

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 focus 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
 - 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 workshop 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
 - Where should this be documented, it is related to deployment consideration in 3rd work item
 - Question: Should one framework for both increment deployment and Deployment Consideration?
- #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/ basic control and dynamic 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?

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.1222
 - 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