Third meeting of the Internet Governance Forum (IGF)

Hyderabad, India, 3 – 6 December 2008

Chairman's Summary

The third meeting of the Internet Governance Forum focused on the overall theme of 'Internet For All'. The meeting was held in the aftermath of terrorist attacks in Mumbai. The participants expressed their sympathies to the families of the victims and the Government and the people of India. While these tragic events led to some cancellations, the overall attendance with 1280 participants from 94 countries, of which 133 were media representatives, was close to that at the second annual meeting.

All the five main sessions were organized as three thematic days under the following headings: 'Reaching the Next Billion', 'Promoting Cyber-Security and Trust', 'Managing Critical Internet Resources'. The last day covered 'Emerging Issues - the Internet of Tomorrow' and 'Taking Stock and the Way Forward'.

Parallel to the main sessions, 94 workshops, best practise forums, dynamic coalition meetings and open forums were scheduled around the broad themes of the main sessions and the overall mandate of the IGF. Six workshops and other meetings were cancelled following the events in Mumbai.

The IGF programme and meeting were prepared through a series of open, multistakeholder consultations held throughout 2008, a process that also designed the IGF's interactive and participatory structure.

The entire meeting was webcast, with video and audio provided from all meeting rooms. The main sessions were transcribed and made available in real time. The text transcripts of the main sessions, the video audio records of all workshops and other meetings are available on the IGF Web site. This meeting saw a large number of people actively contribute through remote participation. All main sessions had simultaneous interpretation in all UN languages and one Indian language.

Opening Ceremony and Opening Session

In his message to the IGF Meeting, Mr. Jomo Kwame Sundaram, Assistant Secretary-General for Economic and Social Affairs (UNDESA), on behalf of Secretary-General Ban Ki-moon, expressed his condolences to the families of the victims of the terrorist attacks in Mumbai and the meeting rose for a moment's silence to commemorate the victims. Mr. Jomo expressed his gratitude to IGF participants for showing their solidarity with the people and Government of India by attending the meeting and he expressed his deep thanks to the Government of India for their gracious and generous hospitality. He described the Internet as the backbone of our globalised world which was transforming our lives. Thus, we should all take an interest in how it was run and managed. Mr. Jomo described the IGF as a valuable melting pot for forging a common understanding of complex Internet issues from diverse points of views and he noted that the IGF was a space for frank and enlightened debate, shaping and informing the decision-making processes. He announced that the 2010 IGF Meeting would take place in Vilnius, Lithuania.

H. E. Mr. Andimuthu Raja, Union Cabinet Minister for Communications and Information Technology of the Government of India, underlined that the Internet had tremendous potential for promoting global partnership for development, as set out in the Millennium Development Goals, and stressed the role of the IGF in building an Internet society which is inclusive, human centred and geared to development. India believed that IT infrastructure was the key to rapid economic and social development of the country. In order to promote education and other services and access to the Internet, the Government of India had embarked on a national programme to make the Internet available to the citizens through common service centres. He noted that access to information by the people helped democracy by having

transparency in the functioning of the government and enhanced the participation of the people in the governing process. Without appropriate information, people could not adequately exercise their rights as citizens.

Other speakers at the opening session were Mr. Nitin Desai, Special Adviser to the Secretary-General for Internet Governance and Chairman of the Multi stakeholder Advisory Group (MAG) and H. E. Mr. Damodar Reddy, Minister for IT of the Government of Andhra Pradesh.

During the open session, nine speakers representing all stakeholder groups addressed the meeting. (A list of all speakers of all main sessions is attached at Annex.) A common thread through all the speeches was recognition of the importance of the meeting's overall motto, 'Internet for All'. It was noted that the Internet was bringing great potential for economic and social benefit to the world. At the same time, speakers also pointed out that there was a need to guard against the problems the Internet can bring when used for harmful purposes. Speakers noted the opportunity the IGF provided for a dialogue between all stakeholders and a mutual exchange of ideas. It allowed to build partnerships and relationships that otherwise might not occur. The IGF was appreciated for its open multistakeholder model, with examples of new national and regional IGF initiatives illustrating the spread of the multistakeholder ideal and its value in policy discussion.

Main Sessions

The first three days of the Forum were designed around three main themes for each day: 'Reaching the Next Billion', 'Promoting Cyber-Security and Trust', 'Managing Critical Internet Resources'. Each morning, two panel discussions examined key issues of the day's theme, followed by an afternoon with an open dialogue session which provided the opportunity for Forum participants, both in the room and through remote access, to join the dialogue and go deeper into the issues raised in the morning.

Reaching the Next Billion

- Realizing a Multilingual Internet
- Access: Reaching the Next Billions

The two panel discussions held in morning were devoted to the central theme of the 'Internet for All: Reaching the Next Billion'.

The first panel, dedicated to the issue of 'Realizing a Multilingual Internet', was chaired by Mr. Ajit Balakrishnan, Chief Executive Officer at Rediff.Com, and moderated by Ms. Miriam Nisbet, Director of the UNESCO Information Society Division. The panel discussed issues related to multilingualism and promoting diversity on the Internet, including accessibility and the importance of enabling access for people with disabilities.

The Chair of the session underlined the challenge of making the Internet available to people of all languages and drew attention to the situation in India, a case in point. As the world is looking to increase Internet users by a billion, India would have to contribute at least 250 million of that, from an estimated present user base of roughly 40 million.

The session identified five issues for the afternoon dialog to consider:

- The importance of having content in local languages, and that people must be able to create and receive information in their local language to express themselves in ways that their peers can understand.

- The importance of localization and availability of tools, including both software and hardware, for example, as well as keyboards and other devices, search engines, browsers, translation tools which should be available in multiple languages.

