Scheduling woes

Where to go with SCHED_DEADLINE
• Known issues
• Missing features
  • Affinities
  • Group scheduling
  • Work conserving
  • Unpriv
  • Self-suspending
  • Energy aware
• Testing
• RFD
Known issues

- Admission control vs cpusets
- PI implementation
  - Fix deadline inherit
  - BWI
  - MBWI
- Proxy Execution
Affinities

• Implication on admission control
• Single cpu $\rightarrow$ hard deadline
  – Mixed- / Multi- criticality scheduling
  – EDF/LLF mix
• Multi CPU $\rightarrow$ $O(n！)$ admission control?
Cgroup support

- **DEADLINE**
  - Pure admission control
- **Hierarchical FIFO/RR server**
  - 3 variants
  - Ties in with affinities
Work conserving

- Soft-CBS
- Reclaim by demotion
- GRUB
unpriv

- Needs BWI?
- Fix/Add limits to avoid DoS
- Stochastic / reclaim?
Energy aware

- Schedutil integration
- Capacity aware (asym topos)
- Full energy model
• Fork/clone behaviour

• .... ?