

Comments on some WGIG working papers

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Comments on Document: WP-IP addresses.pdf

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Black: original text.

Red: comments.

The basic objective of the Internet's DNS is to ensure universal resolvability so that all users of the Internet can find all valid addresses in an unambiguous way. This is achieved, first, by making sure that every computer on the Internet has a unique numerical address called its "IP address" (Internet Protocol address).

A computer may have multiple addresses, and/or use different addresses at different times.

The goal of the DNS is for any user to be able to reach a unique and specific host IP address by entering its domain name.

Unique only at some point in time.

The top of the hierarchy is known as the "root" and the set of internationally distributed root servers mirror the root and provide redundancy and robustness to the domain name system.

Nowhere is it stated that the very existence of the top root is just one technical (or political) decision. The GSM also resolves names into network numbers without a top root. Handling mobile users is an order of magnitude more complex than in the internet.

As for the assignment of IP addresses, these are assigned by the four regional Internet registries based on demonstrated needs.

Because of the fear of IP-addresses running out, Classless Interdomain Routing (CIDR) was specified in 1993. In the past a considerable amount of IP-addresses was wasted when assigning a Class B address to a network that only required one thousand hosts. With CIDR this waste is avoided and a dynamic system of matching the demands of IP addresses is used. As a result, IPv4 addresses continue to be available still for many years, and are assigned to ISPs (sometimes named as LIRs) by the RIRs, and RIRs by IANA.

Many years, due to the restrictive allocation procedures applied by the RIRs.

On another level, the delegation and re-delegation of ccTLDs is for most countries a matter of national sovereignty. However, the process is based on a triangle system, where national governments may select or delegate a ccTLD registry, but the delegation must also be accepted by ICANN and the NTIA before changes can be made in the hidden master.

This is clearly inconsistent with the WSIS Declaration of Principles.

In effect, IP numbers v4 has not been a scarce resource, and with IPv6 it is even more unlikely to become a scarce resource.

This is a misleading assertion, as the allocation of v4 addresses is made with scarcity. Furthermore, there are only 4 billion v4 addresses for 6 billion human beings.

Weaknesses

The shocking unbalance between v4 addresses allocated to USA organizations and the rest of the world is not even acknowledged.

Adequacy Measured Against Criteria

It reads quite like a glorification of the status quo.

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Comments on Document : Multilingualization of Internet Naming System

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5.2 Suggestions for governance alternatives alternations

The IDN standards have been primarily focused on maintaining a sub-ASCII 25-year old DNS design. In addition to the existing machinery, ccTLDs, at least the ones concerned with their natural languages, could set up pilots based on extended name servers handling existing ISO alphabets fitting their national needs. This would provide a stable framework for local keyword systems. Indeed, using local alphabets within each country is a major market requirement for non ASCII characters.

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Comments on Document : Administration of Root Server System

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The document is rich in ICANN rhetorics and mute on basic issues such as:

- ***the justification for a unique authoritative root controlled by the USA;***
- ***the use of the DNS to monitor and potentially alter user traffic;***
- ***the ability to shut off a ccTLD;***
- ***the existence of autonomous internets.***

The emphasis on the uniqueness of domain name resolution is a common mantra in the DNS literature. This behaviour is no different from what the phone system does, as well as most database systems. However, there is no guarantee that the DNS will turn up the same address one second later. Spammers are most adept at quickly changing their association of domain name and address. Further, the propagation of a name or address update throughout the name servers is not instantaneous. Thus, uniqueness does not carry the subliminal stability and consistency that it intends to suggest.