- Efforts to internationalize domain names were emphasized by many, with a number of speakers pointing to the technological difficulties as well as the complex policy and political aspects, such as the work undertaken by Arabic script IDN Working Group and how that model could be taken to other language groups to move that issue forward.

- The session noted that online communication was increasingly occurring in media other than in written forms, and that multilingualism in mobile and multiple media was something that needed to be considered.

- Lastly, there was no common framework and a common 'language' for addressing these issues and it was in this context in particular that the IGF might move the discussion forward.

The second panel was chaired by Mr. Kiran Karnik, Member of the Scientific Advisory Council to the Prime Minister of India and Founder-Director of the Indian Space Research Organisation's Development and Educational Communicational Unit, and moderated by Ms. Anriette Esterhuysen, Executive Director of the Association for Progressive Communications (APC).

Mr. Karnik noted the critical importance of not just considering how access could be increased to the next billion, but the next billions, all of those still outside. The Internet was not just about business; it was about empowerment, and that depended on access. Second, access required a number of factors, such as connectivity and affordability, but affordability did not mean low cost alone. It was also about using existing devices like mobile phones or, more importantly, new ways of providing access either through community means or through new business models where access was effectively paid for by somebody else.

The session examined the issues of access from the three main areas of supply, demand and development and was successful in reaching consensus on many issues, with a key message that access needed to be viewed in the context of an ecosystem and that the access gap could not be addressed without looking at various facets. One such facet of the ecosystem was policy and regulation, which needed to be conducive to a market structure that could encourage investment, with investment following from more than one source, from government, from the private sector and other mechanisms. Affordability was part of the ecosystem and affordable infrastructure was a fundamental building block.

Speakers considered leadership to be a key factor, linking aspects of policy and regulation to investment and to capacity development. Noting that to achieve sustainability a process of institutionalization was required: one-off policy reforms did not provide lasting solutions, and regulatory institutions had to be able to adapt to change that provided continuity. It was also pointed out that reaching the next billions would require a enormous investment of capital, which in turn would require a public policy environment that created incentives for investment. Further, it was suggested that such an environment should include regulatory transparency and predictability provided by an independent regulatory regime.

Another key message was to agree on the roles of the different stakeholders; the role of the state, of the private sector, civil society and technical experts. How can they collaborate and ensure complementarity, as opposed to working at cross-purposes. The IGF and the sessions in Hyderabad were part of a solution to clarifying this aspect in particular.

Considering supply and demand, there was some agreement that supply-driven models alone were not enough, demand actually existed and needed to be identified and captured and this called for increased awareness among users, human capacity building, and use of ICT for broader social purposes such as education and healthcare. It was also mentioned that to achieve increased access, sufficient supply, effective demand, and a functioning market that is competitive was needed. One speaker suggested with regard to competition it had been proven to drive down prices, increase choices, and expand choices.

The importance of mobile communications as the means of reaching many of the new users

coming to the Internet was strongly recognized. It was noted that the Internet provided the opportunity for users not only to be consumers, but also producers and citizens, and that therefore it would be essential to ensuring that improved access would enable empowerment.

The Open Dialogue session in the afternoon was chaired by Dr. B. K. Gairola, Director General NIC, Government of India. The session was moderated by Mr. Hidetoshi Fujisawa, Chief Commentator and Program Host, NHK Japan Broadcasting Corporation, with co-moderators Ms. Alison Gillwald, Director of Research, ICT Africa, and Mr. Patrick Fältström, Consulting Engineer, Cisco Systems; Member, Board of Internet Society; Member, Swedish Government IT Advisory Group. The session sought to identify the linkages between the two morning themes in achieving 'Internet for All', and provided an opportunity for all Forum participants to deepen and enrich the discussion.

A powerful message from the dialogue was that when considering the theme of connecting the next billion, that there was tremendous pent-up demand when thinking about those coming online next while at the same time significant barriers for connecting the last billion. These two issues needed to be considered at the same time.

Existing barriers in many of countries in terms of market entry were the main reason for our inability to provide affordable access and these were policy issues that could and should be addressed. However, while liberalizing markets was the obvious solution, it was very important how that this was done. It was noted that liberalizing markets was more than a matter of opening up markets, as with infrastructure industries it was difficult to achieve the kind of perfect competition that would allow for the efficient allocation of resources. Therefore, regulatory frameworks that provided certainty and stability, and also incentives for investment were required. Such a public policy framework needed to address market structure, competition and regulation, and also needed to address issues of market failure, and questions of universal service and of ensuring equity between those who have access and those that don't.

There was discussion about the promising experiences of increasing access including the prospect for mobile services to be the primary platform for Internet in the developing world. Contributions to the dialogue noted the importance of competition throughout the connectivity chain from international transport and gateways through intra-country transport, the use of Internet Exchange Points to maximize the local exchange of traffic, and the value of business usage of the Internet and of VoIP in driving demand and contributing to economic growth.

In response to a question during the open dialogue one speaker referred to why Denmark has been so successful in broadband deployment, noting that the country had adopted a flexible regulatory environment, had chosen a market-driven approach, reliance on private investments, an emphasis on regulatory stability and transparency, and avoidance of regulatory micromanagement. The regulatory regime should be flexible and must be able to adapt. Denmark began with service-based competition but only to start the process, the focus now is on facility-based, infrastructure-based competition. Availability of content is also important, user generated content is important in Denmark, as is peer-to-peer, and development of e-skills.

Commentators noted that multilingualism was not only concerned with written language. Multilingualism had also to consider access and creation of content, the next billion users should not only be receivers of information, but also the creators of content and sources of innovation. In discussions about local content, the session noted that it was not about geography, but about culture, language or script used to represent the content people wished use or create. It was generally felt that reaching the next billion would also make the Internet more global.

