Objective

- Manage multiple power consumers
- Prevent sudden power trip
- Demand based power allocation
- Support rack scale power budget
- Improve performance
Input/Outputs

- **Input**
  - Device energy reports
  - Device average power
  - Device power limits
  - Device power time constraints
  - Relative importance via Weights
  - System power limits
    - Critical power
    - Maximum continuous power
    - Power trip notifications

- **Output**
  - Power limits
  - Time constraints
Block Diagram

Power Domain

Participant 1
(Wi0)

Participant 2
(Wi1)

Participant 3
(Wi2)
Power Capping and Allocation

Power Allocation (no control)

Power Allocation (managed)
TDP limited Client platform

TDP limited GPU Triangle Workload

(+14.8% improvement in score)
Next steps

- Participants needs to be compatible to powercap sysfs
- Hwmon interface to powercap sysfs
- Define API