Houlin Zhao's Response to NRO Statement: "NRO Response to ITU Comments on the Management of Internet Protocol (IP) Addresses".

Dear Paul,

Having read your document, I find many valuable information and opinions, which I share with you without hesitation and reservation. However, I also find some misunderstandings to my proposals on IPv6. To avoid further confusions and unnecessary reactions, I would like to provide you with the following clarifications on my positions:

1) My draft text in question is in fact a draft input to an internal ITU Working Group on WSIS, which will meet in December 2004. In reply to the request of this Group, I prepared this draft input. To save time and for the sake of tranparancy, I posted it on ITU-T web site for public comments. My targeted public is the ITU-T Members. As indicated in the paper, I will prepare an "official" input to that Group after 15 November. I am very pleased to advice you that by the deadline of 15 November, I received a number of comments from the ITU-T Members, as well as a few from non-Members including your document. I will take care all comments from ITU-T Members and non-Members to prepare my "official" input to the ITU Council Working Group on WSIS.

2) In your paper, there are plenty of historical events and explainations on the development of IPv6/IPv4 and on the work done by RIRs. I found those information and opinions very important and very relevant to the ICT society. I share those views with you. As you might have noted, I have supported RIRs from the very begining when I started my role of TSB Director in 1999, and I have been working to strengthen the cooperation between ITU and RIRs since then. One example, the IPv6 workshop ITU-T organized in 2002 received a lot of useful information from RIRs. ITU highly appreciated the presense of RIRs at that workshop. Another good example of our cooperation would be the ENUM trials, which I always referred as a model of cooperation between ITU and a private sector member. If you could agree, I would be pleased to invite RIRs to provide tutorial sessions on their competences to the ITU Members. I believe such tutorial sessions would be welcomed by the ITU Members.

On the other hand, the problems I mentioned in my paper on the assignments of IPv4 addresses should be considered as a historical lesson. Whether you and I would share the same views on the problems is another issue. However, I would like to remind you a fact that in my draft paper, I do not present any critism to the work of RIRs. Ï am very pleased to note that in the part of "IPv4 Address Space:..." of your paper, you indicate that ITU refers to...(problems), BUT RECOGNISES CORRECTLY that the current RIR system has successfully addressed that problem". I would like to reconfirm to you that we will continue to support RIRs on its handling the allocations of IPv4 addresses as well as IPv6 addresses. We are also looking forward to strengthening our cooperation wherever possible.

3) I got an impression that the rest of your paper was based on a misunderstanding on my proposals. Please allow me to refer to some of those statements in your paper. The first

sentence of your "Summary" starts with "The ITU memorandum has proposed a new IPv6 address space distribution process, based solely on national authorities." At its fifth para, the paper accused ITU "Rather than addressing ..., the ITU memorandum proposes a unifrom model of Internet address distribution as a public activity within autonomous national boundaires." In the part "Diversity", the first para again refer to "avoiding the ...of a uniformly imposed public sector approach, based solely on national address distribution models" and further down to its third para, the paper says "there is no valid reason to impose a single uniform administrative model upon each regional community... In the part "IPv6 Address space Disteribution", your paper accuses my proposal "based on the premise that transforming IP addresses to a national resuource will ensure ...IPv6 ... avoid the problems that are allegedly experiences with IPv4 distribution." and in its third para, your paper again accuses "The ITU memorandum proposes a new independent and unproven process for IPv6 address space distribution, based on solely on national authorities."

I would accept your arguments as listed above if I did "propose a uniform model...within autonomous national boundaries" or "a new IPv6 address space distribution process, based solely on national authorities" (both quoted above). However, if I argue with you that the base of your comments is not true, what you would tell me? How would you explain to me your understanding on my sentence in 4.2 (b): "By assigning addresses to countries, we will enable any particular user to choose their preferred source of address: either the country-assigned ones or the region/international-assigned ones. A competition between the country registration agency and the regional registration agencies will exist, but people will have a good choice." Here, do you see any sign that I have proposed a new system "based solely on national authorities"? A few words before this sentence, I put my idea as "to reserve a block of IPv6 address for allocation by authorities of countries, that is, assigning a block to a coutnry at no cost and letting the country itself manage this kind of address in IPv6". I draw your attention to those words "to reserve a block of IPv6 address". Do you understand these words as "the whole set of IPv6 addresses"?

As ITU has received from time to time some voices from developing countries to have IP addresses free of charge, the sovereignty related to internet governance often refered to the address issues, the very huge amount of IPv6 addresses capability, and technical feasibility to assign a block (not clear about the size) to countries for their own management as one of possible arrangements, etc.. all these have driven me to make my proposal as shown in 4.2 (b) of my paper. I would like to confirm to you that I have not proposed a uniform system based solely on national authorities in my paper, and I will not propose such a system as the only system in the future. What I have proposed in my paper is to offer one system, as one of many systems, including national ones, regional ones, multinational ones, and international ones. I do not expect that "my system" will avoid all problems we have learnt from the IPv4 processes. I thought "my system" could help address the sovereigntiy issue. I would agree with you that it is not proved yet. It might fail in the end. We do not know the result and we will have to wait to see. However, I have not expected such a system can address all problems, particularly technical problems, we learnt from the IPv4. I am fully aware of the technical problems,

the administrative problems, the implementation problems, etc. which are associated with the deployment of IPv6 systems, so that I conclude my short para of 4.2 (b) by the following sentence: "The details and constraints, in particular issues related to routing table size, could be further discussed if this proposal encounters favor." Do you see my ignarance on those problems from this sentence? If yes, I would be glad to modify it if you could provide me a better sentence.

I do not believe I have to remind you another fact that ITU-T Rec. E.164 provides a base not only for a worldwide public telephone numbering scheme based on national territories, but also for a set of numberings for global usage, ie. 800-series numberings, which are not limited to the national boundaries.

4) Having explained my views on your comments, I would once again re-emphasize my sincere thanks to you all for your attention to my paper, and for your efforts to provide me with your comments, although I do not share with them completely. I am particularly pleased with the last part of your paper "conclusion", which provides your desire to discuss with ITU on this important issue under a friendly term. I would like to assure you that ITU woud welcome any comments from you, no matter whether they are positive or negative. A fair and open dialogue between RIRs and ITU will bring benefits to the whole family and the public. I will keep you informed with future development on my paper and I would be glad to continue to receive your comments.

5) I appreciated your advice that you have put your comments on your web. I would be pleased if you could add my reply to the same web site where you have posted your document.

Best regards,

Houlin