Promoting Cyber-Security and Trust

- Dimensions of cyber-security and cyber-crime
- Fostering Security, Privacy and Openness

The second day focused on the theme of 'Promoting Cyber-Security and Trust'. The topic was covered in two panel discussions, one on the 'Dimensions of Cyber-security and Cyber-crime', and the second on 'Fostering Security, Privacy and Openness'. These were followed by an Open Dialogue.

The first session was chaired by Mr. Rentala Chandershekhar, the Special Secretary of the Department of Information Technology in the Indian Ministry of Communications & Information Technology, and moderated by Mr. Bertrand de la Chapelle, Special Envoy for Information Society of the French Foreign Ministry.

The discussion began with a reminder of how much the Internet had grown and how critical it had become for governments, for commerce, for the economy in general, for civil society and for researchers. The discussion then went on to discuss the problems that this reliance has brought. It was pointed out that the Internet was not built to be secure, but open and that openness, while intrinsically good, also made it vulnerable. Bad things could happen, data could be lost, and data could be compromised. While sometimes this was accidental, sometimes it was the product of criminal behavior. It was considered a chilling fact that those engaged in maliciously causing security problems were one step ahead. Quite often they were more technically advanced then those who are engaged in solving the problems, especially in the case of developing economies.

It was noted that most off-line crimes had now also moved on-line. There were also new forms of crime that were specific to the Internet, such as hacking or phishing. In addition, there were also attacks on a country's critical infrastructure, such as distributed denial of service attacks (DDOS). Examples of attacks on sewage systems or air traffic control were also mentioned in this context. There was general acceptance that crime and criminality in any society was dealt with through law enforcement. But it was also noted that law enforcement was made difficult by the borderless nature of the Internet. While in the off-line world the perpetrator of a crime could be traced to the locality where the crime was committed, this was not the case anymore in the on-line world. Law enforcement therefore was confronted with problems of jurisdiction and geographical boundaries. In addition, legislation in general was slow to adapt to a fast-changing technological environment. The discussion included the realization that the emergence of Internet threats and the use of the Internet for illegitimate purposes, required new solutions in dealing with cyber-crime.

It was also discussed that there are a vast number of stakeholders involved at various levels, and that the cooperation of all of these stakeholders is needed to resolve the issues that were discussed in the session. Several of the presenters pointed out that all users were part of the Internet and that therefore, unwittingly, could be a part of the problem as well. It was therefore important for all users to be a part of the solution instead.

There was a general understanding that there was a need for multistakeholder collaboration, cooperation and coordination at all levels: national, regional and international. The representative of the ITU presented the organization's Global Cyber Security Agenda. A High Level Expert Group had been set up, comprising some 100 experts, representing all stakeholder groups. The ITU based its work on five pillars:

- Legal measures
- Technical and procedural measures
- Organizational structures
- Capacity-building
- International cooperation.

While the problem was global, there was a need for action at the local level. For this reason the ITU had approached a combined bottom-up/top-down approach.

The issues discussed in the panel were summarized as follows:

- The need for prevention, and not only remediation, but prevention defined as

proactive measures to make attacks harder.
- The need for a more resilient architecture.
- The need for establishing a feedback loop between prevention, analysis of incidents, and remediation.
- The need for coordination of many actors involved in the prevention, remediation and related issues. They were from all categories of stakeholders. It was essential to build trust networks among those actors. To build such a network would require time.
- The need for cross-sectoral multistakeholder cooperation. This required avoiding the urge to address the issues in silos of actors. and instead bringing all actors together, that is governments, the private sector, civil society and the technical sector. Discussions should be organized on an issue basis by all actors concerned.

There was a general agreement that there was a need to intensify efforts to tackle efforts to combat cyber-crime. A final point was made concerning the role of the IGF in this area and how it could help the various organizations that are dealing with those issues in various regions, and various categories of actors to interact with one another and find solutions.

The second session, 'Fostering security, privacy and openness', was chaired by Mr. Shyamai Ghosh, Chairman of the Data Security Council of India (DSCI) and moderated by Ambassador David A. Gross, Coordinator for International Communications and Information Policy in the United States Department of State.

The session started off with a mention of the conflict in the sense of national security versus security for privacy, and the right to information and a mention of how increasing the level of user security and privacy, confidence and trust could be engendered for use of Internet and facilitates free expression of opinion.

The chair spoke of how the Internet was global, but privacy could be local, regional or national in context. As the Internet had become a way of life, there were societal issues which needed to be addressed. In the Indian context, it was explained that nine million subscribers were being added every month. Governance was considered to become a relevant point in these circumstances.

The moderator began the meeting by talking about the resurgence of importance of the issues of this session. While these issues were front burner in the 1990s, over the last few years they had been less important. Now these issues had come to the fore because they were in the confluence of societally important issues that were, in many respects, in conflict with each other and yet are additive of each other: security, privacy, and openness.

The session was rooted by the mention of several important declarations and documents:
- Universal Declaration of Human Rights (UDHR) with regard to the free flow of information and its importance.
- The Tunis Agenda was a high watermark for the commitment to free flow of information, both in paragraphs 4 and in 42 are the two that I often refer to.
- The OECD ministerial that many important statements there on the free flow of information.
- The International Telecommunications Union met in South Africa at the World Telecommunication Standardization Assembly, offered resolution 69 an extraordinarily strong statement about the free flow of information in which member states were invited to refrain from taking any unilateral or discriminatory actions that could impede another member state -- and it was made clear that "member state" includes its citizens -- from accessing public Internet sites.
- The Global Network Initiative that a number of NGOs and companies came together to try to address the issues of protecting freedom of expression and privacy for users.

The United Nations Declaration on the Rights of the Child and the European Convention on Cyber-crime were added to the list of important agreements related to the topic of security privacy and openness.

