GREEN BOF Charter Refining discussion

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Agenda

1. GREEN BOF Charter Status Update
2. GREEN BOF 120 discussion and Impact on the Charter
3. The Github Open Tickets and Impact on the Charter
4. Mailing List Discussion Summary and Impact on the Charter
5. Wrapup

Scope of GREEN Work in IETF 120

In Scope

- Establishing common terminology and metric definitions for energy efficiency.
- YANG data models for network lifecycle management, including monitoring and optimization of energy usage.
- Framework for energy metrics collection to support new energy efficiency metrics.

Out of Scope

- Routing protocols and algorithms considering energy factors.
- Benchmarking power consumption methodology.
- Carbon accounting/reporting protocols.
- Environmental sustainability assessment methodologies.
- Impact of energy efficiency on service quality.
- Regulatory and compliance issues.
- Cross-domain trust issues regarding measurements.

GREEN BOF Charter Status Update

- GREEN BOF 120 laid foundation for WG forming
- The BOF Charter Proposal is waiting for being moved to datatracker and still in the github: https://github.com/marisolpalmero/GREEN-bof
  - 16 PRs has been accepted and 3 PRs has been rejected before IETF 120
  - 1 PRs has been rejected and 1 replacing PR has been accepted after IETF 120
  - 1 PR is waiting for merging
  - 66 issues have been closed, 2 issues still open
- The latest Charter proposal is available at:
  - https://github.com/marisolpalmero/GREEN-bof/blob/main/GreenCharterProposal.md
- General comments from GREEN BOF 120
  - General agreement on 3 proposed work items
  - Prioritize listed charter items
  - Focus on foundation and tools
  - Make it delivered in 1~2 year timeframe
- Our AD call for Charter refinement with regular meeting
  - Make clear what is in the scope, and what is beyond scope

GREEN BOF 120 discussion and impact on the Charter

- Currently in scope
  - #1:Rebuild EMAN with YANG vs Focus on what is really implemented
  - #2:Split responsibility with E-impact
  - #3:Express modelled data in Non-YANG device
  - #4: Deployment Strategy
  - #5:Measurement without control vs Measurement with basic control capability

- Not Clear whether it is in scope or out of scope
  - #6: Security for Energy control
  - #7: Renewable energy aspect
  - #8: Connected Device (e.g., PoE device)
  - #9: Metadata format

- Currently beyond Scope
  - #10: Service Impact of energy efficiency
  - #11: Manufacturing costs consideration
  - #12: Energy aware routing support
  - #13: Carbon aware consideration
  - # 14: Lifecycle embedded Carbon

Currently in scope of GREEN BOF Charter

- #1:Rebuild EMAN with YANG vs Focus on what is really implemented
  - EMAN is originally designed for power grid or industry vertical and not focus on efficiency
  - GREEN BOF focuses on network operator case, new function, capability or what has been really implemented in the network devices
  - GREEN work can reference EMAN related work and learn lesson from it, avoiding pitfall.
  - Question: Do we need to make further refine the relation with EMAN in the Charter?
- #2: Split responsibility with E-impact
  - E-impact provide umbrella for GREEN Energy efficiency Management work in IETF
  - Make E-impact focus on Environment impact and Sustainability of Internet Technology
    - E.g.,Carbon aware consideration, Lifecycle embedded Carbon can be further explored in E-impact
  - Question: is there a need to change Charter text?
    - No, IAB E-impact Program Charter scope is clear about this

Currently in scope of GREEN BOF Charter

- #3: Express modelled data in Non-YANG device
  - Related to Incremental deployment Framework
- #4: Deployment Strategy
  - It is related to deployment consideration in 3rd work item
- #5:Measurement without control vs Measurement with basic control capability
  - Option 1: Monitor w/o control
  - Option 2: Monitor w/ basic control
  - Option 3: Monitor w/ advance control
    - Useful to keep track of what has already been developed, not limited to being monitored or reported
  - Question:

  Which option should YANG data model work item focus on?

  What entities have the knowledge to perform control, and to what extent that knowledge is

Not Clear whether it is in scope or out of scope

- #6: Security for Energy control
  - Have made “Cross-domain use of these measurements” beyond scope based on Jari’s comment
  - Depends on whether energy control is in the scope
- #7: Renewable energy aspect
  - Carbon aware metric such as Network Carbon Intensity has already developed by ITU-T L.1333
  - Question: Is such metric exposure from controller in the scope?
  - Question: Do we allow network device indicate power source and attributes using YANG data model?
- #8: Connected Device (e.g., PoE device)
  - Focus on the network device or component which consume most of energy
  - PoE device or IoT device as host devices consume less energy and can be ignored
- #9: Metadata format
  - Metadata information such as measurement interval, measurement unit should be part of YANG data model
  - Metadata format within controller is implementation specific

Open ticket review in the github

- Allocation per customer/user
  - Related to power proportion related metrics, but doesn't need to be reflected in the charter text
  - Proposal: Closing this open issue
- Science Based Targets Initiative (SBTi) liaison
  - SBTi can be potential customer of the output of this GREEN WG
  - SBTi project can be built on top of this IETF work, but not related to short term target.
  - Proposal: Keep charter as it does, closing this open issue.

Mailing list discussion Summary

- Use Case/Scenario documentation included in the Charter
  - It can be starting point, but not the key deliverable for most WGs
  - Very few Use case RFCs published
  - Allow Demonstration use cases of the YANG models in network devices
- Allow representation of energy to be extensible
  - Distinct basic metric from derive metric
  - Covered these as part of metric definition and terminology document.
- Allow the network device to indicate the power source to be used.
  - Similar to #7 in BOF discussion
- New work item on Deployment practices and application guidance
  - Similar to #4 in BOF discussion
- Encourage more implementation in the Charter
  - Allow Demonstration of initial implementations of the YANG models in network devices
  - Encourage tool develop to serve the foundation for new energy efficiency strategy

Next Step

- Is there any other open issues we need to resolved for the current Charter?

- Setup a regular meeting to refine Charter text
- Stabilize the Charter Proposal and Submit it to AD