

COMMENTS ON MAPPING OF INTERNATIONAL INTERNET PUBLIC POLICY ISSUES

Summary

ICANN is delighted to have had this opportunity to comment on this important work. We were also pleased to have been able to take part in the debate on the Paper during the CSTD Inter-sessional Forum in Geneva in November. We believe the work can contribute to the evidence the CSTD has asked to contribute to the 10 year Review of the WSIS Outcomes. It is clearly important, in debating the effectiveness of the WSIS Outcomes, to have a factual overview of the how Internet Governance issues are being addressed and the contribution different stakeholders, including governments, are making. As such it is important any evidence, of Mapping, that is contributed is factual in nature. It is for other commentaries to deliberate on the implications of the factual information presented.

Detail

2.4 Internet Protocol Numbers

In the first paragraph:

“IP numbers are unique numeric addresses that are used by all computers and other devices connected to the Internet.”

This is not quite right. Some IP addresses are unique while others are not. For instance, all IP capable devices have a loopback interface and they all use the same address for it. Similarly, there are private addresses, which are only unique within a local routing domain. We should suggest that unique be removed from this sentence.

“Two computers connected to the Internet cannot have the same IP number.”

This is not right. Anycast allows the same IP addresses to be used to provide the same service from different topological locations. For instance, L-root uses anycast to serve the same root zone from 155 different locations around the world.

Suggested re-write:

IP numbers are numeric addresses that are used by all computers and other devices connected to the Internet. This makes IP numbers a potentially scarce resource. The depletion of the free pool of IP numbers (under IP version 4 or IPv4) accelerated with the fast growth of Internet-enabled devices (such as mobile phones, personal organisers, home appliances). IP version 6 (IPv6) was introduced partly in order to overcome the limited pool of IPv4 numbers. The transition to IPv6 has been progressing slower than necessary to effectively address the limitations of IPv4.

Status of governance mechanisms for IP numbers

The **map** source is actually NRO and not Wikimedia. The map is not the most current version. A more recent version is at: <https://www.nro.net/wp-content/uploads/SERVICE-Region-MAP2014.png>

In the first paragraph

"The governance of IP numbers is coordinated by IANA (the Internet Assigned Numbers Authority – a subsidiary of ICANN, the Internet Corporation for Assigned Names and Numbers)."

This is incorrect. Governance is not coordinated by the IANA department and the IANA department is not a subsidiary of ICANN. The IANA Department is a part of ICANN.

"The Number Resource Organisation (NRO) coordinates the work of the five RIRs."

The RIR coordinate a portion of their work through the NRO. The NRO is not a governing body for the RIRs.

So we would suggest:

The governance of IP numbers is coordinated by IANA (the Internet Assigned Numbers Authority – a set of functions provided by ICANN, the Internet Corporation for Assigned Names and Numbers). IANA distributes blocks of IP numbers to the five regional Internet registries (RIRs). RIRs distribute IP numbers to local Internet registries (LIRs), which in turn distribute IP numbers to smaller ISPs, companies, and individuals. The Number Resource Organisation (NRO) coordinates the work of the five RIRs. The Address Supporting Organisation (ASO) reviews and develops recommendations on global IP address policy and advises the ICANN Board.

The governance of IP numbers is particularly relevant for the development of the Internet of Things (IoT), which will substantially increase the number of devices connected to the Internet and, consequently, the demand for IP numbers.

Possible gaps in dealing with IP numbers

We believe this paragraph to be important in pointing to significant problems in the deployment of IPv6 globally. While it is quite correct to note that the primary cause for the problem is down to business factors; we should not ignore the important role that governments, regional bodies and other institutions can play in enhancing adoption.

The situation, echoed by many inputs to this exercise, is becoming critical, a factor we think should be reflected. The adoption of "band aid patches" (such as the roll out of Carrier Grade NAT) can only be considered a temporary solution. The adoption of IPv6 is not a trend, but a critically important development to ensure the Internet will continue to serve users and spur innovation.

2.5 Domain Name System

We would suggest the following be inserted to replace the first two paragraphs:

The DNS is often defined as the Internet 'address book', which provides mapping of the host name to its IP address. Among the DNS functions are mechanisms to take language-based Internet names and convert them to the numeric IP addresses. Internet-connected devices use IP numbers to communicate with one another. Names with the DNS are hierarchically organized and represented as a series of labels separated by a ".", with the top level consisting of the "root", which contains pointers to the top-level domains (TLDs), each potentially independently administered. Under each TLD are pointers to second-level domains (SLDs), again each potentially independently administered, and under each SLD there may pointers to third-level domains and so on. At each level in the DNS hierarchy for a particular name, a set of one or more potentially independently operated name servers respond to queries about names, either providing the information they have about the name, providing a referral to other name servers that might know about the name, or returning an indication that the name does not exist. The DNS ensures that accurate information may be found about any address at any time, from anywhere, and with the deployment of security protocols known as DNSSEC, with confidence as to its veracity.

