


# “Sustainability Considerations for Internetworking”

draft-cparsk-eimpect-sustainability-considerations-07

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# Goals

1. Baseline terminology and design tradeoffs
2. Recommends including a “Sustainability Considerations” Section (\*)

## Abstract

This document defines a set of sustainability-related terms to be used while describing and evaluating environmental impacts of Internet technologies. It also describes several of the design tradeoffs for trying to optimize for sustainability along with the other common networking metrics such as performance and availability.

Embedding sustainability considerations at the design of new protocols and extensions is more effective than attempting to do so after-the-fact. Consequently, this document also gives network, protocol, and application designers and implementors sustainability-related advice and guidance. This document recommends to authors and reviewers the inclusion of a Sustainability Considerations section in IETF Internet-Drafts and RFCs.

(\*) at the design of new protocols and services and extensions

# Document Organization

## Three Parts:

Specifically, this document is organized with the following outline:

- \* Section 2 includes a "Definition of Terms"
- \* Sections 3 through 7 detail sustainability and environmental impact considerations, and their implications to Internet protocols, architectures, and technologies. [+ Services](#)
- \* Section 8 lists "Sustainability Guidelines for Protocol and Network Designers and Implementers"

# Work-to-date

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## 11. Acknowledgements and Contributions

The subject of sustainability considerations for internetworking sits in the intersection of several disciplines, benefiting from the collaboration of diverse educational, experiential, and exposure backgrounds. The authors are not only grateful but also inspired by the open collaboration and expertise of many individuals, including:

- \* Maarten Botterman provided text on network redundancy, and definitions for justified redundancy balancing adequate redundancy.
- \* Dom Robinson shared ideas and text on attributional and consequential methods, in turn inspired by a post from Chris Adams.
- \* Michael Welzl provided a very comprehensive and critical review of the complete document, and highlighted several fixes and improvements.

# Next Steps

<https://github.com/cpignata/eimpact-sustainability-considerations/issues>

- Finalize processing on-list review comments.
- Which documents (from the 1<sup>st</sup> presentation/Alex) should be pointed to (e.g., metrics)?
- Suresh & Jari □ “Implications to the IETF” Section (yes?)


□ ● 5 Open ✓ 4 Closed

- ● **e-impact mailing-list reviews**  
#27 opened 3 weeks ago by cpignata
- ● **Update "Consequential versus Attributional"**  
#24 opened 3 weeks ago by cpignata
- ● **Rewrite Scope definition from Sébastien Rumley**  
#23 opened on Jan 5 by cpignata
- ● **Complete the "Metrics for Sustainability" section.**  
#18 opened on Dec 25, 2023 by cpignata
- ● **Complete and strengthen the "Implications to the IETF" section**  
#17 opened on Dec 25, 2023 by cpignata

# Open Questions and Requests

1. Is getting “Sustainability Considerations” guidelines useful for the IETF?
2. Is it better to break this into 3 documents (as per the 3 portions)
3. Can we have an additional Editor?
  - Interested ? Contact Carlos : NOOP
4. How exactly the Eimpact Program can progress this work?

# Thanks!

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