

# ISPCP

**The Internet Service Provider and Connectivity Provider Constituency**

**ICANN**

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## **Internet Service Provider and Connectivity Providers Constituency Draft ISPCP Comments on the Identifier Technology Health Indicators (ITHI)**

The Internet Service Provider and Connectivity Providers Constituency (ISPCP) welcomes the opportunity to submit comments on the Identifier Technology Health Indicators (ITHI) Definition. See: Identifier Technology Health Indicators: Definition. See: <https://www.icann.org/public-comments/ithi-definition-2016-11-29-en>.

The ISPCP supports the efforts to create a coherent and appropriate set of terminology and identify a terminology for health indicators when discussing problems, weaknesses, or concerns about the domain name system.

The ISPCP membership recognizes the need to create a terminology to identify the metrics used to discuss the state of the Domain Name System (DNS.) Further, the use of a medical metaphor based on health, and its associated foundation in the Latin language for medical treatment and disease identification could enable a coordinated creation of such terms, both immediately and in the future. By combining the Latin roots for technology and medicine, the Identifier Technology Health Indicators (ITHI) will provide a useful underpinning for future discussions of the status of the domain name ecosystem. Because of this, the use of Latin roots is also supported by the ISPCP.

Before proceeding, however, the ISPCP must ask ICANN to address a few areas of concern and in need of clarification:

### A.) Of Concern:

- The following is not evident: The suggested terms, in their focus on the DNS, fail to make explicit any coordination of work being done with the Regional Internet Registries (RIRs) RIRs in the IP numbering space. This raises the question of whether there is an overemphasis on the DNS, while also raising the concern that if the work were to continue in two separate venues, then the likelihood and ease of coordination would be lowered. Even recognizing that the RIR number community should be rightly able to define its own terminology for the health and problems of the IP addressing and other Internet number spaces, there needs to be coordination between the work that goes on inside of ICANN and the work that goes on in the RIRs. Is that taking place? If so, it is not evident. If it is not taking place, the ISPCP believes that it should be a priority in this effort.
- The definitions are based on a view of the "health" of the identifier space. The ISPCP thinks the continued use of the "health" metaphor could complicate the

understanding both the breadth and scope of the problems that the DNS may have. The initial terms, in their novelty, introduces a complex paradigm to discuss the state of the DNS, while potentially overlooking matters relevant to the metrics and discussions to follow. For example:

- The proposal defines only five potential diseases for the Internet's name space. Even recognizing the early stages of this effort, the motivation for these terms is coordination in discussing metrics. Are there other metrics in need of identification and definition beyond the five?
  - The ISPCP is concerned that omitting any initial terms and metrics could lead to a very limited assessment of the problems within the DNS. Are there existing metrics that are not proposed in these THI and should there be others to better describe the domain name ecosystem?
- The definitions also fail to recognize that the DNS is not a static, unchanging environment. Instead, there needs to be a vehicle for redefining and reassessing the "diseases" as the protocol and its implementations evolve over time.

#### B.) In Need of Clarification

- In what way has the IETF, the provider of the underlying protocols for the DNS, been involved in the discussion of the definitions? As the IETF defines the protocols, they might be expected to have a view of the problem space at a protocol level. For instance, has this been surfaced at DNSOP?
- Some of the definitions appear to be either incomplete or not robust. Is this open for modification? For instance, "Datamalgia: Registrations containing either incomplete, inaccurate or fraudulent data," begs the question of how that might be determined. While this has been partially addressed in RA 2013 and the Whois Accuracy project, how would one decide if a registration had bad data? What is the definition of "bad data?"
- Magnitudalgia: the "Pain from Quantity when a higher volume of traffic than should be observed in an ideal world hitting DNS servers" definition, seems so specific as to rule out other relevant aspects of elevated query volumes. These could be, for example, spikes in root server queries not related to attacks or compromises of the root server system stemming from problems in implementation, protocols or changes to the name space. However, the definition does not seem to address such scenarios.
- The Perfluism, or "leakage of private names into the public namespace" definition fails to mention the need for coordination between ICANN and the IETF. This definition, specifically, does not address the difference between engineering reasons to prevent leakage and administrative/policy reasons to prevent leakage.
- Is the ITHI terminology solely an appropriate way to assess the current and dynamic state of a complex technical, economic and policy system? While the terms will help to define the what needs to be measured and discuss the related issues, each exists within a wider ecosystem with existing terminology. This suggests additional steps will be necessary to build upon the ITHI in the future through a process of review.

As a final comment, adding terms reflecting potential indicators and measurements for a “healthy” DNS rather than solely conditions of “illness” would be useful for this project. Just as a blood pressure measurement can convey both a state of health and stability or stress and elevation, the ISPCP recommends terms that are equally neutral, but still of use.

The ISPCP thanks members, volunteers and experts who have contributed to this process, it recommends the process should continue and stands ready to assist.

This comment was drafted by the ISPCP’s Public Comment Drafting team. It was approved for submission through the regular January 2017 ISPCP mailing list approval process.

Submitted on behalf of the ISPCP Constituency.

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