One panellist explained how the whole debate about privacy, openness, and security could be

shown in the dimension of women's human rights. The discussion focused on the specific issue of sexual rights defined in the Cairo Program of Action, as a state of physical, emotional, mental, and social well-being related to sexuality. This definition was not merely related to the absence of disease, dysfunction, or infirmity, but it also required a positive approach to sexuality and sexual relationships as well as the possibility of having safe sexual experiences, free from coercion, discrimination, and violence. The numerous human rights where discussed as having a direct bearing on sexual rights and sexual health. These included the right to liberty and security of the person, the right to be free from torture and inhuman and degrading treatment, the right to private and family life, the right to nondiscrimination, and, specific to this session, the right to information and education. The presentation went on to explain that the Internet had provided a kind of critical space to enable women to explore their sexual agency, to be able to acquire information about sexual and reproductive health that may or may not be available in other sorts of public spaces. The Internet also allowed women to explore a more positive and more active form of sexual expression that puts women as the sexual actor, not as the object that is being acted upon. The Internet had also become a critical space for women of marginalized and diverse sexualities to network, to exchange information, and to be able to build communities with each other. And this was where it also intersected with issues of privacy.

The moderator brought up the confluence of freedom of sexual expression, as content on the Internet, with the discussion of protection of children.

It was pointed out that the OECD Ministerial Meeting held in Seoul in June 2008 concluded that there was a correlation between information flows, ICTs, innovation and economic growth, while recognizing that there were risks associated with the use of these technologies and the need to address them in an appropriate fashion.

In terms of protection of children on the Internet, five categories of risk were mentioned:
- content
- contact
- addiction
- commerce
- privacy

The increased awareness of the importance of data protection was mentioned as regards not only the protection of private sphere of individuals, but their very freedom. Internal and international security requirements and market interests could lead to the erosion of fundamental safeguards of privacy and freedom. It was discussed how data that were collected for one specific purpose were often made available for other purposes and made available to bodies, both public and private, that were not intended recipients of these data. The representative of UNESCO recalled that the UNESCO constitution, created over 60 years ago, talked about free flow of ideas, information, and knowledge, while Article 19 of the Universal Declaration of Human Rights was the anchor for freedom of expression and freedom of the press. In recent years this fundamental principle had been applied not only to the traditional media of printed press, radio and television, but also to new and emerging technologies. UNESCO had referred to this as the freedom of expression applying to technologies without frontiers.

The discussion moved on to the lack of trust the user often had in using technologies, particularly in e-commerce and other financial applications. The user was described as worried about the cyber threats, like virus forms or trojans or identity theft, while organizations were described as worried about the theft of data.

The moderator mentioned an issue that was alluded to but not discussed in this session, that is, the role of anonymity on the Internet and its relation to privacy especially in spheres such as medical information.

In concluding, the chair spoke of the challenge in converting the areas of tension or conflict into areas of convergence so that both the issues of security and privacy could be addressed in the proper perspective.

The open dialogue was chaired by Mr. Pavan Duggal, the President of Cyberlaws.Net and Dr. Gulshan Rai the Director CERT-In. The moderator of the sessions was Mr. Jonathan Charles, BBC Foreign Correspondent and News Presenter, and co-moderated by Natasha Primo, the National ICT Policy Advocacy Coordinator for the Association for Progressive Communications and Mr. Everton Lucero, Counselor for Science and Technology at the Embassy of Brazil to the Unites States and Vice-Chairman of the Government Advisory Committee (GAC) of the Internet Corporation for Assigned Names and Numbers (ICANN).

The debates showed that these issues were as complex in nature, as they were important. The debate started along the path of looking for a balance in the multi-dimensional nature between security, privacy, and openness. There was an often expressed view that there was no solution that was fit for all.

A major theme of the discussion was the tension between rights. Some of the discussion concerned the difficulty that many countries and organizations had in fulfilling the commitments of the UDHR when balancing the needs to protect society against terrorism or pedophilia. It was pointed out that while the rights contained in the UDHR may be a challenge to meet, all countries who have signed it, had the obligation to uphold these rights. Another speaker pointed out that when a criminal used a road to commit a crime, that road was not closed, but rather would get better lighting.

A few speakers made the point that the discussion should not be about a tension between security and privacy, but the ways in which these could be mutually reinforcing. A point was made that part of the solution required, bring in the implications for openness in the discussion. Further to that, there was some discussion that the tension should be re-conceptualized as a tension between rights and responsibilities, and this also brought into focus the importance of education, and specifically media literacy for users.

Discussions pointed toward an emerging consensus that dealing with cyber-crime, cyber-security, privacy and openness is a joint responsibility of all of the different stakeholders.

Much of the discussion made the point that there was need, for more information about where victims of cyber-crimes could go to find a remedy.

The problems were represented as challenges, not only to law enforcement agencies, but also to parliamentarians, to civil society, to intergovernmental organizations, to the private sector, to the technical community. There was a discussion of the different definitions of cyber-security and that law enforcement may not always be the best option especially when dealing with cases of the access to information. One of the other considerations concerning the role of law enforcement made by several speakers was that in some cases, law enforcement officers, may not be the best solution as they may be part of the problem rather than the solution. Specific reference was made to repressive states and to situations where the nature of the problem, for example harassment due to gender or gender preference issues might make the standard law enforcement regimes unhelpful at best. This discussion was connected to the theme that it took the interaction and cooperation of all stakeholders to find solutions.

On child pornography, some people questioned the predominance this topic was taking at this IGF. A number of points were made that this perhaps was not the appropriate space to take up this discussion any further, and that we needed to move to look at mechanisms, measures, processes, and differences in other spaces where the issue could be addressed more effectively. But the point was also raised that there was a need for a more nuanced debate on questions and definitions such as: what is a child? what is harm? what is harmful content?