The DNS includes two types of TLDs: generic (gTLD) and country code (ccTLD), with gTLDs being characterized as sponsored (sTLD) or unsponsored. Unsponsored gTLDs include domains that can be obtained by anyone (.com, .info, .net, and .org). Since 2014 many other gTLDs have been added like .pub, .بازار (bazaar), .rentals, .ngo, and .游戏 (game). sTLDs are limited to a specific group. For example, the sTLD '.aero' is open for registration only for the air-transport industry. ccTLDs designate specific countries or territories (.uk, .cn, .in).

Status of governance mechanisms for the DNS

The first two paragraphs should be replaced we believe by the following:

The organisation and management of DNS is based on the Internet standards and recommendations (Requests for Comments adopted by the IETF). For country domains, the IETF refers to the ISO 3166 standard, 'Codes for the representation of names of countries and their subdivisions'. ICANN, through a number of stakeholder groups and constituencies, provides overall coordination of the DNS by establishing agreements and accrediting registries and

registrars. For each gTLD there is one registry that maintains information related to the second-level domains delegated within the TLD. For example, the .com gTLD is managed by Verisign and they maintain the file that has pointers (referrals) to all names within the .com TLD. Final users purchase specific domain names (the part in front of the dot in each TLD) from registrars. The ICANN community also decides on the introduction of new gTLDs (such as .city, .wine, .christianity).

The policy development function for the DNS is within the Country Code Names Supporting Organisation (CCNSO) for country code TLDs and the Generic Names Supporting Organization (GNSO) for gTLDs (both sponsored and unsponsored). The main dispute resolution mechanism for the names in contention in the DNS is the Uniform Domain-Name Dispute-Resolution Policy (UDRP). Since the introduction of the UDRP in 1999, the World Intellectual Property Organization (WIPO) Arbitration and Mediation Center has handled 22,500 cases. In addition to the WIPO Arbitration and Mediation Center, there are four other regional UDRP service providers.

A clear reference should also be made to the gTLD Programme should be made; we suggest that text could be used as follow:

*"The gTLD Program was launched by ICANN on 12 January 2012 and at the close of the application window (on 13th June) ICANN had received 1932 applications, of which 116 were for IDN strings in scripts such as Arabic, Chinese, and Cyrillic. Applications were received from 60 countries. As of **December 2014** there were 469 gTLDs (new names) delegated into the root of the Internet. A further 1017 are proceeding through the system. 385 applications have been withdrawn.*

<http://newgtlds.icann.org/en/program-status/statistics>"

We would suggest changes to the paragraph below:

*The importance of policy with respect to the DNS came into sharper public focus with the introduction of these new gTLDs. For example, it opened the policy debate on the right to register **geographic names such as** '.amazon' (which is clearly the names of the company (who owns the trademark)) as well as a term used for countries in Amazon basin. Another debate has been conducted on the "**generic**" names such as **.book**. In **addition it has been noted that** new domains such as '.doctor' or '.lawyer' could run the risk of misleading Internet users should individuals who – for example – do not have necessary medical and/or legal qualifications register under these domains*

Possible gaps in dealing with the DNS

We would suggest following amendments to this text

*However, there is no consensus on this issue. Whereas some view governments' role through the Government Advisory Council (GAC) insufficient and point out that formally speaking, the role is only advisory, others are of the opinion that in practice, governments play an important role and there are formal procedures in place for cases where the ICANN Board disagrees with GAC advice. **Treatment of GAC advice is indeed mandated in the ICANN bylaws, Article XI, Section 2.1.j and k where the need for the Board to engage in negotiations with the GAC (in case of any disagreement) is clearly defined.** In fact in the vast majority of cases the ICANN Board agrees to consensus Advice communicated by the GAC.*

2.6 Root Zone

We would suggest following changes are made to the first paragraph as follows:

The root zone is the top level of the hierarchically organised DNS (the so-called Internet address book). The root zone maintains a list of all top-level domains in use on the public Internet and is implemented via a set of servers known as the root servers. The IP addresses of the 13 root servers are built into the software that performs DNS lookups of domain names. While there are 13 root server IP addresses, there are twelve independent organizations (10 in the USA and one each in Sweden, the Netherlands, and Japan) that administer the servers using those addresses and there are hundreds of machines that respond to DNS queries sent to the root server IP addresses through a technique known as 'any cast'.

