Comments to WGIG on Draft Working Papers Identifying Issues for Internet Governance

Submitted by the Number Resource Organization
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Name of the paper: Draft WGIG Issue Paper on the Administration of Internet Names and IP Addresses

1. General Comments

We appreciate the efforts that have been put into the production of this draft document. It appears to be a useful first step towards a comprehensive coverage of these issues in the final WGIG reports. The fact that it was produced under remarkable time pressure is reflected by a number of inconsistencies and factual errors, some of which will be addressed in this comment.

We suggest that it is important to analyse the various aspects of Internet management separately in order to fully address the issues that are distinct to these areas. In addition, we propose that there is also a need for a WGIG paper that deals specifically with the overall coordination of the various, diverse aspects of Internet management. [1]

We strongly agree with the comments from APNIC regarding the need to separate the issues of IP address and DNS management and to cover them in two distinct documents, or at the very least in two distinct sections that fully cover the separate issues. There are fundamental differences between these systems, which result in almost entirely distinct sets of governance issues related to each. To deal with them at the same time is counterproductive and contributes to the confusion regarding the technical coordination and management of the two systems. There are several key areas where there are significant differences which warrant the separation of these two subjects.

    a. Organization model.

        1) Numbers are administered by not-for-profit, non-competitive organizations (the Regional Internet Registries) which are deployed to serve geographical regions. Fees are charged for services and not for the numbers. The Regional Internet Registries function as stewards, husbanding a finite resource. The ability of an entity to obtain number resources is dependent on it establishing a need for the resource. Distribution of the resource is not driven by the market.

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[1] We suggest that this proposed WGIG paper include an analysis of the coordination of diverse aspects such as the Regional Internet Registries, name registries and root server operations.

2) Names are administered by both not-for-profit and for-profit, competitive organizations. Names organizations are distributed on a market basis, where they compete for their share of the market. The ability of an entity to obtain a name is dependent on its ability to pay and on occasion to establish a legal claim to the name.

b. Policy development.

1) Numbers are administered in accordance with policies developed in bottom up policy fora in which the public sector, the private sector, and civil societies participate. The fora are conducted via both public meetings and e-mail discussion lists. There are no requirements or pre-requisites for any person or entity to participate.

2) Names are administered in accordance with policies that are evolved from general business principles, ethics and practices. There are significant legal considerations involved, such as intellectual property, which play a big part in the administration of names.

Consequently the two systems have divergent needs and issues. While there may be some commonality between names and numbers such as the use of the same terms, the terms often have different meanings. The application of law, such as that dealing with privacy or spam, is different in the two systems and can cause divergent outcomes when applied in an identical manner for both names and numbers.

Thus names and numbers are two characteristically different and distinct enough systems to warrant being addressed as separate papers by the WGIG.

In the following notes we will highlight the major concerns we have regarding the accuracy of the SWOT analysis in the WGIG paper. We will focus on issues that are relevant to IP addressing.

2. The SWOT analysis

We find examples throughout the SWOT analysis of statements that have little or no connection with the observations made earlier in the paper regarding the distributed nature of Internet operations. There is a clear example of this in the "Weaknesses" section which notes the need for a "common hierarchical structure". There is no analysis of whether such a hierarchical structure is appropriate or what it might entail and there is no attempt to reconcile this statement with earlier observations about the current, distributed nature of Internet operations.

For the sake of clarity, the following sections will comment on the statements in the SWOT analysis in the order they appear in the WGIG paper.

3. Strengths

This section concludes with the following brief statement:
"The RIR system is also a successful self regulation model."

It is important to note here that the current Regional Internet Registry (RIR) system is a successful model of industry self-regulation that predates the establishment of ICANN by more than seven years and has developed independently from ICANN. The RIRs have

been coordinating on a global scale through the Number Resource Organization (NRO). The NRO has signed a Memorandum of Understanding (MoU) with ICANN to establish and define the tasks of the Address Supporting Organization. The existence of this MoU documents the commitment of the RIRs and their communities to ICANN as an embodiment of functioning, bottom-up, industry self-regulation.

