PMWG Farm

Introduction to our testing farm
Agenda

- Introduction
- Purpose
- Setup
- Advantages
- Limitations
- Test results
- Next steps
Purpose

- Have a low-cost efficient way to share reference boards with everyone in the Power Management Working Group (PMWG)
- Automate benchmarking process
Setup

- **Boards**
  - Mediatek, TC2, Pandaboard
  - Kernels on the platforms
    - Android
    - Ubuntu
    - Mainline

- **Server**
  - Debian
  - Tools
    - Workload Automation (WA) test framework
    - arm-probe command-line tool
  - Equipment
    - ARM Energy Probes
    - PCBs with shunt resistor
Advantages

● Everyone who uses the farm will work with the same setup
  ○ Easier to compare results
● Improve Linux support on WA
Limitations

- PMWG farm is currently managed by another team
  - Response time to our requests varies
- Multiple users running tests at the same time
  - No easy way to communicate who is using what board and length of test runs vary
Sample Benchmarks

- ebizzy
- hackbench
- cyclictest
- sysbench
- rt-app
Test Results

- Two level perspective
  - High level view: Gives a trend, ideally one number
  - Low level view: Give details for internal use and debug
Next steps

- Add more boards
- Define metrics for reporting
- Continuous testing on various kernels
- Provide a global trend and per area trend
Discussion

- How can we make the farm useful to improve your workflow?