

draft-norwin-energy-consider-01

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November 10, 2010

[speaking as an individual]

Why am I here?

Possible reasons (eman)

- Bring knowledge, experience, contacts, insights, etc. from energy community (policy, technology, analysis)
- Help ensure eman products *can be* widely used
- Help ensure eman products *are* widely used

Non-eman reasons

- Explore energy-related topics outside our charter

Purposes of draft

- Raise issues that require discussion
- Propose content that can be incorporated into WG drafts we adopt
- Document decisions made in developing WG drafts
- Not duplicate content already in other drafts
- Possible: Serve as explanation of eman products to outside world?

On to topics...

Agree today?

Discuss

Scope of devices

- Primary design point
- Ultimate applicability
- Range: Comprehensive Limited

Proposal

- All IP devices
 - (that use energy or significantly influence energy use)
- Select non-IP devices (as defined in other drafts)

Agree today?

Power State Terms

- Has been a source of distraction, confusion, wasted energy for decades
- Needs to be harmonized with and usable for other technical communities, policy, ordinary people
- Common terms that embody highly-specific meaning can be problematic
- Specifying characteristics best done directly

Proposal

- Few named basic power states
- Additional elaboration in distinct variables
- Use “Power level” for watt values

Discuss

Control model

- Existing and proposed systems of energy management range widely from highly central to totally distributed
 - Many use elements of both

Proposal

- Ensure that eman equitably supports all control models

Agree today?

Role of control

- Not the same as role of measurement / monitoring in charter

Proposal

- Ensure that control considerations do not undermine architecture for reporting, nor clarity of its presentation

Agree today?

Identity

- Energy management begins with comprehensive inventory of devices present
- Need single, universal way to query device
 - Species: e.g. switch, server, notebook PC, display, ...
 - Origin: e.g. brand X, model Y (URL)
 - Name: < text string > ???
- Existing mechanisms do not cover non-IP devices

Proposal

- If use existing mechanism, describe which one, how to use it — otherwise, specify a new one (2 or 3 MIB variables)
- Does not replace or interfere with existing mechanisms for device, service discovery

Agree today?

Concepts in other drafts

- Measuring
- Reporting
- Proxying
- Aggregation
- (Meter) domains
- Control

Functions vs. boxes

Proposal

- For clarity, keep each of these logically separate (layered) as much as possible

Discuss

Presentation to non-IETF audiences

- Many non-IETF people will eventually learn about and read eman RFCs
- Many of these people will be unfamiliar with network technology
- They need to be able to understand core required eman functionality
 - And not be burdened by details of optional functions

Proposal

- Consider ways to organize and present information in drafts to maximize accessibility of core content to all audiences
- Clearly specify what is the required versus optional
 - Maybe in the framework

Agree today?

Power

- Consider test procedures widely used in energy policy
 - IEC 62301
- Consider whether accuracy requirements and abilities might be different between active and low-power modes
- Ensure that estimation is allowed (and documented)
- Consider needs of both AC and DC
- Consider role of wire losses, power factor, ...
- Clarify choice of basic energy unit (*Wh* or *J*)

Discuss

Use cases, scenarios, contexts

- These critical to shaping result
- Now scattered in several drafts

Proposal

- Gather all in the considerations draft
- Organize, analyze

Discuss

Multiple power sources

- Some devices today have multiple AC power feeds
- Other drafts do not explicitly address this topic
- Internal battery arguably an additional power source
- Ideally might defer this topic but presence of battery considerations in charter preclude that

Proposal

Discuss

- Ensure that other drafts include mechanisms for reporting on devices with multiple power sources

Conclusions

- No fundamental issues with core concepts in the drafts
- Some content needs to be adjusted
- Some topics will likely need much discussion
- Presentation to non-IETF audiences critical
- Discussion on list on
 - Power states, concepts, power, scenarios, multiple sources
- Agreeing on some items today would be helpful
 - Scope, control model, role of control, identity, presentation

