Improving responsiveness of interactive CFS tasks using util_est

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One of the most significant metrics for good user experience on a mobile device is how quickly the system can react to load changes.

Util_est is used in mainline to create a more stable signal for per-task demand, which is the maximum of the task util_est and PELT utilization (known as the task utilization).

In case PELT utilization becomes higher than util_est, the behaviour of that task is changing and it needs more resources than previously allocated. The responsiveness of the task can be improved by boosting the task utilization during this time beyond its PELT utilization.

This presentation describes an implementation of this idea and shows how it improves behaviour on an Android device.

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