The RIR system is open to all interested parties, and includes the active participation of both public and private sector bodies, as well as civil society. The process for developing IP address related policies utilises open, public meetings and mailing lists. The policy development process used in the RIR system is inclusive, transparent and, most importantly in the context of the WGIG paper, accountable.

4. Weaknesses

In this section, there is reference to the "lack of political and corporate accountability in relation to the administration of Internet names and IP addresses, even though there are parts of the system where accountability exists." However, earlier in the document, accountability is both observed and described. This is also another example of the confusion generated by trying to tackle issues relating to Internet names or IP addresses in the same paper. This is all the more evident in the footnote that accompanies the above quotation which admits, "not all do agree that there is a lack of accountability, especially when it comes to the administration of IP addresses."

The statements which call into question the accountability of the technical coordination of IP address space distribution by the RIRs have not presented any evidence, either direct or anecdotal, that substantiate their claims. In fact the system is both accountable and also extremely transparent. The policies that are used to manage the address space are developed in open fora in which any party from the public sector, private sector or civil societies are able to, and do, participate. The execution of that policy is done through open, transparent procedures. The governing boards of the RIRs are elected in open elections and minutes of their meetings are publicly available on the RIRs' websites. The budgets of the RIRs are published and their financial reports are audited.

This section also states that it is difficult "to integrate public policy concerns in the considerations of the various technical organizations." This statement is not based on any of the earlier observations, and is not applicable to the RIR model where governments can actively participate so that public policy concerns are included in the development of IP address policy.

5. Opportunities

The first paragraph of this section notes that "it would seem opportune to develop principles for a broad framework of accountability, that will be subscribed to by all organizations active in the area of Internet Domain Names and IP addressing…"
The preceding text in the WGIG paper contains no detailed descriptions of what is deficient in this area or what specifically needs to be addressed.

6. Threats

The first point in this section states that the "uncertainty of the structure of the future administration of Internet names and IP addresses and lack of global participation may

result in the division of the Internet into more than one 'net'." While this uncertainty is assumed in the WGIG paper, it is not described anywhere. This "uncertainty" needs to be specified in more detail for any meaningful discussion to take place.

The second point in this section claims that the "problem of spam, overloading the Internet, is one of the serious and apparent threats to the DNS system." This statement is entirely untrue, as spam is not a threat to the DNS system. It rather is an application level problem and has no discernible impact on the functioning of the DNS system.

The third point in this section discusses "the lack of transition from IPv4 to IPv6 and lack of the implementation of IPv6, so that IP addresses in practice become a scarce resource in certain parts of the world." This assumed lack of transition is neither described nor properly analysed. In fact, the RIRs currently see clear signs of increased interest in IPv6 resulting in increased uptake as reflected in the resource statistics available from the RIRs. There is also no mention of how a change of Internet administration and co-ordination could affect this issue.

On the topic of address "scarcity", there have been several comments which allude or directly state that there is a scarcity of IP addresses. This is not the correct term to apply to the available pool of IP addresses, whether they are IPv4 or IPv6. These resources are not scarce. There is, however, a finite amount of them. One of the principles guiding the administration of IP address space is conservation. Conservation ensures that there will be addresses available for those who need them when they need them. Even though there are less IPv4 addresses than IPv6 addresses, recent studies have shown that IPv4 address space should be available for those who need them for at least the next 20 years. Similar stewardship is being practiced for IPv6 address space. Thus one should not speak of the scarcity of IP addresses, but rather should speak of them as finite resources, which through good stewardship will always be available for anyone who needs them, when they need them.

The final point in this section states that the "largest and most significant threat" at the moment is that the global Internet infrastructure will fracture "almost inevitably along national boundaries or regional blocks." The reasons for this are neither described nor analysed. Moreover, there is no analysis of how Internet administration and coordination could contribute to such a fracture or help to prevent it

7. Future WGIG documents

The Number Resource Organization, on behalf of the Regional Internet Registries, would be pleased to assist the WGIG in any way to improve the draft documents so that they can be used as a solid basis for further discussions of the WSIS. We would strongly recommend that issues of IP address and DNS management be covered in distinct documents or sections, and that the WGIG consider the creation of a new WGIG document that includes an analysis of the overall coordination of diverse aspects such as the Regional Internet Registries, name registries and root server operations.