Written submissions received in association with APNIC Community Consultation session at APNIC 29, held Wednesday 3 March 2010, Kuala Lumpur, Malaysia

This document contains the nine written submissions received by APNIC in association with APNIC Community Consultation session at APNIC 29 held in conjunction with the NRO. For more information about the Community Consultation, see:

http://meetings.apnic.net/29/program/consultation

Written submissions 1 and 2

The following two submissions follow an email submitted to the Consultation's email address and CCed to another email address (submission 2), resulting in submission 3.

Submission 2

CC: John Curran
Subject: Additional point not made at the microphone due to time constraint
Date: Wed, 3 Mar 2010 17:06:34 +0800
From: Owen DeLong

Regarding the ITU IPv6 Discussion

Elephant in the room -- John Curran touched on this, but, if ITU moves forward with a CIR model, a very likely outcome would be that large portions of the internet (generally, likely the developed nations) would simply refuse to accept routes within the block delegated to the ITU, or, to various CIRs from the ITU. The net effect of this would be to effectively disconnect the developing nations this policy is supposed to help from the internet. The ITU should seriously consider this potential to do serious harm to developing countries as it contemplates such a policy.

Submission 2

Subject: Re: Additional point not made at the microphone due to time constraint
Date: Wed, 3 Mar 2010 04:19:19 -0500
From: John Curran

Or this could be avoided if the CIR works very closely under the RIR, but this effectively means the RIR is still doing the public policy consensus building, unplanned costs would incur to these CIR's (and incidentally significant loss of sovereign control.)

/John

On Mar 3, 2010, at 5:11 PM, "Owen DeLong" <owen@delong.com> wrote:

> > Regarding the ITU IPv6 Discussion
> >
> > Elephant in the room -- John Curran touched on this, but, if ITU
> > moves forward with a CIR model, a very likely outcome would be that
> > large portions of the internet (generally, likely the developed
> > nations) would simply refuse to accept routes within the block
> > delegated to the ITU, or, to various CIRs from the ITU. The net
> > effect of this would be to effectively disconnect the developing
> > nations this policy is supposed to help from the internet. The ITU
> > should seriously consider this potential to do serious harm to
> > developing countries as it contemplates such a policy.

Written submission 3

Subject: FW: [ncc-announce] ITU and IPv6 Consultation
Date: Wed, 3 Mar 2010 10:49:10 +0100
From: Debecker J.L

APNIC
Brisbane
Australia

Dear colleagues,

Further to your today's consultation ETNO is pleased to send you copy of the
Contribution submitted to ITU IPv6 WG in preparation of their first meeting.

Regards,

Leo Debecker
Executive Manager, Operations
ETNO Brussels

Question(s):	NA		**Meeting, date:**	IPv6 Group 1st meeting, 15-16 March 2010
Study Group: NA	**Working Party:**	NA	**Intended type of document** (R-C-D-TD):	C

Title:	ETNO's contribution to the ITU IPv6 Group	
Contact:	Leo Debecker ETNO	Tel: +32 (0) 2 227 10 80 Fax: + 32 (0) 2 219 64 12 Email: debecker@etno.be

Contact:	

ETNO[1] notes the initiative of the ITU Council and the instructions given to ITU-TSB, in close collaboration with ITU-BDT, to convene a Working Group on IPv6 related issues, to study amongst other things the following:

- *to draft a global policy proposal for the reservation of a large IPv6 block, taking into consideration the future needs of developing countries.*
- *to further study possible methodologies and related implementation mechanisms to ensure 'equitable access' to IPv6 resource by countries.*
- *to further study the possibility for ITU to become another Internet Registry, and propose policies and procedures for ITU to manage a reserved IPv6 block.*
- *to further study the feasibility and advisability of implementing the CIR model for those countries who would request national allocations.*

On the above ETNO wishes to offer the following views:

IP address space management is critical for ETNO and its member companies. ETNO has been closely monitoring all developments in this area and has expressed positions several times on this issue. ETNO recognizes that access to IP addresses is crucial for the economies, particularly for the developing ones, and strongly believes that the current management in place is the best option to serve economies with IPv6 addresses in a fair and equitable way.

ETNO considers that the current bottom-up policy development process of IP address space management has so far demonstrated its ability to respond effectively to the evolving needs of developing economies, for example by creating LacNIC and AfriNIC, which - despite the fact that they were created later - are treated on an equal footing with the other Regional Internet Registries (RIRs) as regards IPv6 allocation. ETNO is also confident that the current management framework will equally address any future IPv6 allocation based on neutral and impartial needs of economies in the most appropriate, transparent and consistent manner.

