April 8, 2014

Secretary-General Hamadoun Touré
Deputy Secretary-General Houlin Zhao
International Telecommunication Union (ITU)
Other Participants at the World Telecommunication Development Conference (WTDC-14)
Dubai, United Arab Emirates

Dear Secretary-General Touré, Deputy Secretary-General Zhao, and other participants in the 6th World Telecommunications/ICTs Development Conference,

We are members of civil society and industry who are concerned with the outputs being prepared in support of the WSIS project at the 6th WTDC, particularly with respect to their effects on developing countries, the Internet, and on the goals of the WSIS project. These concerns all derive from the failure to recognize important characteristics of the Internet and how the Internet differs from other types of IP-based networks, in the ITU's guiding resolutions from the 2010 Plenipotentiary conference, and in the basic documents of the WSIS project.

We are also concerned about the implications for our own domestic policy of the type of network and policy framework being represented by the international WSIS project in its various proceedings.

Our chief concern is that the WSIS-related proceedings overseen by the ITU are working to implement networks that don't represent the nature and advantages of the Internet, and the process is failing to address the potential tradeoffs in moving to IP-based next-generation networks designed for ICTs to support various WSIS goals, without understanding how these networks differ from the Internet.

In addition, these components of the WTDC's work also present special concerns:

- Contributions in support of a conformance and interoperability system that dovetails with the WTO's Technical Barriers to Trade Agreement and that does not specifically recognize the type of general purpose interoperability already provided by the Internet's basic design.
- Contributions in support of promoting broadband, which are articulated in terms that do not acknowledge policy contexts supporting competitive access to physical layer infrastructure.
- Various WTDC resolutions referencing ITU work related to identifiers that may support policies according to a conception of interoperability through conformance to common policy, without examining the impacts this conception may have on the form of maximal interoperability already provided by the Internet platform's basic design.

The implications relate to important parts of the Hyderabad Action Plan and their associated WSIS Action Lines, including Cybersecurity, ICT applications, and IP-based network issues, and the Enabling environment, Capacity building, and Digital inclusivity.

Overlooking the basic key characteristics of the Internet can affect the empowerment and digital inclusion pursued under Action Lines C2, C3, C4, C8 and C11, along with the self-determination, autonomy and independence for various communities that an open Internet platform arising among independent, autonomous providers makes possible. It may also affect the transparency, accountability and efficiency of e-government, and the sustainability and diversity of ICT applications development noted under Action Line C7. Neglecting to establish a proper basis for recognizing impacts on essential characteristics of the Internet may easily lead to development solutions for the enabling environment under Action Line C6 that are based on capacities made possible in managed service network contexts or vertically integrated telecommunications environments, or to approaches to cybersecurity-related concerns under Action Line C5 that might well be implemented by means of centrally-managed intranet environments.

These problems derive from the 2010 Plenipotentiary Resolutions, which present the terms Internet, IP-based networks, and Next-generation networks in a confused manner.[1] However, several WTDC Resolutions can be improved in critically important ways to assure that the concrete technological solutions and policies for development that the WTDC endorses do not serve to mislead.

IP-layer Technical Interoperability:

We can refer to the Internet's characteristic of universal general purpose interoperability as "technical interoperability," and this aspect of the Internet reflects the IP layer's design to support diverse communication patterns through digitization in the form of packet transmissions. This type of interoperability should be distinguished from interoperability understood as conformance with common policy, transmissions following the specifications and requirements of particular communications protocols.

Both general purpose, technical interoperability and more specialized interoperability in the form of conformance with a common policy need to be recognized by the initiatives of the Information Society, including relevant WTDC resolutions and research proposals. The IP layer's design to support general purpose interoperability is the basis for the Internet's properties of flexibility, openness, neutrality and empowerment of end users and independent providers.

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1 See these analyses for details:
Conformance and Interoperability
Cybersecurity, ICT Applications and IP-Based Network Issues
Enabling Environment, Capacity Building, Digital Inclusivity
WSIS Performance Measures

Physical Layer Competition:

In the United States, the element of competition at the physical layer is represented by the bases of the Communications Act, including the 1996 revision, in the traditions of public franchise law and common carriage. For the Internet, the basic dynamic of competition among diverse, autonomous Internet providers combined with the need to support global connectivity between the endpoints of all participating networks sustains its openness, flexibility and neutrality through general purpose interoperability among providers who may nevertheless support diverse services within themselves. There is no such dynamic at work within the scope of a vertically integrated telecommunications provider's network, though such a provider may efficiently deliver its own particular types of information services within the scope of its own network.

Identifiers-Related Work:

The work in the ITU on identifiers presents a problem in that it may potentially be used to support interoperability in the sense of enforcement of common policy, without acknowledging the form of maximal technical interoperability we already have in IP internetworking, or providing for recognition of the effects that interoperability in the form of assuring conformance to common policy may have on that Internet platform. These effects could include impacts on the free flow of information, the platform's flexibility, or its support for interactive and collaborative use of published information.

