Tools to analyse scheduling and energy efficiency

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Idlestat

- Git: https://git.linaro.org/power/idlestat.git
- LKML posting: https://lkml.org/lkml/2014/8/19/528
- Design Principle: C-state and P-state residency along with wakeups an indicator of system behaviour
  - Workload progress measures performance
  - `sudo idlestat --trace -f /tmp/mytrace -t 100 -- rt-app mp3.json`
- Features
  - Carefully designed to avoid impacting measurement during a trace capture
  - Capture P-state and C-state transitions
  - Identify wakeup sources (IPI, IRQs)
  - Calculate mispredictions

Upcoming features

- energy model (RFC patches being reviewed)
- diff mode (Patch being tested)
- arch-specific hooks to correlate HW state?
- histogram of residency instead of min, max, avg?
- topology data not included along with trace - prevents post-processing on different machine (WIP)
- ?

Thank you!
Questions?