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[1] The European Telecommunications Network Operators' Association (ETNO aisbl) is Europe's leading trade association for operators, representing 41 major companies. They provide electronic communications networks and services over fixed, mobile or personal communications systems in 35 countries. ETNO member companies have substantial Internet operations. More details about ETNO are at: www.etno.eu.

In this perspective, ETNO does not see the need nor the benefit of establishing an Internet Registry, such as the one proposed under the terms of reference of this Group, in order to meet specific "*needs of developing countries*". ETNO considers that the requirements economies may have can perfectly be met within the current framework. ETNO therefore expresses its continuing support for a decentralised Internet number resource distribution that remains open and fair to all stakeholders.

Furthermore, ETNO does not see any value in introducing a country-based allocation system and does not believe that such a system would better serve the emerging economies. Quite the contrary, introducing a country/national distribution for IP addresses would at best duplicate - or even worse conflict with - the current management framework, without any clear benefit for the interested parties.

ETNO is therefore concerned that such an initiative would introduce intractable confusion in the management of IPv6 addresses, making it more complex and risky for the stability of the global Internet.

Written submission 4

I am Antonio M. Moreiras, from the Brazilian Network Information Center, in charge of IPv6.br, a project to disseminate IPv6 in Brazil. I would like to state that I am writing it in my own behalf, and my opinions do not necesarily are that of my employers.

I fully support the text in http://www.apricot2010.net/__data/assets/text_file/0005/18923/Kuala-Lumpur_Community-Statement.txt.

I am participating at APNIC/APRICOT meeting, and would like to contribute some general comments regarding the ITU proposal.

At first, I would like to state that I think that ITU could really help the process of deploying IPv6 in developing countries:

   - doing or supporting activities related to IPv6 training and awareness raising
   - supporting the participation of small Autonomous Systems in the current processes within RIRs
   - fostering the member governments to adopt IPv6 as users
   - fostering the sector members and telco. companies to adopt IPv6 as users and vendors

Besides that, I am very concerned about ITU becoming responsible by IP distribution, and I would like to recall the ENUM example, given by Xiaoya, to illustrate a point that was not discussed in profundity at the meeting: the aparent lack of neutrality of ITU.

Well, I consider that ENUM could be really valuable to the Internet, to the citizens and mainly for the business of the world. It could be a catalyst to the technologic convergence between Internet and Telephony, and could lead to a reduction in the communication costs. This seems to be not very interesting to the Telecommunicantions companies. ENUM, as currently managed by ITU, is not working. Its deploying is very very slow. One of the reasons, is that in some countries there is no agreement between regulatory, Internet, and Telephony bodies, so ITU do not permit the allocation. It seems that the telco. companies interests have more height, even if the deploying ENUM could be benefical for almost everybody. Furthermore, ITU is not actively working to deploy this important Internet resource.

Could it be an example of what could happen with IPv6 allocations if they were in charge of ITU?

To illustrate the point, it's worth to point that some big telco. companies in Brazil sometimes refuses, or put enormous barriers, to small ASes (ISPs) to setup BGP sessions with them. They force these ASes to use their IP number space and default routes, in

order to keep a local monopoly. The big telcos sometimes seem to don't like that smallISPs have portable addresses and then could go to other companies and IXPs.

Could they, as sector members, influence the policy if ITU was in charge of IP addresses? Could they avoid or difficult the small ISPs to become Autonomous Systems and get portable IPv6 addresses? Based on the ENUM example, a would say that it could be possible.

Regards,
Moreiras.

Written submissions 5 and 6

The following two submissions follow an email submitted to the Consultation's email address and CCed to another email address (submission 5), resulting in submission 6.

Submission 5

Subject: Comments on ITU statement
Date: Fri, 5 Mar 2010 11:48:35 +0800
From: Jonny Martin

I think it would be constructive to ask the ITU to provide examples of countries that have expressed issues obtaining IPv6 addresses but haven't been able to. If there are such countries, then that is something that we certainly want to address - and if not, then perhaps the ITU IPv6 Group should reassess what the perceived problems are.

I've spent a lot of time in developing countries helping with training and talking with local operators and have not discovered any problems with them obtaining address space from APNIC.

