

Applicable platform:

All chipsets which meta build android version is P and the kernel version is above v4.9

Issue Description:

The thermal engine "-o" command output doesn't match those configs in thermal-engine.conf

Issue Analysis:

From the kernel version is above v4.9, all default thermal mitigation policies are defined in kernel device tree, so the thermal-engine "-o" command is deprecated and output nothing by default. About this part, please refer to below KBA.

[Thermal solution changes in kernel-4.9 \(KBA-180712031139\)](#)

While in android P, thermal-engine "-o" command is valid again. It will read all sysfs nodes at `"/sys/class/thermal/thermal_zone*"` and output some important parameters for each policy. The sample is like below:

```
[THERMAL_ZONE_0]
algo_type user_space
sensor xo-therm-adc
polling_delay 0
passive_delay 0
set_temp 65000
clr_temp 64000
```

```
[THERMAL_ZONE_1]
algo_type user_space
sensor xo-therm-buf-adc
polling_delay 0
passive_delay 0
set_temp 65000
clr_temp 64000
```

So the "-o" command will print all thermal zones configuration defined in kernel thermal core framework, not the content defined in the thermal-engine.conf. Actually the configs defined in thermal-engine.conf is managed by thermal-engine itself, so it won't appear in kernel thermal zone definition.

The related reference code is at `/vendor/qcom/proprietary/thermal-engine/thermal_kernel_config.c`

```
void get_thermal_zone_info();
```

```
void print_thermal_zones();
```

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