In addition, the ITU's identifiers-related technical work proceeds within an inter-governmentally supported frame and is presently being treated as a "merely technical" aspect more readily recognized as within the ITU's mandate, while discussions regarding Internet governance are proceeding separately without acknowledging this identifiers-related work. These discussions do not yet address the need to incorporate modes for recognizing and addressing circumstances when policies and technologies in this area may have impacts on the Internet platform.

For those of us from the United States, the most significant factor of our experience related to telecommunications in the first ten years of the WSIS project has been the fundamental change in the nature of our telecommunications policy environment that was established by our FCC at the very outset of the period. We do not want the policy framework we labor under, one of vertical integration of the physical layer infrastructure with the information services of a few incumbent providers, to be exported to the world as an emulative example without specifically acknowledging the type of policy context on which our Communications Act is based, and within which the Internet was originally released to the public and grew by leaps and bounds. The dynamic at work at that time gave us an Internet that was naturally open and neutral, whereas at the same time as the commencement of the WSIS project, we found ourselves subject to a telecommunications environment in which the incumbents have repeatedly sought to introduce practices that would foreclose the open nature of the platform. Since the physical layer was no longer open to competitive access by independent Internet providers, the Internet's foundation could no longer be

relied on.

While Internet governance is a matter presently in contention in numerous fora, with Brazil's NETMundal conference approaching and the NTIA's recent announcement of its willingness to transfer oversight of the IANA to global multistakeholder processes that are not to be government-led or inter-governmental, the ITU's processes already represent an inter-governmental framework in place, organized in terms of the outputs of the 2010 Plenipotentiary conference.

We ask the developing and developed countries taking part in the 6th WTDC to help illuminate key principles describing the Internet's basic nature and set the stage properly for the discussions of Internet governance that are upon us, solve the problems of the WSIS in a manner that sustains the Internet's openness, flexibility, interoperability and inherent neutrality, and empowers end users and independent providers to freely enter the arena. We would like the WTDC to communicate their support for bringing the Internet to developing countries, not just ICT applications and special networks to support them that may act at odds with the open Internet.

Your decisions at the WTDC represent the concrete embodiment of the inter-governmental instructions that the ITU is acting under from the 2010 Plenipotentiary Conference, just as the 2012 WTSA represented global endorsement of more abstract standards. When you finish and issue your findings, the inter-governmental frame, including its conception of the key terms Internet, IP-based networks, and Next-generation networks, will have received global endorsement in both senses before the next Plenipotentiary conference at the end of this year. The opportunity to register recognition by both developing and developed countries of the characteristics of the open Internet that are critical, and your interest in its full advantages, is upon you at this moment.

The Plenipotentiary body will either treat the 2010 frame as fulfilled, or reexamine the misconceptions embodied in it, based on whether the concerns raised in this letter are raised within the intervening 4 years. They were not raised at the WTSA; they have not been raised in the contributing documents for the WTDC; and they were not discussed at the WTPF. And they will not be raised at the 2014 Plenipotentiary Conference unless the participants in the ITU's proceedings recognize the concern before then, and indeed before the status of the WSIS project is reviewed in the WSIS+10 MPP and HLE processes.

Recommendations

There are three general areas that need fixes in the WTDC's resolutions.

- First, the fact that the Internet already provides general purpose interoperability universally, to all end users and independent providers participating in the network of networks using IP to interoperate, needs to be recognized explicitly.

- Second, the role of competition at the physical layer needs to be acknowledged explicitly. In the context of development, policies ensuring competitive access to shared infrastructure assure that competition is the principle at work at the physical layer. The openness, flexibility and neutrality of the Internet are sustained naturally in a competitive context at the physical layer.
- Third, work in the ITU on a number of standards related to identifiers needs to be rendered explicit and addressed in relation to both interoperability and the broader context of Internet governance and Internet-related public policy.

IP-layer Technical Interoperability:

Conformance and Interoperability: Address the conformance and interoperability study question and WTDC Resolution 47 based on recognition of both types of conformance and interoperability – adherence to common policy in support of particular functions or applications within a given network versus general purpose technical interoperability among independent networks made possible by the flexible Internet platform.