Thanks,
Jonny Martin

Submission 6

Subject: Re: Comments on ITU statement
Date: Thu, 4 Mar 2010 19:59:07 -0800
From: Bill Woodcock

On Mar 4, 2010, at 7:48 PM, Jonny Martin wrote:
> I think it would be constructive to ask the ITU to provide examples of countries that have expressed issues obtaining IPv6 addresses but haven't been able to. If there are such countries, then that is something that we certainly want to address - and if not, then perhaps the the ITU IPv6 Group should reassess what the perceived problems are.
> I've spent a lot of time in developing countries helping with training and talking with local operators and have not discovered any problems with them obtaining address space from APNIC.

Speaking more generally, PCH has had on-the-ground operations in more than 100 countries in all five RIR regions since the IPv4 depletion issue has come to the forefront, and we do not know of _any_ instances of IPv6 addresses being unavailable to anyone who had the least interest in having them.

-Bill

Written submission 7

Subject: cisco contributions to the ITU IPv6 meeting
From: Eliot Lear
Date: Fri, 05 Mar 2010 07:56:48 +0100

Please find attached the following documents that have been submitted to the TSB for inclusion in the meeting on the 15th of this month.

Eliot Lear
Cisco Systems

Attached please find the text from the two contributions that Cisco has submitted to the upcoming ITU IPv6 Group meeting on 15-16 March, 2010. The standard boilerplate from ITU has been removed.

Contribution A:

Source: Cisco Systems, Inc.

Title: The IPv6 Opportunity for ITU

Abstract

The Internet's success will require the community to move to IPv6, as we outpace and outgrow IPv4's ability to connect everyone together. While the existing address allocation mechanisms are sufficient for IPv6, we face challenges and opportunities in the migration of networks and people from IPv4 to IPv6.

Discussion

The Internet continues to grow, thanks to a flexible architecture and a flexible governance model that has continuously evolved since the network's inception. Growth of the Internet has led, however, to the need to deploy the next generation Internet Protocol, IPv6, due to the limitations of IPv4's address space. Some estimates indicate that there are less than two years worth of IPv4 address space available to assign to the Regional Internet Registries (RIRs). With IPv4 technology having been deployed widely through much of the developed world, the complexity of migrating to IPv6 from IPv4 will be high. However, regions where IP has not yet diffused have an opportunity for a simpler and less costly migration.

The global Internet Community has benefited from the development and evolution of the Regional Internet Registries (RIRs). The Internet community is working within the RIR Policy Development Process to evolve the RIR policies to handle upcoming IPv4 exhaustion issues. The historical and current problems facing IPv4 address allocation, however, are unrelated to IPv6 address allocation policies at this time. The RIRs and their respective communities have developed their IPv6 address allocation policies through an open process and based on the experience and knowledge gained from historical IPv4 allocations. The criticisms aimed at IPv4 address allocation based on the early days of IPv4 deployment are not applicable to IPv6. The most critical issue facing IPv6 adoption is not IPv6 address allocation, but how to migrate networks and applications from IPv4 to IPv6, given that there will need to be coexistence for years to come while maintaining the connectivity that people have come to expect from the Internet. The network effect will play a key role in seeing to IPv6's adoption.

Cisco Systems has substantial experience in working with the ITU on assisting developing countries through our partnership with regard to Cisco Network Academies. Cisco has also long supported the development of the Internet in developing countries through other capacity building programs such as support for regional Network Operation Groups (e.g., SANOG, AfNOG, PacNOG, MENOG), workshops provided through USTTI (http://www.ustti.org), support of the establishment of Internet Exchange Points, etc. We see an opportunity to provide developing societies with additional expertise through programs such as these.

The key will be to focus on problems that developing societies are facing today with IPv6, enable the Internet communities in those countries to develop solutions appropriate for their regions, and generate opportunities where appropriate. Examples may include investigating transition mechanisms that may be more easily available to certain regions, such as deployment of IPv6 web caches and proxies, as many service providers maximize their use of limited bandwidth. By deploying IPv6 internally and using IPv4 web caches and proxies, providers and their customers may be able to leapfrog, in some cases, other groups who have far more entrenched IPv4 deployments.

Conclusion

In summary we believe the ITU can play a constructive role in the migration from IPv4 to IPv6 to further the goal of global interconnectivity through capacity building, through supporting existing IPv6 address allocation mechanisms and working with the Internet community to assist the migration of networks from IPv4 to IPv6.

Contribution B:

Source: Cisco Systems, Inc.