There was some feeling in the room that this discussion has matured enough in this area so that now, perhaps, a common environment could be created where all relevant stakeholders could build trust and work together.

While there was some skepticism about whether a decision on solutions could be reached at the IGF, there seemed to be a general feeling that the IGF discussion could bring a better understanding. It was pointed out that there were stakeholders involved in this area who were not part of the debate here. As the discussion moved forward, there was a need to bring those communities, those interested parties, into the discussion to enrich the debate and to help in understand the implication for other users of some of the measures that were being considered for cyber-security. There was a feeling that whatever the way forward may be, it had to go through the multistakeholder cooperation, dialogue and partnership in the spirit of shared responsibilities. In this regard it was mentioned that there was still the need of enabling developing countries to fully participate and share their needs, challenges and concerns.

In concluding it was mentioned that the IGF was not reinventing the wheel: there were relevant references and international norms, like the UDHR, among others, and there were national and regional experiences. It was also concluded that there was a need for a long-term solution, which was not only based on law enforcement but also on the quality of education, devoted to raise consciousness and awareness towards personal empowerment, fulfillment, and above all, happiness.

Managing Critical Internet Resources:
- Transition from IPv4 to IPv6
- Arrangements for Internet Governance: Global, Regional and National

The third day focused on the theme of 'Managing Critical Internet Resources'. The theme was covered in two panel discussions, one on the 'Transition from IPv4 to IPv6', and the second on 'Global, Regional and National Arrangements'. These were followed by an Open Dialogue on the general theme.

The first session was chaired by Dr. Gulsham Rai, Director of the Indian Computer Emergency Response Team (CERT)and was moderated by Ms. Bernadette Lewis, Secretary General of the Caribbean Telecommunication Union (CTU)..

Various speakers described the process by which policies that control the allocation and management of numbers within the Regional Internet Registries (RIRs)as being developed through an open, bottom-up process that engaged the entire Internet community. This was described as a self-regulating process. Projections were reported that at the present rate of depletion, the IPv4 address space, would be exhausted sometime around 2011.

The view was held that there was no need to impose a deadline to forestall the inevitable, because the market was dictating the IPv6 deployment. It was also stated that IPv6 is really a continuation of what existed today in IPv4, except that it would provide additional addresses. This might, however, have impact on some of the current technical processes.

One thing that was considered certain was that IPv4 and IPv6 would coexist well into the future.

Every IP-based product was expected to be affected. IPv6 equipment was on the market, and vendors were supporting and migrating applications to IPv6. It was pointed out that even though IPv6 was available for deployment, the operators had been slow on the uptake of IPv6. This was attributed to the number of challenges they were facing, as, for example, there was no obvious commercial driver for network operators to move to IPv6 and that there was no revenue associated with the migration. The point was also made that there was no initial customer demand. Operators were believed to perceive that there was insufficient vendor support. However, it was said that operators were beginning to recognize that the time for migrating was now and that this was happening incrementally. One speaker explained that there would be the need for addressing the hardware and software issues in their customer premise equipment and customer equipment and that there would be costs associated with the migration, costs relating to hardware and software, training, and actual labor costs for doing the conversion.

The panel also noted that there was a great need for private and the public sectors and civil society to be involved in the process. It was a shared responsibility and one that required promotion and enabling of a smooth transition from IPv4 dominance to an environment where IPv6 becomes dominant.

This was seen as a clear case for multistakeholder participation and the Japanese experience was offered as a useful model for going forward, where they used task forces on a national basis to ensure the smooth transition and standardized mechanisms for the coexistence of IPv4 and IPv6.

Others spoke of a tremendous need for public awareness and education, also training. IPv6 needed to be highlighted on the national agendas of all countries. And the speakers mentioned that it would be considered useful if the regions could adopt harmonized approaches. It was also said hat it would be useful and helpful if as part of the education process, case studies were to be made available and published, for example, on the IGF Web site.

The speakers indicated that confidence-building measures could be highlighted to build the confidence of the citizens so that they would be comfortable with the migration. It was asked how the citizens and other stakeholders could be engaged. This would be very important. One speaker suggested that perhaps citizens should be encouraged, for example, to view an IP address as an integral part of their identity.

In this emergent environment, one panellist indicated that the role of RIRs would be changing. The scarcity of IPv4 was going to demand that the RIRs would look at and develop policies for issues like methodology for the transfer of IP address space, reclaiming and getting control of unused address space, security and management of this new IPv6 addresses, and handling the emergence of possibly secondary markets.

The second panel discussion, 'Arrangements for Internet Governance: Global, Regional and National', was chaired by Mr. Ramlinga Raju, Founder and Chairman of Satyam Computer Services Limited and moderated by Ms. Emily Taylor, Director of Legal and Policy, Nominet (UK).

The discussion began with a review by the moderator of the origins and meaning of the terms 'critical Internet resources' and 'enhanced cooperation'. The moderator suggested that for many the term 'critical Internet resources' was understood to mean the administration of the Domain Name System (DNS), Internet Protocol (IP) addresses, which were discussed in the previous session. However, for others, the meaning was broadened by the Working Group on Internet Governance (WGIG) in 2005 to include also the administration of the root server system, technical standards, peering, and interconnection, telecommunications infrastructure, including innovative and convergent technologies, as well as multilingualization. The moderator suggested there was a broad and a narrow view on the meaning of critical Internet resources.

The representative of the United Nations Department of Economic and Social Affairs (UNDESA) reported on the progress made in relation to 'enhanced cooperation'. She informed the meeting that the Under-Secretary-General for Economic and Social Affairs Mr. Sha Zukang, had sent letters to relevant organizations to provide annual performance report, in accordance with the Tunis Agenda. The organizations include the ITU, UNESCO, WIPO, OECD, Council of Europe, ICANN, ISOC, NRO, and W3C.

