(void)
{
        u32 zcv = 0;

        charger_manager_get_zcv(gm.pbat_consumer, MAIN_CHARGER, &zcv);
        return zcv;
}
```

Get_imix()

- If customer disable DLPT feature(DISABLE_DLPT_FEATURE)
  - The imix() will be error.

```
case FG_DAEMON_CMD_GET_IMIX:
{
        int imix = UNIT_TRANS_10 * get_imix();

        ret_msg->fgd_data_len += sizeof(imix);
        memcpy(ret_msg->fgd_data, &imix, sizeof(imix));
        bm_debug("[fr] FG_DAEMON_CMD_GET_IMIX = %d\n", imix);
}
break;
```

The possible problem if the related API doesn't support

	Possible problem
LK call charger_enable_charging() can't work	Th swocv might be error. Init battery soc might be error.
CHARGER_IN doesn't notify battery	Calculate battery aging factor and qmax might be error.
Battery callback doesn't implement correctly	Fuelgauge soc self calibration method might be error Fuelgauge soc might can't reach 100% CHARGE/ DISCHARGE status might be error. Battery cycle might calculate error
battery_get_charger_zcv doesn't implement	Fuelgauge init soc might be error
get_imix() doesn't implement	Fuelgauge self calibration method might be error.