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Userspace trip points

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The trip points are used by the kernel to start mitigating a specific thermal zone when a temperature crosses this limit. This action is taken to protect the silicon. The userspace thermal management has a more complex logic where it takes into account multiple sources of information like the temperatures, the usage and the current application profile to sustain the performance. It readjusts the different components performance given the temperatures of some certain zones. In order to monitor the temperature, it has to get notified when a specific temperature is reached and must change the temperature constraint to get new notification. The notification is the preferred way because it does not prevent the system to go to a deep idle state. However, there is no such a mechanism in the kernel and the userspace tricks the writable trip points to achieve this goal. Unfortunately this is fuzzy for different reasons and can lead to inconsistencies.

The goal of the discussion is to put on the table those inconsistencies and discuss proposals to have the userspace dealing with thermal notification gracefully.

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