Information obtained showed a focus on four main areas:

- The meaning of 'enhanced cooperation' to most of the concerned organizations is to facilitate and contribute to multistakeholder dialogue.
- The purpose of such cooperation ranges from information and experience-sharing, consensus-building, fund-raising, to technical knowledge transferring and capacity training.

- Thematic focuses of those arrangements covered by those organizations are very much in line with those being discussed at IGF.
- Cooperative arrangements have already taken place among those organizations, and more are being developed with other partners and with these nine organizations.

She noted that the phrase 'enhanced cooperation' did not seem to provide practical guidance. UNDESA would include a summary of the feedback received in the Secretary-General's report on the follow-up to WSIS which would be submitted to the next meeting of the CSTD in May 2009.

The different speakers shared their understanding of the meaning of the term. One speaker spoke of 'creative ambiguity' that had enabled different stakeholders to discuss a difficult set of issues in ways that were mutually acceptable.

Another panellist emphasized the phrase 'governments, on an equal footing' from paragraph 69 of the Tunis Agenda and that this supported the view that 'enhanced cooperation' meant a process involving governments. This brought a reaction that paragraph 71 of the Tunis Agenda referred to the participation of 'stakeholders in their respective roles'. From their perspective, this supported the position that WSIS created no new areas of competence for existing organizations.

There was an emphasis on 'public policy issues' by one speaker who differentiated between technical policy and public policy. Only 'public policy issues', were part of 'enhanced cooperation'. Other speakers empasised that the process should involve "all stakeholders".

There was equal uncertainty among the panelists about in what organizations 'enhanced cooperation' should take place: some felt that the ITU was not relevant and ICANN was, others highlighted examples of the OECD and ITU as relevant organizations. One speaker suggested that 'enhanced cooperation' should be understood as a "living concept", and said that he did not feel that all stakeholders within the ITU could participate on an equal footing.

The representative of the Government of Brazil said IGOs such as the International Telecommunication Union (ITU) and the United Nations Educational, Scientific and Cultural Organization (UNESCO) are promoting 'enhanced cooperation' within their mandates to facilitate development of public-policy principles at their own pace, which may not cope with the pace of technological development and innovation that characterizes the Internet. He said it was argued that the main reason for 'enhanced cooperation' having been included in the Tunis Agenda was precisely ICANN, because even if ICANN was not for profit, it was market-driven and ICANN is under the oversight of one single government. He noted that governments, in particular from developing countries, were underrepresented in ICANN. The current ICANN Government Advisory Committee arrangements were, in his view, not conducive to 'enhanced cooperation' and need to be reviewed. He suggested the ICANN transition action plan debate was an opportunity in this regard. He made the point that ICANN should either be like organizations such as the Internet Engineering Task Force, the World Wide Web Consortium (W3C) and the Number Resource Organization (NRO) with no government involvement at all, or like other organizations such as the ITU or UNESCO with an intergovernmental structure.

All speakers highlighted positive aspects of how discussions round 'enhanced cooperation' were having a positive influence, for example action to combat child abuse images in Brazil, the extended involvement of stakeholders in the recent OECD ministerial meeting, improvements in the way that IP address registries interact with relevant stakeholders.

The moderator concluded that the session left Forum participants with a broader understanding of different stakeholder positions on the issues from different stakeholder perspectives. She suggested that the IGF perhaps had a valuable role as a "non-threatening environment" for discussion, where participants could talk, share practical experiences from different perspectives, and move to the point where people listen to each other, moving from a disconnected series of statements to a shared conversation.

The Chair closed the session with a perspective from the business sector. Mr. Raju described the Internet as a great asset, and that all of us have had a collective responsibility to manage this asset well, because it had the potential to help us eliminate poverty very quickly, address important issues around education, health and a host of other things. The Chair expressed that the collective attempt to bring greater focus on the management of this asset in a cooperative fashion would yield significant results as we moved forward.

The Open Dialogue was chaired by Mr. Madhusudan Mysore, Chief of Customer Care Operations, Tata Communications and was moderated by Ms. Jeannette Hoffman, Senior Researcher, London School of Economics and Political Science (LSE) / Social Science Research Center Berlin and Mr. Chris Disspain, Chief Executive Officer, AU Registry; Chair, Council of Country-Code Names Supporting Organization (ccNSO).

The session focused on many details that had been broached in the morning meeting and the moderators arranged the session to focus first on issues raised in the session on the 'Transition from IPv4 to IPv6', followed by contributions on 'Global, Regional and National arrangements'. The moderators also made a call for any other issues; any topic on critical Internet resources would be welcomed in the dialogue.

One issue that was discussed was the transition or migration period which required a shared responsibility if it was going to be completed by the time some people believed that IPv6 was the dominant protocol in the environment. This would require the governments, the operators, the vendors, the consumers, all of them, taking charge of their respective roles, and a certain coordinated approach to make sure that and orderly migration would happen.

Another extended discussion concerned the risks involved. Some reported that the main risks were not with the technology but were associated with not moving forward with IPv6 deployment. And, it was said, that in order to minimize this risk, it was important that the planning processes be done very carefully and that it take all of the issues into consideration.

Another area that that was discussed was the need for education and public awareness. This was reported to be fundamental to the whole process moving forward and was explained as a shared responsibility, that the government had a role to play in advising and informing and getting its citizens on board.

Some speakers indicated that the government needed to be early adopters of IPv6 and should use it in their own networks as a demonstration of their commitment, and as an encouragement for the business community and the private sector to move forward as well.

Another issue involved a discussion of how to deal with the many IPv4 addresses that were not being used and not accounted. Some stated that it was necessary to create a legal market for these addresses so that the sales would not be limited to the black or grey market.