Status of governance mechanisms for the root zone

We would suggest the following additions and amendments are made to this paragraph.

Governance of the root zone has been one of the most controversial issues in the international Internet policy debate. The main point raising divergent views has been about the USA's historical role in the stewardship of changes to the root zone as administered through the IANA process by ICANN. On 14 March 2014, the US government announced that it intended to transfer its current responsibilities under the contract it has with ICANN for the IANA functions to the global multistakeholder Community. The process of transition, which the NTIA entrusted to ICANN, includes a wider array of consultations with the multistakeholder Community; these being currently in process (see <https://www.icann.org/stewardship>)

Rewording is provided for Sections 5.4 and 6.3 in the following texts.

5.4 Trademark

The main relevance of trademark on the Internet is the question of registration of domain names. In the early phase of Internet development, the registration of domain names was done on a first come, first served basis. This led to cybersquatting, the practice of registering names of companies and selling them later at a higher price. Trademark holders reacted by introducing mechanisms for stricter protection of trademarks through ICANN's policy development processes, in the form of the development of the Uniform Domain Name Dispute Resolution Policy (UDRP) approved in 2000. The New gTLD Program included a fundamental policy recommendation that the introduction of new gTLDs had to be done in a way that protected the rights of others, and additional mechanisms were developed for the trademark protection as it relates to domain names.

Status of governance mechanisms for trademark

WIPO's Madrid and Paris conventions provide the basis for trademark protection on the Internet. Another WIPO instrument, the Nairobi Treaty on the Protection of the Olympic Symbol, was in focus during the debate on the special protection of the Olympic name in the registration of new gTLDs.

The Uniform Domain Name Dispute Resolution Policy (UDRP) is the primary dispute resolution procedure. The UDRP is stipulated in advance as a dispute resolution mechanism in all contracts involving the registration of gTLDs (e.g. .com, .edu, .org, .net) and for some ccTLDs as well. Its unique aspect is that arbitration awards are applied directly through changes in the DNS without resorting to enforcement of trademark protection through national courts.

The Trademark Clearinghouse under ICANN's new gTLD program authenticates information from rights holders and provides this information to registries and registrars. There are requirements of when registries and registrars must access the Clearinghouse, including sunrise (launch) phases where rights holders are given access to trademarked names. The Uniform Rapid Suspension (URS) mechanism was also developed to allow trademark holders to combat clear-cut cases of abuse, and dispute processes such as the Post-Delegation Dispute Resolution Procedure (PDDRP) allow rights holders to assert rights against registry operators where a registry operator's operation or use of a domain leads to or supports trademark infringement, either on the top level or second level.

Possible gaps in dealing with trademark

One submission to the WGEC/correspondence group indicated a potential policy gap in dealing with competing claims for protection of trademarks and other internationally important names (e.g. cases of 'amazon' as new gTLD).

6.3 Consumer protection

Consumer protection has been transformed with the Internet from a mainly national to an increasingly international public policy issue. In the past, consumers rarely needed international protection. They bought locally and therefore needed local consumer protection. With e-commerce, an increasing number of transactions take place across international borders. Consumer protection is essential in ensuring trust as one of the main preconditions for the successful development of e-commerce.

Status of governance mechanisms for consumer protection

The OECD adopted two important mechanisms for consumer protection on the Internet: the 1999 Guidelines for Consumer Protection in the Context of E-commerce and the 2003 Guidelines for Protecting Consumers from Fraudulent and Deceptive Commercial Practices across Borders. The main principles established by the OECD have been adopted by business associations, including the ICC and the Council of Better Business Bureaus.

A number of private associations and NGOs also focus on consumer e-commerce protection, including Consumers International, the International Consumer Protection and Enforcement Network, and Consumer Reports WebWatch.

More specifically, consumer protection was raised in relation to the possible misuse of domain names such as '.lawyer' and '.doctor'. Some contend that if the registration for these domains is not regulated (i.e. if it does not require a law or medical degree), registration under these domains could be misused, which could ultimately harm Internet users and consumers. ICANN is currently addressing advice that it has received from its Governmental Advisory Committee on the establishment of safeguards for strings such as these. In addition, ICANN New gTLD Program has a Public Interest Commitment requirement, with a dispute resolution process available when if a registry is not meeting its public interest commitments.

