LWIG terminology document
draft-ietf-lwig-terminology-01

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History

- Split out the stable terminology from the guidance document.
- Decided in Atlanta, implemented shortly before Orlando.

- Pretty much done, ship it?

- But then, Peter van der Stok suggested to add power terminology

3: "Classes of Constrained Devices"

- Distinguish 3 rough classes of constrained nodes:

  (0) ≪10 KiB data/≪100 KiB code ("class 0")
  (1) 10 KiB data/100 KiB code ("quite constrained")
  (2) 50 KiB data/250 KiB code ("not so constrained")

- Stable Terminology since Prague Workshop (2011)

2: Base terminology

- Constrained **nodes**
- Constrained **networks**
  - $\supsetneq$ challenged networks
- Constrained **node networks**
  - LLNs (?)
  - LoWPANs, 6LoWPANs

Proposal: Add power terminology

- RFC 6606: "power-affluent" vs. primary battery
  - emergency lights are "battery-operated", right?
- LLN "Low-power …"???
- RFC 5673: Scavenging
  - from 4..20 mA: milliwatts
  - from vibration: microwatts
- Scavenging? Harvesting?
  Solar operated parking cash points?
- ???

Systematic approach?

- Quantitative scale
  - sustained average **power** (in W)
  - lifetime **energy** (in J, if defined)
- Boolean attributes
  - **lifetime** energy-limited
    (primary battery, irreplaceable)
    - "Every packet they send today is
      a packet they cannot send tomorrow."
  - **event** energy-limited (harvesting light switch)
  - **period** energy-limited (daily recharge, solar cycle)

Trying a scale for sustained power

- Kilowatt (data center)
- Hectowatt, Decawatt (desktop, laptop)
- Watt (iPad, smartphone in active state)
- Deciwatt (recharged daily, in-wall, ...)
- Centiwatt (recharged weekly)
- Milliwatt, sub-milliwatt, ...
- Tens of Microwatt (Decade off AA)
- ...

Hmm.

- Are there useful clusters?
- Can't we just use the SI units?

- Can we **agree** on some useful clusters?

- We could still define good names for some Booleans.

Way forward?

- Let's timebox this.

- If we come up with consensus in March: put it in.

- Otherwise, ship terminology to IESG as is.