Others stated that even if these addresses were made available, there was still a need to start the migration process.

The second section of the open dialogue session was devoted to a broad exchange of views on 'enhanced cooperation' and the management of critical Internet resources and also about the role and value of the IGF itself, which would continue in the Taking Stock and Way Forward session the following day. There were some expressions of frustration expressed about the IGF and about other processes, with frequent references to ICANN by many speakers. A number of speakers emphasized that in processes that were bottom-up and often voluntary to get something out participants needed to be willing to put something in. This applied not just to ICANN but also to other processes.

Some speakers considered the IGF itself an example of 'enhanced cooperation'. Some suggested it was about bringing together different stakeholder points of view across traditional boundaries, while others held the view that it was about achieving development objectives. A speaker noted that the Tunis Agenda indicated that 'enhanced cooperation' was not about creating new institutions. Speakers also suggested that perhaps it could be a function of the

IGF to help reach agreement on what it meant.

Participants discussed the evolution of ICANN, with some expressing frustration about the Government Advisory Committee (GAC), and also about participation and getting involved. However, others remarked that the processes were open and all had the opportunity to contribute and participate.

One speaker recalled the history of the debate on Internet government since the first phase of WSIS in 2003. In his view the focus of the IGF should be on how critical resources should be managed. In his view governments should have the overall responsibility for this task. The IGF should be used to reach consensus on this matter. If the IGF were not able to reach such a consensus, the issue should then be brought to the attention of the General Assembly.

A number of speakers expressed the desire that the United States Government should step down from its pioneer and current role in oversight of critical Internet resources and relationship with ICANN through the Joint Project Agreement (JPA). They suggested the JPA should not be continued. However, opinions were expressed that some method of accountability should be introduced as a replacement. It was suggested that the IGF could be a space where work could be done to take these ideas forward.

[To Be Continued]

ANNEX

<u>Opening Ceremony</u>

Wednesday, 3 December 2008, 1400 - 1430

Mr. Jomo Kwame Sundaram
Assistant Secretary-General for Economic and Social Affairs (UNDESA).

Mr. Nitin Desai
Special Adviser to the Secretary-General for Internet Governance and
Chairman of the Multi stakeholder Advisory Group (MAG)

H.E. Mr. Damodar Reddy
Minister for IT, Government of Andhra Pradesh

H.E. Mr.Andimuthu Raja
Union Cabinet Minister for Communications & Information Technology

<u>Opening Session Speakers</u>

Wednesday, 3 December 2008, 1430 - 1530

Mr. Jainder Singh,
Secretary, Department of Information Technology
India

Mr. Subramaniam Ramadorai
CEO and Managing Director, Tata Consultancy Services Ltd (TCS); Chairman, ICC/BASIS

Ms. Lynn St. Amour
CEO, Internet Society (ISOC)

Ms. Alice Munyua
Alice Munyua, Coordinator, Kenya ICT Action Network (KICTANet), and
Director, Communications Commission of Kenya (CCK)

Mr. Abdul Waheed Khan
Assistant Director General, United Nations Educational, Scientific & Cultural Organization
(UNESCO)

Ms. Meredith Attwell Baker
Acting Assistant Secretary of Commerce for Communications and Information and National
Telecommunications and Information Administration Administrator,
Unites States of America

Mr. Paul Twomey
CEO and President, Internet Corporation for Assigned Names and Numbers (ICANN)

Ms. Graciela Selaimen
Executive Coordinator, Núcleo de Pesquisas, Estudos e Formação da Rits (Nupef/Rits)

Mr. Hamadoun Touré
Secretary-General, International Telecommunication Union (ITU)

Main Sessions:

Wednesday, 3 December 2008

Reaching the Next Billion

Realizing a Multilingual Internet, 09:30 - 11:00

Chair: Mr. Ajit Balakrishnan, Chief Executive Officer, Rediff.Com

Moderator: Ms. Miriam Nisbet, Director, Information Society Division, UNESCO

Panelists:

- Mr. Alex Corenthin, NIC SN (Senegal), President of ISOC Senegal and lecturer at a Polytechnic Institute of the Check Anta Diop University of Dakar (Ecole Supérieure Polytechnique)
- Ms. Manal Ismail, GAC member, Egypt
- Mr. Hiroshi Kawamura, President of Daisy consortium
- Ms. Viola Krebs, MAAYA, ICTV
- Ms. Tulika Pandey, Heads up IDN development efforts in the Indian Govt.
- Mr. S. Ramakrishnan, CEO of C-DAC (Centre for Development of Advanced Computing India)

Access: Reaching the Next Billions, 11:00 - 12:30

Chair: Mr. Kiran Karnik, Founder-Director of ISRO's Development and Educational Communicational Unit

Moderator: Ms. Anriette Esterhuysen, Executive Director, Association For Progressive Communications (APC)

Panelists:

Demand:

- Mr. Rajnesh Singh, Regional Bureau Manager for South and Southeast Asia, Internet Society (ISOC)
- Mr. Shri S.K. Gupta, Advisor (CN) Telecom Regulatory Authority of India (TRAI)

Supply:

- Ms. Jacquelynn Ruff, Vice President, International Public Policy and Regulatory Affairs, Verizon
- Ms. Peter H. Hellmonds, Head of Corporate Social Responsibility, Corporate Affairs Division, Nokia Siemens Networks

Development:

- Ms. Alison Gillwald, Director of Research, ICT Africa
- Mr. Brian Longwe, Chief Executive Officer InHand Limited, Director, African Internet Service Providers Association (AfrISPA), board member of African Network Information Centre (AfriNIC)

Open Dialogue: Reaching the Next Billion

Chair: Mr. B. K. Gairola, Director General NIC, Government of India.

