Mobile Efficiency for Plug Load Devices

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AGGIOS

- **AGG**regated **IO S**ystems
- **Team:** ex ARM and Qualcomm people
- **Experience:** Mobile devices
- **Research base:** Leading experts from UC Berkeley and Princeton University
- **Business:** Independent provider of energy management and design technology for mobile, plugged, wearables and IoT

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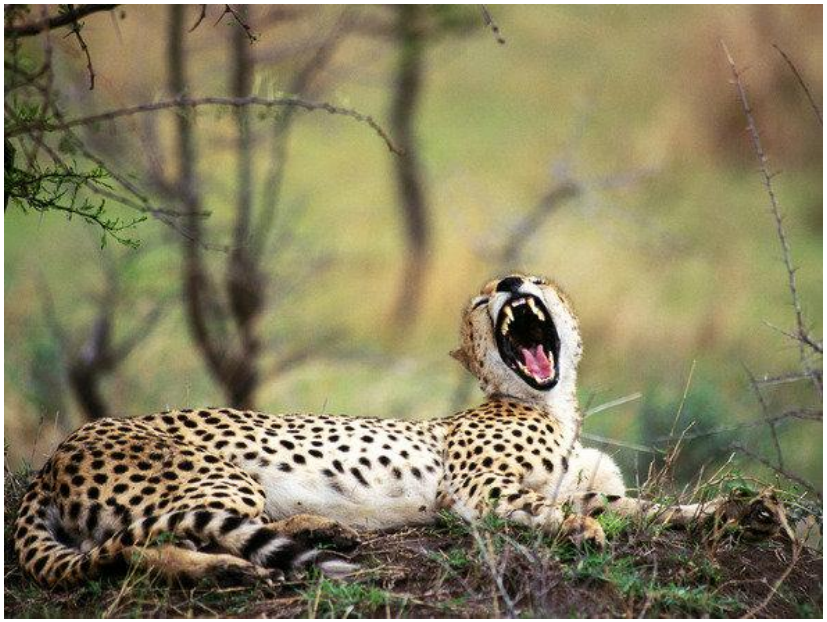
Nature

HOW WE DESIGN SYSTEMS …

… FOR MAXIMUM PERFORMANCE

HOW NATURE DESIGNS SYSTEMS …



… FOR MAXIMUM EFFICIENCY

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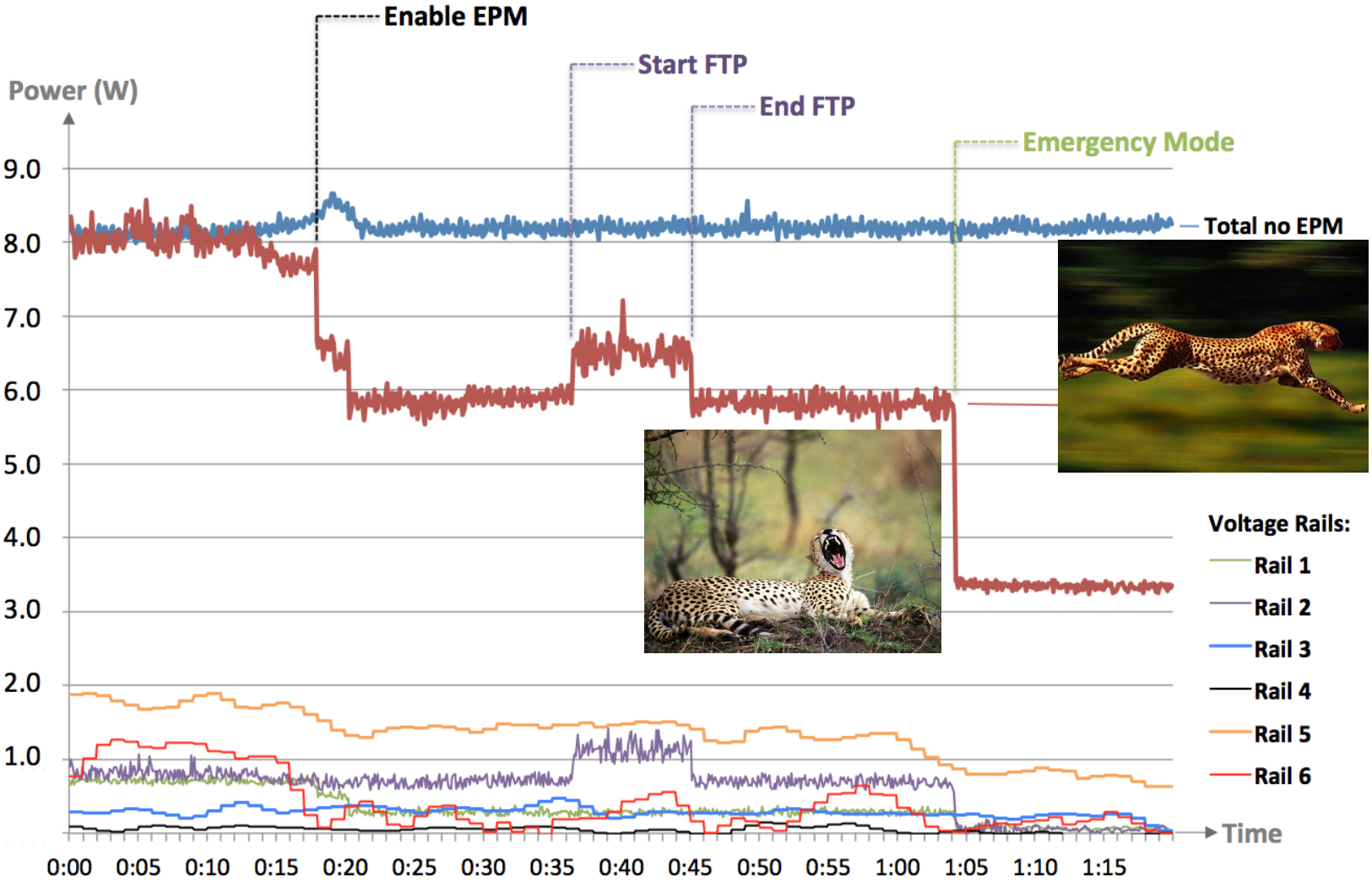
Energy proportional management