Consumer protection is most directly related to the following Internet policy issues: the Internet of Things, cybersecurity, digital signatures, cybercrime, data protection, jurisdiction, intermediaries, access, cloud computing (i.e., consumer protection is related to ensuring trust of consumers in cloud computing services), content policy, and multilingualism.

While ICANN does not address content issues, it has announced that it is creating a position of Consumer Safeguards Director within its Contractual Compliance department, to assist in dealing with some of these consumer-related issues.

Possible gaps in dealing with consumer protection

The mechanisms analysed appear to indicate the existence of a capacity gap for the representation of consumer interests in international bodies dealing with relevant aspects of Internet policy issues (e.g. ICANN, WTO). This capacity gap is particularly noticeable for consumers from developing countries.

Consumer protection laws vary by country. At global level, there seems to be a gap in the harmonisation of legislation in this domain.

On the policy level, there is insufficient coordination among various policy initiatives and processes in addressing the online aspects of consumer protection. Work is ongoing in both the OECD and the United Nations to update their guidelines on consumer protection, with a view to better reflect e-commerce.

8.3 Multilingualism

Changes have been made in this paragraph as follows:

The multilingual Internet is a pre-condition for the promotion and further development of cultural diversity of the Internet. If the Internet is to be used by wider parts of society, content must be accessible in more languages.

Status of governance mechanisms for multilingualism

Multilingualism is a good example of public-private partnerships. UNESCO is the lead international organisation. One of the early initiatives related to the multilingual use of computers was undertaken by the Unicode Consortium – a non-profit institution that develops standards to facilitate the use of character sets for different languages. ~~ICANN and the IETF~~ IETF and ICANN took ~~an~~ important steps ~~in promoting~~ to enable the use of Internationalised Domain Names (IDNs) by developing the underlying protocols and enabling country code and generic IDN top level domains (TLDs) in the root zone respectively. IDNs facilitate the use of domain names written in Chinese, Arabic, and other non-Latin ~~alphabets~~ scripts.

Multilingualism is most directly related to the following Internet policy issues: web standards, the DNS, digital signatures, freedom of expression, copyright, trademark consumer protection, access, the digital divide, education, cultural diversity, and content policy.

Possible gaps in dealing with multilingualism

Apart from the considerable progress made in developing a multilingual Internet, the mechanism analysis indicates the insufficient existence of a structured approach to addressing the multilingual aspect in developing technical and web standards of relevance for the future Internet development.

It is unclear what is meant by “... insufficient existence of a structured approach to addressing the multilingual aspect in developing technical and web standards of relevance ...”. There has been considerable work on publishing multilingual content by W3C (Internationalization team of W3C could comment further), much work at Unicode (e.g. the CLDR work and other technical reports) and considerable more work at IETF for internationalizing email, domain name

registration data and services, etc. The recent initiative on Universal Acceptance by ICANN also includes a focus to promote multilingualism online by highlighting and trying to address issues in the use of internationalized email and IDN TLDs. Thus, this statement should be further qualified to clearly point to where the authors feel there is a gap, for the community to better understand it in order to address it.

A revised text is submitted as follows for Section 8.5

8.5 Global public good

The Internet provides many valuable services to the global public. It is considered to be a global resource that should be governed in the global public interest. The Council of Europe's report on ICANN's procedures and policies in the light of human rights, fundamental freedoms, and democratic values suggests the following public interest objectives: respect for human rights; fundamental freedoms and democratic values; linguistic and cultural diversity; and care for vulnerable persons and groups. Of course, ICANN may only address the issue of human rights as bounded by its mission.

Many aspects of the Internet are related to the idea of the Internet as a global public good, including: access to the Internet infrastructure, protection of knowledge developed through Internet interaction, protection of public technical standards, and access to online education.

Status of governance mechanisms for global public good

There are no major international initiatives focusing on the Internet as a global public good. One of the non-profit initiatives is Creative Commons, aimed at promoting Internet content as a global public good.

The Internet as a global public good is most directly related to the following Internet policy issues: web standards, net neutrality, cybersecurity, freedom of expression, disability rights, copyright, labour law, capacity development, access, cloud computing, education, cultural diversity, and multilingualism.

Possible gaps in dealing with global public good

The mechanisms analysed appear to indicate the existence of a knowledge gap in research and data on the global public good aspects of the Internet developments, including sharing experience from other policy fields such as environmental protection.

ICANN
December; 2014