Moderator: Mr. Hidetoshi Fujisawa, Chief Commentator and Program Host, NHK Japan Broadcasting Corporation,

Co-moderators: Ms. Alison Gillwald, Director of Research, ICT Africa,
and

Mr. Patrick Fältström, Consulting Engineer, Cisco Systems; Member, Board of Internet Society; Member, Swedish Government IT Advisory Group.

Thursday, 4 December 2008

Promoting Cyber-Security and Trust

The Dimensions of Cyber-security and Cyber-crime: A Mapping of Issues and our Current Capabilities, 09:30 - 11:00

Chair: Mr. Rentala Chandershekhar, Special Secretary, Department of Information Technology, Ministry of Communications & Information Technology, Government of India

Moderator: Mr. Bertrand de la Chapelle, Government of France

Panelists:

- Mr. Patrik Fältström, Cisco
- Mr. Marc Goodman, International Multilateral Partnership Against Cyber Terrorism
- Mr. Alexander Ntoko, ITU
- Mr. Michael Lewis, Deputy Director, Q-CERT, USA
- Mr. Gulshan Rai, Director, CERT-IN, Government of India

Fostering Security, Privacy and Openness, 11:00 - 12:30

Chair: Mr. Shyamai Ghosh, Chairman of Data Security Council of India (DSCI)

Moderator: Ambassador David A. Gross, U.S. Coordinator for International Communications and Information Policy

Panelists:

- Mr. Abdul Waheed Khan, Assistant Director general for Communication and Information, UNESCO
- Professor Stefano Rodotà, University of Rome
- Mr. John Carr, Secretary of Children's Charities'Coalition on Internet Safety (CHIS) (United Kingdom)
- Ms. Jac SM Kee, member of the Association for Progressive Communications (APC) (Malaysia)
- Mr. Joseph Alhadeff, Vice President, Global Public Policy and Chief Privacy Officer, Oracle

Open Dialogue: Promoting Cyber-Security and Trust

Chairs: Mr. Pavan Duggal, the President of Cyberlaws.Net
and
Mr. Gulshan Rai the Director CERT-In.

Moderator: Mr. Jonathan Charles, BBC Foreign Correspondent and News Presenter

Co-moderators: Ms. Natasha Primo, the National ICT Policy Advocacy Coordinator for the Association for Progressive Communications
and
Mr. Everton Lucero, Counselor for Science and Technology at the Embassyof Brazil to the Unites States and Vice-Chairman of the Government Advisory Committee (GAC) of the Internet Corporation for Assigned Names and Numbers (ICANN)

Friday, 5 December 2008

Managing Critical Internet Resources

<u>Transition from IPv4 to IPv6, 09:30 - 11:00</u>

Chair: Mr. Gulshan Rai

Moderator: Ms. Bernadette Lewis, Secretary General, Caribbean Telecommunication Union (CTU), Trinidad and Tobago

Panelists:

- Mr. Adiel Akplogan, AFRINIC/NRO, Mauritius
- Mr. Kurtis Lindqvist, Netnod
- Mr. Milton Mueller, Internet Governance Project, USA
- Mr. Satoru Yanagishima Director of Internet Policy, Ministry of Communications, Government of Japan
- Mr. Jonne Soininen, Nokia, Finland
- Ms. Tulika Pandey, Government of India

<u>Global, Regional and National Arrangements, 11:00 - 12:30</u>

Chair: Mr. Ramlinga Raju, Founder and Chairman of Satyam Computer Services Limited

Moderator: Ms. Emily Taylor, Oxford - Nominet (UK), Director of Legal and Policy

Panelists:

- Ms. Haiyan Qian, Acting Director, Division for Public Administration and Development Management, Department of Economic and Social Affairs (UNDESA)
- Mr. Everton Lucero, Ministry of Foreign Affairs, Brazil
- Mr. Richard Beaird, Department of State, USA
- Mr. Parminder Singh, IT for Change
- Mr. Byron Holland, President and CEO, Canadian Internet Registration Authority (CIRA)
- Mr. Raul Echeberria, LACNIC

Open Dialogue: Managing Critical Internet Resources

Chair: Mr. Madhusudan Mysore, Chief of Customer Care Operations, Tata Communications

Co-moderators: Ms. Jeannette Hoffman, Senior Researcher, London School of Economics and Political Science (LSE) / Social Science Research Center Berlin
and
Mr. Chris Disspain, Chief Executive Officer, AU Registry; Chair, Council of Country-Code Names Supporting Organization (ccNSO).

Saturday, 6 December 2008

Emerging Issues - the Internet of Tomorrow

<u>The Internet of Tomorrow: Innovation and the evolution of the Internet, 10:00 - 12:00</u>

Chair:

Moderators:

Mr. Jonathan Charles, BBC,
        and
Mr. Stephen Lau, CEO EDS Hong Kong

Panelists/Point People:

- Mr. Herbert Heitmann, Head of Global Communications, SAP AG
- S. V. Raghavan, Professor and Chairman, Computer Science Department, IIT, Madras
- Mr. Ian Peter, Internet Governance Caucus co-coordinator, Ian Peter and Associates
- Ms. Heather Creech, Director, Global Connectivity programme, International Institute for Sustainable Development

Taking Stock and the Way Forward, 14:00 - 16:00

Moderator: Mr. Nitin Desai, supported by Markus Kummer

Panelists/Point People:

- Access and Diversity: Mr. Jeff Brueggeman , VP Public Policy, AT&T
- Security/Privacy & Openness: Ms. Katitza Rodriguez, Electronic Privacy Information Center & DiploFoundation Associate (Peru)
- Managing Internet resources: Mr. Georges Papadatos, Government of Greece
- Vision from the host country: Mr. N. Ravi Shanker, IAS Joint Secretary, Department of Information Technology, Government of India