Demo Video

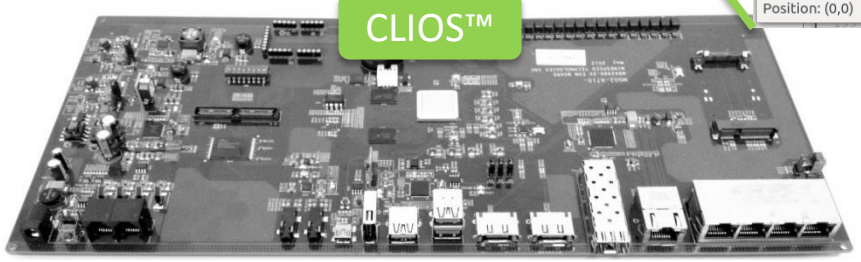
- Mobile Device versus IP Set-Top-Box

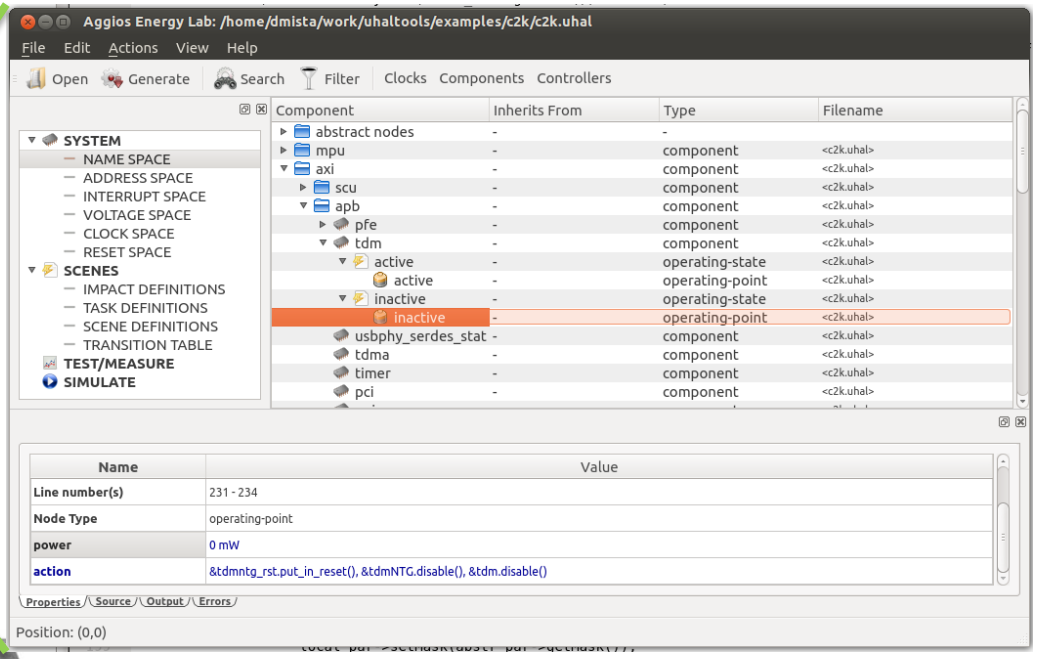
AGGIOS technology

Unified Hardware Abstraction (UHA™)

