

Linux Plumbers Conference 2024



Contribution ID: 87

Type: **not specified**

PID governor

Thursday, 19 September 2024 10:40 (20 minutes)

The step wise governor is largely used by all mobile platforms. Those are more and more performant, so overheating very quickly. Given the speed of the temperature transitions, the step wise governor does not have enough time to apply the right cooling effect as it must go through several iteration to reach the temperature drop. Several iterations means hundreds of milliseconds. During this time, the temperature can cross way too much the temperature limit or can decrease the performance. Those are known as overshoots and undershoots. On the other side, the power allocator governor applies a PID loop with power values to mitigate the temperature. This PID loop allows to flattened the temperature figure at mitigation time, thus preventing the overshoots and undershoots. Unfortunately, power numbers are not available most of the time and this governor is not usable without them.

The proposal is to provide a simplified PID governor to handle the mitigation which don't have power number but with high temperature speed.

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Session Classification: Power Management and Thermal Control MC

Track Classification: Power Management and Thermal Control MC