Title: Request for Agenda to be reordered for 13th & 14th of March meeting

Introduction

We kindly request that agenda be changed so that the agenda be reordered as follows:

#	Agenda items	Documents
1	Introduction	
2	Adoption of the Agenda	TD 1
3	Consideration of input documents	1, 2, and others that are submitted
4	The IPv6 project to assisting developing countries	
5	Internet community participation	
6	Global policy proposal for the reservation of IPv6 block, and how to ensure 'equitable access' to IPv6 resource by countries	
7	Possibility for ITU to become another Internet Registry	
8	Feasibility and advisability of implementing the CIR model in countries	
9	Other business	
10	Draft Report of IPv6 Group to Council 2010	

Discussion

Prior to considering actions to be taken, as a number of organizations have developed contributions for consideration, the meeting will hopefully benefit from those contributions prior to considering any new approaches. In addition, the ITU has a long and successful history of collaborating with governments, sector members, and other bodies to build capacity through education. We believe discussion that highlights and builds on this success will be fruitful. Finally, because the Internet Community currently manages the address space through the various Regional Internet Registries (RIRs), the assembly should take the opportunity to clearly understand the mechanisms in place today, prior to considering efforts to change those mechanisms.

Written contribution 8

I fully support the statement proposed at APNIC's Community Consultation on IPv6 and the ITU, which can be found at the url below:

http://meetings.apnic.net/__data/assets/text_file/0005/18923/Kuala-Lumpur_Community-Statement.txt

I have read both documents commissioned by the ITU in preparation for the ITU IPv6 Group meeting in March 2010. Both (TABL) Transferrable Address Blocks and (CIRs) Country Internet Registries will make allocating IPv6 more expensive and less sustainable for those in developing countries.

Ensuring the "future needs of developing countries" and "'equitable access' to IPv6 resource by countries" may not be useful ToR for this group, as "countries" don't typically recieve IP address blocks in the way they recieve telephone numbering resources.

Adding a separate hierarchy to the current IPv6 allocation system have multiple deleterious effects on Internet routing, efficiency of address distribution and costs sustained by developing world Internet providers and customers.

Here in Africa, we can always use more capacity building around these issues for regulators and policy makers. I would hope the ITU will focus on this aspect and not on a politically and economically untenable solution to a perceived problem.

Timothy McGinnis
African Internet Resource Consultant
mctim at bushnet.net

Written contribution 9

I would like to take the opportunity to address the ITU's IPv6 Group as a long term internet participant and advocate, IETF participant, IETF draft author, author of several APNIC policy proposals including co-author of the APNIC policy "prop-073: Simplifying allocation/assignment of IPv6 to APNIC members with existing IPv4 addresses".

From the transcripts from the "APNIC Community Consultation - IPv6 and ITU" at the APNIC 29 meeting, I respond in the following:

- The RIR system is open and transparent and amenable to involvement from all stakeholders including businesses, individuals, not-for-profits, international organisations, AND governments. This includes, what I believe as, an open invitation to any and all ITU Members, or ITU Member States to participate in the RIR policy development process. I would strongly advise the ITU's IPv6 Group to not re-invent the policy wheel, but direct its members to actively participate in the RIR policy development process. This system has proven itself as flexible and responsive to all stakeholders needs.

- Should any ITU member or stakeholder within the ITU feel that the current RIR policies eliminates them from obtaining IPv6 addresses now, or in the future, they can - without significant cost - subscribe to and post their concerns to the representing policy mailing list for their region. The is key to the bottom up nature of the RIR system. Further in-person involvement is more than welcome, and encouraged.

- I find that the NAv6 paper fails to put forth a clear analysis of the issues surrounding the global deployment and growth of IPv6. Please disregard this paper as the foundation for your consideration. Look instead to the incumbent experts in the field who reside in both the IETF and the RIR systems. Please actively and transparently liaise with the organisational entities in this area, the RIRs, the IETF, and ICANN as operator of the IANA function.

- I ask for the processes and discussions that the ITU's IPv6 Group become open to all participants and stakeholders as the items of concern put forth are of a global nature and affect all equally. All parties should be involved in the discussion of resolutions and the analysis of any additional addressing mechanism.

- I put forth that the addressing system needs to be a singular unified framework where all policy processes intersect in a common goal of equitable resource distribution. Failure to do this will weaken the addressing model and leave it open to issues of abuse, stability, and security which will undermine the entire internet fabric.

If, at any stage, the ITU's IPv6 Group would like to open its doors to the stakeholders at large, or participate in the RIR process, I am more than happy to offer assistance toward a single unified and consistent global framework through transparent policy processes.

Kind Regards
Terry Manderson