



Requirements for Energy Efficiency Management

draft-stephan-green-ucs-and-reqs-00

<https://github.com/emile22/draft-stephan-green-ucs-and-reqs>

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Motivation and goals

- Main goals based on RFC6988 and GREEN BoF discussions
 - Defining use cases for managing energy-efficient networks
 - Collecting and updating requirements for the management of energy-efficient networks from those use cases
 - We depart from EMAN requirements to start with temporarily
 - Use cases will determine the relevant requirements for GREEN
 - We will pursue to focus on the requirements derived from GREEN use cases
 - Propose a framework

Use cases

- (v-00)
 - Selective reduction of energy consumption in network parts proportional to traffic levels
- (v-01, to be posted)
 - Incremental Application of the GREEN Framework
 - Consideration of other domains for obtention of end-to-end metrics (network slice service)
 - Dynamic adjustment of network element throughput according to traffic levels in wireless transport networks
 - Video streaming use case
- Work in progress
 - Virtual network elements

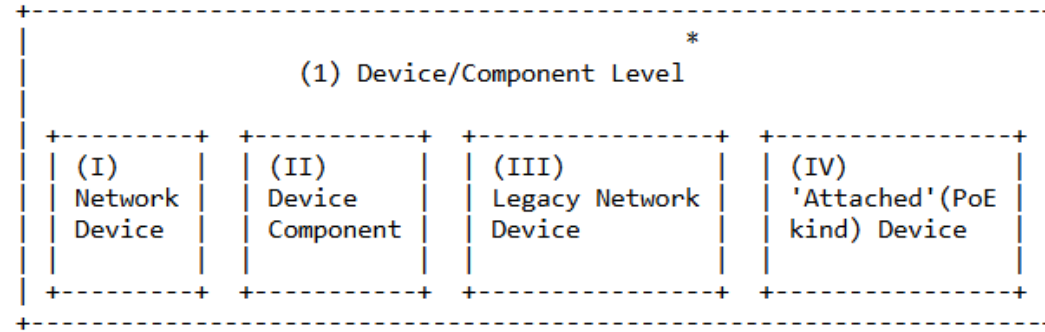
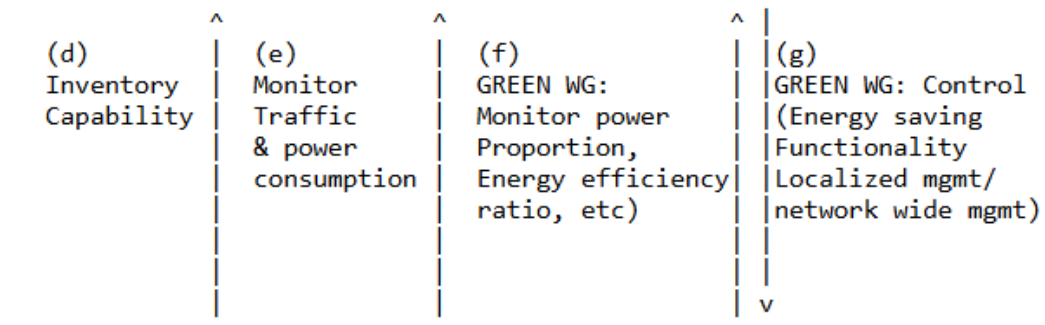
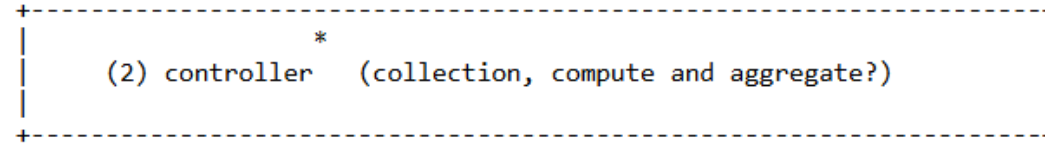
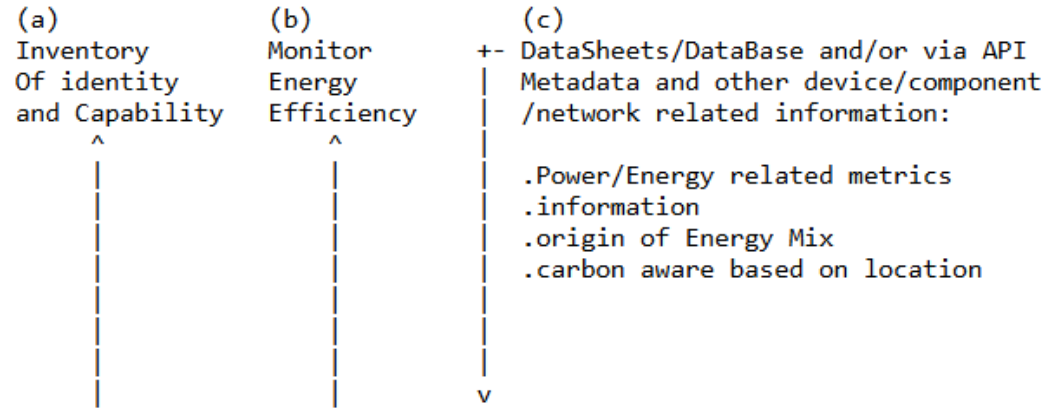
Requirements

(For detail on requirements, please, check the document)

- Requirements collected from BoF and previous documents
 - Operators' requirements from [charter-refinement] document
 - Requirements extracted from [legacy-path]
 - Requirements from [rfc6988bis-green] draft
 - Requirements extracted from [sustainability-insights] uses cases
- Next steps are harmonization of requirements and association of use cases and requirements
 - New requirements could come from use case analysis

Framework Discussed During the BoF

(3) Network Domain Level :



(*) Energy Efficiency Management Function is implemented inside the device or in a controller

Next steps

- WG adoption of v01 and move or remove overlapping with other WG drafts (up to the chairs to balance that)
- Incentivize the discussion on the draft content
 - Github issues and pull requests as the way of providing / review content, mailing list as the way of discussion and getting consensus, as well as periodically socializing document changes
 - <https://github.com/emile22/draft-stephan-green-ucs-and-reqs>
- Interim meeting for advancing on use cases and requirements could help for speeding up the work, identify differential requirements on use cases before integrating them :
 - Move topics not in the current charter in the WG wiki
 - For instance: EMAN claims on reporting on other entities, basic vs complex metrics structure, component on/off frequency capacity, energy per customer / service, etc.