Adapt the study question to:

- Address the implications of recognizing both types of interoperability in relation to ITU recommendations, program materials, capacity building initiatives, etc.
- Develop best practices for ITU recommendations and critical priority issues based on recognizing the two types of interoperability: general purpose internetworking among autonomous network providers versus common policies within particilar networks for specialized treatment of IP packet transmissions
- Adapt capacity building programs to address different types of networks and both types of interoperability, assuring the process fosters confidence in ICTs on the basis of both types of interoperability
- Address topics such as policy and regulatory contexts, quality of service, interoperation between ICT networks and Internet networks, according to the same question
- Develop terms of reference, mobilization programs and the coordinating functions of TSAG and TDAG in these terms as well

Adapt WTDC 47 along the same lines, to:

- Recognize at least these two types of conformance and interoperability
- Recognize their relevance to policies and regulatory contexts, bridging the digital divide and the standardization gap
- Encourage best practice implementation of ITU-T and ITU-R Recommendations for both general purpose technical interoperability between networks and conformance with policies for particular functions within individual networks
- Provide for certifications in relation to each type of interoperability distinctly

See attached documents for recommended revisions
http://internetdistinction.com/wsisimpacts/files/2014/03/Conformance-Interoperability-Study-Question-ID-Edits.pdf
http://internetdistinction.com/wsisimpacts/files/2014/03/WTDC-47-ID-Edits.pdf

Physical Layer Competition

Broadband Deployment:

Adapt the broadband deployment study question to

- Recognize specialized services distinctly from open Internet connectivity
- Explicitly reference policy and regulatory contexts that support competitive access to shared infrastructure
- Address different modes by which specialized service frameworks like IMT might coexist with general purpose open Internet connectivity, both with reference to the distinction between specialized services and open Internet and with reference to policy and regulatory contexts that do and do not assure competition at the physical layer
- Develop implications for ICT applications in light of both specialized service intranet contexts and open Internet contexts
- Address the impacts of broadband on the underserved in light of characteristics of general purpose open internetworking of importance to developing countries and underserved or disadvantaged populations – notably the support such a networking context provides for independent innovation by end users and competing network providers

See attached document for recommended revisions
http://internetdistinction.com/wsisimpacts/files/2014/03/Broadband-Study-Question-2-ID-Edits.pdf

Funding Mechanisms and Partnerships:

Adapt WTDC Resolutions 13 and 30 to:

- Support developing funding mechanisms based on recognizing distinction between networks implemented within vertically integrated telecommunications contexts, and the network of networks produced among competing providers readily entering the physical layer and interoperating among themselves
- Encourage investments and innovative partnership schemes, and ICT financing joint ventures for both vertically integrated telecommunications contexts and contexts that support competitive access at the physical layer
- Incorporate explicit recognition of the role of public oversight as a feature that applies inherently to a shared resource such as the public right of way in public-private

partnerships
- Recognize distinct kinds of advantages of both the Internet and other types of IP-based networks including next-generation networks, observing the distinction between the open Internet platform and other types of networks in relation to WSIS goals
- Endorse statistical work reflecting the distinction between the open Internet platform and other types of networks
- Promote human capacity building in developing countries for both networks producing an Internet platform among themselves, and other types of IP-based networks

See attached documents for recommended revisions
http://internetdistinction.com/wsisimpacts/files/2014/03/WTDC-13-ID-Edits.pdf
http://internetdistinction.com/wsisimpacts/files/2014/03/WTDC-30-ID-Edits.pdf

International Internet Connectivity

Adapt WTDC Resolution 23 to:

- Recognize that some commercial initiatives by providers of international connectivity to the broader Internet may take the form of practices within their networks that must be distinguished from Internet connectivity, notwithstanding cost advantages of these practices, since they are not consistent with the flexible mode of interoperability among competitive, autonomous Internet providers that the Internet protocols make possible

See attached document for recommended revisions
http://internetdistinction.com/wsisimpacts/files/2014/03/WTDC-23-ID-Edits.pdf

Identifiers-Related Work

Cybersecurity:

Adapt WTDC Resolution 45 to:

- Note support for the free flow of information based on the Internet's support for innovative and flexible modes of interactive and collaborative use of published information
- Recognize that both policies and cryptographic measures to address security-related issues may potentially be used in ways that extend their effects to impacting free flow of information, ideas and knowledge and flexible modes of interaction and collaboration with published information

See attached document for recommended revisions
http://internetdistinction.com/wsisimpacts/files/2014/03/WTDC-45-ID-Edits.pdf

IP Addressing and IPv6 Deployment:

Adapt WTDC Resolution 63 to:

- Acknowledge studies underway in IP address allocation mechanisms and IP-based network issues such as interoperability with other networks, numbering, signaling requirements and protocol considerations, evolution/migration to next-generation networks and implementation of ITU-T Recommendation D.50 on international Internet connectivity
- Acknowledge the relationship of requirements, features and interoperability of next-generation networks to development of future forms of IP-based networks
- Recognize the use of IP addresses for both general purpose open Internet transmissions supporting interoperability between autonomous networks and more specialized treatment of packets to support particular specialized functions within networks
- Recognize that the development of ICTs and the addressing of technical or policy issues within the process of deploying IPv6 may work to support either general purpose internetworking or specialized services
- Call for the ITU Council to support the coexistence of both the general purpose open Internet, and specialized services that may be developed within individual networks, as it endorses the BDT Director's initiatives in support of IPv6 deployment

See attached document for recommended revisions
http://internetdistinction.com/wsisimpacts/files/2014/03/WTDC-63-ID-Edits.pdf

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