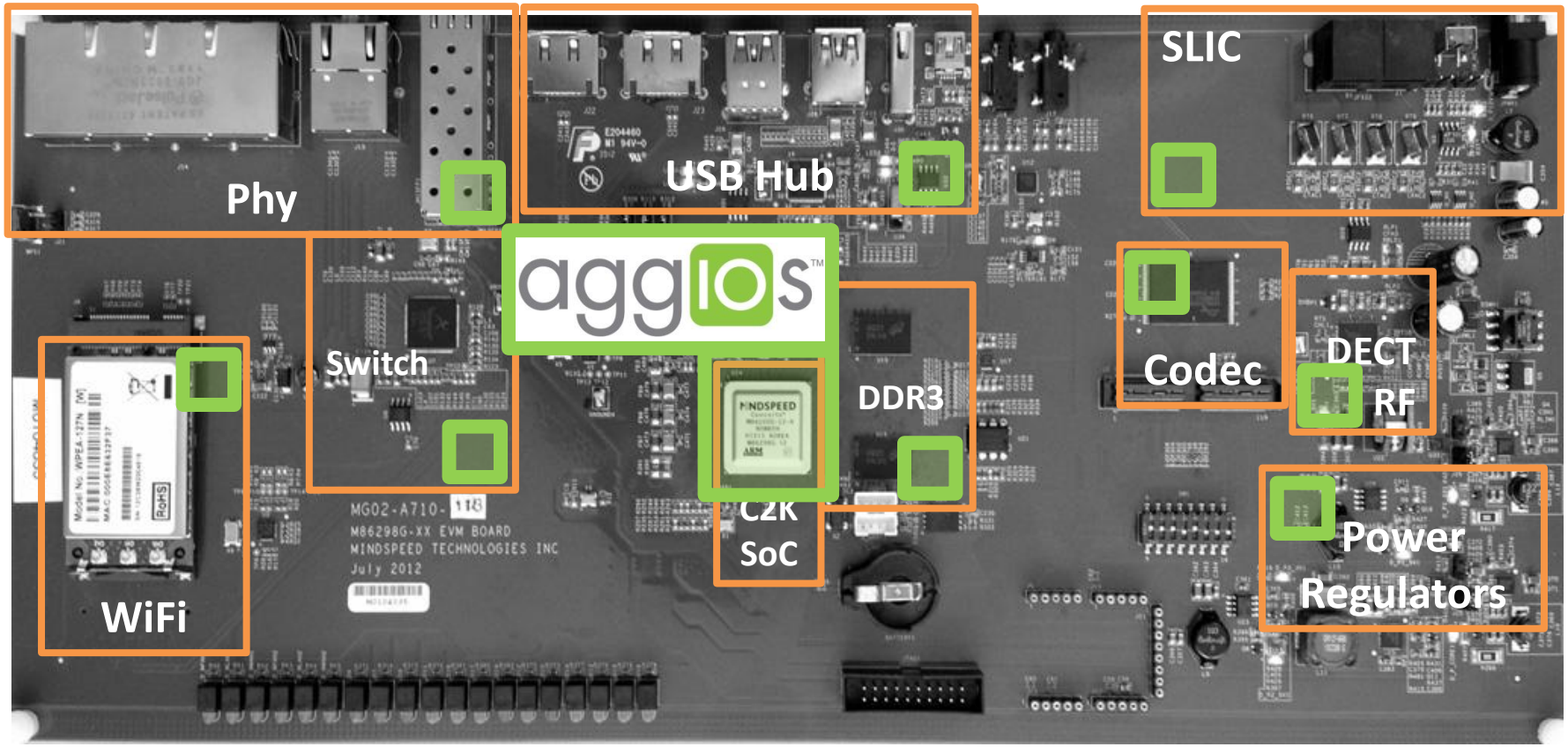
EnergyLab™ Tools

CLIOS™





MINDSPEED C2000 Residential Gateway



- power/energy controlled by CLIOS

Conclusions

- Mobile and plug load devices converge on:
  - Architectures and protocols
  - Performance requirements
  - Energy and latency requirements
- Diverge on:
  - Energy management innovation
  - Workforce expertise
  - Bill of material and design costs
  - Competitive environment

Proposed Next Steps

- Align with the mobile best design practices for energy proportionality of plug loads
- Adopt mobile design standards to plug loads and actively contribute to standard and best practices evolution
- Based on mobile practices develop
  - Reference design methodology for plug loads
  - Device prototypes and reference designs

... think energy.