Network Working Group
Internet-Draft
Intended status: Best Current Practice
Expires: August 27, 2018

M. Nottingham
February 23, 2018

The Internet is for End Users
draft-nottingham-for-the-users-06

Abstract

This document why, when a conflict cannot be avoided, the IETF considers end users as their highest priority concern.

Note to Readers

The issues list for this draft can be found at https://github.com/mnot/I-D/labels/for-the-users [1].

The most recent (often, unpublished) draft is at https://mnot.github.io/I-D/for-the-users/ [2].

Recent changes are listed at https://github.com/mnot/I-D/commits/gh-pages/for-the-users [3].

See also the draft's current status in the IETF datatracker, at https://datatracker.ietf.org/doc/draft-nottingham-for-the-users/ [4].

Status of This Memo

This Internet-Draft is submitted in full conformance with the provisions of BCP 78 and BCP 79.

Internet-Drafts are working documents of the Internet Engineering Task Force (IETF). Note that other groups may also distribute working documents as Internet-Drafts. The list of current Internet-Drafts is at https://datatracker.ietf.org/drafts/current/.

Internet-Drafts are draft documents valid for a maximum of six months and may be updated, replaced, or obsoleted by other documents at any time. It is inappropriate to use Internet-Drafts as reference material or to cite them other than as "work in progress."

This Internet-Draft will expire on August 27, 2018.

Copyright Notice

Copyright (c) 2018 IETF Trust and the persons identified as the document authors. All rights reserved.

This document is subject to BCP 78 and the IETF Trust's Legal Provisions Relating to IETF Documents (https://trustee.ietf.org/license-info) in effect on the date of publication of this document. Please review these documents carefully, as they describe your rights and restrictions with respect to this document. Code Components extracted from this document must include Simplified BSD License text as described in Section 4.e of the Trust Legal Provisions and are provided without warranty as described in the Simplified BSD License.

Table of Contents

1. Introduction

The IETF, while focused on technical matters, is not neutral about the purpose of its work in developing the Internet [RFC3935]:

> The IETF community wants the Internet to succeed because we believe that the existence of the Internet, and its influence on economics, communication, and education, will help us to build a better human society.

and:

> The Internet isn't value-neutral, and neither is the IETF. We want the Internet to be useful for communities that share our commitment to openness and fairness. We embrace technical concepts such as decentralized control, edge-user empowerment and sharing of resources, because those concepts resonate with the core values of the IETF community. These concepts have little to do with the technology that's possible, and much to do with the technology that we choose to create.

However, the IETF is most comfortable making what we believe to be purely technical decisions; our process is defined to favor technical merit, through our well-known bias towards "rough consensus and running code".

Nevertheless, the running code that results from our process (when things work well) inevitably has an impact beyond technical considerations, because the underlying decisions afford some uses while discouraging others; while we believe we are making purely technical decisions, in reality that may not be possible. Or, in the words of Lawrence Lessig [CODELAW]:

> Ours is the age of cyberspace. It, too, has a regulator... This regulator is code -- the software and hardware that make cyberspace as it is. This code, or architecture, sets the terms on which life in cyberspace is experienced. It determines how easy it is to protect privacy, or how easy it is to censor speech. It determines whether access to information is general or whether information is zoned. It affects who sees what, or what is monitored. In a host of ways that one cannot begin to see unless one begins to understand the nature of this code, the code of cyberspace regulates.

This impact has become significant. As the Internet increasingly mediates key functions in societies, it has unavoidably become profoundly political; it has helped people overthrow governments and revolutionize social orders, control populations and reveal secrets. It has created wealth for some individuals and companies, while destroying others'.

All of this raises the question: For whom do we go through the pain of gathering rough consensus and writing running code?

There are a variety of identifiable parties in the larger Internet community that standards can provide benefit to, such as (but not limited to) end users, network operators, schools, equipment vendors, specification authors, specification implementers, content owners, governments, non-governmental organisations, social movements, employers, and parents.

Successful specifications will provide some benefit to all of the relevant parties, because standards do not represent a zero-sum game. However, there are sometimes situations where we need to balance the benefits of a decision between two (or more) parties.

In these situations, when one of those parties is the "end user" of the Internet - for example, a person using a Web browser, mail client, or other agent that connects to the Internet - we tend to

favour their needs over that of parties such as network operators or equipement vendors.

Our goal is not to avoid all potential harm to or constraint of end users; rather, it's to give guidance in a particular situation - when we've identified a conflict between the interests of end users and another stakeholder (e.g., a network operator), and need a "tiebreaker", we should err on the side of finding a solution that doesn't harm end users.

Note that "harm" is not defined in this document; that is something that the relevant body (e.g., Working Group) needs to discuss. The IETF has already established a body of guidance for such decisions, including (but not limited to) [RFC7754] on filtering, [RFC7258] and [RFC7624] on pervasive surveillance, [RFC7288] on host firewalls, and [RFC6973] regarding privacy considerations.

Over time, additional guidance is likely to be defined. In the absence of specific guidance on a given topic (such as that referenced above), this document provides a general approach to making such decisions.

Doing so helps the IETF achieve its mission, and also helps to assure the long-term health of the Internet. By prioritising the concerns of end users, we assure that it reaches the greatest number of people, thereby delivering greater utility by maximising its network effect.

Prioritising end users' needs also helps to assure that the Internet itself retains end users' trust, preserving the benefit its network effect brings.

2. Guidelines for IETF Decisions

When there are unresolvable conflicts between the interests of different parties, we consider the end users of the Internet to have priority over other parties.

While networks need to be managed, employers and equipment vendors need to meet business goals, and so on, the IETF's mission is to "build a better human society" [RFC3935] and - on the Internet - society is composed of end users, along with groups of them forming business, governments, clubs, civil society organizations, and other institutions that influence it.

By "end users," we mean non-technical users whose activities our protocols are designed to support. Thus, the end user of a protocol

to manage routers is not a router administrator; it is the people using the network that the router operates within.

This does not mean that the IETF community has any specific insight into what is "good for end users"; as always, we will need to interact with the greater Internet community and apply our process to help us make decisions, deploy our protocols, and ultimately determine their success or failure.

It does means that, because end users are not technical experts, we have a responsibility to consider their interests, and will need to engage with those who understand how our work will affect end users, such as civil society organisations, as well as governments, businesses and other groups representing some aspect of end user interests.

When a proposed solution to a problem has a benefit to some other party at the identified expense of end users, we will find a different solution or find another way to frame the problem.

There may be cases where genuine technical need requires compromise. However, such tradeoffs need to be carefully examined, and avoided when there are alternate means of achieving the desired goals. If they cannot be, these choices and reasoning ought to be carefully documented.

For example, IPv6 [RFC8200] can be used to assign a client with a unique address prefix - even though this provides a way to track end user activity and helps identify them - because it is technically necessary to provide networking (and despite this, there are mechanisms like [RFC4941] to mitigate this effect, for those users who desire it).

3. IANA Considerations

This document does not require action by IANA.

4. Security Considerations

This document does not have direct security impact; however, failing to prioritise end users might well affect their security negatively in the long term.

5. References

5.1. Normative References

[RFC2119] Bradner, S., "Key words for use in RFCs to Indicate Requirement Levels", BCP 14, RFC 2119, DOI 10.17487/RFC2119, March 1997, <https://www.rfc-editor.org/info/rfc2119>.

5.2. Informative References

[CODELAW] Lessig, L., "Code Is Law: On Liberty in Cyberspace", 2000, <http://harvardmagazine.com/2000/01/code-is-law-html>.

[RFC2460] Deering, S. and R. Hinden, "Internet Protocol, Version 6 (IPv6) Specification", RFC 2460, DOI 10.17487/RFC2460, December 1998, <https://www.rfc-editor.org/info/rfc2460>.

[RFC3935] Alvestrand, H., "A Mission Statement for the IETF", BCP 95, RFC 3935, DOI 10.17487/RFC3935, October 2004, <https://www.rfc-editor.org/info/rfc3935>.

[RFC4941] Narten, T., Draves, R., and S. Krishnan, "Privacy Extensions for Stateless Address Autoconfiguration in IPv6", RFC 4941, DOI 10.17487/RFC4941, September 2007, <https://www.rfc-editor.org/info/rfc4941>.

[RFC6973] Cooper, A., Tschofenig, H., Aboba, B., Peterson, J., Morris, J., Hansen, M., and R. Smith, "Privacy Considerations for Internet Protocols", RFC 6973, DOI 10.17487/RFC6973, July 2013, <https://www.rfc-editor.org/info/rfc6973>.

[RFC7258] Farrell, S. and H. Tschofenig, "Pervasive Monitoring Is an Attack", BCP 188, RFC 7258, DOI 10.17487/RFC7258, May 2014, <https://www.rfc-editor.org/info/rfc7258>.

[RFC7282] Resnick, P., "On Consensus and Humming in the IETF", RFC 7282, DOI 10.17487/RFC7282, June 2014, <https://www.rfc-editor.org/info/rfc7282>.

[RFC7288] Thaler, D., "Reflections on Host Firewalls", RFC 7288, DOI 10.17487/RFC7288, June 2014, <https://www.rfc-editor.org/info/rfc7288>.

[RFC7624] Barnes, R., Schneier, B., Jennings, C., Hardie, T., Trammell, B., Huitema, C., and D. Borkmann, "Confidentiality in the Face of Pervasive Surveillance: A Threat Model and Problem Statement", RFC 7624, DOI 10.17487/RFC7624, August 2015, <https://www.rfc-editor.org/info/rfc7624>.

[RFC7754] Barnes, R., Cooper, A., Kolkman, O., Thaler, D., and E. Nordmark, "Technical Considerations for Internet Service Blocking and Filtering", RFC 7754, DOI 10.17487/RFC7754, March 2016, <https://www.rfc-editor.org/info/rfc7754>.

[RFC8200] Deering, S. and R. Hinden, "Internet Protocol, Version 6 (IPv6) Specification", STD 86, RFC 8200, DOI 10.17487/RFC8200, July 2017, <https://www.rfc-editor.org/info/rfc8200>.

5.3. URIs

[1] https://github.com/mnot/I-D/labels/for-the-users

[2] https://mnot.github.io/I-D/for-the-users/

[3] https://github.com/mnot/I-D/commits/gh-pages/for-the-users

[4] https://datatracker.ietf.org/doc/draft-nottingham-for-the-users/

Appendix A. Acknowledgements

Thanks to Edward Snowden for his comments regarding the priority of end users at IETF93.

Thanks to the WHATWG for blazing the trail with the Priority of Constituencies.

Thanks to Harald Alvestrand for his substantial feedback and Mohamed Boucadair, Stephen Farrell, Joe Hildebrand, Lee Howard, Russ Housley, Niels ten Oever, Mando Rachovitsa, Martin Thomson, and Brian Trammell for their suggestions.

Author's Address

Mark Nottingham

Email: mnot@mnot.net
URI: https://www.mnot.net/